ICCS

IEA

Becoming Citizens in a Changing World

IEA International Civic and Citizenship Education Study 2016 International Report

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The International Association for the Evaluation of Educational Achievement (IEA), with headquarters in Amsterdam, is an independent, international cooperative of national research institutions and governmental research agencies. It conducts large-scale comparative studies of educational achievement and other aspects of education, with the aim of gaining in-depth understanding of the effects of policies and practices within and across systems of education.

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Foreword

High-quality, large-scale comparative studies of education systems across the world enable better understanding of the policies and practices that foster educational progress and play a critical role in helping nations build their own knowledge and research capacity. For over 60 years, the International Association for the Evaluation of Educational Achievement (IEA) has conducted such research studies, with the aim of improving learning for all.

Educational research should focus on more than students' ability to learn mathematics, science, and literacy. Civic and citizenship education has an equally important role in preparing our children for life after school. Through its International Civic and Citizenship Education Study (ICCS) and its predecessors, the IEA demonstrates not only its recognition of the importance of this type of educational provision but also its enduring commitment to research into the holistic goals of education. In an increasingly globalized world, the United Nations, with its declaration of the sustainable development goals, has also acknowledged the vital importance of global citizenship education. From my perspective, this area of education draws fundamentally on developing citizenship competencies, and it is thus essential to study and understand students' views about society, both nationally and internationally, and to gather their beliefs and hopes about their future roles as citizens in a changing world.

Placed in this global context, the release of the results from the second cycle of ICCS could not be timelier. ICCS 2016 is the fourth IEA study to investigate the ways in which young people are prepared to undertake their current and future roles as citizens. The study recognizes that foundational skills are important, yet that these alone are not sufficient to enable young people to prosper in a world that requires an open and culture-oriented approach, a moral orientation emphasizing human rights, and a focus on social justice and active political participation.

ICCS 2016, conducted in 24 countries, provides data, evidence, and research on lower secondary school students' knowledge and understanding of civics and citizenship, analyzing students' attitudes toward, perceptions of, and activities related to civic institutions, behaviors, and practices. ICCS 2016 also included measures of persisting aspects of civics and citizenship, examining the differences found among and within countries. Statistical links provide a sound basis for comparing ICCS 2016 findings with the results from ICCS 2009. The ICCS research team identified new focus areas for the 2016 cycle, with additional questions addressing whether the increasing use of social media by young people has become a tool for civic engagement, growing concerns about global threats and sustainable development and young people's priorities, and widespread recognition of the role of schools in fostering peaceful interaction among young people.

The comprehensive core assessment is complemented by two regional student questionnaires for Europe and Latin America, both designed to measure aspects related to civic and citizenship education of specific relevance in each of these geographic regions. A technical report, an international public-use database, and an accompanying user guide will allow the research community to use the data for in-depth analyses.

In collaboration with the education systems participating in ICCS, the IEA has established two central aims for ICCS—monitoring changes in students' civic knowledge, attitudes, and engagement over time, and addressing new and emerging civic-related challenges—to improve countries' understanding of these issues. I am convinced that the reliable and comparable evidence and data provided by ICCS will enable countries to evaluate the strengths of their educational policies and to measure progress toward achieving national, regional, and international goals. ICCS 2016 provides many positive signals and insights, which combined indicate that 21st-century students have a growing civic knowledge and respect for social diversity. Nevertheless, the study findings also reveal substantial levels of variation among students, with this variation frequently more evident within than between countries.

Building on the success of the 2009 and 2016 studies, the IEA will conduct the next cycle of ICCS in 2022, recognizing once again that studying civic and citizenship education is a 'moving target' that

needs to respond to changes in national and international contexts. Worldwide, there is growing interest in and demand for information on 'life skills' and for measures of and insights into the socio-emotional and non-cognitive aspects of civics and citizenship. Recently, global citizenship education (GCED) and education for sustainable development (ESD) were identified as critical components of the international education agenda, expressed as part of Target 4.7 of the United Nations' Sustainable Development Goals (SDGs). This recognition underlines the role and purpose of education in fostering just, peaceful, tolerant, and inclusive societies. The IEA and UNESCO have agreed to collaborate in this area, and we are proud to be involved in this vital global mission; ICCS is recognized as one of the major existing sources of data for this endeavor.

For ICCS 2016, the IEA drew on its established international network of research organizations, scholars, and technical experts. Two partner organizations, in cooperation with the IEA and the study's national research coordinators (NRCs), organized and implemented the study: the Australian Council for Educational Research (ACER), and the Laboratorio di Pedagogia Sperimentale (LPS) at the Roma Tre University in Italy. I would like to express my sincere gratitude to the research teams for their passionate and intellectual leadership, dedication, flexibility, and support: namely, John Ainley, Julian Fraillon, Tim Friedman, Eveline Gebhardt, and Wolfram Schulz from ACER; and Gabriella Agrusti, Valeria Damiani, and Bruno Losito from LPS.

My special thanks go also to the members of the study's Project Advisory Committee (PAC) for their thoughtful and scholarly guidance during the study's development and reporting: specifically, Erik Amnå (Örebro University, Sweden), Cristián Cox (University Diego Portales, Chile), Barbara Malak-Minkiewicz (IEA honorary member, the Netherlands), Judith Torney-Purta (University of Maryland, United States), and Wiel Veugelers (University of Humanistic Studies, the Netherlands). I am also grateful for the expert advice provided by the ICCS 2016 sampling referee, Marc Joncas, and Christian Monseur (University of Liège, Belgium), who undertook a technical review of scaling procedures and reporting procedures.

My sincere thanks are also due to the key research, operations, and management staff at the IEA—Falk Brese, Roel Burgers, Christine Busch, Ralph Carstens, Juliane Kobelt, Paulína Koršňáková, Marta Kostek, Hannah Köhler, Andrea Netten, Gabriela Noveanu, and Sabine Weber—for their tireless leadership and commitment to the success of the project. The IEA Publications and Editorial Committee (PEC) provided critical feedback and suggested improvements to earlier versions of this report. I thank Seamus Hegarty on behalf of the group, as well as Paula Wagemaker and Gillian Wilson for editing this report and managing its timely production.

As is the case with all IEA studies, ICCS 2016 has depended on the critical input, perseverance, and enthusiasm of the NRCs and their teams. From collaboration on the development of the framework, through the meticulous management and execution of the study at the national level, to the guidance on publication and careful reviews, these individuals and their sustained contributions have ensured a truly successful venture. They are both the foundation and our guides in all of the IEA's endeavors.

Core funding was provided by the 24 countries and education systems that participated in ICCS 2016. I would like to thank the European Commission Directorate-General for Education and Culture for supporting, in the form of grants, the European countries that participated in the study.

Finally, all of us involved owe our deepest gratitude to the c. 94,000 students, 37,000 teachers and associated principals from approximately 3800 schools in 24 countries for their willingness, time, and efforts in providing the information that underpins this report. Without them, this study would not have been possible. We eagerly anticipate the many publications, research papers, and blog posts inspired by the data from this important study.

Dirk Hastedt
EXECUTIVE DIRECTOR IEA

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Executive summary

About the study

The International Civic and Citizenship Education Study 2016 (ICCS 2016) investigated the ways in which young people are prepared to undertake their roles as citizens in a range of countries in the second decade of the 21st century. It studied students' knowledge and understanding of civics and citizenship as well as students' attitudes, perceptions, and activities related to civics and citizenship. Based on nationally representative samples of students, the study also examined differences among countries in relation to these outcomes of civic and citizenship education, and explored how cross-national differences relate to student characteristics, school and community contexts, and national characteristics. As the second cycle of this study, ICCS 2016 is a continuation and an extension of ICCS 2009.

The International Association for the Evaluation of Educational Achievement (IEA) established ICCS in order to meet the need for continuing research on civic and citizenship education and as a response to widespread interest in conducting regular international assessments of this field of education. ICCS 2016 was intended as an exploration of enduring and emerging challenges of educating young people in a world where contexts of democracy and civic participation continue to change.

ICCS addressed research questions concerned with the following:

(1) Students' knowledge and understanding of civics and citizenship and the factors associated with variations in this civic knowledge.

(2) Students' current and expected future involvement in civic-related activities, their perceptions of their capacity to engage in these activities, and their perceptions of the value of civic engagement.

(3) Students' beliefs about contemporary civil and civic issues in society, including those concerned with civic institutions, rules, and social principles (democracy, citizenship, and diversity), as well as their perceptions of their communities and threats to the world's future.

(4) The ways in which countries organize civic and citizenship education, with a particular focus on general approaches, the curriculum and its delivery, and the processes used to facilitate future citizens' civic engagement and interaction within and across communities.

In each of these domains, ICCS 2016 investigated variations within and across countries, factors associated with those variations, and changes since ICCS 2009.

ICCS gathered data from more than 94,000 students in their eighth year of schooling in about 3800 schools from 24 countries. Most of these countries had participated in ICCS 2009. The student data were augmented by data from more than 37,000 teachers in those schools and by contextual data collected from school principals and national research centers.

Key findings

Provision of civic and citizenship education

Although different approaches to delivering civic and citizenship education were evident in the ICCS countries, the countries generally held most of the learning objectives for this area of education in common. In ICCS 2016, the aims that school principals considered to be the most important with respect to civic and citizenship education related to civic and political knowledge and skills: promoting students' critical and independent thinking (64%), promoting students' knowledge of

citizens' rights and responsibilities (61%), and developing students' skills and competencies in conflict resolution (44%). The three aims that teachers deemed the most important were promoting students' independent and critical thinking (61%), promoting knowledge of citizens' rights and responsibilities (57%), and promoting respect for and safeguard of the environment (51%).

According to the ICCS 2016 data, 11 of the participating countries were teaching civic and citizenship education as a distinct subject. Some of these countries and a number of other ones (18 in total) had integrated civic and citizenship education into all subjects in the school, making integration a relatively common practice. In 15 countries, civic and citizenship education was also considered part of the school experience as a whole. Nearly all participating countries intended civic and citizenship education to be taught by teachers of subjects related to the humanities and social sciences. Every country reported having civic and citizenship education as part of teacher training for teachers of subjects related to civic and citizenship education, either at the pre-service level, the in-service level, or both.

Most of the ICCS 2016 students reported engaging at least "sometimes" in discussion of political and social issues at school and particularly in classrooms with an open (receptive to discussion) environment. Although teachers were generally receptive to open student expression in classrooms, they offered their students only limited input into the choice of civic-related topics and activities. Most students reported having participated in class or school elections, and about two fifths also reported involvement in debates, decision-making, and student assemblies. Few teachers reported student involvement in human rights projects or activities to help the underprivileged.

Civic knowledge

The ICCS 2016 civic knowledge outcome measure was based on a test of 87 items which included 42 items that were used in ICCS 2009. The majority of the items were presented as units in which some brief contextual stimulus (e.g., an image or some text) was followed by items relating to the context established by the stimulus. Seventy-eight items were multiple-choice and nine items were constructed-response.

Civic knowledge was measured on a scale established in ICCS 2009 where the international average was set to 500 scale points, with a standard deviation of 100 scale points. The civic knowledge scale reflects progression from being able to deal with concrete, familiar, and mechanistic elements of civics and citizenship through to understanding the wider policy climate and institutional processes that determine the shape of civic communities. The scale describes civic knowledge in terms of four levels of increasing complexity:

- Students working at Level D demonstrate familiarity with concrete, explicit content and examples relating to the basic features of democracy.
- Students working at Level C engage with the fundamental principles and broad concepts that underpin civics and citizenship.
- Students working at Level B typically demonstrate some specific knowledge and understanding of the most pervasive civic and citizenship institutions, systems, and concepts.
- Students working at Level A demonstrate a holistic knowledge and understanding of civic and citizenship concepts and demonstrate some critical perspective.

On average across participating countries, three percent of students were below Proficiency Level D, 10 percent of students were classified as being at Proficiency Level D, 21 percent were at Proficiency Level C, 32 percent at Proficiency Level B, and 35 percent at proficiency Level A.

Civic knowledge varied more within than across countries. The median range between the lowest five percent and the highest 95 percent of students' civic knowledge scores within countries spanned more than three levels on the ICCS civic knowledge scale. In contrast, the range of average civic knowledge scores across countries spanned only about two-and-half levels on the ICCS civic knowledge scale.

Students' average civic knowledge scores increased in the period between 2009 and 2016. Across the 18 countries that met the necessary technical requirements of both ICCS 2009 and ICCS 2016, the proportion of students at Level B and above (equivalent to Level 2 and above in the ICCS 2009 nomenclature) on the civic knowledge scale increased from 61 percent to 67 percent. In 11 of these 18 countries, the increase in average student civic knowledge was statistically significant.

Civic knowledge was associated with student gender and background. Female students demonstrated higher civic knowledge than male students. The average civic knowledge score of female students was statistically significantly higher than that of male students in 19 countries. Across all countries, the difference in average civic knowledge scale scores between female and male students was equivalent to roughly one-third of a level on the ICCS scale.

Socioeconomic status (SES), measured using parental occupation and the number of books in the home, was positively associated with student civic knowledge. Students in the high SES group had significantly higher civic knowledge scores than those in the lower SES group in all countries. Immigrant status and language background were also associated with student civic knowledge. In 14 countries, students who came from an immigrant background had statistically significantly lower civic knowledge scores than other students. In 17 countries, students who said they mainly spoke the language of the ICCS test at home had higher civic knowledge scale scores than those who reported speaking another language at home.

Student civic engagement

Student civic engagement refers to students gaining information about issues that arise in civic and political life, discussing aspects of civic and political life with peers and adults, and being inclined to actively engage in society. Civic engagement also concerns students' expectations of participating in civic activities in the future, and being able to actively engage in society.

Television news and discussions with parents remained important sources of information for students engaging with political and social issues. Although students' use of newspapers declined over the seven years between 2009 and 2016, students were talking more frequently than in the previous survey with their parents about what was happening in other countries. Students' use of new social media for civic engagement remained limited and varied considerably across participating countries.

Students' engagement in discussions about political and social issues and their confidence to participate in civic activities were somewhat stronger than they were in 2009. Students who reported high levels of interest in political and social issues were also those who were more likely to discuss these issues. Students who said they engaged confidently in civic activities also tended to be the students most interested in civic issues. There were no consistent associations between this type of civic engagement and civic knowledge.

While few changes were apparent in the extent of students' participation at school, students valued this participation as highly as they did in 2009. Students' willingness to participate at school was highest among female students and among students who expressed higher levels of interest in social and political issues. No consistent associations could be found, however, between students' willingness to engage in civic activities at their school and their level of civic knowledge. In a number of countries, the results suggest increases since 2009 in students' participation in voluntary activities and their expectations of engaging in elections.

Although the data analyses showed no associations between participation in legal protest activities and civic knowledge, the students who expected to participate in illegal protest activities tended to have lower levels of civic knowledge. Similar to findings in the previous survey, expected active participation in conventional political activities was higher among students who said they were interested in civic-related issues but lower among students with higher levels of civic knowledge.

Student attitudes toward important issues in society

ICCS 2016 found differences in the way students view different situations as good or bad for democracy. In some countries, lower-secondary students regarded political leaders giving government jobs to their family members as good for democracy. However, in most other countries students viewed this practice as bad for democracy. Similar observations were made with regard to government interference with court decisions. Across countries, students consistently viewed free elections of political leaders, the right to peaceful protest, and equal rights for all ethnic and racial groups in a country as good for democracy. Students were not so consistent, however, in agreeing that the right to criticize the government and the existence of smaller differences in income are positive for democracies.

ICCS measured students' perceptions of what constitutes good citizenship both across and within countries. In ICCS 2016, students tended to attach somewhat more importance to conventional citizenship behaviors than they did in ICCS 2009. Students interested in political and social issues were also more likely to regard conventional social-movement-related and personally responsible citizenship behaviors as important. The ICCS 2016 results also showed high levels of student endorsement of personally responsible citizenship behavior. Majorities across countries regarded obedience to the law, ensuring the economic welfare of families, and respecting others' opinions as very important for good adult citizenship.

As in the previous cycle, students tended to express high levels of endorsement of gender equality and equal rights for all ethnic and racial groups in their countries. Endorsement of gender equality differed across countries, but it also increased in a number of countries between the two ICCS cycles. Levels of endorsement of equal right for all ethnic and racial groups in society likewise increased during the 2009 to 2016 period in most countries. Female students, students with higher levels of interest in political and social issues, and students with higher levels of civic knowledge were the students most likely to endorse gender equality and equal right for all ethnic and racial groups.

Majorities of students viewed pollution, terrorism, water and food shortages, infectious diseases, and poverty as major threats to the world's future. The evident variations in endorsement across countries suggest the influence of local contexts on these perceptions. Variations were particularly strong for perceptions of water shortages and crime as global threats.

ICCS 2016 results also showed changes in students' levels of trust in civic institutions, groups, and information sources between 2009 and 2016. In many countries, the ICCS 2016 students expressed more trust than their 2009 counterparts did in government, parliament, and courts of justice but less trust in media and people in general. In more established and economically stable democracies, the more knowledgeable students tended to have more trust in civic institutions. Students in countries with perceived higher levels of corruption and low government efficiency generally expressed lower levels of trust.

Students' endorsement of religious influence in society remained limited. Minorities across countries expressed support for religious influence; in four countries, significantly fewer students than in 2009 expressed these views. While more frequent attendance at religious services was associated with higher levels of endorsement of religious influence, the associations between attendance and parental education and levels of civic knowledge tended to be negative.

School contexts for civic and citizenship education

The ICCS 2016 students and teachers were active participants in school life. In most of the ICCS 2016 countries, students said they participated in classroom and school elections. However, the opportunities students had to actively participate in decisions about their respective schools differed across countries. Teachers were actively involved in decision-making processes. Although parents were involved in discussion about students' learning achievement, their broader involvement in decision-making processes was not substantial.

Students in the participating countries were positive about classroom climates that they saw as receptive (open) to discussions. Students' interest in social and political issues, the level of education they expected to attain, and their civic knowledge were all positively associated with this perception. According to the ICCS data, verbal bullying had occurred in most of the participating countries, but principals and teachers had adopted initiatives to counter this and other forms of bullying at school.

Schools were interacting with local communities when developing civic-related activities, and had also developed activities related to environmental sustainability. Most of the schools across participating countries had developed at least some initiatives concerned with environmental sustainability, such as differential waste collection, recycling and waste reduction, and energy saving. According to surveyed teachers, the target-grade students were participating in activities pertaining to the environment mainly inside their schools.

Countries differed in relation to civic learning processes and activities at school and in relation to teachers' preparedness for teaching civic-related topics. Students' reports regarding their civic learning at school were positively associated with students' interest in social and political issues, the level of education they expected to attain, and their civic knowledge. Civic and citizenship teaching and learning activities in classrooms varied considerably across countries..

Explaining variation in students' civic knowledge and expected engagement

The ICCS 2016 results provide insight into factors associated with civic knowledge. Analyses of multilevel models showed large variations across countries in the extent of variation and how much of that variation could be explained by factors within and between schools. Student-related characteristics and social background emerged as important predictors of students' civic knowledge, while factors reflecting processes of civic learning showed relatively consistent associations with civic knowledge at the level of individual students, but less consistency at the school level. However, after we controlled for student characteristics and social background, some apparent associations between civic learning factors and civic knowledge were no longer significant.

ICCS 2016 data analyses illustrated factors associated with expected student civic engagement. Multiple regression models using student background, experience with civic engagement, disposition toward engagement, and beliefs about citizenship and institutions explained between a quarter and a third of the variation in expected civic participation. Parental and student interest were the strongest student-background predictors of expected civic engagement. Female students were less inclined than male students to anticipate active political involvement in the future. Students' experience with civic engagement in the community or at school tended to be positively associated with their expected civic engagement as adults. Students' civic knowledge and self-efficacy as well as students' beliefs were consistent predictors of expected electoral and active political participation.

Although more knowledgeable students were more likely than their less knowledgeable peers to expect participation in elections, they were less likely to anticipate active political involvement. Students who believed in the importance of civic engagement through established channels were also more likely to expect future civic participation. In most countries, trust in civic institutions was positively associated with students' expectations of electoral and active political participation.

Implications of findings

The finding that civic knowledge improved in about half of the countries that participated in both ICCS 2009 and 2016 was not confined to countries with already high average levels of civic knowledge. In addition, students became even more receptive over this time period to gender equality (in many countries) and to equal opportunities for all ethnic and racial groups (in most countries). Higher levels of civic knowledge were positively associated with students' endorsement of equal opportunities.

Variations in civic knowledge within and across countries were still considerable. While in some countries the average student demonstrated a high level of familiarity with issues concerning civics and citizenship, in other countries the average student showed only basic levels of familiarity with broad concepts in this area. Within countries, a large gap between the highest and lowest achieving students was still evident.

These results indicate room for improvement, especially in terms of education systems seeking to strengthen their capacity to teach civic and citizenship education in ways that are inclusive. Supporting the needs of the lowest achieving students needs to be emphasized, as does understanding the reasons for differences in civic and citizenship knowledge between female and male students. There is no obvious recommendation about the best way to organize civic and citizenship education. Data pertaining to the ICCS countries' national contexts indicate that different approaches coexist in many education systems, with these including the integration of civic and citizenship education in other (civic-related) subjects or the establishment of specific subjects to teach civics and citizenship content.

The view that students' experiences at school are important for shaping their future engagement as citizens is long held. Many findings in this report suggest an association between the way students experience democratic forms of engagement at school and their dispositions to engage in civic activities in the future. Such an association gives some support to the argument that establishing basic democratic structures within schools and providing students with early opportunities for active civic participation has the potential to promote civic knowledge and a disposition toward future civic engagement.

Today, many countries around the world are expressing concern about low levels of voter participation among young people. The finding that students with higher levels of civic knowledge tended to be less likely to expect conventional involvement in politics may reflect negative perceptions of parties and political leaders and is thus of concern with regard to the goal of promoting civic engagement of young people. The links the ICCS 2016 data suggest between civic knowledge/civic engagement at school with expectations to vote and other forms of civic engagement in society provide impetus for promoting civic and citizenship education, both in formal and informal ways, as a means of helping young people become more conscious of the importance of their political roles and of being participating citizens.

IEA implemented ICCS as a cycle of comparative studies of civic and citizenship education. ICCS 2009 was the first in the cycle and ICCS 2016 was the second. Like its predecessor, ICCS 2016 provides a rich database that will, after its release, provide the basis for numerous research studies in the form of secondary analyses directed toward providing further insights into civic and citizenship education. The international research team will soon begin preparations for the third cycle of ICCS, with data collection scheduled for 2022. This third cycle will again address new developments and challenges in this learning area, such as growing migration, the prevalence of new social media in young people's engagement with civic issues, the increased importance of notions of global citizenship, and the necessity of learning about sustainable development.

This report not only highlights the relevance of civic and citizenship education in modern democracies but also emphasizes the importance of a comparative study of this learning area across a wide range of different societies. Given the ongoing challenges of preparing young people for citizenship in a changing world, we expect continued interest and an increased engagement in this unique study conducted across a wide range of regions, cultures, and societies.

CHAPTER 1:

Introduction to the International Study of Civic and Citizenship Education

Civic and citizenship education aims to provide young people with the knowledge, understanding, and dispositions that enable them to participate as citizens in society. It seeks to support emerging citizens by helping them understand and engage with society's principles and institutions, develop and exercise informed critical judgment, and learn about and appreciate citizens' rights and responsibilities. These attributes are vital to the proper functioning of a democracy, where citizens are actively involved agents of decision-making, governance, and change rather than as passive subjects. Recognition of the essential relationship between education and democracy has a long tradition in the literature on educational policy and practice (see, for example, Dewey, 1916), while comparative research confirms that many countries include civic and citizenship education in their national curricula (Ainley, Schulz, & Friedman, 2013; Cox, 2010; Eurydice, 2005).

Civic competencies can also be viewed as an essential part of a broader skill-set required in workplaces. As such, they are not only of interest to political and community leaders, but also of value to and valued by a growing number of employers (Gould, 2011; Torney-Purta & Wilkenfeld, 2009). Although today's business leaders acknowledge the ongoing importance of technical skills, they are increasingly recognizing that these skills are not sufficient on their own for ensuring prosperity in today's global economy. Consequently, the people whom employers in the 21st century are most likely to want to hire and promote appear to be those who know about significant changes in society and who exhibit intercultural literacy, ethical judgment, humanitarian values, social responsibility, and civic engagement (Organisation for Economic Co-operation and Development, 2015).

The concepts underlying civic and citizenship education have typically aligned with the notion of nation states. However, the establishment of supranational organizations (such as the European Union), increased migration across borders, and pressure from globalization are challenging these traditional precepts of civics and citizenship and prompting the development of concepts of global citizenship (Brodie, 2004; O'Sullivan, & Pashby, 2008; Reid, Gill, & Sears, 2010; Schattle, 2012; Veugelers, 2011). Despite these challenges, the notion of a nation state still seems to prevail across curricula for civic and citizenship education (Kennedy, 2012).

Specific events and issues in recent years have also brought challenges to civic and citizenship education as well as changes in the contexts in which that education takes place. Among them are the impact of the global financial crisis of 2007–2008 and the recession that followed (Grant & Wilson, 2012), concerns about the impact of human activity on the environment (Dringer, 2013), efforts to ensure harmonious relations within school communities (Mickelson & Nkomo, 2012), the movement of large numbers of refugees from Middle-Eastern countries to other countries (mostly in Europe), ongoing migration in general (Schachner, Noack, van de Vijver, & Eckstein, 2016), and the increased use of information and communication technologies (ICT) as vehicles for civic participation (Kahne, Middaugh, & Allen, 2014).

Within this broader context, the second cycle of the IEA International Civic and Citizenship Education Study (ICCS 2016) sought to investigate the ways in which a range of countries are preparing their young people to undertake their roles as citizens in the second decade of the 21st century. The 2016 iteration of the study therefore explored students' knowledge and understanding of civics and citizenship as well as students' attitudes, perceptions, and activities related to civics and citizenship. Based on nationally representative samples of students, the study also examined differences among countries in relation to these outcomes of civic and citizenship

education, and explored the extent to which these differences relate to student characteristics, school and community contexts, and national characteristics.

As the second cycle of ICCS, the 2016 study is a continuation and an extension of ICCS 2009. The International Association for the Evaluation of Educational Achievement (IEA) commissioned ICCS in order to meet the need for continuing research on civic and citizenship education and in response to widespread interest in establishing regular international assessments of this field of education. The 2016 iteration of ICCS accordingly explored both the enduring and the emerging challenges to educating young people in a world where contexts of democracy and civic participation continue to change.

Despite considerable diversity in the content and conduct of civic and citizenship education within and across countries, there is much commonality in the overarching goals of this area of education. ICCS therefore endeavors to provide each participating country with an indication of its progress toward achievement of those goals by collecting information on the student outcomes shaped by civic and citizenship education programs. These outcomes include the knowledge, understanding, skills, and dispositions that prepare young people to comprehend the world, hold productive employment, and be informed, active citizens. ICCS collects this information from students, teachers, schools, and education systems and uses it to analyze and describe how student outcomes relate to the civic and citizenship education contexts and learning environments in which the students learn.

ICCS 2016 also provides measures of enduring aspects of civic and citizenship outcomes and their contexts, supports comparisons of those outcomes and contexts between 2009 and 2016, and includes measurement of further aspects of civic and citizenship education that have emerged since 2009. New developments of this kind addressed in the second cycle of ICCS include the increasing use of social media by young people as a tool for civic engagement, growing concerns about global threats to the world's future (especially in terms of sustainable development), and widespread recognition of the role of schools in fostering peaceful modes of interaction among young people.

The ICCS 2016 research team systematically investigated how countries provide civic and citizenship education by drawing on diverse sources of information ranging from national policy and resourcing perspectives through to classroom practice. The team also explored the cognitive and affective-behavioral outcomes of civic and citizenship education within and across the participating countries. In total, the ICCS researchers gathered data from more than 94,000 students enrolled in their eighth year of schooling (Grade 8 or equivalent) at about 3800 schools in 24 countries. These student data were augmented by data from more than 37,000 teachers in those schools and by contextual data collected from school principals and the ICCS national research centers.

Background

Previous IEA studies of civic and citizenship education and the establishment of ICCS

ICCS builds on previous IEA studies of civic education and is a response to the challenge of educating young people in changing contexts of democracy and civic participation (see Schulz, Fraillon, Ainley, Losito, & Kerr, 2008). The first IEA study of civic education was conducted as part of the Six Subject Study, with data collected in 1971 (Torney, Oppenheim, & Farnen, 1975; Walker, 1976). The second study, the IEA Civic Education Study (CIVED), was carried out in 1999 (Torney-Purta, Lehmann, Oswald, & Schulz, 2001; Torney-Purta, Schwille, & Amadeo, 1999); an additional survey, of upper-secondary students, took place in 2000 (Amadeo, Torney-Purta, Lehmann, Husfeldt, & Nikolova, 2002). CIVED was designed to strengthen the empirical foundations of civic education by providing information about the civic knowledge, attitudes, and social and political engagement and actions of 14-year-olds and upper-secondary school students.

CIVED had a twin focus—school-based learning and opportunities for civic participation outside the school. It concentrated on three domains: (i) democracy and citizenship, (ii) national identity and international relations, and (iii) social cohesion and diversity. Its findings influenced civic and citizenship education policies and practices around the world, and also provided a rich database for research in this area (Bîrzéa, Kerr, Mikkelsen, Pol, Froumin, Losito, & Sardoc, 2004; Kerr, Ireland, Lopes, Craig, & Cleaver, 2004; Mellor & Prior, 2004; Menezes, Ferreira, Carneiro, & Cruz, 2004; Torney-Purta, 2009).

ICCS 2009 (Schulz, Ainley, Fraillon, Kerr, & Losito, 2010) was designed in a way that provided explicit links to CIVED. It was also designed as a baseline study for future cycles of ICCS. Like its predecessor, ICCS 2009 included a student test of civic knowledge and understanding, as well as questionnaires for students, teachers, and school principals. ICCS 2009 adopted the term *civic and citizenship education* to emphasize a broadening of the concept, processes, and practices that had occurred in this area of educational provision since the turn of the century. Many countries also now use the term civic and citizenship education rather than the narrower term of civic education, or they have superseded the latter with another broader term—citizenship education. While maintaining many aspects of CIVED, ICCS 2009 also extended its design and scope in a number of ways. In particular, the assessment framework was broadened to (i) have a stronger focus on the motivations for and mechanisms of participation associated with citizenship education, (ii) include a wider range of content, and (iii) place a greater emphasis on the development of reasoning and analyzing while continuing the focus on the acquisition of knowledge.

The test design established for ICCS 2009 included provision for a set of secure common items that makes it possible to compare the test performance of students in countries participating in more than one ICCS cycle. The ICCS 2009 instruments also included some of the material that featured in CIVED as well as other material adapted from CIVED to allow (limited) comparisons of findings between the two studies. The ICCS 2016 student, teacher, and school instruments held an even larger number of items (with identical format and wording) in common with the corresponding ICCS 2009 instruments so that the countries participating in the two studies could review changes over time.

The ICCS teacher questionnaire endeavored to gather data from all teachers teaching the target grade in selected schools.[1] The aim of this instrument was to gather information that would provide a better understanding of the influence the school environment has on civic-related learning outcomes. This aim was particularly important given the large proportion of countries in which civic and citizenship education is a cross-curricular responsibility. ICCS 2016 also gathered data on national contexts through an online questionnaire completed by local experts nominated by the ICCS national research centers.

The ICCS surveys furthermore offer optional regional instruments. During its first cycle in 2009, ICCS developed separate student questionnaires designed to address aspects of civics and citizenship relevant to the geographic regions of Asia, Europe, and Latin America. The ICCS 2016 research team revised the regional questionnaire for European and Latin American countries to include new aspects and accommodate changes in regional contexts since 2009.

1 CIVED 1999 collected data from two or more teachers of civic-related subjects in the selected class (see Torney-Purta et al., 2001).

Global developments since ICCS 2009

The conception and development of ICCS 2016 has maintained continuity with and extended the scope of ICCS 2009 by measuring changes in civic and citizenship education contexts, processes, and outcomes, as well as outcomes between 2009 and 2016. Because changing national, regional, and global contexts also affect civic and citizenship education, ICCS is designed to respond to such changes.

Since ICCS 2009, several global developments have had implications for civic and citizenship education. When developing ICIS 2016, the research team considered the following recent developments as important:

- The global financial crisis of 2007–2008 and the global recession that followed had a severe impact on many societies and underlined the importance of the economy for social cohesion and political stability (Chossudovsky & Marshall, 2010; Grant & Wilson, 2012; Shahin, Woodward, & Terzis, 2012).
- Worldwide, the impact of human activity on the environment (especially on the global climate) as well as concern over the long-term sustainability of development have increasingly become key issues in debates about future political, social, and economic development (Dringer, 2013; Edenhofer et al., 2014). In many societies, awareness of the environment and its long-term protection are now widely regarded as integral to responsible citizenship and therefore has implications for the development of civic and citizenship curricula (Lotz-Sisitka, Fien, & Ketlhoilwe, 2013).
- Concern is also increasing in many countries as to how schools can ensure peaceful coexistence within school communities. Abuse and bullying directed toward students (by other students and often aimed at social minorities) have become particularly salient in discussions about schools and learning environments. Across different education systems, civic and citizenship education includes goals focused on promoting student engagement with the school community (Fredericks, Blumenfeld, & Paris, 2004; Willms, Friesen, & Milton, 2009), fostering a peaceful coexistence, and providing students with mechanisms for conflict resolution (Johnson & Johnson, 1996; Mickelson & Nkomo, 2012).
- The recent movement of large numbers of refugees from the Middle-Eastern region to other countries (mostly in Europe), as well as ongoing migration (within Europe and across a broader range of countries) have increased the need for integrating people from different backgrounds into a range of societies. In this context, school and teaching policies and practices have ramifications for the lives of students of immigrant background (Banks & Banks, 2009). One paradigm in the field articulates two perspectives: an emphasis on fostering equality and inclusion; and an emphasis on valuing diversity (Ely & Thomas, 2001). Although schools and systems appear to combine elements of each approach, valuing diversity appears to promote student motivation and school belonging (Schachner et al., 2016).
- The ongoing development of information and communications technologies (ICT) has increased the use of these tools in civic participation. This development is especially true of social media, which have played an important role in initiating and maintaining support within the political movements in the Middle East and elsewhere, promoting action on climate change, and organizing protests against austerity measures in the aftermath of the global financial crisis (see, for example, Kahne et al., 2014; Milner, 2010; Segerberg & Bennett, 2011).

Areas of broadened scope in ICCS 2016

Mindful of the above major changes and developments since 2009, the ICCS 2016 research team identified three areas of civic and citizenship education that warranted a stronger profile in ICCS 2016 than they had been afforded in ICCS 2009. The likely relevance of this content in future cycles of ICCS also influenced its inclusion.

- *Environmental sustainability in civic and citizenship education:* Over recent decades, countries have increasingly concluded that responsible citizenship includes regard for the environment and its long-term protection, requisite for future sustainable development (Dobson, 2003; Dobson & Bell, 2006; Ferreira, 2013; Hayward, 2006). Today, many education systems emphasize protection of the environment or education for environmental sustainability in their citizenship curricula (Ainley et al., 2013; Eurydice, 2012; Schulz et al., 2010).
- *Social interaction at school:* Reviews of civic and citizenship education curricula across countries suggest that at the outset of the 21st century a large number of countries were emphasizing the non-formal aspects of civic learning through participation and engagement or social interaction within their schools (Ainley et al., 2013; Eurydice, 2005; Schulz et al., 2010). Scholars are also giving greater recognition to the role of social learning within schools (Dijkstra & de la Motte, 2014; Durlak, Weissberg, Dymnicki, Taylor, & Schellinger, 2011; Scheerens, 2011).
- *The use of social media for civic engagement:* Research continues to emphasize the growing importance of social media on civic life and to provide evidence of how these media influence young people's engagement in society (Anduiza, Jensen, & Jorba, 2012; Bachen, Raphael, Lynn, McKee, & Philippi, 2008; Banaji & Buckingham, 2013; Kahne, Lee, & Feezell, 2011).

The ICCS team also identified two other areas of content included in previous civic and citizenship surveys but now seen as deserving more explicit acknowledgement in the ICCS 2016 assessment framework:

- *Economic awareness as an aspect of citizenship:* Students' economic awareness can be conceptualized as a broad awareness of how citizens understand and engage with economic issues and therefore is regarded as an important aspect of civic and citizenship education (see, for example, Citizenship Foundation, 2013; Davies, 2006, 2015; Davies, Howie, Mangan, & Telhaj, 2002). The relevance of economic awareness to civic and citizenship education relates not only to its importance as a major focus of government policy but also to the constraints that economic conditions place on some citizenship activities, and the responsibility citizens share for economic problems and their solutions.
- *The role of morality in civic and citizenship education:* Many scholars regard concepts of morality and character as key outcomes of civic and citizenship education programs (Althof & Berkowitz, 2006; Berkowitz, Althof, & Jones, 2008; Halstead & Pike, 2006; Oser & Veugelers, 2008). Although scholars also often regard moral education as an independent field of study, many countries tend to integrate it into their civic and citizenship education (Ainley et al., 2013; Veugelers, 2011).

The ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016) was developed as an extension of the ICCS 2009 framework so that it could accommodate the new areas of importance in civic and citizenship education. This expanded content framed the development of new test and questionnaire items. These items, along with the core ICCS 2009 survey material, established the instruments used to collect the ICCS 2016 data.

Research questions

The key research questions for ICCS 2016 concern students' civic knowledge, dispositions to engage in society, and attitudes toward civic and citizenship issues. The questions also focus on the contexts for this learning area.

The research questions played a central role in shaping the design of ICCS 2016 and its instrumentation. They also guided the development of the assessment framework and provided a structure for this first international report on ICCS 2016.

Some of the key research questions are similar to those that were formulated for ICCS 2009. Each general research question (RQ) relates to a sub-set of specific research questions addressed during ICCS 2016. Findings resulting from analyses of the data collected in relation to each of these questions are presented in this report.

RQ 1 How is civic and citizenship education implemented in participating countries?

This question focuses on the national contexts for civic and citizenship education. Results relating to it are reported primarily in Chapter 2. Data were collected via the national contexts survey, the school and teacher questionnaires, and reference to published sources. Analysis of these data sought answers to the following specific research questions:

(a) *What are the aims and principles of civic and citizenship education in each participating country?*
The analyses presented in this report focus (at the country level) on information from the national contexts survey about the background to and intentions behind civic and citizenship curricula in participating countries.

(b) *Which curricular approaches do participating countries choose to provide civic and citizenship education?*
Analyses center on different types of civic and citizenship education implemented in participating countries.

(c) *What changes and/or developments in this learning area can be observed since 2009?*
Analyses concern only those data collected from countries participating in both ICCS 2009 and ICCS 2016. The focus is on reforms and changes in the national contexts for civic and citizenship education.

RQ 2 What is the extent and variation of students' civic knowledge within and across participating countries?

The results relating to this research question, which concerns student performance on the cognitive test, are reported primarily in Chapter 3. In order to provide answers to the following specific research questions, the analyses drew on student test data supplemented by student questionnaire data.

(a) *Are there variations in civic knowledge associated with student characteristics and background variables?*
The analyses presented in this report investigate the relationship between students' civic knowledge and background factors such as gender, family characteristics, and socioeconomic status.

(b) *What contextual factors explain variation in students' civic knowledge?*
Analyses review the individual and combined influences of contextual variables such as home background, or school characteristics on variation in students' civic knowledge.

(c) *What changes in civic knowledge have occurred since 2009?*
Analyses are limited to the countries that participated in both cycles of ICCS and where the measures of civic knowledge were comparable across the cycles.

RQ 3 What is the extent of students' engagement in different spheres of society, and which factors within or across countries are related to it?

This research question, discussed in Chapter 4, focuses on students' current and expected future participation in civic and citizenship activities. Student questionnaire data were analyzed in order to answer the following specific research questions:

(a) *What is the extent and variation of students' civic participation in and out of school?*
The analyses in this report focus on students' reports of their past and current involvement in civic-related activities.

(b) *What beliefs do students hold regarding their own capacity to engage and the value of civic participation?*
Analyses consider students' perceptions of civic engagement.

(c) *What expectations do students have regarding civic and political participation in the near future or as adults?*
Analyses center on students' stated intentions to participate in different forms of civic or political activities.

(d) *What changes in student engagement can be observed since 2009?*
Analyses are limited to the countries that participated in both cycles of ICCS and where the measures of student engagement were comparable across the cycles.

RQ 4 What beliefs do students in participating countries hold regarding important civic issues in modern society and what are the factors influencing their variation?

This research question, discussed primarily in Chapter 5, relates to measures of student beliefs. Student questionnaire data were analyzed in order to answer the following specific research questions:

(a) *What attitudes do students hold toward civic institutions and society?*
The analyses in this report investigate the ways in which students perceive society in general, along with its rules and institutions.

(b) *What are students' beliefs regarding the importance of different principles underlying society?*
Analyses focus on students' beliefs about democracy, citizenship, and diversity.

(c) *What are students' perceptions of their communities and societies?*
Analyses concern students' perceptions of global threats to the world's future.

(d) *What changes in student beliefs, attitudes, and values can be observed since 2009?*
Analyses are limited to those countries participating in both cycles of ICCS and where the measures of students' attitudes were comparable across the cycles.

RQ 5 How are schools in the participating countries organized with regard to civic and citizenship education, and what is its association with students' learning outcomes?

This research question concerns the ways that schools and their communities provide for civic and citizenship education. Results relating to this question are reported primarily in Chapter 6. Relevant data were collected via the school, teacher, and student questionnaires, and the student test of civic knowledge. Analyses of these data sought answers to the following specific research questions:

(a) *What are the general approaches to civic and citizenship education, curriculum, and/or program content structure and delivery?*
The analyses in this report provide reviews of school-level policies and school-level resourcing as well as schools' structural approaches to managing the delivery of civic and citizenship education.

(b) *To what extent do schools in participating countries have processes in place that facilitate civic engagement?*

Analyses focus on whether and how school-based opportunities, school climate, and classroom climate promote civic engagement among students.

(c) *To what extent do schools interact with their communities to foster students' civic engagement and learning?*

Analyses concern interactions between schools and their local communities. Analyses also cover the opportunities that schools provide to encourage students' active civic involvement in their communities.

(d) *How do schools and teachers perceive the role of civic and citizenship education across participating countries?*

Analyses address teachers' and principals' perceptions of the role that schools and teachers play in preparing young people for citizenship. The analyses also consider how these perceptions are reflected in school policies. In addition, comparable measures of perceptions and policy ambitions are used to measure changes in some constructs since ICCS 2009 for those countries that participated in both ICCS cycles.

Participating countries, populations, and sample design

In this report, the term "country" refers to both the countries and the sub-national entities within countries that participated in the study; twenty-four countries participated in ICCS 2016 (Figure 1.1). Sixteen of those countries were from Europe, five from Latin America, and three from Asia. In two of the participating countries, only sub-national entities participated. In Belgium, ICCS 2016 was implemented only in the Flemish education system. In Germany, one state (*Land*), North Rhine-Westphalia, took part in ICCS 2016 as a benchmarking participant. As is the case with other IEA studies, participation in ICCS is open to all IEA member countries and affiliates. Each country decides whether or not it will participate in an IEA study.

The ICCS 2016 student and teacher population definitions and sampling methods were the same as those used in ICCS 2009. The ICCS student population is defined as all students in Grade 8 (students approximately 14 years of age), provided that the average age of students in this grade was 13.5 years or above at the time of the assessment. If the average age of students in Grade 8 was below 13.5 years, Grade 9 became the target population.[2]

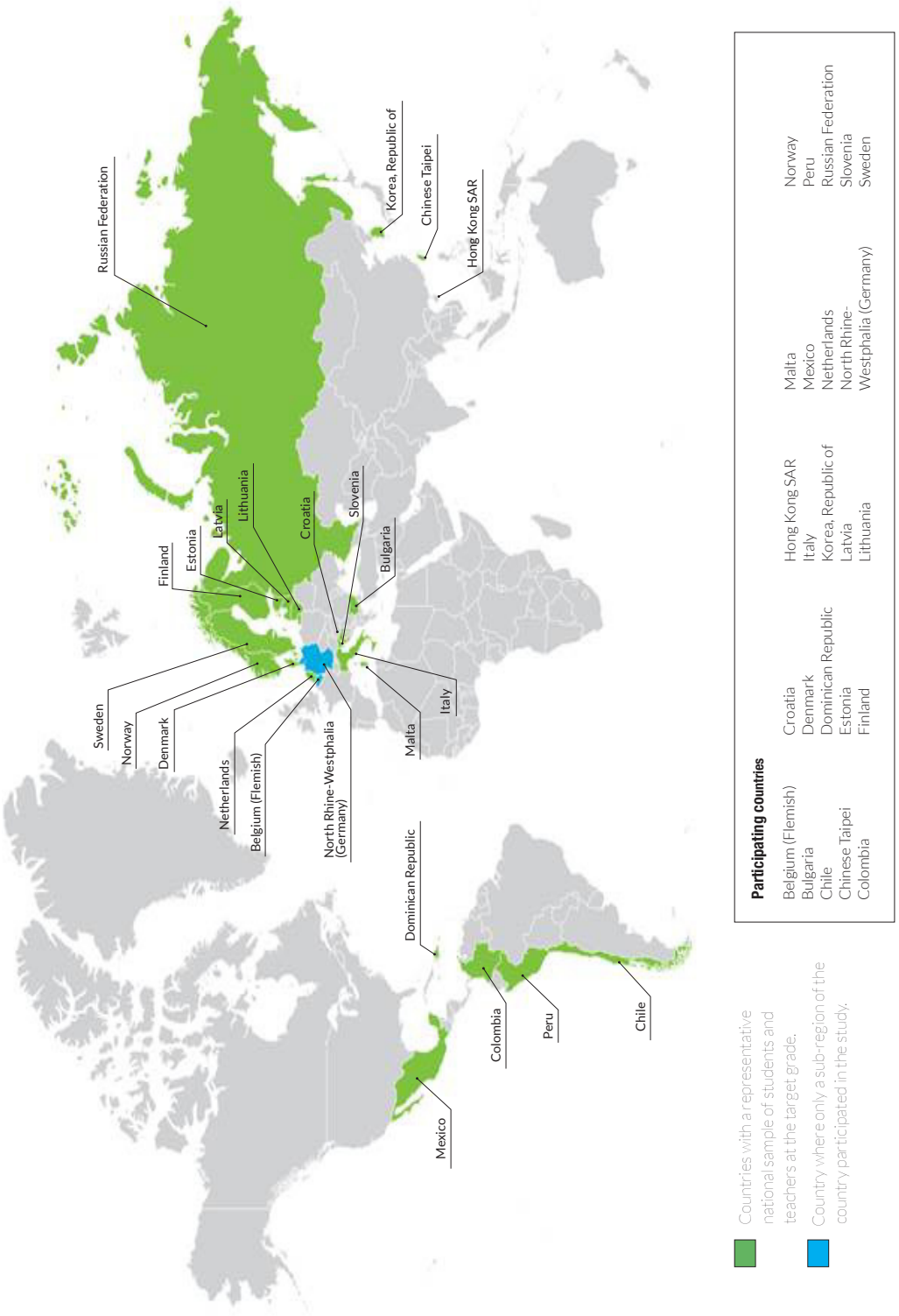
The population for the ICCS teacher survey was defined as all teachers teaching regular school subjects to students enrolled in the country's target grade at each sampled school. The teacher population included only those teachers who were teaching the target grade during the testing period and who had been employed at school since the beginning of the school year.

The samples were designed as stratified two-stage cluster samples. During the first stage of sampling, PPS procedures (probability proportional to size as measured by the number of students enrolled in a school) were used to sample schools within the participating countries. The numbers required in the samples to achieve the necessary precision were estimated on the basis of national characteristics. However, as a guide, the sampling team asked each country to plan for a minimum sample size of 150 schools.[3]

2 Malta assessed Grade 9 students because the average age of Grade 8 students in that country is below 13.5. In order to assess a similar age group as in other Nordic countries, Norway deviated from the International Defined Target Population for ICCS 2016 and assessed Grade 9 instead of Grade 8. As a consequence, all Norwegian results in this report are presented with an annotation. Norway's inclusion of Grade 9 as an additional population in ICCS 2009 made it possible to compare the 2009 and 2016 results for Norway for the chosen target population.

3 In Malta, where there were fewer than 150 schools, the survey was conducted in all schools.

Figure 1.1: Countries participating in ICCS 2016



The management of each sampled participating school provided a list of the target-grade classes.[4] An intact class was then randomly selected from that list and all students in that class were surveyed. The number of students sampled in the countries that sampled 150 schools ranged from 3000 to 4500. Appendix A documents the achieved samples for each country.

ICCS aimed to sample up to 15 teachers at random from all teachers teaching the target grade at each sampled school. Because civic and citizenship education is widely acknowledged as a cross-curricular responsibility in ICCS countries (even in countries where civic and citizenship education is taught as a standalone subject) and because of the decision not to link teacher information to individual students, teachers from civic-related as well as non-civic-related subjects were surveyed. In schools with 21 or more teachers of the target grade, 15 teachers were sampled at random. In schools with 20 or fewer such teachers, all teachers were invited to participate.

The participation rates required for students in each country were 85 percent of the selected schools and 85 percent of the selected students within the participating schools, or a weighted overall participation rate of 75 percent. The same criteria were applied to the teacher sample. The student and the teacher samples, however, were adjudicated independently. The tables in this report use annotations to identify those countries that met these response rates only after the inclusion of replacement schools; countries that did not meet the required response rates, even after replacement, are reported separately below the main section of each table.[5]

The ICCS 2016 assessment framework

The ICCS 2016 assessment framework provided the conceptual underpinning for ICCS 2016 (Schulz et al., 2016). The 2016 framework was developed as an extension and refinement of the ICCS 2009 framework (Schulz et al., 2008). This approach not only supported the measurement and ongoing reporting of core elements of ICCS (as measured and reported in ICCS 2009) but also allowed consideration of the newer global developments likely to have influenced civic and citizenship education since ICCS 2009.

The structure of the ICCS 2016 framework and the suggested analytical implications of this structure are consistent with the corresponding features of the ICCS 2009 framework. The 2016 framework differs from the 2009 framework only in terms of the addition of new content areas and some revisions to content within the framework.

The 2016 framework consists of two parts:

- *The civics and citizenship framework:* This outlines the outcome measures addressed by the cognitive test and the student perceptions questionnaire;
- *The contextual framework:* This maps the contextual factors expected to influence outcomes and explain their variation.

The civics and citizenship framework is organized around three dimensions as shown in Table 1.1.

- *A content dimension* specifying the subject matter to be assessed within civics and citizenship (with regard to both affective-behavioral and cognitive aspects);
- *A cognitive dimension* describing the thinking processes to be assessed in the student test;
- *An affective-behavioral dimension* describing the types of student perceptions and activities measured by the student questionnaire.

4 An exhaustive and mutually exclusive partition of all the students in the tested grade.

5 North Rhine-Westphalia (Germany) failed to meet the IEA sample participation requirements for the student survey. Because of North Rhine-Westphalia's very low response rates, this report presents only the overall results and thus no data by subgroups for North Rhine-Westphalia. Likewise, the very low response rates (below 30%) for teachers in Estonia and Denmark mean that the only results presented for these countries are the overall results. Concerns about the extremely low response rates (less than 10%) for the teacher surveys in North Rhine-Westphalia (Germany) led to a decision not to include the corresponding data in this report. Because the teacher survey in Hong Kong (SAR of China) did not follow international sampling procedures, data from this participant were also excluded from reporting.

The four content domains in the ICCS assessment framework are civic society and systems, civic principles, civic participation, and civic identities (Table 1.1). Each of these contains a set of sub-domains that incorporate elements referred to as "aspects" and "key concepts."

- *Civic society and systems (three sub-domains):* (i) citizens (roles, rights, responsibilities, and opportunities), (ii) state institutions (those central to civic governance and legislation), and (iii) civil institutions (the institutions that mediate citizens' contact with state institutions and allow citizens to pursue many of their roles in their societies).
- *Civic principles (four sub-domains):* (i) equity (all people having the right to fair and just treatment), (ii) freedom (of belief, of speech, from fear, and from want), (iii) sense of community (sense of belonging, connectedness, and common vision among individuals and communities within a society), and (iv) rule of law (equal and fair application of the law to all; separation of powers and legal transparency).
- *Civic participation (three sub-domains):* (i) decision-making (organizational governance and voting), (ii) influencing (debating, demonstrating, developing proposals, and selective purchasing), and (iii) community participation (volunteering, participating in organizations, keeping informed).
- *Civic identities (two sub-domains):* (i) civic self-image (individuals' experience of their place in each of their civic communities), and (ii) civic connectedness (sense of connection to different civic communities and the civic roles individuals play within each community). ICCS also includes global citizenship as a key concept relating to students' civic identities.

The two cognitive processes in the ICCS framework are:

- *Knowing:* This refers to the learned civic and citizenship information students use when engaging in the more complex cognitive tasks that help them make sense of their civic worlds.
- *Reasoning and applying:* This refers to the ways in which students use civic and citizenship information to reach conclusions that are broader than the contents of any single concept. This process also refers to how students use these conclusions in real-world contexts.

The assessment framework identified the different types of student perceptions and behaviors relevant to civics and citizenship. Two affective-behavioral domains were identified: (i) attitudes, and (ii) engagement.[6]

- *Attitudes:* These refer to judgments or evaluations regarding ideas, persons, objects, events, situations, and/or relationships. They include students' beliefs about democracy and citizenship, students' attitudes toward the rights and responsibilities of groups in society, and students' attitudes toward institutions.
- *Engagement:* This refers to students' civic engagement, students' expectations of future civic-related action, and students' dispositions to actively engage in society (interest, sense of efficacy). The notion of engagement includes concepts such as preparedness to participate in forms of civic protest, anticipated future political participation as adults, and anticipated future participation in citizenship activities.

Table 1.1 shows the emphasis given to the different content, cognitive, and affective-behavioral domains in the international student survey instruments (test and questionnaire).

6 The ICCS 2009 assessment framework had four affective-behavioral domains—value beliefs, attitudes, behavioral intentions, and behaviors. However, because of the difficulties encountered when distinguishing between (more deeply rooted) value beliefs and (narrower) attitudes, the ICCS 2016 team decided that ICCS 2016 should distinguish only between attitudes and engagement as affective-behavioral domains.

Table 1.1: Emphasis (shown as number of items) given to civic and citizenship education content in ICCS 2016 student test and questionnaire

	Content domain				Total
	Civic society and systems	Civic principles	Civic participation	Civic identities	
Cognitive domains					
Knowing	12	9	2	0	23
Analyzing and reasoning	24	18	19	4	65
Total	**36**	**27**	**21**	**4**	**88**
Affective-behavioral domains					
Attitudes	42	21	5	5	73
Engagement	5	8	35	2	50
Total	**47**	**29**	**40**	**7**	**123**
European questionnaire Attitudes	21	22	6	9	58
Latin American questionnaire Attitudes	11	35	16	8	70

The ICCS contextual framework

Studies of the outcomes of civic and citizenship education need to consider the context in which civic learning takes place. Young people develop their understandings about their roles as citizens through a number of activities and experiences that take place in the home, school, classroom, and wider community.

The context of the wider community can be viewed as multi-layered, with the *local community*, comprising students' schools and home environments, embedded within broader regional, national, and (possibly) supranational contexts. The knowledge, competencies, dispositions, and self-beliefs that students possess are potentially influenced by factors related to their *wider community* (at local, regional, national, and supranational levels), their *schools and classrooms* (the instruction they receive and their learning environments as well as the school culture they experience), their *home and peer environments* (their direct home background and their social out-of-school environment), and their *individual characteristics* (which shape how they respond to learning about civics and citizenship).

Contextual influences on civic and citizenship education can also be conceptualized as either *antecedents* or *processes*. Antecedents refer to the historical background that affects how civics and citizenship learning takes place (e.g., through historical factors and policies that shape how learning is provided). Processes contemporaneously shape civic and citizenship education. Thus, for example, the extent of students' civic understanding and engagement can influence the way schools teach this area of educational provision.

Contextual factors influence the learning outcomes of civic and citizenship education (Figure 1.2). The (double-headed) arrow in the figure between *processes* and *outcomes* signals a reciprocal relationship. Feedback occurs between civic-related learning outcomes and processes. Students with higher levels of civic knowledge and engagement are the students most likely to participate in activities (at school, at home, and within the community) that promote these outcomes. The (single-headed) arrow between *antecedents* and *processes* describes the relationship between factors that are unidirectional.

The different ICCS instruments collected data on several variables (or groups of variables; see Table 1.2 for examples). The national contexts survey and other published data sources provided data on variables related primarily to the context of country and community. The school and teacher questionnaires collected data on variables related to the context of schools and classrooms. The

Figure 1.2: Contexts for the development of learning outcomes related to civics and citizenship

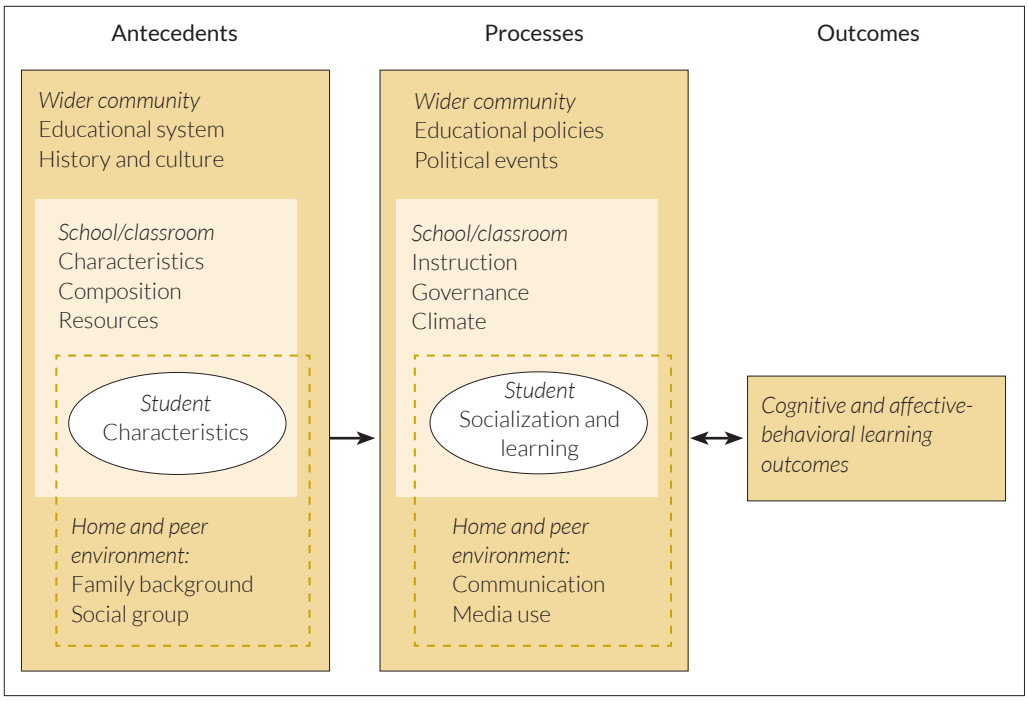


Table 1.2: Mapping of variables to the contextual framework (examples)

Level of ...	Antecedents	Processes	Outcomes
Wider community	**NCS & other sources:** Democratic history Structure of education	**NCS & other sources:** Intended curriculum Political developments	**StT & StQ/RQ:** Civic knowledge Attitudes and engagement
School/classroom	**ScQ & TQ:** School characteristics Resources	**ScQ & TQ:** Implemented curriculum Policies and practices	
Student	**StQ:** Gender Age	**StQ:** Civic learning Civic engagement	
Home and peer environment	**StQ:** Parent SES Ethnicity Language Country of birth	**StQ:** Family communication Communication with peers Media information	

Note: NCS = national contexts survey; ScQ = school questionnaire; TQ = teacher questionnaire; RQ = regional questionnaire; StQ = student questionnaire; StT = student test; SES = socioeconomic status.

student background questionnaire also provided information on antecedents of the individual student and his or her home environment as well as on some relevant process-related variables (e.g., learning activities or classroom climate). The student test and parts of the student questionnaire relating to attitudes and engagement collected data on outcomes.

Contexts assessed in ICCS 2016

The context of the wider community also comprises several levels. Here, schools, as well as home and peer environments, are embedded within the local community. The local community, in turn, is embedded within broader regional and national contexts and possibly supranational or global contexts. Of these levels, ICCS deems community and national as the levels most relevant to the study.

- *The context of the education system:* ICCS 2016 collected data on the structure of national education systems, the content of education policies, and approaches to civic and citizenship education. It also collected information on teacher training in general. The data collected in regard to civic and citizenship education in particular focused on approaches to assessment and quality assurance and on current debates and reforms relating to this learning area. ICCS 2016 also used data from published sources and from the national contexts surveys to develop and compare profiles of civic and citizenship education in the participating countries.
- *The context of the local community and school–community relationships:* The ICCS school questionnaire gathered data on the contexts and characteristics of the local community. Variables pertaining to the community level included urbanization (antecedent), resources for citizenship learning in the local area (antecedent), and civic-related activities directed at promoting civic engagement within the local community (process). The school questionnaire also obtained information on the existence of social tensions in the community and how this issue affected school life. The teacher questionnaire collected data on teacher/student participation in civic-related activities in the local community and teachers' personal participation in groups or organizations in the local community. It also collected data about teachers' and students' participation in civic-related activities in the local community and the extent to which the school and its community were committed to constructive relationships between the two.

School contexts and characteristics influence not only the development of young people's knowledge about civics and citizenship but also their dispositions and competencies in relation to their roles as citizens. A major influence is the school's general ethos, culture, and climate, within which policies relating to both formal and informal civics and citizenship curricula are enacted. The school questionnaire sought information on important antecedent variables at the school level, such as principals' characteristics and schools' characteristics and resources. It also asked about process-related variables concerning school management, school climate, teacher, parent, and student participation at school, and the implementation of civic and citizenship education at school.

The teacher questionnaire gathered information about *aspects of teaching*. These included teachers' demographic characteristics (gender, age) and the subject(s) these teachers taught in general and at the target grade. The information collected also included teachers' perceptions of aspects of their school culture and climate, their participation in school decision-making, and aspects of their teaching. As in ICCS 2009, the ICCS 2016 teacher questionnaire included an international option that asked questions about civic and citizenship education at school and about the teaching practices the school had adopted in this learning area. This last part of the questionnaire was completed only by teachers of subjects related to civic and citizenship education.

The student questionnaire measured students' perceptions of the *school and classroom context*. The measures included the classroom climate for civic and citizenship education, students' reports on their civic learning experiences, students' experience of verbal and physical abuse, and students' perceptions of school climate.

The student questionnaire also asked students to report on *home and peer contexts*, including interactions. Within the context of civic and citizenship education, these contexts can have a considerable influence on the development of young people's knowledge, attitudes, and beliefs. The student questionnaire also contained questions about selected *student characteristics* such as age and gender and the level of educational qualification that the students expected to reach.

Data collection and ICCS instruments

The main survey data collection took place in the 24 participating countries between October 2015 and June 2016. The survey was carried out in countries with a Southern Hemisphere school calendar between October and December 2015, and in those with a Northern Hemisphere school calendar between February and June 2016.

Details relating to the 2016 instruments administered to students, teachers, school principals, and national centers follow.

- The 88 items measuring civic and citizenship knowledge, analysis, and reasoning contained in the international *student cognitive test* were assigned to eight booklets (each of which contained three of a total eight 11-item clusters) according to a balanced rotated design. Each student completed one of the 45-minute booklets. The test items were generally presented with contextual material that served as a brief introduction to each item or set of items.
- The international *student questionnaire* took between 30 and 40 minutes to complete and was used to obtain students' perceptions about civics and citizenship as well as information about each student's background.
- The 30-minute *teacher questionnaire* asked respondents about their perceptions of civic and citizenship education in their schools. It also asked them to provide information about their schools' organization and culture as well as their own teaching assignments and backgrounds.
- The *school questionnaire*, which also took 30 minutes to complete, asked school principals to provide information about school characteristics, school culture and climate, and the provision of civic and citizenship education in the school.
- National research coordinators (NRCs) compiled and synthesized the information procured from national experts in response to an *online national contexts survey*. This information concerned the structure of the education system, civic and citizenship education in the national curricula, and recent developments in civic and citizenship education.

In addition to the international and regional instruments, ICCS offered several international options in the questionnaires and invited the national centers to consider using them. These options contained items concerning students' ethnicity, household composition, and religion, and a number of specific questions for teachers of civic and citizenship education.

- The regional instruments, an innovative feature of ICCS 2009, were again made available to ICCS 2016 countries in regions with five or more participating countries. The purpose of the regional instruments was to allow assessment of region-specific aspects of civic and citizenship education. The questions in the instruments, which took roughly 15 minutes to answer, focused on particular issues associated with civics and citizenship in the two regions that elected to participate in the regional option. They were Europe and Latin America.

Development of the ICCS instruments was a three-phase process.

- The first phase consisted of the writing of test and questionnaire items guided by the ICCS assessment framework. The items were piloted in six countries and were also subject to extensive consultation with the NCRs and experts from fields such as social psychology and political studies.

- The second phase involved implementation of an international field trial in all participating countries and analysis of the data collected from smaller samples of schools, students, and teachers.
- The third phase included a final revision of the material in light of the ICCS 2016 field trial results and further feedback from national centers and expert consultants.

Given the importance of ensuring comparability and appropriateness of the measures in this study for such a diverse range of participating countries, the ICCS field trial data were used to conduct a thorough review of the cross-national validity of both the test and the questionnaire items.

Links to ICCS and reporting changes since 2009

Twenty-one of the countries that participated in ICCS 2009 also participated in ICCS 2016. Of the student test items used in ICCS 2016, about half were secure items from ICCS 2009. The inclusion of these items meant that student achievement in ICCS 2009 and ICCS 2016 could be reported on the same scale and compared. The ICCS 2016 questionnaire instruments (for students, teachers, schools, and national centers) also included selected sets of questions from the corresponding 2009 instruments, thus allowing for comparisons across the two cycles in these selected areas.[7]

Although 21 countries participated in both ICCS 2009 and ICCS 2016, this current report presents only the changes for those countries where data collections met the technical standards associated with sampling, instrument preparation, field operations, scoring, and data management during both cycles. This stipulation means that our reporting of changes over time does not cover all 21 countries or all questions and instruments. The number of countries included in comparisons of data collected by the various questions and instruments consequently vary.

Report context and scope

This publication reports on the findings from ICCS 2016. It will be complemented by the regional reports for Europe and Latin America, a technical report, and an ICCS international database and user guide. The six content-related chapters following this introductory chapter typically focus on a particular ICCS research question. The last (eighth) chapter concludes the report with a more general discussion of outcomes.

Chapter 2 describes the national contexts for civic and citizenship education in ICCS countries. It addresses common patterns as well as interesting policies and practices in specific countries and groups of countries.

Chapter 3 reports on the levels of civic and citizenship knowledge across countries and changes in civic content knowledge since 2009. It describes how the ICCS cognitive test was used to measure civic and citizenship knowledge, and it documents how countries compared on the resultant scale. Chapter 3 also reports on the relationships between student civic knowledge and the student characteristics of age and gender as well as student home characteristics associated with socioeconomic status and immigrant and language backgrounds.

Chapter 4 explores aspects of students' civic engagement. Drawing on data from the student questionnaire, the chapter reports on students' personal engagement with the media (including new social media), their level of interest in political and social issues, their confidence to engage in their civic worlds, and the nature of their current and expected citizenship participation.

Chapter 5 focuses on issues relating to students' attitudes toward important issues in society. The chapter reports data associated with students' perceptions of democracy and citizenship

7 Details of the equating procedures enabling comparison of the 2009 and 2016 results will be provided in the ICCS 2016 technical report (Schulz, Carstens, Losito, & Fraillon, forthcoming).

and students' attitudes toward gender equality and rights for people from a range of ethnic and racial groups in their countries. The chapter also illustrates students' views on the seriousness of problems affecting the world, as well as on students' trust in civic institutions, groups, and sources of information. The chapter concludes with a look at the attitudes of students in selected countries toward the influence of religion in society.

Chapter 6 describes school and community contexts related to civic and citizenship education. This chapter includes data from the school, teacher, and student questionnaires. It reports on teachers' and students' participation in school life, the quality of social interactions in schools, the place of students and schools in their local communities as they pertain to civic-related activities, activities relating to environmental sustainability, and civic learning processes and teacher preparedness in schools.

Chapter 7 considers the results of multilevel analyses of the relationships between aspects of student background, aspects of civic learning, and other contexts of civic and citizenship education and students' civic knowledge. The chapter also reviews the results of the (single-level) multiple regression analyses designed to identify associations between student background, civic engagement experiences and attitudes, civic knowledge, and two indicators of students' prospective engagement—expected electoral participation and more active political participation.

Chapter 8 provides a summary of the main findings that emerged from ICCS 2016 in relation to its underlying research questions. It also discusses the possible implications of these findings for policy and practice.

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CHAPTER 2:

National contexts for civic and citizenship education

Chapter highlights

Socioeconomic and political contexts vary considerably across the ICCS 2016 countries.

- The *populations* of the countries surveyed in ICCS 2016 vary considerably in size. (Table 2.1)
- The countries also differ substantially with respect to *Human Development Index* (HDI) scores and *Gross Domestic Product* (GDP) per capita. (Table 2.1)
- There were large differences between countries in *voter turnout* during their (respective) most recent legislative election prior to ICCS 2016. (Table 2.2)
- *Literacy rates* in the participating countries are relatively high. (Table 2.3)

The extent to which schools have autonomy in decision-making processes for school management varied substantially across participating countries.

- In the majority of the countries, schools had a large degree of *autonomy* with respect to allocating resources to the various components of their total school budget. (Table 2.4)
- On average in most of the participating countries, schools also had a large degree of *autonomy when planning* activities relating to their civic and citizenship education (such as curriculum development, teachers' professional development, and organization of extracurricular activities). (Table 2.5)

Education systems and schools in participating countries apply a variety of approaches to teaching civic and citizenship education.

- Countries were *teaching civic and citizenship education* either as separate subjects, through subjects related to human or social sciences, or as content integrated into all subjects in the school. Some countries considered civic and citizenship education to be an integrated part of the whole school experience. (Table 2.6)
- Widespread consensus across the participating countries was evident with regard to *learning objectives for civic and citizenship education at the target grade*. (Table 2.7)
- In most of the participating countries, principals and teachers regarded promotion of students' knowledge of citizens' rights and responsibilities, promotion of students' critical and independent thinking, and promotion of students' respect for and safeguard of the environment as *important goals of civic and citizenship education*. (Tables 2.8, 2.9)

All participating countries were providing some form of teacher in-service and pre-service training in the area of civic and citizenship education.

- National study centers in all countries advised that civic and citizenship education is a part of *training for teachers of subjects related to civic and citizenship education*, either at the pre-service level, the in-service level, or both. (Table 2.10)
- Teachers' *participation in professional development activities* relating to the teaching of civic and citizenship education differed widely across countries. (Table 2.11)

Conceptual background and prior research

The ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016) states that any study of civic-related learning outcomes and civic engagement must consider the contexts in which civic and citizenship education occur. The framework identifies four levels of overlapping contexts, each of which is a factor potentially influencing this learning area:

- *Context of the wider community:* This level comprises the wider context within which schools, homes, and peer environments are situated. Relevant factors can be found at local, regional, and national levels. For some countries, the supranational level (such as the European Union) may also be of relevance. Given the growing importance of new social media, virtual communities connected through the internet also form part of broader changing political, social, and economic contexts.
- *Context of schools and classrooms:* This level includes factors related to the instruction students receive, the culture of the school, classroom climate, and the general school environment.[1]
- *Context of home and peer environments:* This level consists of factors related to students' home backgrounds and to students' immediate social out-of-school environment (e.g., peer-group norms and activities).
- *Context of the individual:* This level refers to the individual characteristics of the student.

In this chapter, we explore the national contexts of civic and citizenship education in the 24 countries that participated in ICCS 2016. The chapter addresses two general research questions in particular:

RQ 1: *How is civic and citizenship education implemented in the participating countries?* This question is accompanied by a sub-set of three questions:

(a) *Which curricular approaches do participating countries choose to provide civic and citizenship education?* For example, is the learning area taught as a separate subject or is it integrated in other subjects and/or school activities?

(b) *What are the aims and principles of civic and citizenship education in each participating country?*

(c) *What changes and/or developments in this learning area can be observed since 2009?*

RQ 5: *How are schools in the participating countries organized with regard to civic and citizenship education, and what is its association with students' learning outcomes?* This question is accompanied by a sub-set of two questions:

(a) *What are the general approaches to civic and citizenship education, curriculum, and/or program content structure and delivery?* For example, are there differences across countries in the professional training of teachers who deliver civic and citizenship education?

(b) *How do schools and teachers perceive the role of civic and citizenship education across participating countries?* For example, are there differences in principals' and teachers' perceptions of the relative importance of different aims of civic and citizenship education?

Our exploration of these questions draws not only on data collected via the ICCS 2016 questionnaires for national centers, principals, and teachers but also on data from external sources. We begin by discussing the sources of the data, in particular the national contexts survey (NCS) and its development. We next discuss the participating countries' education systems and national contexts. From there, we examine profiles of civic and citizenship curricula and approaches. We conclude with a discussion of the contexts within which teacher preparation with respect to civic and citizenship education takes place.

1 Because of the sampling design for ICCS, school level and classroom level cannot be disentangled. Typically, only one classroom was selected within each sampled school.

During the first phase of the IEA Civic Education Study (CIVED), conducted in 1999, the CIVED research team asked country representatives to each prepare a national case study depicting the contexts for civic education in their respective countries (Torney-Purta, Schwille, & Amadeo, 1999). This information informed the development of the data-collection instruments used in the second phase of the study (Torney-Purta, Lehmann, Oswald, & Schulz, 2001).

ICCS 2009 also incorporated an online national contexts survey that was conducted in two phases. During the first phase, a preliminary version was administered at the outset of country participation to gather contextual data from the study's national research centers and from people in each country identified as having expertise in civic and citizenship education (Schulz, Kerr, & Losito, 2011). During the second phase, the national centers used a more refined version designed to update the earlier collected contextual data so that the information would be as current as possible with the period when the main ICCS 2009 student survey was conducted.

The final version of the NCS consisted of 46 questions concerning key antecedents and processes relevant to civic and citizenship education. It therefore sought information from each country about the following: (a) the education system in general; (b) education policy and civic and citizenship education; (c) approaches to civic and citizenship education; (d) civic and citizenship education within the context of school curriculum approaches and, more specifically, in the school curriculum at the ICCS target grade; (e) teacher preparation and civic and citizenship education; (f) assessment policies and quality assurance in this learning area; and (g) current debates and reforms. The data that the survey collected were reported extensively in the ICCS 2009 international report, encyclopedia, and three regional reports (Ainley, Schulz, & Friedman, 2013; Fraillon, Schulz, & Ainley, 2012; Kerr, Sturman, Schulz, & Burge, 2010; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010; Schulz, Ainley, Friedman, & Lietz, 2011).

The ICCS 2009 team also asked participating country representatives to provide more detailed descriptions of the particular characteristics that the country considered relevant to its approach to and its implementation of civic and citizenship education. These more detailed descriptions provided a basis for developing chapters on the national contexts for civic and citizenship education in the 2009 encyclopedia (Ainley et al., 2013).

> The national contexts survey was completed by each national center responsible for coordinating the ICCS study within their country. ICCS asked the centers to draw on available expertise and reference resource documents from their perspective countries. As a consequence, the information reported in this chapter from this data source is the perspective of the respondents to the survey (whose number varied across countries, depending on each national center's approach to completing the survey). Also, we advise readers, when considering portrayals of the design and delivery aspects of civic and citizenship education in the individual countries, to be aware that other research has identified gaps between policies and practices in this area of educational provision.

The ICCS 2016 NCS incorporates many of the aspects included in the previous survey in 2009. We updated some content areas to reflect the revised research questions, and modified other questions in order to improve data quality. We also included some new questions to capture changes to the structure of the countries' education systems or to the way in which the countries have conceptualized and delivered civic and citizenship since 2009. The final questionnaire included 29 questions covering four broad areas:

- Education system
- Civic and citizenship education in the curriculum
- Teachers and teacher education
- Assessments and quality assurance.

The tables in this chapter rely on data not only from the NCS but also from several other sources, including well-established databases. The information drawn from the latter pertains to country-level variables, such as population size and the results of legislative elections and helps us to illustrate the structure of the education systems and the characteristics of the participating countries. Data collected by the ICCS 2016 teacher and school questionnaires provide principals' and teachers' perspectives on how their respective countries approach civic and citizenship education. This information also provides a point of contrast with information obtained from policy and other official documentation in each of the participating countries.

Education systems and national contexts

Table 2.1, which presents selected demographic and economic characteristics of the countries surveyed in ICCS 2016, shows that the countries vary considerably in terms of population size. Of the 24 countries, Malta is by far the smallest, with a population of just over 431,000. Half of the countries have population sizes ranging from one to 10 million people. The populations of 11 countries are even larger, with two (Mexico, Russian Federation) having populations that exceed 100 million people.

Table 2.1 also features the countries' Human Development Index (HDI) scores. The HDI draws on components such as average life expectancy, years of schooling completed, and income in each country to calculate these scores (United Nations Development Programme, 2016). All countries receive an international rank based on this metric. In 2016, several of the ICCS 2016 countries ranked particularly highly on the HDI, with Norway first, Denmark fifth, and the Netherlands seventh. Germany, the country where ICCS 2016's benchmarking participant North Rhine-Westphalia is located, ranked fourth on the HDI. Nineteen of the 24 participating countries had HDI values considered "very high." The remaining countries all had "high" HDI values. The ICCS 2016 countries with the four lowest HDI scores were all from Latin America.

To provide an economic profile of the participating countries in ICCS 2016, each country's gross domestic product (GDP) per capita was reported by taking each country's total GDP and then dividing that sum by the country's population. The last column of Table 2.1 shows GDP per capita expressed in 2011 US dollars using purchasing power parity rates. The GDP per capita for countries at the higher end of the range (Norway, Hong Kong SAR, Chinese Taipei) was considerably higher than the GDP per capita of those countries at the lower end of the range (Peru, Colombia, Dominican Republic). The range highlights the large differences in the relative strength of the economies of the ICCS 2016 countries.

Table 2.2 presents characteristics of the political systems in ICCS countries. These include (a) legal age; (b) the extent to which voting is compulsory; (c) the year of the legislative election closest to when the study was conducted; (d) voter turnout during that election; and (e) the makeup of the ensuing parliament in terms of number of political parties and the percentage of seats held by women.

Nearly all of the ICCS 2016 countries currently have 18 years as the minimum legal age for voting (22 out of 24 countries). Only the Republic of Korea (19 years) and Chinese Taipei (20 years) have slightly higher minimum legal voting ages. There is also little variation in whether voting is compulsory or not. People are not compelled to vote in 20 of the participating countries. The four countries where voting is a legal requirement are Belgium (Flemish), the Dominican Republic, Mexico, and Peru. These countries vary, however, in their enforcement of that requirement.

Table 2.1: Selected demographic and economic characteristics of ICCS 2016 countries

Country	Population size (in thousands)	Human Development Index			Gross Domestic Product (GDP) per capita (in USD $)
		Value	Rank	Category	
Belgium (Flemish)	6,477.80 [1]	0.896 [2]	22	Very high	41,138 [2]
Bulgaria	7,177.99	0.794	56	High	16,956
Chile	17,948.14	0.847	38	Very high	22,145
Chinese Taipei	23,464.79 [3]	0.882 [4]	21	Very high	47,800 [3]
Colombia	48,228.70	0.727	95	High	12,988
Croatia	4,203.60	0.827	45	Very high	20,430
Denmark	5,683.48	0.925	5	Very high	43,415
Dominican Republic	10,528.39	0.722	99	High	13,375
Estonia	1,314.61	0.865	30	Very high	26,930
Finland	5,479.53	0.895	23	Very high	38,643
Hong Kong SAR	7,305.70	0.917	12	Very high	53,380
Italy	60,730.58	0.887	26	Very high	33,587
Korea, Republic of	50,617.04	0.901	18	Very high	34,387
Latvia	1,977.53	0.830	44	Very high	22,628
Lithuania	2,904.91	0.848	37	Very high	26,397
Malta	431.87	0.856	33	Very high	28,822
Mexico	127,017.22	0.762	77	High	16,502
Netherlands	16,939.92	0.924	7	Very high	46,374
Norway	5,190.24	0.949	1	Very high	64,451
Peru	31,376.67	0.740	87	High	11,672
Russian Federation	144,096.87	0.804	49	Very high	23,895
Slovenia	2,063.53	0.890	25	Very high	28,942
Sweden	9,799.19	0.913	14	Very high	45,296
Benchmarking participant					
North Rhine-Westphalia (Germany)	17,865.52 [5]	0.926 [6]	4	Very high	44,053 [6]

Data on Human Development Index and GDP per capita obtained from *Human Development Report 2016* unless otherwise stated.
Data on population size sourced from *World Bank Indicators* unless otherwise stated.

Notes:

1 Source: http://statbel.fgov.be/nl/statistieken/cijfers/bevolking/[20/04/17].
2 Data refer to the whole of Belgium.
3 Data estimated for 2016. Source: https://www.cia.gov/library/publications/the-world-factbook/geos/tw.html/[20/04/17].
4 Data estimated for 2014. Source: http://focustaiwan.tw/news/asoc/(201409180039.aspx/[20/04/17].
5 Based on 2011 data. Source: https://www3.arbeitsagentur.de/web/content/DE/service/Ueberuns/Regionaldirektionen/NordrheinWestfalen/ZahlenDatenFakten/Strukturdaten/index.htm/[17/07/17].
6 Data refer to the whole of Germany.

The countries varied markedly with respect to voter turnout during their most recent legislative elections. Turnouts of more than 90 percent of eligible voters occurred in Malta, which does not have compulsory voting, and Belgium (Flemish),[2] where voting is compulsory. Less than half of eligible voters chose to vote in the most recent elections preceding the study in Chile, Colombia, and Mexico (voting is compulsory in Mexico, but not enforced). The composition of the parliaments brought in after the elections also varied quite substantially. The members of parliament in Malta belong to only two different political parties, whereas in Colombia, Hong Kong SAR, and the Netherlands, members of parliament (MPs) represent between 11 and 14 different parties. Although no country participating in ICCS 2016 had equal representation of females in parliament, in five participating countries (Belgium/Flemish, Finland, Mexico, Norway and Sweden) women represented between 40 and 44 percent of MPs. One third of participating countries had less than 20 percent female representation.

2 For Belgium (Flemish), this information refers to voting for representatives of the regional parliament of Flanders.

Table 2.2: Selected political characteristics of ICCS 2016 countries

Country	Legal age of voting	Compulsory voting (Y / N)	Percentages of voter turnout at last legislative election prior to study (year of election)		Number of political parties in parliament	Percentages of seats held by women in parliament
Belgium (Flemish)	18	Y	92.5	(2014) [1]	7 [1]	44 [1]
Bulgaria	18	N	54.1	(2014)	8	20
Chile	18	N	49.3	(2013)	8 *	16 *
Chinese Taipei	20	N	66.0	(2016)	5 [2]	38
Colombia	18	N	43.6	(2014)	14 *	19 *
Croatia	18	N	60.8	(2015)	9	15
Denmark	18	N	85.9	(2015)	9	37
Dominican Republic	18	Y	69.6	(2016)	10 *	27 *
Estonia	18[4]	N	64.2	(2015)	6	24
Finland	18	N	70.1	(2015)	9	42
Hong Kong SAR	18	N	58.0	(2012)	14	16
Italy	18	N	75.2	(2013)	7 *	31 *
Korea, Republic of	19	N	58.0	(2016)	5	17
Latvia	18	N	58.9	(2014)	6	19
Lithuania	18	N	52.9	(2012)	8	24
Malta	18	N	93.0	(2013)	2	14
Mexico	18	Y	47.7	(2015)	9	42
Netherlands	18	N	74.6	(2012)	11 *	39 *
Norway	18	N	78.2	(2013)	8	40
Peru	18	Y	82.0	(2016)	6	28
Russian Federation	18	N	60.1	(2011)	4 *	14 *
Slovenia	18	N	51.7	(2014)	8 *	37 *
Sweden	18	N	85.8	(2014)	8	44
Benchmarking participant						
North Rhine-Westphalia (Germany)	18	N	59.6 [3]	(2012) [3]	5 [3]	27 [3]

Data for this table were collected from IPU Parline database unless otherwise stated.

Notes:

[1] Data refer to the Flemish regional parliament. Source: http://polling2014.belgium.be/en/vla/results/results_start.html[20/04/17].
[2] Data obtained from *CIA World Factbook*.
[3] Data refer to North Rhine-Westphalia parliament.
[4] Exception for local elections where legal age is 16.
* Bicameral structured parliament. Data refer to lower house.

The selected education characteristics of ICCS 2016 countries shown in Table 2.3 include (a) the proportion of adults who are literate; (b) the relative spending of the government on education; and (c) the proportion of the population who have access to the internet. The literacy rates in the countries participating in ICCS 2016 are high. The data show near universal adult literacy in European countries, with slightly lower rates in Colombia, the Dominican Republic, Hong Kong SAR, Malta, Mexico, and Peru.

The four participating Nordic countries (Denmark, Finland, Norway, Sweden) have the highest relative expenditure on education. Expenditure, presented as a percentage of GDP in Table 2.3, ranges from 7.2 to 8.5 percent of GDP across the four countries. The Dominican Republic has the lowest relative expenditure—just 2.1 percent of its GDP—on education. The proportion of the population with access to the internet vary considerably across participating countries, with the lowest proportion evident in Peru (41%) and the highest in Norway (97%).

Table 2.3: Selected education characteristics of ICCS 2016 countries

Country	Adult literacy rate (%)	Public expenditure on education (% of GDP)	Internet access (% of population)
Belgium (Flemish)	99 * [2]	6.4 [2]	85 [2]
Bulgaria	98	3.5	57
Chile	97	4.6	64
Chinese Taipei	99 [1]	4.3	88
Colombia	95	4.7	56
Croatia	99	4.2	70
Denmark	99 *	8.5	96
Dominican Republic	92	2.1 [1]	52
Estonia	100	4.7	88
Finland	100 *	7.2	93
Hong Kong SAR	94 *	3.6	85
Italy	99	4.1	66
Korea, Republic of	98 *	4.6	90
Latvia	100	4.9	79
Lithuania	100	4.8	71
Malta	94	6.8	76
Mexico	94	5.2	57
Netherlands	99 *	5.6	93
Norway	100 *	7.4	97
Peru	95	3.7	41
Russian Federation	100	4.2	73
Slovenia	100	5.7	73
Sweden	99 *	7.7	91
Benchmarking participant			
North Rhine-Westphalia (Germany)	99 * [3]	4.9 [3]	88 [3]

Adult literacy rate data obtained from *Human Development Report 2016* unless otherwise stated and refer to the percentage of the population 15 years of age and over who can read and write. Data relate to collection period between 2005 and 2015.

Public expenditure on education data obtained from *Human Development Report 2016* unless otherwise stated. Data relate to collection period between 2010 and 2014.

Internet access data obtained from *CIA World Factbook* and relate to 2015.

Notes:

[1] Data obtained from *CIA World Factbook* and relate to 2015.
[2] Data refer to the whole of Belgium.
[3] Data refer to the whole of Germany.
* Recent estimates unavailable. Data sourced from *CIA World Factbook* and relate to 2000 to 2004.

Level of autonomy in school decision-making

The ICCS 2016 national contexts survey asked the study's national research centers to provide information about how much autonomy the lower-secondary schools in their countries have with regard to making decisions about five school processes: (a) allocating resources; (b) planning curricula; (c) determining pedagogical practice and approaches to teaching; (d) recruiting and appointing teachers; and (e) assessing students' achievement. When considering each of the five decision-making processes, respondents were asked to select from three options reflecting decreasing levels of autonomy—"higher," "some," and "lower." Table 2.4 presents the findings.

In 11 countries, resource allocation appears to be determined by regional or central educational authorities. The remaining six national centers indicated that the schools in their respective countries have an even greater degree of autonomy in their ability to allocate teaching time and other resources.

No school in the 24 countries has full autonomy over determining or implementing its own curriculum. However, the national centers in 17 countries indicated that while schools must follow

Table 2.4: Level of autonomy of individual schools in decision-making processes in participating countries as reported by the ICCS 2016 national contexts survey

Country	Allocating resources	Curriculum planning	Pedagogy or approaches to teaching	Recruiting and appointing teaching staff	Student assessment
Belgium (Flemish)	◒	◒	●	●	●
Bulgaria	◒	◒	◒	●	◒
Chile	◒	◒	●	●	●
Chinese Taipei	◒	◒	●	◒	●
Colombia	○	◒	◒	○	◒
Croatia	○	○	◒	◒	◒
Denmark	●	◒	◒	●	◒
Dominican Republic	○	○	○	○	◒
Estonia	◒	◒	●	●	◒
Finland	●	◒	●	◒	●
Hong Kong SAR	◒	◒	◒	●	◒
Italy	●	◒	●	○	◒
Korea, Republic of	◒	◒	◒	○	◒
Latvia	●	◒	●	●	●
Lithuania	○	◒	◒	●	◒
Malta	◒	○	◒	○	◒
Mexico	○	○	○	○	◒
Netherlands	●	◒	●	●	◒
Norway	◒	○	●	●	◒
Peru	○	◒	○	◒	◒
Russian Federation	●	◒	●	●	◒
Slovenia	○	○	◒	●	◒
Sweden	◒	○	●	●	◒
Benchmarking participant					
North Rhine-Westphalia (Germany)	◒	◒	●	◒	●

● = Higher degree of autonomy
◒ = Some degree of autonomy
○ = Lower degree of autonomy

some general official curriculum guidelines, they can influence curriculum content and delivery. In the remaining seven countries, schools are required to follow curriculums defined and planned by educational authorities.

National centers in 12 countries said schools have a relatively high degree of autonomy when determining their general approaches to pedagogy or teaching; the centers in nine other countries reported only some degree of autonomy over decisions about teaching approaches. The centers in the remaining three countries said the schools there have a lower degree of autonomy over pedagogical approaches because the schools are generally required to follow system-wide recommended approaches.

According to the national centers in just over half of the participating countries (13), schools have relatively high levels of autonomy with respect to recruiting and appointing teaching staff. The national centers in five countries reported some degree of school autonomy in this area, while the centers in the remaining six countries said schools have little autonomy over teacher recruitment and appointment. In those six countries, staff recruitment and appointments are typically conducted at a regional or central level. In six countries, national centers said their lower-secondary schools have a relatively high level of autonomy over student assessment. The results for the remaining 19 countries indicated only some degree of autonomy in relation to assessing student achievement.

Level of autonomy in planning civic and citizenship education at school

ICCS 2016 also investigated the level of autonomy lower-secondary schools in the ICCS 2016 countries have when planning and organizing curricular, teaching, and learning-activity aspects of their civic and citizenship education. ICCS was interested in exploring these aspects because they have the potential to influence the delivery of civic and citizenship education in schools and to affect the success of efforts directed toward improving this area of education (Sammons & Bakkum, 2011; Scheerens, 2013; Reezigt & Creemers, 2005).

The ICCS 2016 school questionnaire accordingly included a set of items asking principals about the level of autonomy their schools had over planning the following specific aspects of their civic and citizenship education: (a) choice of textbooks; (b) assessment and evaluation; (c) curriculum planning; (d) teachers' in-service professional development specific to civic and citizenship education; (e) organization of extracurricular activities; and (f) participating in projects with other schools. Table 2.5 shows the percentages of students in schools where principals reported they had "full" or "quite a lot" of autonomy in relation to the different aspects considered. On average across the participating countries, most students were studying at schools where principals reported a high level of autonomy over all of the aspects considered.

The principals' responses indicated that, on average cross-nationally, the aspect for which schools have the greatest autonomy is organizing extracurricular activities while the least is teachers' in-service professional development. Ninety-one percent of students were at schools where principals reported having a very high degree of autonomy over organizing extracurricular activities (not one country recorded a percentage below 70%). The corresponding percentage for teachers' in-service professional development was 79 percent.

A large majority of the ICCS students (an international average of 86%) were at schools with considerable autonomy over establishing student assessment procedures and tools. The lowest percentages recorded for this aspect were in Denmark (65%) and Malta (56%). We recorded the same international average (that is, 86%) for autonomy when establishing cooperation agreements with organizations and institutions. Mexico recorded the lowest percentage for this aspect (60%). The countries that recorded the lowest percentages for participation in projects in partnership with other schools at national and international levels were the Dominican Republic (59%), Mexico (45%), and Peru (54%).

We observed greater variation across countries with regard to school autonomy over choice of textbooks and teaching materials. The ICCS 2016 average of students studying at schools with autonomy for this aspect was 85 percent; we recorded significantly lower percentages in Mexico (73%), Chile (67%), Malta (49%), the Dominican Republic (41%), and Peru (37%).

According to the information provided by principals, the ICCS 2016 students were generally studying at schools with a good degree of freedom over planning their civic and citizenship education curricula (ICCS 2016 international average: 80%). However, several countries recorded percentages statistically significantly below the international average for this aspect. Those countries were the Dominican Republic (66%), Mexico (68%), Malta (50%), Slovenia (49%), and Belgium (Flemish) (27%).

Table 2.5: Percentages of students at schools where principals reported school autonomy in planning different aspects of civic and citizenship education

Country	Percentages of students at schools with full or quite a lot of autonomy for:						
	Choice of textbooks and teaching materials	Establishing student assessment procedures and tools	Curriculum planning	Determining the content of in-service professional development programs for teachers	Extracurricular activities	Establishing cooperation agreements with organizations and institutions (e.g., universities, local authorities, associations, foundations)	Participating in projects in partnership with other schools at national and
Belgium (Flemish)	100 (0.0) ▲	100 (0.5) ▲	27 (4.2) ▼	99 (0.9) ▲	98 (0.9) △	97 (1.4) ▲	94 (2.3) △
Bulgaria	96 (1.6) ▲	90 (2.3)	82 (3.4)	95 (1.9) ▲	98 (1.1) △	95 (1.9) △	92 (2.1) △
Chile	67 (3.9) ▼	91 (2.4) △	83 (3.5)	71 (3.7) ▽	91 (2.3)	80 (3.3)	74 (3.6) ▼
Chinese Taipei	99 (0.8) ▲	99 (1.0) ▲	96 (1.8) ▲	97 (1.4) ▲	100 (0.0) △	90 (2.7)	71 (3.9) ▼
Colombia (r)	88 (3.4)	98 (1.3) ▲	98 (1.1) ▲	84 (3.1)	92 (2.6)	85 (3.4)	83 (3.9)
Croatia	89 (2.7)	85 (3.1)	91 (2.9) ▲	74 (3.8)	93 (2.7)	93 (2.7) △	86 (3.1)
Denmark†	99 (0.8) ▲	65 (4.0) ▼	87 (2.7) △	77 (3.5)	71 (3.9) ▼	94 (1.9) △	93 (1.8) △
Dominican Republic (r)	41 (4.4) ▼	77 (3.9) ▽	66 (4.3) ▼	47 (4.7) ▼	82 (3.6) ▽	72 (4.6) ▼	59 (5.0) ▼
Estonia[1] (s)	88 (2.8)	79 (4.3)	76 (5.1)	83 (4.0)	98 (1.1) △	89 (3.3)	93 (2.7) △
Finland	100 (0.0) ▲	90 (2.2)	89 (2.4) △	87 (2.8) △	96 (1.5) △	83 (2.6)	94 (1.7) △
Italy	98 (1.1) ▲	98 (1.1) ▲	99 (0.8) ▲	98 (1.2) ▲	98 (0.9) △	98 (0.4) ▲	92 (2.0) △
Latvia[1]	94 (2.6) △	87 (3.1)	83 (4.0)	75 (3.7)	100 (0.0) △	98 (1.2) ▲	97 (1.4) ▲
Lithuania	97 (1.6) ▲	97 (0.9) ▲	78 (2.9)	95 (1.7) ▲	97 (1.4) △	98 (1.1) ▲	98 (1.1) ▲
Malta	49 (0.4) ▼	56 (0.4) ▼	50 (0.4) ▼	70 (0.4) ▽	97 (0.2) △	73 (0.5) ▼	80 (0.5) ▽
Mexico	73 (2.9) ▼	90 (2.3)	68 (3.6) ▼	44 (3.9) ▼	72 (3.8) ▼	60 (3.5) ▼	45 (3.4) ▼
Netherlands† (r)	98 (1.6) ▲	99 (1.0) ▲	100 (0.0) ▲	100 (0.0) ▲	99 (1.2) △	88 (3.3)	96 (2.1) ▲
Norway (9)[1]	96 (1.7) ▲	78 (3.4) ▽	93 (2.2) ▲	44 (4.5) ▼	71 (4.1) ▼	80 (3.7)	88 (2.9)
Peru	37 (3.2) ▼	76 (2.8) ▼	79 (3.1)	60 (3.3) ▼	70 (3.4) ▼	70 (3.4) ▼	54 (3.8) ▼
Russian Federation	82 (3.0)	89 (2.0)	84 (3.1)	81 (3.6)	97 (1.3) △	94 (1.7) △	93 (1.9) △
Slovenia	95 (1.9) ▲	87 (3.0)	49 (4.4) ▼	83 (3.2)	96 (1.6) △	94 (2.2) △	94 (2.1) △
Sweden[1]	97 (1.4) ▲	84 (3.4)	99 (1.0) ▲	91 (2.6) ▲	88 (2.8)	81 (3.7)	90 (2.7) △
ICCS 2016 average	85 (0.5)	86 (0.6)	80 (0.7)	79 (0.7)	91 (0.5)	86 (0.6)	84 (0.6)
Countries not meeting sample participation requirements							
Hong Kong SAR†	95 (2.3)	98 (1.5)	97 (1.8)	97 (2.0)	96 (2.0)	93 (2.6)	87 (3.4)
Korea, Republic of[2]	98 (1.1)	98 (1.7)	98 (1.3)	98 (0.9)	100 (0.0)	89 (3.2)	71 (5.5)
Benchmarking participant not meeting sample participation requirements							
North Rhine-Westphalia (Germany)[1] (r)	97 (2.0)	90 (3.2)	85 (4.5)	100 (0.3)	99 (0.7)	100 (0.0)	96 (2.8)

National percentage
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

Profiles of civic and citizenship curricula and approaches

One of the key findings from ICCS 2009 was the diversity in the participating countries' approaches to delivering civic and citizenship education (Ainley et al., 2013; Schulz et al., 2010). When completing the national contexts survey, national research centers provided information on how, based on official documentation, the schools in their respective countries are meant to teach civic and citizenship education at the target grade in schools. Table 2.6 presents the responses to this question.

In 11 countries, the expectation is for civic and citizenship education to be taught as a separate subject to students at the target grade. In all countries, with the exception of Colombia and Estonia, principals said that the intended teachers of this area of education are those who teach subjects related to human and social sciences. In 18 of the 24 ICCS 2016 countries, national centers also reported as a fairly common expectation integrating civic and citizenship education into all subjects in the school. The centers in nine countries (Bulgaria, Chinese Taipei, Croatia, Estonia, Hong Kong SAR, Lithuania, Netherlands, Norway, Russian Federation) said that civic and citizenship education can be approached as an extracurricular activity, while the respondents from 15 countries said that civic and citizenship education is meant to be the result of the school experience as a whole.

Table 2.6: Intended approaches to civic and citizenship education in the curriculum for target-grade students in participating countries as reported by the ICCS 2016 national contexts survey

Country	Approaches to civic and citizenship education at the target grade				
	Taught as a separate subject by teachers of subjects related to civic and citizenship education	Taught by teachers of subjects related to human/ social sciences (e.g., history, geography, law, economics)	Integrated into all subjects taught at school	An extracurricular activity	Considered the result of school experience as a whole
Belgium (Flemish)		●	●		●
Bulgaria		●	●	●	●
Chile		●	●		●
Chinese Taipei	●	●	●	●	●
Colombia			●		
Croatia		●	●	●	
Denmark	●	●	●		●
Dominican Republic		●	●		
Estonia			●	●	●
Finland	●	●	●		●
Hong Kong SAR	●	●	●	●	●
Italy		●	●		●
Korea, Republic of		●			
Latvia	●	●			
Lithuania		●	●	●	●
Malta		●			
Mexico	●	●	●		
Netherlands		●		●	
Norway	●	●	●	●	●
Peru	●	●			
Russian Federation	●	●		●	●
Slovenia	●	●	●		●
Sweden		●	●		●
Benchmarking participant					
North Rhine-Westphalia (Germany)	●	●	●		●

Aims of civic and citizenship education

The national contexts survey asked national centers to indicate whether the curriculum for the ICCS 2016 target grade specified certain learning objectives in their civic and citizenship education provision. Table 2.7 summarizes the responses to this question from the 23 countries that completed it. The table reveals a great deal of commonality in the specification of learning objectives across countries, with all 23 specifying "understanding key civic and citizenship concepts (e.g. democracy, rights and responsibilities)" as an objective. The second most commonly reported objective, "knowing basic civic and citizenship facts (e.g. about political institutions and processes)," was identified in 22 countries. It was closely followed by "communicating through discussion and debate" (21 countries). The national centers in 20 countries specified "understanding key civic and citizenship values and attitudes (e.g. fairness, responsibility, or engagement)" as an objective, as did the centers in another 20 countries for "understanding the principles of voting and elections."

"Understanding decision-making and active participation" and "developing positive attitudes toward participation and engagement" were cited as learning objectives in 19 and 18 countries, respectively. Slightly smaller numbers of countries specified the objectives of "participating in community-based activities and understanding how to resolve conflicts" (17 countries each) and "becoming involved in decision-making in the school" and "developing a sense of national identity and allegiance" (16 countries each).

The ICCS 2016 survey asked principals and teachers to provide information about the importance of different aims of civic and citizenship education. The school and teacher questionnaires both asked respondents to select from the following list what they considered to be the three most important aims of civic and citizenship education: (a) promoting knowledge of social, political, and civic institutions; (b) promoting respect for and safeguard of the environment; (c) promoting the capacity to defend one's own point of view; (d) developing students' skills and competencies in conflict resolution; (e) promoting knowledge of citizens' rights and responsibilities; (f) promoting students' participation in the <local community>; (g) promoting students' critical and independent thinking; (h) promoting students' participation in school life; (i) supporting the development of effective strategies to reduce racism; and (j) preparing students for future political engagement. ICCS organized these aims into three main conceptual areas:

(1) Civic and political knowledge and skills (development of)—items a, d, e, and g;

(2) Sense of responsibility (development of)—items b, c, and i; and

(3) Active participation (development of)—items f, h, and j.

Table 2.8 shows the national percentages of students studying at schools where principals reported preferences for each individual aim. The aims perceived as the most important all fell within the first category—civic and political knowledge and skills. On average across participating countries, the highest percentages of students (64%) were recorded for schools where principals viewed "promoting students' critical and independent thinking" as important. The next highest percentages were for "promoting students' knowledge of citizens' rights and responsibilities" (61%) and "developing students' skills and competencies in conflict resolution" (44%).[3]

Lower average percentages of students were evident at schools where principals gave preference to aims included in the active participation area. The percentages across countries with respect to

3 Although we cannot directly compare the overall results from ICCS 2009 with the ICCS 2016 findings because of changes in the composition of country participation, it is interesting to note that in the 2009 survey, school principals indicated the following aims as the most important ones: "promoting students' knowledge of citizens' rights and responsibilities" (international average percentage of students: 66%), "promoting students' critical and independent thinking" (55%), and "promoting students' knowledge of social, political, and civic institutions" (42%).

Table 2.7: Learning objectives for civic and citizenship education at the target grade as reported by the ICCS 2016 national contexts survey

Country	Inclusion of learning objectives in the curriculum for the target grade at a national level										
	Knowing basic facts	Understanding key concepts	Understanding key values and attitudes	Communicating through discussion and debate	Understanding decision-making and active participation	Becoming involved in decision-making in school	Participating in community-based activities	Developing a sense of national identity and allegiance	Developing positive attitudes toward participation and engagement	Understanding how to resolve conflicts	Understanding principles of voting and elections
Belgium (Flemish)	●	●	●	●	●	●	●		●	●	●
Bulgaria	●	●	●	●	●	●	●	●	●	●	●
Chile	●	●	●	●							
Chinese Taipei	●	●	●	●	●	●	●	●	●	●	●
Colombia	●	●				●	●		●	●	
Croatia	●	●	●	●	●	●	●	●	●	●	●
Denmark	●	●		●	●						●
Dominican Republic	●	●	●	●		●	●	●	●	●	●
Estonia	●	●	●	●	●	●	●	●	●	●	●
Finland[1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Hong Kong SAR	●	●	●	●	●		●	●	●		●
Italy	●	●	●	●	●	●	●	●	●	●	●
Korea, Republic of	●	●	●	●	●	●	●	●	●	●	●
Latvia		●	●	●	●			●			
Lithuania	●	●	●	●	●	●	●	●	●	●	●
Malta	●	●	●	●	●	●	●	●	●		●
Mexico	●	●	●	●	●	●	●	●	●	●	●
Netherlands	●	●									●
Norway	●	●	●	●	●	●	●	●	●	●	●
Peru	●	●	●	●	●		●	●	●	●	●
Russian Federation	●	●	●	●	●	●	●	●	●	●	●
Slovenia	●	●	●	●	●	●	●	●	●	●	●
Sweden[1]	●	●	●	●	●	●			●	●	●
Benchmarking participant											
North Rhine-Westphalia (Germany)	●	●	●	●	●					●	●

[1] These countries do not specify the learning objectives for civic and citizenship education for the target grade.

Table 2.8: Percentages of students at schools where principals reported different aims of civic and citizenship education as one of the three most important aims

Country	Promoting knowledge of social, political, and civic institutions	Promoting respect for and safeguard of the environment	Promoting the capacity to defend one's own point of view	Developing students' skills and competencies in conflict resolution	Promoting knowledge of citizens' rights and responsibilities	Promoting students' participation in the <local community>	Promoting students' critical and independent thinking	Promoting students' participation in school life	Supporting the development of effective strategies to reduce racism	Preparing students for future political engagement
Belgium (Flemish)	27 (4.0) ▽	40 (4.4)	45 (4.3) ▲	59 (4.7) ▲	26 (4.5) ▼	12 (3.1) ▼	72 (4.2) △	33 (4.2)	9 (2.4)	1 (1.0) ▽
Bulgaria	44 (4.2)	49 (4.4) ▲	36 (4.2) ▲	37 (4.0)	63 (4.1)	20 (3.4)	46 (4.2) ▼	39 (4.3) ▲	5 (1.9)	10 (2.3)
Chile	47 (4.3) △	34 (4.2)	17 (3.6)	45 (4.6)	81 (3.7) ▲	46 (4.4) ▲	55 (4.0) ▽	29 (4.2)	5 (2.1)	15 (3.0)
Chinese Taipei	32 (3.7)	38 (4.0)	1 (0.8) ▼	49 (4.3)	67 (4.0)	22 (3.5)	70 (4.1)	16 (3.1) ▽	2 (1.3) ▽	2 (1.2) ▽
Colombia (r)	35 (4.3)	41 (4.6)	11 (2.6) ▼	78 (4.2) ▲	66 (3.9)	33 (4.2) △	34 (4.2) ▼	29 (4.1)	9 (2.1)	20 (4.0) ▲
Croatia	31 (3.2) ▽	40 (3.9)	30 (4.1) △	45 (4.0)	58 (4.1)	29 (3.9)	59 (4.3)	22 (2.7)	5 (1.8)	4 (1.4) ▽
Denmark†	61 (3.8) ▲	10 (2.4) ▼	16 (3.0)	37 (3.7) ▽	54 (4.0)	12 (2.3) ▼	84 (2.9) ▲	8 (2.0) ▼	3 (1.0) ▽	19 (3.2) △
Dominican Republic	57 (5.0) ▲	43 (4.3)	19 (3.8)	57 (4.8) ▲	90 (2.6) ▲	31 (4.4)	44 (4.6) ▼	25 (4.5)	14 (3.4)	15 (3.3)
Estonia[1] (s)	67 (5.0) ▲	21 (4.4) ▼	29 (4.6)	27 (4.7) ▼	73 (5.1) ▲	17 (3.8)	80 (4.1) ▲	24 (4.1)	6 (2.5)	15 (3.8)
Finland	34 (3.4)	52 (4.1) ▲	12 (2.5) ▽	50 (4.0)	40 (3.5) ▼	11 (2.4) ▼	79 (3.2) ▲	22 (3.3)	9 (2.4)	3 (1.1) ▽
Italy	38 (3.7)	28 (3.7) ▽	3 (1.3) ▼	46 (4.0)	75 (3.7) ▲	24 (3.5)	68 (3.6)	13 (2.8) ▼	8 (2.0)	4 (1.6) ▽
Latvia[1]	35 (4.1)	22 (3.6) ▼	32 (4.8) ▲	20 (3.9) ▼	51 (4.8) ▽	15 (3.3) ▽	64 (4.2)	35 (4.4) △	3 (1.4) ▽	25 (3.8) ▲
Lithuania	21 (3.1) ▼	55 (4.5) ▲	22 (3.8)	42 (4.4)	52 (3.9) ▽	44 (3.6) ▲	78 (3.1) ▲	43 (4.3) ▲	6 (2.0)	5 (1.6) ▽
Malta	28 (0.4) ▽	70 (0.3) ▲	13 (0.4) ▽	23 (0.3) ▼	77 (0.3) ▲	26 (0.3) △	66 (0.4) △	33 (0.4) △	13 (0.2) △	6 (0.2) ▽
Mexico	17 (3.0) ▼	54 (4.2) ▲	7 (2.0) ▼	71 (3.2) ▲	74 (4.1) ▲	22 (3.4)	41 (4.2) ▼	21 (3.2)	4 (1.5) ▽	14 (3.0)
Netherlands† (r)	43 (5.4)	20 (4.0) ▼	33 (4.6) ▲	53 (5.2)	16 (4.0) ▼	29 (4.9)	77 (3.9) ▲	17 (3.9) ▽	5 (2.1)	9 (3.0)
Norway (9)[1]	54 (4.1) ▲	24 (3.6) ▼	13 (3.1) ▽	34 (4.0) ▼	31 (3.7) ▼	29 (3.7)	79 (3.7) ▲	30 (4.0)	14 (3.2) △	3 (1.5) ▽
Peru	20 (3.4) ▼	49 (3.9) ▲	6 (1.8) ▼	56 (3.7) ▲	74 (3.2) ▲	34 (3.4 △	46 (3.7) ▼	16 (2.7) ▽	4 (1.4) ▽	10 (2.2)
Russian Federation	39 (3.7)	28 (3.0) ▽	34 (4.2) ▲	33 (3.8) ▼	78 (3.4) ▲	22 (2.9)	40 (4.0) ▼	33 (3.7) △	5 (1.5) ▽	10 (2.0)
Slovenia	29 (3.8) ▽	46 (4.5)	43 (4.8) ▲	41 (4.5)	53 (4.3)	21 (3.8)	72 (4.4) △	29 (3.7)	10 (2.9)	6 (2.5)
Sweden[1]	23 (3.7) ▼	30 (4.5)	14 (2.8) ▽	29 (5.9) ▼	73 (5.8) ▲	3 (2.0) ▼	83 (3.6) ▲	17 (5.3)	31 (4.1) ▲	4 (1.7) ▽
ICCS 2016 average	37 (0.9)	38 (0.9)	21 (0.8)	44 (0.9)	61 (0.9)	24 (0.8)	64 (0.8)	25 (0.8)	8 (0.5)	10 (0.5)
Countries not meeting sample participation requirements										
Hong Kong SAR[1]	53 (5.8)	46 (5.3)	4 (2.4)	7 (2.7)	73 (5.3)	37 (5.2)	58 (5.5)	19 (4.8)	2 (1.4)	1 (1.2)
Korea, Republic of[2]	46 (5.9)	32 (5.6)	25 (4.1)	64 (5.5)	71 (4.0)	12 (3.1)	12 (2.8)	40 (5.9)	3 (1.5)	13 (3.4)
Benchmarking participant not meeting sample participation requirements										
North Rhine-Westphalia (Germany)[1] (r)	27 (6.2)	14 (4.5)	18 (5.5)	70 (4.9)	38 (7.5)	2 (2.1)	75 (5.4)	38 (8.2)	33 (5.3)	22 (7.1)

National percentage
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
- () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
- (9) Country deviated from international defined population and surveyed adjacent upper grade.
- † Met guidelines for sampling participation rates only after replacement schools were included.
- [1] National Defined Population covers 90% to 95% of National Target Population.
- [2] Country surveyed target grade in the first half of the school year.

An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

these aims varied markedly, as was the case with "promotion of respect for and safeguard of the environment." The average percentages of students studying at schools where principals chose this aim as an important one ranged from 10 percent in Denmark to 70 percent in Malta.

On average across the participating countries, the aims of citizenship and civic education that teachers most frequently chose as the three most important ones (refer Table 2.9) were "promoting students' independent and critical thinking" (61%), "promoting knowledge of citizens' rights and responsibilities" (55%), and "promoting respect for and safeguard of the environment" (51%). The ICCS 2016 average percentage of teachers choosing "developing students' skills and competencies in conflict resolution" was 47 percent, while the corresponding percentage for "promoting students' knowledge of social, political, and civic institutions" was 29 percent.

Our comparison of the results from the school and teacher surveys[4] revealed relatively widespread consensus that promoting students' critical and independent thinking, promoting students' knowledge of citizens' right and responsibilities, and developing students' abilities to resolve conflict resolution are important objectives of civic and citizenship education. However, although relatively large proportions of teachers across the ICCS countries saw the promotion of respect for and safeguard of the environment as one of the important goals, the results from the school survey suggest somewhat more variation with regard to school principals' perceptions of the importance of learning about environmental protection.

Contexts for teacher preparation

The national contexts survey (NCS) asked national centers to indicate whether civic and citizenship education was a mandatory part of teacher education at the pre-service level and at the in-service level for different groups of target-grade teachers. The centers in all of the ICCS 2016 countries said that civic and citizenship education is part of teacher training for teachers of subjects related to civic and citizenship education, either at the pre-service level, the in-service level, or both (see Table 2.10).

In 19 of the 24 participating countries (the exceptions were Colombia, Croatia, Dominican Republic, Hong Kong SAR, and Slovenia), civic and citizenship education is, according to the national centers, mandatory at the pre-service level for at least some teachers. In 18 of these countries, training is available for pre-service teachers of subjects related to civic and citizenship education. Seven of the 18 national centers advised that pre-service training is on offer to specialist teachers of civic and citizenship education. In the benchmarking participant North Rhine-Westphalia (Germany), only specialist teachers have access to this type of training. Seven countries also offer this type of pre-service education to teachers teaching subjects not related to civic and citizenship education.

The national centers in 20 countries said that their countries provide some form of in-service training in civic and citizenship education for teachers of subjects related to this learning area (the exceptions were Denmark, Korea, the Netherlands, and Norway). Of these 20 countries, 11 were, according to the respective national centers, offering training to specialist teachers of civic and citizenship education, while the centers in another 13 countries advised that training is also available to teachers of subjects not related to civic and citizenship education.

The ICCS 2016 teacher questionnaire also included a set of questions administered only to target-grade teachers of subjects that each national context regarded as part of civic and citizenship education.[5] These questions included a question about the opportunities teachers have to participate in professional development courses on the following topics during their pre-service

4 We advise readers to treat comparisons with due caution given that school principals' perceptions are reported at the student level, while the teachers' perceptions pertain to the teacher population.

5 National centers were asked to identify those subjects.

Table 2.9: Percentages of teachers selecting different aims of civic and citizenship education as one of the three most important aims

Country	Promoting knowledge of social, political, and civic institutions	Promoting respect for and safeguard of the environment	Promoting the capacity to defend one's own point of view	Developing students' skills and competencies in conflict resolution	Promoting knowledge of citizens' rights and responsibilities	Promoting students' participation in the local community	Promoting students' critical and independent thinking	Promoting students' participation in school life	Supporting the development of effective strategies to reduce racism	Preparing students for future political engagement
Belgium (Flemish)†	19 (1.0) ▼	56 (1.3) △	42 (1.5) ▲	60 (1.5) ▲	27 (1.1) ▼	15 (0.8) ▽	62 (1.2)	22 (1.0)	16 (1.1) △	2 (0.4) ▽
Bulgaria	27 (1.7)	54 (1.9)	42 (1.6) ▲	44 (1.7)	50 (2.2) ▽	22 (1.5)	51 (2.0) ▽	40 (1.8) ▲	8 (1.2) ▽	7 (1.0)
Chile	42 (1.9) ▲	39 (1.6) ▼	23 (1.7)	48 (2.1)	67 (1.9) ▲	32 (1.8) ▲	52 (1.9) ▽	20 (1.9)	7 (1.3) ▽	16 (1.4) △
Chinese Taipei	28 (1.0)	56 (1.3) △	6 (0.7) ▼	60 (1.1) ▲	51 (1.3) ▽	14 (0.8) ▽	65 (1.1) △	15 (0.7) ▽	5 (0.5) ▽	2 (0.3) ▽
Colombia	41 (2.3) ▲	53 (2.3)	15 (1.9) ▽	75 (2.0) ▲	61 (2.1) △	36 (1.7) ▲	39 (2.3) ▼	27 (2.2) △	11 (1.9)	25 (2.1) ▲
Croatia	25 (1.3) ▽	50 (1.3)	30 (1.0) △	44 (1.2)	53 (1.1)	23 (0.9) △	59 (1.4)	16 (1.1) ▽	9 (0.6) ▽	5 (0.6) ▽
Dominican Republic	55 (2.9) ▲	48 (3.1)	17 (2.3) ▽	46 (3.2)	81 (2.2) ▲	21 (1.9)	44 (2.9) ▼	17 (1.6) ▽	10 (1.3)	14 (2.2) △
Finland†	19 (0.9) ▽	56 (1.8) △	15 (0.8) ▽	51 (1.1) △	30 (1.3) ▼	8 (0.6) ▼	82 (1.3) ▲	28 (0.9) △	15 (1.1) △	3 (0.4) ▽
Italy	37 (1.3) △	48 (1.2) ▽	12 (0.8) ▽	32 (1.2) ▼	69 (1.2) ▲	15 (0.8) ▽	62 (1.2)	14 (0.9) ▽	18 (1.0) △	4 (0.5) ▽
Latvia	28 (1.1)	40 (1.3) ▼	31 (1.5) △	29 (1.4) ▼	53 (1.8)	12 (0.8) ▽	65 (1.6) △	41 (1.5) ▲	2 (0.3) ▼	11 (0.8) △
Lithuania	19 (1.0) ▼	64 (1.3) ▲	28 (1.1) △	49 (1.1)	45 (1.4) ▼	40 (1.2) ▲	67 (1.3) △	39 (1.4) ▲	8 (0.7) ▽	5 (0.5) ▽
Malta	19 (1.6) ▼	60 (1.7) △	16 (1.7) ▽	32 (2.0) ▼	57 (2.2)	22 (1.7)	66 (1.8) △	22 (1.5)	15 (1.6)	4 (0.8) ▽
Mexico	19 (1.5) ▼	46 (1.7) ▽	10 (1.2) ▼	66 (1.5) ▲	70 (1.5) ▲	26 (1.4) △	44 (2.0) ▼	16 (1.3) ▽	4 (0.5) ▽	9 (1.2)
Norway	45 (2.3) ▲	39 (1.8) ▼	19 (1.3) ▽	44 (1.8)	36 (2.1) ▼	16 (1.2) ▽	74 (1.6) ▲	16 (1.4) ▽	19 (1.3) △	4 (0.6) ▽
Peru	31 (1.4)	59 (1.4) △	13 (1.2) ▽	38 (1.7) ▽	78 (1.2) ▲	21 (1.2)	50 (1.5) ▼	19 (1.4) ▽	11 (0.9)	14 (1.3) △
Slovenia	25 (1.2) ▽	55 (1.2) △	31 (1.2) △	46 (1.1)	47 (1.4) ▽	17 (0.9) ▽	69 (1.1) △	22 (1.1)	11 (0.7)	3 (0.5) ▽
Sweden	19 (1.3) ▽	44 (1.3) ▽	13 (1.0) ▽	28 (1.4) ▼	64 (1.6) △	2 (0.5) ▼	80 (1.1) ▲	15 (1.2) ▽	38 (1.4) ▲	6 (0.8) ▽
ICCS 2016 average	29 (0.4)	51 (0.4)	21 (0.3)	47 (0.4)	55 (0.4)	20 (0.3)	61 (0.4)	23 (0.3)	12 (0.3)	8 (0.3)
Countries not meeting sample participation requirements for the teacher survey										
Denmark	44 (2.7)	21 (1.7)	22 (1.9)	43 (2.2)	45 (2.4)	8 (1.6)	91 (1.5)	12 (1.9)	6 (1.3)	18 (1.9)
Estonia	43 (2.3)	27 (2.0)	25 (2.5)	43 (3.2)	63 (2.0)	23 (2.2)	73 (1.7)	22 (2.1)	6 (1.4)	8 (1.6)
Korea, Republic of	38 (1.3)	34 (1.9)	27 (1.5)	64 (1.4)	53 (1.7)	11 (0.9)	24 (1.4)	34 (1.5)	2 (0.4)	14 (1.0)
Netherlands	23 (1.3)	34 (1.5)	38 (1.5)	56 (1.6)	23 (1.2)	21 (1.2)	70 (1.6)	17 (1.1)	13 (1.2)	9 (0.8)
Russian Federation	33 (2.1)	53 (2.4)	35 (1.8)	43 (1.9)	64 (2.5)	22 (1.7)	36 (2.3)	29 (2.5)	10 (1.4)	18 (1.9)

National percentage
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
† Met guidelines for teacher sampling participation rates only after replacement schools were included.

Table 2.10: Civic and citizenship education in initial and in-service training of target-grade teachers as reported by the ICCS 2016 national contexts survey

Country	Civic and citizenship education mandatory part of preservice/initial teacher education?			In-service, continuing education, or professional development for civic and citizenship education offered?		
	Specialist teachers	Teachers of subjects *related* to civic and and citizenship education	Teachers of subjects *not related* to civic and citizenship education	Specialist teachers	Teachers of subjects *related* to civic and and citizenship education	Teachers subjects *not related* to civic and citizenship education
Belgium (Flemish)		●	●		●	●
Bulgaria		●			●	●
Chile		●			●	
Chinese Taipei	●	●		●	●	
Colombia				●	●	●
Croatia					●	●
Denmark		●	●			
Dominican Republic					●	
Estonia	●	●	●	●	●	●
Finland		●			●	
Hong Kong SAR				●	●	●
Italy		●		●	●	●
Korea, Republic of		●				
Latvia	●	●	●	●	●	●
Lithuania		●		●	●	●
Malta		●			●	●
Mexico	●	●	●	●	●	●
Netherlands		●				
Norway	●	●	●			
Peru	●	●		●	●	
Russian Federation	●	●		●	●	
Slovenia					●	
Sweden		●	●		●	●
Benchmarking participant						
North Rhine-Westphalia (Germany)	●			●	●	●

and/or in-service training: (a) human rights; (b) voting and elections; (c) the global community and international organizations; (d) the environment and environmental sustainability; (e) emigration and immigration; (f) equal opportunities for men and women; (g) citizens' rights and responsibilities; (h) the constitution and political systems; (i) responsible internet use (e.g. privacy, source reliability, social media); (j) critical and independent thinking; (k) conflict resolution; and (l) the European Union (for European countries only).

Table 2.11 shows the national percentages of teachers of civic and citizenship education who said they had opportunity to participate in training courses on topics related to this learning area. On average across participating countries, the highest percentages pertained to conflict resolution (65%), responsible internet use (61%), critical and independent thinking (61%), citizens' rights and responsibilities (59%), the environment and environmental sustainability (58%), and human rights (58%).

The results also showed considerable differences across countries in terms of the extent to which teachers said they had opportunities to engage in professional development relevant to teaching civic and citizenship education. Although in Croatia and Norway, for example, less than half of the teachers reported not having received training relevant to any of the topics, more than half of the teachers in Latvia and Peru indicated that they had participated in professional development for all of the topics included in this question.

Table 2.11: Teacher participation in training courses on topics related to civic and citizenship education

Country	Percentages of teachers reporting having participated in training courses on civic-related topics during pre-service and/or in-service training											
	Human rights	Voting and elections	The global community and international organizations	The environment and environmental sustainability	Emigration and immigration	Equal opportunities for men and women	Citizens' rights and and responsibilities	The constitution and political systems	Responsible internet use (e.g., privacy, source reliability, social media)	Critical and independent thinking	Conflict resolution	The European Union
Belgium (Flemish)†	36 (2.5) ▼	34 (2.1) ▼	32 (1.9) ▼	41 (2.0) ▼	33 (2.0) ▼	35 (2.0) ▼	36 (1.9) ▼	35 (1.9) ▼	56 (2.4) ▽	56 (2.0) ▽	54 (2.2)	35 (2.2) ▽
Bulgaria	43 (5.6) ▼	34 (5.5) ▼	41 (5.6)	40 (5.6) ▼	42 (4.8)	38 (4.8) ▼	51 (6.1)	45 (6.1)	41 (5.3) ▼	46 (5.3) ▼	66 (5.4)	47 (5.2)
Chile	41 (4.2) ▼	32 (4.1) ▼	23 (3.4) ▼	40 (4.4) ▼	24 (3.5) ▼	36 (3.7) ▼	42 (4.1) ▼	31 (4.1) ▼	41 (3.6) ▼	43 (4.3) ▼	56 (3.8) ▽	–
Chinese Taipei	87 (2.7) ▲	82 (3.4) ▲	63 (4.1) ▲	86 (2.8) ▲	42 (3.2)	93 (2.5) ▲	88 (2.9) ▲	80 (3.6) ▲	80 (3.1) ▲	80 (3.8) ▲	82 (3.0) ▲	–
Colombia	74 (4.1) ▲	82 (3.1) ▲	47 (2.7)	82 (2.4) ▲	49 (3.1)	71 (3.1) ▲	80 (2.2) ▲	67 (3.2) ▲	72 (2.8) ▲	75 (4.0) ▲	82 (2.2) ▲	–
Croatia	32 (1.4) ▼	17 (1.0) ▼	16 (1.1) ▼	28 (1.5) ▼	16 (1.2) ▼	23 (1.3) ▼	29 (1.5) ▼	19 (1.1) ▼	41 (1.5) ▼	32 (1.4) ▼	44 (2.2) ▼	20 (1.1) ▼
Dominican Republic	70 (5.0) ▲	68 (4.6) ▲	50 (5.6)	77 (3.9) ▲	57 (4.4) ▲	70 (5.7) ▲	76 (5.0) ▲	65 (5.9) ▲	68 (5.8)	69 (5.9)	75 (5.1) ▲	–
Finland†	46 (2.8) ▼	25 (2.1) ▼	41 (2.0)	60 (2.3)	34 (2.3) ▼	45 (3.0) ▽	46 (2.7) ▼	28 (2.1) ▼	63 (1.8)	67 (2.4) △	48 (1.9) ▼	32 (2.0) ▼
Italy	47 (2.2) ▼	18 (1.8) ▼	27 (2.0) ▼	49 (2.5) ▽	44 (2.4)	31 (2.2) ▼	43 (2.4) ▼	34 (2.2) ▼	62 (2.5)	36 (2.5) ▼	47 (2.7) ▼	33 (2.4) ▽
Latvia	87 (2.6) ▲	64 (4.2) ▲	77 (3.9) ▲	80 (3.0) ▲	64 (4.5) ▲	70 (3.9) ▲	89 (2.6) ▲	68 (4.1) ▲	86 (2.7) ▲	94 (1.4) ▲	94 (1.6) ▲	78 (3.2) ▲
Lithuania	59 (3.8)	46 (3.5)	59 (4.5) ▲	59 (3.0)	56 (3.7) ▲	43 (3.8) ▽	65 (4.0)	60 (4.0) ▲	66 (2.5)	72 (2.7) ▲	82 (3.1) ▲	78 (3.7) ▲
Malta	34 (4.5) ▼	11 (2.9) ▼	27 (4.3) ▼	42 (4.3) ▼	37 (4.4) ▽	49 (4.7)	46 (4.6) ▼	16 (3.2) ▼	62 (4.2)	48 (5.5) ▼	45 (5.1) ▼	22 (3.9) ▼
Mexico	85 (2.9) ▲	60 (4.4) ▲	49 (5.1)	76 (4.7) ▲	64 (5.8) ▲	82 (3.9) ▲	81 (4.3) ▲	57 (4.3)	66 (5.1)	72 (4.2) ▲	85 (3.4) ▲	–
Norway	38 (3.8) ▼	28 (2.5) ▼	38 (4.2)	32 (3.6) ▼	35 (2.8) ▼	32 (3.7) ▼	28 (3.1) ▼	39 (3.3) ▽	43 (3.9) ▼	35 (3.7) ▼	34 (3.0) ▼	28 (3.0) ▼
Peru	86 (3.1) ▲	89 (2.8) ▲	67 (3.2) ▲	89 (2.9) ▲	84 (3.1) ▲	91 (2.9) ▲	92 (2.4) ▲	80 (3.9) ▲	77 (3.2) ▲	87 (2.9) ▲	88 (3.3) ▲	–
Slovenia	65 (2.1) △	47 (2.8)	42 (2.5)	55 (2.4)	43 (2.5)	48 (2.6) ▽	63 (2.2)	64 (2.4) ▲	80 (1.5) ▲	75 (1.6) ▲	81 (1.6) ▲	59 (2.3) ▲
Sweden	50 (4.4)	44 (4.7)	54 (4.0) △	56 (4.3)	44 (4.3)	47 (4.3)	54 (4.2)	50 (4.3)	37 (3.7) ▼	49 (4.1) ▼	43 (3.8) ▼	40 (4.2)
Average ICCS 2016	58 (0.9)	46 (0.8)	44 (0.9)	58 (0.8)	45 (0.9)	53 (0.9)	59 (0.9)	49 (0.9)	61 (0.8)	61 (0.9)	65 (0.8)	43 (1.0)
Countries not meeting sample participation requirements for the teacher survey												
Denmark	61 (6.8)	69 (5.4)	65 (6.5)	50 (5.6)	48 (7.2)	52 (6.8)	75 (4.9)	77 (5.4)	34 (5.9)	75 (5.2)	56 (6.5)	63 (5.9)
Estonia	53 (6.9)	41 (5.9)	50 (7.9)	71 (5.6)	55 (7.3)	51 (7.7)	57 (9.3)	49 (7.4)	78 (6.3)	68 (5.8)	73 (4.9)	54 (9.2)
Korea, Republic of	54 (4.2)	32 (3.7)	35 (3.3)	45 (3.9)	28 (2.7)	54 (4.1)	52 (3.8)	37 (3.5)	69 (3.3)	49 (4.2)	61 (3.6)	
Netherlands	29 (2.8)	33 (2.6)	39 (2.6)	46 (3.1)	39 (3.0)	37 (2.9)	36 (3.2)	39 (2.8)	57 (2.8)	61 (2.2)	51 (2.7)	41 (2.8)
Russian Federation	94 (2.0)	93 (2.1)	90 (2.1)	90 (2.7)	86 (3.1)	89 (2.6)	95 (2.0)	96 (1.2)	90 (2.5)	89 (3.1)	91 (2.6)	

National percentage

▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
† Met guidelines for teacher sampling participation rates only after replacement schools were included.
– Not administered.

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CHAPTER 3:

Students' civic knowledge

Chapter highlights

Civic knowledge can be described across four levels of increasing complexity.

- Students working at Level D demonstrate familiarity with concrete, explicit content and examples relating to the basic features of democracy.
- Students working at Level C engage with the fundamental principles and broad concepts that underpin civics and citizenship.
- Students working at Level B demonstrate some specific knowledge and understanding of the most pervasive civic and citizenship institutions, systems, and concepts.
- Students working at Level A demonstrate a holistic knowledge and understanding of civic and citizenship concepts and demonstrate some critical perspective. (Figure 3.1)

Civic knowledge varied more within countries than across countries.

- The median range between the lowest five percent and the highest 95 percent of student civic knowledge scores within countries spanned more than three levels on the ICCS civic knowledge scale.
- The range of average civic knowledge scores across countries spanned two-and-a-half levels on the ICCS civic knowledge scale. (Table 3.9)

Civic knowledge has increased since 2009.

- Across the 18 countries that participated in ICCS 2009 and ICCS 2016, the proportion of students achieving at Level B and above on the civic knowledge scale increased from 61 percent to 67 percent. (Table 3.11)
- Eleven of these 18 countries recorded a statistically significant increase in average student civic knowledge. (Table 3.12)

Civic knowledge was associated with student gender.

- Female students demonstrated higher civic knowledge than male students.
- The average civic knowledge scores of female students was statistically significantly higher than that of male students in 19 of 21 countries.
- Across all countries, the difference in average civic knowledge scale scores between female and male students was equivalent to roughly one third of a level on the ICCS scale. (Table 3.13)

Socioeconomic status (SES), denoted by parental occupation, parental education, and number of books in the home, was significantly positively associated with student civic knowledge.

- In all countries, students in the high SES groups scored significantly higher than those in the lower SES groups on the civic knowledge scale. (Table 3.14)

Immigrant background and language background were associated with student civic knowledge. (Table 3.15)

- In 14 of 21 countries, students from immigrant families had statistically significantly lower civic knowledge scores than students from non-immigrant families.
- In 17 of 21 countries, students who reported mainly speaking the language of the ICCS test at home had statistically significantly higher civic knowledge scale scores than those who reported speaking another language at home.

Introduction

ICCS regards civic knowledge as fundamental to effective civic participation. Within the context of ICCS, civic knowledge refers not only to familiarity with the civic and citizenship content described in the ICCS 2016 assessment framework but also to the ability to apply relevant cognitive processes to this content (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016). Civic knowledge is important in all four of the framework's content domains.

We begin this chapter by describing the civic knowledge assessment instrument and the proficiency scale derived from the ICCS civic knowledge test and data. We follow this account with a description and discussion of the international student test results in ICCS 2016. We also look at the differences over time between these results and students' performance in those countries that participated in both ICCS 2009 and ICCS 2016. We conclude the chapter with an analysis of the associations between students' civic knowledge and background variables relating to students' gender, age, socioeconomic status, and immigrant and language backgrounds.

The content of this chapter relates to ICCS Research Question 2, which focuses on:

- The extent to which students' civic knowledge varies among and within countries;
- The associations between civic knowledge and student background; and
- Changes in students' civic knowledge between 2009 and 2016.

Assessing student knowledge

ICCS 2016 is the fourth IEA international study to include measurement of civic knowledge. The IEA Civic Education Study of 1971 included a 47-item multiple-choice test for 14-year-olds in nine countries (Torney, Oppenheim, & Farnen, 1975). The IEA CIVED survey, conducted in 1999, included a 38-item multiple-choice test for 14-year-old students in 28 countries (Torney-Purta, Lehmann, Oswald, & Schulz, 2001) and a 42-item test for 17- to 18-year-olds in 16 countries (Amadeo, Torney-Purta, Lehmann, Husfeldt, & Nikolova, 2002).

ICCS 2009 included a pool of 80 test items comprising 74 multiple-choice and six constructed-response items. Items were first allocated to clusters of between 10 and 17 items each. Each cluster was allocated to three test booklets but was placed so that it appeared once in each of the first, second, and third positions across the booklets. Each student completed one test booklet. ICCS 2016 also used this type of test design (balanced incomplete block design).

The ICCS 2016 civic knowledge test contained 88 items, but one item showed insufficient measurement properties to warrant inclusion in the final set of items for analysis. The remaining 87 items are the focus of this report. A small number of items were decontextualized questions of knowledge or understanding, but the majority of the items were presented in units. Each unit provided some brief contextual stimulus (an image or some text) that was followed by items relating to the context established by that stimulus. Seventy-eight items were multiple-choice and nine items were constructed-response.

We used data collected in ICCS 2009 to establish the ICCS civic knowledge proficiency scale. In order to report the student achievement data collected during ICCS 2016 on the existing ICCS proficiency scale, we included a set of 42 ICCS 2009 items that had not been made publicly available in the ICCS 2016 test. The remaining 45 items used in the ICCS 2016 analysis and reporting were newly developed for use in the 2016 test.

The ICCS test of civic knowledge covered the four content and two cognitive domains described in the ICCS assessment framework (Schulz et al., 2016). Each test item referenced one content domain and one cognitive domain. The assessment instrument thus covered content from all domains and reflected the different applications of that content. The proportions of items across the four content domains were:

- Domain 1 (civic society and systems): 40 percent
- Domain 2 (civic principles): 30 percent
- Domain 3 (civic participation): 20 percent
- Domain 4 (civic identities): 10 percent.

The proportions across the two cognitive domains were:

- Domain 1 (knowing): 25 percent
- Domain 2 (reasoning and applying): 75 percent.

Using the same approach to that employed with the 2009 test of civic knowledge, we grouped the test items into eight clusters of 11 items each. We then made sure that the clusters were balanced for reading load, item format, and coverage of assessment framework content. Each student completed one test booklet consisting of three clusters. In total, there were eight different test booklets, and each cluster appeared in three different booklets—once in each of the first, second, and third positions. This balanced rotation of items meant that the assessment instrument included a larger amount of assessment content than could be completed by any individual student. We adopted this approach to ensure broad coverage of the content of the ICCS assessment framework.

The ICCS civic knowledge reporting scale was developed in 2009, and we used the Rasch model (Rasch, 1960) to accomplish this work. The scale has a mean (the average score of countries participating in ICCS 2009) of 500 and a standard deviation of 100 for equally weighted national samples. In order to equate the 2016 data to the ICCS reporting scale, we used combined data from ICCS 2009 and 2016 and then applied the Rasch model. We used plausible value methodology with full conditioning to derive summary student achievement statistics. By applying this approach we were able to estimate the uncertainty inherent in the measurement process (von Davier, Gonzalez, & Mislevy, 2009). Descriptions of the scaling and equating procedures for test items will appear in the ICCS 2016 technical report (Schulz, Carstens, Losito, & Fraillon, forthcoming).

Developing the described scale of students' civic knowledge

Establishing the scale in ICCS 2009

When we established the ICCS described scale of civic knowledge in 2009, we considered the contents of test items together with their scaled difficulties derived from the data collected during the ICCS 2009 survey. We described the different civic and citizenship content and cognitive processes for each item and then ordered the items (from lowest to highest) according to their scaled difficulties. Analysis of the item content and relative difficulty allowed us to identify common themes of content and processes that we could use to characterize the ranges (levels) of the scale.

This process was an iterative one in which we varied the positions of the boundaries and reviewed the conceptual content at each of the resulting tentative levels until each of the eventual three levels showed not only clearly distinctive characteristics but also a meaningful progression from low to high achievement across all of the levels. The level boundaries were established at 395, 479, and 563 scale points. After completing this process, we synthesized the content of the item descriptors within the levels so as to describe the key content and process characteristics at each level of civic knowledge. We left the ICCS 2009 highest level (Level 3) unbounded at the top so that any score above 563 could be reported as falling within Level 3. We reported student scores under 395 scale points as 'Below Level 1'.

The proficiency levels represent a hierarchy of civic knowledge in terms of increasing sophistication of content knowledge and cognitive process. Increasing levels on the scale typically represent increasingly complex content and cognitive processes as they are demonstrated through student performance. However, it is important to note that all levels of this scale can include content related to both cognitive domains (*knowing* as well as *reasoning and applying*), and that the progression is not simply an extension from simple content knowledge at the bottom to reasoning and application at the top. The sophistication of demonstrable achievement assessed in any given item is a result of the interaction between the civic and citizenship content and the cognitive process applied to that content.

The scale broadly reflects hypothesized development from the concrete, familiar, and more mechanistic elements of civics and citizenship through to the wider policy and institutional processes that determine the shape of our civic communities. The scale is hierarchical in the sense that civic knowledge becomes more sophisticated as student achievement progresses up the scale. Although the scale does not describe a necessary sequence of learning, it does postulate that learning growth typically follows the sequence described by the scale. We constructed the scale according to the assumption that any given student can demonstrate achievement of the scale contents below his or her measured level of achievement.

Extending the scale in ICCS 2016

When planning instrument development for ICCS 2016, we decided to develop a larger number of items that were less difficult than those used in ICCS 2009. Our aim here was to obtain a more accurate measurement of the civic knowledge of students achieving at the lower end of the scale. Our approach was successful because it enabled more precise measures of students whose test scores were below 395 scale points as well as a description of student achievement in this region of the scale. The ICCS 2016 proficiency scale therefore includes a fourth level that spans achievement ranging from 311 to 394 scale points.

The labels assigned to the ICCS 2016 levels and future cycles of ICCS replace the labels used in ICCS 2009 (which were Level 3 to Below Level 1). The highest unbounded 2016 level (Level 3 in ICCS 2009) is now Level A, and the newly established bounded lower level is Level D. The position of the boundaries between Levels A and B (formerly Levels 3 and 2) and Levels B and C (formerly Levels 2 and 1) remain unchanged from ICCS 2009. The unbounded scale range beneath the lower boundary of Level D is now called "Below Level D."

The ICCS civic knowledge proficiency scale (Figure 3.1) includes descriptions of the scale's contents and the nature of the progression across the proficiency levels. For each proficiency level, examples of items illustrate the types of learning content and cognitive processes that students employ when responding to items from that level.

Students who achieve proficiency at Level D demonstrate familiarity with concrete, explicit content and examples relating to the basic features of democracy. They identify the intended outcomes of simple examples of rules and laws and recognize the explicit function of key civic institutions. They also recognize examples of respect for the rights of others, and they may see these rights as motivation for citizenship engagement. The key factors differentiating students' achievement at Level D from those at higher levels concern (a) students' demonstrated breadth of knowledge of the fundamental aspects of democracy and democratic institutions, and (b) students' capacity to engage with abstract concepts that extend beyond concrete, explicit examples of democratic principles and citizenship behaviors.

Students who achieve proficiency at Level C understand the fundamental principles and broad concepts that underpin civics and citizenship. Students operating at this level are familiar with some of the "big ideas" of civics and citizenship; they are generally able to accurately determine what

Figure 3.1: ICCS civic knowledge scale with examples

Level A: 563 score points and above

Students working at Level A make connections between the processes of social and political organization and influence, and the legal and institutional mechanisms used to control them. They generate accurate hypotheses on the benefits, motivations, and likely outcomes of institutional policies and citizens' actions. They integrate, justify, and evaluate given positions, policies, or laws based on the principles that underpin them. Students demonstrate familiarity with broad international economic forces and the strategic nature of active participation.

Students working at Level A, for example:

- Identify likely strategic aims of a program of ethical consumption
- Suggest mechanisms by which open public debate and communication can benefit society
- Suggest related benefits of widespread intercultural understanding in society
- Justify the separation of powers between the judiciary and the parliament
- Relate the principle of fair and equal governance to laws regarding disclosure of financial donations to political parties
- Evaluate a policy with respect to equality and inclusiveness
- Identify a reason for having limited parliamentary terms
- Identify the main feature of free market economies and multinational company ownership.

Level B: 479 to 562 score points

Students working at Level B demonstrate familiarity with the broad concept of representative democracy as a political system. They recognize ways in which institutions and laws can be used to protect and promote a society's values and principles. They recognize the potential role of citizens as voters in a representative democracy, and they generalize principles and values from specific examples of policies and laws (including human rights). Students demonstrate understanding of the influence that active citizenship can have beyond the local community. They generalize the role of the individual active citizen to broader civic societies and the world.

Students working at Level B, for example:

- Relate the independence of a statutory authority to maintenance of public trust in decisions made by the authority
- Generalize the economic risk to developing countries of globalization from a local context
- Identify that informed citizens are better able to make decisions when voting in elections
- Relate the responsibility to vote with the representativeness of a democracy
- Describe the main role of a legislature/parliament
- Define the main role of a constitution
- Recognize the relationship between the government and the military in a democracy
- Recognize the danger of government-controlled media
- Relate the responsibility for environmental protection to the actions of individual people.

Level C: 395 to 478 score points

Students working at Level C demonstrate familiarity with equality, social cohesion, and freedom as principles of democracy. They relate these broad principles to everyday examples of situations in which protection of or challenge to the principles are demonstrated. Students also demonstrate familiarity with fundamental concepts of the individual as an active citizen: they recognize the necessity for individuals to obey the law; they relate individual courses of action to likely outcomes; and they relate personal characteristics to the capacity of an individual to effect civic change.

Students working at Level C, for example:

- Relate freedom of the press to the accuracy of information provided to the public by the media
- Justify voluntary voting in the context of freedom of political expression
- Identify that democratic leaders should be aware of the needs of the people over whom they have authority
- Recognize that the UN Universal Declaration of Human Rights is intended to apply to all people
- Generalize about the value of the internet as a communicative tool in civic participation
- Recognize the value of being an informed voter
- Recognize that governments have a responsibility to all citizens
- Recognize the civic motivation behind an act of ethical consumerism.

Level D: 311 to 394 score points

Students working at Level D recognize explicit examples representing basic features of democracy. They identify the intended outcomes of simple examples of rules and laws and recognize the motivations of people engaged in activities that contribute to the common good.

Students working at Level D, for example:

- Recognize national defense is a key role of the military
- Relate the right to medical help to the motivation to work for an aid organization
- Recognize the relationship between the secret ballot and freedom of voter choice
- Recognize that volunteers provide a contribution to communities
- Recognize that all people are equal before the law.

is fair or unfair in familiar contexts and to demonstrate some knowledge of the basic operations of civic and civil institutions. Students working at Level C also typically demonstrate awareness of citizens' capacity to exert influence in their own local context. The key factors differentiating students' achievement at Level C from that at higher levels relate to (a) the degree of specificity of students' knowledge, and (b) the amount of mechanistic rather than relational thinking that students express in regard to the operations of civic and civil institutions.

Students working at Level B typically demonstrate some specific knowledge and understanding of the most pervasive civic and citizenship institutions, systems, and concepts. These students generally understand the interconnectedness between civic and civil institutions, and the processes and systems through which they operate, rather than only being able to identify the most obvious characteristics of these institutions. Students at Level B are also able to demonstrate understanding of the connection between principles or key ideas and how these operate in policy or practice in everyday familiar contexts. They can relate some formal civic processes to their everyday experience and are aware that the potential sphere of influence (and responsibility) exerted by active citizens extends beyond their own local context. One key factor differentiating Level B from Level C is the degree to which students are able to use knowledge and understanding to evaluate and justify policies and practices.

Students working at Level A demonstrate a more integrated rather than a segmented knowledge and understanding of civic and citizenship concepts. They make evaluative judgments about the merits of policies and behaviors from given perspectives, are able to justify positions or propositions, and hypothesize outcomes based on their understanding of civic and citizenship systems and practices. Students working at Level A demonstrate understanding of active citizenship practice as a means to an end rather than as a more "automatic response" in a given context. These students are thus able to evaluate active citizenship behaviors in light of their desired outcomes.

Sample ICCS test items

To provide a clearer understanding of the nature of the ICCS 2016 test and civic knowledge scale, we present eight sample items in this chapter. These items not only indicate the types and range of questions that the ICCS international test required students to answer but also illustrate the responses corresponding to the proficiency levels of the ICCS civic knowledge scale. The data for each sample item in the analysis (including calculation of the ICCS average) are drawn only from those countries that met the ICCS 2016 sample participation, test administration, and coding requirements for that item.

Each sample item is presented with the national average percentages of students who answered the item correctly. The correct response to each item is indicated with an asterisk (*) at the end of the relevant multiple-choice option. All multiple-choice items in ICCS were coded as either no credit (zero points) for an incorrect response or full credit (one point) for the correct response. The set of sample items includes one constructed-response item (sample item 7). This item is presented together with a summary scoring guide and the percentages of students who achieved full credit (Code 2) and partial credit (Code 1) on the item.

Sample item 1: Below Level D

Sample item 1 (Table 3.1), located *below* Level D on the ICCS civic knowledge scale, was the easiest item in the ICCS 2016 test. It required students to recognize the reason why education is considered a human right. While students can find it difficult to appreciate the definitional nuances associated with human rights, they were presented in this case with a concrete and familiar example (education) and required to recognize an associated justification. These two factors, taken together, contributed to the relative ease with which students could answer the question. Sample item 1 relates to the *equity* sub-domain of content domain 2 (civic principles) and to the *illustrate with*

Table 3.1: Sample item 1 with percentage correct by country

Everyone has the right to education. Education shall be free… and compulsory.
The Universal Declaration of Human Rights

ICCS civic knowledge scale: Below Level D

Why is education considered a human right?

- Because children enjoy going to school and spending time with their friends.
- Because education provides jobs for lots of teachers.
- Because children can be in school while their parents are working.
- Because education develops the skills people need to participate in their communities.*

Country	Percentage correct response	
Belgium (Flemish)	95	(0.8)
Bulgaria	88	(1.6)
Chile	86	(1.1)
Chinese Taipei	95	(0.6)
Colombia	92	(0.8)
Croatia	97	(0.7)
Denmark†	96	(0.5)
Dominican Republic	68	(1.8)
Estonia[1]	98	(0.4)
Finland	97	(0.5)
Italy	96	(0.6)
Latvia[1]	91	(1.3)
Lithuania	97	(0.5)
Malta	87	(0.9)
Mexico	88	(1.1)
Netherlands†	96	(1.0)
Norway (9)[1]	95	(0.5)
Peru	91	(0.8)
Russian Federation	95	(0.8)
Slovenia	94	(0.8)
Sweden[1]	95	(0.6)
ICCS 2016 average	**92**	**(0.2)**
Countries not meeting sample participation requirements		
Hong Kong SAR	84	(1.8)
Korea, Republic of[2]	90	(1.1)
Benchmarking participant not meeting sample participation requirements		
North Rhine-Westphalia (Germany)[1]	–	–

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
\- No comparable data available.

examples process of cognitive domain 1 (knowing) of the ICCS assessment framework. On average across all countries, 92 percent of students achieved full credit on this item. The percentages across countries ranged from 68 to 98 percent.

Sample items 2 and 3: Level D

Sample items 2 and 3 are located in Level D on the ICCS civic knowledge scale. Sample item 2 (Table 3.2) required students to recognize, through an example, the principle that the law applies equally to all people. This principle is a fundamental aspect of the rule of law and is a foundational aspect for further learning and higher-order thinking in the civic and citizenship domain. Sample item 2 relates to the *rule of law* sub-domain of content domain 2 (civic principles) and to the *illustrate with examples* process of cognitive domain 1 (knowing). On average across all countries, 89 percent of students, on average, achieved full credit on this item. The percentages across countries ranged from 64 to 97 percent.

Table 3.2: Sample item 2 with percentage correct by country

A government minister in <Exland> has been caught speeding in his car. He received a fine for breaking the road laws.

ICCS civic knowledge scale: Level D

Why does the minister have to pay the fine?

- Because ministers have enough money to pay the fines.
- The law treats everyone as equal.*
- Because he wants people to vote for him again.
- Because the police can arrest him if he fails to pay the fine.

Country	Percentage correct response
Belgium (Flemish)	95 (0.7)
Bulgaria	82 (1.6)
Chile	83 (0.8)
Chinese Taipei	91 (0.8)
Colombia	88 (1.0)
Croatia	95 (0.6)
Denmark†	96 (0.4)
Dominican Republic	64 (1.5)
Estonia[1]	95 (0.8)
Finland	97 (0.5)
Italy	96 (0.7)
Latvia[1]	88 (1.3)
Lithuania	92 (1.0)
Malta	90 (0.8)
Mexico	79 (1.1)
Netherlands†	93 (1.0)
Norway (9)[1]	93 (0.5)
Peru	85 (0.9)
Russian Federation	92 (0.9)
Slovenia	90 (1.0)
Sweden[1]	93 (0.7)
ICCS 2016 average	**89 (0.2)**

Countries not meeting sample participation requirements

Hong Kong SAR	88 (1.4)
Korea, Republic of[2]	95 (0.8)

Benchmarking participant not meeting sample participation requirements

North Rhine-Westphalia (Germany)	95 (1.2)

Notes:

* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.

Sample item 3 (Table 3.3) required students to recognize the capacity of governments to use workplace laws as a means of protecting workers' wellbeing. Students evaluated the relative feasibility of a set of possible government interventions presented within the context of students' understanding of the role of government in democratic societies. The item relates to the *state institutions* sub-domain of content domain 1 (civic society and systems) and the *evaluate* process in cognitive domain 2 (reasoning and analyzing) of the ICCS assessment framework. The ability to evaluate alternative actions set within a familiar and explicit civic and citizenship context is a foundational aspect of civic knowledge. On average across all countries, 85 percent of students achieved full credit on this item. The percentages across countries ranged from 60 to 95 percent.

Table 3.3: Sample item 3 with percentage correct by country

Many people in noisy workplaces in <Exland> have had their hearing damaged by the noise.

ICCS civic knowledge scale: Level D

What is the most reasonable action the government could take to deal with the problem of noisy workplaces?

- Immediately close down all noisy workplaces
- Give money to the workers to help them find jobs in quieter workplaces
- Introduce laws stating that employers must protect workers from noise*
- Arrest all owners of noisy workplaces

Country	Percentage correct response
Belgium (Flemish)	87 (1.2)
Bulgaria	86 (1.6)
Chile	80 (1.1)
Chinese Taipei	91 (0.8)
Colombia	86 (1.1)
Croatia	91 (1.1)
Denmark†	88 (0.9)
Dominican Republic	60 (1.5)
Estonia[1]	90 (1.0)
Finland	95 (0.8)
Italy	80 (1.3)
Latvia[1]	91 (1.1)
Lithuania	88 (1.2)
Malta	81 (1.2)
Mexico	84 (1.1)
Netherlands†	87 (1.3)
Norway (9)[1]	92 (0.7)
Peru	60 (1.3)
Russian Federation	91 (0.7)
Slovenia	90 (1.0)
Sweden[1]	90 (1.4)
ICCS 2016 average	**85 (0.2)**
Countries not meeting sample participation requirements	
Hong Kong SAR	85 (1.6)
Korea, Republic of[2]	81 (1.4)
Benchmarking participant not meeting sample participation requirements	
North Rhine-Westphalia (Germany)[1]	93 (1.0)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.

Sample item 4: Level C

Sample item 4 (Table 3.4) required students to associate the need for accuracy of information with journalists' independence from external control. Because the focus of the item is on the extent of freedom individuals have to collect and report information, the item relates to the *freedom* sub-domain of content domain 2 (principles) and the *generalize* process in cognitive domain 2 (reasoning and analyzing) of the ICCS assessment framework. Sample item 4 thus illustrates a broad familiarity with the concept of freedom. On average across all countries, 75 percent of students achieved full credit on this item. The percentages across countries ranged from 56 to 87 percent.

Table 3.4: Sample item 4 with percentage correct by country

ICCS civic knowledge scale: Level C

Why is it important that journalists are freely able to research and report the news?

- It builds trust in the country's government.
- It helps journalists to provide accurate information to the public.*
- It ensures that there are enough journalists to report all news events.
- It makes sure that no individual journalist is paid too much money for their work.

Country	Percentage correct response
Belgium (Flemish)	77 (1.3)
Bulgaria	78 (1.6)
Chile	66 (1.3)
Chinese Taipei	81 (1.2)
Colombia	66 (1.4)
Croatia	87 (1.0)
Denmark†	78 (1.1)
Dominican Republic	56 (1.3)
Estonia[1]	79 (1.5)
Finland	81 (1.5)
Italy	84 (1.1)
Latvia[1]	76 (1.5)
Lithuania	71 (1.4)
Malta	71 (1.3)
Mexico	61 (1.5)
Netherlands†	66 (1.6)
Norway (9)[1]	79 (1.0)
Peru	70 (1.4)
Russian Federation	81 (1.4)
Slovenia	82 (1.3)
Sweden[1]	77 (1.7)
ICCS 2016 average	**75 (0.3)**
Countries not meeting sample participation requirements	
Hong Kong SAR	76 (1.6)
Korea, Republic of[2]	78 (1.5)
Benchmarking participant not meeting sample participation requirements	
North Rhine-Westphalia (Germany)	79 (1.5)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Sample item 5: Level B

Sample item 5 (Table 3.5) required students to recognize a justification for voting from an implicit democratic perspective. While achievement at the lower levels of the ICCS proficiency scale reflects explicit representations of democracy and democratic process, sample item 5 is an example of achievement at Level B because students needed to recognize and apply democratic principles to a decision-making context despite democracy not being explicitly mentioned in the item. The item relates to the *decision-making* sub-domain of content domain 3 (civic participation) and to the *illustrate with examples* process of cognitive domain 1 (knowing) of the ICCS assessment framework. On average across all countries, 59 percent of students achieved full credit on this item. The percentages across countries ranged from 21 to 82 percent.

Table 3.5: Sample item 5 with percentage correct by country

Members of a youth club want to choose a leader. One member offers to be the leader, but club members decide to vote to elect a leader.

ICCS civic knowledge scale: Level B

What is the **best** reason for the club to elect the leader by a vote rather than choosing a person who offers to be the leader?

- Voting enables people to hold a second vote if they disagree with the outcome.
- Voting is the fastest way to decide who should be the leader.
- Voting enables every member of the club to participate in choosing the leader.*
- Voting ensures that every member of the club will be happy with the choice of leader.

Country	Percentage correct response
Belgium (Flemish)	71 (2.0)
Bulgaria	58 (1.6)
Chile	50 (1.1)
Chinese Taipei	58 (1.3)
Colombia	35 (1.0)
Croatia	56 (1.8)
Denmark†	80 (1.2)
Dominican Republic	21 (1.3)
Estonia[1]	63 (1.7)
Finland	82 (1.3)
Italy	66 (1.4)
Latvia[1]	65 (1.7)
Lithuania	47 (1.6)
Malta	60 (1.5)
Mexico	30 (1.4)
Netherlands†	67 (2.0)
Norway (9)[1]	65 (1.3)
Peru	49 (1.4)
Russian Federation	68 (1.6)
Slovenia	71 (1.6)
Sweden[1]	68 (1.9)
ICCS 2016 average	**59 (0.3)**
Countries not meeting sample participation requirements	
Hong Kong SAR	56 (1.8)
Korea, Republic of[2]	54 (1.4)
Benchmarking participant not meeting sample participation requirements	
North Rhine-Westphalia (Germany)	66 (2.4)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.

Sample items 6, 7, and 8: Levels C, B, and A

Sample items 6 and 7 (shown in Table 3.6) form a unit dealing with the concept of misuse of power. Sample item 6 (shown in the unshaded section of Table 3.6) provided students with an introduction to the concept of power misuse and then required them to recognize an example of that misuse. The item is an example of achievement at Level C on the ICCS proficiency scale because students needed to recognize an explicit example of misuse of power. Example item 6 relates to the *rule of law* sub-domain of content domain 2 (civic principles) and to the *illustrate with examples* process of cognitive domain 1 of the ICCS assessment framework. On average across all countries, 73 percent of students achieved full credit on this item. The percentages across countries ranged from 41 to 89 percent.

Sample item 7, a constructed-response item, appears again in Table 3.7, but this time with a summary of the scoring guide for the item. The ICCS civic knowledge test instrument included nine constructed-response items. Expert scorers in each country scored students' responses to these items. ICCS ensured that all scorers were trained to the international standards established for ICCS as part of the centralized international scorer training program that ICCS ran for experts responsible for scorer training and scoring within each country.[1] The scoring guide allowed for

1 Two different scorers independently scored about 100 booklets per country in order to assess the inter-rater agreement per booklet. The only data included in the analysis were those from constructed items with an inter-rater agreement of at least 60 percent.

Table 3.6: Sample items 6 (unshaded) and 7 (shaded) with percentage correct by country for sample item 6

Misuse of power is when a person who holds a position of authority uses their power unfairly or improperly.

ICCS civic knowledge scale: Level C

Which of the following examples best shows misuse of power?

- A political leader speaks out in the media against a proposed law.
- A political leader employs people only if they have donated money to her party.*
- A police officer arrests someone who has broken the law.
- A group of environmental activists organizes a protest outside the <parliament>.

In a democracy, what can be done to prevent political leaders misusing their power?

Write **two different** things that can be done.

1 _____

2 _____

Country	Percentage correct response
Belgium (Flemish)	77 (1.9)
Bulgaria	68 (2.3)
Chile	73 (1.3)
Chinese Taipei	78 (1.3)
Colombia	72 (1.5)
Croatia	81 (1.2)
Denmark†	84 (1.0)
Dominican Republic	41 (1.8)
Estonia[1]	81 (1.5)
Finland	89 (1.0)
Italy	68 (1.5)
Latvia[1]	72 (1.6)
Lithuania	76 (1.3)
Malta	67 (1.4)
Mexico	73 (1.5)
Netherlands†	82 (1.7)
Norway (9)[1]	78 (0.9)
Peru	51 (1.4)
Russian Federation	75 (1.5)
Slovenia	68 (1.6)
Sweden[1]	77 (1.2)
ICCS 2016 average	**73 (0.3)**
Countries not meeting sample participation requirements	
Hong Kong SAR	75 (1.9)
Korea, Republic of[2]	80 (1.4)
Benchmarking participant not meeting sample participation requirements	
North Rhine-Westphalia (Germany)	73 (1.9)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

the allocation of 0 (no credit), 1 (partial credit), or 2 (full credit) for seven of the nine constructed-response items. Table 3.7 shows the percentages of students who achieved partial credit and full credit. The full credit response (two points) is located in Proficiency Level A of the ICCS civic knowledge scale, and the partial credit (one point) response category is located in Proficiency Level B of the scale.

Sample item 7 relates to the *legislatures/parliaments* sub-domain. It also relates to the concept of *power/authority* of the first content domain (civic society and systems) and to the *describe* process in the first cognitive domain (knowing) of the ICCS assessment framework. One of the advantages of including the constructed-response item format in some of the ICCS items was that it provided students with opportunity to demonstrate knowledge and understanding relating to multifaceted civic concepts.

Sample item 7 has eight different categories of response worthy of credit. Students who were able to generate responses meeting the standards in any two categories were awarded full credit (two score points) on this item, thus positioning their responses at Proficiency Level A on the ICCS civic knowledge scale. Students who could provide only one response deemed worthy of a credit

Table 3.7: Sample item 7 with summary scoring guide and percentage correct by country

In a democracy, what can be done to prevent political leaders misusing their power?

Write **two different** things that can be done.

1 _____

2 _____

Scoring Guide

Code 2
ICCS civic knowledge scale: Level A

Refers to methods/mechanisms from **two different categories** of the categories listed below.

1. Separation of powers/laws that limit what people in positions of authority can do/checks and balances on process.
2. Rule of law/laws enforced against political leaders.
3. Transparency (e.g. an independent press/freedom of the press/ freedom of information.
4. Freedom of speech/allowing criticism of the actions of political leaders.
5. The right to take political action (e.g. public protest, formation of pressure groups).
6. Elections (people can choose not to vote for a party that is seen misusing power).
7. Education for public.
8. Education for political leaders including providing advice (may include modelling by other leaders).

Code 1
ICCS civic knowledge scale: Level A

Refers only to methods/mechanisms from **one** of the listed categories (including responses **in which different methods/ mechanisms from the same category** are provided.

Country	Percentage at least 1 point	Percentage 2 points only
Belgium (Flemish)	82 (1.7)	39 (1.7)
Bulgaria	55 (2.1)	16 (1.3)
Chile	48 (1.4)	13 (0.8)
Chinese Taipei	86 (1.4)	57 (1.6)
Colombia	71 (1.4)	29 (1.2)
Croatia	81 (1.3)	37 (1.8)
Denmark†	79 (1.2)	38 (1.5)
Dominican Republic	–	–
Estonia[1]	56 (1.6)	19 (1.4)
Finland	68 (1.6)	27 (1.5)
Italy	60 (1.5)	19 (1.1)
Latvia[1]	61 (2.0)	16 (1.2)
Lithuania	55 (2.2)	20 (1.7)
Malta	41 (1.4)	11 (0.7)
Mexico	70 (1.2)	28 (1.2)
Netherlands†	76 (1.9)	33 (2.1)
Norway (9)[1]	69 (1.2)	23 (1.0)
Peru	47 (1.5)	14 (1.0)
Russian Federation	79 (1.8)	35 (2.1)
Slovenia	67 (1.7)	29 (1.7)
Sweden[1]	76 (1.4)	37 (1.5)
ICCS 2016 average	**66 (0.4)**	**27 (0.3)**
Countries not meeting sample participation requirements		
Hong Kong SAR	67 (2.8)	22 (1.6)
Korea, Republic of[2]	78 (1.4)	33 (2.1)
Benchmarking participant not meeting sample participation requirements		
North Rhine-Westphalia (Germany)[1]	62 (2.2)	20 (2.3)

Notes:
* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.
- No comparable data available.

response were awarded partial credit (one score point), thus locating their response at Proficiency Level B on the scale.

The introductory stimulus presented in the first part of the unit (see sample item 6 in Table 3.6) provided students with a working definition of the misuse of power. In sample item 7, students able to provide more than one credit-worthy response demonstrated knowledge of at least two different ways of preventing misuse of power. The rationale behind interpreting responses to this item is that knowledge of more than one facet of a multifaceted concept is necessary to formulate effective arguments based on different perspectives on the issue. While the item itself does not require students to formulate a complex argument, it does require them to demonstrate the capacity to identify aspects of the content necessary for building a complex argument. On average across all countries, 27 percent of students were able to achieve full credit on this item. The percentages across countries ranged from 11 to 57 percent.

Students achieving partial credit on sample item 7 were able to identify any one of the eight different categories listed in the scoring guide. Because partial credit denotes students' awareness of this concept from a single perspective, it is indicative of a Level B standard of proficiency on the ICCS civic knowledge scale. On average across all countries, 66 percent of students were able to achieve *at least* partial credit on this item. The range of percentages across all countries was 41 to 86 percent.

Sample item 8 (Table 3.8), a multiple-choice item, required students to identify that the need for political parties to show they are not unduly influenced by donors can provide justification for laws requiring the disclosure of donors' identities. This item, located at Level A on the ICCS proficiency scale, is an example of students making connections between a political process and the laws used to regulate it. The item relates to the *rule of law* sub-domain of content domain 2 (civic principles) and the *evaluate* process in cognitive domain 2 (reasoning and analyzing) of the ICCS assessment framework. On average across all countries, 43 percent of students correctly responded to this item. The percentages across countries ranged from 20 to 83 percent.

Table 3.8: Sample item 8 with percentage correct by country

Individuals or groups sometimes give money to political parties as donations. Some countries have laws that require political parties to give the public access to information about donations to parties.

ICCS civic knowledge scale: Level A

Why do countries have these laws?

- The laws encourage people to vote for the political parties that receive fewer donations.
- The laws help the public to decide which party is likely to win the next election.
- The laws encourage more people to join the wealthy political parties.
- The laws discourage political parties from favoring the people who make the donations.*

Country	Percentage correct response
Belgium (Flemish)	36 (2.1)
Bulgaria	38 (2.0)
Chile	34 (1.2)
Chinese Taipei	83 (1.0)
Colombia	37 (1.3)
Croatia	46 (1.7)
Denmark†	62 (1.4)
Dominican Republic	27 (1.4)
Estonia[1]	50 (1.7)
Finland	59 (1.5)
Italy	20 (1.1)
Latvia[1]	28 (1.4)
Lithuania	41 (1.8)
Malta	42 (1.4)
Mexico	25 (1.3)
Netherlands†	40 (1.8)
Norway (9)[1]	68 (1.0)
Peru	24 (1.2)
Russian Federation	47 (2.1)
Slovenia	43 (1.5)
Sweden[1]	50 (1.5)
ICCS 2016 average	**43 (0.3)**
Countries not meeting sample participation requirements	
Hong Kong SAR	67 (2.4)
Korea, Republic of[2]	–
Benchmarking participant not meeting sample participation requirements	
North Rhine-Westphalia (Germany)[1]	51 (2.1)

Notes:

* Correct response.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

Each of the example items was located at those points on the ICCS civic knowledge scale where a student had a 62 percent chance of answering the item correctly (Figure 3.2).[2] For example, a student with a measured ability of 443 scale points would have had a 62 percent probability of correctly answering sample item 4. The same student would have had a less than 62 percent probability of correctly answering sample items 5, 6, 7 (for partial or full credit), and 8, and a greater than 62 percent probability of correctly answering sample items 1, 2, and 3.

If a student attains a measured proficiency within a given level on the ICCS civic knowledge scale, we can be confident that he or she would have correctly answered at least half of the items spanning the level.[3] As a consequence, we can assume that the description of achievement for any given level is broadly applicable to any student with a measured proficiency within the level, regardless of where the student's proficiency is located within that level.

The civic knowledge scale recognizes the relative difficulty of items and the content and cognitive processes they are intended to represent (Figure 3.2). Items assessing students' reasoning and analytical abilities are not necessarily more difficult than those that assess knowing. Question difficulty results from a combination of two factors: (i) how familiar a student is with the concepts inherent in that question, and (ii) the type of cognitive processing that the student needs to engage in to correctly answer the question. As is evident from Figure 3.2, relatively simple processing of complex content can be similar to the proficiency needed for complex processing of familiar content.

Comparison of civic knowledge across countries

Average civic knowledge scores across countries

The average score on the reporting scale developed at the time of ICCS 2009 was set at 500 and the standard deviation at 100. This score and its standard deviation were established for all participating countries through the use of equally weighted national samples. The average score of the ICCS 2016 countries was 517 scale points (readers should note the differences in the composition of the group of countries participating across both surveys), and the standard deviation was 101 scale points for all country data with equally weighted national samples.

In ICCS 2016 the average country scores on the civic knowledge scale of 19 of 21 countries ranged from 467 to 586 scale points (approximately 1.2 international standard deviations), and the national averages of two countries, Peru (438 scale points) and the Dominican Republic (381 scale points), were substantially below 467 scale points (Table 3.9). The distribution of scores also varied across countries. This pattern can be seen graphically in Table 3.9, where the length of the bars shows the distribution of student scores for each country. The spread appeared to be unrelated to the average scale score across countries.

Nineteen countries recorded average scale scores statistically significantly different from the ICCS 2016 average of 517 scale points. The two exceptions were Lithuania and the Netherlands. Eight countries had national averages that were significantly below the ICCS 2016 average; 11 countries had national averages that were significantly higher. The difference between the bottom quartile and the top quartile (that is, the area covering the middle half of the averages for countries) was 61 scale points.

2 Scale descriptions were developed using a response probability of 0.62, while initial item calibration assumed a response probability of 0.5. See the ICCS 2016 technical report for more detailed information (Schulz et al., forthcoming).

3 This is a result of a combination of the response probability of 0.62 established for reporting student achievement and the level width of 84 scale points.

Figure 3.2: Location of example items on the civic knowledge scale

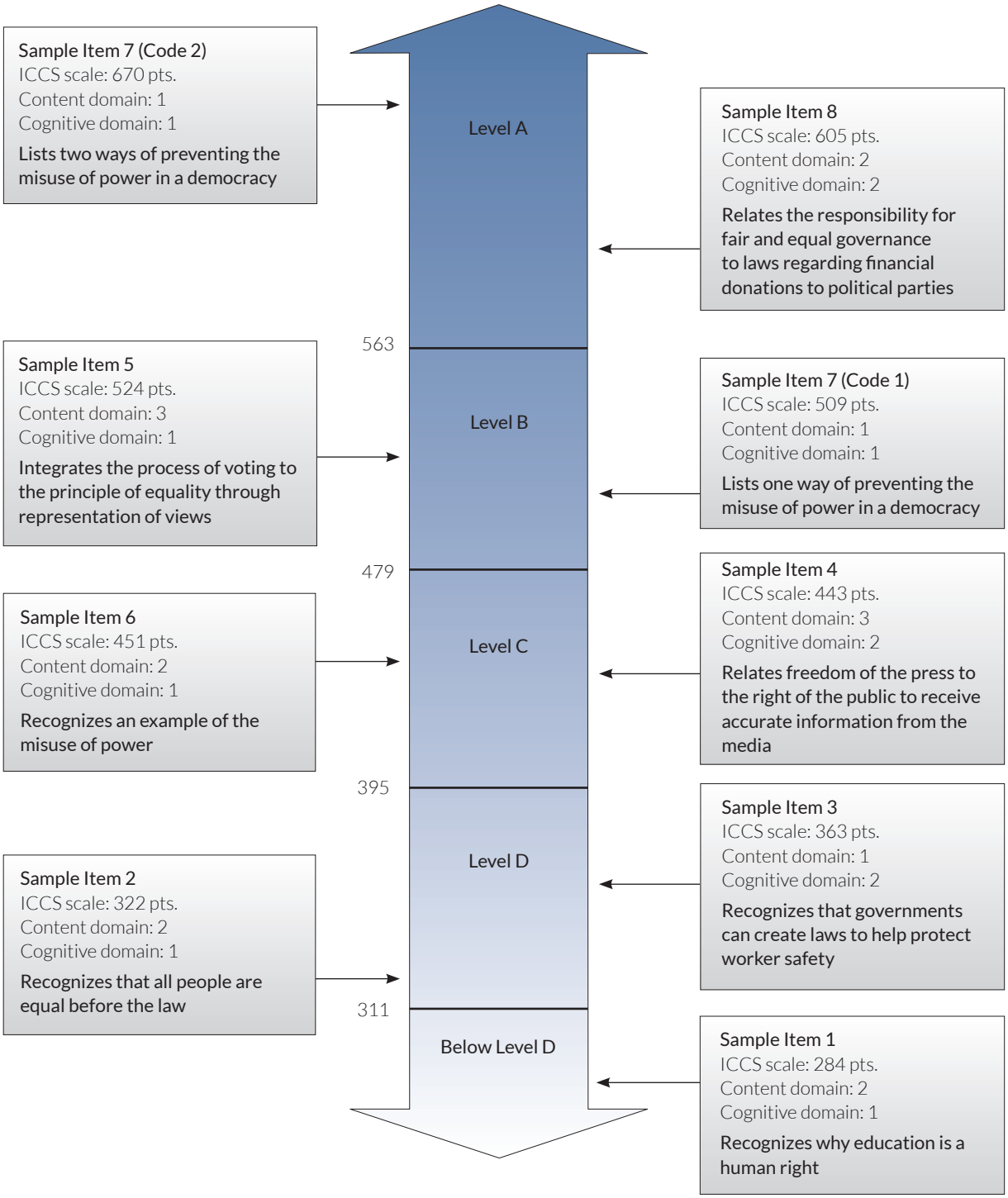
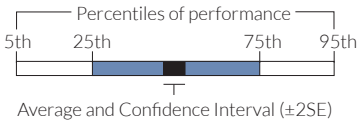


Table 3.9: Distributions of civic knowledge

Country	Civic knowledge				
	Years of schooling	Average age	250 350 450 550 650 750	Average scale score	HDI
Denmark†	8	14.9		586 (3.0) ▲	0.93
Chinese Taipei	8	14.1		581 (3.0) ▲	0.88[3]
Sweden[1]	8	14.7		579 (2.8) ▲	0.91
Finland	8	14.8		577 (2.3) ▲	0.90
Norway (9)[1]	9	14.6		564 (2.2) ▲	0.95
Estonia[1]	8	14.9		546 (3.1) ▲	0.87
Russian Federation	8	14.8		545 (4.3) ▲	0.80
Belgium (Flemish)	8	13.9		537 (4.1) ▲	0.90
Slovenia	8	13.8		532 (2.5) ▲	0.89
Croatia	8	14.6		531 (2.5) ▲	0.83
Italy	8	13.8		524 (2.4) ▲	0.89
Netherlands†	8	14.0		523 (4.5)	0.92
Lithuania	8	14.7		518 (3.0)	0.85
Latvia[1]	8	14.8		492 (3.1) ▼	0.83
Malta	9	13.8		491 (2.7) ▼	0.86
Bulgaria	8	14.7		485 (5.3) ▼	0.79
Chile	8	14.2		482 (3.1) ▼	0.85
Colombia	8	14.6		482 (3.4) ▼	0.73
Mexico	8	14.1		467 (2.5) ▼	0.76
Peru	8	14.0		438 (3.5) ▼	0.74
Dominican Republic	8	14.2		381 (3.0) ▼	0.72
ICCS 2016 average		**14.4**	Below D D C B A	**517 (0.7)**	
			Proficiency Level		
Countries not meeting sample participation requirements					
Hong Kong SAR	8	13.9		515 (6.6)	0.92
Korea, Republic of[2]	8	14.0		551 (3.6)	0.90
Benchmarking participant not meeting sample participation requirements					
North Rhine-Westphalia (Germany)[1]	8	14.3		519 (2.7)	0.93



▲ Achievement significantly higher than international average

▼ Achievement significantly lower than international average

Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.
3 Data estimated for 2014. Source: http://focustaiwan.tw/news/asoc/(201409180039.aspx/[20/04/17].

We observed considerable variation in students' civic knowledge scores within countries. Across countries, the median variation between the bottom five percent and the top 95 percent of civic knowledge scores was 275 scale points, equivalent to a span of more than three levels on the ICCS civic knowledge scale. The pairwise comparisons of country achievement in Appendix Table E.1 indicate significant differences in civic knowledge between individual countries.

Average civic knowledge scores across countries

Table 3.9 also shows the percentages of students at each proficiency level of the civic knowledge scale for each country. We have presented the countries in descending order according to the percentage of students with scores that positioned them at Proficiency Level A on the scale. Not surprisingly, the order of countries in Table 3.9 is very similar to that in Table 3.10, where the countries appear in descending order of average score. Differences in country rankings are a result of differences in the distributions of students across the levels that exist within the countries with similar average student civic knowledge scores.

On average across all participating countries, two thirds of students achieved scores that placed them within Levels A and B of the ICCS civic knowledge proficiency scale (Table 3.10). A further 21 percent of students attained scores commensurate with Level C. In nine countries, the highest percentages of students with test scores at a particular level corresponded to Level A, while in a further nine countries the relatively highest percentage was recorded at Level B. In 13 countries, more than 60 percent of students had scores at Levels A and B. In two countries, the relatively highest percentages of student performance were found at Level C. Only one country had the relatively highest percentage of students attaining test scores corresponding to Level D. In two other countries—Peru and the Dominican Republic—more than 60 percent of students were at Level C or below.

Variations across countries with respect to associations between civic knowledge, Human Development Index, and student age

The Human Development Index (HDI) value provided by the United Nations Development Programme (UNDP), and quoted for each ICCS 2016 country, is a "summary measure of average achievement in key dimensions of human development: a long and healthy life, being knowledgeable and having a decent standard of living" (UNDP, 2016).

The extent of educational and economic development in the ICCS countries that the HDI values represent (Table 3.9) provides a point of reference during examination of the differences in civic knowledge scores across countries. The HDI ranges from 0 to 1 and has four categories: "very high" (HDI greater than 0.8), "high" (HDI between 0.7 and 0.8), "medium" (HDI between 0.6 and 0.7), and "low" (HDI less than 0.6). The HDI also provides a means of classifying a country as developed (very high HDI) or developing (all other HDI categories).

Strong associations between HDI and average civic knowledge scale scores emerged across the ICCS 2016 countries (Figure 3.3; $r = 0.82$,[4] $p = 0.78$).[5] Of the 11 countries with average civic knowledge scale scores statistically significantly above the ICCS 2016 international average of 517 scale points, three had very high HDI with values above 0.9, and eight had very high HDI, with values between 0.8 and 0.9. In contrast, of the eight countries with average civic knowledge scores statistically significantly below 517 scale points, three had very high HDI with values between 0.8 and 0.9, and five had high HDI with values between 0.7 and 0.8. No countries with medium or low HDI participated in ICCS 2016.

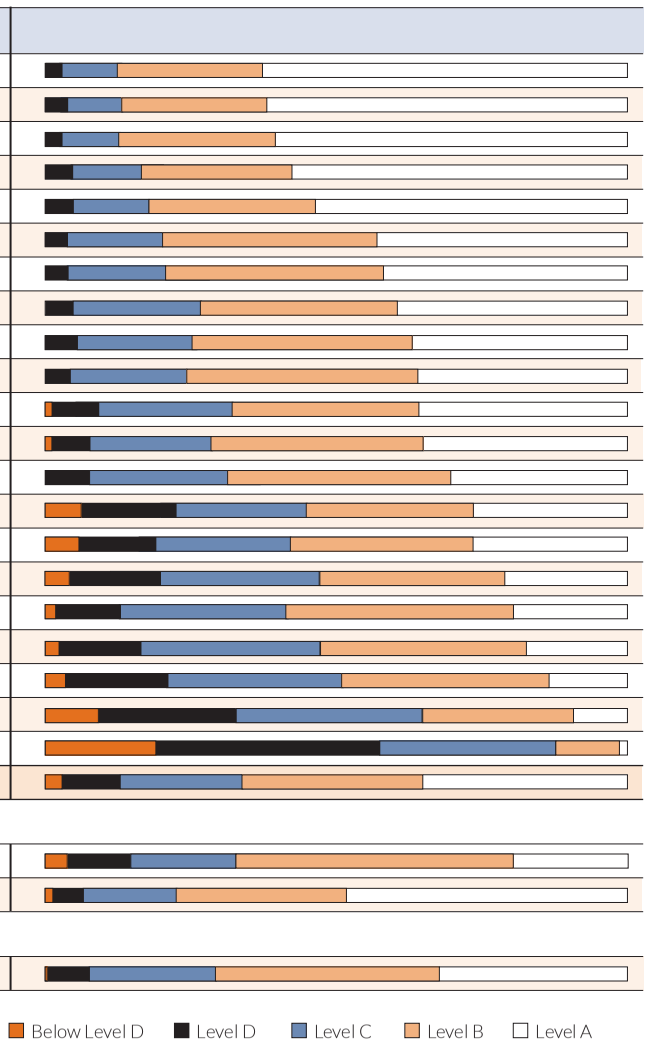
The ICCS 2016 countries also varied with respect to the average age of students in the target grade (Grade 8). The range was 13.8 to 14.9 years across countries (refer to Table 3.9). At first glance, the patterns in association between average student age across countries and average civic knowledge scale scores are less obvious than the pattern of association with HDI. This difference is partly because average student age across countries relates to local conditions (e.g., the age at which children begin school) and to student retention and progression rates, factors that may, in turn, also be associated with HDI. Across countries, student age showed a weak positive association with civic knowledge ($r = 0.33$). We found no association between average student age and HDI at the country level ($r = 0.02$).

4 Pearson correlation coefficient between average country civic knowledge scale scores and HDI.

5 Spearman's rank correlation between the ranks of average country civic knowledge scale scores and ranks of country HDI.

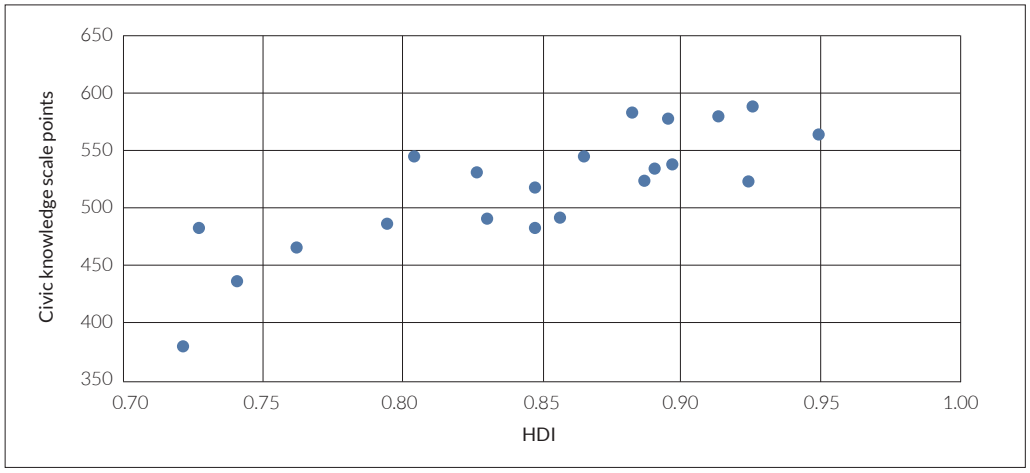
Table 3.10: Percentages of students at each proficiency level of civic knowledge

Country	Below Level D	Level D	Level C	Level B	Level A
Denmark†	0 (0.1)	2 (0.4)	10 (0.8)	25 (0.8)	62 (1.3)
Chinese Taipei	0 (0.2)	3 (0.4)	10 (0.8)	25 (1.2)	62 (1.4)
Finland	0 (0.1)	2 (0.4)	10 (0.8)	27 (1.4)	60 (1.6)
Sweden[1]	1 (0.2)	4 (0.6)	12 (0.8)	25 (1.0)	58 (1.3)
Norway (9)[1]	1 (0.2)	4 (0.3)	13 (0.7)	29 (1.0)	53 (1.2)
Estonia[1]	0 (0.1)	3 (0.5)	17 (1.0)	37 (1.5)	43 (1.8)
Russian Federation	0 (0.1)	4 (0.5)	17 (1.3)	37 (1.5)	42 (2.1)
Belgium (Flemish)	0 (0.1)	5 (0.8)	19 (1.6)	37 (1.6)	40 (2.2)
Slovenia	0 (0.2)	4 (0.5)	21 (0.9)	38 (1.2)	37 (1.4)
Croatia	0 (0.1)	4 (0.5)	20 (1.2)	40 (1.5)	36 (1.5)
Netherlands†	1 (0.4)	8 (1.4)	23 (1.5)	32 (1.8)	36 (1.8)
Italy	1 (0.3)	7 (0.6)	22 (0.8)	36 (1.1)	35 (1.2)
Lithuania	1 (0.3)	7 (0.8)	24 (1.2)	39 (1.6)	31 (1.7)
Bulgaria	6 (1.2)	16 (1.3)	23 (1.4)	28 (1.5)	27 (1.5)
Malta	6 (0.5)	13 (0.8)	23 (1.0)	32 (1.1)	26 (1.1)
Chile	4 (0.5)	16 (0.9)	27 (1.0)	32 (1.0)	21 (1.1)
Latvia[1]	2 (0.4)	11 (1.1)	29 (1.3)	39 (1.8)	19 (1.6)
Colombia	2 (0.4)	14 (1.1)	31 (1.0)	35 (1.2)	17 (1.2)
Mexico	3 (0.4)	18 (1.0)	33 (1.2)	33 (1.0)	13 (0.8)
Peru	9 (0.9)	24 (1.2)	32 (1.2)	26 (1.2)	9 (0.8)
Dominican Republic	19 (1.2)	39 (1.2)	30 (1.2)	11 (1.0)	1 (0.4)
ICCS 2016 average	3 (0.1)	10 (0.2)	21 (0.2)	31 (0.3)	35 (0.3)
Countries not meeting sample participation requirements					
Hong Kong SAR	3.4 (0.9)	11 (1.5)	19 (1.7)	32 (1.6)	35 (2.3)
Korea, Republic of[2]	0.8 (0.3)	5 (0.8)	17 (1.0)	31 (1.2)	47 (1.6)
Benchmarking participant not meeting sample participation requirements					
North Rhine-Westphalia (Germany)[1]	0.6 (0.1)	7 (0.7)	23 (1.7)	39 (1.5)	31 (1.6)



Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Figure 3.3: Scatterplot of average civic knowledge scale scores and Human Development Index (HDI) values



Changes in civic knowledge since 2009

The ICCS 2016 test included 42 secure items from ICCS 2009. This inclusion meant that we could report student civic knowledge scores for the current ICCS cycle on the scale established in 2009, and also compare changes in civic knowledge across these first two cycles of ICCS. Twenty-one of the countries that participated in ICCS 2009 also conducted the ICCS 2016 survey. Eighteen of these countries met the necessary technical requirements within each cycle to allow reliable comparisons of students' civic knowledge across the two cycles.[6]

Most countries recorded an increase in civic knowledge between 2009 and 2016 (Table 3.11). Eleven of the 18 countries with comparable data recorded ICCS 2016 national average civic knowledge scale scores significantly higher than the corresponding scores in the previous cycle. The score point-differences varied from 13 scale points in Lithuania to 42 scale points in Sweden. We found no statistically significant score changes between the two cycles in the remaining seven countries.

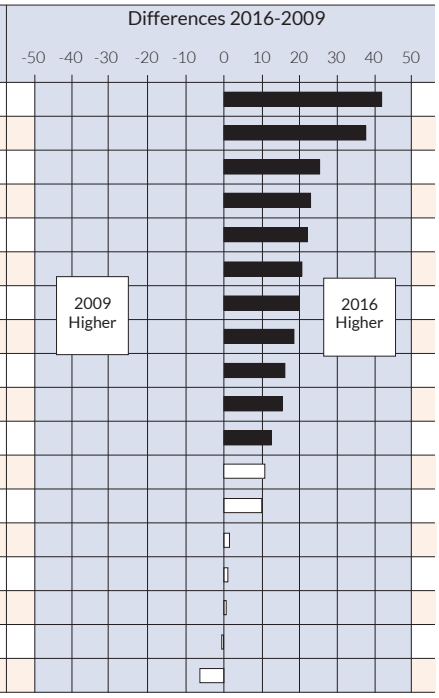
The key differences between achievement at Level C and below in comparison to Level B and above on the civic knowledge scale are the specificity of students' knowledge and their understanding of the interconnectedness of civic and civil institutions, including those between policies, practices, and intended outcomes. This distinction needs to be kept in mind with regard to Table 3.12, which shows the changes in the proportions of students at Level B and above on the ICCS civic knowledge proficiency scale between 2009 and 2016.

Consistent with the scale score increases (refer Table 3.11), the percentages of students at Level B and above increased markedly between 2009 and 2016 (Table 3.12). In 14 of the 18 countries with comparable data, the increases were statistically significant. The increases varied from three percent in Denmark to 18 percent in the Russian Federation. In the remaining four countries, the differences in the percentages of students at Level B and above between 2009 and 2016 were not statistically significant.

6 The ICCS 2009 and 2016 technical requirements relating to sampling, instrument preparation and field operations are included in the ICCS Technical Reports (Schulz, et al, 2010 and Schulz et al, forthcoming).

Table 3.11: Changes in average civic knowledge between 2009 and 2016

Country	Average scale score ICCS 2016	Average scale score ICCS 2009	Difference (2016-2019)
Sweden[1]	579 (2.8)	537 (3.1)	**42** (5.2)
Russian Federation	545 (4.3)	506 (3.8)	**38** (6.5)
Norway (9)[1]	564 (2.2)	538 (4.0)	**25** (5.5)
Belgium (Flemish)	537 (4.1)	514 (4.7)	**23** (6.9)
Chinese Taipei	581 (3.0)	559 (2.4)	**22** (5.0)
Estonia[1]	546 (3.1)	525 (4.5)	**21** (6.3)
Colombia	482 (3.4)	462 (2.9)	**20** (5.5)
Bulgaria	485 (5.3)	466 (5.0)	**19** (8.0)
Slovenia	532 (2.5)	516 (2.7)	**16** (4.8)
Mexico	467 (2.5)	452 (2.8)	**15** (4.9)
Lithuania	518 (3.0)	505 (2.8)	**13** (5.2)
Latvia[1]	492 (3.1)	482 (4.0)	11 (5.9)
Denmark†	586 (3.0)	576 (3.6)	10 (5.6)
Malta	491 (2.7)	490 (4.5)	2 (6.1)
Dominican Republic	381 (3.0)	380 (2.4)	1 (5.0)
Finland	577 (2.3)	576 (2.4)	0 (4.5)
Chile	482 (3.1)	483 (3.5)	-1 (5.6)
Italy	524 (2.4)	531 (3.3)	-6 (5.1)



Notes:
() Standard errors appear in parentheses.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.

Variations in civic knowledge across countries with respect to student background characteristics

In this section we address ICCS Research Question 2(a): *Are there variations in civic knowledge associated with student characteristics and background variables?* (See Chapter 1.) Our focus at this point is therefore on the associations between students' civic knowledge and student gender, student age within countries, variables associated with students' socioeconomic status, whether or not students had an immigrant background, and the language students spoke at home. Chapter 7 documents further investigation, based on regression modelling, of the relationships between student civic knowledge and student-level and school-level factors.

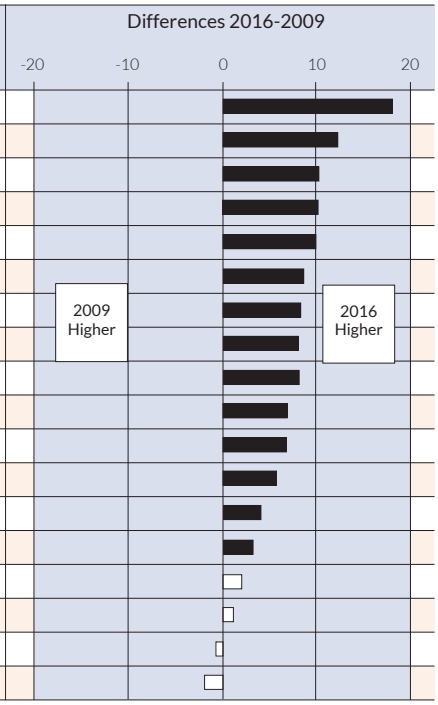
Gender differences in civic knowledge

A significant gender difference in civic knowledge was apparent for only one of the 28 countries that took part in the IEA CIVED study (Torney-Purta et al., 2001). In ICCS 2009, "the average ICCS civic knowledge scores of female students were higher than those of male students both overall and in nearly all countries" (Schulz, Ainley, Fraillon, Kerr & Losito, 2010, p. 80).

Gender differences in the ICCS 2016 data (Table 3.13) tell a similar story to the one recorded in ICCS 2009. In 2016, the average civic knowledge sores of female students was statistically significantly higher than that of male students in 19 of 21 countries and overall across countries. The two countries where the gender difference was not statistically significant were Peru and Belgium (Flemish). The magnitude of the significant differences in the achievement of female students relative to male students ranged from nine scale points in Colombia to 38 scale points in Malta.

Table 3.12: Changes in percentages of students at or above proficiency Level B between 2009 and 2016

Country	Level B and above		Difference (2016–2019)	Differences 2016-2009
	2009	2016		-20 -10 0 10 20
Russian Federation	61.6 (1.6)	79.4 (1.5)	**18** (2.4)	
Sweden[1]	71.7 (1.2)	83.5 (1.0)	**12** (1.7)	
Norway (9)[1]	72.1 (1.6)	82.3 (0.8)	**10** (1.9)	
Colombia	42.7 (1.5)	52.8 (1.8)	**10** (2.7)	
Estonia[1]	70.0 (1.8)	79.9 (1.2)	**10** (2.4)	
Mexico	37.3 (1.4)	45.9 (1.4)	**9** (2.4)	
Belgium (Flemish)	67.8 (2.5)	76.1 (1.8)	**8** (3.3)	
Slovenia	66.4 (1.4)	74.6 (1.1)	**8** (2.1)	
Bulgaria	46.9 (2.3)	55.1 (2.1)	**8** (3.2)	
Latvia[1]	51.5 (2.1)	58.5 (1.7)	**7** (3.0)	
Chinese Taipei	79.8 (1.0)	86.7 (1.0)	**7** (1.5)	
Lithuania	63.4 (1.5)	69.1 (1.5)	**6** (2.5)	
Dominican Republic	8.1 (0.7)	12.2 (1.0)	**4** (1.4)	
Denmark†	83.6 (1.0)	87.0 (1.0)	**3** (1.5)	
Chile	50.9 (1.9)	53.1 (1.5)	2 (2.7)	
Malta	56.6 (2.0)	57.8 (1.3)	1 (2.6)	
Finland	87.7 (0.8)	87.4 (0.8)	0 (1.3)	
Italy	72.8 (1.4)	71.0 (1.2)	-2 (2.2)	



Notes:
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Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.

■ Difference statistically significant at 0.05 level
□ Difference *not* statistically significant

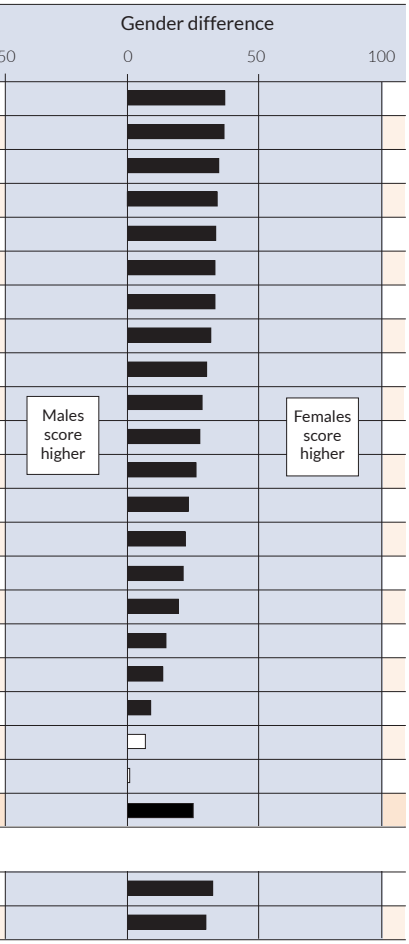
Student age and civic knowledge within countries

ICCS 2009 found statistically significant negative associations between student age and civic knowledge. Three of the ICCS 2009 countries recorded statistically significant positive associations between student age and civic knowledge; no significant association between student age and civic knowledge was recorded in two countries (Schulz et al., 2010, p. 76). In order to investigate the relationship between student age and civic knowledge in the ICCS 2016 countries, we conducted a regression analysis using the ICCS scale score as the outcome variable and student age as a predictor (see Table B.1 in Appendix B for the results of the regression analyses). The pattern of associations between student age and achievement within countries in 2016 was very similar to that reported in ICCS 2009. Fifteen of 21 countries recorded statistically significant negative associations between age and civic knowledge. Associations between age and knowledge in five of the remaining countries were not significant. However, the last of the 21 countries (Norway) recorded a significant positive association. Across the combined international sample, the association between student age and civic knowledge within countries was negative and statistically significant.

The high proportion of countries with negative associations between age and achievement is a typical outcome of studies that draw grade-based samples of students. In some countries, students regarded as having higher academic potential begin school at a younger age and move more quickly through the years of schooling than other students. They therefore make up a higher proportion of younger students in a given grade level. Variations in retention and progression policies across countries also tend to influence within-country associations between age and achievement.

Table 3.13: Gender differences in civic knowledge

Country	Average scale score females	Average scale score males	Difference (absolute value)	Gender difference
Malta	511 (3.7)	473 (3.9)	**38** (5.4)	
Bulgaria	505 (5.9)	468 (6.0)	**37** (5.6)	
Sweden[1]	598 (3.1)	562 (3.9)	**36** (4.3)	
Slovenia	550 (2.6)	515 (3.3)	**35** (3.4)	
Chinese Taipei	599 (3.4)	564 (3.3)	**34** (3.4)	
Norway (9)[1]	581 (2.4)	547 (2.6)	**34** (2.4)	
Estonia[1]	563 (3.4)	530 (3.4)	**33** (3.6)	
Finland	594 (2.3)	561 (3.4)	**33** (3.8)	
Latvia[1]	507 (3.8)	476 (3.7)	**30** (4.2)	
Dominican Republic	396 (3.4)	367 (3.3)	**29** (3.0)	
Lithuania	532 (3.6)	504 (3.4)	**28** (3.7)	
Croatia	544 (2.9)	518 (2.9)	**26** (3.2)	
Chile	494 (3.8)	471 (3.3)	**24** (3.8)	
Denmark†	597 (2.9)	575 (3.7)	**23** (3.1)	
Mexico	478 (3.0)	456 (3.2)	**21** (3.4)	
Italy	535 (3.0)	515 (3.0)	**20** (3.6)	
Russian Federation	552 (5.3)	538 (4.3)	**14** (4.5)	
Netherlands†	530 (5.0)	516 (4.9)	**13** (4.0)	
Colombia	486 (4.1)	478 (3.6)	**9** (3.9)	
Peru	441 (4.6)	435 (4.1)	6 (4.9)	
Belgium (Flemish)	538 (5.4)	537 (4.6)	1 (5.8)	
ICCS 2016 average	**530** **(0.8)**	**505** **(0.8)**	**25** **(0.9)**	
Countries not meeting sample participation requirements				
Hong Kong SAR	532 (6.6)	499 (7.7)	**33** (6.9)	
Korea, Republic of[2]	568 (4.8)	537 (3.4)	**31** (4.6)	



■ Gender difference statistically significant at 0.05 level
□ Gender difference *not* statistically significant

Notes:
() Standard errors appear in parentheses.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Table B.1 in Appendix B shows the differences in ICCS scale scores across those countries with students in the same grade but whose age range spanned one year. This difference was quite large in Belgium (Flemish), Chile, Denmark, Italy, the Netherlands, and Peru. In these countries, younger students within the same grade achieved at least 30 scale points more than students one year older in the same grade—a difference equivalent to more than one-third of the width of a proficiency level.

Associations between civic knowledge and socioeconomic background characteristics

ICCS 2009 found that "the aspect of family background most strongly and consistently associated with civic knowledge was socioeconomic background" (Schulz et al., 2010, p. 216). However, the strength of the association between socioeconomic background and civic achievement varied greatly across countries. Other family-related aspects, such as student-reported involvement in political discussion, were not as strongly associated.

To measure and report on socioeconomic background during ICCS 2016, we used responses from the student questionnaire. These related to parental occupational status, parental education, and the number of books in the home, and were the same three socioeconomic background variables

used in ICCS 2009. Of the three, parental occupational status had the strongest association with student civic knowledge (Schulz et al., 2010, p. 202).

We coded parental occupations (as reported by students in their answers to constructed-response questions) according to the ISCO-08 classification (International Labour Organization, 2012). We then transformed this classification into a score on the International Socio-economic Index (SEI) of occupational status (Ganzeboom, de Graaf, & Treiman, 1992). If students provided data for two parents, we used the highest SEI score as an indicator of parental occupational status. The SEI scale is continuous and ranges from 16 to 90. In order to establish comparable descriptions of the associations between each of the three socioeconomic variables and student civic knowledge, we established two categories for each variable based on both the substantive meaning of the categories and the proportion of students within each category.

When summarizing the relationship between parental occupation and student civic knowledge, we divided the SEI scale into two categories based on international cut-off points indicating "low–medium occupational status" (below 50 SEI scale points) and "medium–high occupational status" (50 SEI scale points and above). On average across ICCS countries, six percent of students could not be assigned SEI scores because they did not answer the question. Of the students with valid data, 55 percent were in the low–medium category and 45 percent in the medium–high category.

To measure the educational attainment of each parent (based on the student responses), we used predefined categories denoting educational levels in each country. These categories were constructed with reference to the International Standard Classification of Education (ISCED) and consisted of "ISCED 6, 7, or 8," "ISCED 4 or 5," "ISCED 3," "ISCED 2," and "Did not complete ISCED 2" (OECD, 1999; UNESCO, 2006). When students provided data for both their parents, we used the highest ISCED level as the indicator of parental educational attainment, and when summarizing the association between the highest level of parental education and student civic knowledge, we used two categories of parental education: "Below ISCED 6 (not having completed a Bachelor's degree or higher)" and "ISCED 6, 7, or 8 (Bachelor's degree or higher)." On average across the ICCS countries, three percent of students had missing data. Among students with valid data, 63 percent reported the highest level of parental educational attainment as below Bachelor's level, while 37 percent of students reported attainment at Bachelor's level or above.

As a measure of home literacy resources, we used students' reports of number of books in the home. Number of books was broken down into six categories: "0 to 10 books," "11 to 25 books," "26 to 100 books," "101 to 200 books," and "more than 200 books." When summarizing the relationship between the number of books in the home and student civic knowledge, we used two categories: "below 26 books" and "26 books and above." On average, one percent of ICCS students had missing data. Of those with valid data, 40 percent said they had fewer than 26 books at home; 60 percent said they had 26 or more than 26 books at home.

We found statistically significant associations between each of the three socioeconomic background variables and civic knowledge (Table 3.14). The horizontal graphs in the table show the magnitude (in civic knowledge scale points), direction, and statistical significance of the difference between the average civic knowledge scores of students in each group. For each of the three variables, a green bar indicates a statistically significant difference in student civic knowledge in favor of the "higher" socioeconomic-status group. A red bar, had there been one, would have shown a statistically significant difference in student civic knowledge in favor of the "lower" socioeconomic-status group.

For each of the three socioeconomic background variables in each country, and overall across all countries, the average civic knowledge of students in the higher groups was statistically significantly higher than that of students in the lower groups. However, the magnitude of the differences between groups for all three variables varied considerably across countries.

Table 3.14: Percentages by category of parental occupation, parental education, and number of books in the home, and comparison of average civic knowledge between categories

Country	Civic knowledge scores by parental occupation (SEI)								Civic knowledge scores by parental education (ISCED)								Civic knowledge scores by books in the home							
	SEI below 50						SEI 50 and above		Post-secondary non-tertiary and below						Tertiary		Below 26						26 and above	
	%	Average	-100	-50	0	50	100	Average	%	%	Average	-100	-50	0	50	100	Average	%	%	Average	-100	-50	0	50	100	Average	%
Belgium (Flemish)	51 (1.7)	516 (3.7)						**560** (5.0)	49 (1.7)	42 (1.9)	505 (4.7)						**563** (3.9)	58 (1.9)	38 (2.0)	508 (4.8)						**555** (4.2)	62 (2.0)
Bulgaria	50 (1.7)	462 (5.8)						**509** (6.4)	50 (1.7)	53 (1.7)	450 (6.9)						**526** (4.8)	47 (1.7)	46 (1.8)	433 (6.7)						**532** (3.8)	54 (1.8)
Chile	60 (1.4)	470 (3.3)						**502** (3.4)	40 (1.4)	76 (1.2)	470 (3.3)						**528** (3.2)	24 (1.2)	55 (1.0)	462 (3.4)						**511** (3.3)	45 (1.0)
Chinese Taipei	53 (1.3)	568 (3.3)						**597** (3.6)	47 (1.3)	68 (1.4)	570 (3.1)						**607** (3.4)	32 (1.4)	40 (1.3)	551 (3.5)						**602** (2.9)	60 (1.3)
Colombia	64 (1.3)	471 (3.7)						**502** (3.8)	36 (1.3)	71 (1.5)	477 (3.4)						**496** (4.1)	29 (1.5)	71 (1.3)	470 (3.5)						**511** (3.8)	29 (1.3)
Croatia	60 (1.2)	521 (2.4)						**546** (3.8)	40 (1.2)	73 (1.4)	521 (2.4)						**560** (4.3)	27 (1.4)	40 (1.3)	509 (3.1)						**546** (2.6)	60 (1.3)
Denmark†	41 (1.4)	561 (3.8)						**604** (3.4)	59 (1.4)	75 (1.0)	578 (3.1)						**625** (3.7)	25 (1.0)	28 (1.1)	550 (4.8)						**602** (2.6)	72 (1.1)
Dominican Republic	67 (0.9)	378 (2.9)						**389** (4.5)	33 (0.9)	76 (1.2)	371 (2.9)						**417** (4.5)	24 (1.2)	79 (1.0)	378 (2.8)						**399** (5.7)	21 (1.0)
Estonia[1]	50 (1.9)	529 (2.7)						**564** (4.1)	50 (1.9)	57 (1.9)	533 (2.6)						**565** (4.5)	43 (1.9)	24 (1.1)	504 (3.7)						**560** (3.2)	76 (1.1)
Finland	55 (1.0)	563 (2.7)						**593** (3.1)	45 (1.0)	58 (1.1)	568 (2.6)						**593** (3.4)	42 (1.1)	22 (0.9)	539 (4.3)						**587** (2.3)	78 (0.9)
Italy	66 (1.4)	511 (2.7)						**550** (3.0)	34 (1.4)	81 (1.2)	519 (2.6)						**554** (3.9)	19 (1.2)	32 (1.3)	487 (3.4)						**543** (2.3)	68 (1.3)
Latvia[1]	51 (1.3)	480 (3.2)						**505** (4.2)	49 (1.3)	57 (1.2)	480 (3.1)						**511** (4.4)	43 (1.2)	29 (1.0)	460 (3.9)						**507** (3.4)	71 (1.0)
Lithuania	57 (1.3)	504 (3.2)						**535** (4.3)	43 (1.3)	66 (1.1)	504 (2.9)						**551** (3.8)	34 (1.1)	38 (1.3)	489 (3.2)						**537** (3.2)	62 (1.3)
Malta	52 (0.9)	475 (3.5)						**509** (3.2)	48 (0.9)	69 (0.8)	489 (2.9)						**514** (4.0)	31 (0.8)	28 (0.9)	448 (4.1)						**511** (2.6)	72 (0.9)
Mexico	71 (1.0)	457 (2.6)						**492** (3.6)	29 (1.0)	75 (1.1)	456 (2.5)						**501** (3.4)	25 (1.1)	71 (1.0)	457 (2.5)						**493** (3.3)	29 (1.0)
Netherlands†	48 (1.4)	501 (6.1)						**543** (4.5)	52 (1.4)	56 (1.8)	501 (5.2)						**560** (4.7)	44 (1.8)	35 (1.7)	485 (6.9)						**545** (3.9)	65 (1.7)
Norway (9)[1]	39 (1.1)	540 (2.5)						**579** (2.5)	61 (1.1)	40 (1.2)	547 (2.6)						**582** (2.3)	60 (1.2)	19 (0.8)	513 (3.3)						**578** (2.1)	81 (0.8)
Peru	73 (1.0)	426 (3.3)						**468** (5.4)	27 (1.0)	73 (1.0)	425 (3.5)						**474** (4.7)	27 (1.0)	60 (1.1)	417 (3.5)						**470** (4.4)	40 (1.1)
Russian Federation	47 (1.7)	526 (4.1)						**561** (4.9)	53 (1.7)	47 (1.7)	525 (3.8)						**563** (5.0)	53 (1.7)	33 (1.3)	516 (4.0)						**559** (4.6)	67 (1.3)
Slovenia	54 (1.4)	512 (2.4)						**556** (3.1)	46 (1.4)	66 (1.4)	522 (2.3)						**556** (4.4)	34 (1.4)	30 (1.1)	495 (3.6)						**548** (2.6)	70 (1.1)
Sweden[1]	41 (1.2)	552 (3.7)						**598** (3.4)	59 (1.2)	41 (1.0)	558 (4.6)						**603** (3.3)	59 (1.0)	28 (1.1)	528 (4.8)						**601** (2.7)	72 (1.1)
ICCS 2016 average	55 (0.3)	501 (0.8)						**536** (0.9)	45 (0.3)	63 (0.3)	503 (0.8)						**545** (0.9)	37 (0.3)	40 (0.3)	486 (0.9)						**538** (0.7)	60 (0.3)
Countries not meeting sample participation requirements																											
Hong Kong SAR	53 (1.4)	515 (6.6)						516 (7.9)	47 (1.4)	77 (1.3)	512 (6.5)						**534** (10.1)	23 (1.3)	43 (1.3)	494 (7.5)						**532** (7.3)	57 (1.3)
Korea, Republic of[1]	59 (1.2)	541 (3.6)						**565** (5.2)	41 (1.2)	37 (1.9)	524 (5.0)						**569** (3.4)	63 (1.9)	12 (0.9)	498 (6.0)						**559** (3.3)	88 (0.9)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups is *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Across all countries, the difference between the average civic knowledge scale scores of students in the high (SEI 50 and above) and low (SEI below 50) parental occupation groups was 35 scale points, with a minimum of 11 scale points in the Dominican Republic and a maximum of 47 scale points in Bulgaria. The difference between the average civic knowledge scale scores of students in the high (ISCED Level 6 and above: tertiary) and low (Below ISCED Level 6: post-secondary non-tertiary and below) parental education groups across all countries was 42 scale points, with the minimum score of 18 scale points in Colombia and the maximum of 76 scale points in Bulgaria.

Cross-nationally, the difference between the average civic knowledge scale scores of students who reported having 26 or more books at home and those students who reported fewer than 26 books at home was 52 scale points, with a minimum of 22 scale points in the Dominican Republic and a maximum of 99 scale points in Bulgaria.

All three indicators of students' socioeconomic status contributed to a composite index of socioeconomic status. This index is included in the multilevel regression analyses presented in Chapter 7.

Associations between civic knowledge and immigrant and language backgrounds

The ICCS 2016 student questionnaire included two questions that allowed us to measure and report on students' immigrant background and language background and to identify associations between these variables and civic knowledge.

The first question asked students to indicate in which country they and each of their parents were born. The international coding of the responses to this question classified each student and any reported parents as "born in country of test" or "not born in country of test." These data were further reduced to form a single variable relating to the student. This variable was coded as "immigrant family" when the student reported *all* parents[7] as born abroad (regardless of where the student was born) and "non-immigrant family" when at least one parent was born in the country where the survey was conducted. On average across the ICCS countries, relevant data pertaining to this question were missing for four percent of the students. Among those students with valid data, 93 percent reported that they were from a non-immigrant family, while seven percent said they were from an immigrant family.

The second question asked students what language they spoke at home most of the time. This variable was coded as "language of test" or "other" for the purpose of the analyses. On average across the ICCS 2016 countries, relevant data were missing for two percent of the students. Of those students with valid data, 92 percent reported that they mainly spoke the language of testing at home. Eight percent said that they mainly spoke another language at home.

As was the case with the ICCS 2009 survey, ICCS 2016 recorded significant associations between students' immigrant status, language background, and civic knowledge. Across all countries in 2009, the average civic knowledge scale score of students from non-immigrant families was 37 scale points higher than the average score for those students from immigrant families. The average civic knowledge score was 46 scale points higher for students who mainly spoke the language of the test at home than for those who mainly did not (Schulz et al., 2010, p. 196).

The data show that, in general in 2016, the students from non-immigrant families had higher civic knowledge scale scores than those from immigrant families. Similarly, those students who reported speaking the language of instruction (and the test) at home tended to have higher civic knowledge scale scores than those who did not. However, in contrast to the three socioeconomic status variables reported in Table 3.14, there was considerably more variation across countries

7 "All parents" refers to both parents when a student reported on the background of two parents or to one parent if the student reported on the background of only one parent.

with respect to the associations between student immigrant background, language background, and civic knowledge.

Table 3.15 provides a summary of the associations for ICCS 2016 between each of the immigrant and language background variables and student civic knowledge. The information in the table also includes the percentage of students in each country within the immigrant and/or language background categories, together with the average achievement of students within each category. The horizontal graphs show the magnitude (in civic knowledge scale points), direction, and statistical significance of the differences between the civic knowledge averages of the two groups of students.

The civic knowledge scores of students from non-immigrant families in 14 of 21 ICCS 2016 countries were, on average, statistically significantly higher than the scores of students from immigrant families. In five countries, no significant differences in average student civic knowledge between the two groups were evident. In Bulgaria and Chinese Taipei, the numbers of students from immigrant families were too low to support reporting of the relationship between immigrant background and student civic knowledge.

Across all countries, the difference between the average civic knowledge scale scores of students from non-immigrant and immigrant families was 43 scale points,[8] with a minimum of six scale points (not statistically significantly different from zero) in Croatia and a maximum of 90 scale points in Colombia. The percentages of students from immigrant families varied from zero in Bulgaria to 18 percent in Sweden.

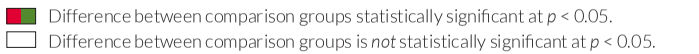
In 17 of the 21 ICCS 2016 countries, students who reported speaking the language of the test at home had statistically significantly higher average civic knowledge scores than those who did not speak the test language at home. In three of the remaining four countries, there was no significant difference between the groups. Across all countries, the difference between average civic knowledge scale scores of students reporting that they spoke the language of the test at home and those who said they mostly spoke a different language was 48 scale points.

Malta was the only country where we observed an average civic knowledge scale score that was higher for students who spoke another language at home than for those who reported speaking the test language at home. The difference of 18 scale score points was statistically significant. The highest difference in average achievement between students who spoke the language of testing at home and those who did not was 108 scale points in Bulgaria. The percentages of students who spoke a language other than the language of testing at home varied from one percent in Chile, Colombia, and Croatia to 28 percent in Malta.

8 This difference in averages was calculated for all countries except Bulgaria and Chinese Taipei where the numbers of students from immigrant families were too small for the estimation of group averages.

Table 3.15: Percentages by category of immigrant background and language spoken at home and comparison of average civic knowledge between categories

Country	Civic knowledge scores by immigrant background				Civic knowledge scores by language			
	Immigrant family			Non-immigrant family	Other			Test
	%	Average		Average	%	Average		Average
Belgium (Flemish)	16 (1.6)	489 (7.3)		**548** (3.8)	84 (1.6)	16 (1.1)	491 (6.6)	**550** (3.9)	84 (1.3)
Bulgaria	0 (0.1)	^		488 (5.1)	100 (0.1)	11 (1.5)	390 (10.1)	**498** (4.4)	89 (1.6)
Chile	2 (0.3)	463 (13.4)		489 (3.0)	98 (0.3)	1 (0.2)	445 (14.8)	**484** (3.1)	99 (0.3)
Chinese Taipei	1 (0.2)	^		583 (2.9)	99 (0.2)	10 (0.7)	538 (5.8)	**588** (2.8)	90 (0.7)
Colombia	1 (0.1)	395 (20.3)		**485** (3.3)	99 (0.1)	1 (0.2)	468 (15.3)	482 (3.4)	99 (0.2)
Croatia	9 (0.9)	526 (6.7)		533 (2.4)	91 (0.9)	1 (0.2)	512 (15.3)	532 (2.5)	99 (0.3)
Denmark†	9 (0.8)	533 (7.6)		**594** (2.8)	91 (0.8)	5 (0.5)	528 (9.9)	**592** (2.8)	95 (0.9)
Dominican Republic	3 (0.4)	365 (8.8)		**388** (3.0)	97 (0.4)	2 (0.3)	381 (11.0)	382 (3.0)	98 (0.4)
Estonia[1]	9 (0.7)	516 (6.2)		**550** (3.2)	91 (0.7)	5 (0.6)	507 (8.9)	**549** (3.0)	95 (0.6)
Finland	3 (0.5)	500 (11.2)		**580** (2.3)	97 (0.5)	5 (0.5)	523 (10.6)	**580** (2.4)	95 (0.6)
Italy	11 (0.9)	489 (6.9)		**533** (2.2)	89 (0.9)	18 (1.0)	479 (5.4)	**536** (2.0)	81 (1.1)
Latvia[1]	4 (0.4)	478 (7.8)		**495** (3.0)	96 (0.4)	10 (1.5)	458 (10.2)	**498** (3.1)	90 (1.6)
Lithuania	2 (0.3)	507 (8.5)		521 (2.9)	98 (0.3)	5 (1.0)	469 (14.3)	**522** (2.9)	95 (1.2)
Malta	8 (0.4)	486 (6.3)		498 (2.9)	92 (0.4)	29 (0.7)	**506** (3.9)	488 (3.3)	71 (0.7)
Mexico	3 (0.4)	420 (13.8)		**472** (2.5)	97 (0.4)	3 (0.7)	414 (13.1)	**469** (2.5)	97 (0.7)
Netherlands†	9 (1.4)	490 (12.0)		**527** (4.3)	91 (1.4)	8 (1.2)	493 (12.4)	**526** (4.4)	92 (1.2)
Norway (9)[1]	11 (1.1)	514 (4.2)		**574** (2.3)	89 (1.1)	8 (0.7)	519 (5.7)	**570** (2.2)	91 (0.9)
Peru	2 (0.3)	362 (11.8)		**445** (3.4)	98 (0.3)	7 (1.1)	345 (7.7)	**445** (3.3)	93 (1.2)
Russian Federation	6 (0.5)	535 (7.5)		546 (4.4)	94 (0.5)	5 (0.8)	485 (9.8)	**548** (4.3)	95 (0.8)
Slovenia	15 (1.0)	498 (5.7)		**539** (2.5)	85 (1.0)	6 (0.7)	484 (6.4)	**537** (2.5)	94 (0.7)
Sweden[1]	18 (1.6)	531 (6.4)		**597** (3.0)	82 (1.6)	14 (1.2)	522 (8.3)	**592** (3.1)	83 (1.4)
ICCS 2016 average	7 (0.2)	479 (2.2)		**523** (0.7)	93 (0.2)	8 (0.2)	474 (2.3)	**522** (0.7)	92 (0.2)
Countries not meeting sample participation requirements									
Hong Kong SAR	32 (1.3)	523 (7.5)		514 (7.0)	68 (1.3)	11 (1.9)	501 (15.0)	521 (6.4)	89 (1.9)
Korea, Republic of[2]	0 (0.1)	^		553 (3.6)	100 (0.1)	0 (0.1)	^	552 (3.6)	100 (0.1)



Notes:
() Standard errors appear in parentheses.
^ Number of students too small to report group average scores.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

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CHAPTER 4:

Aspects of students' civic engagement

Chapter highlights

Television news and discussions with parents remained important sources of information for students engaging with political and social issues.

- Students' use of newspapers declined between 2009 and 2016. (Table 4.1)
- In most countries, students were talking more frequently than previously with their parents about what was happening in other countries. (Table 4.1)
- Students' use of new social media for civic engagement remained limited but varied across participating countries. (Table 4.2)

Students' engagement in discussions about political and social issues and their confidence to participate in civic activities were somewhat stronger than they were in 2009. (Tables 4.4, 4.6)

- Students who reported high levels of interest in political and social issues were the students most likely to discuss these issues. (Table 4.5)
- Students who said they engaged confidently in civic activities also tended to be the students most interested in civic issues. There were no consistent associations between civic engagement and civic knowledge. (Table 4.7)

While few changes were apparent in the extent of students' participation at school, students valued this participation as highly as they did in 2009. (Tables 4.8, 4.9)

- Students' willingness to participate at school was higher among females and among students who expressed higher levels of interest in social and political issues. The associations between students' willingness to participate at school and their civic knowledge were less consistent. (Table 4.12)

Students' participation in voluntary activities and their expectations of engaging in elections increased in many countries between 2009 and 2016. (Tables 4.13, 4.17)

- While the data analyses showed no associations between participation in legal protest activities and civic knowledge, the students who expected to participate in illegal protest activities were those most likely to have low levels of civic knowledge. (Tables 4.15, 4.16)
- Expected active political participation was higher among students who said they were interested in civic-related issues but lower among students with higher levels of civic knowledge. (Table 4.20)

Conceptual background and prior research

This chapter addresses Research Question 3 of the ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016): *What is the extent of students' engagement in different spheres of society and which factors within or across countries are related to it?* This broad research question was accompanied in the ICCS 2016 framework with a subset of specific research questions:

- *What is the extent and variation of students' civic participation in and out of school?*
- *What beliefs do students hold regarding their own capacity to engage and the value of civic participation?*
- *What expectations do students have regarding civic and political participation in the near future or as adults?*
- *What changes in student engagement can be observed since 2009?*

In addressing these questions, the chapter examines:

(1) Students' personal engagement with political and social issues and their citizenship self-efficacy;

(2) Students' civic participation in school;

(3) Students' civic participation outside school; and

(4) Students' expected future civic engagement.

Analyses reported in this chapter involve:

(1) Comparisons among participating countries in 2016;

(2) Comparisons between ICCS 2009 and 2016 for countries that participated in both cycles and where the same measure was used in each cycle; and

(3) Within-country associations between measures of civic engagement and selected independent variables.

The selected independent variables were student interest in political and social issues, student level of civic knowledge, and either parental education (for measures of personal engagement with civic issues) or gender (for measures of civic participation at school, out of school, or beyond school); see category percentages for these variables in Appendix C.

Because civic engagement of citizens is a central characteristic of a democratic society, one of ICCS 2016's key goals was to measure the extent of students' engagement with aspects included in civic and citizenship education. Civic engagement refers not only to students' personal involvement in activities related to this area but also to their motivation to participate in civic activities, their confidence in the effectiveness of their participation, and their beliefs about their own capacity to become actively involved. As Putnam (1995) points out, civic engagement is not narrowly confined to the sphere of politics. He defines civic engagement as "people's connections with the life of their communities, not merely politics" (p. 665).

A large body of literature concerns students' engagement as supported and encouraged by schools. One of the important contributions to the research literature on engagement has been the distinction between emotional engagement (positive and negative reactions to teachers, academic work, and school), behavioral engagement (involvement in academic, social, and extracurricular activities), and cognitive engagement (willingness to exert effort to comprehend complex ideas and master difficult skills) (Fredericks, Blumenfeld, & Paris, 2004). Our focus in this chapter is on students' behavioral engagement in civics and citizenship as well as their interest in various aspects of civics and citizenship. For each questionnaire scale, we compare scale score averages across three comparison groups, each consisting of two categories (e.g., students with high and low levels of civic knowledge). Graphical displays of differences between groups and their statistical significance ($p < 0.05$) accompany these comparisons.

The ICCS 2016 international student questionnaire was used to measure the constructs underpinning the scales and items presented in this chapter, while IRT (Item Response Theory) scaling was used to derive new scales. For reporting purposes, the ICCS 2016 scales have a mean of 50 and a standard deviation of 10 with equally weighted national data. The 2016 scales employing the same or almost identical item sets to those used in ICCS 2009 equate to those established in 2009. For these scales, 50 reflects the mean and 10 the standard deviation of all equally weighted countries that participated in ICCS 2009. In this chapter, we describe the scale score differences through reference to the international standard deviations, which for the new scales reflect those in ICCS 2016 and for the equated scales those in ICCS 2009.

All scales are described in item maps contained in Appendix D of this report. The maps map scale scores to expected item responses under the ICCS scaling model, which is also set out in Appendix D. Greater detail on the scaling and equating procedures for questionnaire items will be provided in the ICCS 2016 technical report (Schulz, Carstens, Losito, & Fraillon, forthcoming).

When interpreting cross-country comparisons of questionnaire data, please be aware that the formats used to gauge respondents' attitudes or perceptions across diverse national contexts may not always measure respondents' beliefs consistently across the different languages and cultures (for evidence of this matter, see, for example, Desa, van de Vijver, Carstens, & Schulz, in press; Heine, Lehman, Peng, & Greenholtz, 2002; van de Gaer, Grisay, Schulz, & Gebhardt, 2012). Although ICCS extensively reviewed issues of measurement invariance during the development stage of both cycles of the study (see Schulz, 2009; Schulz & Fraillon, 2011), we acknowledge that variations of scale scores across countries may be partly due to differences related to cultural or linguistic contexts.

Personal engagement with political and social issues

Students' civic engagement refers to students (a) gaining information about issues that arise in civic and political life; (b) discussing aspects of civic and political life with peers and adults; and (c) being disposed to actively engage in society. Civic engagement also concerns students' expectations of participating in civic activities in the future, and being able to actively engage in society. In addition to active involvement in the civic forums open to this age group (such as school-based activities, youth organizations, and community groups), many young people now become involved in the virtual networks featuring civic and political content that are available through social media. Today, there is wide recognition of the important role that formal education plays in influencing the extent of adult engagement in society (Pancer, 2015).

According to Ekman and Amnå (2012), we need to distinguish civic participation (latent political participation) from manifest political participation. Latent involvement includes characteristics such as interest and attentiveness, while manifest political participation takes the form of active engagement and involves activities undertaken either individually or collectively. Many commentators have observed the growing phenomenon of political passivity among young people, but as Amnå & Ekman (2014) emphasize there is also a need to distinguish unengaged from disillusioned citizens. Although unengaged passive citizens may keep themselves informed and be willing to become engaged if needed, disillusioned passive citizens have lost faith in being able to exert an influence on civic practices and institutions and have accordingly become alienated from civic processes. Therefore, in addition to active engagement, basic dispositions toward engagement (interest or self-efficacy) and behavioral intentions (underlying preparedness to take action) are of crucial importance in any study of young people's civic engagement.

ICCS 2016 asked students how often they used both traditional sources (watching television, reading newspapers, and talking with parents) and social media to obtain information about political or social issues. The data point to an important role for television, a moderately important role

for discussions with parents, and a relatively smaller role for newspapers (Table 4.1). In 2016, an average of two-thirds of students (66%) in countries meeting sampling requirements watched television at least once a week in order to obtain information about national and international news. The corresponding average percentage for talking with parents was 46 percent, while the average percentage for reading newspapers was 27 percent.

A closer look at these results revealed considerable variation across countries. The percentages of ICCS 2016 students who reported television as a source of national and international news were notably higher[1] than the international average in Chile (76%), Chinese Taipei (80%), Colombia (79%), and Peru (80%), but notably below average in Finland (45%) and Norway (55%). The percentages of students reading newspapers at least weekly as a source of national and international news were notably higher than the ICCS 2016 average in the Dominican Republic (39%) and Peru (60%), but notably below this average in Malta (16%) and Slovenia (17%). Denmark (58%) and Italy (61%) recorded the highest percentages of students talking with parents about what was happening in other countries.

ICCS 2016 revealed some intriguing changes over time between 2009 and 2016 for those 18 countries with comparable data (Table 4.1). The percentages of students reporting weekly use of television as a source of national and international news declined significantly over that seven-year period in 11 of the 18 countries but increased in three countries—Belgium (Flemish), Slovenia, and Sweden. The percentages of students using newspapers as a source of national and international news declined in 16 of the 18 countries. No significant changes were apparent in two countries—Belgium (Flemish) and Colombia. Percentages of students who said they talked with their parents about what was happening in other countries increased between 2009 and 2016 in 12 of the 18 countries and declined in just two of the countries with comparable data—Colombia and the Dominican Republic.

In most countries, the overall pattern of change in the frequency with which students were engaging with political and social issues through the various information media was one of decline. The decline in (at least) weekly use of newspapers as a source of information about national and international news was 15 percentage points on average. We observed only a small decline in the percentages (on average, three percentage points) of students using television at least once a week as a source of information about national and international news. However, the percentages of students talking with parents at least once a week about what was happening in other countries increased slightly over the period from 2009 to 2016 (by seven percentage points on average).

Various commentators have suggested that civic participation is more likely when information about political and social issues is conveyed through interactive means (e.g., via chat rooms or message boards) instead of the one-way communication of more traditional media (Bachen, Raphael, Lynn, McKee, & Philippi, 2008; Kahne, Lee, & Feezell, 2011; Rainie, Smith, Schlozman, Brady, & Verba, 2012; Segerberg & Bennett, 2011). Given the increasing importance of this type of civic engagement, the ICCS 2016 student questionnaire included three new items designed to measure young people's engagement with political and social issues via social media. The items asked students to report the frequency with which they were (a) "using the internet to find information about political or social issues;" (b) "posting a comment or image regarding a political or social issue on the internet or social media;" and (c) "sharing or commenting on another person's online post regarding a political or social issue."

The extent to which students were using internet and social media for information and to exchange information about political and social issues varied markedly across countries but was generally lower than might have been expected (Table 4.2). Note, however, that this finding is not about use

1 The term "notably" means a statistically significant difference that is greater than 10 percentage points.

Table 4.1: Students' participation in communication about political or social issues

Country	Percentages of students who reported doing the following activities at least once a week:								
	Watching television to inform yourself about national and international news			Reading the newspaper to inform yourself about national and international news			Talking with your parent(s) about what is happening in other countries		
	2016	2009	Difference	2016	2009	Difference	2016	2009	Difference
Belgium (Flemish)	72 (1.2) △	62 (1.1)	**10** (1.6)	33 (1.0) △	33 (0.9)	0 (1.4)	44 (1.6)	28 (1.1)	**17** (1.9)
Bulgaria	72 (1.1) △	72 (1.1)	-1 (1.6)	20 (1.0) ▽	37 (0.9)	**-16** (1.3)	41 (1.3) ▽	40 (1.3)	2 (1.9)
Chile	76 (0.7) ▲	80 (0.8)	**-4** (1.1)	23 (0.6) ▽	38 (1.1)	**-14** (1.3)	38 (0.9) ▽	40 (1.0)	-2 (1.4)
Chinese Taipei	80 (0.6) ▲	80 (0.6)	0 (0.8)	35 (1.0) △	56 (0.9)	**-21** (1.3)	39 (1.0) ▽	38 (0.7)	1 (1.2)
Colombia	79 (0.8) ▲	84 (0.6)	**-6** (1.0)	35 (1.4) △	38 (1.3)	-3 (1.9)	45 (0.8)	48 (1.0)	**-3** (1.3)
Croatia	64 (1.0)	–	–	25 (1.0) ▽	–	–	49 (1.1) △	–	–
Denmark†	60 (0.9) ▽	69 (1.0)	**-10** (1.4)	20 (0.7) ▽	28 (0.8)	**-8** (1.1)	58 (1.1) ▲	45 (1.1)	**12** (1.6)
Dominican Republic	72 (1.1) △	74 (1.2)	-2 (1.6)	39 (1.2) ▲	54 (1.4)	**-15** (1.9)	47 (1.0)	50 (0.9)	**-4** (1.4)
Estonia[1]	65 (1.1)	75 (1.0)	**-10** (1.5)	30 (1.4) △	53 (1.2)	**-23** (1.8)	40 (1.1) ▽	30 (1.2)	**10** (1.7)
Finland	45 (1.0) ▼	50 (1.1)	**-5** (1.5)	30 (1.1) △	48 (1.0)	**-18** (1.5)	41 (1.2) ▽	24 (1.1)	**18** (1.6)
Italy	74 (1.0) △	78 (0.9)	**-4** (1.4)	27 (1.1)	36 (1.3)	**-10** (1.7)	61 (1.2) ▲	55 (1.2)	**7** (1.6)
Latvia[1]	57 (1.2) ▽	76 (1.1)	**-18** (1.6)	20 (0.8) ▽	37 (1.2)	**-17** (1.4)	47 (1.3)	41 (1.4)	**7** (1.9)
Lithuania	73 (1.0) △	76 (0.9)	**-4** (1.4)	23 (1.1) ▽	45 (1.2)	**-22** (1.6)	50 (1.0) △	40 (0.9)	**11** (1.3)
Malta	65 (0.9)	64 (0.9)	1 (1.3)	16 (0.7) ▼	28 (1.0)	**-13** (1.2)	51 (0.8) △	40 (1.3)	**11** (1.5)
Mexico	59 (0.8) ▽	63 (0.8)	**-3** (1.1)	26 (0.7)	31 (0.9)	**-5** (1.1)	36 (0.8) ▽	38 (0.7)	-2 (1.0)
Netherlands†	63 (1.3) ▽	–	–	18 (1.2) ▽	–	–	46 (1.2)	–	–
Norway (9)[1]	55 (1.0) ▼	71 (1.3)	**-16** (1.6)	27 (0.8)	54 (1.3)	**-27** (1.5)	43 (0.9) ▽	35 (1.3)	**8** (1.6)
Peru	80 (0.7) ▲	–	–	60 (1.2) ▲	–	–	51 (0.9) △	–	–
Russian Federation	57 (1.2) ▽	61 (1.1)	**-3** (1.6)	21 (0.8) ▽	38 (0.9)	**-17** (1.2)	38 (1.0) ▽	33 (1.0)	**5** (1.4)
Slovenia	59 (1.2) ▽	54 (1.3)	**4** (1.8)	17 (0.9) ▼	32 (1.0)	**-15** (1.3)	43 (1.2) ▽	33 (1.1)	**10** (1.6)
Sweden[1]	57 (1.1) ▽	49 (1.0)	**8** (1.5)	29 (0.9) △	51 (1.2)	**-22** (1.5)	48 (1.4)	28 (1.0)	**20** (1.7)
ICCS 2016 average	66 (0.2)			27 (0.2)			46 (0.2)		
Common countries average	65 (0.2)	69 (0.2)	**-3** (0.3)	26 (0.2)	41 (0.3)	**-15** (0.3)	45 (0.3)	38 (0.3)	**7** (0.4)
Countries not meeting sample participation requirements									
Hong Kong SAR	71 (1.2)	–	–	44 (1.0)	–	–	39 (1.0)	–	–
Korea, Republic of[2]	60 (1.0)	–	–	14 (0.8)	–	–	41 (1.2)	–	–
Benchmarking participant not meeting sample participation requirements									
North Rhine-Westphalia (Germany)[1]	60 (1.3)	–	–	23 (1.5)	–	–	57 (1.6)	–	–

National percentage
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
- () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
- (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
- † Met guidelines for sampling participation rates only after replacement schools were included.
- [1] National Defined Population covers 90% to 95% of National Target Population.
- [2] Country surveyed target grade in the first half of the school year.
- – No comparable data available.

of the internet and social media in general but about use of these communication technologies for specific purposes related to civic engagement.

The ICCS 2016 international average percentages for students' engagement with political and social issues through the internet and other social media at least once a week ranged from 31 percent for using the internet to find information about political or social issues down to 10 percent for sharing or commenting on another person's online post regarding a political or social issue, and nine percent for posting a comment or image regarding a political or social issue on internet or social media.

Table 4.2: Students' engagement with internet and social media

Country	Percentages of students who reported doing the following activities at least once a week:			Average scale scores indicating students' engagement with social media
	Using the internet to find information about political or social issues (%)	Posting a comment or image regarding a political or social issue on the internet or social media (%)	Sharing or commenting on another person's online post regarding a political or social issue (%)	
Belgium (Flemish)	23 (1.1) ▽	5 (0.6) ▽	6 (0.4) ▽	48 (0.3) ▽
Bulgaria	26 (0.9) ▽	12 (0.9) △	11 (0.6) △	50 (0.3)
Chile	21 (0.6) ▽	9 (0.5)	8 (0.4) ▽	48 (0.2) ▽
Chinese Taipei	65 (1.0) ▲	20 (0.7) ▲	15 (0.6) △	57 (0.2) ▲
Colombia	29 (0.9) ▽	11 (0.6) △	16 (0.8) △	51 (0.2) △
Croatia	34 (1.2) △	3 (0.4) ▽	3 (0.4) ▽	49 (0.2) ▽
Denmark†	38 (0.8) △	3 (0.3) ▽	4 (0.4) ▽	50 (0.2)
Dominican Republic	37 (1.2) △	19 (0.8) ▲	23 (0.9) ▲	54 (0.2) ▲
Estonia[1]	26 (1.2) ▽	5 (0.4) ▽	8 (0.6) ▽	49 (0.2) ▽
Finland	18 (0.9) ▼	3 (0.3) ▽	3 (0.4) ▽	46 (0.2) ▼
Italy	35 (1.0) △	9 (0.5)	10 (0.6)	51 (0.2) △
Latvia[1]	37 (1.2) △	14 (0.8) △	14 (0.7) △	53 (0.3) △
Lithuania	37 (1.1) △	8 (0.6)	9 (0.6)	52 (0.2) △
Malta	25 (0.7) ▽	7 (0.4) ▽	8 (0.4) ▽	48 (0.2) ▽
Mexico	29 (0.8)	12 (0.5) △	12 (0.5) △	50 (0.2) △
Netherlands†	10 (0.7) ▼	3 (0.3) ▽	5 (0.5) ▽	44 (0.2) ▼
Norway (9)[1]	27 (0.7) ▽	4 (0.3) ▽	5 (0.3) ▽	49 (0.2) ▽
Peru	33 (0.9) △	17 (0.7) △	18 (0.7) △	53 (0.2) △
Russian Federation	40 (1.2) △	8 (0.5)	10 (0.6)	52 (0.3) △
Slovenia	20 (0.9) ▼	3 (0.4) ▽	4 (0.4) ▽	47 (0.2) ▼
Sweden[1]	33 (1.1) △	5 (0.5) ▽	7 (0.7) ▽	50 (0.2)
ICCS 2016 average	31 (0.2)	9 (0.1)	10 (0.1)	50 (0.0)
Countries not meeting sample participation requirements				
Hong Kong SAR	29 (1.0)	16 (0.8)	16 (0.8)	52 (0.3)
Korea, Republic of[1]	41 (1.2)	8 (0.6)	11 (0.7)	52 (0.2)
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)	14 (1.0)	8 (0.6)	7 (0.7)	47 (0.2)

National percentage or average:
▲ More than 10 percentage points or 3 score points above ICCS 2016 average
△ Significantly above average
▽ Significantly below average
▼ More than 10 percentage points or 3 score points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Students were less likely to use internet and social media than television to find information about political and social issues, but were marginally more likely to use internet and social media than newspapers. In terms of interactive civic engagement, students were considerably less likely to (at least weekly) share or comment on an online post or to post a comment or image online than they were to talk to their parents about what was happening in other countries.

We also observed considerable variation in the percentages of students using internet at least once a week to find information about political or social issues (Table 4.2). The percentages ranged from 10 percent in the Netherlands to 65 percent for Chinese Taipei. The percentages sharing or commenting on another person's online post at least once a week ranged from three percent in Croatia and Finland to 23 percent in the Dominican Republic. The percentages of students posting a comment or image relating to a political or social issue on the internet or social media at least once a week were lowest (at three percent) in Croatia, Denmark, Finland, the Netherlands, and Slovenia, and highest (with 20%) in Chinese Taipei.

The average national scale scores in Table 4.2 represent students' use of the internet and other social media for the three civic engagement purposes. The three items formed a scale with a marginally acceptable reliability (average Cronbach's alpha = 0.63) (see item map in Figure 4.1, Appendix D). Comparisons of the national scale scores with the ICCS 2016 international average showed that the students most frequently using social media for civic engagement were those from Chinese Taipei (by more than half of an international standard deviation) and the Dominican Republic (by more than a third of an international standard deviation). The students least likely to be using social media for civic engagement were those from Finland (with a national average below the ICCS 2016 average by more than a third of an international standard deviation), the Netherlands (by more than half of an international standard deviation), and Slovenia (by one third of an international standard deviation).

Table 4.3 presents the associations between the national average scale scores for students' engagement with political or social issues and three student characteristics: (a) "highest level of parental education;" (b) "extent of students' interest in political and social issues;" and (c) "extent of students' civic knowledge." The columns show the average scale scores for each comparison group (e.g., males and females), while the bar in between graphically illustrates the direction of each association: the red bars to the left of the zero line indicate score point differences where students in the left-hand side group have significantly ($p < 0.05$) higher values; the green bars indicate score point differences where the group on the right-hand side has significantly higher averages. (The tables in Appendix E set out the percentages of students in the comparison groups.)

Our comparison of social media engagement and parental education revealed a very small difference between students for whom at least one parent had a university degree and those whose parents did not have a university degree. The difference, equivalent to one tenth of an international standard deviation, was in favor of the students who had at least one parent who was a university graduate. In 10 countries, the difference was statistically significant. The largest difference (in the Netherlands) was equivalent to about a third of an international standard deviation. The only country where we found a significant difference in the reverse direction was Belgium (Flemish).

In all countries, average scores on the social media engagement scale were consistently higher for those students who expressed interest in civic issues than for those students not interested in civic issues. On average, the difference between interested and not interested students was about six score points (more than half of an international standard deviation), making for a moderately large difference. However, there is no way to discern the direction of causality. In addition, our analyses revealed very few significant differences in scores on the social media engagement scale between students with high and students with low levels of civic knowledge.

Table 4.3: National average scale scores indicating students' engagement with social media by parental education, students' interest, and level of civic knowledge

Country	Scale score by parental university degree		Scale score average by students' interest		Scale score average by level of civic knowledge	
	No parent with university degree	At least one parent with university degree	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	**49** (0.6)	48 (0.2)	47 (0.3)	**53** (0.5)	**50** (0.6)	48 (0.3)
Bulgaria	51 (0.4)	50 (0.3)	48 (0.3)	**54** (0.4)	**51** (0.5)	49 (0.3)
Chile	48 (0.2)	**50** (0.4)	46 (0.2)	**55** (0.3)	48 (0.3)	**49** (0.2)
Chinese Taipei	57 (0.2)	57 (0.3)	56 (0.2)	**60** (0.4)	56 (0.6)	**57** (0.2)
Colombia	51 (0.2)	51 (0.3)	49 (0.2)	**55** (0.3)	51 (0.3)	51 (0.3)
Croatia	49 (0.2)	**50** (0.4)	47 (0.3)	**52** (0.3)	48 (0.5)	**49** (0.2)
Denmark†	50 (0.2)	**51** (0.2)	47 (0.2)	**54** (0.2)	50 (0.5)	50 (0.2)
Dominican Republic	53 (0.3)	54 (0.4)	51 (0.3)	**57** (0.4)	54 (0.2)	54 (0.7)
Estonia[1]	50 (0.2)	49 (0.3)	48 (0.2)	**53** (0.3)	50 (0.5)	49 (0.2)
Finland	45 (0.2)	**47** (0.3)	44 (0.2)	**51** (0.3)	45 (0.6)	46 (0.2)
Italy	50 (0.3)	**52** (0.4)	49 (0.2)	**55** (0.3)	50 (0.5)	51 (0.3)
Latvia[1]	52 (0.3)	53 (0.3)	51 (0.3)	**56** (0.4)	53 (0.4)	52 (0.3)
Lithuania	51 (0.3)	52 (0.3)	50 (0.2)	**55** (0.3)	52 (0.4)	51 (0.3)
Malta	48 (0.2)	49 (0.3)	46 (0.2)	**53** (0.3)	48 (0.3)	48 (0.2)
Mexico	50 (0.3)	**52** (0.4)	49 (0.2)	**54** (0.4)	50 (0.3)	51 (0.3)
Netherlands†	44 (0.2)	**45** (0.3)	43 (0.2)	**50** (0.6)	44 (0.3)	**45** (0.2)
Norway (9)[1]	48 (0.2)	**49** (0.2)	47 (0.2)	**53** (0.2)	49 (0.4)	48 (0.2)
Peru	52 (0.2)	**54** (0.4)	50 (0.3)	**55** (0.3)	**53** (0.3)	52 (0.3)
Russian Federation	52 (0.3)	52 (0.3)	49 (0.3)	**55** (0.2)	52 (0.5)	52 (0.3)
Slovenia	47 (0.3)	47 (0.3)	46 (0.2)	**51** (0.4)	47 (0.4)	47 (0.2)
Sweden[1]	49 (0.3)	**51** (0.3)	47 (0.3)	**54** (0.3)	50 (0.6)	50 (0.2)
ICCS 2016 average	50 (0.1)	**51** (0.1)	**48** (0.1)	**54** (0.1)	50 (0.1)	50 (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	52 (0.3)	53 (0.6)	48 (0.3)	**56** (0.4)	52 (0.5)	52 (0.3)
Korea, Republic of[2]	51 (0.4)	**53** (0.3)	48 (0.3)	**56** (0.3)	50 (0.5)	**53** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

In summary, we found significant associations across all countries between scores on the social media engagement scale and students' interest in civic issues. We recorded only weak associations with parental education and no consistent associations between civic knowledge and social media engagement.

ICCS 2016 asked students a series of questions regarding the frequency with which they discussed political and social issues outside school. The questions had four response categories: "never or hardly ever," "monthly (at least once a month)," "weekly (at least once a week)," and "daily or almost daily."

The following items were used to measure students' discussion of political or social issues: (a) "talking with parents about political or social issues" (ICCS 2016 average percentage of at least weekly discussions: 25%); "talking with friends about political or social issues" (16%); "talking with parent(s) about what is happening in other countries" (46%); and "talking with friends about what is happening in other countries" (27%).

We used the responses to these items to derive an IRT scale reflecting the frequency of student discussion of political and social issues outside of school. The scale had a satisfactory international average reliability (Cronbach's alpha = 0.74); see item map in Figure 4.2, Appendix D. Because ICCS 2009 also used the items making up this scale, we were able to equate the 2016 IRT scale to the one derived in the previous cycle, thereby allowing us to examine not only the changes between 2009 and 2016 but also the associations between the average scores on this scale and the other indicators.

The 2016 findings revealed little variation across countries in the frequency with which students discussed political and social issues outside their schools because the difference between the country with the lowest and the country with the highest average score was only four scale points (equivalent to over a third of an international standard deviation). The students least likely to discuss civic issues outside school came from Chile and Mexico; those most likely to hold such discussions were from Denmark, Latvia, Lithuania, and Peru.

The ICCS 2016 students engaged slightly more often (by more than two scale points or almost a quarter of an international standard deviation) than their 2009 counterparts in discussions of social and political issues outside school (Table 4.4). This difference suggests that students were discussing political and social issues outside school somewhat more often in 2016 than they were in 2009.

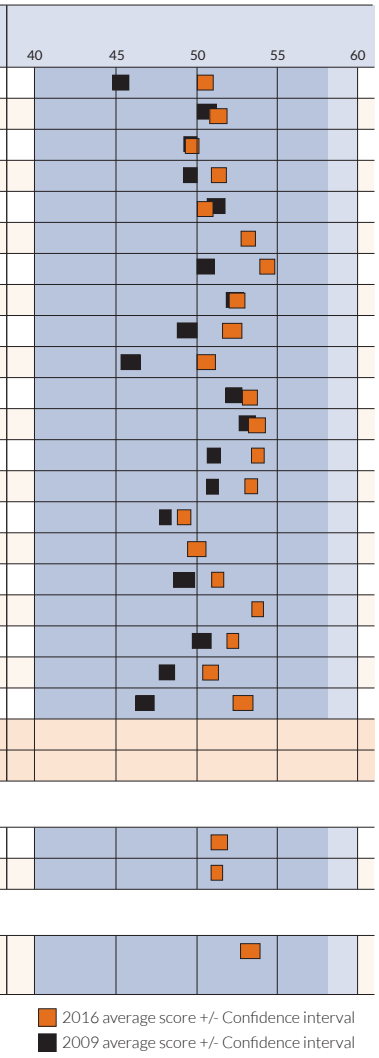
The increase across the seven years was statistically significant in 12 countries; six countries, however, recorded no significant change. The largest increases (of more than half an international standard deviation) were recorded in Sweden, Finland, and Belgium (Flemish). We also recorded moderate increases (equivalent to around a third of an international standard deviation) in Denmark, Estonia, Slovenia, Lithuania, and Malta.

Strong associations emerged between the frequency with which students discussed political and social issues outside school and their interest in these issues (Table 4.5). In every participating country, discussion scale scores were higher among students who said they were quite or very interested in political and social issues than among the students who expressed little or no interest. On average, the difference was eight scale points (equivalent to more than three quarters of an international standard deviation), suggesting a consistently strong relationship between student interest in political and social issues and their propensity to discuss those issues outside school.

In addition, in most countries, students with at least one parent who had attained a university degree discussed social and political issues more frequently than students whose parents had not attained a university degree. The difference was statistically significant in all but one participating

Table 4.4: National average scale scores indicating students' discussion of political and social issues outside school

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	50 (0.3)	▽	45 (0.2)	**5.3** (0.6)
Bulgaria	51 (0.3)		50 (0.3)	0.9 (0.6)
Chile	49 (0.2)	▽	49 (0.2)	0.1 (0.5)
Chinese Taipei	51 (0.2)	▽	49 (0.2)	**1.9** (0.5)
Colombia	51 (0.2)	▽	51 (0.2)	-0.4 (0.5)
Croatia	53 (0.2)	△	–	–
Denmark†	54 (0.2)	△	50 (0.3)	**4.0** (0.5)
Dominican Republic	52 (0.3)	△	52 (0.2)	0.3 (0.5)
Estonia	52 (0.3)		49 (0.3)	**2.9** (0.6)
Finland	51 (0.2)	▽	46 (0.3)	**4.9** (0.6)
Italy	53 (0.2)	△	52 (0.3)	0.9 (0.5)
Latvia	54 (0.2)	△	53 (0.2)	0.7 (0.5)
Lithuania	54 (0.2)	△	51 (0.2)	**2.8** (0.5)
Malta	53 (0.1)	△	51 (0.2)	**2.5** (0.5)
Mexico	49 (0.2)	▽	48 (0.2)	**1.1** (0.5)
Netherlands†	50 (0.2)	▽	–	–
Norway (9)	51 (0.2)	▽	49 (0.3)	**2.2** (0.6)
Peru	54 (0.2)	△	–	–
Russian Federation	52 (0.2)		50 (0.3)	**2.0** (0.6)
Slovenia	51 (0.2)	▽	48 (0.2)	**2.8** (0.5)
Sweden	53 (0.3)	△	47 (0.3)	**6.4** (0.6)
ICCS 2016 average	52 (0.0)			
Common countries average	52 (0.1)		49 (0.1)	**2.3** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	51 (0.3)		–	–
Korea, Republic of[2]	51 (0.2)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	53 (0.3)		–	–



National percentage or average:
▲ More than 3 score points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	Less than weekly
	Weekly or more

Notes:
() Standard errors appear in parentheses.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

country (Dominican Republic). However, on average, the difference was relatively small (just two scale points, equivalent to a fifth of an international standard deviation).

In 16 countries, students with higher levels of civic knowledge had significantly higher scores on the scale denoting discussion of political and social issues outside school than those whose civic knowledge scores were below Level B (refer Table 4.5). On average, the difference was two scale points (equivalent to about a fifth of an international standard deviation). Overall, these results suggest a weak association between the frequency with which students discuss political and social issues and their level of civic knowledge.

There is wide acceptance in the research literature that individuals' "judgments of their capabilities to organize and execute courses of action required to attain designated types of performances" denote self-efficacy and that these judgements have a strong influence on the choices individuals make in regard to undertaking tasks, the effort they put into those tasks, and the extent to which they persevere with them (Bandura, 1986, p. 391). Consequently, students' sense of citizenship self-efficacy is widely considered as an important part of personal engagement with political and social issues. We defined students' sense of citizenship self-efficacy as students' self-confidence in undertaking specific behaviors in the area of civic participation.

To assess this construct, ICCS 2016 included seven items that also featured in the ICCS 2009 student questionnaire. The items were (a) "discuss a newspaper article about a conflict between countries" (ICCS 2016 average percentage of students expressing a fair or very good degree of confidence: 65%); "argue your point of view about a controversial political or social issue" (68%); "stand as a candidate in a school election" (59%); "organize a group of students in order to achieve changes at school" (65%); "follow a television debate about a controversial issue" (59%); "write a letter or email to a newspaper giving your view on a current issue" (60%); and "speak in front of your class about a social or political issue" (60%). The items had similar levels of agreement, and we used them to derive an IRT scale with high average reliability (Cronbach's alpha = 0.84). The scale also equated with the scale derived in ICCS 2009 so allowing us to compare scores across the two ICCS cycles (see item map in Figure 4.3, Appendix D).

The national average scale scores for students' sense of citizenship self-efficacy in 2016 were similar in range to the self-efficacy scores in 2009 (Table 4.6). The 2016 average scale scores ranged from 48 (Finland, Latvia, Netherlands) to 60 (Dominican Republic). In 2009 the corresponding range across the countries that also participated in 2016 was from 47 to 57 scale points.

If civic and citizenship education had improved between 2009 and 2016, then a reasonable expectation is for a corresponding increase in citizenship self-efficacy. We observed an increase in citizenship self-efficacy scores between 2009 and 2016 in 12 of the 18 countries with comparable data across the two cycles. Latvia was the only country to show a decline in self-efficacy. The five remaining countries showed no significant differences between 2009 and 2016. On average across the common countries, the increase was 1.5 scale points (equivalent to less than one fifth of an international standard deviation), indicating that the increase over seven years in students' sense of citizenship self-efficacy was relatively small.

Students who had at least one parent with a university degree had slightly higher levels of citizenship self-efficacy than other students (Table 4.7). Although this difference was statistically significant in 14 countries, it was very small, averaging just over one scale point (about a tenth of an international standard deviation).

The ICCS 2016 data revealed strong to moderate associations between citizenship self-efficacy scale scores and students' interest in political and social issues. In every participating country, the mean scale score for citizenship self-efficacy was significantly higher for students who were quite or very interested in political and social issues than for those with no or little interest. On average across the ICCS 2016 countries, this difference was five scale points (equivalent to half an international standard deviation). While this pattern suggests a consistent and moderately strong association between students' citizenship self-efficacy and their interest in political and social issues, it does not indicate any direction of causality.

In 12 countries, citizenship self-efficacy scores for students with higher levels of civic knowledge were slightly (but significantly) higher than the scores for the less knowledgeable students. However, in five countries (Chinese Taipei, Colombia, Dominican Republic, Mexico, Russian Federation), students with lower levels of civic knowledge had slightly but significantly higher

Table 4.5: National average scale scores indicating students' discussion of political and social issues outside school by parental education, students' interest, and level of civic knowledge

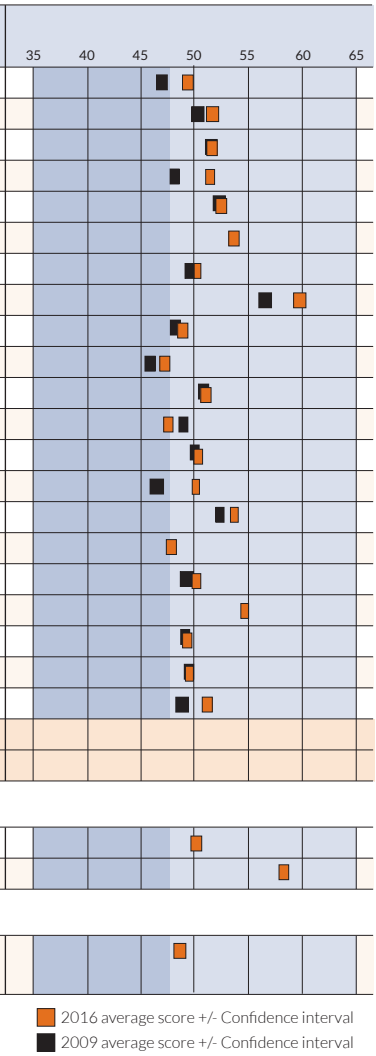
Country	Scale score by parental university degree		Scale score average by students' interest		Scale score average by level of civic knowledge	
	No parent with a university degree	At least one parent with a university degree	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	50 (0.3)	**51** (0.3)	48 (0.2)	**56** (0.4)	50 (0.6)	51 (0.3)
Bulgaria	51 (0.4)	**52** (0.3)	49 (0.3)	**56** (0.4)	51 (0.5)	52 (0.3)
Chile	49 (0.2)	**51** (0.3)	48 (0.2)	**56** (0.4)	48 (0.3)	**51** (0.2)
Chinese Taipei	51 (0.2)	**52** (0.4)	49 (0.2)	**56** (0.3)	49 (0.5)	**52** (0.2)
Colombia	50 (0.2)	**52** (0.3)	48 (0.2)	**56** (0.3)	51 (0.2)	51 (0.3)
Croatia	53 (0.2)	**54** (0.3)	51 (0.2)	**57** (0.3)	51 (0.4)	**54** (0.2)
Denmark†	54 (0.2)	**56** (0.3)	51 (0.2)	**59** (0.2)	51 (0.5)	**55** (0.2)
Dominican Republic	52 (0.3)	52 (0.3)	50 (0.3)	**56** (0.4)	52 (0.3)	52 (0.7)
Estonia[1]	51 (0.3)	**53** (0.4)	50 (0.3)	**57** (0.3)	50 (0.5)	**53** (0.3)
Finland	50 (0.3)	**52** (0.3)	48 (0.2)	**56** (0.3)	47 (0.6)	**51** (0.3)
Italy	53 (0.2)	**54** (0.4)	51 (0.2)	**58** (0.2)	52 (0.3)	**54** (0.2)
Latvia[1]	53 (0.3)	**54** (0.3)	52 (0.3)	**58** (0.3)	53 (0.4)	**54** (0.3)
Lithuania	53 (0.3)	**55** (0.3)	51 (0.2)	**57** (0.2)	53 (0.5)	**54** (0.2)
Malta	53 (0.2)	**54** (0.3)	51 (0.2)	**58** (0.2)	52 (0.3)	**54** (0.2)
Mexico	49 (0.2)	**50** (0.3)	47 (0.2)	**54** (0.5)	48 (0.3)	**50** (0.3)
Netherlands†	49 (0.3)	**52** (0.4)	48 (0.2)	**57** (0.5)	47 (0.5)	**51** (0.3)
Norway (9)[1]	50 (0.2)	**52** (0.2)	49 (0.2)	**57** (0.2)	49 (0.4)	**52** (0.2)
Peru	53 (0.2)	**54** (0.3)	51 (0.2)	**56** (0.2)	54 (0.2)	53 (0.3)
Russian Federation	51 (0.3)	**53** (0.3)	49 (0.2)	**56** (0.2)	50 (0.4)	**53** (0.2)
Slovenia	50 (0.3)	**52** (0.4)	49 (0.2)	**56** (0.3)	48 (0.4)	**51** (0.3)
Sweden[1]	52 (0.3)	**54** (0.4)	49 (0.2)	**58** (0.3)	51 (0.6)	**53** (0.4)
ICCS 2016 average	51 (0.1)	**53** (0.1)	49 (0.0)	**57** (0.1)	50 (0.1)	**52** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	51 (0.3)	**54** (0.5)	48 (0.3)	**56** (0.3)	50 (0.5)	**52** (0.3)
Korea, Republic of[2]	50 (0.3)	**52** (0.2)	47 (0.3)	**55** (0.3)	49 (0.5)	**52** (0.2)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Table 4.6: National average scale scores indicating students' sense of citizenship self-efficacy

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	50 (0.2)	▽	47 (0.2)	**2.7** (0.4)
Bulgaria	52 (0.3)	△	50 (0.3)	**1.6** (0.5)
Chile	52 (0.2)		52 (0.2)	0.1 (0.4)
Chinese Taipei	52 (0.2)		48 (0.2)	**3.6** (0.4)
Colombia	53 (0.2)	△	53 (0.3)	0.5 (0.4)
Croatia	54 (0.2)	△	–	–
Denmark†	51 (0.2)	▽	50 (0.2)	**1.1** (0.4)
Dominican Republic (r)	60 (0.2)	▲	57 (0.3)	**3.6 (0.5)**
Estonia	49 (0.2)	▽	48 (0.2)	**1.0** (0.4)
Finland	48 (0.2)	▼	46 (0.2)	**1.8** (0.4)
Italy	52 (0.2)		51 (0.3)	0.6 (0.4)
Latvia	48 (0.2)	▼	49 (0.2)	**-1.2** (0.4)
Lithuania	51 (0.2)	▽	50 (0.2)	**0.8** (0.4)
Malta	50 (0.2)	▽	47 (0.3)	**3.9** (0.4)
Mexico	54 (0.2)	△	53 (0.2)	**1.5** (0.4)
Netherlands†	48 (0.2)	▼	–	–
Norway (9)	51 (0.2)	▽	49 (0.3)	**1.2** (0.5)
Peru	55 (0.2)	▲	–	–
Russian Federation	50 (0.2)	▽	49 (0.2)	0.6 (0.4)
Slovenia	50 (0.2)	▽	50 (0.3)	0.2 (0.4)
Sweden	52 (0.2)		49 (0.3)	**2.6** (0.5)
ICCS 2016 average	51 (0.0)			
Common countries average	51 (0.1)		50 (0.1)	**1.5** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	50 (0.2)		–	–
Korea, Republic of[2]	59 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	49 (0.3)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	Not or not very well
	Very or quite well

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from international defined population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

scores than the more knowledgeable students. On average across countries, the difference was less than one scale point (equivalent to less than a tenth of an international standard deviation). Overall, positive associations between citizenship self-efficacy and civic knowledge emerged in more than half of the participating countries. However, all of these associations were relatively small (two score points or a fifth of an international standard deviation).

Students' participation in civic activities at school

Evidence within the research literature suggests that more democratic forms of school governance can contribute to higher levels of political engagement among students (see, for example, Mosher, Kenny, & Garrod, 1994; Pasek, Feldman, Romer, & Jamieson, 2008). Based on their analyses of longitudinal data in the United Kingdom, Keating and Janmaat (2015) suggest that participation in school-based political activities tends to have a positive influence on future civic engagement. The ICCS 2009 student questionnaire asked students about a wide range of civic-related participation at school (e.g., in school councils/parliaments or in student debates). The results from that cycle of ICCS showed majorities of students saying they had participated in many of these activities at school. These results also revealed positive associations between civic participation at school and civic knowledge (Schulz, Ainley, Fraillon, Kerr, & Losito, 2010).

In order to assess students' civic-related participation at school, ICCS 2016 used a set of items in the student questionnaire that were mostly identical to the items used in the previous survey. The following comparative presentation of results from 2016 and 2009 sets out the percentages of students who had, within the past 12 months or a year ago, (a) "voted for a class or school parliament representative;" (b) "took part in decision-making on how their school was run;" or (c) "become a candidate for class representative or member of a school parliament" (see Table 4.8).

Across the countries participating in ICCS 2016, 77 percent of students, on average, said that during or before the last 12 months they had voted for a class or school parliament representative. Forty-one percent said they had taken part in decisions on how their school was being run, and 42 percent reported having been a candidate for class representative or a member of a school parliament.

On average across countries, the national percentages of students who said they had voted for a class or school parliament representative ranged from 50 to 93 percent. Percentages were above 90 percent in three countries (Chile, Croatia, Norway) and below 60 percent in three countries (Bulgaria, Italy, Netherlands). The national percentages of students who said they had participated in decisions on the running of their school ranged from 20 to 64 percent. Percentages were greater than 50 percent in four countries (Dominican Republic, Mexico, Norway, Sweden) and below 30 percent in five other countries (Croatia, Estonia, Finland, Netherlands, Slovenia). The national percentages of students who said they had been a candidate for class representative or member of a school parliament ranged from 21 to 62 percent. Percentages were greater than 50 percent in four countries (Croatia, Dominican Republic, Norway, Slovenia) and below 30 percent in three countries (Italy, Netherlands, Russian Federation).

Over the seven years between ICCS 2009 and 2016, eight countries (Chinese Taipei, Denmark, Dominican Republic, Lithuania, Malta, Norway, Russian Federation, Sweden) saw significant increases in the percentages of students who said they had voted for a class or school parliament representative (Table 4.8). We recorded significantly higher percentages of students who said they had participated in decisions about the running of their school in nine countries (Chile, Denmark, Estonia, Finland, Malta, Mexico, Netherlands, Norway, Sweden), and significantly lower percentages in two countries. Six countries (Dominican Republic, Finland, Lithuania, Malta, Mexico, Sweden) witnessed significant increases across time in the percentage of students who reported standing as a candidate for class representative or member of a school parliament; two countries experienced a decline. On average across the common countries that participated in both ICCS cycles, the proportion of students reporting participation in all three activities increased (significantly so) by three percentage points.

Consideration of students' beliefs regarding the value of participating in civic-related activities at school is important because of its close association with the more general concept of political efficacy (Campbell, Gurin, & Miller, 1954). Although adolescents at lower-secondary level (the ICCS 2016 target age) are generally unable to vote or run for office in "adult politics," experimentation

Table 4.7: National average scale scores indicating students' sense of citizenship self-efficacy by parental education, students' interest, and level of civic knowledge

Country	Scale score average by parental university degree		Scale score average by students' interest		Scale score average by level of civic knowledge	
	No parents with a university degree	At least one parent with a university degree	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	50 (0.3)	50 (0.2)	48 (0.3)	**53** (0.3)	50 (0.5)	50 (0.3)
Bulgaria	51 (0.4)	**53** (0.3)	50 (0.3)	**55** (0.4)	51 (0.5)	**53** (0.3)
Chile	52 (0.3)	52 (0.4)	50 (0.2)	**58** (0.4)	52 (0.3)	52 (0.3)
Chinese Taipei	52 (0.2)	52 (0.3)	50 (0.2)	**55** (0.3)	**55** (0.6)	51 (0.2)
Colombia	53 (0.2)	54 (0.4)	51 (0.2)	**57** (0.3)	**54** (0.3)	52 (0.3)
Croatia	54 (0.2)	**55** (0.5)	52 (0.2)	**57** (0.3)	53 (0.4)	**55** (0.2)
Denmark†	50 (0.2)	**53** (0.3)	48 (0.2)	**55** (0.2)	48 (0.6)	**51** (0.2)
Dominican Republic (r)	60 (0.3)	61 (0.4)	59 (0.3)	**62** (0.4)	**61** (0.3)	59 (0.7)
Estonia[1]	49 (0.2)	**50** (0.4)	47 (0.3)	**53** (0.3)	46 (0.3)	**50** (0.3)
Finland	47 (0.2)	**49** (0.3)	45 (0.2)	**52** (0.3)	45 (0.5)	**48** (0.2)
Italy	51 (0.2)	**54** (0.4)	50 (0.2)	**56** (0.3)	50 (0.4)	**52** (0.2)
Latvia[1]	47 (0.3)	**49** (0.3)	47 (0.3)	**51** (0.3)	47 (0.5)	**48** (0.3)
Lithuania	50 (0.3)	**52** (0.3)	49 (0.2)	**54** (0.3)	50 (0.4)	**51** (0.3)
Malta	50 (0.2)	**52** (0.4)	48 (0.2)	**55** (0.3)	50 (0.4)	**51** (0.2)
Mexico	54 (0.2)	54 (0.4)	53 (0.2)	**58** (0.3)	**55** (0.3)	53 (0.3)
Netherlands†	48 (0.3)	**49** (0.3)	47 (0.2)	**53** (0.4)	48 (0.5)	48 (0.3)
Norway (9)[1]	49 (0.4)	**52** (0.2)	48 (0.2)	**56** (0.2)	49 (0.6)	**51** (0.2)
Peru	55 (0.2)	**56** (0.3)	53 (0.2)	**57** (0.2)	55 (0.2)	56 (0.2)
Russian Federation	49 (0.3)	50 (0.3)	47 (0.2)	**53** (0.3)	**51** (0.5)	49 (0.2)
Slovenia	49 (0.3)	**51** (0.3)	49 (0.2)	**54** (0.4)	48 (0.4)	**50** (0.2)
Sweden[1]	51 (0.4)	**52** (0.4)	48 (0.3)	**56** (0.3)	50 (0.7)	**52** (0.3)
ICCS 2016 average	51 (0.1)	**52** (0.1)	50 (0.1)	**55** (0.1)	51 (0.1)	**52** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	50 (0.3)	**52** (0.6)	48 (0.3)	**53** (0.3)	50 (0.4)	51 (0.3)
Korea, Republic of[2]	57 (0.4)	**60** (0.3)	57 (0.3)	**60** (0.3)	56 (0.6)	**60** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Table 4.8: Students' participation in civic activities at school

Country	Percentages of students who reported having participated in the following activities:								
	Voting for <class representative> or <school parliament>			Taking part in decision-making about how the school is run			Becoming a candidate for <class representative> or <school parliament>		
	2016	2009	Difference	2016	2009	Difference	2016	2009	Difference
Belgium (Flemish)	64 (2.0) ▼	68 (2.0)	-4 (2.8)	37 (1.3) ▽	36 (1.3)	2 (1.8)	37 (1.3) ▽	34 (1.2)	3 (1.7)
Bulgaria	56 (1.7) ▼	52 (1.9)	5 (2.5)	32 (1.2) ▽	31 (1.2)	1 (1.6)	37 (1.3) ▽	34 (1.1)	3 (1.6)
Chile	91 (0.7) ▲	89 (0.7)	2 (1.0)	49 (1.0) △	39 (1.1)	**9** (1.5)	46 (0.9) △	47 (1.0)	-1 (1.3)
Chinese Taipei	72 (0.8) ▽	67 (0.9)	**5** (1.2)	43 (0.8) △	43 (0.7)	-1 (1.1)	34 (0.9) ▽	32 (0.9)	1 (1.2)
Colombia	90 (0.8) ▲	90 (0.5)	0 (0.9)	49 (1.0) △	57 (0.9)	**-7** (1.4)	42 (1.1)	44 (0.8)	-2 (1.4)
Croatia	91 (0.6) ▲	–	–	20 (1.0) ▼	–	–	58 (1.1) ▲	–	–
Denmark†	80 (1.1) △	73 (1.1)	**6** (1.5)	47 (1.0) △	44 (1.0)	**4** (1.4)	50 (1.0) △	49 (1.0)	1 (1.4)
Dominican Republic	66 (1.0) ▼	61 (1.5)	**5** (1.8)	60 (1.1) ▲	59 (1.1)	1 (1.5)	62 (1.1) ▲	58 (1.2)	**4** (1.6)
Estonia[1]	74 (1.7)	75 (1.8)	0 (2.5)	29 (1.0) ▼	24 (1.2)	**5** (1.5)	30 (1.2) ▼	32 (1.5)	-2 (1.9)
Finland	85 (1.1) △	83 (1.3)	2 (1.7)	27 (1.0) ▼	15 (0.7)	**12** (1.3)	46 (1.5) △	35 (1.4)	**11** (2.0)
Italy	50 (2.5) ▼	49 (2.3)	2 (3.4)	36 (1.2) ▽	34 (1.5)	2 (1.9)	22 (1.6) ▼	21 (1.3)	0 (2.0)
Latvia[1]	62 (2.0) ▼	67 (2.5)	-5 (3.1)	30 (1.3) ▼	31 (1.3)	-1 (1.9)	34 (1.3) ▽	39 (1.6)	**-5** (2.1)
Lithuania	89 (0.8) ▲	84 (0.9)	**5** (1.2)	43 (1.5)	35 (1.1)	**8** (1.8)	47 (1.3) △	30 (1.1)	**17** (1.6)
Malta	78 (0.7) △	62 (1.2)	**16** (1.4)	42 (0.8)	29 (1.0)	**13** (1.2)	48 (0.8) △	24 (0.9)	**25** (1.3)
Mexico	76 (1.0)	74 (0.9)	3 (1.4)	57 (0.8) ▲	54 (0.9)	**3** (1.2)	42 (0.9)	36 (0.7)	**6** (1.2)
Netherlands†	51 (2.3) ▼	–	–	27 (1.0) ▼	–	–	21 (1.3) ▼	–	–
Norway (9)[1]	93 (0.4) ▲	90 (0.8)	**3** (0.9)	59 (0.9) ▲	56 (1.1)	**3** (1.4)	58 (0.8) ▲	59 (1.0)	-1 (1.3)
Peru	84 (1.0) △	–	–	45 (1.0) △	–	–	45 (1.0) △	–	–
Russian Federation	84 (1.3) △	76 (1.4)	**7** (1.9)	33 (1.1) ▽	32 (1.2)	1 (1.6)	25 (0.9) ▼	28 (1.1)	**-3** (1.5)
Slovenia	84 (0.8) △	84 (0.8)	-1 (1.2)	24 (0.9) ▼	28 (1.2)	**-4** (1.4)	59 (1.2) ▲	59 (1.1)	0 (1.7)
Sweden[1]	89 (0.8) ▲	85 (0.9)	**4** (1.2)	64 (0.9) ▲	54 (1.1)	**11** (1.4)	47 (0.8) △	40 (1.0)	**6** (1.3)
ICCS 2016 average	77 (0.3)			41 (0.2)			42 (0.2)		
Common countries average	77 (0.3)	74 (0.3)	**3** (0.5)	42 (0.2)	39 (0.3)	**3** (0.4)	42 (0.3)	39 (0.3)	**3** (0.4)
Countries not meeting sample participation requirements									
Hong Kong SAR	71 (1.2)	–	–	30 (1.1)	–	–	30 (1.0)	–	–
Korea, Republic of[2]	88 (0.8)	–	–	53 (1.4)	–	–	47 (1.1)	–	–
Benchmarking participant not meeting sample participation requirements									
North Rhine-Westphalia Germany)[1]	82 (1.2)	–	–	50 (2.2)	–	–	60 (1.4)	–	–

National percentage:
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

as students can help them understand how they can collectively influence what happens in their schools (Bandura, 1997, p. 491). CIVED included seven items measuring the extent to which students thought they had an influence at school. Four of these questions focused on general confidence in school participation (Torney-Purta, Lehmann, Oswald, & Schulz, 2001). The ICCS 2009 student questionnaire used a set of four (partly modified) CIVED items and one additional item to reflect students' attitudes toward the value of student-based participation in civic-related activities at school. While most students across the ICCS 2009 countries valued students' participation at school, females tended to give more positive responses than males to this form of participation (Schulz et al., 2010).

The ICCS 2016 student questionnaire asked students to state their level of agreement with a set of five statements (items) on the value of participation at school: (a) "Student participation in how schools are run can make schools better" (ICCS 2016 average percentage of students agreeing with this item: 90%); (b) "Lots of positive changes can happen in schools when students work together" (93%); (c) "Organizing groups of students to express their opinions could help solve problems in schools" (87%); (d) "Students can have more influence on what happens in schools if they act together rather than alone" (90%); and (e) "Voting in student elections can make a difference to what happens at schools" (81%). These items formed a reliable scale (Cronbach's alpha = 0.78); see the item map in Figure 4.4, Appendix D. Because ICCS 2009 included the first four of these items, we were able to equate and then examine changes over time between the 2016 scale scores and the 2009 scale scores (Table 4.9).

The national averages in ICCS 2016 ranged from 48 to 56 scale points. Three countries (Chile, Colombia, Dominican Republic) had average scale scores of 54 or greater, while the lowest average scale score was 48 (Netherlands). There were significant increases in seven countries (Bulgaria, Chinese Taipei, Dominican Republic, Estonia, Italy, Lithuania, Mexico). A significantly lower score was recorded in one country.

ICCS 2016 collected data that allowed us to explore possible associations between students' perceptions of the value of participation at school and student gender, students' interest in political or social issues, and students' level of civic knowledge (Table 4.10). A significantly lower score was recorded in one country.

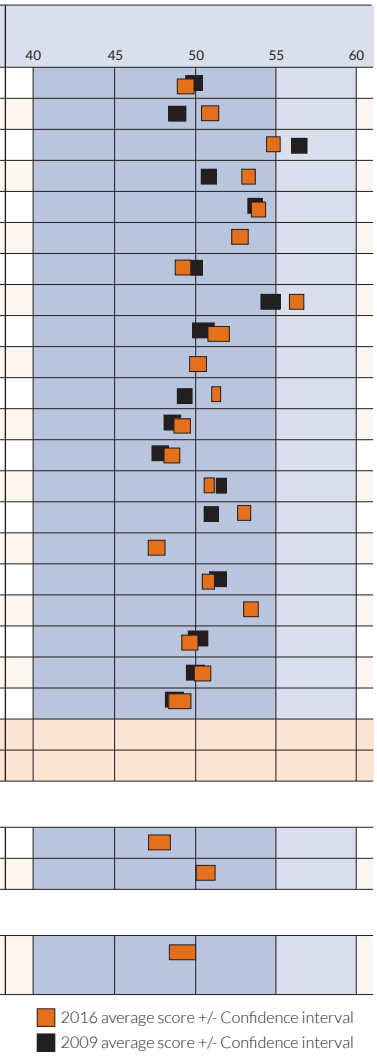
We included student gender as an independent variable in ICCS 2016 because ICCS 2009 showed associations between gender and perceived usefulness of school participation. In 2016, students' perceptions of the value of participation at school again appeared to be related to student gender. On average across the participating countries, female students recorded higher values than males on the value of participation at school scale, with the difference amounting to two scale points (equivalent to one fifth of an international standard deviation). The difference was statistically significant in 16 of the common countries.

We also found higher levels of interest in political and social issues associated with higher scores on the value of participation at school scale. On average across countries, the difference in the value of participation at school scores between students who were quite or very interested in political or social issues and those who had little or no interest was three scale points (equivalent to about a third of an international standard deviation). We observed similar and statistically significant associations in all participating countries. The associations varied in magnitude across countries, however.

In all countries, students with higher levels of civic knowledge scores tended to value student participation at school more than students with lower levels of civic knowledge did. The difference across countries was three scale points on average (equivalent to about a third of a standard deviation).

Table 4.9: National average scale scores indicating students' perception of the value of participation at school

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	49 (0.2)	▽	50 (0.2)	-0.3 (0.4)
Bulgaria	51 (0.2)		49 (0.3)	**2.3** (0.4)
Chile	55 (0.2)	▲	56 (0.2)	**-1.4** (0.4)
Chinese Taipei	53 (0.2)	△	51 (0.2)	**2.7** (0.4)
Colombia	54 (0.2)	△	54 (0.2)	-0.1 (0.4)
Croatia	53 (0.2)	△	–	–
Denmark†	49 (0.2)	▽	50 (0.2)	-0.7 (0.4)
Dominican Republic	56 (0.2)	▲	54 (0.3)	**1.7** (0.4)
Estonia	51 (0.3)		50 (0.3)	**1.1** (0.5)
Finland	50 (0.2)	▽	50 (0.2)	0.4 (0.4)
Italy	51 (0.2)		49 (0.2)	**2.1** (0.3)
Latvia	49 (0.2)	▽	48 (0.3)	0.7 (0.4)
Lithuania	49 (0.2)	▽	48 (0.2)	**0.8** (0.4)
Malta	51 (0.2)		51 (0.3)	-0.2 (0.4)
Mexico	53 (0.2)	△	51 (0.2)	**2.1** (0.4)
Netherlands†	48 (0.2)	▼	–	–
Norway (9)	51 (0.2)	▽	51 (0.2)	-0.4 (0.4)
Peru	53 (0.2)	△	–	–
Russian Federation	50 (0.2)	▽	50 (0.3)	-0.5 (0.4)
Slovenia	50 (0.2)	▽	50 (0.3)	0.4 (0.4)
Sweden	49 (0.4)	▽	49 (0.2)	0.2 (0.5)
ICCS 2016 average	51 (0.1)			
Common countries average	51 (0.1)		51 (0.1)	**0.6** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	48 (0.3)		–	–
Korea, Republic of[2]	51 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	49 (0.4)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	No strong agreement with positive statements
	Strong agreement with positive statements

Notes:
() Standard errors appear in parentheses.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
- No comparable data available.

ICCS 2016 included a question gauging students' willingness to participate at school. The question asked students to rate the likelihood ("very likely," "quite likely," "not very likely," or "not at all likely") of them personally participating in the following civic activities if they had the chance to do so: (a) "vote in a school election for class or school parliament representatives;" (b) "join a group of students campaigning for an issue they agreed with;" (c) "become a candidate for class or school parliament representative;" (d) "take part in discussions in a student assembly;" and (e) "participate in writing articles for a school newspaper or website."

Table 4.10: National average scale scores indicating students' perception of the value of participation at school by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group		Scale score average by students' interest		Scale score average by level of civic knowledge	
	Male students	Female students	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	49 (0.3)	50 (0.3)	49 (0.3)	**51** (0.4)	48 (0.4)	**50** (0.3)
Bulgaria	50 (0.3)	**52** (0.3)	50 (0.3)	**53** (0.4)	48 (0.4)	**53** (0.3)
Chile	54 (0.3)	**55** (0.3)	54 (0.2)	**57** (0.4)	53 (0.4)	**57** (0.3)
Chinese Taipei	53 (0.3)	54 (0.3)	52 (0.2)	**55** (0.4)	51 (0.6)	**54** (0.2)
Colombia	53 (0.3)	**54** (0.2)	53 (0.2)	**56** (0.2)	53 (0.3)	**55** (0.3)
Croatia	52 (0.3)	**54** (0.3)	52 (0.3)	**55** (0.3)	51 (0.5)	**53** (0.3)
Denmark†	49 (0.3)	49 (0.3)	48 (0.2)	**51** (0.3)	47 (0.5)	**49** (0.2)
Dominican Republic	56 (0.3)	**57** (0.3)	56 (0.2)	**57** (0.3)	56 (0.2)	**59** (0.5)
Estonia[1]	50 (0.4)	**53** (0.3)	50 (0.3)	**54** (0.4)	46 (0.6)	**53** (0.3)
Finland	49 (0.3)	**51** (0.2)	49 (0.3)	**52** (0.3)	46 (0.5)	**51** (0.2)
Italy	50 (0.2)	**52** (0.2)	50 (0.2)	**53** (0.2)	48 (0.3)	**52** (0.2)
Latvia[1]	48 (0.3)	**51** (0.3)	49 (0.3)	**51** (0.4)	48 (0.4)	**50** (0.3)
Lithuania	47 (0.4)	**50** (0.3)	48 (0.3)	**50** (0.4)	46 (0.5)	**50** (0.2)
Malta	50 (0.3)	**52** (0.2)	50 (0.2)	**52** (0.3)	48 (0.3)	**53** (0.2)
Mexico	52 (0.3)	**54** (0.2)	52 (0.2)	**55** (0.3)	51 (0.2)	**55** (0.2)
Netherlands†	48 (0.3)	48 (0.3)	47 (0.2)	**51** (0.5)	46 (0.5)	**48** (0.3)
Norway (9)[1]	50 (0.2)	**51** (0.2)	50 (0.2)	**53** (0.3)	48 (0.4)	**51** (0.2)
Peru	53 (0.2)	54 (0.3)	52 (0.2)	**55** (0.3)	52 (0.2)	**56** (0.3)
Russian Federation	49 (0.3)	**51** (0.3)	48 (0.2)	**51** (0.4)	48 (0.5)	**50** (0.3)
Slovenia	49 (0.3)	**52** (0.3)	50 (0.2)	**53** (0.4)	47 (0.5)	**51** (0.3)
Sweden[1]	48 (0.5)	**50** (0.3)	47 (0.5)	**51** (0.4)	46 (0.8)	**49** (0.3)
ICCS 2016 average	50 (0.1)	**52** (0.1)	50 (0.1)	**53** (0.1)	49 (0.1)	**52** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	48 (0.4)	47 (0.4)	46 (0.3)	**49** (0.4)	46 (0.4)	**49** (0.4)
Korea, Republic of[2]	**51** (0.3)	50 (0.4)	49 (0.4)	**52** (0.3)	47 (0.6)	**52** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.

A large majority (an international average of 81%) of the ICCS 2016 students said they would be very or quite likely to vote in an election for a class or school parliament representative, while 65 percent said they anticipated joining a group of students campaigning for an issue they agreed with (Table 4.11). Fifty-four percent said they would be very or quite likely to take part in discussions in a student assembly, 48 percent said that they would be very or quite likely to stand as a candidate for class or school parliament representative, and 43 percent said they would be very or quite likely to participate in writing articles for a school newspaper or website.

The five items reflecting students' willingness to participate in school activities formed a scale that, on average across the participating countries, had high reliability—a Cronbach's alpha of 0.81 (see the item map in Figure 4.5, Appendix D). The highest recorded scale scores (three score points or more above the ICCS 2016 international average) were for Colombia, the Dominican Republic, Mexico, and Peru; the lowest scores (three or more points below the average) were for Belgium (Flemish), Denmark, Finland, the Netherlands, and Sweden (refer to Table 4.11).

Although students' gender was only weakly associated with to students' willingness to participate in school activities, the female students' scores on the willingness scale were significantly higher than the scores of the male students in 19 of the 21 ICCS 2016 countries (Table 4.12). However, on average across the countries, the difference was only two scale points (equivalent to one fifth of an international standard deviation). Consistent associations were also evident between students' willingness to participate in school activities and students' interest in political and social issues: in all participating countries, students who said they were quite or very interested in this type of participation had significantly higher willingness scores than the students who expressed little or no interest. On average, the difference between the groups of students was four scale points (equivalent to more than a third of an international standard deviation).

In 13 of the participating countries, students with higher levels of civic knowledge had significantly higher scores on the willingness scale than students with lower civic knowledge scores. In Colombia, we recorded the reverse pattern. We found no statistically significant differences in the remaining seven countries. On average across countries, students with higher levels of civic knowledge had scores that were one scale point higher than the scores of the comparison group (a difference equivalent to one tenth of an international standard deviation).

Students' actual and expected civic participation outside school

Students at the age group under study in ICCS are not yet old enough to have access to many forms of citizenship participation in society. However, there is evidence of links between youth participation and later engagement as adult citizens (Verba et al., 1995). Some researchers, among them Pancer (2015), suggest that students' participation in civic-related activities at school influences future citizenship engagement (Quintelier & Hooghe, 2013). If so, students' current or past involvement in youth groups, school governance, or campaigns focused on civic issues may serve as a contextual factor in determining students' civic-related learning outcomes.

In order to measure students' engagement in organizations and groups outside of school, the ICCS 2016 student questionnaire included a number of relevant (although slightly modified) items from the previous ICCS cycle. These items asked students to state whether they had participated "within the last 12 months," "more than a year ago," or "never" in a youth organization affiliated with a political party or union, a voluntary group doing something to help the community, or a group of young people campaigning for an issue.

On average across the ICCS 2016 countries, we recorded relatively low levels of participation among students, whether within the past 12 months or more than a year ago, in the three civic activities in the wider community (see Table 4.13). Only 10 percent of students had participated in a youth organization affiliated with a political party or union. Thirty-seven percent had participated

Table 4.11: Students' willingness to participate in school activities

Country	Percentages of students who reported that they would be very or quite likely to:					Average scale scores indicating students' preparedness to participate in school activities
	Vote in a school election <class representatives> or <school parliament> (%)	Join a group of students campaigning for an issue you agree with (%)	Become a candidate for <class representative> or <school parliament> (%)	Take part in discussions in a <student assembly> (%)	Participate in writing articles for a school newspaper or website (%)	
Belgium (Flemish)	62 (1.4) ▼	48 (1.2) ▼	34 (1.0) ▼	43 (1.1) ▼	26 (0.9) ▼	46 (0.3) ▼
Bulgaria	76 (1.1) ▽	75 (1.0) △	47 (1.3)	56 (1.2)	51 (1.2) △	50 (0.3)
Chile	82 (0.7) △	70 (0.8) △	53 (0.9) △	52 (0.9) ▽	47 (0.9) △	51 (0.2) △
Chinese Taipei	87 (0.7) △	57 (0.7) ▽	58 (1.0) △	84 (0.7) ▲	33 (0.7) ▽	51 (0.2) △
Colombia	86 (0.7) △	78 (0.7) ▲	56 (1.1) △	58 (1.0) △	57 (1.3) ▲	53 (0.2) ▲
Croatia	87 (0.7) △	78 (0.9) ▲	48 (1.2)	56 (0.9) △	48 (1.5) △	52 (0.2) △
Denmark†	78 (0.9) ▽	55 (1.1) ▼	32 (0.9) ▼	37 (1.0) ▼	24 (0.9) ▼	47 (0.2) ▼
Dominican Republic (r)	88 (0.7) △	83 (1.0) ▲	77 (0.8) ▲	74 (1.1) ▲	74 (0.8) ▲	57 (0.2) ▲
Estonia[1]	80 (1.0)	65 (1.2)	32 (1.1) ▼	45 (1.3) ▽	27 (0.9) ▼	48 (0.3) ▽
Finland	83 (1.0) △	40 (1.0) ▼	27 (1.0) ▼	37 (1.1) ▼	26 (1.0) ▼	47 (0.2) ▼
Italy	87 (0.8) △	73 (0.9) △	47 (1.0)	63 (1.0) △	56 (1.0) ▲	52 (0.2) △
Latvia[1]	72 (1.0) ▽	67 (1.0) △	48 (1.2)	53 (1.1)	41 (1.2)	49 (0.2) ▽
Lithuania	87 (0.8) △	77 (0.9) ▲	55 (1.1) △	64 (1.0) △	41 (1.2) ▽	51 (0.2) △
Malta	83 (0.7) △	71 (0.6) △	53 (0.8) △	54 (0.8)	42 (0.9)	50 (0.2) △
Mexico	88 (0.6) △	82 (0.7) ▲	68 (0.9) ▲	68 (0.8) ▲	62 (0.8) ▲	54 (0.2) ▲
Netherlands†	56 (1.5) ▼	35 (1.3) ▼	28 (1.3) ▼	31 (1.3) ▼	27 (1.1) ▼	44 (0.3) ▼
Norway (9)[1]	89 (0.5) △	50 (0.8) ▼	46 (0.8)	44 (0.9) ▼	29 (0.8) ▼	49 (0.2) ▽
Peru	92 (0.5) ▲	86 (0.7) ▲	71 (0.8) ▲	65 (0.7) ▲	65 (0.7) ▲	55 (0.1) ▲
Russian Federation	82 (0.8)	69 (0.9) △	45 (1.1) ▽	69 (1.1) ▲	59 (0.9) ▲	51 (0.2) △
Slovenia	72 (1.0) ▽	67 (1.0)	43 (1.1) ▽	46 (1.1) ▽	43 (1.1)	49 (0.2) ▽
Sweden[1]	77 (1.0) ▽	47 (1.2) ▼	32 (1.0) ▼	42 (1.0) ▼	30 (0.9) ▼	47 (0.2) ▼
ICCS 2016 average	81 (0.2)	65 (0.2)	48 (0.2)	54 (0.2)	43 (0.2)	50 (0.0)
Countries not meeting sample participation requirements						
Hong Kong SAR	73 (0.9)	46 (1.2)	44 (0.9)	43 (1.0)	36 (1.1)	47 (0.2)
Korea, Republic of[2]	82 (0.9)	41 (1.2)	43 (1.2)	48 (1.0)	33 (1.0)	48 (0.2)
Benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia (Germany)[1]	70 (1.4)	36 (1.7)	49 (1.5)	46 (1.8)	34 (1.4)	47 (0.4)

National percentage:
- ▲ More than 10 percentage or 3 score points above average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points or 3 score points below average

Notes:
- () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
- (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
- † Met guidelines for sampling participation rates only after replacement schools were included.
- [1] National Defined Population covers 90% to 95% of National Target Population.
- [2] Country surveyed target grade in the first half of the school year.

An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Table 4.12: National average scale scores indicating students' willingness to participate in school activities by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group			Scale score average by students' interest			Scale score average by level of civic knowledge		
	Male students		Female students	Not interested in civic issues		Quite or very interested in civic issues	Civic knowledge below Level B (below 479)		Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	45 (0.3)		**46** (0.4)	44 (0.2)		**49** (0.5)	46 (0.6)		46 (0.3)
Bulgaria	49 (0.4)		**52** (0.4)	49 (0.3)		**53** (0.4)	50 (0.5)		**51** (0.3)
Chile	50 (0.3)		**52** (0.2)	50 (0.2)		**55** (0.4)	51 (0.3)		52 (0.3)
Chinese Taipei	51 (0.2)		**52** (0.2)	51 (0.2)		**53** (0.3)	50 (0.6)		**52** (0.2)
Colombia	53 (0.2)		**54** (0.3)	52 (0.2)		**57** (0.3)	**54** (0.3)		53 (0.3)
Croatia	51 (0.3)		**53** (0.2)	50 (0.2)		**54** (0.4)	50 (0.5)		**52** (0.2)
Denmark†	46 (0.2)		**47** (0.2)	45 (0.2)		**49** (0.2)	46 (0.5)		47 (0.2)
Dominican Republic (r)	57 (0.3)		58 (0.3)	57 (0.3)		**59** (0.3)	57 (0.2)		57 (0.5)
Estonia[1]	46 (0.3)		**50** (0.3)	46 (0.2)		**51** (0.3)	45 (0.5)		**48** (0.3)
Finland	45 (0.3)		**48** (0.3)	45 (0.2)		**49** (0.3)	44 (0.6)		**47** (0.2)
Italy	50 (0.3)		**53** (0.3)	50 (0.3)		**54** (0.3)	50 (0.4)		**52** (0.2)
Latvia[1]	47 (0.3)		**50** (0.3)	48 (0.3)		**51** (0.4)	48 (0.4)		**49** (0.3)
Lithuania	50 (0.3)		**53** (0.3)	50 (0.3)		**54** (0.3)	51 (0.4)		**52** (0.3)
Malta	50 (0.3)		51 (0.2)	49 (0.2)		**53** (0.3)	50 (0.3)		**51** (0.2)
Mexico	53 (0.2)		**54** (0.2)	53 (0.2)		**57** (0.3)	54 (0.2)		54 (0.2)
Netherlands†	43 (0.4)		**44** (0.3)	43 (0.3)		**47** (0.7)	42 (0.5)		**44** (0.4)
Norway (9)[1]	48 (0.3)		**50** (0.2)	47 (0.2)		**53** (0.2)	48 (0.5)		**49** (0.1)
Peru	54 (0.2)		**55** (0.2)	53 (0.2)		**56** (0.2)	54 (0.2)		**55** (0.2)
Russian Federation	50 (0.4)		**53** (0.3)	50 (0.3)		**54** (0.3)	51 (0.5)		51 (0.3)
Slovenia	48 (0.3)		**50** (0.3)	48 (0.3)		**52** (0.4)	47 (0.4)		**49** (0.2)
Sweden[1]	46 (0.3)		**48** (0.3)	44 (0.3)		**50** (0.3)	46 (0.8)		47 (0.2)
ICCS 2016 average	49 (0.1)		**51** (0.1)	49 (0.1)		**53** (0.1)	49 (0.1)		**50** (0.1)
Countries not meeting sample participation requirements									
Hong Kong SAR	47 (0.3)		47 (0.3)	45 (0.2)		**49** (0.3)	45 (0.3)		**48** (0.3)
Korea, Republic of[2]	48 (0.3)		48 (0.3)	46 (0.4)		**50** (0.3)	46 (0.6)		**49** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

in a voluntary group doing something to help the community, and 24 percent had participated in a group of young people campaigning for an issue.

We did observe some variation in the national percentages of students who reported participating in a youth organization affiliated with a political party or union. These percentages ranged from two percent to 23 percent. Four countries (Chinese Taipei, Croatia, Finland, Netherlands) recorded national percentages of less than five percent and four countries (Dominican Republic, Lithuania, Malta, Peru) recorded national percentages of more than 15 percent.

We also observed considerable variation among countries in the proportion of students who reported participating in a voluntary group doing something to help the community. Here, the percentages ranged from 15 percent to 67 percent. Four countries (Chinese Taipei, Denmark, Finland, Sweden) had percentages of 26 percent or less; four (Bulgaria, Colombia, Dominican Republic, Peru) recorded percentages of 50 percent or higher.

The results also showed the variation across countries with respect to the national percentages of students who said they had participated in a group of young people campaigning for an issue. These national percentages ranged from two percent to 54 percent. Four countries (Chinese Taipei, Croatia, Finland, Netherlands) had national percentages of less than 10 percent, while three more (Dominican Republic, Peru, Russian Federation) recorded national percentages of 40 percent and above.

When comparing these ICCS 2016 results with those from ICCS 2009, we identified four countries that had experienced mostly small but significant increases in the percentages of students who said they had participated in a youth organization affiliated with a political party or union, and two countries in which there were significant, but again small, decreases. A larger number of countries recorded significant increases across time in the percentages of students participating in a voluntary group doing something to help the community. Only one country (Denmark) recorded a significant increase in the percentage of students who said they had participated in a group of young people campaigning on an issue. Of the students in the countries that participated in both ICCS cycles, the 2016 students were significantly less likely than the 2009 students to have participated in youth campaigns. The differences were all small, however.

In summary, it appears that cross-nationally over the seven years from 2009 to 2016, the percentage of students participating in voluntary groups doing something to help the community increased somewhat. Participation in a youth organization affiliated with a political party or union increased in only a few countries, while the percentage of students participating in groups of young people campaigning for an issue generally declined.

Evidence suggests that young people who intend to participate in political activities are more likely to actually participate at a later point in time (Eckstein, Noack, & Gniewosz, 2013). ICCS 2016 investigated students' intentions to engage in civic activities outside their school or expectations of doing so. With regard to political participation among adult citizens, scholars (see, for example, Kaase, 1990) tend to distinguish between "conventional" (such as voting or running for office) from "unconventional" (social movement) activities (grassroots campaigns, protest activities). Mindful of the rapid expansion of new types of political activities in recent years, van Deth (2014) proposed a classification of political participation that includes, in addition to conventional and unconventional types of engagement, problem-oriented or community-oriented forms of participation and individualized and creative modes of participation. ICCS measured students' expectations of future civic participation through both legal and illegal activities as well as their intended future civic participation in terms of electoral participation and political participation (Table 4.14).

Table 4.13: Students' participation in organizations and groups in the community

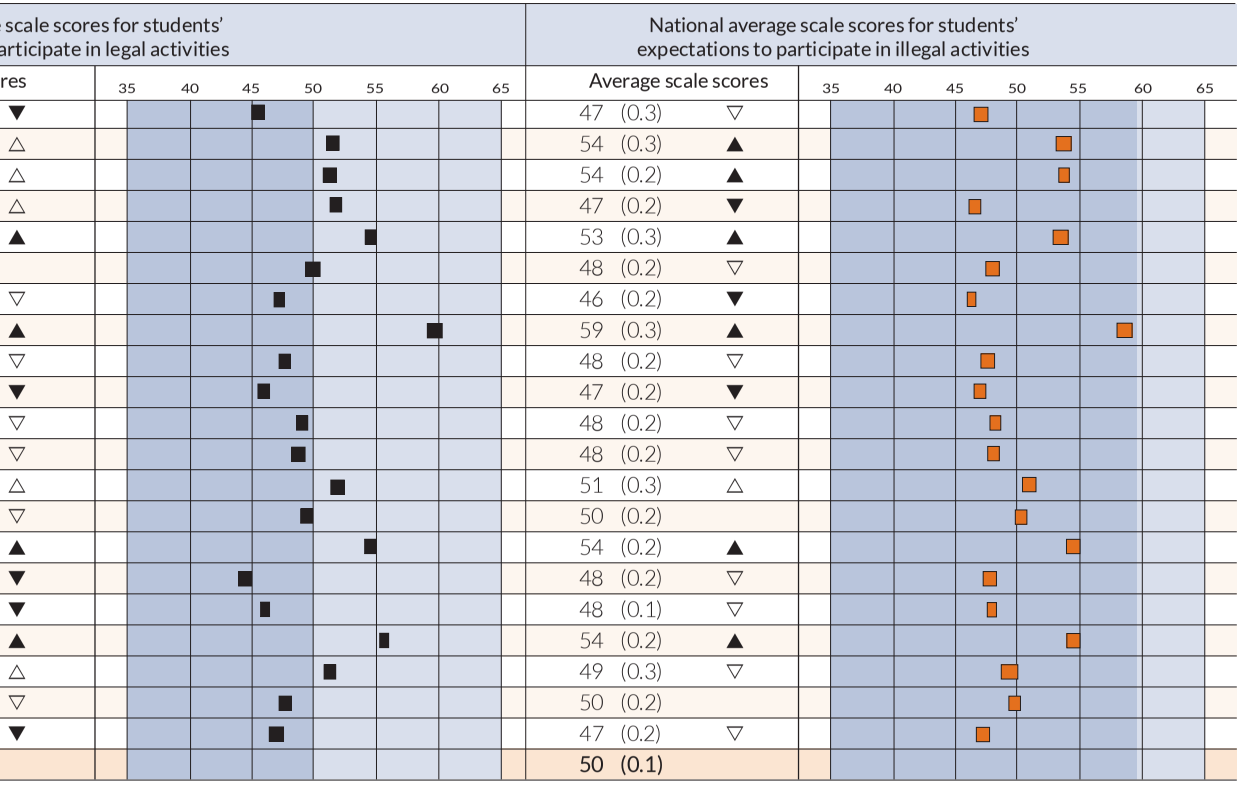
Country	Percentages of students who reported having participated in the following activities:								
	A youth organization affiliated with a political party or union			A voluntary group doing something to help the community			A group of young people campaigning for an issue		
	2016	2009	Difference	2016	2009	Difference	2016	2009	Difference
Belgium (Flemish)	6 (0.5) ▽	5 (0.5)	1 (0.7)	30 (1.2) ▽	23 (0.9)	**8** (1.5)	17 (0.8) ▽	17 (0.8)	0 (1.2)
Bulgaria	10 (0.9)	9 (0.7)	1 (1.2)	50 (1.3) ▲	37 (1.3)	**13** (1.8)	39 (1.2) ▲	37 (1.3)	2 (1.8)
Chile	11 (0.6)	9 (0.7)	**2** (0.9)	40 (0.9) △	40 (1.1)	0 (1.5)	38 (1.0) ▲	42 (0.9)	**-4** (1.3)
Chinese Taipei	2 (0.2) ▽	4 (0.3)	**-2** (0.4)	26 (1.0) ▼	20 (0.7)	**6** (1.2)	2 (0.2) ▼	6 (0.4)	**-4** (0.4)
Colombia	12 (0.6) △	14 (0.6)	**-2** (0.9)	54 (1.1) ▲	57 (0.8)	-2 (1.3)	34 (0.9) △	45 (0.9)	**-11** (1.2)
Croatia	4 (0.4) ▽	–	–	30 (1.6) ▽	–	–	3 (0.3) ▼	–	–
Denmark†	5 (0.4) ▽	4 (0.5)	0 (0.6)	25 (0.8) ▼	12 (0.7)	**13** (1.1)	18 (0.8) ▽	13 (0.7)	**5** (1.1)
Dominican Republic	23 (0.9) ▲	25 (0.9)	-2 (1.3)	67 (1.1) ▲	70 (0.9)	**-3** (1.4)	48 (1.1) ▲	58 (1.1)	**-11** (1.6)
Estonia[1]	10 (0.7)	9 (0.8)	1 (1.0)	43 (1.3) △	44 (1.3)	-1 (1.9)	25 (0.8)	30 (1.0)	**-5** (1.3)
Finland	3 (0.3) ▽	3 (0.3)	1 (0.5)	15 (0.7) ▼	14 (0.6)	0 (0.9)	8 (0.6) ▼	10 (0.6)	**-2** (0.8)
Italy	6 (0.5) ▽	5 (0.4)	**1 (0.6)**	32 (1.0) ▽	23 (1.0)	**9** (1.4)	22 (1.0) ▽	23 (1.0)	-1 (1.4)
Latvia[1]	15 (0.9) △	9 (0.8)	**6** (1.2)	42 (1.4) △	38 (1.2)	4 (1.9)	28 (1.1) △	38 (1.5)	**-10** (1.9)
Lithuania	19 (1.1) △	11 (0.6)	**8 (1.3)**	42 (1.3) △	23 (0.9)	**18** (1.6)	21 (1.2) ▽	25 (0.9)	**-4** (1.5)
Malta	17 (0.7) △	14 (0.9)	2 (1.1)	46 (0.9) △	36 (1.3)	**10** (1.6)	19 (0.7) ▽	17 (1.0)	2 (1.3)
Mexico	15 (0.6) △	15 (0.7)	0 (0.9)	49 (1.0) ▲	46 (1.0)	**3** (1.4)	33 (1.0) △	39 (0.9)	**-6** (1.4)
Netherlands†	4 (0.4) ▽	–	–	30 (1.3) ▽	–	–	7 (0.6) ▼	–	–
Norway (9)[1]	10 (0.5)	9 (0.6)	1 (0.8)	32 (0.9) ▽	20 (0.9)	**13** (1.2)	14 (0.6) ▽	24 (1.0)	**-9** (1.2)
Peru	19 (0.8) △	–	–	52 (0.9) ▲	–	–	40 (0.8) ▲	–	–
Russian Federation	13 (1.1) △	11 (0.8)	2 (1.3)	35 (1.0) ▽	30 (1.5)	**5** (1.9)	54 (0.9) ▲	62 (1.3)	**-8** (1.6)
Slovenia	5 (0.6) ▽	6 (0.5)	-1 (0.8)	31 (1.1) ▽	24 (1.0)	**7** (1.5)	27 (1.0) △	35 (1.0)	**-8** (1.4)
Sweden[1]	5 (0.5) ▽	7 (0.5)	-1 (0.7)	16 (0.9) ▼	14 (0.7)	**2** (1.1)	14 (0.7) ▼	14 (0.6)	0 (1.0)
ICCS 2016 average	10 (0.1)			38 (0.2)			26 (0.2)		
Common countries average	10 (0.2)	9 (0.2)	**1** (0.2)	38 (0.3)	32 (0.2)	**6** (0.3)	26 (0.2)	30 (0.2)	**-4** (0.3)
Countries not meeting sample participation requirements									
Hong Kong SAR	6 (0.7)	–	–	19 (0.9)	–	–	7 (0.7)	–	–
Korea, Republic of[2]	6 (0.5)	–	–	37 (1.1)	–	–	21 (0.9)	–	–
Benchmarking participant not meeting sample participation requirements									
North Rhine-Westphalia (Germany)[1]	4 (0.5)	–	–	32 (1.9)	–	–	20 (1.2)	–	–

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

Table 4.14: Students' expectations to participate in legal and illegal activities to express their opinions

Country	National average scale scores for students' expectations to participate in legal activities			National average scale scores for students' expectations to participate in illegal activities		
	Average scale scores		35 40 45 50 55 60 65	Average scale scores		35 40 45 50 55 60 65
Belgium (Flemish)	46 (0.3)	▼		47 (0.3)	▽	
Bulgaria	52 (0.2)	△		54 (0.3)	▲	
Chile	51 (0.2)	△		54 (0.2)	▲	
Chinese Taipei	52 (0.2)	△		47 (0.2)	▼	
Colombia	55 (0.2)	▲		53 (0.3)	▲	
Croatia	50 (0.2)			48 (0.2)	▽	
Denmark†	47 (0.2)	▽		46 (0.2)	▼	
Dominican Republic (r)	60 (0.3)	▲		59 (0.3)	▲	
Estonia[1]	48 (0.2)	▽		48 (0.2)	▽	
Finland	46 (0.2)	▼		47 (0.2)	▼	
Italy	49 (0.2)	▽		48 (0.2)	▽	
Latvia[1]	49 (0.2)	▽		48 (0.2)	▽	
Lithuania	52 (0.2)	△		51 (0.3)	△	
Malta	49 (0.2)	▽		50 (0.2)		
Mexico	54 (0.2)	▲		54 (0.2)	▲	
Netherlands†	44 (0.2)	▼		48 (0.2)	▽	
Norway (9)[1]	46 (0.2)	▼		48 (0.1)	▽	
Peru	56 (0.1)	▲		54 (0.2)	▲	
Russian Federation	51 (0.2)	△		49 (0.3)	▽	
Slovenia	48 (0.2)	▽		50 (0.2)		
Sweden	47 (0.2)	▼		47 (0.2)	▽	
ICCS 2016 average	**50 (0.0)**			**50 (0.1)**		
Countries not meeting sample participation requirements						
Hong Kong SAR	47 (0.3)			47 (0.3)		
Korea, Republic of[2]	51 (0.3)			51 (0.2)		
Benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia (Germany)[1]	45 (0.3)			46 (0.3)		



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Average score for expected legal activities +/- Confidence interval
Average score for expected illegal activities +/- Confidence interval

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	Certain or probable non-participation
	Certain or probable participation

The ICCS 2016 student questionnaire contained several items that asked students about their likelihood (the response categories were "certainly," "probably," "probably not," and "certainly not)" of participating at some future date in activities that would allow them to express their opinions about a social or political issue. ICCS 2009 asked a similar question. However, because of some modifications in 2016 to the question's stem statement and items, we were unable to compare the results for the two cycles.

The activities denoting social and political participation included some that were legal and some that were illegal. Legal activities included (a) "talking to others about one's views on political or social issues" (ICCS 2016 average percentage of students expected to do this definitely or probably: 65%); (b) "contacting an elected representative" (40%); (c) "taking part in a peaceful march or rally" (51%); (d) "collecting signatures for a petition" (50%); (e) "contributing to an online discussion forum about social or political issues" (45%); (f) "organizing an online group to take a stance on a controversial political or social issue" (37%); and (g) "participating in an online campaign" (46%). Illegal activities included (a) "spray-painting protest slogans on walls" (22%); (b) "staging a protest by blocking traffic" (19%); and (c) "occupying public buildings as a sign of protest" (18%).

We derived two scales from the two item sets—one reflecting students' expected participation in legal activities to express opinions, and the other reflecting students' expected participation in illegal protest activities. Both scales had satisfactory reliabilities, with a Cronbach's alpha across participating countries of 0.85 and 0.87 respectively (see the item maps in Figures 4.6 and 4.7, Appendix D).

The national average scores on the scale reflecting expected participation in legal activities to express opinions ranged from 44 to 60 score points across the ICCS 2016 countries (Table 4.14). This considerable spread of scores possibly reflected differences in national characteristics or current events as well as diversity in civic culture. Four countries (Colombia, Dominican Republic, Mexico, Peru) had relatively high average scores (54 or above). Five—Belgium (Flemish), Finland, the Netherlands, Norway, and Sweden—had relatively low average scores (47 or below).

The range of national average scale sores (from 46 to 59) for anticipated participation in illegal protest activities was only a little less broad than the range for the legal activities. Six countries (Bulgaria, Chile, Colombia, Dominican Republic, Mexico, Peru) had relatively high average scores (54 or above). Three countries had relatively low average scores (47 or below). They were Chinese Taipei, Denmark, and Finland.

Although a comparison of the national average scale sores for anticipated participation in legal activities with the scores for illegal protest activities showed a high correlation between the two indices ($r = 0.86$), a few countries departed from the association. In Chinese Taipei, for example, students' propensity to participate in illegal protest activities was rather lower than might be expected given these students' stated propensity to participate in legal activities. In contrast, the propensity of students in Chile and the Netherlands to participate in illegal protest activities was a little higher than would be expected given their propensity to participate in legal activities.

We detected very little difference between male students' and female students' anticipated participation in legal activities (Table 4.15). Small significant differences in favor of female students were recorded in Chile, Denmark, Italy, Norway, and Sweden, whereas in Chinese Taipei and the Russian Federation male students scored significantly higher than females, but the differences were still slight.

We also found few significant differences between the participation scale scores (both legal and illegal) of students with higher levels of civic knowledge (scores at or above Level B) and the corresponding scores of students with lower levels (below Level B). However, students who were quite or very interested in political and social issues had significantly higher scores on the

Table 4.15: National average scale scores indicating students' expectations to participate in legal activities by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group			Scale score average by students' interest			Scale score average by level of civic knowledge		
	Male students		Female students	Not interested in civic issues		Quite or very interested in civic issues	Civic knowledge below Level B (below 479)		Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	45 (0.3)		46 (0.4)	44 (0.2)		**49** (0.6)	46 (0.6)		45 (0.3)
Bulgaria	51 (0.3)		52 (0.3)	50 (0.2)		**55** (0.4)	52 (0.4)		52 (0.2)
Chile	51 (0.3)		**52** (0.3)	50 (0.2)		**57** (0.4)	51 (0.3)		51 (0.3)
Chinese Taipei	**53** (0.2)		51 (0.2)	51 (0.2)		**55** (0.3)	53 (0.6)		52 (0.2)
Colombia	54 (0.3)		55 (0.3)	53 (0.2)		**58** (0.3)	55 (0.3)		55 (0.2)
Croatia	50 (0.3)		50 (0.3)	49 (0.3)		**52** (0.3)	50 (0.6)		50 (0.2)
Denmark†	47 (0.2)		**48** (0.2)	46 (0.2)		**50** (0.2)	47 (0.5)		47 (0.2)
Dominican Republic (r)	60 (0.3)		60 (0.4)	58 (0.3)		**62** (0.4)	**60** (0.3)		57 (0.7)
Estonia[1]	48 (0.3)		48 (0.2)	46 (0.2)		**50** (0.2)	47 (0.5)		**48** (0.2)
Finland	46 (0.3)		46 (0.2)	44 (0.2)		**49** (0.3)	46 (0.5)		46 (0.2)
Italy	49 (0.3)		**49** (0.2)	48 (0.2)		**52** (0.3)	49 (0.5)		49 (0.2)
Latvia[1]	49 (0.3)		49 (0.3)	48 (0.3)		**51** (0.3)	48 (0.4)		49 (0.3)
Lithuania	52 (0.3)		52 (0.2)	51 (0.2)		**54** (0.3)	52 (0.4)		52 (0.2)
Malta	50 (0.3)		49 (0.3)	48 (0.2)		**53** (0.3)	50 (0.4)		49 (0.2)
Mexico	54 (0.2)		55 (0.2)	53 (0.2)		**58** (0.3)	**55** (0.3)		54 (0.3)
Netherlands†	44 (0.3)		44 (0.3)	44 (0.2)		**48** (0.5)	44 (0.5)		45 (0.3)
Norway (9)[1]	45 (0.3)		**47** (0.2)	44 (0.2)		**50** (0.2)	46 (0.6)		46 (0.2)
Peru	56 (0.2)		56 (0.2)	54 (0.2)		**58** (0.2)	**56** (0.2)		55 (0.2)
Russian Federation	**52** (0.3)		51 (0.2)	49 (0.3)		**54** (0.2)	51 (0.5)		51 (0.2)
Slovenia	48 (0.3)		48 (0.2)	47 (0.2)		**51** (0.4)	47 (0.4)		48 (0.2)
Sweden[1]	46 (0.4)		**48** (0.2)	44 (0.3)		**50** (0.3)	46 (0.7)		47 (0.3)
ICCS 2016 average	50 (0.1)		**50** (0.1)	49 (0.0)		**53** (0.1)	50 (0.1)		50 (0.1)
Countries not meeting sample participation requirements									
Hong Kong SAR	47 (0.4)		47 (0.3)	44 (0.4)		**50** (0.4)	46 (0.4)		**47** (0.4)
Korea, Republic of[2]	51 (0.3)		51 (0.4)	49 (0.4)		**53** (0.3)	50 (0.7)		51 (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

expectation to participate in legal activities scale in all participating countries: on average across the ICCS 2016 countries, we recorded a difference of four scale points (equivalent to more than one third of an international standard deviation).

When reviewing the associations between students' expectations of participating in illegal activities and gender, interest, and civic knowledge, we found few significant differences between students who were quite or very interested in political and social issues and those who had no or little interest (see Table 4.16). However, we did find significant differences in the average scores for expected participation in illegal protest activities between female students and male students in all but one country (Chile), indicating that the male students were more likely than the female students to expect participation in illegal protest activities. On average across countries, we found a difference of two scale points (equivalent to a fifth of an international standard deviation).

The results also showed significant differences in expected participation in illegal protest activities between students with higher and lower levels of civic knowledge. In every country, students with civic knowledge scores below Level B were more likely than students with the higher civic knowledge scores to say they expected to participate in illegal protest activities. On average, the difference between the two groups was six scale points, indicative of a relatively strong association (equivalent to almost two thirds of an international standard deviation).

To obtain data on ("conventional") expected electoral and active political participation, ICCS 2009 used a set of nine items, two of which were optional for countries and three of which were designed to gauge expected electoral participation. The remaining four items were designed to measure expected participation in political activities. While majorities of students across participating countries expected to participate in elections, relatively few students in ICCS 2009 expressed an intention to engage in more active forms of political participation (Schulz et al., 2010, pp. 143–146). The ICCS 2016 student questionnaire included the set of ICCS 2009 items, augmented by a number of discrete items measuring more informal ways that citizens participate in society.

When answering each of the ICCS 2016 items reflecting expected electoral participation, students were asked to use the following response categories: "I would certainly do this," "I would probably do this," "I would probably not do this," and "I would certainly not do this"). The activities listed were (a) "vote in local elections" (ICCS 2016 average percentage of students expecting to probably or certainly do this: 85%); (b) "vote in national elections" (85%); and (c) "get information about candidates before voting in an election" (80%). The students' responses to these items formed a highly reliable scale (an average Cronbach's alpha across countries of 0.83) reflecting intended electoral participation, and one that we were able to equate to the scale established in ICCS 2009 (see the item map in Figure 4.8, Appendix D). We recorded variations across countries in scale scores from the most recent survey as well as changes between 2009 and 2016 (Table 4.17).

In 2016, national average scores on the expected electoral participation scale ranged from 47 (Netherlands) to 55 (Peru). The difference of eight scale points (equivalent to four fifths of an international standard deviation) represents a considerably large difference. When comparing national average scale scores for expected electoral participation in 2009 and 2016, we found statistically significant increases in expected electoral participation in nine out of 18 countries with comparable data. Overall, we recorded a relatively small increase in expected electoral participation of just one scale point (equivalent to one tenth of an international standard deviation). The countries with the largest increases (more than three scale points) were Denmark and Sweden.

Table 4.16: National average scale scores indicating students' expectations to participate in illegal activities by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group		Scale score average by students' interest		Scale score average by level of civic knowledge	
	Male students	Female students	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	**48** (0.3)	46 (0.4)	47 (0.2)	47 (0.5)	**51** (0.5)	46 (0.2)
Bulgaria	**55** (0.4)	53 (0.3)	53 (0.3)	**55** (0.5)	**56** (0.4)	52 (0.3)
Chile	54 (0.2)	54 (0.3)	54 (0.2)	54 (0.4)	**57** (0.3)	52 (0.3)
Chinese Taipei	**48** (0.3)	45 (0.2)	47 (0.2)	47 (0.3)	**55** (0.6)	45 (0.2)
Colombia	**54** (0.3)	53 (0.4)	54 (0.3)	53 (0.4)	**56** (0.3)	51 (0.4)
Croatia	**50** (0.4)	46 (0.3)	**49** (0.3)	47 (0.3)	**52** (0.6)	47 (0.2)
Denmark†	**48** (0.2)	45 (0.2)	**47** (0.2)	45 (0.2)	**52** (0.4)	46 (0.2)
Dominican Republic (r)	**60** (0.3)	57 (0.3)	58 (0.3)	**60** (0.4)	**60** (0.3)	52 (0.6)
Estonia[1]	**49** (0.3)	47 (0.3)	48 (0.2)	47 (0.4)	**51** (0.4)	47 (0.3)
Finland	**49** (0.3)	45 (0.2)	**47** (0.2)	46 (0.3)	**53** (0.6)	46 (0.2)
Italy	**49** (0.3)	48 (0.3)	**49** (0.2)	48 (0.3)	**52** (0.5)	47 (0.2)
Latvia[1]	**50** (0.4)	46 (0.3)	48 (0.3)	48 (0.4)	**51** (0.4)	46 (0.3)
Lithuania	**53** (0.3)	49 (0.4)	**51** (0.3)	50 (0.4)	**55** (0.4)	49 (0.3)
Malta	**52** (0.3)	49 (0.2)	50 (0.2)	**51** (0.3)	**54** (0.3)	48 (0.2)
Mexico	**56** (0.2)	53 (0.3)	54 (0.2)	55 (0.5)	**57** (0.3)	51 (0.3)
Netherlands†	**49** (0.3)	46 (0.3)	48 (0.2)	47 (0.5)	**51** (0.4)	47 (0.2)
Norway (9)[1]	**49** (0.2)	47 (0.2)	**48** (0.1)	47 (0.2)	**53** (0.4)	47 (0.1)
Peru	**56** (0.3)	53 (0.3)	54 (0.2)	54 (0.3)	**57** (0.2)	49 (0.3)
Russian Federation	**50** (0.3)	48 (0.4)	49 (0.4)	49 (0.3)	**53** (0.5)	48 (0.3)
Slovenia	**52** (0.3)	48 (0.3)	50 (0.3)	50 (0.5)	**53** (0.4)	49 (0.3)
Sweden[1]	**49** (0.3)	46 (0.2)	**48** (0.2)	47 (0.3)	**52** (0.6)	47 (0.2)
ICCS 2016 average	**51** (0.1)	49 (0.1)	**50** (0.1)	50 (0.1)	**54** (0.1)	48 (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	**48** (0.4)	45 (0.3)	46 (0.4)	**47** (0.3)	**50** (0.4)	45 (0.3)
Korea, Republic of[2]	**51** (0.3)	50 (0.3)	51 (0.3)	51 (0.3)	**55** (0.5)	50 (0.2)

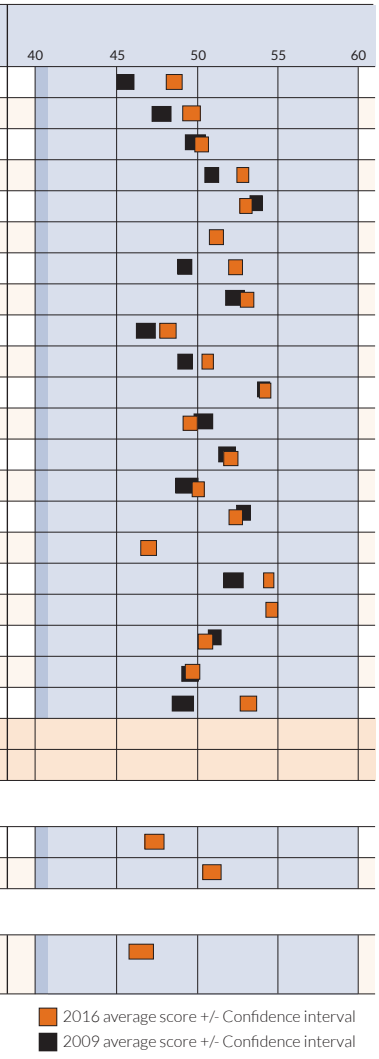
Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Across all ICCS 2016 countries, females had slightly (albeit significantly) higher scale scores than males (Table 4.18). On average, the difference was one scale point (equivalent to one tenth of an international standard deviation). In addition, students who were quite or very interested in political and social issues had significantly higher scale scores than the less interested students. In this instance, the average difference across countries amounted to four scale points, equivalent to more than a third of an international standard deviation, and thus indicating a moderate association.

Table 4.17: National average scale scores indicating students' expected electoral participation

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	49 (0.3)	▽	46 (0.2)	**3.0** (0.4)
Bulgaria	50 (0.3)	▽	48 (0.3)	**1.9** (0.4)
Chile	50 (0.2)	▽	50 (0.3)	0.3 (0.4)
Chinese Taipei	53 (0.2)	△	51 (0.2)	**2.1** (0.3)
Colombia	53 (0.2)	△	54 (0.2)	-0.5 (0.3)
Croatia	51 (0.2)		–	–
Denmark†	52 (0.2)	△	49 (0.2)	**3.3** (0.3)
Dominican Republic (r)	53 (0.2)	△	52 (0.3)	**0.9** (0.3)
Estonia	48 (0.2)	▼	47 (0.3)	**1.4** (0.4)
Finland	51 (0.2)	▽	49 (0.2)	**1.5** (0.3)
Italy	54 (0.2)	△	54 (0.2)	0.1 (0.3)
Latvia	49 (0.2)	▽	50 (0.3)	-0.7 (0.4)
Lithuania	52 (0.2)	△	52 (0.2)	0.4 (0.3)
Malta	50 (0.2)	▽	49 (0.4)	0.7 (0.4)
Mexico	52 (0.2)	△	53 (0.2)	**-0.7** (0.3)
Netherlands†	47 (0.3)	▼	–	–
Norway (9)	54 (0.1)	▲	52 (0.3)	**2.1** (0.4)
Peru	55 (0.2)	▲	–	–
Russian Federation	51 (0.3)	▽	51 (0.2)	-0.6 (0.3)
Slovenia	50 (0.3)	▽	50 (0.2)	0.1 (0.3)
Sweden	53 (0.2)	△	49 (0.3)	**4.2** (0.4)
ICCS 2016 average	51 (0.0)			
Common countries average	51 (0.1)		50 (0.1)	**1.1** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	47 (0.3)		–	–
Korea, Republic of[2]	51 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	47 (0.4)		–	–



National average:
▲ More than 3 score points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	Certain or probable non-participation
	Certain or probable participation

Notes:
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Another significant association across all ICCS 2016 countries was that between expected electoral participation and civic knowledge. Students with higher levels of civic knowledge (at Level B or above) had significantly higher scores than the less knowledgeable students on the scale indicating expected electoral participation. On average, we found a difference of five scale points (equivalent to half an international standard deviation)—a difference that suggests a moderately strong association between civic knowledge and expected electoral participation.

To measure expected active political participation, the ICCS 2016 student questionnaire asked students to respond to a number of items that asked them how likely they would be to participate at some future date in the following activities: (a) "help a candidate or party during an election campaign" (ICCS 2016 average percentage of students expecting to probably or certainly do this: 44%); (b) "join a political party" (26%); (c) "join a trade union" (32%); (d) "stand as a candidate" (24%); and (e) "join an organization committed to a political or social cause" (34%). We used the students' responses to form a scale that reflected students' intended active political participation. The scale proved to be highly reliable, with an average Cronbach's alpha across countries of 0.85 (see the item map in Figure 4.9, Appendix D). Because four of these items were used to measure this construct in ICCS 2009, we were able to equate the 2016 scale scores to the scale scores in the previous cycle. The national average scale scores for 2009 and 2016 thus allowed an exploration of variations among the participating countries and changes between 2009 and 2016 (Table 4.19).

In 2016, national average scores indicating expected active political participation scale ranged from 46 (Belgium/Flemish) to 60 (Dominican Republic). The difference of 12 scale points represents a relatively large difference. Among the countries with comparable data from ICCS 2009, we found statistically significant increases in expected active political participation in nine countries (refer to Table 4.19). Two countries recorded 2016 scores that were significantly lower than the 2009 scores; seven countries recorded no statistically significant differences. Overall, the increase in expected active political participation across the two cycles was very minor (less than one scale point). The Dominican Republic recorded the largest increase (of nearly three score points); the Russian Federation recorded the largest decrease (1.5 score points).

Male students were more likely than female students to anticipate active political participation (Table 4.20). The difference, statistically significant in 16 of the countries, was small, however—only about one scale point (equivalent to one tenth of an international standard deviation). Students who said they were quite or very interested in political and social issues had higher scale scores than students with no or little interest in these issues. We observed statistically significant differences in all countries. On average, the difference across countries was three scale points (equivalent to almost a third of an international standard deviation).

Expected active political participation tended to be negatively related to students' civic knowledge: scale scores indicating expected active political participation tended to be higher among students with civic knowledge scores below Level B than among students with higher levels of civic knowledge. This difference was statistically significant in 12 countries. We observed differences of two scale points (equivalent to one fifth of an international standard deviation), on average. This pattern of results is similar to the pattern reported in ICCS 2009. One possible explanation for this finding is that more knowledgeable students tend to have better grounds for carefully considering their personal active political commitments and the constraints associated with such an engagement. However, this rather counter-intuitive result certainly deserves further investigation in future studies.

Table 4.18: National average scale scores indicating students' expected electoral participation by parental education, students' interest, and level of civic knowledge

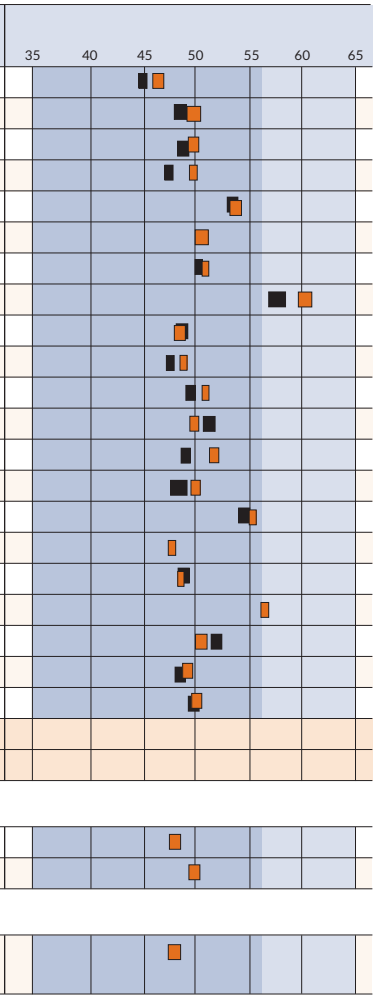
Country	Scale score by parental university degree			Scale score average by students' interest			Scale score average by level of civic knowledge		
	No parent with a university degree		At least one parent with a university degree	Not interested in civic issues		Quite or very interested in civic issues	Civic knowledge below level B (below 479)		Civic knowledge at or above level B (479 and above)
Belgium (Flemish)	47 (0.3)		**50** (0.3)	47 (0.3)		**52** (0.4)	45 (0.4)		**50** (0.3)
Bulgaria	49 (0.3)		**51** (0.4)	48 (0.3)		**53** (0.4)	47 (0.4)		**51** (0.3)
Chile	49 (0.2)		**53** (0.4)	49 (0.2)		**55** (0.3)	47 (0.3)		**53** (0.2)
Chinese Taipei	52 (0.2)		**54** (0.3)	52 (0.2)		**55** (0.2)	48 (0.4)		**54** (0.2)
Colombia	53 (0.2)		**54** (0.3)	52 (0.2)		**56** (0.3)	51 (0.3)		**55** (0.3)
Croatia	51 (0.2)		**53** (0.3)	50 (0.2)		**54** (0.3)	47 (0.5)		**53** (0.2)
Denmark†	52 (0.2)		**55** (0.3)	50 (0.2)		**56** (0.2)	46 (0.5)		**53** (0.2)
Dominican Republic (r)	53 (0.2)		**54** (0.3)	52 (0.3)		**55** (0.3)	53 (0.2)		**55** (0.5)
Estonia[1]	47 (0.3)		**49** (0.3)	46 (0.2)		**51** (0.3)	44 (0.5)		**49** (0.2)
Finland	50 (0.2)		**52** (0.2)	49 (0.2)		**54** (0.2)	44 (0.5)		**52** (0.2)
Italy	54 (0.2)		**56** (0.4)	53 (0.2)		**57** (0.3)	50 (0.4)		**56** (0.2)
Latvia[1]	48 (0.3)		**51** (0.3)	48 (0.2)		**53** (0.4)	46 (0.4)		**52** (0.3)
Lithuania	52 (0.2)		**53** (0.3)	51 (0.2)		**55** (0.2)	49 (0.3)		**54** (0.2)
Malta	50 (0.2)		**51** (0.3)	48 (0.2)		**54** (0.2)	47 (0.3)		**52** (0.2)
Mexico	52 (0.2)		**53** (0.3)	51 (0.2)		**55** (0.3)	51 (0.3)		**54** (0.2)
Netherlands†	45 (0.3)		**50** (0.3)	46 (0.3)		**52** (0.5)	42 (0.4)		**49** (0.3)
Norway (9)[1]	53 (0.2)		**56** (0.2)	53 (0.2)		**58** (0.2)	47 (0.4)		**56** (0.1)
Peru	54 (0.2)		**56** (0.2)	53 (0.2)		**56** (0.2)	53 (0.2)		**57** (0.2)
Russian Federation	50 (0.4)		**51** (0.2)	49 (0.3)		**53** (0.2)	49 (0.5)		**51** (0.3)
Slovenia	49 (0.3)		**52** (0.4)	49 (0.3)		**53** (0.4)	45 (0.5)		**51** (0.3)
Sweden[1]	52 (0.2)		**54** (0.3)	51 (0.3)		**57** (0.2)	48 (0.5)		**54** (0.2)
ICCS 2016 average	51 (0.1)		**53** (0.1)	50 (0.1)		**54** (0.1)	48 (0.1)		**53** (0.1)
Countries not meeting sample participation requirements									
Hong Kong SAR	47 (0.3)		**50** (0.5)	44 (0.3)		**51** (0.3)	43 (0.4)		**49** (0.3)
Korea, Republic of[2]	49 (0.3)		**52** (0.3)	49 (0.3)		**53** (0.3)	46 (0.5)		**52** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Table 4.19: National average scale scores indicating students' expected active political participation

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	46 (0.3)	▼	45 (0.2)	**1.3** (0.5)
Bulgaria	50 (0.3)	▽	49 (0.3)	**1.2** (0.5)
Chile	50 (0.2)	▽	49 (0.2)	**1.1** (0.5)
Chinese Taipei	50 (0.2)	▽	47 (0.1)	**2.6** (0.4)
Colombia	53 (0.3)	△	53 (0.3)	-0.1 (0.5)
Croatia	50 (0.2)		–	–
Denmark†	51 (0.1)		50 (0.1)	**0.6** (0.4)
Dominican Republic (r)	60 (0.3)	▲	57 (0.4)	**2.8** (0.6)
Estonia	48 (0.2)	▽	48 (0.2)	0.1 (0.5)
Finland	49 (0.2)	▽	48 (0.1)	**1.3** (0.4)
Italy	51 (0.2)		49 (0.2)	**1.4** (0.4)
Latvia	50 (0.2)	▽	51 (0.2)	**-1.2** (0.5)
Lithuania	52 (0.2)	△	49 (0.2)	**2.7** (0.5)
Malta	50 (0.2)	▽	48 (0.4)	**1.6** (0.5)
Mexico	55 (0.2)	▲	54 (0.2)	**0.8** (0.5)
Netherlands†	48 (0.2)	▼	–	–
Norway (9)	49 (0.1)	▽	49 (0.2)	-0.2 (0.4)
Peru	56 (0.2)	▲	–	–
Russian Federation	50 (0.2)	▽	52 (0.2)	**-1.5** (0.5)
Slovenia	49 (0.2)	▽	48 (0.2)	0.7 (0.5)
Sweden	50 (0.3)	▽	50 (0.2)	0.4 (0.5)
ICCS 2016 average	51 (0.0)			
Common countries average	51 (0.1)		50 (0.1)	**0.9** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	48 (0.2)		–	–
Korea, Republic of[2]	50 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	48 (0.3)		–	–



National average:
▲ More than 3 score points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 3 score points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Table 4.20: National average scale scores indicating students' expected active political participation by gender, students' interest, and level of civic knowledge

Country	Scale score by gender group		Scale score average by students' interest		Scale score average by level of civic knowledge	
	Male students	Female students	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	47 (0.3)	46 (0.4)	45 (0.3)	**49** (0.6)	**48** (0.7)	46 (0.3)
Bulgaria	**50** (0.4)	49 (0.4)	48 (0.3)	**52** (0.4)	**53** (0.4)	47 (0.3)
Chile	**50** (0.3)	49 (0.3)	49 (0.2)	**53** (0.4)	**52** (0.3)	48 (0.3)
Chinese Taipei	**51** (0.2)	49 (0.2)	49 (0.2)	**52** (0.3)	**53** (0.5)	49 (0.2)
Colombia	**54** (0.3)	53 (0.3)	52 (0.3)	**56** (0.3)	**56** (0.3)	51 (0.3)
Croatia	**51** (0.3)	50 (0.3)	49 (0.3)	**53** (0.3)	51 (0.6)	50 (0.3)
Denmark†	51 (0.2)	51 (0.2)	49 (0.2)	**53** (0.2)	50 (0.5)	51 (0.1)
Dominican Republic (r)	**61** (0.3)	60 (0.4)	59 (0.3)	**63** (0.4)	**61** (0.3)	56 (0.7)
Estonia[1]	**49** (0.3)	48 (0.3)	48 (0.3)	**50** (0.3)	49 (0.6)	48 (0.2)
Finland	**49** (0.2)	48 (0.2)	48 (0.2)	**51** (0.2)	49 (0.5)	49 (0.2)
Italy	**51** (0.2)	50 (0.2)	50 (0.2)	**53** (0.3)	51 (0.4)	51 (0.2)
Latvia[1]	**50** (0.3)	49 (0.3)	49 (0.3)	**52** (0.4)	**51** (0.4)	49 (0.3)
Lithuania	**52** (0.3)	51 (0.2)	50 (0.2)	**54** (0.3)	**54** (0.4)	51 (0.2)
Malta	**51** (0.3)	49 (0.3)	48 (0.2)	**54** (0.3)	**52** (0.4)	49 (0.3)
Mexico	**56** (0.3)	55 (0.3)	54 (0.2)	**58** (0.4)	**57** (0.3)	53 (0.3)
Netherlands†	48 (0.3)	48 (0.2)	47 (0.2)	**51** (0.4)	48 (0.5)	48 (0.2)
Norway (9)[1]	48 (0.2)	49 (0.2)	47 (0.1)	**51** (0.3)	49 (0.5)	48 (0.1)
Peru	**57** (0.2)	56 (0.2)	55 (0.2)	**58** (0.2)	**58** (0.2)	54 (0.3)
Russian Federation	**51** (0.3)	49 (0.3)	48 (0.4)	**53** (0.3)	**52** (0.5)	50 (0.3)
Slovenia	**50** (0.3)	48 (0.2)	48 (0.2)	**52** (0.4)	50 (0.4)	49 (0.2)
Sweden[1]	50 (0.4)	50 (0.2)	48 (0.4)	**53** (0.3)	50 (0.6)	50 (0.2)
ICCS 2016 average	**51** (0.1)	50 (0.1)	50 (0.1)	**53** (0.1)	**52** (0.1)	50 (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	**49** (0.3)	47 (0.3)	46 (0.3)	**50** (0.3)	48 (0.5)	48 (0.3)
Korea, Republic of[2]	**51** (0.3)	49 (0.3)	48 (0.4)	**51** (0.3)	**52** (0.6)	49 (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

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CHAPTER 5:

Students' attitudes toward important issues in society

Chapter highlights

Students differed in their perceptions of what is good or bad for democracy.

- In some ICCS 2016 countries, lower-secondary students viewed situations such as political leaders giving government jobs to their family members as good for democracy, but in most other ICCS countries students viewed this practice as bad for democracy. ICCS recorded similar findings with respect to government interference in court decisions. (Table 5.1)
- Across countries, students consistently saw free elections of political leaders, the right to peaceful protest, and equal rights for all ethnic/racial groups in a country as good for democracy. However, the ICCS students did not consistently regard the right to criticize the government or small differences in income in a country's populace as positive for democracies. (See Table 5.2)

ICCS measured students' perceptions of what constitutes good citizenship both across and within countries.

- In 2016, the ICCS students tended to attach somewhat more importance to conventional good citizenship by adult citizens than the ICCS 2009 students did. (Table 5.3)
- Students interested in political and social issues were also likely to regard conventional social-movement-related and personally responsible citizenship behaviors as important. (Tables 5.4, 5.6, 5.8)
- Students tended to regard personally responsible citizenship behavior as important, with majorities of students regarding obedience to the law, ensuring the economic welfare of families, and respecting others' opinions as very important. (Table 5.7)

Students expressed high levels of endorsement of gender equality and equal rights for all ethnic/racial groups in their countries.

- Endorsement of gender equality varied across countries but that endorsement increased in a number of countries between 2009 and 2016. (Table 5.9)
- Across all countries that participated in both ICCS 2009 and 2016 with comparable data, the 2016 students were more supportive than the 2009 students of equal rights for all ethnic/racial groups in society. (Table 5.11)
- Females, students who expressed higher levels of interest in social and political matters, and students with higher civic knowledge scores were the groups most likely to endorse gender equality and equal rights for all ethnic/racial groups. (Tables 5.10, 5.12)

Majorities of students viewed pollution, terrorism, water and food shortages, infectious diseases, and poverty as major threats to the world's future.

- Major variations across countries with regard to these perceptions suggest the influence of local contexts. (Tables 5.13, 5.14)
- Country variations were particularly substantial with regard to students' concerns about water shortages and crime. (Tables 5.13, 5.14)

Students' trust in civic-related institutions, groups, and information sources changed between 2009 and 2016.

- The ICCS 2016 students tended to express more trust than the 2009 students did in government, parliament, and courts of justice, but less trust in media and people in general. (Tables 5.15, 5.16)
- Students with higher civic knowledge scores in the more established and economically stable democracies tended to have higher levels of trust in civic institutions than their counterparts in countries with perceived higher levels of corruption and low government efficiency. (Table 5.17)

Students' endorsement of religious influence in society remained limited.

- Only minorities among students across participating countries expressed support for religious influence in society. In four countries, significantly fewer students than in 2009 expressed these views. (Table 5.18)
- While, for students, more frequent attendance at religious services tended to be associated with higher levels of endorsement of religious influence in society, the associations between attendance, parental education, and levels of civic knowledge were generally negative ones. (Table 5.19)

Conceptual background and prior research

This chapter explores data relating to ICCS 2016 Research Question 4: *What beliefs do students in participating countries hold regarding important civic issues in modern society and what are the factors associated with their variation?* It presents data reflecting a range of different affective measures collected via the student questionnaire in relation to the following sub-set of research questions:

- *What are students' beliefs regarding the importance of different principles underlying society?* Analyses focus on students' beliefs about what is good or bad for democracy, their perceptions of what constitutes good citizenship behavior, and their endorsement of gender equality and equal rights for all ethnic and racial groups in their societies.
- *What are students' perceptions of their communities and societies?* Analyses focus on students' beliefs about threats to the world's future.
- *What attitudes do students hold toward civic institutions and society?* Analyses address students' perceptions of civic groups, institutions, and sources of information as well as the extent to which students endorse the influence of religion in society.
- *What changes in student beliefs can be observed since 2009?* Analyses center on the affective-behavioral measures comparable across the two ICCS cycles, but include data only from those countries that participated and met IEA sample participation standards in both ICCS surveys.

The ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016) defines the affective-behavioral domain attitudes as judgments or evaluations regarding ideas, persons, objects, events, situations, and/or relationships, and acknowledges that individuals can harbor contradictory attitudes at the same time. Attitudes encompass responses that focus on specifics and can change over time, as well as those reflecting broader and more fundamental (or deeply rooted) beliefs that tend to be constant over longer periods of time.[1]

In line with the approach described in Chapter 4, ICCS used a student questionnaire to measure the constructs underpinning the scales and items presented in this chapter and used IRT (Item Response Theory) scaling to derive new reporting scales, all with a mean of 50 and a standard deviation of 10 with equally weighted national data either for 2016 or, where equated, for 2009. Details about scaling and equating will be presented in the ICCS 2016 technical report (Schulz, Carstens, Losito, & Fraillon, forthcoming). Item maps describe the scales presented in this chapter. The maps, which map scale scores to expected item responses under the scaling model, can be found in Appendix D. Readers should remain aware that, as with the scales presented in Chapter 4, cross-national differences of scale scores need to be interpreted with some caution because questionnaire formats may not always provide consistent measurement across the diversity of languages, cultures, and national contexts evident in the ICCS countries.

The chapter also reviews associations between the above measures and selected variables such as students' civic knowledge, gender, interest in political or social issues, use of media, and attendance at religious services. For each questionnaire scale, we compare scale score averages across three different comparison groups, each consisting of two categories (e.g., students with high and low levels of civic knowledge). Graphical displays of differences between groups and their statistical significance ($p < 0.05$) accompany those comparisons.

1 The ICCS 2009 assessment framework (Schulz, Fraillon, Ainley, Losito, & Kerr, 2008) conceptualized more enduring beliefs as "value beliefs" as opposed to the less enduring and more changeable "attitudes." However, the ICCS 2016 assessment framework made both part of the same affective-behavioral domain *attitudes* on the premise that students of the surveyed age group are relatively unlikely to have already formed enduring beliefs.

Students' attitudes toward democracy and citizenship

Gathering data on students' views of democracy has been a key aspect of all IEA studies of civic and citizenship education. The first IEA Civic Education Study in 1971 required students to rate different aspects of the democratic system of government (Torney, Oppenheim, & Farnen, 1975). The IEA CIVED 1999 survey included a question asking students to describe several different characteristics of society as either "good or bad for democracy." The responses to this question showed students regarding some of the characteristics quite differently across participating countries (see Husfeldt & Nikolova, 2003; Torney-Purta, Lehmann, Oswald, & Schulz, 2001).

ICCS 2009 used a modified set of nine items to measure the extent to which students agreed with statements reflecting what a democratic society should be like. The 2009 questionnaire also included three items that asked students to what extent they thought governments should impose restrictions on personal rights in response to groups that pose threats to national security. The results showed very large majorities of students across all participating countries strongly endorsing many of the aspects typically regarded as essential for democracy, such as democratic elections of political leaders (Schulz, Ainley, Fraillon, Kerr, & Losito, 2010).

The ICCS 2016 assessment framework (Schulz et al., 2016) defines civic principles as one of the content domains focused on the shared ethical foundations of society. This domain encompasses equity, freedom, sense of community, and rule of law as its sub-domains. All four of these relate to democratic principles. The ICCS 2016 student survey consequently included measures of young people's beliefs about what constitutes a democratic society. ICCS 2016 used a different item format, however, in order to assess students' views of democracy.

The format resembled that used in CIVED 1999, and it required students to rate the following situations in a society as "good," "bad," or "neither good nor bad" for democracy: (a) "Political leaders give government jobs to their family members;" (b) "One company or the government owns all newspapers in a country;" (c) "People are allowed to publicly criticize the government;"(d) "All adult citizens have the right to elect their political leaders;" (e) "People are able to protest if they think a law is unfair;" (f) "The police have the right to hold people suspected of threatening national security in jail without trial;" (g) "Differences in income between poor and rich people are small;" (h) "The government influences decisions by courts of justice;" and (i) "All <ethnic/racial> groups in the country have the same rights."

Table 5.1 shows the percentages for those perceptions that majorities of surveyed students tended to view as relatively *bad* for democracy. It displays the percentages of students who viewed each situation as good (to the left of each bar chart), neither good nor bad (in center), or bad (to the right). The proportions of responses are also graphically displayed as a bar chart above each of the three category percentages. Percentages of students rating a situation as good or bad are displayed in bold wherever they were significantly higher than those in the "opposite" category ("good" versus. "bad").

In most countries, the percentages of students who considered government officials giving jobs to family members as bad for democracy were significantly higher than the percentages of those students who regarded this practice as good for democracy (see Table 5.1). However, in several countries (Colombia, Italy, Malta, Mexico, Peru), a quarter or more of students considered such a situation as good for democracy, while in the Dominican Republic more than half of the students held this view. Students' perceptions in this group of countries may be influenced by generally higher levels of acceptance of, as well as more widespread experiences with, this type of practice, something which has been observed in many Latin American countries, and in particular among younger people in this region (Morris & Blake, 2010; Torgler & Valev, 2004).

When students were asked about the situation where a company or the government owns all the newspapers in a country, relative majorities of students (52% on average) across participating countries consistently viewed these media monopolies as bad for democracy. In most countries, students also viewed a situation where a government influences court decisions as bad for democracy. However, on average across the ICCS 2016 countries, only 35 percent of the students endorsed this view. In Colombia, Malta, Mexico, and Peru, between a quarter and a third of students felt that the situation of governments influencing court decisions was good for democracy. In the Dominican Republic, 43 percent were of this opinion, while only 20 percent considered the situation as bad for democracy.

On average across countries, a third of the lower-secondary students thought that letting the police hold suspects for national security reasons indefinitely in jail is bad for democracy; 30 percent considered it as good for democracy, and 37 percent thought it neither good nor bad. There was considerable variation across countries in these views. Although 40 percent or more of the students considered this situation as bad for democracy in Chile, Chinese Taipei, and Colombia, 40 percent or more viewed it as good for democracy in Bulgaria, Croatia, and the Dominican Republic.

Table 5.2 shows the results for situations that tended to be viewed as good rather than bad for democracy by relative majorities of lower-secondary students. On average cross-nationally, more than half of the students thought that allowing adult citizens to elect their leader freely, allowing people to protest peacefully against laws they think are unfair, and giving the same rights to all ethnic and racial groups in a country are good for democracy. In most countries, relatively more students thought that allowing people to criticize the government is good for democracy (compared to those who regarded this practice as bad). However, more than a third of students in six countries regarded this situation as bad for democracy (Chinese Taipei, Colombia, Dominican Republic, Latvia, Mexico, Peru). Forty percent or more of students in seven countries agreed that small differences in income between rich and poor people are good for democracy. In three Latin American countries (Chile, Colombia, Peru), about a third of students regarded this situation as bad for democracy. On average across participating countries, 42 percent of students viewed income differences as unrelated to democracy.

Majorities of students across the participating countries consistently regarded the right to democratically elect leaders, ability to protest against unjust laws, and equal rights for all ethnic and racial groups as good for democracy. Less consistent patterns of agreement were apparent with respect to people being able to publicly criticize governments or live in societies with only small differences in income. In particular, the finding that students in a number of countries believed that criticizing governments is bad for democracy may suggest a legacy of authoritarian views with regard to how democracies should function. In this context, it should also be noted that the students in these countries were characterized by relatively low average levels of civic knowledge (see Chapter 3).

The ICCS 2016 assessment framework regards young people's views of what constitutes good citizenship behavior as an important aspect of their attitudes toward society. The first IEA study on civic education in 1971 included several items measuring this aspect (Torney et al., 1975), while the second IEA study in this learning area, CIVED 1999, developed a question asking students to rate the importance of 15 different behaviors commensurate with being a good citizen (see Torney-Purta et al., 2001, p. 77*f*). Two dimensions emerged from the data. One was concerned with conventional citizenship behavior; the other with social-movement-related citizenship activities (see Schulz, 2004). ICCS 2009 included a similar set of 12 items measuring students' perceptions of the norms of adults' good citizenship behaviors; the set was presented in a different question format, however. Results showed the same two dimensions of conventional and social-movement-related citizenship identified from the CIVED 1999 data (Schulz et al., 2010; Schulz & Friedman, 2011).

Table 5.1: Students' perceptions of situations that are typically regarded as bad for democracy

Country	Percentages of students viewing the following situations as good, neither good nor bad, or bad for democracy:					
	Political leaders give government jobs to their family members			One company or the government owns all newspapers in a country		
	Good (%)	Neither good nor bad (%)	Bad (%)	Good (%)	Neither good nor bad (%)	Bad (%)
Belgium (Flemish)	14 (0.9)	43 (1.3)	**43** (1.6)	9 (0.7)	35 (1.1)	**56** (1.4)
Bulgaria	11 (1.1)	39 (1.2)	**50** (1.4)	15 (0.8)	42 (1.1)	**43** (1.1)
Chile	18 (0.6)	42 (0.9)	**40** (1.0)	11 (0.6)	44 (1.0)	**45** (1.1)
Chinese Taipei	10 (0.5)	16 (0.8)	**74** (0.9)	13 (0.5)	28 (1.0)	**59** (1.2)
Colombia	28 (1.4)	51 (1.2)	**21** (0.9)	9 (0.6)	44 (0.7)	**47** (1.0)
Croatia	7 (0.6)	38 (1.1)	**55** (1.2)	5 (0.5)	31 (1.0)	**63** (1.2)
Denmark†	7 (0.4)	40 (1.0)	**53** (1.1)	6 (0.4)	31 (1.1)	**63** (1.3)
Dominican Republic (r)	**54** (1.2)	33 (1.0)	13 (1.0)	19 (0.8)	40 (0.9)	**42** (1.2)
Estonia[1]	8 (0.7)	41 (1.1)	**51** (1.2)	5 (0.4)	32 (1.2)	**63** (1.4)
Finland	5 (0.4)	31 (0.9)	**63** (1.0)	4 (0.4)	27 (1.0)	**69** (1.0)
Italy	30 (0.8)	29 (0.8)	**41** (1.1)	14 (0.7)	39 (0.9)	**47** (1.0)
Latvia[1]	12 (0.8)	35 (1.2)	**53** (1.2)	10 (0.6)	36 (1.1)	**54** (1.0)
Lithuania	12 (0.7)	40 (1.2)	**48** (1.3)	13 (0.7)	36 (1.1)	**51** (1.1)
Malta	26 (0.8)	38 (0.8)	**36** (0.9)	14 (0.6)	41 (0.9)	**45** (1.1)
Mexico	25 (0.8)	47 (0.8)	**29** (1.0)	13 (0.6)	50 (0.7)	**37** (0.8)
Netherlands†	10 (0.8)	33 (1.3)	**57** (1.6)	9 (0.8)	34 (1.2)	**57** (1.6)
Norway (9)[1]	21 (0.7)	48 (0.7)	**31** (0.7)	17 (0.6)	37 (0.7)	**46** (0.9)
Peru	29 (1.0)	43 (0.9)	**28** (1.0)	14 (0.6)	43 (0.8)	**42** (1.0)
Russian Federation	16 (0.8)	45 (1.3)	**39** (1.6)	12 (0.7)	40 (1.5)	**48** (1.8)
Slovenia	9 (0.7)	41 (1.2)	**50** (1.3)	9 (0.6)	35 (1.1)	**56** (1.3)
Sweden[1] (r)	14 (1.0)	44 (1.0)	**42** (1.1)	8 (0.5)	33 (1.4)	**59** (1.5)
ICCS 2016 average	17 (0.2)	39 (0.2)	**44** (0.3)	11 (0.1)	37 (0.2)	**52** (0.3)
Countries not meeting sample participation requirements						
Hong Kong SAR	**32** (0.8)	44 (1.1)	25 (1.2)	19 (1.0)	40 (1.4)	**41** (1.8)
Korea, Republic of[2]	29 (1.0)	29 (1.1)	**42** (1.0)	12 (0.7)	30 (1.2)	**58** (1.4)
Benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia (Germany)[1]	16 (1.1)	36 (1.8)	**48** (1.5)	10 (1.1)	37 (1.7)	**54** (1.9)

Percentage good for democracy Percentage neither good nor bad Percentage bad for democracy

Notes:
() Standard errors appear in parentheses.
* Percentages of students rating a situation as good or bad that are significantly larger ($p < 0.05$) than those in the opposite category (bad or good) are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Percentages of students viewing the following situations as good, neither good nor bad, or bad for democracy:					
The police have the right to hold people suspected of threatening national security in jail without trial			The government influences decisions by courts of justice		
Good (%)	Neither good nor bad (%)	Bad (%)	Good (%)	Neither good nor bad (%)	Bad (%)
19 (0.8)	46 (1.2)	**35** (1.0)	18 (1.0)	55 (1.1)	**27** (1.4)
41 (1.1)	36 (1.0)	23 (0.8)	21 (0.9)	37 (1.1)	**42** (1.2)
23 (0.8)	32 (0.8)	**44** (0.9)	23 (0.8)	46 (1.0)	**31** (1.0)
31 (0.9)	19 (0.9)	**49** (1.1)	15 (0.6)	21 (0.9)	**64** (1.0)
28 (1.2)	32 (0.8)	**40** (1.1)	26 (0.9)	50 (1.0)	24 (0.9)
40 (1.2)	40 (1.1)	20 (0.9)	11 (0.7)	41 (1.1)	**48** (1.4)
18 (0.6)	43 (0.8)	**39** (1.0)	17 (0.6)	48 (0.9)	**35** (1.0)
42 (1.0)	27 (0.7)	31 (0.9)	**43** (1.1)	37 (1.0)	20 (0.9)
26 (1.1)	39 (1.2)	**36** (0.9)	17 (0.7)	42 (1.0)	**41** (1.1)
26 (0.8)	48 (1.1)	25 (0.7)	17 (0.7)	60 (0.9)	**23** (0.9)
29 (0.8)	34 (1.0)	**38** (1.2)	13 (0.7)	38 (1.0)	**48** (1.0)
31 (1.0)	40 (0.9)	29 (1.0)	21 (0.9)	44 (1.0)	**35** (1.0)
33 (1.1)	31 (0.9)	37 (1.2)	24 (0.9)	42 (0.9)	**34** (1.2)
28 (0.7)	38 (0.8)	**34** (0.8)	**29** (0.7)	45 (0.8)	26 (0.9)
35 (0.7)	35 (0.9)	30 (0.9)	**30** (0.8)	48 (0.7)	21 (0.7)
20 (1.0)	48 (1.0)	**32** (1.2)	16 (0.9)	46 (1.1)	**38** (1.4)
27 (0.6)	38 (0.8)	**36** (0.8)	21 (0.7)	48 (0.8)	**31** (0.8)
34 (0.9)	34 (0.8)	32 (0.8)	**32** (0.6)	49 (0.8)	19 (0.7)
28 (0.9)	36 (1.0)	**36** (1.1)	24 (1.0)	37 (1.1)	**39** (1.6)
38 (1.0)	40 (0.9)	22 (0.9)	14 (0.8)	37 (1.1)	**49** (1.4)
28 (1.1)	41 (1.1)	31 (1.0)	17 (0.8)	41 (1.1)	**41** (1.4)
30 (0.2)	37 (0.2)	**33** (0.2)	21 (0.2)	43 (0.2)	**35** (0.2)
22 (0.9)	33 (1.2)	**45** (1.7)	13 (0.8)	30 (1.5)	**57** (1.9)
27 (1.1)	35 (1.0)	**38** (1.3)	25 (0.9)	44 (1.1)	**31** (1.0)
20 (0.8)	36 (2.2)	**43** (2.2)	13 (1.0)	32 (1.9)	**55** (2.0)

Table 5.2: Students' perceptions of situations that are typically regarded as good for democracy

Country	Percentages of students viewing the following situations as good, neither good nor bad, or bad for democracy:					
	People are allowed to publicly criticize the government			All adult citizens have the right to elect their political leaders		
	Good (%)	Neither good nor bad (%)	Bad (%)	Good (%)	Neither good nor bad (%)	Bad (%)
Belgium (Flemish)	**55** (1.2)	38 (1.1)	7 (0.5)	**88** (0.8)	10 (0.7)	2 (0.3)
Bulgaria	**35** (1.1)	42 (0.9)	23 (1.0)	**76** (0.9)	18 (0.8)	6 (0.6)
Chile	**43** (0.8)	41 (0.8)	16 (0.5)	**78** (0.9)	18 (0.7)	4 (0.4)
Chinese Taipei	37 (1.0)	24 (0.9)	**39** (1.0)	**82** (0.9)	15 (0.8)	3 (0.3)
Colombia	28 (0.9)	38 (0.8)	**34** (1.0)	**86** (0.7)	12 (0.6)	3 (0.3)
Croatia	**43** (1.2)	41 (1.1)	16 (0.7)	**86** (0.7)	12 (0.7)	2 (0.3)
Denmark†	**39** (1.1)	43 (0.8)	18 (0.7)	**84** (0.8)	13 (0.7)	2 (0.3)
Dominican Republic (r)	23 (0.9)	30 (0.9)	**47** (1.1)	**81** (0.8)	15 (0.7)	4 (0.3)
Estonia[1]	31 (1.4)	40 (1.0)	29 (1.2)	**80** (0.9)	16 (0.9)	4 (0.4)
Finland	**53** (1.0)	40 (1.1)	7 (0.5)	**82** (0.8)	17 (0.8)	2 (0.2)
Italy	**39** (1.1)	36 (0.9)	25 (0.8)	**81** (0.9)	14 (0.7)	5 (0.4)
Latvia[1]	27 (1.2)	38 (1.0)	**35** (1.2)	**71** (0.9)	23 (0.8)	6 (0.5)
Lithuania	35 (1.0)	32 (0.9)	34 (0.9)	**76** (0.8)	18 (0.8)	6 (0.5)
Malta	**35** (1.0)	42 (0.8)	23 (0.7)	**66** (0.8)	28 (0.7)	7 (0.4)
Mexico	20 (0.9)	42 (0.8)	**38** (1.1)	**72** (0.9)	23 (0.8)	4 (0.3)
Netherlands†	**54** (1.3)	38 (1.2)	8 (0.7)	**86** (1.1)	11 (1.0)	3 (0.4)
Norway (9)[1]	**43** (0.9)	39 (0.8)	19 (0.6)	**75** (0.7)	21 (0.6)	3 (0.3)
Peru	28 (0.9)	39 (1.0)	**32** (1.0)	**80** (0.7)	17 (0.7)	4 (0.3)
Russian Federation	**36** (1.3)	37 (1.1)	28 (0.9)	**79** (1.3)	16 (1.0)	5 (0.4)
Slovenia	**38** (1.5)	42 (1.2)	20 (1.0)	**84** (0.9)	13 (0.7)	3 (0.4)
Sweden[1] (r)	**52** (1.1)	34 (1.0)	14 (0.8)	**83** (1.0)	13 (0.6)	5 (0.8)
ICCS 2016 average	**38** (0.2)	**38** (0.2)	**24** (0.2)	**80** (0.2)	**16** (0.2)	**4** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	**63** (1.6)	27 (1.5)	10 (0.7)	**69** (1.5)	27 (1.4)	4 (0.5)
Korea, Republic of[2]	**52** (1.1)	38 (1.1)	10 (0.6)	**73** (0.9)	24 (0.9)	3 (0.4)
Benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia (Germany)[1]	**52** (1.7)	30 (1.5)	18 (1.4)	**79** (1.3)	16 (1.3)	5 (0.8)

Percentage good for democracy Percentage neither good nor bad Percentage bad for democracy

Notes:
() Standard errors appear in parentheses.
* Percentages of students rating a situation as good or bad that are significantly larger ($p < 0.05$) than those in the opposite category (bad or good) are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Percentages of students viewing the following situations as good, neither good nor bad, or bad for democracy:

People are able to protest if they think a law is unfair			Differences in income between poor and rich people are small			All <ethnic/racial> groups in the country have the same rights		
Good (%)	Neither good nor bad (%)	Bad (%)	Good (%)	Neither good nor bad (%)	Bad (%)	Good (%)	Neither good nor bad (%)	Bad (%)
51 (1.1)	40 (0.9)	9 (0.6)	**43** (1.5)	36 (1.0)	21 (1.0)	**61** (1.3)	33 (1.1)	6 (0.6)
69 (1.3)	22 (1.0)	8 (0.7)	31 (1.2)	41 (1.0)	28 (1.0)	**58** (1.4)	27 (1.0)	15 (0.9)
63 (0.8)	28 (0.7)	9 (0.5)	26 (0.8)	40 (0.9)	**34** (0.8)	**60** (1.0)	32 (0.9)	8 (0.5)
63 (0.9)	16 (0.8)	21 (0.8)	**53** (1.0)	33 (0.9)	15 (0.7)	**80** (0.9)	17 (0.9)	3 (0.3)
68 (0.8)	22 (0.8)	10 (0.5)	20 (0.7)	47 (0.8)	**33** (0.9)	**64** (1.2)	30 (1.1)	6 (0.4)
60 (0.9)	32 (0.9)	7 (0.6)	**38** (1.0)	35 (1.1)	27 (1.0)	**71** (1.1)	25 (1.0)	4 (0.5)
69 (1.0)	25 (0.9)	6 (0.4)	**30** (0.9)	52 (0.9)	18 (0.6)	**60** (1.2)	34 (1.2)	6 (0.4)
66 (1.0)	24 (0.9)	11 (0.6)	**31** (1.0)	43 (1.0)	26 (0.9)	**66** (1.0)	27 (0.9)	7 (0.4)
59 (1.3)	27 (0.9)	14 (0.9)	**43** (1.1)	39 (1.0)	18 (0.7)	**65** (1.3)	30 (1.2)	5 (0.5)
59 (0.9)	35 (0.9)	6 (0.5)	**43** (1.1)	46 (1.0)	12 (0.7)	**64** (1.0)	33 (0.9)	3 (0.3)
64 (0.9)	24 (0.8)	12 (0.6)	**53** (1.1)	34 (1.0)	13 (0.7)	**73** (0.9)	20 (0.9)	7 (0.5)
52 (1.1)	29 (1.1)	19 (0.9)	**30** (1.2)	50 (1.1)	19 (0.9)	**46** (1.0)	45 (1.0)	9 (0.7)
63 (0.9)	19 (0.7)	18 (0.8)	28 (0.8)	46 (1.0)	26 (0.9)	**63** (1.0)	28 (0.9)	8 (0.6)
66 (0.8)	27 (0.7)	7 (0.4)	**33** (0.9)	40 (0.8)	27 (0.8)	**58** (0.8)	33 (0.6)	9 (0.5)
57 (0.9)	32 (0.8)	11 (0.6)	23 (0.7)	48 (0.9)	**28** (0.8)	**69** (0.9)	26 (0.7)	5 (0.4)
59 (1.2)	34 (1.1)	7 (0.7)	**50** (1.3)	35 (1.2)	15 (0.7)	**59** (1.3)	34 (1.3)	7 (0.6)
70 (0.7)	24 (0.6)	6 (0.4)	**36** (0.8)	44 (0.9)	20 (0.6)	**68** (0.8)	28 (0.7)	4 (0.3)
64 (1.1)	26 (0.8)	10 (0.6)	22 (0.7)	45 (0.7)	**33** (0.8)	**72** (0.8)	23 (0.8)	5 (0.4)
58 (1.3)	29 (1.1)	12 (0.7)	**36** (1.4)	47 (1.3)	18 (0.7)	**64** (1.3)	30 (1.3)	7 (0.4)
60 (1.4)	30 (1.1)	10 (0.8)	**44** (1.2)	32 (1.0)	24 (1.1)	**72** (1.1)	23 (1.0)	5 (0.6)
77 (0.8)	19 (0.8)	4 (0.4)	**39** (1.6)	45 (1.0)	16 (1.0)	**69** (1.0)	27 (0.8)	4 (0.5)
63 (0.2)	**27** (0.2)	**10** (0.1)	**36** (0.2)	**42** (0.2)	**22** (0.2)	**65** (0.2)	**29** (0.2)	**6** (0.1)
73 (1.6)	23 (1.5)	4 (0.5)	**42** (1.3)	46 (1.2)	13 (0.6)	**67** (1.6)	28 (1.5)	4 (0.3)
81 (1.1)	18 (0.9)	2 (0.4)	**36** (1.0)	43 (1.4)	21 (1.0)	**76** (1.0)	22 (1.0)	2 (0.3)
72 (1.7)	21 (1.7)	8 (0.8)	**36** (1.6)	48 (1.6)	15 (1.0)	**71** (1.5)	22 (1.3)	8 (0.8)

Kennedy (2006) distinguished active (conventional and social-movement-related) from more passive citizenship elements (national identity, patriotism, loyalty). Other scholars studying young people's views of ideal citizenship behavior (e.g., Abs, 2013) have drawn similar distinctions. Although the ICCS 2016 student questionnaire included the same question as in the previous cycle, the ICCS research team augmented it with a number of additional items reflecting more passive forms of citizenship behavior. This addition formed a distinct dimension reflecting personally responsible citizenship behavior.

The 2016 questionnaire asked students to rate the importance of adults' conventional citizenship behaviors encapsulated in the following items: (a) "voting in every national election" (ICCS 2016 average percentage of students rating the behavior as quite or very important: 81%); (b) "joining a political party" (quite or very important: 32%); (c) "learning about the country's history" (quite or very important: 79%); (d) "following political issues in the newspaper, on the radio, on TV, or on the internet" (quite or very important: 76%); (e) "showing respect for government representatives" (quite or very important: 84%); and (f) "engaging in political discussions" (quite or very important: 44%). We used the items to form an IRT scale and then equated it with ICCS 2009 so that the value of 50 reflected the average score of equally weighted countries in the previous cycle. The scale had satisfactory average reliability (Cronbach's alpha = 0.71) across countries (see item map in Figure 5.1, Appendix D).

Table 5.3 shows the national scale scores for students' perceptions of the importance of conventional citizenship in participating countries and, in comparison, with the results from ICCS 2009. National average scores are also displayed on the right-hand graph as boxes that indicate the scores' respective confidence intervals. Scale scores located in the lighter colored area indicate that, on average, respondents were likely to have rated conventional citizenship behaviors as important, while those located in the darker colored area would not have rated them as important.

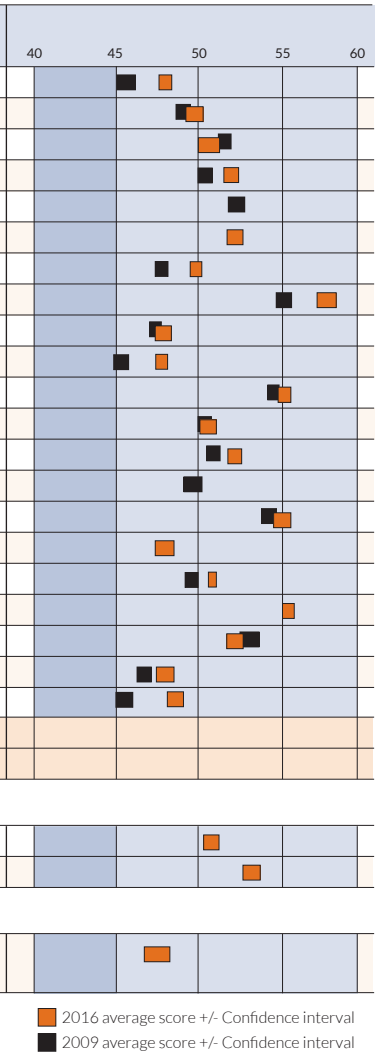
The Dominican Republic, Italy, Mexico, and Peru recorded the highest scale scores for students' perceptions of the importance of conventional citizenship. Belgium (Flemish), Estonia, Finland, the Netherlands, and Slovenia recorded the lowest scores. In nine countries, the ICCS 2016 scores were significantly higher than the 2009 ones. On average across the 2009 and 2016 countries with comparable data (referred to as "common countries" in the tables in this chapter), we observed a score-point difference of just over one scale point.

Table 5.4 shows the associations between students' perceptions of the importance of conventional citizenship and (dichotomous) variables reflecting students' gender (male or female), students' interest (those who were quite or very interested versus those with little or no interest in political or social issues), and civic knowledge (student at or above Level 2 versus others). The columns depict the average scale scores for each comparison group (e.g., males and females), while the bar chart in between graphically illustrates the direction of each association: the red bars to the left of the zero line indicate score point differences where students in the first (left-hand side) group had significantly ($p < 0.05$) higher values, while the green bars indicate score point differences where the other group had significantly higher averages.

Of the associations between students' perceptions of the importance of conventional citizenship and the dichotomous variables, the most marked were those between perceptions and civic interest. We found consistent and statistically significant positive associations between these two variables: on average across all countries, we observed a four-point difference between students with high and students with low interest in political and social issues. Female students in six countries had slightly but statistically significant higher scores than male students. The only country where males

Table 5.3: National average scale scores indicating students' perceptions of the importance of conventional citizenship

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	48 (0.2)	▼	46 (0.2)	**2.2** (0.5)
Bulgaria	50 (0.3)	▽	49 (0.2)	0.8 (0.5)
Chile	51 (0.3)		51 (0.2)	-0.7 (0.6)
Chinese Taipei	52 (0.2)	△	50 (0.2)	**1.7** (0.5)
Colombia	52 (0.2)	△	52 (0.2)	0.1 (0.5)
Croatia	52 (0.2)	△	–	–
Denmark†	50 (0.2)	▽	48 (0.2)	**2.2** (0.5)
Dominican Republic	58 (0.3)	▲	55 (0.3)	**2.8** (0.6)
Estonia[1]	48 (0.3)	▼	47 (0.2)	0.4 (0.5)
Finland	48 (0.2)	▼	45 (0.2)	**2.6** (0.5)
Italy	55 (0.2)	▲	54 (0.2)	0.7 (0.5)
Latvia[1]	50 (0.3)	▽	50 (0.2)	0.4 (0.5)
Lithuania	52 (0.2)	△	51 (0.2)	**1.5** (0.5)
Malta	50 (0.2)	▽	50 (0.3)	0.1 (0.5)
Mexico	55 (0.3)	▲	54 (0.2)	1.0 (0.5)
Netherlands†	48 (0.3)	▼	–	–
Norway (9)[1]	51 (0.1)	▽	49 (0.2)	**1.3** (0.5)
Peru	55 (0.2)	▲	–	–
Russian Federation	52 (0.3)	△	53 (0.3)	-0.5 (0.6)
Slovenia	48 (0.3)	▼	46 (0.2)	**1.5** (0.5)
Sweden	49 (0.3)	▽	46 (0.2)	**3.0** (0.5)
ICCS 2016 average	**51 (0.1)**			
Common countries average	51 (0.1)		50 (0.1)	**1.2** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	51 (0.2)		–	–
Korea, Republic of[2]	53 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia[1] (Germany)	48 (0.4)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:
- Not very important or not important at all
- Quite or very important

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

had slightly but significantly higher scores than females was Peru. Our examination of associations between students' perceptions of the importance of conventional citizenship and students' level of civic knowledge showed five countries where students with higher levels of civic knowledge had significantly higher scale scores and four countries where students with lower levels of civic knowledge had significantly higher scores.

Table 5.4: National average scale scores indicating students' perceptions of the importance of conventional citizenship by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group		Scale score average by students' interest		Scale score average by level of civic knowledge	
	Male students	Female students	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	47 (0.2)	**48** (0.3)	47 (0.2)	**51** (0.5)	**49** (0.5)	47 (0.2)
Bulgaria	50 (0.4)	50 (0.3)	48 (0.3)	**53** (0.4)	**50** (0.5)	49 (0.3)
Chile	51 (0.4)	51 (0.3)	49 (0.3)	**55** (0.5)	51 (0.5)	51 (0.3)
Chinese Taipei	51 (0.3)	**52** (0.3)	50 (0.2)	**55** (0.4)	50 (0.6)	**52** (0.2)
Colombia	52 (0.3)	52 (0.3)	51 (0.3)	**55** (0.3)	**53** (0.3)	52 (0.3)
Croatia	52 (0.3)	52 (0.3)	50 (0.3)	**55** (0.3)	51 (0.4)	**52** (0.2)
Denmark[1]	49 (0.2)	**51** (0.2)	48 (0.2)	**52** (0.2)	49 (0.6)	50 (0.2)
Dominican Republic	57 (0.3)	58 (0.4)	56 (0.3)	**61** (0.4)	58 (0.3)	57 (0.6)
Estonia[1]	47 (0.4)	**48** (0.2)	46 (0.2)	**50** (0.3)	46 (0.6)	**48** (0.2)
Finland	47 (0.2)	**48** (0.2)	46 (0.2)	**51** (0.3)	46 (0.6)	**48** (0.2)
Italy	55 (0.3)	55 (0.2)	54 (0.2)	**58** (0.2)	54 (0.4)	**56** (0.2)
Latvia[1]	50 (0.4)	51 (0.3)	49 (0.3)	**53** (0.4)	50 (0.4)	51 (0.3)
Lithuania	52 (0.4)	52 (0.2)	51 (0.3)	**55** (0.3)	52 (0.4)	52 (0.2)
Malta	50 (0.2)	50 (0.2)	48 (0.2)	**54** (0.3)	50 (0.3)	50 (0.2)
Mexico	55 (0.4)	55 (0.3)	53 (0.3)	**59** (0.4)	55 (0.4)	55 (0.3)
Netherlands[1]	48 (0.4)	48 (0.3)	47 (0.3)	**51** (0.4)	48 (0.6)	48 (0.2)
Norway (9)[1]	50 (0.2)	**51** (0.2)	49 (0.2)	**54** (0.2)	51 (0.5)	51 (0.2)
Peru	**56** (0.2)	55 (0.2)	54 (0.2)	**57** (0.2)	56 (0.2)	55 (0.2)
Russian Federation	52 (0.4)	52 (0.3)	50 (0.4)	**55** (0.3)	**54** (0.7)	52 (0.3)
Slovenia	48 (0.3)	48 (0.3)	47 (0.3)	**51** (0.3)	48 (0.5)	48 (0.3)
Sweden[1]	48 (0.3)	49 (0.3)	47 (0.4)	**51** (0.3)	49 (0.8)	48 (0.2)
ICCS 2016 average	51 (0.0)	**51** (0.1)	50 (0.1)	**54** (0.1)	51 (0.1)	51 (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	51 (0.4)	51 (0.3)	49 (0.3)	**53** (0.3)	49 (0.5)	**52** (0.3)
Korea, Republic of[2]	**54** (0.3)	53 (0.4)	51 (0.4)	**56** (0.4)	51 (0.6)	**54** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

The following items in the student questionnaire were used to measure students' perceptions of the importance of social-movement-related citizenship behavior: (a) "participating in peaceful protests against laws believed to be unjust" (ICCS 2016 average percentage of students rating the behavior as quite or very important: 62%); (b) "participating in activities to benefit people in the local community" (quite or very important: 82%); (c) "taking part in activities promoting human rights" (quite or very important: 84%); and (d) "taking part in activities to protect the environment" (quite or very important: 86%). The items formed a scale that had satisfactory average reliability (Cronbach's alpha = 0.74) across countries (see item map in Figure 5.2, Appendix D).

The countries where students most strongly endorsed the importance of social-movement-related behavior were Bulgaria, Colombia, the Dominican Republic, Italy, Mexico, and Peru; those where students were least likely to endorse this behavior were Denmark, Finland, and the Netherlands (Table 5.5). Countries where the 2016 students assigned relatively higher importance to these behaviors than the 2009 students did were Belgium (Flemish), the Dominican Republic, Finland, Italy, Slovenia, and Sweden. In two countries (Chile and Latvia), the 2016 students' scale scores were significantly lower than the scores of their 2009 counterparts. On average, the 2016 data revealed a very small but statistically significant increase of 0.3 of a score point across the common countries.

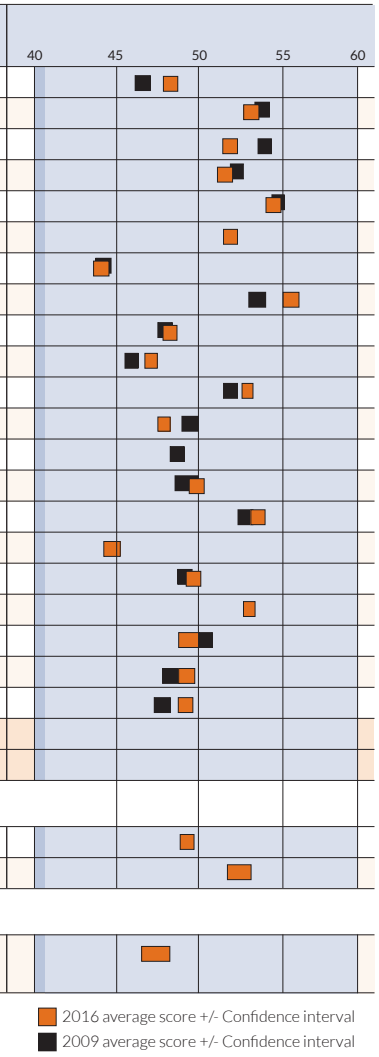
Females in 16 countries were significantly more likely than males to gain higher scores on the social-movement-related behavior scale (Table 5.6). We observed a small but statistically significant difference of one score point, on average, between females and males. We also found consistent positive associations between students' interest in political and social issues and their perceptions of the importance of social-movement-related citizenship behavior: across countries, the difference between the two comparison groups (not interested and quite/very interested) amounted, on average, to three scale score points (equivalent to about one international standard deviation). In most countries, students at or above Level 2 on the civic knowledge scale had significantly higher scale scores on the behavior scale than the students in the comparison group (also about three points on average). We found no significant differences in Belgium (Flemish), Denmark, the Netherlands, and the Russian Federation.

ICCS 2016 also used items to measure the importance of personally responsible citizenship behavior: (a) "working hard" (ICCS 2016 average percentage of students rating the behavior as quite or very important: 85%); (b) "always obeying the law" (quite or very important: 92%); (c) "ensuring the economic welfare of their families" (quite or very important: 94%); (d) "making personal efforts to protect natural resources (e.g. through saving water or recycling waste)" (quite or very important: 89%); (e) "respecting the rights of others to have their own opinions" (quite or very important: 95%); (f) "supporting people who are worse off than you" (quite or very important: 95%); and (g) "engaging in activities to help people in less developed countries" (quite or very important: 81%). The resulting scale had good reliability (Cronbach's alpha = 0.78) across participating countries, and we standardized the scores to give a mean of 50 and a standard deviation of 10 for the equally weighted countries (see item map in Figure 5.3, Appendix D).

Because very large majorities of students across countries rated these behaviors as quite or very important, we present only the percentages of students who saw personally responsible behavior as "very important" for good citizenship (Table 5.7). Majorities of students viewed the following behaviors as very important indicators of being a good citizen: always obeying the law (59% on average), ensuring the economic welfare of their families (60% on average), and respecting others' opinions (62% on average). Across countries, about half of the students, on average, regarded making personal effort to protect natural resources and to help people who are worse off as very important.

Table 5.5: National average scale scores indicating students' perceptions of the importance of social-movement-related citizenship

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	48 (0.2)	▽	46 (0.2)	**1.8** (0.5)
Bulgaria	53 (0.3)	▲	54 (0.2)	-0.4 (0.5)
Chile	52 (0.2)	△	54 (0.2)	**-2.1** (0.5)
Chinese Taipei	52 (0.2)	△	52 (0.2)	-0.6 (0.5)
Colombia	55 (0.2)	▲	55 (0.1)	-0.2 (0.5)
Croatia	52 (0.2)	△	–	–
Denmark†	44 (0.2)	▼	44 (0.2)	-0.2 (0.5)
Dominican Republic	56 (0.2)	▲	53 (0.3)	**2.4** (0.5)
Estonia[1]	48 (0.3)	▽	48 (0.2)	0.2 (0.5)
Finland	47 (0.2)	▼	46 (0.2)	**1.3** (0.5)
Italy	53 (0.2)	△	52 (0.2)	**1.1** (0.5)
Latvia[1]	48 (0.2)	▽	49 (0.2)	**-1.5** (0.5)
Lithuania	49 (0.2)	▽	49 (0.2)	0.0 (0.5)
Malta	50 (0.2)	▽	49 (0.3)	0.6 (0.6)
Mexico	54 (0.2)	▲	53 (0.2)	0.9 (0.5)
Netherlands†	45 (0.2)	▼	–	–
Norway (9)	50 (0.2)	▽	49 (0.2)	0.6 (0.5)
Peru	53 (0.2)	△	–	–
Russian Federation	49 (0.3)	▽	50 (0.2)	-0.9 (0.5)
Slovenia	49 (0.2)	▽	48 (0.2)	**1.1** (0.5)
Sweden	49 (0.3)	▽	48 (0.2)	**1.6** (0.5)
ICCS 2016 average	50 (0.0)			
Common countries average	50 (0.1)		50 (0.1)	**0.3** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	49 (0.2)		–	–
Korea, Republic of[2]	53 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia[1] (Germany)	47 (0.4)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	Not very important or not important at all
	Quite or very important

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

Across all participating countries, 42 percent of students on average viewed working hard as very important, while only about a third across countries shared this view with respect to engaging in activities that help people in less developed countries (refer to Table 5.7). Perceptions regarding both of these citizenship behaviors varied notably across countries. For example, in some countries (in particular, Bulgaria, Chinese Taipei, Croatia, and the Dominican Republic) more than half of the students considered working hard as very important for good citizenship, but in other countries (notably Denmark, Estonia, Latvia, Lithuania, and the Russian Federation) less than a third of students held this view. Ratings of engagement in activities to help people in less

Table 5.6: National average scale scores indicating students' perceptions of the importance of social-movement-related citizenship by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group			Scale score average by students' interest			Scale score average by level of civic knowledge		
	Male students		Female students	Not interested in civic issues		Quite or very interested in civic issues	Civic knowledge below Level B (below 479)		Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	48 (0.2)		**49** (0.3)	48 (0.2)		**50** (0.5)	48 (0.5)		48 (0.2)
Bulgaria	52 (0.4)		**54** (0.3)	53 (0.3)		**55** (0.4)	50 (0.4)		**56** (0.2)
Chile	51 (0.3)		**53** (0.3)	51 (0.3)		**55** (0.4)	50 (0.4)		**54** (0.2)
Chinese Taipei	51 (0.3)		**52** (0.3)	51 (0.2)		**53** (0.3)	48 (0.6)		**52** (0.2)
Colombia	54 (0.3)		**55** (0.2)	54 (0.2)		**56** (0.3)	53 (0.3)		**56** (0.2)
Croatia	51 (0.3)		**53** (0.3)	51 (0.3)		**54** (0.3)	49 (0.4)		**53** (0.2)
Denmark†	44 (0.2)		**44** (0.2)	43 (0.2)		**45** (0.3)	45 (0.5)		44 (0.2)
Dominican Republic (r)	55 (0.3)		56 (0.3)	55 (0.2)		**56** (0.3)	55 (0.2)		**59** (0.5)
Estonia[1]	47 (0.3)		**49** (0.3)	47 (0.3)		**50** (0.3)	46 (0.5)		**49** (0.3)
Finland	46 (0.3)		**48** (0.2)	46 (0.2)		**50** (0.3)	45 (0.6)		**47** (0.2)
Italy	52 (0.3)		**54** (0.3)	52 (0.2)		**55** (0.3)	50 (0.4)		**54** (0.2)
Latvia[1]	47 (0.3)		**48** (0.3)	47 (0.2)		**49** (0.4)	46 (0.3)		**49** (0.2)
Lithuania	48 (0.3)		49 (0.3)	48 (0.2)		**50** (0.3)	48 (0.4)		**49** (0.2)
Malta	49 (0.3)		**50** (0.3)	49 (0.2)		**52** (0.3)	47 (0.2)		**52** (0.3)
Mexico	53 (0.3)		**55** (0.3)	53 (0.2)		**56** (0.3)	52 (0.3)		**56** (0.2)
Netherlands†	44 (0.3)		45 (0.3)	44 (0.3)		**46** (0.4)	44 (0.5)		45 (0.2)
Norway (9)[1]	49 (0.3)		**51** (0.2)	49 (0.2)		**52** (0.3)	48 (0.4)		**50** (0.2)
Peru	53 (0.2)		53 (0.3)	52 (0.2)		**54** (0.3)	52 (0.2)		**55** (0.3)
Russian Federation	49 (0.3)		49 (0.3)	48 (0.3)		**51** (0.3)	49 (0.5)		49 (0.3)
Slovenia	49 (0.3)		**50** (0.2)	49 (0.2)		**51** (0.3)	47 (0.4)		**50** (0.3))
Sweden[1]	48 (0.3)		**50** (0.3)	48 (0.3)		**51** (0.4)	48 (0.6)		**49** (0.3)
ICCS 2016 average	50 (0.1)		**51** (0.1)	49 (0.1)		**52** (0.1)	49 (0.1)		**51** (0.1)
Countries not meeting sample participation requirements									
Hong Kong SAR	49 (0.3)		49 (0.3)	47 (0.3)		**51** (0.3)	47 (0.4)		**50** (0.3)
Korea, Republic of[2]	53 (0.4)		53 (0.4)	51 (0.4)		**55** (0.4)	48 (0.6)		**54** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Table 5.7: National percentages and scale scores indicating students' perceptions of the importance of personally responsible citizenship behavior

Country	Percentages of students who viewed the following behaviors as very important for being a good citizen:							Average scale scores indicating students' perceptions of the importance of personal responsibility for citizenship
	Working hard (%)	Always obeying the law (%)	Ensuring the economic welfare of their families (%)	Making personal efforts to protect natural resources (%)	Respecting the rights of others to have their own opinions (%)	Supporting people who are worse off than you (%)	Engaging in activities to help people in less developed countries (%)	
Belgium (Flemish)	38 (1.1) ▽	56 (1.4) ▽	61 (1.2)	40 (1.2) ▽	61 (1.3)	49 (1.1)	32 (1.1) ▽	49 (0.2) ▽
Bulgaria	53 (1.2) ▲	42 (1.0) ▼	61 (1.1)	50 (1.1)	55 (1.3) ▽	49 (1.2)	35 (1.0)	49 (0.3) ▽
Chile	33 (0.9) ▽	51 (1.1) ▽	61 (1.0)	58 (1.0) △	64 (0.9) △	60 (1.0) ▲	47 (1.0) ▲	51 (0.3) △
Chinese Taipei	54 (1.0) ▲	71 (1.0) ▲	60 (0.8)	57 (1.0) △	72 (1.0) ▲	50 (1.0)	36 (1.0)	53 (0.2) ▲
Colombia	43 (0.9)	53 (0.9) ▽	62 (0.7) △	68 (0.9) ▲	65 (0.9) △	55 (0.8) △	47 (0.9) ▲	51 (0.2) △
Croatia	64 (1.2) ▲	56 (1.2) ▽	55 (1.2) ▽	50 (1.2)	67 (1.2) △	63 (1.2) ▲	43 (1.2) △	53 (0.3) △
Denmark†	30 (0.9) ▼	67 (0.9) △	53 (1.0) ▽	31 (0.9) ▼	67 (1.0) △	34 (1.0) ▼	16 (0.6) ▼	47 (0.2) ▽
Dominican Republic	63 (0.9) ▲	64 (0.9) △	66 (0.8) △	63 (1.0) ▲	64 (0.7) △	62 (0.8) ▲	59 (0.9) ▲	54 (0.2) ▲
Estonia[1]	25 (1.0) ▼	45 (1.1) ▼	68 (0.9) △	39 (1.1) ▽	48 (1.1) ▼	38 (1.4) ▼	21 (0.9) ▼	47 (0.2) ▼
Finland	49 (1.2) △	67 (1.1) △	72 (1.1) ▲	44 (1.1) ▽	59 (1.0) ▽	49 (1.0)	22 (0.8) ▼	50 (0.2) △
Italy	43 (1.0)	82 (0.9) ▲	77 (0.7) ▲	58 (1.0) △	64 (1.1)	59 (1.1) ▲	36 (0.8)	52 (0.2) △
Latvia[1]	23 (0.8) ▼	50 (1.3) ▽	60 (1.2)	36 (1.0) ▼	49 (1.3) ▼	40 (1.2) ▽	23 (0.9) ▼	46 (0.2) ▼
Lithuania	31 (1.0) ▼	70 (1.2) ▲	60 (1.0)	56 (1.0) △	63 (1.0)	37 (0.9) ▼	30 (1.0) ▽	49 (0.2) ▽
Malta	52 (0.8) △	69 (0.8) ▲	58 (1.0) ▽	52 (0.8) △	61 (0.7) ▽	49 (0.8)	40 (0.8) △	51 (0.2) △
Mexico	50 (0.9) △	52 (1.0) ▽	65 (0.9) △	63 (0.8) ▲	61 (1.0)	55 (0.9) △	48 (0.8) ▲	52 (0.2) △
Netherlands†	38 (1.1) ▽	41 (1.1) ▼	44 (1.4) ▼	22 (0.9) ▼	60 (1.1)	37 (1.1) ▼	21 (0.9) ▼	46 (0.2) ▼
Norway (9)	38 (0.8) ▽	63 (0.7) △	55 (0.8) ▽	40 (0.8) ▽	70 (0.7) △	50 (0.9)	34 (0.8)	50 (0.2)
Peru	39 (1.0) ▽	52 (1.1) ▽	62 (0.8) △	63 (0.9) ▲	62 (1.1)	49 (0.8)	47 (1.0) ▲	51 (0.2) △
Russian Federation	32 (0.9) ▼	50 (1.3) ▽	65 (1.1) △	46 (1.2) ▽	54 (1.0) ▽	47 (1.1) ▽	31 (1.1) ▽	49 (0.3) ▽
Slovenia	47 (1.1) △	61 (1.1)	35 (1.2) ▼	51 (1.1)	60 (1.1)	51 (1.0)	35 (1.0)	49 (0.2) ▽
Sweden[1]	37 (1.0) ▽	72 (0.9) ▲	53 (0.9) ▽	46 (1.1) ▽	77 (1.0) ▲	51 (1.3)	29 (1.0) ▽	50 (0.2)
ICCS 2016 average	42 (0.2)	59 (0.2)	60 (0.2)	49 (0.2)	62 (0.2)	49 (0.2)	35 (0.2)	50 (0.0)
Countries not meeting sample participation requirements								
Hong Kong SAR	48 (1.5)	58 (1.4)	41 (1.2)	46 (1.3)	56 (1.5)	32 (1.0)	24 (1.0)	48 (0.3)
Korea, Republic of[2]	49 (1.2)	56 (1.2)	50 (1.2)	59 (1.3)	59 (1.3)	49 (1.4)	32 (1.5)	51 (0.3)
Benchmarking participant not meeting sample participation requirements								
North Rhine-Westphalia (Germany)[1]	21 (1.4)	76 (1.9)	61 (1.8)	28 (1.6)	68 (2.3)	41 (1.6)	25 (1.3)	47 (0.4)

National average:
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

developed countries were considerably higher among students in the Latin American countries (Chile, Colombia, Dominican Republic, Mexico, Peru), but they were lower in Denmark, Estonia, Finland, Latvia, and the Netherlands.

Table 5.8 shows the national average scale scores indicating students' perceptions of the importance of personally responsible citizenship behaviors. Chinese Taipei and the Dominican Republic recorded the highest national average scale scores (three or more points above the ICCS 2016 average); Estonia, Latvia, and the Netherlands recorded the lowest national averages.

Female students scored significantly higher than males (by two scale points on average) on the personal responsibility scale in all but one country (refer to Table 5.8). Students who expressed interest in political and social issues had consistently higher scale scores than those who expressed little or no interest. The score difference on average across countries was three scale points. Students with higher levels of civic knowledge also had consistently higher scores, indicating that they regarded responsible citizenship behavior as more important than the students with lower levels of civic knowledge did. We recorded a difference of about three scale score points, on average, between the two groups across participating countries.

Students' attitudes toward equal opportunities

Positive attitudes toward equal opportunities for all groups within a society, independent of their gender or origin, are widely regarded as part of the ideal of a democratic society (Angvik & von Borries, 1997; Hahn, 1998). The establishment of equity as a sub-domain (content domain civic principles) in the ICCS 2016 assessment framework emphasizes the importance of this aspect for civic and citizenship education, as does the inclusion of the sub-domain civic connectedness (content domain civic identities) in the framework. Connectedness refers to citizens' beliefs about tolerance of diversity in society.

Attitudes toward gender equality have been a focus of IEA research on civic education ever since the association conducted its first study in this area in 1971. That study used four items to measure support for women's political rights (Torney et al., 1975). In 1999, the CIVED survey captured students' attitudes toward women's political rights using an extended set of three positively and three negatively worded items (Torney-Purta et al., 2001). Female students in that study tended to express higher levels of support for gender equality than males did. Using data from CIVED 1999, Barber and Torney-Purta (2009) examined gender differences in depth and identified classroom practices that tend to reduce the gap between males and females.

ICCS 2009 included seven items on gender rights, some of them identical or similar to those used in CIVED. The ICCS 2009 researchers used six of these seven items to derive an IRT-based scale reflecting students' attitudes toward gender equality. The 2009 results showed large majorities of students across countries agreeing with the positive and disagreeing with the negatively worded statements about gender equality (Schulz et al., 2010, pp. 95–98).

The ICCS 2016 student questionnaire included the same set of seven items to measure students' attitudes toward gender equality. As with the previous survey, we used six of these items to derive a scale reflecting (positive) student attitudes toward gender equality. The items measuring students' endorsement of gender equality were (a) "Men and women should have equal opportunities to take part in government" (75% of students strongly agreed on average across the ICCS 2016 countries): (b) "Men and women should have the same rights in every way" (72% strongly agreed); (c) "Women should stay out of politics" (55% strongly disagreed); (d) "When there are not many jobs available, men should have more right to a job than women" (50% strongly disagreed): (e) "Men and women should get equal pay when they are doing the same jobs" (71% strongly agreed); and (f) "Men are better qualified to be political leaders than women" (46% strongly disagreed).

Table 5.8: National average scale scores indicating students' perceptions of the importance of personal responsibility for citizenship by gender, students' interest, and level of civic knowledge

Country	Scale score average by gender group		Scale score average by students' interest		Scale score average by level of civic knowledge	
	Male students	Female students	Not interested in civic issues	Quite or very interested in civic issues	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	48 (0.3)	**50** (0.3)	49 (0.3)	**51** (0.4)	48 (0.6)	**50** (0.2)
Bulgaria	48 (0.4)	**51** (0.4)	49 (0.3)	**51** (0.4)	47 (0.5)	**51** (0.2)
Chile	50 (0.4)	**52** (0.3)	50 (0.3)	**53** (0.4)	48 (0.4)	**53** (0.3)
Chinese Taipei	52 (0.3)	**54** (0.3)	53 (0.2)	**55** (0.4)	49 (0.7)	**54** (0.2)
Colombia	51 (0.3)	**52** (0.2)	51 (0.2)	**53** (0.3)	50 (0.3)	**53** (0.2)
Croatia	51 (0.4)	**55** (0.3)	52 (0.3)	**55** (0.4)	50 (0.6)	**54** (0.3)
Denmark†	46 (0.2)	**48** (0.2)	46 (0.2)	**49** (0.2)	45 (0.6)	**48** (0.2)
Dominican Republic (r)	54 (0.3)	54 (0.3)	54 (0.3)	54 (0.3)	54 (0.2)	**56** (0.6)
Estonia[1]	46 (0.3)	**48** (0.3)	46 (0.2)	**48** (0.3)	44 (0.4)	**47** (0.2)
Finland	48 (0.3)	**53** (0.2)	49 (0.3)	**53** (0.3)	46 (0.7)	**51** (0.2)
Italy	52 (0.3)	**53** (0.3)	52 (0.2)	**54** (0.3)	50 (0.4)	**53** (0.2)
Latvia[1]	46 (0.3)	**47** (0.3)	46 (0.2)	**48** (0.4)	45 (0.4)	**47** (0.3)
Lithuania	48 (0.3)	**50** (0.2)	48 (0.3)	**51** (0.4)	48 (0.4)	**50** (0.3)
Malta	49 (0.3)	**52** (0.2)	50 (0.2)	**52** (0.3)	47 (0.3)	**54** (0.2)
Mexico	50 (0.4)	**53** (0.2)	51 (0.3)	**54** (0.4)	49 (0.3)	**55** (0.3)
Netherlands†	45 (0.3)	**46** (0.3)	45 (0.2)	**48** (0.4)	43 (0.4)	**47** (0.2)
Norway (9)[1]	48 (0.2)	**51** (0.2)	49 (0.2)	**52** (0.2)	47 (0.5)	**50** (0.2)
Peru	50 (0.3)	**51** (0.3)	50 (0.3)	**52** (0.3)	49 (0.3)	**53** (0.3)
Russian Federation	48 (0.3)	**49** (0.3)	47 (0.3)	**50** (0.3)	48 (0.5)	**49** (0.3)
Slovenia	48 (0.3)	**51** (0.3)	49 (0.2)	**51** (0.4)	45 (0.4)	**50** (0.2)
Sweden[1]	49 (0.3)	**51** (0.3)	49 (0.3)	**52** (0.3)	47 (0.6)	**50** (0.2)
ICCS 2016 average	49 (0.1)	**51** (0.1)	49 (0.1)	**52** (0.1)	48 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	48 (0.4)	49 (0.4)	47 (0.4)	**50** (0.4)	45 (0.5)	**49** (0.3)
Korea, Republic of[2]	51 (0.4)	52 (0.4)	50 (0.4)	**53** (0.4)	48 (0.7)	**52** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Because the scoring of the negatively worded items was reversed, the higher scale scores on the ICCS 2016 endorsement of gender equality scale reflect more positive attitudes toward gender equality. The scale was equated to ensure the resulting scale scores could be compared with those collected in the 2009 survey. The ICCS 2016 scale had high reliability (Cronbach's alpha = 0.78) on average across the participating countries (see item map in Figure 5.4, Appendix D).

Students in most of the ICCS 2016 countries tended to express strong agreement with positively worded statements and strong disagreement with negatively worded statements about gender equality, as indicated by the location of their average scores in the lighter colored area of the graph in Table 5.9. This finding aligned with the pattern of corresponding average scores in ICCS 2009.

The highest scale score averages (that is, three or more points above the international average) were recorded in Chinese Taipei, Denmark, Finland, Norway, and Sweden, while the lowest ones (three or more points below the international average) were observed in Bulgaria, the Dominican Republic, Latvia, Mexico, and the Russian Federation. When we compared the scale scores of the ICCS 2009 and ICCS 2016 common countries, we recorded statistically significant increases across time in eight of those countries: Belgium (Flemish), Denmark, Estonia, Finland, Italy, Malta, Norway, and Sweden. On average across all participating countries, we observed a statistically significant increase of just over one score point.

In addition to showing comparisons of scale scores across gender groups, and (high and low) levels of civic knowledge, Table 5.10 displays scale scores comparing the endorsement of gender equality between students with at least one parent with a university degree and students whose parents had not reached this level of qualification. The inclusion of these variables in ICCS allowed us to review the influence of home educational background on students' perceptions of equal opportunities. For all three pairs of comparison groups, we observed consistently significant associations across countries. On average across participating countries, females had scale scores about five points higher than the males' scores, students with at least one parent with a university degree scored about two points higher than the other students, and those students with civic knowledge at Level B proficiency or above had scores about eight points higher than those with the lower levels of civic knowledge.

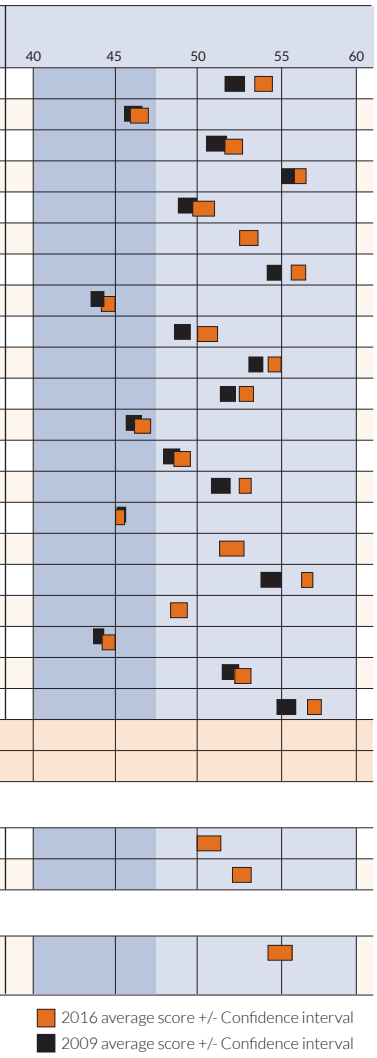
These results confirm findings from earlier studies that female students tend to be more supportive of gender equality than males and that students with higher levels of civic knowledge also express more positive attitudes. The results furthermore indicate that students with parents with a university degree hold more favorable attitudes about equitable rights between females and males.

Another important aspect of students' regard for equity and tolerance is ethnic and racial background. In many countries, surveys of adults show perceptions of persisting high levels of ethnic and racial discrimination (Chong & Ñopo, 2007; European Commission, 2012; Ñopo, Chong, & Moro, 2010). Previous IEA studies have included measures of students' attitudes toward equal rights and opportunities for all ethnic and racial groups in society: CIVED 1999 measured this construct with four items, while ICCS 2009 used five. The items in both studies were used to derive a scale reflecting this construct (Schulz et al., 2010; Torney-Purta et al., 2001).

The ICCS 2016 student questionnaire included the following five items to measure students' endorsement of equal rights for all ethnic/racial groups in their country: (a) "All <ethnic/racial groups> should have an equal chance to get a good education in <country of test>" (62% of students strongly agreed on average across participating countries); (b) "All <ethnic/racial groups> should have an equal chance to get good jobs in <country of test>" (57% strongly agreed); (c) "Schools should teach students to respect <members of all ethnic/racial groups>" (57% strongly agreed); (d) "Members of all ethnic/racial groups should be encouraged to run in elections for political office" (31% strongly agreed); and (e) "Members of all ethnic/racial groups should have the same

Table 5.9: National average scale scores indicating students' endorsement of gender equality

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	54 (0.3)	△	52 (0.3)	**1.9** (0.6)
Bulgaria	46 (0.3)	▼	46 (0.3)	0.4 (0.6)
Chile	52 (0.3)	△	51 (0.3)	1.1 (0.6)
Chinese Taipei	56 (0.2)	▲	55 (0.2)	0.9 (0.5)
Colombia	50 (0.3)	▽	49 (0.2)	1.0 (0.6)
Croatia	53 (0.3)	△	–	–
Denmark†	56 (0.2)	▲	54 (0.2)	**1.9** (0.5)
Dominican Republic	44 (0.2)	▼	44 (0.2)	0.8 (0.5)
Estonia[1]	51 (0.3)		49 (0.3)	**1.9** (0.6)
Finland	55 (0.2)	▲	53 (0.2)	**1.3** (0.5)
Italy	53 (0.2)	△	52 (0.2)	**1.4** (0.5)
Latvia[1]	46 (0.2)	▼	46 (0.2)	0.5 (0.5)
Lithuania	49 (0.2)	▽	48 (0.2)	0.7 (0.5)
Malta	53 (0.2)	△	51 (0.3)	**1.7** (0.5)
Mexico	45 (0.1)	▼	45 (0.1)	-0.2 (0.5)
Netherlands†	52 (0.3)	△	–	–
Norway (9)[1]	57 (0.2)	▲	54 (0.3)	**2.7** (0.5)
Peru	49 (0.3)	▽	–	–
Russian Federation	44 (0.2)	▼	44 (0.1)	0.8 (0.5)
Slovenia	53 (0.2)	△	52 (0.2)	0.9 (0.5)
Sweden	57 (0.2)	▲	55 (0.3)	**1.9** (0.6)
ICCS 2016 average	51 (0.1)			
Common countries average	51 (0.1)		50 (0.1)	**1.2 (0.1)**
Countries not meeting sample participation requirements				
Hong Kong SAR	51 (0.4)		–	–
Korea, Republic of[2]	53 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia[1] (Germany)	55 (0.3)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	No strong agreement with positive and no strong disagreement with negative items
	Strong agreement with positive and strong disagreement with negative items

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

rights and responsibilities" (59% strongly agreed).[3] Because ICCS 2009 used the same question, we were able to derive an equated scale for ICCS 2016 that allowed us to compare the scores on the ICCS 2009 and 2016 scales. The 2016 scale had high reliability across countries (Cronbach's alpha = 0.82), with the higher scores on it reflecting more positive attitudes toward equal rights for all ethnic and racial groups in a country (see item map in Figure 5.5, Appendix D).

3 Expressions in angle brackets (<>) were adapted to suit the respective national contexts.

Table 5.10: National average scale scores indicating students' endorsement of gender equality by gender, parental education, and level of civic knowledge

Country	Scale score average by gender group		Scale score by parental university degree		Scale score average by level of civic knowledge	
	Male students	Female students	No parent with university degree	At least one parent with university degree	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	52 (0.3)	**56** (0.4)	52 (0.4)	**56** (0.3)	48 (0.5)	**56** (0.3)
Bulgaria	44 (0.2)	**49** (0.4)	44 (0.3)	**48** (0.3)	42 (0.2)	**50** (0.2)
Chile	50 (0.3)	**55** (0.3)	51 (0.3)	**55** (0.3)	47 (0.3)	**57** (0.2)
Chinese Taipei	54 (0.2)	**59** (0.2)	56 (0.2)	**57** (0.3)	48 (0.5)	**58** (0.2)
Colombia	49 (0.3)	**52** (0.4)	50 (0.3)	**51** (0.4)	46 (0.2)	**54** (0.3)
Croatia	50 (0.4)	**57** (0.3)	53 (0.3)	**54** (0.5)	47 (0.5)	**55** (0.3)
Denmark†	53 (0.3)	**59** (0.2)	56 (0.2)	**58** (0.2)	49 (0.4)	**57** (0.2)
Dominican Republic	43 (0.2)	**45** (0.3)	44 (0.2)	**46** (0.3)	43 (0.2)	**52** (0.5)
Estonia[1]	48 (0.3)	**53** (0.4)	50 (0.3)	**52** (0.5)	44 (0.3)	**53** (0.3)
Finland	51 (0.3)	**59** (0.2)	54 (0.3)	**55** (0.3)	45 (0.6)	**56** (0.2)
Italy	50 (0.3)	**56** (0.3)	53 (0.2)	**55** (0.4)	47 (0.3)	**56** (0.2)
Latvia[1]	44 (0.3)	**48** (0.3)	45 (0.3)	**48** (0.3)	43 (0.3)	**49** (0.3)
Lithuania	46 (0.3)	**52** (0.3)	48 (0.3)	**51** (0.4)	43 (0.3)	**51** (0.2)
Malta	49 (0.3)	**57** (0.2)	53 (0.2)	**54** (0.3)	47 (0.3)	**57** (0.2)
Mexico	44 (0.2)	**47** (0.2)	45 (0.1)	**47** (0.2)	43 (0.1)	**48** (0.2)
Netherlands†	49 (0.4)	**55** (0.4)	51 (0.4)	**54** (0.4)	47 (0.5)	**55** (0.4)
Norway (9)[1]	53 (0.2)	**60** (0.1)	56 (0.2)	**58** (0.2)	49 (0.4)	**58** (0.1)
Peru	47 (0.3)	**51** (0.3)	48 (0.3)	**51** (0.4)	45 (0.2)	**55** (0.3)
Russian Federation	42 (0.2)	**47** (0.3)	44 (0.2)	**45** (0.3)	41 (0.2)	**45** (0.2)
Slovenia	49 (0.3)	**56** (0.3)	52 (0.3)	**53** (0.4)	47 (0.4)	**55** (0.3)
Sweden[1]	54 (0.4)	**60** (0.2)	57 (0.4)	**58** (0.4)	50 (0.6)	**59** (0.2)
ICCS 2016 average	49 (0.1)	**54** (0.1)	51 (0.1)	**53** (0.1)	46 (0.1)	**54** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	48 (0.4)	**53** (0.3)	50 (0.4)	**52** (0.5)	46 (0.5)	**53** (0.3)
Korea, Republic of[2]	51 (0.3)	**55** (0.3)	52 (0.4)	**53** (0.3)	47 (0.4)	**54** (0.3)

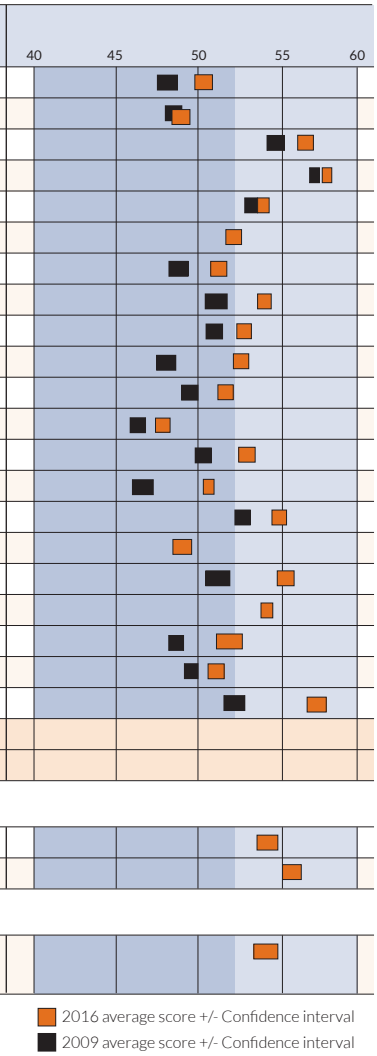
Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Of the countries participating in ICCS 2016, Chile, Chinese Taipei, and Sweden recorded the highest average scale scores, thus indicating endorsement of equal rights for all ethnic and racial groups. Bulgaria, Latvia, and the Netherlands recorded the lowest scores (Table 5.11). With the exception of Bulgaria, all countries that participated in both cycles of ICCS recorded significantly higher scores—2.7 scale points on average (equivalent to more than a quarter of an international standard deviation)—in 2016 than they did in 2009. On average, students in many of the ICCS countries tended to strongly agree with the statements reflecting endorsement of equal rights for all ethnic and racial groups (see the lighter colored area in the Table 5.11 graph).

Table 5.11: National average scale scores indicating students' endorsement of equal rights for all ethnic and racial groups

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	50 (0.3)	▽	48 (0.3)	**2.5** (0.5)
Bulgaria	49 (0.3)	▼	48 (0.2)	0.5 (0.4)
Chile	57 (0.2)	▲	54 (0.2)	**2.1** (0.4)
Chinese Taipei	58 (0.2)	▲	57 (0.2)	**1.2** (0.3)
Colombia	54 (0.2)	△	53 (0.2)	**1.0** (0.3)
Croatia	52 (0.2)	▽	–	–
Denmark†	51 (0.2)	▽	48 (0.3)	**2.7** (0.5)
Dominican Republic	54 (0.2)	△	51 (0.3)	**3.1** (0.4)
Estonia[1]	53 (0.2)		51 (0.2)	**2.1** (0.4)
Finland	53 (0.2)		48 (0.2)	**4.9** (0.4)
Italy	52 (0.2)	▽	49 (0.2)	**2.5** (0.4)
Latvia[1]	48 (0.2)	▼	46 (0.2)	**1.8** (0.4)
Lithuania	53 (0.2)		50 (0.2)	**2.8** (0.4)
Malta	51 (0.2)	▽	46 (0.3)	**4.3** (0.4)
Mexico	55 (0.2)	△	52 (0.2)	**2.5** (0.4)
Netherlands†	49 (0.3)	▼	–	–
Norway (9)[1]	55 (0.2)	△	51 (0.3)	**4.6** (0.5)
Peru	54 (0.2)	△	–	–
Russian Federation	52 (0.4)	▽	48 (0.2)	**3.6** (0.5)
Slovenia	51 (0.2)	▽	49 (0.2)	**1.7** (0.4)
Sweden	57 (0.3)	▲	52 (0.3)	**5.4** (0.5)
ICCS 2016 average	53 (0.1)			
Common countries average	53 (0.1)		50 (0.1)	**2.7** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	54 (0.3)		–	–
Korea, Republic of[2]	56 (0.3)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	54 (0.4)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	No strong agreement with positive statements
	Strong agreement with positive statements

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

In all except two ICCS 2016 countries, female students tended to hold more positive attitudes than males toward equal rights for all ethnic and racial groups: on average, there was a difference of about two score points between the two groups (Table 5.12). In all but five countries, students with at least one parent with a university degree were also somewhat more likely to endorse equal opportunities than their peers who did not have a parent with a university degree. We recorded an average difference of about two scale score points between these two groups. In all participating countries, students with higher levels of civic knowledge also scored significantly higher than the students with lower levels of civic knowledge. On average, the difference was about five score points (equivalent to about half a standard deviation).

Students' perceptions of global issues, trust in institutions, and attitudes toward the influence of religion in society

Increasingly, worldwide, the potential impact of human activity on the environment and future global development has become a key issue in debates about future political, social, and economic development. In this context, responsible citizenship is increasingly viewed as including awareness of and regard for sustainable development. Over the years, scholars have amassed evidence of growing concern among young people about global issues, including poverty, hunger, wars, overpopulation, and the environment (see, for example, Holden, 2007; Oscarsson, 1996; Rubin, 2002). Inclusion of these global aspects in learning related to civic and citizenship education is part of a number of initiatives aimed at broadening students' perspectives beyond national contexts (Burnouf, 2004; Hicks, 2003; UNESCO, 2015). The ICCS research team therefore considered students' perceptions and awareness of issues related to global citizenship and sustainable development as an important aspect for inclusion in the 2016 survey (Schulz et al., 2016).

In order to measure students' awareness of and concern about global issues, the ICCS 2016 student questionnaire asked students to consider the seriousness of a broad range of issues faced by nations across the world by indicating the extent to which they regarded each one as a threat ("to a large extent," "to a moderate extent," "to a small extent," "not at all"). The issues included pollution, energy shortages, global financial crises, crime, water shortages, violent conflicts, poverty, food shortages, climate change, unemployment, overpopulation, infectious diseases (e.g., bird flu, AIDS), and terrorism.

Table 5.13 shows those issues, which more than half of the students, on average, rated as a large threat to the world's future. The inter-country range displayed below the average international percentages of students rating each issue as a global threat indicates the differences between the highest and lowest national percentages.

About three-quarters (cross-national average) of the ICCS 2016 students saw pollution as a large threat; Chile, Colombia, and Lithuania recorded the highest proportions. Approximately three-quarters of students across the participating countries viewed terrorism as an important threat, but we recorded some notable variations among the countries. While more than three quarters of students in Croatia, Latvia, Lithuania, Malta, and the Russian Federation thought terrorism an important threat, just over half of the students in the Dominican Republic, the Netherlands, Norway, and Sweden shared this perception. Almost two-thirds of students across the ICCS countries saw water shortages as an important global threat. However, the national average percentages varied considerably—from over 80 percent of students in Chile and Colombia to less than half of the students in Finland, the Netherlands, Norway, and Sweden.

Food shortages were perceived as an important global threat by 62 percent of the lower-secondary students across the ICCS 2016 countries. We recorded particularly high percentages (above 80%) in Chile and Colombia, but much lower ones in Nordic countries such as Finland and Sweden (below 50%). Infectious diseases (e.g., AIDS or bird flu), climate change, and poverty posed important global threats for more than half of the participating students on average. Considerable cross-country variation was evident for all three of these global issues. Also, whereas in some developed countries

Table 5.12: National average scale scores indicating students' endorsement of equal rights for all ethnic and racial groups by gender, parental education, and level of civic knowledge

Country	Scale score average by gender group		Scale score average by students' interest		Scale score average by level of civic knowledge	
	Male students	Female students	No parent with university degree	At least one parent with university degree	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	50 (0.3)	**51** (0.4)	50 (0.4)	**51** (0.3)	48 (0.6)	**51** (0.3)
Bulgaria	47 (0.4)	**50** (0.3)	49 (0.4)	49 (0.4)	47 (0.4)	**50** (0.4)
Chile	56 (0.3)	**58** (0.3)	56 (0.3)	**59** (0.3)	53 (0.4)	**60** (0.2)
Chinese Taipei	57 (0.2)	**59** (0.2)	58 (0.2)	58 (0.3)	53 (0.6)	**59** (0.1)
Colombia	53 (0.3)	**54** (0.2)	54 (0.2)	**54** (0.2)	52 (0.3)	**56** (0.2)
Croatia	51 (0.4)	**53** (0.3)	52 (0.3)	**53** (0.4)	48 (0.5)	**53** (0.2)
Denmark†	50 (0.3)	**52** (0.3)	51 (0.2)	**53** (0.3)	47 (0.7)	**52** (0.2)
Dominican Republic	54 (0.2)	54 (0.2)	54 (0.2)	54 (0.3)	54 (0.2)	**56** (0.4)
Estonia[1]	52 (0.3)	**54** (0.3)	52 (0.3)	**54** (0.4)	48 (0.5)	**54** (0.2)
Finland	51 (0.3)	**55** (0.3)	52 (0.3)	**54** (0.4)	47 (0.6)	**53** (0.3)
Italy	51 (0.3)	**53** (0.3)	51 (0.3)	**54** (0.4)	48 (0.4)	**53** (0.3)
Latvia[1]	47 (0.3)	**49** (0.3)	47 (0.3)	48 (0.3)	46 (0.3)	**49** (0.3)
Lithuania	52 (0.3)	**54** (0.3)	52 (0.3)	**54** (0.3)	49 (0.4)	**54** (0.2)
Malta	50 (0.3)	**51** (0.3)	50 (0.2)	**52** (0.4)	48 (0.3)	**53** (0.3)
Mexico	54 (0.3)	**56** (0.3)	54 (0.2)	**57** (0.3)	52 (0.2)	**58** (0.2)
Netherlands†	48 (0.3)	**50** (0.3)	48 (0.4)	**51** (0.4)	45 (0.4)	**51** (0.4)
Norway (9)[1]	54 (0.3)	**57** (0.3)	54 (0.3)	**57** (0.2)	50 (0.5)	**56** (0.2)
Peru	54 (0.2)	54 (0.3)	54 (0.2)	**55** (0.3)	53 (0.2)	**56** (0.2)
Russian Federation	52 (0.4)	**52** (0.3)	51 (0.3)	**53** (0.3)	48 (0.4)	**53** (0.4)
Slovenia	50 (0.3)	**53** (0.3)	51 (0.3)	51 (0.4)	48 (0.4)	**52** (0.3)
Sweden[1]	55 (0.5)	**59** (0.3)	56 (0.6)	**59** (0.5)	50 (0.7)	**59** (0.3)
ICCS 2016 average	52 (0.1)	**54** (0.1)	52 (0.1)	**54** (0.1)	49 (0.1)	**54** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	54 (0.4)	54 (0.4)	54 (0.4)	**56** (0.4)	50 (0.5)	**56** (0.3)
Korea, Republic of[2]	56 (0.3)	56 (0.4)	54 (0.4)	**57** (0.3)	51 (0.3)	**57** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.

Table 5.13: Students' perceptions of threats to the world's future

Country	Percentages of students viewing as threats to the world's future:													
	Pollution		Terrorism		Water shortages		Food shortages		Infectious diseases (e.g. bird flu, AIDS)		Climate change		Poverty	
Belgium (Flemish)	79 (1.2)	△	63 (1.2)	▽	59 (1.5)	▽	63 (1.4)		53 (1.6)	▽	72 (1.0)	▲	53 (1.3)	
Bulgaria	74 (1.2)		67 (1.4)		65 (1.3)		65 (1.5)	△	62 (1.3)	△	51 (1.2)	▽	59 (1.3)	△
Chile	88 (0.6)	▲	71 (0.8)	△	85 (0.7)	▲	83 (0.8)	▲	74 (0.8)	▲	63 (1.0)	△	73 (0.7)	▲
Chinese Taipei	75 (0.8)		71 (0.9)	△	60 (0.9)	▽	60 (1.0)	▽	66 (0.8)	△	61 (1.0)	△	52 (0.9)	
Colombia	90 (0.7)	▲	65 (0.8)		88 (0.7)	▲	82 (0.8)	▲	73 (1.1)	▲	77 (0.9)	▲	66 (0.9)	▲
Croatia	67 (1.1)	▽	81 (0.9)	▲	77 (1.0)	▲	71 (0.8)	△	69 (0.9)	△	47 (1.3)	▽	65 (1.0)	▲
Denmark†	75 (0.9)		58 (0.8)	▽	54 (0.9)	▼	50 (0.8)	▼	46 (0.9)	▼	64 (1.2)	△	41 (0.8)	▼
Dominican Republic (r)	74 (0.9)		52 (1.2)	▼	59 (1.1)	▽	54 (1.1)	▽	55 (1.1)	▽	42 (1.2)	▼	56 (1.1)	△
Estonia[1]	64 (1.1)	▼	76 (1.0)	△	72 (1.0)	△	65 (1.1)	△	65 (1.1)	△	48 (1.4)	▽	41 (1.3)	▼
Finland	66 (1.0)	▽	57 (1.0)	▽	44 (1.1)	▼	49 (1.2)	▼	36 (0.8)	▼	62 (1.1)	△	36 (1.1)	▼
Italy	84 (0.7)	△	72 (0.9)	△	71 (1.0)	△	65 (0.9)	△	61 (1.0)		44 (1.2)	▼	57 (1.0)	△
Latvia[1]	75 (1.0)		75 (1.0)	△	67 (1.1)	△	60 (1.2)	▽	68 (1.2)	△	50 (1.0)	▽	51 (1.4)	
Lithuania	86 (0.7)	▲	75 (0.9)	△	76 (1.1)	▲	74 (1.0)	▲	73 (1.0)	▲	57 (1.1)		63 (1.1)	△
Malta	63 (0.9)	▼	75 (0.8)	△	66 (0.8)		63 (0.8)		66 (0.8)	△	51 (0.9)	▽	59 (0.8)	△
Mexico	83 (0.7)	△	58 (1.0)	▽	74 (1.0)	△	69 (0.8)	△	66 (0.9)	△	56 (0.9)		65 (0.7)	▲
Netherlands†	63 (1.3)	▼	53 (1.3)	▼	44 (1.1)	▼	50 (1.2)	▼	42 (1.2)	▼	48 (1.4)	▽	36 (1.2)	▼
Norway (9)[1]	76 (0.7)		54 (0.8)	▼	41 (1.0)	▼	52 (0.8)	▼	40 (0.9)	▼	66 (0.8)	▲	49 (0.6)	▽
Peru	82 (0.7)	△	68 (1.0)		69 (1.0)	△	60 (1.0)	▽	66 (1.0)	△	47 (1.0)	▽	48 (0.9)	▽
Russian Federation	68 (0.9)	▽	78 (0.7)	▲	75 (0.8)	△	53 (1.0)	▽	69 (0.9)	△	41 (0.9)	▼	45 (1.0)	▽
Slovenia	81 (0.9)	△	71 (1.2)	△	77 (1.0)	▲	73 (0.9)	▲	65 (1.0)	△	47 (1.0)	▽	65 (1.0)	▲
Sweden[1]	79 (0.8)	△	51 (1.1)	▼	46 (1.1)	▼	48 (1.3)	▼	34 (0.9)	▼	68 (0.9)	▲	43 (1.2)	▼
ICCS 2016 average	76 (0.2)		66 (0.2)		65 (0.2)		62 (0.2)		59 (0.2)		55 (0.2)		53 (0.2)	
Inter-country range	27		30		46		35		40		37		37	
Countries not meeting sample participation requirements														
Hong Kong SAR	76 (1.0)		69 (1.0)		72 (1.1)		72 (1.2)		66 (1.3)		71 (1.0)		56 (1.1)	
Korea, Republic of[2]	64 (1.3)		66 (1.2)		62 (1.4)		48 (1.4)		54 (1.2)		63 (1.2)		47 (1.4)	
Benchmarking participant not meeting sample participation requirements														
North Rhine-Westphalia[1] (Germany)	73 (1.5)		70 (1.5)		57 (1.5)		60 (1.5)		47 (1.3)		68 (1.5)		44 (1.2)	

National percentage:
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

(such as Denmark, Finland, Norway, and Sweden), students saw infectious diseases and poverty as lesser global threats, their rating of the threat posed by climate change was much higher than average. These perceptions might reflect higher health standards in these countries as well as greater exposure to discussions about the effects of climate change on the world's future.

In general, students in the ICCS 2016 countries saw the issues in Table 5.14 of lesser concern than the issues depicted in Table 5.13. On average, the percentages of students who rated these issues as a concern were 50 percent and under. About half of the students, on average, regarded crime as a threat to the world's future. Once again, we observed considerable variations in the percentages of students across countries: although 60 percent or more saw crime as an important global threat in Chile, Colombia, Mexico, Peru, and the Russian Federation, no more than a third of young people in Belgium (Flemish), Denmark, Finland, the Netherlands, Norway, and Sweden viewed it as a large threat to the world's future. Countries in the first group tend to have relatively high levels on indicators of crime such as homicide statistics, while those in the latter group are characterized by relatively low values on these indicators (see UNODC, 2014). We observed similar variations, which were probably influenced by local contexts, for violent conflict as a global threat; 46 percent of students on average across the ICCS 2016 countries viewed this form of conflict as an important global threat. About half or more of the students in many countries regarded this issue as important, but less than a third did so in Finland, the Netherlands, and Norway.

Less than half of the surveyed students across the ICCS 2016 countries regarded the global financial crisis (44%), energy shortages (43%), unemployment (41%), and overpopulation (39%) as global threats. Notable between-country variation was obvious for all of these issues, with percentages ranging from 30 percent (Finland) to 63 (Chile) for energy shortages; from 26 (Denmark) to 58 (Bulgaria) for unemployment; and from 27 (Finland) to 53 (Chile) for overpopulation.

Taken together, the findings (summarized in Tables 5.13 and 5.14) suggest that student perceptions of global threats are often influenced by local contexts (regarding crime or global financial crises, for example) that emphasize their importance. While in the developing countries majorities of students tended to perceive issues such as poverty or violent conflict as global concerns, fewer students in developed European countries shared this view. For some of the other issues, notably climate change and terrorism, the student-perception patterns were less obvious.

As explained in the ICCS 2016 assessment framework, one important aim of the study was to investigate the attitudes students hold toward civic institutions in their countries. Over past decades many scholars have studied and published findings pertaining to people's trust in civic institutions. Survey data in particular suggest a gradual decline in trust among adults throughout this period (Newton & Norris, 2000; Torcal & Montero, 2006). Research conducted during the past decade provides some evidence that economic crises have been responsible for decreasing levels of trust among citizens (Muro & Vidal, 2017).

Studying young people's trust in institutions has been part of IEA research on civic and citizenship education since the association's first study in this area. That study included an item on trust in government (Torney et al., 1975). The CIVED study in 1999 used a set of 12 items covering political/civic institutions, media, United Nations, schools, and people in general. The first ICCS survey in 2009 used a similar range of 11 core items in a modified format augmented by three optional items on European institutions and state/provincial institutions. Across countries, the results showed students tending to express the lowest levels of trust in political parties and the highest levels of trust for courts of justice, but there was considerable cross-national variation in these findings (Schulz et al., 2010, pp. 103–109). Further research using ICCS 2009 data (Lauglo, 2013) showed that in countries with higher levels of perceived corruption as well as low scores on indices of government efficiency, students with higher levels of civic knowledge expressed less trust in civic institutions. However, the same study found positive correlations between civic knowledge and trust in countries with low indices of perceived corruption.

Table 5.14: Students' perceptions of threats to the world's future

Country	Percentages of students viewing as threats to the world's future:					
	Crime	Violent conflict	Global financial crises	Energy shortages	Unemployment	Overpopulation
Belgium (Flemish)	32 (1.1) ▼	36 (1.3) ▼	42 (1.3) ▽	39 (1.2) ▽	33 (1.1) ▽	50 (1.3) ▲
Bulgaria	60 (1.3) △	48 (1.2)	53 (1.3) △	44 (1.2)	53 (1.2) ▲	38 (1.3)
Chile	75 (0.8) ▲	67 (0.8) ▲	59 (0.9) ▲	63 (0.9) ▲	58 (0.9) ▲	53 (0.8) ▲
Chinese Taipei	56 (0.9) △	50 (0.9) △	48 (1.0) △	60 (0.8) ▲	40 (0.9)	39 (0.9)
Colombia	70 (1.0) ▲	68 (0.8) ▲	61 (0.9) ▲	61 (0.7) ▲	55 (0.8) ▲	47 (1.0) △
Croatia	53 (1.2) △	48 (1.0)	55 (1.0) ▲	45 (1.1) △	57 (1.0) ▲	29 (1.0) ▼
Denmark†	30 (0.8) ▼	27 (0.7) ▼	33 (0.8) ▼	35 (0.7) ▽	26 (0.7) ▼	39 (0.8)
Dominican Republic (r)	55 (1.0) △	52 (1.0) △	55 (1.0) ▲	54 (1.0) ▲	50 (1.0) △	42 (0.9) △
Estonia[1]	51 (1.3)	44 (1.2) ▽	26 (1.0) ▼	29 (1.0) ▼	36 (1.1) ▽	39 (1.1)
Finland	27 (0.7) ▼	28 (0.8) ▼	32 (0.9) ▼	27 (0.9) ▼	30 (0.8) ▼	27 (1.1) ▼
Italy	55 (1.0) △	55 (1.0) △	51 (0.9) △	49 (1.1) △	45 (1.0) △	31 (1.0) △
Latvia[1]	49 (1.4)	49 (1.1) △	44 (1.2)	42 (1.0)	44 (1.1) △	40 (1.2)
Lithuania	57 (1.2) △	63 (1.1) ▲	48 (1.3) △	52 (1.4) △	41 (1.2)	37 (1.2) ▽
Malta	53 (0.9) △	51 (0.8) △	42 (0.8) ▽	43 (1.0)	34 (0.8) ▽	43 (0.9) △
Mexico	65 (0.9) ▲	57 (0.8) ▲	55 (0.7) ▲	51 (0.8) △	56 (0.9) ▲	52 (1.0) ▲
Netherlands†	25 (1.0) ▼	27 (0.8) ▼	32 (1.0) ▼	30 (1.2) ▼	27 (1.1) ▼	37 (1.1) ▽
Norway (9)[1]	33 (0.8) ▼	32 (0.7) ▼	38 (0.7) ▽	28 (0.7) ▼	28 (0.7) ▼	37 (0.9) ▽
Peru	64 (1.1) ▲	49 (1.0) △	37 (0.8) ▽	37 (1.0) ▽	28 (0.7) ▼	33 (1.0) ▽
Russian Federation	61 (1.1) ▲	49 (1.0) △	43 (0.9)	36 (1.1) ▽	41 (1.0)	30 (1.0) ▽
Slovenia	57 (1.0) △	42 (1.1) ▽	47 (1.0) △	43 (0.8)	55 (1.1) ▲	44 (0.9) △
Sweden[1]	28 (0.9) ▼	34 (1.2) ▼	31 (0.9) ▼	30 (1.0) ▼	27 (1.1) ▼	41 (1.1)
ICCS 2016 average	50 (0.2)	46 (0.2)	44 (0.2)	43 (0.2)	41 (0.2)	39 (0.2)
Inter-country range	50	41	36	36	32	26
Countries not meeting sample participation requirements						
Hong Kong SAR	50 (1.1)	52 (0.9)	40 (1.1)	77 (1.3)	36 (1.1)	49 (1.0)
Korea, Republic of[2]	56 (1.2)	47 (1.1)	37 (1.2)	60 (1.3)	54 (1.4)	22 (1.0)
Benchmarking participant not meeting sample participation requirements						
North-Rhine-Westphalia[1] (Germany)	43 (1.5)	38 (1.4)	28 (1.2)	27 (1.5)	22 (1.2)	33 (1.5)

National percentage:
▲ More than 10 percentage or 3 score points above average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points or 3 score points below average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

ICCS 2016 used the same item set as in ICCS 2009 to measure student trust. The items asked students to use the following rating scale—"completely," "quite a lot," "a little," or "not at all"—to express their level of confidence in institutions, groups, and sources of information. Given the increased importance of new forms of social media in young people's engagement with political and social issues (Kahne, Middaugh, & Allen, 2014), social media was added to the list of institutions and groups cited in the items used to assess students' trust in civic institutions.

Table 5.15 shows the percentages of students' expressing quite a lot or complete trust in their national government, national parliament, and courts of justice in 2016. These institutions represent the three powers in a democracy—executive, legislative, and judiciary. On average across countries, almost two thirds of students expressed trust in their governments; the proportions

Table 5.15: Students' trust in national government, national parliament, and courts of justice in 2016 and 2009

Country	Percentages of students trusting completely or quite a lot in:								
	National government			National parliament			Courts of justice		
	2016	2009	Difference	2016	2009	Difference	2016	2009	Difference
Belgium (Flemish)	72 (1.1) △	51 (1.0)	**21** (1.5)	70 (1.1) △	50 (1.3)	**20** (1.7)	77 (1.0) △	65 (1.2)	**12** (1.6)
Bulgaria	59 (1.2) ▽	56 (1.3)	3 (1.8)	56 (1.1) ▽	44 (1.1)	**11** (1.6)	69 (1.0)	62 (1.1)	**7** (1.5)
Chile	50 (1.0) ▼	65 (1.0)	**-15** (1.4)	42 (0.9) ▼	54 (1.0)	**-12** (1.4)	50 (0.9) ▼	56 (1.2)	**-5** (1.5)
Chinese Taipei	62 (1.0) ▽	44 (0.9)	**17** (1.3)	71 (0.9) ▲	54 (0.8)	**18** (1.2)	73 (0.9) △	69 (0.8)	**4** (1.2)
Colombia	55 (1.2) ▼	62 (1.2)	**-7** (1.7)	46 (1.2) ▼	49 (1.4)	-3 (1.8)	48 (1.2) ▼	50 (1.0)	-3 (1.6)
Croatia	42 (1.5) ▼	–	–	37 (1.4) ▼	–	–	66 (1.4) ▽	–	–
Denmark†	74 (1.0) △	72 (1.0)	1 (1.4)	65 (1.0) △	66 (1.1)	-1 (1.5)	84 (0.7) ▲	79 (0.9)	**5** (1.1)
Dominican Republic	78 (1.1) ▲	74 (1.3)	**4** (1.7)	73 (1.1) ▲	67 (1.5)	**6** (1.9)	63 (1.0) ▽	63 (1.3)	0 (1.6)
Estonia[1]	73 (1.2) △	62 (1.4)	**11** (1.9)	56 (1.4) ▽	45 (1.4)	**12 (2.0)**	76 (0.9) △	68 (1.3)	**8** (1.6)
Finland	82 (1.0) ▲	82 (0.8)	0 (1.3)	74 (1.1) ▲	74 (1.0)	0 (1.5)	84 (0.9) ▲	81 (0.8)	**2** (1.2)
Italy	57 (1.0) ▽	74 (0.9)	**-17** (1.4)	65 (0.9) △	74 (1.0)	**-9** (1.3)	72 (1.1) △	69 (1.0)	**3** (1.5)
Latvia[1]	60 (1.3) ▽	32 (1.2)	**27** (1.8)	46 (1.2) ▼	20 (1.2)	**26** (1.7)	71 (1.2)	65 (1.5)	**6** (1.9)
Lithuania	74 (1.0) △	54 (0.9)	**20** (1.3)	51 (1.3) ▽	34 (1.0)	**17** (1.6)	80 (0.9) △	74 (0.9)	**6** (1.3)
Malta	66 (0.8)	62 (1.4)	**4** (1.6)	59 (0.9)	61 (1.4)	-2 (1.7)	76 (0.8) △	76 (1.2)	0 (1.4)
Mexico	57 (1.1) ▽	58 (1.0)	-1 (1.5)	56 (0.9) ▽	54 (0.9)	2 (1.3)	61 (1.0) ▽	49 (0.9)	**11** (1.3)
Netherlands†	70 (1.4) △	–	–	63 (1.3) △	–	–	78 (1.1) △	–	–
Norway (9)[1]	79 (0.7) ▲	67 (1.1)	**11** (1.3)	77 (0.7) ▲	69 (1.0)	**9** (1.2)	76 (0.7) △	71 (1.2)	**4** (1.4)
Peru	49 (1.0) ▼	–	–	42 (0.9) ▼	–	–	46 (1.0) ▼	–	–
Russian Federation	89 (0.6) ▲	88 (0.7)	1 (0.9)	73 (1.0) ▲	74 (0.9)	-2 (1.3)	69 (1.1)	71 (0.9)	-2 (1.4)
Slovenia	49 (1.4) ▼	56 (1.4)	**-8** (2.0)	50 (1.3) ▽	53 (1.3)	-2 (1.9)	74 (1.0) △	72 (1.2)	3 (1.5)
Sweden[1]	79 (1.0) ▲	73 (1.2)	**6** (1.6)	79 (1.1) ▲	72 (1.2)	**7** (1.6)	82 (1.2) ▲	79 (1.1)	**3** (1.6)
ICCS 2016 average	65 (0.2)			60 (0.2)			70 (0.2)		
Common countries average	67 (0.2)	63 (0.3)	**4** (0.4)	62 (0.3)	56 (0.3)	**5** (0.4)	71 (0.2)	68 (0.3)	**4** (0.3)
Countries not meeting sample participation requirements									
Hong Kong SAR	67 (1.2)			62 (1.3)			82 (1.1)		
Korea, Republic of[2]	45 (1.4)			43 (1.2)			65 (1.3)		
Benchmarking participant not meeting sample participation requirements									
North Rhine-Westphalia (Germany)[1]	83 (1.5)			74 (1.8)			86 (1.1)		

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

were slightly lower for the national parliament and highest for courts of justice. Countries where more than two thirds of the ICCS 2016 young people showed confidence in all three institutions included Belgium (Flemish), Denmark, Norway, the Russian Federation, and Sweden. Particularly low levels of trust across all three institutions were recorded in Chile, Colombia, and Peru, a finding commensurate with findings from adult surveys showing relatively low trust in civic institutions in the Latin American region (Valenzuela, Schwartzman, Biehl, & Valenzuela, 2008).

Many of the ICCS 2016 countries that also participated in ICCS 2009 and for which data were comparable recorded increases in the percentages of students expressing trust in civic institutions, in particular for trust in national governments and parliaments in Belgium (Flemish), Chinese Taipei, Latvia, and Lithuania (Table 5.15). Statistically significant decreases in trust in government were recorded for all three institutions in Chile, for government and parliament in Italy, and for government in Colombia and Slovenia.

These changes in students' confidence in institutions may have been affected by particular circumstances in each country at the time of each survey. In line with the observations of Muro and Vidal (2017) regarding opinion polls among adults, the global financial crisis of 2007/2008 may have negatively affected the level of trust in institutions measured among young people during the ICCS 2009 survey, while (at least in some countries) threats of terror and government reactions may have led to higher levels of confidence among adolescents. However, it needs to be acknowledged that these explanations are only tentative ones and that the notable changes since the last ICCS survey deserve further exploration, in particular with regard to specific national factors that might provide further or alternative explanations.

Table 5.16 shows the percentages of students expressing complete or quite a lot of trust in political parties, people in general, "traditional" media (television, newspapers, radio), and social media. As in ICCS 2009, young people in 2016 tended to express relatively lower levels of trust in political parties. On average across the ICCS 2016 countries, less than 50 percent of students indicated quite a lot or complete confidence in this institution. However, in nine countries, average percentages of trust were significantly higher than in the previous survey, with increases above 10 percentage points in Belgium (Flemish), Chinese Taipei, Latvia, and Lithuania. Trust in political parties among lower-secondary students decreased significantly in Colombia, Denmark, Italy, and Malta.

On average, 53 percent of the 2016 students expressed trust in people in general. However, a comparison of the results for this item in the common ICCS countries showed a slight but statistically significant dip in confidence between 2009 and 2016 (Table 5.16). A drop in trust across the two cycles was also evident in six countries with respect to traditional media, even though more than half of the 2016 students expressed trust in those media. The largest decreases in trust in traditional media occurred in Chile and Latvia. Forty-five percent of students on average internationally expressed quite a lot or complete trust in social media. However, percentages varied to a relatively large extent across countries: whereas in Bulgaria, the Dominican Republic, and Malta, 60 percent or more of the surveyed students had confidence in this source of information, less than a third shared this confidence in Belgium (Flemish), Denmark, Estonia, the Netherlands, Norway, and Sweden.

As in ICCS 2009, we used six items (national government, local government, national parliament, police, courts of justice, political parties) to derive a scale reflecting students' trust in civic institutions. This IRT scale had high reliability across countries (Cronbach's Alpha = 0.85), and we equated it with the scale used in ICCS 2009 so that we could compare the scale scores across the two cycles (see item map in Figure 5.6, Appendix D). Because students are most likely to obtain information about institutions, media, and civic groups from media, we compared the scale scores of students' trust in civic institutions by categories of students who said they informed themselves

Table 5.16: Students' trust in political parties, people in general, and media (television, newspapers, radio) in 2016 and 2009, and in social media in 2016

Country	Percentages of students trusting completely or quite a lot in:									
	Political parties			People in general			Media (television, newspapers, radio)			Social media
	2016	2009	Difference	2016	2009	Difference	2016	2009	Difference	2016
Belgium (Flemish)	49 (1.0) △	35 (1.1)	**14** (1.4)	52 (1.2)	57 (1.1)	**-5** (1.7)	46 (0.9) ▼	48 (1.0)	-2 (1.3)	29 (1.2) ▼
Bulgaria	38 (1.3) ▽	32 (1.2)	**6** (1.7)	61 (1.0) △	64 (1.1)	**-4** (1.4)	61 (1.0) △	70 (1.1)	**-9** (1.5)	60 (1.0) ▲
Chile	33 (0.8) ▼	34 (1.0)	-2 (1.3)	48 (0.9) ▽	52 (0.9)	**-4 (1.2)**	62 (1.1) △	74 (0.7)	**-12** (1.3)	54 (0.9) △
Chinese Taipei	47 (1.0) △	26 (0.8)	**21** (1.3)	48 (0.9) ▽	51 (0.9)	**-4** (1.3)	44 (0.9) ▼	43 (0.8)	1 (1.3)	46 (0.9)
Colombia	28 (1.0) ▼	35 (1.1)	**-7** (1.5)	43 (1.1) ▽	49 (0.9)	**-5** (1.4)	69 (1.3) ▲	72 (1.0)	-3 (1.7)	49 (1.1) △
Croatia	27 (1.2) ▼	–	–	58 (1.1) △	–	–	54 (1.0) ▽	–	–	48 (1.2) △
Denmark†	52 (1.1) △	56 (1.2)	**-4** (1.7)	65 (1.1) ▲	68 (0.8)	**-4** (1.4)	59 (0.9)	56 (1.0)	**4** (1.3)	31 (0.7) ▼
Dominican Republic (r)	50 (1.1) △	51 (1.2)	-1 (1.7)	62 (1.1) △	61 (1.3)	1 (1.7)	78 (0.9) ▲	76 (1.0)	2 (1.4)	61 (1.0) ▲
Estonia[1]	32 (1.2) ▼	23 (1.3)	**9** (1.8)	46 (1.4) ▽	58 (1.0)	**-11** (1.7)	47 (1.2) ▼	54 (1.0)	**-8** (1.5)	32 (1.0) ▼
Finland	66 (1.1) ▲	61 (1.0)	**5** (1.5)	74 (0.9) ▲	76 (0.8)	-2 (1.2)	82 (0.8) ▲	80 (0.8)	2 (1.1)	49 (1.1) △
Italy	44 (0.8)	52 (1.1)	**-8** (1.3)	41 (0.9) ▼	52 (1.0)	**-11** (1.3)	75 (0.7) ▲	81 (0.9)	**-5** (1.1)	54 (0.9) △
Latvia[1]	40 (1.2) ▽	25 (1.0)	**15** (1.6)	47 (1.1) ▽	58 (1.1)	**-11** (1.6)	51 (1.2) ▽	65 (1.3)	**-14** (1.8)	47 (1.4)
Lithuania	53 (1.1) △	33 (1.1)	**20** (1.5)	60 (1.0) △	66 (0.8)	**-6** (1.3)	65 (0.9) △	67 (0.9)	-2 (1.2)	49 (0.9) △
Malta	51 (0.8) △	55 (1.7)	**-4** (1.9)	49 (0.9) ▽	50 (1.3)	-1 (1.6)	66 (0.8) △	70 (1.1)	**-4** (1.4)	60 (0.9) ▲
Mexico	37 (1.0) ▽	35 (1.0)	3 (1.4)	52 (1.0)	47 (0.8)	**5** (1.2)	56 (1.1) ▽	57 (0.8)	-1 (1.3)	48 (0.9) △
Netherlands†	48 (1.3) △	–	–	52 (1.2)	–	–	47 (1.3) ▼	–	–	32 (1.2) ▼
Norway (9)[1]	56 (0.9) ▲	52 (1.2)	**5** (1.5)	43 (0.9) ▼	48 (1.0)	**-6** (1.3)	48 (0.8) ▼	49 (1.4)	0 (1.6)	27 (0.7) ▼
Peru	33 (0.9) ▼	–	–	47 (0.9) ▽	–	–	62 (0.7) △	–	–	45 (0.8)
Russian Federation	54 (1.0) △	51 (0.9)	**3** (1.4)	45 (1.0) ▽	51 (1.0)	**-6** (1.4)	41 (1.1) ▼	41 (1.0)	0 (1.5)	40 (1.1) ▽
Slovenia	44 (1.4)	45 (1.3)	0 (1.9)	69 (1.0) ▲	71 (0.9)	-2 (1.4)	65 (1.2) △	64 (1.1)	1 (1.6)	54 (1.1) △
Sweden[1]	61 (1.1) ▲	60 (1.3)	1 (1.7)	56 (1.1) △	67 (0.8)	**-11** (1.4)	54 (1.0) ▽	54 (0.9)	0 (1.3)	32 (1.0) ▼
ICCS 2016 average	45 (0.2)			53 (0.2)			59 (0.2)			45 (0.2)
Common countries average	46 (0.3)	42 (0.3)	**4** (0.4)	53 (0.2)	58 (0.2)	**-5** (0.3)	59 (0.2)	62 (0.2)	**-3** (0.3)	
Countries not meeting sample participation requirements										
Hong Kong SAR	45 (1.0)			40 (1.0)			59 (1.1)			51 (1.3)
Korea, Republic of[2]	43 (1.2)			40 (0.9)			53 (1.2)			38 (1.1)
Benchmarking participant not meeting sample participation requirements										
North Rhine-Westphalia (Germany)[1]	61 (2.1)			70 (1.5)			62 (1.2)			51 (1.3)

National average:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
- No comparable data available.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

about social and political issues at least weekly from television news, newspapers, and/or the internet. We also added to our comparison the variables of parental educational attainment and civic knowledge (see Table 5.17).

The comparison results showed that, in most ICCS 2016 countries, students who were using media to obtain information about political and social issues tended to have (significantly) higher levels of trust; on average, the scale score difference was about two points. The positive associations between trust in civic institutions and use of media for information does not support suggestions about negative effects of media news (often called "video malaise") on perceptions of institutions that some scholars have postulated (see, for example, Mutz & Reeves, 2005). Rather, the associations align with research which identifies media information as a source that fosters trust in institutions (see Avery, 2009; Norris, 2000).

The 2016 students with at least one parent with a university degree expressed slightly more trust than the comparison group in civic institutions in seven countries—Belgium (Flemish), Denmark, Estonia, Finland, the Netherlands, Norway, and Sweden. The reverse pattern was evident in eight countries (Bulgaria, Croatia, Dominican Republic, Lithuania, Malta, Mexico, Peru, Russian Federation), meaning that students with a parent with a degree had lower average scores. These results suggest that in developed countries with a longer tradition of democratic institutions, parental education tends to have (weak) positive associations with adolescents' trust in institutions, while the reverse applies in those countries with less recently established democratic institutions.

Students with higher levels of civic knowledge had the lower levels of trust in civic institutions in Bulgaria, Chile, Colombia, Croatia, the Dominican Republic, Lithuania, Mexico, Peru, and the Russian Federation. In contrast, students with higher levels of civic knowledge expressed (significantly) more confidence in civic institutions in Denmark, Estonia, Finland, the Netherlands, Norway, Slovenia, and Sweden. These findings are similar to those from previous research, where positive correlations between trust and civic knowledge were found in those countries with generally lower levels of perceived corruption as well as higher levels of government efficiency (Lauglo, 2013).

Many scholars view religion as an important catalyst of civic participation (see, for example, Pancer, 2015; Putnam & Campbell, 2010; Verba, Schlozman, & Brady, 1995). Based on findings from research conducted in the United States and Canada, Smidt (1999) concluded that religious traditions and church attendance are associated with civic participation, an association that remained significant after Smidt controlled for other factors. Storm (2015) reported similar findings for the United Kingdom. The ICCS 2009 student questionnaire asked students questions about their religious denomination and attendance at religious services. The questionnaire also included six items designed to measure students' attitudes toward the influence of religion in society. The results showed that in most countries the students who attended religious services held more positive attitudes toward religion having an influence in society (Schulz et al., 2010, pp. 107–113).

ICCS 2016 included the same set of questions as part of an international option. Twenty of the 24 countries chose to include this option. The same five ICCS 2009 items used to measure students' attitudes toward the influence of religion on society were included in this survey: (a) "Religion is more important to me than what is happening in national politics" (ICCS 2016 average percentage of students agreeing with this statement: 42%); (b) "Religion helps me to decide what is right and what is wrong" (48% agreed); (c) "Religious leaders should have more power in society" (29% agreed); (d) "Religion should influence people's behavior towards others" (51% agreed); and (e) "Rules of life based on religion are more important than civil laws" (32% agreed). ICCS 2016 added two further items, one of which—"Religious people are better citizens"—was used as an additional item (32% agreed) to derive a scale reflecting students' endorsement of religion's influence in society. The IRT scale had high reliability across participating countries (Cronbach's alpha = 0.87), and we equated it to the ICCS 2009 scale so that we could compare scale scores across the cycles (see item map in Figure 5.7, Appendix D).

Table 5.17: National average scale scores indicating students' trust in civic institutions by media information, parental education, and level of civic knowledge

Country	Scale score average by students' media information		Scale score by parental university degree		Scale score average by level of civic knowledge	
	Less than once a week	More than once a week	No parent with university degree	At least one parent with university degree	Civic knowledge below Level B (below 479)	Civic knowledge or above Level B (479 and above)
Belgium (Flemish)	52 (0.3)	**54** (0.2)	53 (0.3)	**54** (0.2)	53 (0.5)	53 (0.2)
Bulgaria	49 (0.6)	**50** (0.3)	**51** (0.4)	48 (0.4)	**52** (0.4)	48 (0.3)
Chile	45 (0.5)	**48** (0.3)	47 (0.3)	47 (0.4)	**48** (0.4)	46 (0.3)
Chinese Taipei	51 (0.5)	52 (0.2)	52 (0.2)	51 (0.3)	52 (0.6)	51 (0.2)
Colombia	46 (0.5)	**49** (0.3)	48 (0.4)	48 (0.3)	**50** (0.3)	47 (0.3)
Croatia	47 (0.4)	**49** (0.3)	**49** (0.3)	47 (0.4)	**50** (0.6)	48 (0.3)
Denmark†	52 (0.2)	**53** (0.2)	53 (0.2)	**54** (0.3)	50 (0.5)	**53** (0.2)
Dominican Republic	54 (0.5)	**55** (0.3)	**56** (0.3)	54 (0.5)	**56** (0.3)	49 (0.6)
Estonia[1]	50 (0.3)	**51** (0.2)	51 (0.3)	**51** (0.3)	49 (0.5)	**51** (0.2)
Finland	54 (0.3)	**55** (0.3)	54 (0.3)	**55** (0.3)	52 (0.6)	**55** (0.3)
Italy	50 (0.3)	**51** (0.2)	51 (0.2)	52 (0.3)	51 (0.4)	51 (0.2)
Latvia[1]	48 (0.3)	**50** (0.3)	49 (0.3)	49 (0.3)	49 (0.4)	49 (0.3)
Lithuania	51 (0.4)	**53** (0.2)	**53** (0.2)	52 (0.3)	**54** (0.4)	52 (0.3)
Malta	50 (0.4)	**53** (0.2)	**53** (0.2)	51 (0.3)	53 (0.3)	52 (0.2)
Mexico	49 (0.4)	**50** (0.2)	**50** (0.3)	48 (0.3)	**52** (0.3)	48 (0.3)
Netherlands†	52 (0.4)	53 (0.3)	52 (0.4)	**53** (0.3)	52 (0.6)	**53** (0.3)
Norway (9)[1]	53 (0.2)	**56** (0.2)	54 (0.2)	**55** (0.2)	53 (0.5)	**55** (0.2)
Peru	48 (0.6)	48 (0.2)	**48** (0.2)	47 (0.4)	**50** (0.3)	45 (0.3)
Russian Federation	51 (0.5)	**54** (0.2)	**53** (0.3)	53 (0.3)	**54** (0.5)	53 (0.2)
Slovenia	48 (0.4)	**50** (0.3)	49 (0.3)	50 (0.3)	48 (0.5)	**50** (0.3)
Sweden[1]	52 (0.6)	**54** (0.2)	53 (0.4)	**54** (0.3)	52 (0.6)	**54** (0.3)
ICCS 2016 average	50 (0.1)	**52** (0.1)	**51** (0.1)	51 (0.1)	**51** (0.1)	51 (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	50 (0.5)	**51** (0.3)	51 (0.3)	**52** (0.5)	50 (0.5)	**51** (0.3)
Korea, Republic of[2]	49 (0.5)	**50** (0.3)	49 (0.5)	50 (0.3)	50 (0.7)	49 (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
1 National Defined Population covers 90% to 95% of National Target Population.
2 Country surveyed target grade in the first half of the school year.

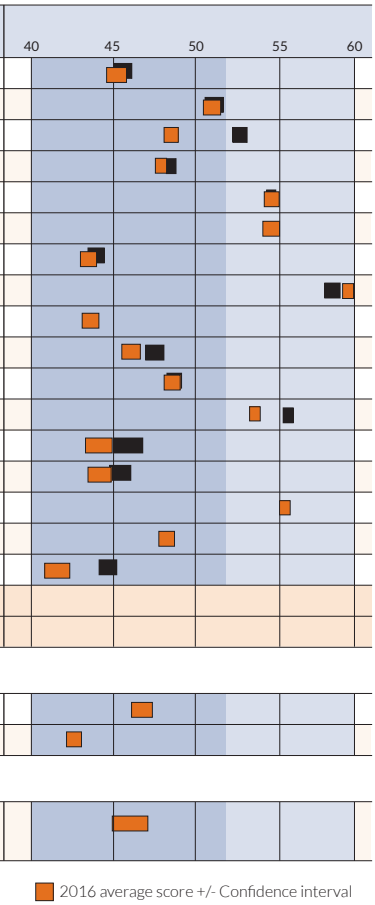
The ICCS 2016 countries where students were most likely to agree, on average, with the statements endorsing the influence of religion in society were Croatia, Colombia, the Dominican Republic, Malta, and Peru. Those countries where students were least likely to agree with the statements measuring this construct were Belgium (Flemish), Denmark, Estonia, the Netherlands, and Sweden (see Table 5.18). Four of the 12 countries that participated in this option in both surveys (Chile, Latvia, Malta, and Sweden) recorded average scores in 2016 that were significantly lower than those observed in ICCS 2009. Students from the Dominican Republic, however, recorded significantly higher scores in the 2016 than in the 2009 survey. Across (common) participating countries, the ICCS 2016 average scale score was 0.8 points lower than in ICCS 2009.

Table 5.19 shows national scale scores reflecting positive attitudes toward the influence of religion in society across the three comparison variables—attendance at religious services, parental education, and civic knowledge. In 14 of the 17 ICCS 2016 countries, students reporting (at least monthly) attendance at religious services had the higher scale scores on average; their scores were about six score points above the average for students who said they either did not or only rarely attended religious services. The differences were all significant. The three countries that recorded no significant differences between these two groups were Denmark, the Dominican Republic, and Sweden. The results indicate that engaging with a particular religion tends to increase support for religion having a role in society.

Students with at least one parent with a university degree held somewhat less positive attitudes toward religious influence in society, with statistically significant differences recorded in most countries. On average, there was a difference of about two score points across countries. Students with a higher level of civic knowledge (that is, at or above Level B) had significantly lower scale scores in all participating countries. Cross-nationally, the scale score of students with a higher level of civic knowledge was about five points lower than the score for of students with a higher level of civic knowledge. These associations suggest that influences from parents with higher educational levels and that higher levels of (student) civic knowledge lead to views that tend to be critical of the influence of religion on society.

Table 5.18: National average scale scores indicating students' endorsement of religious influence in society

Country	National average scale scores for students' endorsement of religious influence in society			
	2016		2009	Differences (2016–2009)
Belgium (Flemish)	45 (0.3)	▼	45 (0.2)	-0.3 (0.4)
Bulgaria	51 (0.3)	△	51 (0.3)	0.2 (0.4)
Chile	49 (0.2)		53 (0.2)	**-4.0** (0.3)
Chinese Taipei	48 (0.2)	▽	48 (0.2)	-0.4 (0.3)
Colombia	55 (0.2)	▲	54 (0.1)	0.3 (0.3)
Croatia	55 (0.3)	▲	–	–
Denmark†	43 (0.2)	▼	44 (0.2)	-0.4 (0.3)
Dominican Republic (r)	60 (0.2)	▲	58 (0.2)	**1.5** (0.3)
Estonia[1]	44 (0.3)	▼	–	–
Latvia	46 (0.3)	▽	47 (0.3)	**-1.4** (0.4)
Lithuania	48 (0.2)		49 (0.2)	-0.1 (0.3)
Malta	54 (0.2)	▲	55 (0.2)	**-1.7** (0.3)
Netherlands†	44 (0.4)	▼	–	–
Norway (9)[1]	44 (0.3)	▼	45 (0.4)	-0.8 (0.5)
Peru	56 (0.1)	▲	–	–
Slovenia	48 (0.3)	▽	–	–
Sweden[1]	42 (0.4)	▼	44 (0.2)	**-2.9** (0.5)
ICCS 2016 average	49 (0.1)			
Common countries average	49 (0.1)		50 (0.1)	**-0.8** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	47 (0.3)		–	–
Korea, Republic of[2]	42 (0.2)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	46 (0.5)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	Disagreement with positive statements
	Agreement with positive statements

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Table 5.19: National average scale scores indicating students' endorsement of religious influence in society by attendance at religious services, parental education, and level of civic knowledge

Country	Scale score average by attendance at religious services		Scale score by parental university degree		Scale score average by level of civic knowledge	
	Not or rarely attending	Attending religious services at least religious services	No parent with university degree once a month	At least one parent with university degree	Civic knowledge or below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	44 (0.3)	**54** (0.6)	**47** (0.4)	44 (0.3)	**50** (0.6)	44 (0.3)
Bulgaria	49 (0.3)	**55** (0.4)	**53** (0.3)	49 (0.3)	**54** (0.3)	49 (0.3)
Chile	46 (0.3)	**54** (0.3)	**49** (0.3)	46 (0.4)	**51** (0.3)	46 (0.3)
Chinese Taipei	47 (0.2)	**52** (0.3)	**48** (0.2)	47 (0.2)	**53** (0.5)	47 (0.2)
Colombia	53 (0.3)	**56** (0.2)	55 (0.2)	54 (0.3)	**57** (0.2)	53 (0.3)
Croatia	49 (0.5)	**56** (0.2)	**55** (0.3)	52 (0.4)	**57** (0.4)	54 (0.3)
Denmark†	–	–	**44** (0.3)	41 (0.3)	**50** (0.6)	42 (0.2)
Dominican Republic (r)	60 (0.3)	60 (0.2)	60 (0.2)	59 (0.3)	**60** (0.2)	58 (0.3)
Estonia[1]	43 (0.3)	**53** (0.6)	**44** (0.3)	43 (0.3)	**48** (0.5)	42 (0.3)
Latvia[1]	45 (0.3)	**52** (0.3)	**47** (0.4)	45 (0.4)	**49** (0.5)	44 (0.3)
Lithuania	47 (0.3)	**53** (0.3)	**49** (0.3)	48 (0.4)	**51** (0.4)	47 (0.3)
Malta	50 (0.3)	**56** (0.2)	**54** (0.2)	53 (0.3)	**56** (0.3)	52 (0.2)
Netherlands†	42 (0.4)	**53** (0.4)	**45** (0.5)	42 (0.5)	**48** (0.6)	42 (0.5)
Norway (9)[1]	41 (0.2)	**49** (0.3)	44 (0.4)	44 (0.3)	**48** (0.6)	43 (0.3)
Peru	55 (0.2)	**56** (0.2)	**56** (0.2)	55 (0.3)	**57** (0.2)	54 (0.2)
Slovenia	44 (0.3)	**53** (0.3)	**49** (0.3)	47 (0.4)	**51** (0.4)	47 (0.3)
Sweden[1]	–	–	**43** (0.5)	40 (0.4)	**48** (1.3)	40 (0.3)
ICCS 2016 average	48 (0.1)	**54** (0.1)	**50** (0.1)	48 (0.1)	**52** (0.1)	47 (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	45 (0.3)	**53** (0.5)	46 (0.4)	**48** (0.4)	**49** (0.5)	46 (0.3)
Korea, Republic of[2]	40 (0.3)	**50** (0.6)	43 (0.3)	42 (0.3)	**46** (0.5)	41 (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

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CHAPTER 6:

School contexts for civic and citizenship education

Chapter highlights

Students and teachers were actively participating in school life.

- In most of the ICCS 2016 participating countries, students had participated in classroom and school elections. (Table 6.1)
- The opportunities students had to actively participate in decisions about their respective schools differed across countries. (Table 6.2)
- Teachers were actively involved in decision-making processes. (Table 6.2)
- Although parents were involved in discussion about students' learning achievement, their broader involvement in decision-making processes was not substantial. (Table 6.2)

Schools were paying attention to social interactions.

- Students in the participating countries were positive about classroom climates that are open. (Table 6.3)
- Students' interest in social and political issues, their expected level of education, and their civic knowledge were positively associated with this perception. (Table 6.4)
- Verbal bullying was taking place in most of the participating countries, but principals and teachers had adopted initiatives to counter various forms of bullying at school. (Tables 6.7, 6.8, 6.9, 6.10, 6.11)

Schools were interacting with the local community when developing civic-related activities.

- Target-grade students had opportunity to participate in civic-related activities that their schools carried out in the local community. (Tables 6.12, 6.13)

Schools had developed activities related to environmental sustainability.

- Most of the schools in the participating countries had developed at least some initiatives related to environmental sustainability, such as differential waste collection, recycling and waste reduction, and energy saving. (Table 6.14)
- According to teachers, the target-grade students were participating in activities pertaining to the environment mainly inside their schools. (Table 6.15)

Countries differed in relation to civic learning processes and activities at school and in relation to teachers' preparedness for teaching civic-related topics.

- Students' civic learning at school was positively associated with students' interest in social and political issues, the level of education they expected to attain, and their civic knowledge. (Tables 6.16, 6.17)
- Civic and citizenship teaching and learning activities in classrooms varied considerably across countries. (Table 6.18)
- Teachers of subjects related to civic and citizenship education felt prepared to teach a variety of topics and skills. (Table 6.19)

Conceptual background and prior research

The ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016) identified several contexts that have the potential to influence not only students' learning outcomes in the field of civic and citizenship education but also their civic engagement. These contexts include the wider community, the school and classroom, the home and peer environment, and characteristics of individual students.

In this chapter, we explore aspects of the ICCS 2016 school and classroom contexts and their association with the participating students' learning experience. The chapter addresses ICCS 2016 Research Question 5: *How are schools in the participating countries organized with regard to civic and citizenship education and what is its association with students' learning outcomes?* In particular, the chapter focuses on the following specific research questions:

- To what extent do schools in participating countries have participatory processes in place that facilitate civic engagement?
- To what extent do schools and communities interact to foster students' civic engagement and learning?

Some aspects related to this general research question were discussed in Chapter 2 of this report. It provided information about contexts for civic and civic education at the national level. Examples of these aspects include the ICCS countries' general approaches to civic and citizenship education, curriculum, and/or program content structure and delivery, and schools' and teachers' perceptions of the role of civic and citizenship education. The results presented in this sixth chapter of the ICCS 2016 international report draw on data from the school, teacher, and student questionnaires.

In keeping with ICCS 2009, ICCS 2016 considered students' civic learning outcomes as the result of not only teaching and learning processes but also of students' more general experiences in their schools. What students experience daily at school is deemed of particular relevance for the development of their attitudes and dispositions. As the authors of the ICCS 2016 assessment framework pointed out, a large number of countries emphasize the non-formal aspects of civic learning that occur through participation and engagement or social interaction at school (see also Ainley, Schulz, and Friedman, 2013; Eurydice, 2005, 2012; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010). Research also stresses the importance of informal learning at school for students' civic engagement (Scheerens, 2009). Students' participation at the school level, the interpersonal climate of the school and classroom, and the quality of the relationships between students and teachers and among students are also of vital importance (Bäckman & Trafford, 2007; Huddleston, 2007; Trafford, 2003).

Participatory processes and social interactions at school

The ICCS 2016 school questionnaire included a question on students' participation in class-representative elections and school elections (e.g., for student council/parliament). This question was included in both CIVED and ICCS 2009. In the current study, principals were asked to indicate how many of the target-grade students participate in these elections ("all or nearly all," "most of them," "some of them," "none or hardly any"). The response categories for this question also included a "not applicable" option so that we could take into consideration different school regulations relating to this type of participation in the ICCS 2016 countries.

In almost all countries, the percentages of students in schools where principals reported a high level of participation ("all or nearly all"/"most of them") in elections for class representatives were higher than 80 percent; in several countries, percentages were as high as 95 percent (see Table 6.1). Only five countries recorded percentages lower than 80 percent—Belgium (Flemish), 73 percent; Bulgaria, 68 percent; Estonia, 76 percent; Italy, 22 percent; and the Netherlands, 46 percent. The results for students' participation in school elections showed a somewhat greater

variation across countries, with 10 countries recording percentages lower than 80 percent: Belgium (Flemish), Bulgaria, Chinese Taipei, Estonia, Italy, Latvia, Lithuania, the Netherlands, the Russian Federation, and Sweden.

These findings are relatively consistent with the answers students gave to the question included in the student questionnaire on their participation in civic activities at school. On average, 77 percent of students across countries said they had voted in class or school elections. The national percentages ranged from 50 to 93 percent; four countries recorded percentages of 90 percent or greater, and three countries recorded percentages under 60 percent (see also Chapter 4 of this report).

Students', teachers', and parents' participation in school decision-making processes can be regarded not only as a part of democratic governance processes at school but also as a factor characteristic of schools that have a democratic learning environment (Torrance, 2013). The different strategies and procedures that principals adopt when exercising their role may also have an impact on school climate and culture (Edmonds, 1979; Eurydice, 2013; Ishimaru, 2013; Marzano, 2003; Sammons, Gu, Day, & Ko, 2011; Scheerens, Glas, & Thomas, 2003). Teachers who participate in school governance can contribute to a better understanding of different student learning needs and improve their own commitment to supporting school educational activities (Ranson, Farrell, Peim, & Smith, 2005).

The ICCS 2016 school questionnaire asked principals about the extent to which teachers, parents, and students engaged in various school processes ("to a large extent," "to a moderate extent," "to a small extent," "not at all"). The processes covered in the question were denoted by the following statements: (a) "Teachers are involved in decision-making processes;" (b) "Parents are involved in decision-making processes;" (c) "Students' opinions are taken into account in decision-making processes;" (d) "Rules and regulations are followed by teaching and non-teaching staff, students, and parents;" (e) "Students are given the opportunity to actively participate in school decisions;" and (f) "Parents are provided with information on the school and student performance."

Across countries, the highest national percentages of students in schools where principals reported a high level of engagement of students, teachers, and parents in school processes were registered for parents' involvement in communication processes related to students' performance (84%), respect for school regulations (63%), and teachers' involvement in decision-making processes (61%). The lowest percentages (see Table 6.2) were observed for parents' involvement in decision-making processes (18%), consideration given to students' opinions during decision-making processes (28%), and students' opportunities to participate in school decisions (30%). Eight countries recorded percentages above the international average for student participation in school decisions. They were Colombia, Croatia, the Dominican Republic, Estonia, Latvia, Malta, Mexico, and the Russian Federation.

When we looked at the responses for the two positive answer categories combined (i.e., "to a large extent" and "to a moderate extent"), we recorded an international average of 80 percent or above for almost all the question items. We observed slightly lower percentages for parents' and students' involvement in decision-making processes at school. We also noted that variation across countries tended to be greater for these two items than for the other items.

Table 6.1: Percentages of students at schools where principals reported students' participation in school elections

Country	National percentages of students at schools where principals reported that all, nearly all, or most of the students:					
	Elect their class representatives			Vote in school council, school parliament elections		
Belgium (Flemish)	73	(4.1)	▼	55	(4.5)	▼
Bulgaria	68	(3.8)	▼	50	(4.1)	▼
Chile	98	(1.1)	▲	86	(3.1)	▲
Chinese Taipei	92	(2.4)	△	45	(4.2)	▼
Colombia (r)	99	(1.0)	▲	99	(0.9)	▲
Croatia	100	(0.0)	▲	98	(1.1)	▲
Denmark†	91	(2.1)	△	92	(2.0)	▲
Dominican Republic	95	(1.9)	△	95	(1.6)	▲
Estonia[1] (s)	76	(4.9)	▽	79	(4.4)	
Finland	98	(1.1)	▲	93	(1.7)	▲
Italy	22	(3.5)	▼	1	(0.7)	▼
Latvia[1]	88	(3.1)		73	(5.0)	
Lithuania	93	(2.1)	△	79	(3.1)	
Malta	85	(0.3)		80	(0.3)	△
Mexico	98	(1.2)	▲	81	(2.7)	△
Netherlands† (r)	46	(4.4)	▼	34	(5.2)	▼
Norway (9)[1]	99	(0.8)	▲	95	(2.0)	▲
Peru	93	(1.5)	△	85	(2.3)	▲
Russian Federation	82	(3.4)		74	(3.8)	
Slovenia	99	(0.8)	▲	81	(3.7)	
Sweden[1]	92	(2.4)	△	78	(3.6)	
ICCS 2016 average	85	(0.6)		74	(0.7)	
Countries not meeting sample participation requirements						
Hong Kong SAR	87	(3.6)		86	(3.6)	
Korea, Republic of[2]	100	(0.0)		100	(0.0)	
Benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia (Germany)[1] (r)	100	(0.0)		75	(6.3)	

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

Table 6.2: Percentages of students at schools where principals reported engagement of the school community

Country	National percentages of students at schools where principals reported that to a large extent:					
	Teachers are involved in decision-making processes	Parents are involved in decision-making processes	Students' opinions are taken into account in decision-making processes	Rules and regulations are followed by teaching and non-teaching staff, students, and parents	Students are given the opportunity to actively participate in school decisions	Parents are provided with information on the school and student performance
Belgium (Flemish)	32 (4.5) ▼	8 (2.1) ▽	8 (2.1) ▼	52 (5.0) ▼	12 (2.6) ▼	62 (4.4) ▼
Bulgaria	86 (3.0) ▲	8 (2.3) ▽	32 (4.3)	80 (3.5) ▲	27 (4.0)	83 (3.2)
Chile	50 (3.7) ▼	10 (2.9) ▽	26 (3.8)	72 (3.4) △	28 (4.0)	84 (3.0)
Chinese Taipei	60 (3.9)	19 (2.7)	18 (3.3) ▽	66 (3.9)	17 (3.0) ▼	75 (3.7) ▽
Colombia (r)	64 (4.4)	23 (3.9)	48 (4.5) ▲	60 (4.5)	46 (4.4) ▲	95 (2.2) ▲
Croatia	79 (3.7) ▲	30 (3.9) ▲	38 (4.2) ▲	56 (3.9) ▽	43 (4.3) ▲	85 (3.2)
Denmark†	56 (3.8)	7 (2.0) ▼	20 (3.2) ▽	72 (3.5) △	19 (3.2) ▼	71 (3.8) ▼
Dominican Republic	84 (3.8) ▲	46 (5.0) ▲	65 (4.5) ▲	67 (4.4)	58 (4.4) ▲	96 (2.2) ▲
Estonia[1] (s)	77 (3.7) ▲	28 (5.6)	37 (5.3)	66 (5.4)	49 (5.1) ▲	89 (3.6)
Finland	73 (3.1) ▲	2 (1.1) ▼	9 (2.2) ▼	83 (2.7) ▲	21 (2.9) ▽	78 (3.2)
Italy	39 (3.8) ▼	10 (2.5) ▽	7 (2.1) ▼	29 (3.6) ▼	5 (1.8) ▼	72 (3.8) ▼
Latvia[1]	88 (3.0) ▲	32 (3.8) ▲	51 (4.3) ▲	68 (4.8)	67 (4.5) ▲	97 (1.5) ▲
Lithuania	46 (4.0) ▼	20 (3.1)	24 (3.9)	25 (3.9) ▼	31 (3.6)	82 (3.4)
Malta	66 (0.4) △	8 (0.2) ▽	29 (0.3)	85 (0.4) ▲	33 (0.4) △	83 (0.3)
Mexico	78 (3.3) ▲	39 (4.1) ▲	37 (4.0) △	58 (4.1)	42 (4.1) ▲	94 (1.5) ▲
Netherlands† (r)	23 (4.0) ▼	3 (1.7) ▼	6 (2.2) ▼	47 (5.2) ▼	9 (2.8) ▼	88 (3.2)
Norway (9)[1]	50 (3.8) ▼	8 (2.5) ▽	15 (3.4) ▼	73 (3.7) ▲	14 (3.1) ▼	71 (3.7) ▼
Peru	42 (3.6) ▼	21 (2.9)	35 (3.5) △	48 (3.4) ▼	31 (3.2)	71 (3.0) ▼
Russian Federation	60 (4.1)	31 (4.8) ▲	24 (3.4)	70 (4.4)	43 (4.5) ▲	92 (2.3) △
Slovenia	70 (4.2) △	12 (3.0)	17 (3.8) ▼	79 (3.7) ▲	21 (3.9) ▽	98 (1.0) ▲
Sweden[1]	63 (5.1)	2 (1.9) ▼	35 (4.1)	68 (5.9)	21 (3.9) ▽	90 (2.8) △
ICCS 2016 average	61 (0.8)	18 (0.7)	28 (0.8)	63 (0.9)	30 (0.8)	84 (0.7)
Countries not meeting sample participation requirements						
Hong Kong SAR	42 (5.5)	4 (2.2)	33 (4.9)	81 (4.7)	15 (3.9)	68 (4.5)
Korea, Republic of[2]	81 (4.1)	27 (5.2)	46 (5.7)	70 (4.2)	40 (4.9)	67 (5.7)
Benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia (Germany)[1] (r)	78 (5.9)	24 (7.1)	43 (6.5)	67 (8.1)	44 (6.9)	89 (2.4)

National percentage:
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

School and classroom climate

School climate generally refers to "the shared beliefs, the relations between individuals and groups in the organization, the physical surroundings, and the characteristics of individuals and groups participating in the organization" (Van Houtte, 2005, p. 85). Another framing refers to school climate as the "impressions, beliefs, and expectations held by members of the school community about their school as a learning environment, their associated behavior, and the symbols and institutions that represent the patterned expressions of the behavior" (Homana, Barber, & Torney-Purta, 2006, p. 3).

School climate and the quality of the relationships within the school (between students and teachers and among students) have the potential to influence student achievement (Bear, Yang, Pell, & Gaskins, 2014) and may also reflect issues such as bullying at school (Powell, Powell, & Petrosko, 2015). More generally, recent research has shown associations between student–teacher relationships and a comprehensive range of indicators of student engagement in school (Quin, 2017).

Some studies point out that students' perceptions of classroom climate may play a significant role in helping students understand the advantages of democratic values and practices (see, for example, Hooghe & Quintelier, 2013). The CIVED survey included a set of six items that asked students how open they thought their classroom was open to discussion during their civic education lessons (Torney-Purta, Lehmann, Oswald, & Schulz, 2001). The derived index was a positive predictor of civic knowledge and of students' expectations to vote as an adult (Schulz, 2005). The ICCS 2009 survey used a similar instrument, and the results of multivariate analyses confirmed the association between this construct and civic-related learning outcomes (Schulz et al., 2010). This association between a classroom climate receptive to discussion and positive civic outcomes has been one of the most stable findings across the IEA studies related to civic education since 1971. The many researchers who have conducted secondary analyses of the data have also confirmed the association.

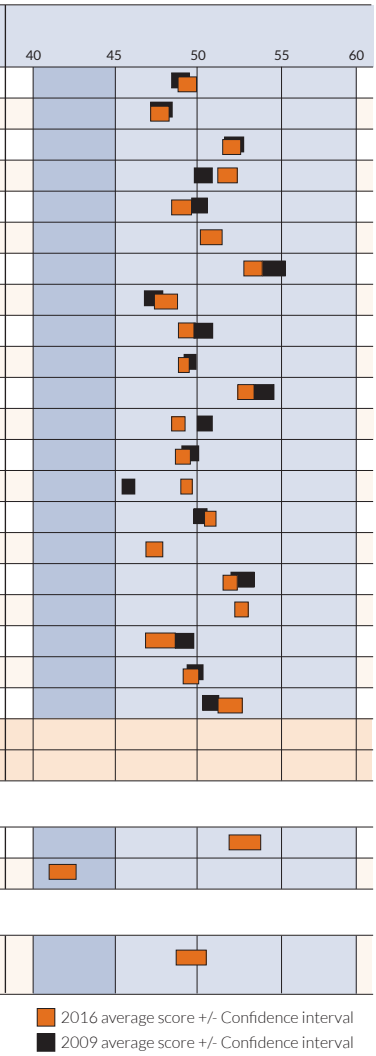
We included the same question, consisting of the items used for scaling in the previous cycle, in the ICCS 2016 student questionnaire. When responding to the question (which read, "When discussing political or social issues during regular lessons, how often do the following things happen?"), students were asked to consider any classes in which or teachers with whom they discussed political and social issues. The six question items were in the form of statements: (a) "Teachers encourage students to make up their own minds" (ICCS 2016 average of students reporting this occurred sometimes or often: 75%); (b) "Teachers encourage students to express their opinions" (85%); (c) "Students bring up current political events for discussion in class" (44%); (d) "Students express opinions in class even when their opinions are different from most of the other students" (74%); (e) "Teachers encourage students to discuss the issues with people having different opinions" (59%); and (f) "Teachers present several sides of the issues when explaining them in class" (72%).

We used the items to derive an IRT-based scale with an average reliability across countries (Cronbach's alpha = 0.77). The higher scores on the scale reflect stronger perceptions of a more open classroom climate (see Figure 6.1, Appendix D, for a description of this scale). We were also able to equate the 2016 IRT scale with the 2009 scale, so that the value of 50 reflected the average score of equally weighted countries in the previous cycle. This process allowed us to identify changes in scale scores for the countries that participated in both the 2009 and 2016 ICCS cycles.

Table 6.3 presents a comparison of the average scale scores for the ICCS 2016 students' perceptions and the ICCS 2009 students' perceptions of openness during classroom discussion. We recorded national scale scores above the international average in Chile, Chinese Taipei, Croatia, Denmark, Italy, Mexico, Norway, Peru, and Sweden. Of these countries, Denmark recorded the highest score. When we compared the results from the two ICCS cycles, we found no significant difference between the international average scores of the countries participating in both surveys. However, we did observe significantly higher scores between the two cycles ($p < 0.05$) in four

Table 6.3: National averages of students' perception of openness in classroom discussions

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	50 (0.3)	▽	49 (0.3)	0.6 (0.5)
Bulgaria	48 (0.3)	▽	48 (0.4)	0.2 (0.6)
Chile	52 (0.3)	△	52 (0.3)	-0.1 (0.6)
Chinese Taipei	52 (0.3)	△	50 (0.3)	**1.7** (0.6)
Colombia	49 (0.3)	▽	50 (0.2)	-0.9 (0.5)
Croatia	51 (0.3)	△	–	–
Denmark†	54 (0.3)	▲	55 (0.3)	-0.9 (0.6)
Dominican Republic	48 (0.4)	▽	47 (0.3)	0.9 (0.6)
Estonia[1]	49 (0.3)	▽	50 (0.3)	-1.0 (0.5)
Finland	49 (0.2)	▽	49 (0.2)	-0.3 (0.5)
Italy	53 (0.3)	△	54 (0.3)	**-1.1** (0.5)
Latvia[1]	49 (0.2)	▽	51 (0.3)	**-1.6** (0.5)
Lithuania	49 (0.3)	▽	50 (0.3)	-0.3 (0.5)
Malta	49 (0.2)	▽	46 (0.2)	**3.6** (0.4)
Mexico	51 (0.2)	△	50 (0.2)	**0.9** (0.5)
Netherlands†	47 (0.3)	▽	–	–
Norway (9)[1]	52 (0.3)	△	53 (0.5)	-0.5 (0.6)
Peru	53 (0.3)	△	–	–
Russian Federation	48 (0.5)	▽	49 (0.3)	**-1.4** (0.6)
Slovenia	50 (0.3)	▽	50 (0.3)	-0.2 (0.5)
Sweden	52 (0.4)	△	51 (0.3)	**1.5** (0.6)
ICCS 2016 average	50 (0.1)			
Common countries average	50 (0.1)		50 (0.3)	0.1 (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	53 (0.5)		–	–
Korea, Republic of[2]	42 (0.4)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	50 (0.5)		–	–



National average:
▲ More than 3 score points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:
- Never or rarely
- Sometimes or often

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

countries (Chinese Taipei, Malta, Mexico, Sweden), and significantly lower scores in Italy, Latvia, and the Russian Federation.

Table 6.4 shows the associations between students' perceptions of openness in classroom discussions and (dichotomized) variables reflecting students' interest in civic issues (quite or very interested in political or social issues versus little interest), students' expected educational attainment (students who expected to complete a university degree versus others), and civic knowledge (students at or above Level B versus others). The columns show the average scores in each comparison group (e.g., for males and females), while the bar chart in between graphically

Table 6.4: National average scale scores of students' perception of openness in classroom discussions by students' interest, expected education, and level of civic knowledge

Country	Scale score average by students' interest		Scale score average by expected university degree		Scale score average by level of civic knowledge	
	Not interested in civic issues	Quite or very interested in civic issues	Not expecting university score higher	Expecting university score higher	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	49 (0.3)	**51** (0.4)	49 (0.5)	**50** (0.3)	48 (0.7)	**50** (0.3)
Bulgaria	48 (0.3)	**50** (0.5)	45 (0.5)	**49** (0.3)	45 (0.5)	**51** (0.3)
Chile	52 (0.3)	**55** (0.5)	50 (0.4)	**54** (0.4)	50 (0.4)	**54** (0.4)
Chinese Taipei	51 (0.3)	**54** (0.5)	51 (0.4)	**53** (0.4)	48 (0.6)	**53** (0.4)
Colombia	49 (0.3)	**51** (0.4)	47 (0.4)	**50** (0.3)	47 (0.3)	**51** (0.3)
Croatia	50 (0.4)	**53** (0.4)	50 (0.3)	**52** (0.5)	48 (0.3)	**52** (0.4)
Denmark†	52 (0.3)	**57** (0.3)	53 (0.3)	**56** (0.3)	48 (0.5)	**55** (0.3)
Dominican Republic	48 (0.4)	**49** (0.6)	47 (0.4)	**50** (0.5)	47 (0.4)	**54** (0.5)
Estonia[1]	49 (0.3)	**51** (0.4)	49 (0.3)	**50** (0.3)	47 (0.4)	**50** (0.3)
Finland	48 (0.2)	**51** (0.3)	48 (0.3)	**50** (0.3)	46 (0.6)	**50** (0.2)
Italy	52 (0.3)	**56** (0.4)	52 (0.3)	**55** (0.4)	50 (0.4)	**54** (0.3)
Latvia[1]	49 (0.3)	**50** (0.4)	48 (0.3)	**50** (0.4)	47 (0.3)	**50** (0.3)
Lithuania	48 (0.3)	**51** (0.4)	49 (0.4)	50 (0.4)	48 (0.4)	**50** (0.3)
Malta	49 (0.2)	**50** (0.3)	48 (0.2)	**51** (0.3)	46 (0.3)	**51** (0.2)
Mexico	50 (0.2)	**54** (0.3)	50 (0.4)	**51** (0.2)	50 (0.3)	**52** (0.3)
Netherlands†	47 (0.3)	**50** (0.5)	47 (0.3)	**49** (0.4)	45 (0.5)	**48** (0.3)
Norway (9)[1]	51 (0.3)	**55** (0.4)	51 (0.3)	**54** (0.3)	49 (0.5)	**53** (0.3)
Peru	52 (0.3)	**54** (0.3)	52 (0.3)	**54** (0.3)	51 (0.2)	**56** (0.4)
Russian Federation	46 (0.6)	**50** (0.4)	46 (0.6)	**49** (0.4)	45 (0.7)	**48** (0.5)
Slovenia	49 (0.3)	**52** (0.4)	49 (0.3)	**51** (0.4)	47 (0.5)	**51** (0.3)
Sweden[1]	51 (0.5)	**54** (0.4)	51 (0.4)	**53** (0.5)	48 (0.8)	**53** (0.4)
ICCS 2016 average	50 (0.1)	**52** (0.1)	49 (0.1)	**51** (0.1)	48 (0.1)	**52** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	52 (0.6)	**55** (0.5)	52 (0.6)	**54** (0.5)	51 (0.6)	**55** (0.5)
Korea, Republic of[2]	40 (0.5)	**44** (0.4)	40 (0.6)	**42** (0.5)	40 (0.8)	**42** (0.4)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

illustrates the direction and size of the score point difference for each association: the red bars to the left of the zero line indicate score point differences where the students in the first (left-hand side) group had significantly ($p < 0.05$) higher values; the green bars indicate score point differences in which the other group had significantly higher averages.

In all of the participating countries, students' perceptions of openness in classroom discussions had, on average, positive and statistically significant associations with students' interest in political and social (civic) issues (a two-point difference), students' expected level of educational attainment (university degree or no degree) (a two-point difference), and students' civic knowledge (below or above Level B) (a four-point difference).

To measure students' perceptions of student–teacher relationships at school, the ICCS 2016 student questionnaire included the same set of five items that were used to measure this construct during ICCS 2009. The items were again in the form of statements (with students asked to give their level of agreement with each one): (a) "Most of my teachers treat me fairly" (ICCS 2016 average of students' agreement: 87%); (b) "Students get along well with most teachers" (74%); (c) "Most teachers are interested in students' wellbeing" (83%); (d) "Most of my teachers listen to what I have to say" (81%); and (e) "If I need extra help, I receive it from my teachers" (88%).

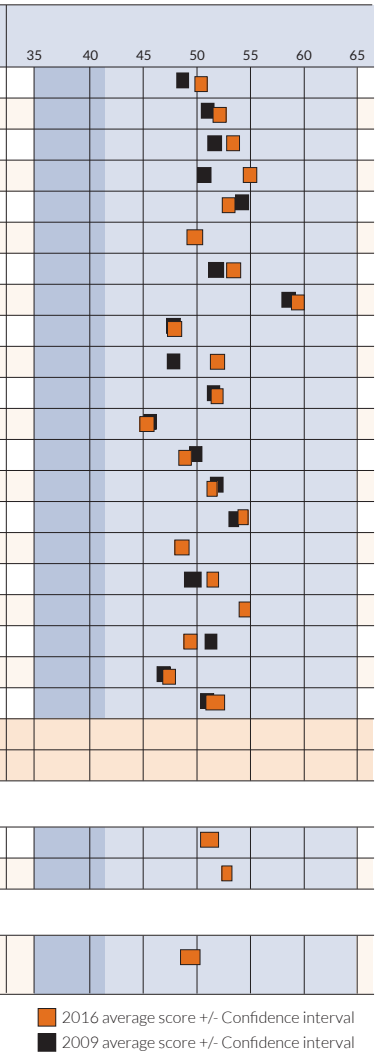
These items formed an IRT-based scale with an average reliability across countries (Cronbach's alpha = 0.81). The higher values on the scale, which is described in Figure 6.2 in Appendix D, indicate more positive perceptions of student–teacher relationships. We equated the scale with the 2009 scale so that the value of 50 reflected the average score of equally weighted countries in the previous cycle.

In general, students' perceptions of student–teacher relationships changed significantly between 2009 and 2016 (see Table 6.5). The ICCS 2016 international average was significantly higher than the 2009 international average, and the national averages between the two cycles were significantly higher in 12 countries out of 21. The scale scores for 2016 showed eight countries—Bulgaria, Chile, Chinese Taipei, Colombia, Denmark, the Dominican Republic, Mexico, and Peru—scoring significantly above the international average. Two of these countries—Chinese Taipei and the Dominican Republic—recorded scale scores more than three points above the ICCS 2016 international average.

We also found significant associations between students' perceptions of student–teacher relations at school and gender, expected education (students expecting to complete a university degree versus those not holding this expectation), and civic knowledge (students at or above Level B versus those below this level) (Table 6.6). On average across the participating countries, females' scale scores were slightly higher than the males' scores (a one-point difference), students expecting to complete a university degree scored higher than other students (a one-point difference), and those students at or above Level B on the civic knowledge scale had scores higher than the students with lower levels of civic knowledge (a difference of two points).

Table 6.5: National averages of students' perception of student–teacher relations at school

Country	2016		2009	Differences (2016–2009)
Belgium (Flemish)	51 (0.2)	▽	49 (0.3)	**2.5** (0.6)
Bulgaria	53 (0.3)	△	51 (0.3)	**2.0** (0.6)
Chile	54 (0.3)	△	51 (0.3)	**2.7** (0.6)
Chinese Taipei	56 (0.3)	▲	51 (0.3)	**5.2** (0.6)
Colombia	54 (0.3)	△	54 (0.3)	-0.4 (0.6)
Croatia	51 (0.4)	▽	–	–
Denmark†	54 (0.3)	△	52 (0.3)	**2.6** (0.6)
Dominican Republic	60 (0.3)	▲	59 (0.3)	**1.6** (0.6)
Estonia[1]	49 (0.3)	▼	48 (0.3)	1.2 (0.6)
Finland	53 (0.3)		48 (0.2)	**4.9** (0.6)
Italy	53 (0.3)		51 (0.3)	**1.3** (0.6)
Latvia[1]	46 (0.3)	▼	45 (0.3)	1.0 (0.6)
Lithuania	50 (0.3)	▽	50 (0.3)	0.2 (0.6)
Malta	52 (0.2)		52 (0.3)	0.4 (0.6)
Mexico	55 (0.2)	△	53 (0.2)	**1.8** (0.5)
Netherlands†	50 (0.3)	▽	–	–
Norway (9)	52 (0.3)		50 (0.4)	**2.7** (0.7)
Peru	55 (0.2)	△	–	–
Russian Federation	50 (0.3)	▽	51 (0.3)	-1.0 (0.6)
Slovenia	48 (0.3)	▼	47 (0.3)	**1.6** (0.6)
Sweden[1]	53 (0.4)		51 (0.3)	**1.5** (0.7)
ICCS 2016 average	52 (0.4)			
Common countries average	52 (0.1)		50 (0.3)	**1.8** (0.1)
Countries not meeting sample participation requirements				
Hong Kong SAR	51 (0.4)		–	–
Korea, Republic of[2]	53 (0.2)		–	–
Benchmarking participant not meeting sample participation requirements				
North Rhine-Westphalia (Germany)[1]	50 (0.5)		–	–



National average:
- ▲ More than 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 3 score points below ICCS 2016 average

On average across items, students with a score in the range with this color have more than a 50% probability of indicating:

	Disagreement with positive statements
	Agreement with positive statements

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
– No comparable data available.

Table 6.6: National average scale scores of students' perception of student–teacher relations at school by gender, expected education, and level of civic knowledge

Country	Scale score average by gender group		Scale score average by expected university degree		Scale score average by level of civic knowledge	
	Male students	Female students	Not expecting university score higher	Expecting university score higher	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	50 (0.3)	**52** (0.4)	50 (0.3)	**52** (0.3)	51 (0.4)	51 (0.3)
Bulgaria	52 (0.4)	**54** (0.4)	52 (0.5)	53 (0.4)	52 (0.4)	**54** (0.4)
Chile	**55** (0.4)	53 (0.4)	53 (0.4)	**55** (0.3)	53 (0.4)	**55** (0.4)
Chinese Taipei	55 (0.4)	**57** (0.3)	55 (0.4)	**56** (0.4)	53 (0.6)	**56** (0.3)
Colombia	53 (0.3)	54 (0.3)	54 (0.4)	54 (0.3)	**55** (0.3)	53 (0.3)
Croatia	50 (0.4)	**51** (0.4)	51 (0.4)	51 (0.4)	50 (0.5)	51 (0.4)
Denmark†	54 (0.3)	55 (0.4)	54 (0.3)	**56** (0.4)	51 (0.6)	**55** (0.3)
Dominican Republic	60 (0.3)	60 (0.3)	59 (0.3)	**61** (0.4)	60 (0.3)	**61** (0.6)
Estonia[1]	49 (0.4)	48 (0.4)	48 (0.3)	**49** (0.4)	48 (0.5)	**49** (0.3)
Finland	52 (0.4)	**53** (0.3)	52 (0.3)	**54** (0.3)	49 (0.6)	**53** (0.3)
Italy	52 (0.3)	**53** (0.3)	52 (0.3)	**54** (0.4)	52 (0.5)	53 (0.3)
Latvia[1]	46 (0.4)	46 (0.3)	46 (0.3)	47 (0.4)	46 (0.4)	**47** (0.4)
Lithuania	50 (0.4)	50 (0.4)	50 (0.3)	50 (0.4)	50 (0.4)	50 (0.4)
Malta	52 (0.3)	52 (0.2)	51 (0.3)	**53** (0.3)	51 (0.3)	**53** (0.2)
Mexico	54 (0.3)	**56** (0.2)	54 (0.4)	**55** (0.2)	55 (0.3)	**56** (0.3)
Netherlands†	49 (0.4)	50 (0.4)	49 (0.4)	50 (0.5)	48 (0.5)	**50** (0.4)
Norway (9)[1]	52 (0.3)	53 (0.4)	51 (0.3)	**54** (0.3)	50 (0.4)	**53** (0.3)
Peru	55 (0.3)	56 (0.3)	54 (0.3)	**56** (0.3)	55 (0.3)	**56** (0.4)
Russian Federation	50 (0.3)	50 (0.3)	50 (0.3)	50 (0.3)	50 (0.5)	50 (0.3)
Slovenia	48 (0.4)	**49** (0.3)	48 (0.3)	**49** (0.4)	48 (0.5)	**49** (0.3)
Sweden[1]	53 (0.5)	52 (0.5)	51 (0.5)	**54** (0.4)	51 (0.8)	**53** (0.4)
ICCS 2016 average	52 (0.1)	**53** (0.1)	52 (0.1)	**53** (0.1)	51 (0.1)	**53** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	**52** (0.5)	51 (0.4)	50 (0.5)	**52** (0.4)	49 (0.5)	**52** (0.4)
Korea, Republic of[2]	**54** (0.3)	52 (0.3)	51 (0.4)	**54** (0.3)	51 (0.6)	**54** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Different forms of bullying at school

Bullying is defined as aggressive behaviors intended to hurt someone either physically, emotionally, verbally, or through use of the internet (American Educational Research Association, 2013; Olweus, 1973; Wade & Beran, 2011). Scholars and other commentators generally consider bullying a symptom of dysfunctional social interaction at school (see, for example, Olweus, 1973). In many countries, schools currently face the problem of bullying both in the school itself and in a cyber context (American Educational Research Association, 2013; Corcoran & McGuckin, 2014; Fisher, Gardella, & Teurbe-Tolon, 2016). Considerable variation in the incidence and type of bullying can exist within a school (Atria, Strohmeier, & Spiel, 2007; Salmivalli, 2012).

The ICCS 2016 questionnaires included several questions on this topic as part of the more general area of social relations at school. Despite the slight differences in the wording of the items included in each question and the differences in the response categories, this set of questions explored the bullying phenomenon from various perspectives and took into consideration likely dissimilarities in the perceptions of students, principals, and teachers. Students were asked about their experience of situations of verbal or physical abuse at school. The school questionnaire contained two questions about bullying. The first asked principals for their perceptions of bullying at school and the second asked them about the activities their school had in place to counteract bullying (including cyber-bullying). Teachers were also asked to record their perceptions of different forms of bullying within their schools.

The questionnaire for schools participating in the ICCS 2009 Latin American option included items measuring students' experience of verbal or physical aggression at school. Many students in the participating countries of this region reported physical aggression at school (Schulz, Ainley, Friedman, & Lietz, 2011). The ICCS 2016 international student questionnaire therefore included a question asking students about the level of verbal or physical bullying they had personally experienced at school.

More specifically, this question asked students to respond to the situations depicted in each of the question's items by indicating how often they had experienced these situations within the past three months: (a) "A student called you by an offensive nickname;" (b) "A student said things about you to make others laugh;" (c) "A student threatened to hurt you;" (d) "You were physically attacked by another student;" (e) "A student broke something belonging to you on purpose;" and (f) "A student posted offensive pictures or text about you on the internet." We used the question's six items to derive an IRT scale that had average reliability (Cronbach's alpha = 0.75), and on which the higher scale scores indicated higher frequencies of experiencing verbal or physical abuse (see item map in Figure 6.3, Appendix D, for a description of this scale).

The students' responses to this question showed some variation across countries (Table 6.7), with the highest percentages of students being those who said they had experienced verbal forms of bullying at school at least once in the past three months: "A student called you by an offensive nickname" (international average: 55%), with national averages ranging from 36 to 70 percent; and "A student said things about you that made others laugh" (international average: 56%), with national averages ranging from 42 to 67 percent. The lowest percentages were for cyber-bullying (international average: 10%) and physical attack (16%), with national averages ranging from six to 13 percent and from nine to 27 percent, respectively.

National average scale scores for students' reports of forms of verbal and physical abuse were significantly higher than the ICCS 2016 average in Bulgaria, Colombia, Croatia, the Dominican Republic, Lithuania, Malta, Mexico, Peru, and Slovenia. National average scale scores for these forms of bullying were lower than the ICCS 2016 average in Denmark, Finland, Italy, the Netherlands, the Russian Federation, and Sweden. Chinese Taipei recorded the lowest scale score (about four points below the ICCS 2016 average).

Table 6.7: National percentages and average scale scores of students' experiences of physical and verbal abuse at school

Country	Percentages of students who reported experiencing the following at least once in the past three months:						Average scale scores for students' reports on physical or verbal abuse
	A student called you by an offensive nickname (%)	A student said things about you to make others laugh (%)	A student threatened to hurt you (%)	You were physically attacked by another student (%)	A student broke something belonging to you on purpose (%)	A student posted offensive pictures or text about you on the internet (%)	
Belgium (Flemish)	58 (1.5) △	53 (1.2) ▽	21 (1.1) △	17 (0.9)	14 (0.8) ▽	6 (0.7) ▽	50 (0.2)
Bulgaria	53 (1.3)	60 (1.3) △	20 (1.0)	17 (1.1)	17 (1.1) ▽	12 (1.0)	51 (0.3) △
Chile	52 (0.9) ▽	59 (0.7) △	16 (0.7) ▽	15 (0.5) ▽	23 (0.8) △	10 (0.5)	50 (0.2)
Chinese Taipei	36 (1.0) ▼	42 (1.0) ▼	5 (0.4) ▼	11 (0.6) ▽	8 (0.5) ▼	6 (0.5) ▽	46 (0.2) ▼
Colombia	61 (1.2) △	61 (1.3) △	15 (0.6) ▽	17 (0.6)	31 (1.1) ▲	8 (0.5) ▽	51 (0.3) △
Croatia	70 (1.1) ▲	63 (1.2) △	25 (1.1) △	20 (1.1) △	23 (1.1) △	8 (0.7)	52 (0.3) △
Denmark†	44 (1.1) ▼	60 (1.1) △	14 (0.6) ▽	12 (0.6) ▽	14 (0.7) ▽	9 (0.5)	49 (0.2) ▽
Dominican Republic	54 (1.2)	66 (0.9) △	27 (1.0) △	27 (1.0) ▲	31 (1.0) ▲	10 (0.6)	52 (0.2) △
Estonia[1]	55 (1.4)	64 (1.2) △	19 (1.1)	14 (0.8) ▽	16 (0.7) ▽	11 (0.8)	50 (0.3)
Finland	42 (1.1) ▼	51 (1.0) ▽	15 (0.8) ▽	14 (0.8) ▽	8 (0.6) ▼	7 (0.5) ▽	48 (0.2) ▽
Italy	52 (1.1) ▽	42 (1.0) ▼	17 (0.9) ▽	11 (0.7) ▽	29 (1.2) △	6 (0.5) ▽	49 (0.2) ▽
Latvia[1]	60 (1.0) △	44 (1.1) ▼	23 (1.1) △	19 (0.9) △	24 (1.2) △	10 (0.7)	50 (0.2)
Lithuania	59 (1.1) △	67 (1.0) ▲	21 (1.0)	14 (0.9) ▽	19 (1.2)	14 (0.9) △	51 (0.2) △
Malta	58 (0.8) △	65 (0.8) △	29 (0.8) ▲	24 (0.6) △	20 (0.7)	13 (0.6) △	52 (0.2) △
Mexico	63 (1.1) △	64 (1.0) △	19 (0.8)	20 (0.8) △	28 (1.0) △	11 (0.6) △	52 (0.3) △
Netherlands†	48 (1.4) ▽	43 (1.3) ▼	13 (0.7) ▽	11 (0.7) ▽	13 (0.8) ▽	6 (0.6) ▽	47 (0.3) ▽
Norway (9)[1]	56 (1.1)	59 (1.0) △	19 (1.0)	18 (0.8) △	19 (1.0)	13 (0.5) △	50 (0.3)
Peru	64 (0.9) △	60 (0.9) △	20 (0.9)	20 (0.8) △	27 (0.9) △	11 (0.7) △	51 (0.2) △
Russian Federation	61 (1.2) △	49 (0.9) ▽	21 (0.9) △	9 (0.6) ▽	25 (1.0) △	13 (0.8) △	49 (0.2) ▽
Slovenia	58 (1.3) △	59 (1.0) △	20 (0.9)	17 (0.9)	27 (0.9) △	11 (0.8)	51 (0.2) △
Sweden[1]	44 (1.4) ▼	54 (1.3) ▽	17 (1.2)	16 (1.2)	15 (1.1) ▽	9 (0.6)	49 (0.4) ▽
ICCS 2016 average	55 (0.3)	56 (0.2)	19 (0.2)	16 (0.2)	20 (0.2)	10 (0.1)	50 (0.1)
Countries not meeting sample participation requirements							
Hong Kong SAR	52 (1.6)	66 (1.2)	19 (1.2)	27 (1.3)	18 (1.3)	14 (1.0)	52 (0.3)
Korea, Republic of[2]	45 (1.7)	28 (1.4)	5 (0.5)	13 (0.8)	10 (0.7)	5 (0.6)	46 (0.3)
Benchmarking participant not meeting sample participation requirements							
North Rhine-Westphalia (Germany)[1]	43 (1.8)	50 (1.6)	17 (1.2)	17 (1.1)	18 (1.1)	8 (0.8)	49 (0.3)

National percentage or average:
- ▲ More than 10 percentage points or 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points or 3 score points below ICCS 2016 average

Notes:
- () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
- (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
- † Met guidelines for sampling participation rates only after replacement schools were included.
- 1 National Defined Population covers 90% to 95% of National Target Population.
- 2 Country surveyed target grade in the first half of the school year.

We identified statistically significant associations between students' experiences of physical or verbal abuse and each of the following three variables: gender, expected education (students expecting to complete a university degree versus those who did not), and civic knowledge (students at or above Level B versus those below this level) (see Table 6.8). Males scored higher than females on the IRT scale in all of the participating countries, with the difference amounting to four scale score points above the ICCS average. Nearly every country also showed significantly higher scores for students not expecting to complete a university degree (a one-point difference in the ICCS average) and for those with civic knowledge below Level B (a two-point difference in the ICCS average).

ICCS 2016 asked school principals to report on the frequency of specified aggressive behaviors within their school. The question included six items and had two response categories denoting occurrence—"one to five times a month" and "more than five times a month." The items were: (a) "A student reported to <the principal, the head-teacher, the school head> aggressive or destructive behaviors by other students;" (b) "A student reported to <the principal, the head-teacher, the school head> that s/he was <bullied> by a teacher;" (c) "A teacher reported to <the principal, the head-teacher, the school head> that a student was <bullied> by other students;" (d) "A teacher reported to <the principal, the head-teacher, the school head> that a student helped another student who was being <bullied>;" (e) "A teacher reported to <the principal, the head-teacher, the school head> that s/he was being <bullied> by students;" and (f) "A parent reported to <the principal, the head-teacher, the school head> that his/her son/daughter was being <bullied> by other students."

According to the principals, the most common forms of bullying at school were those amongst students. The principals also advised that teachers and parents were the people most likely to report these incidents to them. Table 6.9 summarizes the principals' responses in terms of percentages of students in schools where principals reported the different aspects of bullying.

In Chinese Taipei, Croatia, Denmark, Italy, Latvia, the Russian Federation, and Slovenia, national average percentages were below the international average with respect to student-reported incidents of students engaged in aggressive or destructive behaviors. The opposite pattern (percentages above the international average) was evident with regard to parent-reported bullying among students in five countries: Belgium (Flemish), Colombia, the Dominican Republic, Malta, and Mexico. In addition, the principals' responses suggest that, in almost all countries, teachers themselves were rarely being bullied.

Another question in the ICCS 2016 school questionnaire asked principals about the initiatives their schools had implemented to prevent bullying (response categories: "yes"/"no"). The initiatives specified in the question's eight items included activities implemented at both the school and the classroom level. Among the activities were meetings with students and parents, training activities for teachers, conferences led by experts, and training activities for responsible internet use.

Table 6.10 shows the percentages of students in schools where principals reported activities undertaken to prevent bullying. Nearly every country recorded higher percentages for activities carried out at the classroom level (international average: 94%) and for school-based activities directly addressed to students, such as training sessions designed to foster responsible internet use (international average: 77%). Meetings with parents were also common across countries (international average: 72%). On average across countries, the lowest percentages recorded were those for expert-led school conferences (international average: 41%) and the development of systems for reporting cyber-bullying (international average: 25%). However, we noted considerable variation in percentages across countries for several of the activities.

Teachers, too, were asked for their perceptions of bullying at school. The items used in the teacher questionnaire were similar to those included in the school questionnaire and provided the same response categories ("one to five times a month"/"more than five times a month"). Teachers seemed to perceive the occurrence of instances of aggressive or destructive behaviors among students at

Table 6.8: National average scale scores of students' experiences of physical and verbal abuse at school by gender, expected education, and level of civic knowledge

Country	Scale score average by gender group		Scale score average by expected university degree		Scale score average by level of civic knowledge	
	Male students	Female students	Not expecting university score higher	Expecting university score higher	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	**52** (0.3)	48 (0.3)	**51** (0.4)	49 (0.3)	**51** (0.6)	49 (0.3)
Bulgaria	**52** (0.4)	49 (0.4)	**52** (0.5)	50 (0.4)	**53** (0.5)	49 (0.4)
Chile	**51** (0.2)	49 (0.3)	**51** (0.3)	49 (0.2)	**51** (0.3)	48 (0.3)
Chinese Taipei	**47** (0.3)	44 (0.3)	**47** (0.3)	46 (0.2)	**48** (0.7)	46 (0.2)
Colombia	**53** (0.3)	49 (0.3)	**52** (0.4)	51 (0.3)	**52** (0.3)	51 (0.4)
Croatia	**54** (0.3)	51 (0.4)	**53** (0.3)	52 (0.4)	**54** (0.5)	52 (0.3)
Denmark†	**51** (0.3)	47 (0.3)	49 (0.2)	49 (0.3)	**51** (0.5)	49 (0.2)
Dominican Republic	**53** (0.3)	51 (0.3)	**52** (0.3)	51 (0.3)	52 (0.3)	51 (0.6)
Estonia[1]	**52** (0.3)	49 (0.4)	**51** (0.3)	50 (0.3)	**52** (0.6)	50 (0.3)
Finland	**50** (0.4)	45 (0.3)	**48** (0.3)	47 (0.3)	**49** (0.7)	48 (0.3)
Italy	**50** (0.3)	48 (0.3)	**49** (0.3)	48 (0.3)	**50** (0.4)	48 (0.3)
Latvia[1]	**51** (0.3)	48 (0.3)	**50** (0.3)	49 (0.4)	**51** (0.3)	49 (0.3)
Lithuania	**52** (0.3)	50 (0.3)	51 (0.4)	50 (0.3)	**52** (0.5)	50 (0.3)
Malta	**55** (0.3)	49 (0.3)	**53** (0.3)	51 (0.3)	**54** (0.3)	51 (0.3)
Mexico	**54** (0.3)	50 (0.3)	52 (0.5)	51 (0.2)	**52** (0.4)	51 (0.3)
Netherlands†	**48** (0.4)	46 (0.3)	48 (0.3)	47 (0.4)	**48** (0.5)	47 (0.3)
Norway (9)[1]	**52** (0.3)	49 (0.4)	**51** (0.4)	50 (0.3)	**52** (0.5)	50 (0.3)
Peru	**53** (0.2)	50 (0.3)	52 (0.3)	51 (0.3)	**52** (0.2)	50 (0.3)
Russian Federation	**50** (0.3)	49 (0.3)	**50** (0.3)	49 (0.3)	**51** (0.4)	49 (0.3)
Slovenia	**52** (0.3)	49 (0.4)	51 (0.3)	51 (0.4)	**52** (0.4)	51 (0.3)
Sweden[1]	**51** (0.4)	48 (0.5)	**50** (0.5)	49 (0.4)	**51** (0.8)	49 (0.4)
ICCS 2016 average	**52** (0.1)	48 (0.1)	**51** (0.1)	50 (0.1)	**51** (0.1)	49 (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	**54** (0.4)	50 (0.3)	**53** (0.6)	51 (0.4)	**53** (0.5)	51 (0.4)
Korea, Republic of[2]	**47** (0.3)	44 (0.4)	46 (0.4)	46 (0.4)	47 (0.6)	46 (0.4)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

Table 6.9: Percentages of students at schools where principals reported bullying at school

Country	National percentages of students at schools where principals reported occurrence of the following at least once a month:					
	A student reported to <the principal, the headteacher, the school head> aggressive or destructive behaviors	A student reported to <the principal, the headteacher, the school head> that s/he was <bullied> by a teacher	A student reported to <the principal, the headteacher, the school head> that a student was <bullied> by other students	A teacher reported to <the principal, the headteacher, the school head> that a student helped another student who was being <bullied>	A student reported to <the principal, the headteacher, the school head> that s/he was being <bullied> by students	A student reported to <the principal, the headteacher, the school head> that his/her son/ daughter was being bullied by other students
Belgium (Flemish)	42 (4.3) ▲	3 (1.4)	50 (4.2) ▲	25 (3.9) ▲	7 (2.3)	38 (4.0) ▲
Bulgaria	19 (3.3)	3 (1.5)	11 (2.7) ▽	5 (2.0) ▽	2 (1.2)	7 (2.3) ▽
Chile	26 (3.4)	4 (1.6)	10 (2.6) ▼	8 (2.5)	2 (1.1)	14 (3.1)
Chinese Taipei	1 (0.9) ▼	1 (0.8) ▽	3 (1.5) ▼	2 (1.0) ▽	1 (0.8) ▽	2 (1.3) ▼
Colombia (r)	32 (4.0) △	6 (2.3)	12 (2.5) ▽	7 (2.0) ▽	4 (1.8)	10 (2.8)
Croatia	11 (2.5) ▼	1 (0.7) ▽	10 (1.9) ▼	5 (1.5) ▽	2 (1.1)	5 (1.7) ▽
Denmark†	16 (2.8) ▽	2 (1.1) ▽	12 (2.7) ▽	12 (2.6)	1 (1.0) ▽	10 (2.2)
Dominican Republic	51 (3.8) ▲	8 (2.5)	24 (3.7)	20 (3.9) △	11 (2.7) △	25 (3.9) ▲
Estonia[1] (s)	28 (4.6)	5 (3.6)	27 (4.8)	13 (3.8)	1 (1.1) ▽	15 (3.6)
Finland	27 (3.3)	4 (1.4)	42 (4.0) ▲	17 (2.5) △	2 (1.0) ▽	15 (2.3)
Italy	3 (1.3) ▼	0 ▽	5 (1.7) ▼	1 (0.9) ▽	0 ▽	4 (1.5) ▽
Latvia[1]	14 (2.0) ▽	2 (1.7)	13 (2.6) ▽	3 (1.7) ▽	12 (2.9) △	5 (2.1) ▽
Lithuania	23 (3.3)	4 (1.7)	19 (3.0)	11 (2.9)	6 (1.9)	6 (1.7) ▽
Malta	32 (0.4) △	7 (0.3) △	34 (0.4) ▲	32 (0.4) ▲	0 ▽	39 (0.4) ▲
Mexico	42 (3.5) ▲	9 (2.1)	20 (2.9)	8 (2.1)	10 (2.4) △	17 (2.9)
Netherlands† (r)	26 (4.7)	20 (4.2) ▲	27 (4.7)	16 (3.9)	3 (1.6)	16 (3.9)
Norway (9)[1]	26 (3.8)	8 (2.2)	26 (3.6)	12 (2.8)	2 (1.1)	20 (3.7)
Peru	29 (3.5)	6 (1.9)	12 (2.5) ▽	8 (2.1)	3 (1.2)	12 (2.3)
Russian Federation	7 (2.2) ▼	0 ▽	1 (0.7) ▼	3 (1.8) ▽	2 (0.9) ▽	3 (1.7) ▼
Slovenia	7 (2.5) ▼	0 ▽	29 (4.4) △	7 (2.6)	3 (1.5)	7 (2.6) ▽
Sweden[1]	31 (3.8)	5 (1.9)	40 (4.9) ▲	19 (5.3)	2 (0.9) ▽	15 (3.5)
ICCS 2016 average	23 (0.7)	5 (0.5)	20 (0.7)	11 (0.6)	4 (0.4)	14 (0.6)
Countries not meeting sample participation requirements						
Hong Kong SAR			3 (2.2)	2 (1.7)		1 (1.4)
Korea, Republic of[2]	4 (1.8)	1 (1.1)	4 (1.9)	7 (2.8)		2 (1.4)
Benchmarking participant not meeting sample participation requirements						
North Rhine-Westphalia (Germany)[1] (r)	38 (4.2)	1 (0.7)	31 (5.8)	17 (2.9)	1 (0.7)	21 (6.5)

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

Table 6.10: Percentages of students at schools where principals reported activities to reduce bullying at school

Country	National percentages of students at schools where principals reported the existence of:							
	Meetings aiming at informing parents about <bullying> at school	Specific training to provide teachers with knowledge, skills, and confidence to make students aware of <bullying>	Teacher training sessions on safe and responsible internet use to avoid <cyber-bullying>	Student training sessions for responsible internet use to avoid <cyber-bullying>	Meetings aiming at raising parents' awareness on <cyber-bullying>	Development of a system to report anonymously incidents of <cyber-bullying> among students	Classroom activities aiming at raising students' awareness of <bullying>	<Anti-bullying> conferences held by experts and/or by local authorities on <bullying> at school
Belgium (Flemish)	42 (4.3) ▼	38 (3.7) ▼	36 (4.2) ▼	78 (3.9)	41 (4.3) ▼	21 (3.4)	99 (0.9) △	45 (4.4)
Bulgaria	84 (3.4) ▲	77 (3.9) ▲	56 (4.0)	87 (2.9) ▲	48 (4.7) ▼	24 (3.2)	98 (0.7) △	33 (4.3)
Chile	81 (3.1) △	75 (3.4) ▲	52 (4.3)	63 (4.2) ▼	62 (4.2)	30 (3.5)	89 (3.1)	40 (4.1)
Chinese Taipei	89 (2.5) ▲	97 (1.6) ▲	92 (2.0) ▲	91 (2.4) ▲	75 (3.5) ▲	54 (3.2) ▲	98 (1.1) △	72 (3.2) ▲
Colombia (r)	86 (3.4) ▲	81 (3.6) ▲	58 (4.4)	80 (3.9)	72 (3.8) △	30 (4.6)	95 (1.7)	72 (3.8) ▲
Croatia	88 (2.5) ▲	73 (3.1) ▲	69 (4.0) ▲	93 (2.8) ▲	80 (3.5) ▲	37 (3.7) ▲	96 (2.2)	27 (3.6) ▼
Denmark†	80 (2.8) △	43 (4.2) ▼	37 (4.2) ▼	83 (2.8) △	65 (3.8)	2 (1.4) ▼	93 (2.2)	42 (3.6)
Dominican Republic	61 (4.7) ▼	65 (4.7)	47 (4.5)	59 (4.3) ▼	64 (3.8)	17 (3.6) ▽	77 (3.9) ▼	38 (4.6)
Estonia[1] (s)	65 (4.2)	70 (4.7)	66 (5.1) ▲	76 (3.6)	47 (5.5) ▼	10 (2.5) ▼	97 (2.0)	23 (5.4) ▼
Finland	49 (4.6) ▼	46 (3.9) ▼	39 (3.9) ▼	85 (2.6) △	46 (3.9) ▼	13 (2.6) ▼	98 (1.2) △	46 (3.7)
Italy	52 (4.2) ▼	40 (3.8) ▼	37 (3.9) ▼	71 (3.5)	49 (4.1) ▼	12 (3.2) ▼	91 (2.8)	62 (3.8) ▲
Latvia[1]	62 (4.3) ▼	67 (4.5)	56 (4.6)	62 (4.3) ▼	53 (3.9) ▽	20 (3.8)	84 (3.2) ▽	12 (3.3) ▼
Lithuania	90 (2.7) ▲	81 (3.6) ▲	63 (4.7) △	84 (3.1) △	74 (3.7) ▲	19 (3.3)	98 (1.2) △	33 (4.1) ▽
Malta	80 (0.2) △	62 (0.5)	68 (0.3) ▲	97 (0.0) ▲	74 (0.3) ▲	35 (0.4) △	94 (0.1)	48 (0.4) △
Mexico	82 (2.9) ▲	66 (3.7)	44 (3.6) ▽	60 (3.6) ▼	64 (3.8)	33 (3.4) △	96 (1.5)	68 (3.9) ▲
Netherlands† (r)	48 (4.9) ▼	37 (5.1) ▼	31 (5.0) ▼	68 (4.3) ▽	49 (5.3) ▼	32 (5.1)	98 (1.3) △	36 (5.1)
Norway (9)[1]	87 (3.1) ▲	78 (4.0) ▲	34 (4.0) ▼	70 (4.2)	77 (3.7) ▲	25 (3.9)	96 (1.6)	43 (3.9)
Peru	87 (2.2) ▲	63 (3.7)	38 (3.4) ▼	49 (3.6) ▼	69 (3.1) △	36 (3.5) ▲	94 (1.9)	54 (3.3) ▲
Russian Federation	78 (4.0)	63 (4.1)	80 (3.2) ▲	94 (1.8) ▲	84 (2.7) ▲	33 (3.4) △	94 (1.8)	27 (3.5) ▼
Slovenia	55 (4.8) ▼	42 (4.8) ▼	73 (4.1) ▲	86 (3.3) △	64 (4.2)	27 (3.7)	95 (1.9)	31 (4.1) ▼
Sweden[1]	66 (4.6)	53 (5.0) ▼	45 (5.2)	72 (3.9)	52 (4.6) ▽	10 (2.6) ▼	99 (0.9) △	17 (3.4) ▼
ICCS 2016 average	72 (0.8)	63 (0.9)	53 (0.9)	77 (0.7)	62 (0.9)	25 (0.7)	94 (0.4)	41 (0.8)
Countries not meeting sample participation requirements								
Hong Kong SAR	11 (3.5)	53 (6.0)	39 (6.2)	58 (5.7)	23 (5.1)	7 (3.0)	70 (5.4)	39 (5.1)
Korea, Republic of[2]	79 (4.5)	91 (3.4)	91 (3.0)	96 (2.1)	71 (5.2)	73 (5.9)	92 (3.2)	65 (5.3)
Benchmarking participant not meeting sample participation requirements								
North-Rhine-Westphalia (Germany)[1] (r)	53 (7.8)	46 (8.2)	64 (6.1)	93 (3.6)	47 (8.0)	9 (2.9)	97 (2.4)	50 (7.3)

National percentage:
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
- () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent
- (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
- † Met guidelines for sampling participation rates only after replacement schools were included.
- [1] National Defined Population covers 90% to 95% of National Target Population.
- [2] Country surveyed target grade in the first half of the school year.

An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

school as less frequent than principals did. However, we observed relatively large discrepancies in how often the teachers witnessed each of the behaviors in some countries (Belgium/Flemish, Chile, Dominican Republic, Finland, Lithuania, Malta, Mexico, Norway, Peru, and Sweden) and less discrepancy in other countries (Bulgaria, Chinese Taipei, Croatia, Italy, Latvia, and Slovenia) (Table 6.11). Few teachers reported being bullied by students.

It is difficult to "quantify" the actual presence of bullying at school and the frequency of situations in which different forms of bullying occur. Among other reasons for this difficulty is the "culture of silence" that often persists among victims (Smith & Shu, 2000). Nevertheless, the ICCS 2016 results confirmed the presence of different aspects of bullying at school, as well as the presence of activities undertaken by schools to prevent them. Verbal bullying was more frequently present than other types of aggression.

Implementation of civic and citizenship education at schools

Several studies illustrate the important role that students' activities in the community play in students' construction and development of knowledge and skills for active citizenship (Annette, 2008; Henderson, Pancer, & Brown, 2013). Links between the school and its local community represent an opportunity for involving students in activities related to positive civic outcomes and that thereby contribute to the enhancement of civic engagement. ICCS 2009 showed that in nearly every participating country most of the students had at least some opportunities to participate in such activities (Schulz et al., 2010). Furthermore, in 2009, results were generally consistent across the questionnaires that principals and teachers answered (Schulz et al., 2010).

The ICCS 2016 school and teacher questionnaires included a modified version of the ICCS 2009 questions that asked principals and teachers for their perceptions of the opportunities their target-grade students had to participate in activities carried out in the local community but organized by the school in cooperation with external groups or organizations.

The nine items were (a) "activities related to environmental sustainability (e.g. <energy and water saving, recycling>);" (b) "human rights projects;" (c) "activities for underprivileged people or groups;" (d) "cultural activities (e.g. theater, music);" (e) "multicultural and intercultural activities within the <local community> (e.g. <promotion and celebration of cultural diversity, food/street market>);" (f) "campaigns to raise people's awareness (about social issues, of environmental issues);" (g) "activities aimed at protecting cultural heritage within the <local community>;" (h) "visits to political institutions (e.g. <parliament house, prime minister's/president's official residence>);" and (i) "sports events."

As in ICCS 2009, the two sets of items differed in format. Also, although the answer categories for principals in the 2016 questionnaire were the 2009 ones of "all or nearly all," "most of them," "some of them," and "none or hardly any," we added the new option of "not offered at school." The response categories for teachers were a simple "yes" or "no."

Most of the students in the participating countries were attending schools where, according to their principals, they had opportunities to participate in at least some civic- and citizenship-related activities in the community (Table 6.12). On average, the highest percentages (expressed in terms of students attending schools where principals reported the various activities) were for sports events (88%), cultural activities (80%), and activities related to environmental sustainability (61%). On average, the lowest percentages were for visits to political institutions (20%) and for activities aimed at protecting the cultural heritage (38%).

The results from the teachers' responses to the participation question (see Table 6.13) were relatively consistent with the principals' responses. On average, the highest percentages of teachers reporting they had carried out civic and citizenship activities in the local communities pertained to cultural activities (75%) and sports events (73%). The lowest percentages recorded were those

Table 6.11: Teachers' perceptions of bullying at school

Country	National percentages of teachers who reported the following situations occurring at least once a month:							
	A student informed you about aggressive or destructive behaviors by other students	A student informed you that s/he was <bullied> by another student	A teacher informed you that a student was <bullied> by other students	A teacher informed you that a student helped another student who was being <bullied>	A student informed you that s/he was <bullied> by a teacher	A parent informed you that his/her son/daughter was <bullied> by other students	A teacher informed you that s/he was <bullied> by students	You witnessed students' <bullying> behaviors
Belgium (Flemish)†	11 (0.8) ▽	16 (1.0) △	17 (1.2) △	6 (0.7) △	2 (0.4) △	3 (0.5) △	3 (0.6)	12 (1.1) △
Bulgaria	18 (1.7) △	13 (1.0) △	8 (0.8)	6 (0.8) △	1 (0.2) ▽	2 (0.4)	0 ▽	7 (1.0)
Chile	14 (1.8)	8 (1.2)	6 (0.9) ▽	4 (0.9)	2 (0.6)	4 (0.8)	3 (0.6)	7 (1.3)
Chinese Taipei	7 (0.7) ▽	6 (0.7) ▽	4 (0.6) ▽	2 (0.4) ▽	1 (0.3)	1 (0.2) ▽	2 (0.4) ▽	5 (0.7) ▽
Colombia	18 (1.4) △	11 (1.1)	8 (1.1)	6 (1.1)	3 (0.5) △	5 (0.9) △	2 (0.5)	7 (1.0) ▽
Croatia	10 (0.9) ▽	8 (0.8) ▽	6 (0.7) ▽	3 (0.5)	1 (0.3)	3 (0.6)	3 (0.5)	6 (0.7) ▽
Dominican Republic	22 (2.6) △	11 (1.6)	6 (1.5)	5 (1.1)	1 (0.7)	4 (1.3)	1 (0.4) ▽	4 (0.7) ▽
Finland†	15 (1.2)	14 (1.1) △	19 (1.4) ▲	5 (0.5)	1 (0.4)	2 (0.3)	3 (0.3)	22 (1.1) ▲
Italy	6 (0.7) ▽	4 (0.5) ▽	4 (0.5) ▽	1 (0.3) ▽	0 (0.1) ▽	2 (0.3)	1 (0.2) ▽	1 (0.3) ▽
Latvia	10 (1.6)	8 (1.6)	7 (1.3)	3 (0.9)	1 (0.2)	1 (0.7)	5 (1.0) △	9 (1.4)
Lithuania	12 (1.0)	12 (1.1) △	8 (0.9)	5 (0.7) △	2 (0.5)	2 (0.4)	6 (0.7) △	24 (1.5) ▲
Malta	11 (1.3)	13 (1.2) △	11 (1.3) △	4 (0.7)	1 (0.5)	3 (0.6)	5 (0.9) △	16 (1.5) △
Mexico	17 (1.2) △	9 (1.0)	6 (0.7) ▽	4 (0.5)	1 (0.3)	2 (0.4)	2 (0.4) ▽	5 (0.6) ▽
Norway	14 (1.1)	6 (1.1) ▽	8 (1.0)	4 (0.8)	1 (0.3) ▽	2 (0.5)	2 (0.4) ▽	3 (0.7) ▽
Peru	15 (1.3)	9 (1.0)	5 (0.7) ▽	5 (0.8)	2 (0.3)	3 (0.5)	1 (0.3) ▽	5 (0.7) ▽
Slovenia	13 (1.0)	12 (0.9) △	8 (0.7)	3 (0.4)	0 (0.1) ▽	1 (0.3) ▽	3 (0.5)	5 (0.6) ▽
Sweden	12 (1.3)	5 (0.8) ▽	5 (0.6) ▽	2 (0.4) ▽	0 (0.2) ▽	1 (0.2) ▽	1 (0.3) ▽	11 (1.0)
ICCS 2016 average	13 (0.3)	10 (0.3)	8 (0.2)	4 (0.2)	1 (0.1)	2 (0.1)	3 (0.1)	9 (0.2)
Countries not meeting sample participation requirements for teacher survey								
Denmark	12 (2.0)	5 (0.9)	5 (0.9)	2 (0.7)		2 (0.8)	0 (0.3)	4 (1.1)
Estonia	17 (2.7)	16 (2.0)	14 (2.3)	7 (1.9)	3 (0.9)	3 (1.1)	5 (1.5)	13 (2.2)
Korea, Republic of	10 (0.9)	7 (0.8)	4 (0.5)	3 (0.5)	1 (0.3)	1 (0.2)	2 (0.3)	4 (0.7)
Netherlands	9 (1.2)	13 (1.3)	10 (1.2)	4 (0.6)	1 (0.3)	2 (0.5)	1 (0.4)	11 (1.4)
Russian Federation	3 (0.5)	1 (0.3)	1 (0.3)	1 (0.5)	1 (0.3)	1 (0.3)	1 (0.5)	2 (0.5)

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
† Met guidelines for sampling participation rates only after replacement schools were included.

Table 6.12: Percentages of students at schools where principals reported students' opportunity to participate in civic-related activities

Country	National percentages of students at school where principals reported that all, nearly all, or most of the students participated in the following activities in the community								
	Activities related to environmental sustainability	Human rights projects	Activities for underprivileged people or groups	Cultural activities (e.g. theater, music)	Multicultural and intercultural activities within the <local community>	Campaigns to raise people's awareness	Activities aimed at protecting the cultural heritage within the <local community>	Visits to political institutions	Sports events
Belgium (Flemish)	66 (4.8)	48 (4.1)	74 (3.5) ▲	97 (1.4) ▲	39 (4.2)	62 (4.1)	5 (2.0) ▼	12 (2.9) ▽	88 (3.0)
Bulgaria	45 (4.5) ▼	15 (3.3) ▼	31 (4.2) ▼	71 (3.6) ▽	43 (4.2)	77 (3.3) ▲	50 (4.3) ▲	9 (2.6) ▼	90 (2.7)
Chile	39 (4.6) ▼	20 (3.1) ▼	45 (4.6)	70 (4.2) ▼	66 (4.1) ▲	48 (3.9) ▽	31 (3.8)	17 (3.2)	77 (3.5) ▼
Chinese Taipei	59 (4.4)	32 (3.8) ▼	48 (4.7)	56 (3.4) ▼	44 (4.3)	51 (4.0)	31 (3.9)	15 (2.9) ▽	93 (2.1)
Colombia (r)	56 (4.4)	46 (4.2)	30 (3.8) ▼	52 (4.2) ▼	42 (3.8)	53 (4.1)	41 (4.2)	5 (1.5) ▼	84 (3.4)
Croatia	76 (3.5) ▲	65 (3.6) ▲	44 (4.1)	84 (2.7)	43 (4.1)	40 (3.5) ▼	51 (3.9) ▲	17 (2.6)	88 (2.5)
Denmark†	50 (3.8) ▼	53 (3.9) ▲	33 (3.8) ▽	90 (2.4) ▲	23 (3.2) ▼	23 (3.2) ▼	9 (2.3) ▼	38 (4.1) ▲	90 (2.3)
Dominican Republic (r)	76 (3.9) ▲	60 (4.4) ▲	49 (4.9)	66 (4.6) ▼	67 (4.6) ▲	69 (4.0) ▲	66 (4.6) ▲	25 (4.2)	84 (3.1)
Estonia[1] (s)	63 (5.4)	27 (5.0) ▼	18 (4.3) ▼	92 (2.9) ▲	32 (5.6) ▼	79 (4.6) ▲	53 (5.2) ▲	35 (5.4) ▲	98 (1.1) △
Finland	71 (3.5) △	34 (3.9) ▽	56 (4.0) ▲	91 (2.1) ▲	35 (3.5) ▼	95 (1.5) ▲	30 (3.3) ▽	11 (2.0) ▽	92 (2.0)
Italy	70 (3.7) △	62 (3.5) ▲	47 (3.9)	87 (2.6) △	47 (4.1)	64 (4.0)	47 (4.1) △	27 (3.7)	74 (4.3) ▼
Latvia[1]	67 (3.6)	31 (4.5) ▼	28 (3.7) ▼	95 (1.8) ▲	61 (4.4) ▲	60 (4.6)	56 (4.8) ▲	31 (4.7) ▲	99 (0.5) ▲
Lithuania	68 (3.9)	27 (3.9) ▼	30 (3.8) ▼	85 (2.8)	46 (3.6)	59 (4.6)	39 (3.7)	28 (3.5) △	89 (2.9)
Malta	48 (0.4) ▼	20 (0.2) ▼	24 (0.3) ▼	59 (0.5) ▼	33 (0.4) ▼	44 (0.4) ▼	30 (0.3) ▽	32 (0.4) ▲	98 (0.1) △
Mexico	73 (3.3) ▲	65 (3.2) ▲	44 (4.0)	60 (4.2) ▼	53 (3.7) △	67 (3.4) ▲	55 (3.9) ▲	9 (2.0) ▼	84 (2.7)
Netherlands† (r)	32 (4.4) ▼	31 (4.7) ▼	52 (5.4) ▲	83 (3.8)	28 (5.0) ▼	24 (4.6) ▼	8 (2.4) ▼	13 (2.9) ▽	91 (3.0)
Norway (9)[1]	49 (4.4) ▼	54 (4.4) ▲	23 (3.6) ▼	92 (2.5) ▲	19 (3.5) ▼	52 (3.9)	27 (3.9) ▼	34 (4.5) ▲	87 (3.0)
Peru	62 (3.3)	44 (3.5)	41 (3.3)	70 (3.1) ▼	62 (3.4) ▲	62 (3.5)	38 (3.6)	14 (2.3) ▽	91 (2.3)
Russian Federation	68 (3.9)	48 (3.9)	49 (4.2)	94 (1.8) ▲	95 (1.6) ▲	48 (4.0) ▽	62 (4.0) ▲	17 (2.7)	99 (0.8) ▲
Slovenia	3 (3.2) ▲	48 (4.7)	54 (4.8) ▲	94 (1.8) ▲	46 (4.2)	78 (3.9) ▲	55 (4.3) ▲	7 (2.4) ▼	90 (2.8)
Sweden[1]	61 (4.9)	64 (5.9) ▲	41 (4.7)	95 (2.0) ▲	27 (3.8) ▼	44 (5.1) ▼	21 (3.4) ▼	33 (4.7) ▲	70 (4.1) ▼
ICCS 2016 average	61 (0.9)	43 (0.9)	41 (0.9)	80 (0.6)	45 (0.9)	57 (0.8)	38 (0.8)	20 (0.7)	88 (0.6)
Countries not meeting sample participation requirements									
Hong Kong SAR	43 (5.7)	14 (3.7)	27 (4.9)	77 (4.2)	12 (3.8)	36 (5.3)	9 (3.2)	9 (2.6)	91 (3.3)
Korea, Republic of[2]	51 (5.2)	37 (5.9)	23 (4.8)	50 (5.0)	36 (4.6)	40 (5.9)	26 (4.6)	9 (3.0)	72 (5.1))
Benchmarking participant not meeting sample participation requirements									
North Rhine-Westphalia (Germany)[1] (r)	37 (7.8)	41 (5.7)	40 (7.6)	69 (7.2)	17 (6.2)	49 (8.5)	5 (3.2)	11 (4.1)	85 (6.2)

National percentage:
- ▲ More than 10 percentage points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage points below ICCS 2016 average

Notes:
- () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
- (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
- † Met guidelines for sampling participation rates only after replacement schools were included.
- [1] National Defined Population covers 90% to 95% of National Target Population.
- [2] Country surveyed target grade in the first half of the school year.

An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

Table 6.13: Teachers' perceptions of student activities in the community

Country	National percentages of teachers who reported having taking part with their target-grade classes in …								
	Activities related to environmental sustainability	Human rights projects	Activities for underprivileged people or groups	Cultural activities (e.g. theater, music)	Multicultural and intercultural activities within the <local community>	Campaigns to raise people's awareness	Activities aimed at protecting the cultural heritage in the <local community>	Visits to political institutions	Sports events
Belgium (Flemish)†	50 (2.1) ▽	31 (1.8) ▽	54 (2.2) ▲	84 (1.6) △	35 (1.9) ▽	47 (1.9) ▽	9 (0.9) ▼	10 (1.3) ▽	76 (1.3) △
Bulgaria	54 (2.8)	15 (1.3) ▼	36 (2.0)	69 (2.8) ▽	51 (1.9) △	72 (2.2) ▲	52 (2.3) ▲	8 (1.9) ▽	79 (1.5) △
Chile	43 (2.3) ▼	21 (1.8) ▼	45 (2.3) △	69 (1.7) ▽	58 (1.8) ▲	51 (2.4)	34 (2.3) ▽	18 (1.9)	70 (1.7) ▽
Chinese Taipei	41 (1.5) ▼	19 (1.1) ▼	33 (1.2) ▽	62 (1.3) ▼	33 (1.3) ▼	40 (1.3) ▼	13 (0.9) ▼	7 (0.8) ▽	70 (1.3) ▽
Colombia	72 (2.4) ▲	54 (3.0) ▲	41 (2.0)	79 (1.6) △	63 (2.2) ▲	75 (2.1) ▲	58 (2.2) ▲	10 (1.6) ▽	85 (1.4) ▲
Croatia	62 (1.9) △	43 (1.6) △	30 (1.5) ▽	65 (1.7) ▽	38 (2.1) ▽	33 (1.7) ▼	52 (1.6) ▲	10 (1.0) ▽	63 (1.9) ▼
Dominican Republic	84 (3.0) ▲	62 (3.7) ▲	52 (4.5) ▲	80 (3.1)	68 (3.1) ▲	73 (3.6) ▲	66 (3.1) ▲	40 (3.9) ▲	80 (3.2) △
Finland†	45 (1.6) ▼	15 (1.4) ▼	31 (1.3) ▽	56 (1.6) ▼	17 (1.2) ▼	61 (1.8) △	14 (1.1) ▼	2 (0.3) ▼	48 (2.1) ▼
Italy	54 (2.0)	48 (1.7) ▲	44 (1.9) △	84 (1.4) △	38 (1.9) ▽	62 (1.4) △	41 (1.6)	22 (1.5) △	65 (1.6) ▽
Latvia	46 (2.5) ▼	17 (1.3) ▼	17 (1.2) ▼	72 (1.5)	48 (1.6) △	39 (1.5) ▼	43 (1.4) △	14 (1.2) ▽	72 (1.6)
Lithuania	68 (1.8) ▲	36 (1.5)	42 (1.9)	86 (1.1) ▲	54 (1.6) △	62 (1.6) △	54 (1.4) ▲	31 (2.1) ▲	84 (1.3) ▲
Malta	58 (2.1)	27 (1.7) ▽	36 (1.8)	63 (2.0) ▼	32 (1.8) ▼	33 (1.7) ▼	35 (2.1) ▽	32 (1.8) ▲	74 (1.7)
Mexico	76 (1.5) ▲	63 (1.6) ▲	41 (2.1)	72 (1.2) ▽	58 (2.0) ▲	59 (2.2) △	50 (1.9) ▲	8 (0.8) ▽	76 (1.5) △
Norway	35 (1.8) ▼	37 (1.9)	26 (1.3) ▼	83 (1.2) △	16 (2.3) ▼	43 (2.6) ▼	32 (2.0) ▽	23 (1.6) △	72 (1.7)
Peru	70 (2.2) ▲	40 (1.8) △	48 (1.9) △	77 (1.6)	74 (2.2) ▲	67 (1.8) ▲	56 (1.8) ▲	11 (1.1) ▽	91 (0.8) ▲
Slovenia	70 (1.6) ▲	39 (1.3) △	49 (1.4) ▲	87 (1.0) ▲	40 (1.3) ▽	56 (1.3)	48 (1.8) △	14 (1.3)	82 (1.1) △
Sweden	39 (1.7) ▼	46 (2.0) ▲	33 (1.7) ▽	80 (1.9) △	29 (2.0) ▼	33 (1.9) ▼	15 (1.2) ▼	20 (1.8)	58 (1.9) ▼
ICCS 2016 average	57 (0.5)	36 (0.5)	39 (0.5)	75 (0.4)	44 (0.5)	53 (0.5)	39 (0.4)	16 (0.4)	73 (0.4)
Countries not meeting sample participation requirements for teacher survey									
Denmark	39 (3.5)	32 (3.9)	16 (2.4)	73 (3.3)	15 (2.4)	16 (2.1)	9 (2.5)	22 (3.1)	60 (3.4)
Estonia	60 (3.0)	12 (1.6)	14 (2.1)	91 (1.7)	44 (3.5)	72 (3.5)	67 (3.0)	35 (4.7)	95 (1.0)
Korea, Republic of	57 (2.2)	34 (1.8)	41 (1.6)	75 (1.6)	36 (1.6)	48 (1.7)	32 (1.6)	14 (1.3)	74 (1.5)
Netherlands	20 (1.5)	15 (1.3)	39 (2.4)	60 (2.0)	16 (1.2)	19 (1.7)	9 (1.0)	8 (0.8)	61 (1.8)
Russian Federation	74 (2.6)	43 (2.8)	53 (2.9)	76 (2.2)	77 (2.4)	57 (2.6)	72 (2.6)	24 (2.3)	84 (1.7)

National percentage:

▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
† Met guidelines for sampling participation rates only after replacement schools were included.

for visits to political institutions (16%), human rights projects (36%), activities aimed at protecting cultural heritage (39%), and activities for underprivileged people or groups (39%).

Activities related to environmental sustainability at school

Education for sustainable development endeavors to develop learners' competence as community members and global citizens. This area of education "empowers learners to take informed decisions and responsible actions for environmental integrity, economic viability and a just society, for present and future generations, while respecting cultural diversity" (UNESCO, 2014, p.12). For at least 10 years, various scholars and educationalists have viewed education for sustainable development as an important aspect of citizenship education (Huckle, 2008). They also tend to see it as an interdisciplinary and holistic learning area, and to argue that it needs to involve the whole school community (Henderson & Tilbury, 2004).

The ICCS 2016 school questionnaire included a question asking principals about any environment-friendly practices their schools had implemented in order to further the principles of sustainable development ("sustainable schools") and to enable students to have direct experience of these principles. The question contained five items reflecting these practices: (a) "differential waste collection;" (b) "waste reduction (e.g. <encouraging waste-free lunches, limiting the use of plastic disposable products>);" (c) "purchasing environment-friendly items (e.g. <recycled paper for printing, biodegradable cutlery and dishes>);" (d) "energy-saving practices;" and (e) "posters to encourage students' environment-friendly behaviors." Response categories were "to a large extent," "to a moderate extent," "to a small extent," and "not at all."

Table 6.14 sets out the percentages of students in schools where principals reported having adopted (to a "large extent/to a moderate extent") the environment-friendly practices listed in the question. The most common practices across participating countries were those related to energy saving (international average: 81%) and to differential waste collection (international average: 74%). The use of posters within the school to support students' environment-friendly practices was also common across participating countries (international average: 74%). Lower but still substantial percentages were recorded for waste reduction (international average: 67%) and for purchasing environment-friendly items (international average: 60%).

The principals' responses to the question also revealed considerable cross-national variation with respect to the environment-friendly practices schools had in place. National percentages for differential waste collection were more than 10 percentage points above the ICCS 2016 average in Belgium (Flemish), Chinese Taipei, Croatia, Finland, Italy, Lithuania, Malta, and Slovenia. We observed similar patterns (i.e., national percentages 10 scale score points or more above the international average) with respect to waste reduction (in Chinese Taipei, Finland, Lithuania, Malta, Slovenia, Sweden); purchase of environment-friendly items (Chinese Taipei, Malta, Norway, Slovenia, Sweden); energy-saving practices (Chinese Taipei, Denmark, Dominican Republic, Lithuania, Malta, Slovenia); and poster use (Bulgaria, Chinese Taipei, Colombia, Croatia, Dominican Republic, Latvia, Lithuania, Malta, Mexico, Slovenia).

Another of the questions in the teacher questionnaire asked teachers whether their target-grade students participated at school in initiatives and activities related to environmental issues, such as writing letters to newspapers or magazines, signing a petition, posting comments on social networks, organizing activities promoting limiting water or energy consumption, and contributing to environment-based enterprises in the community. All of these activities have the potential not only to enhance students' direct involvement and engagement in environment-friendly activities within the school and the local community but also to raise students' awareness of the impact of their behavior on the environment (Kyburz-Graber, 2013; Lundholm, Hopwood, & Kelsey, 2013).

Table 6.14: Percentages of students at schools where principals reported environment-friendly practices

Country	National percentages of students in schools where principals reported that the school had adapted the following environment-friendly practices to a large or a moderate extent:				
	Differential waste collection	Waste reduction	Purchase of environment-friendly items	Energy-saving practices	Posters to encourage students' environment-friendly behaviors
Belgium (Flemish)	95 (1.9) ▲	71 (4.1)	61 (4.1)	77 (3.6)	61 (4.4) ▼
Bulgaria	65 (3.7) ▽	62 (3.7)	58 (4.6)	80 (2.9)	87 (3.3) ▲
Chile	30 (4.2) ▼	42 (4.6) ▼	34 (4.1) ▼	54 (4.4) ▼	63 (4.4) ▼
Chinese Taipei	100 (0.0) ▲	99 (0.8) ▲	99 (0.9) ▲	100 (0.0) ▲	98 (1.2) ▲
Colombia (r)	72 (4.1)	54 (5.1) ▼	58 (4.4)	71 (3.7) ▽	86 (2.9) ▲
Croatia	88 (2.3) ▲	71 (3.3)	53 (3.3) ▽	89 (2.3) △	94 (1.9) ▲
Denmark†	62 (3.9) ▼	38 (3.5) ▼	66 (3.4)	94 (2.0) ▲	57 (3.6) ▼
Dominican Republic	72 (4.1)	75 (4.0) △	67 (4.4)	91 (2.6) ▲	91 (2.8) ▲
Estonia[1] (s)	55 (4.4) ▼	70 (4.8)	40 (5.5) ▼	85 (3.9)	75 (4.7)
Finland	96 (1.5) ▲	96 (1.4) ▲	66 (3.7)	79 (2.9)	67 (3.3) ▽
Italy	88 (2.6) ▲	57 (4.0) ▽	51 (4.6) ▽	64 (3.8) ▼	66 (3.9) ▽
Latvia[1]	66 (4.8)	55 (4.6) ▼	59 (4.3)	87 (3.7)	85 (4.0) ▲
Lithuania	86 (2.6) ▲	82 (3.4) ▲	46 (4.4) ▼	98 (1.4) ▲	95 (2.1) ▲
Malta	84 (0.3) ▲	78 (0.4) ▲	75 (0.4) ▲	92 (0.3) ▲	91 (0.4) ▲
Mexico	59 (4.0) ▼	72 (3.5)	65 (3.8)	74 (3.3) ▽	89 (2.5) ▲
Netherlands† (r)	51 (5.3) ▼	26 (4.7) ▼	37 (5.1) ▼	61 (4.8) ▼	27 (4.7) ▼
Norway (9)[1]	78 (3.5)	63 (4.3)	73 (3.9) ▲	74 (4.0)	40 (4.1) ▼
Peru	68 (3.2)	64 (3.5)	51 (3.9) ▽	76 (2.8)	74 (3.0)
Russian Federation	51 (4.6) ▼	44 (4.2) ▼	35 (3.5) ▼	91 (2.6) △	80 (2.7) △
Slovenia	99 (0.5) ▲	99 (0.5) ▲	88 (3.0) ▲	99 (0.5) ▲	95 (2.2) ▲
Sweden[1]	78 (3.8)	81 (3.6) ▲	77 (4.1) ▲	66 (5.9) ▼	39 (5.4) ▼
ICCS 2016 average	74 (0.8)	67 (0.8)	60 (0.9)	81 (0.7)	74 (0.8)
Countries not meeting sample participation requirements					
Hong Kong SAR	84 (4.0)	85 (4.0)	71 (5.1)	84 (4.3)	76 (4.4)
Korea, Republic of[2]	99 (0.9)	94 (3.2)	95 (2.0)	99 (1.2)	86 (4.0)
Benchmarking participant not meeting sample participation requirements					
North-Rhine-Westphalia (Germany)[1] (r)	67 (6.9)	61 (6.9)	55 (6.3)	66 (6.6)	36 (7.5)

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

Across participating countries, the most commonly reported activities were those related to water and energy consumption (with an international average of 46% and 48%, respectively) (Table 6.15). Lower percentages were recorded for signing a petition (8%), writing letters to a magazine/newspaper (12%), and posting on social networks (15%). Countries with national averages significantly above the ICCS average for all the activities were Colombia, the Dominican Republic, Mexico, and Peru. Those with national averages significantly below the ICCS average were Belgium (Flemish), Malta, and Sweden.

Table 6.15: Teachers' reports on students' environmental activities at school

Country	National percentages of teachers who reported conducting the following environmental initiatives with their target-grade students:													
	Writing letters to the newspapers or magazines to support actions about the the environment		Signing a petition on environmental issues		Posting on social network, forum, or blog to support actions about the environment		Activities to make students aware of the environmental impact of excessive water consumption		Activities to make students aware of the environmental impact of excessive energy consumption		<Cleanup activities> outside the school		Recycling and waste collection in the <local community>	
Belgium (Flemish)†	2 (0.4)	▽	2 (0.4)	▽	6 (0.8)	▽	28 (1.5)	▼	40 (1.7)	▽	9 (1.7)	▼	25 (1.7)	▼
Bulgaria	4 (0.7)	▽	2 (0.4)	▽	22 (1.9)	△	44 (2.0)		47 (1.8)		53 (2.5)	▲	38 (2.7)	
Chile	12 (1.4)		8 (1.2)		16 (1.5)		46 (2.1)		47 (2.1)		26 (1.8)	▽	29 (2.1)	▼
Chinese Taipei	8 (0.7)	▽	4 (0.5)	▽	18 (1.0)	△	38 (1.4)	▽	43 (1.4)	▽	22 (1.7)	▼	13 (1.0)	▼
Colombia	22 (2.0)	△	16 (1.5)	△	23 (1.9)	△	71 (2.2)	▲	62 (2.6)	▲	61 (2.5)	▲	69 (1.8)	▲
Croatia	8 (0.7)	▽	5 (0.7)	▽	15 (1.1)		57 (1.2)	▲	61 (1.7)	▲	40 (2.2)	△	49 (2.0)	△
Dominican Republic	42 (2.9)	▲	45 (3.8)	▲	38 (2.9)	▲	83 (2.2)	▲	72 (2.5)	▲	68 (3.4)	▲	64 (3.7)	▲
Finland†	1 (0.2)	▼	1 (0.3)	▽	2 (0.3)	▼	37 (1.2)	▽	50 (1.2)		20 (1.3)	▼	31 (1.5)	▼
Italy	5 (0.6)	▽	3 (0.4)	▽	7 (0.5)	▽	54 (1.4)	△	59 (1.3)	▲	20 (1.3)	▼	53 (1.6)	▲
Latvia	4 (0.6)	▽	2 (0.5)	▽	13 (1.2)		21 (1.1)	▼	27 (1.1)	▼	32 (1.5)	▽	29 (1.4)	▼
Lithuania	5 (0.6)	▽	6 (0.6)	▽	18 (1.0)	△	38 (1.1)	▽	41 (1.2)	▽	53 (1.4)	▲	51 (1.6)	△
Malta	9 (1.1)	▽	4 (0.8)	▽	12 (1.3)	▽	37 (2.1)	▽	37 (2.1)	▼	9 (1.4)	▼	30 (1.9)	▼
Mexico	24 (1.3)	▲	12 (0.9)	△	27 (1.7)	▲	72 (1.4)	▲	65 (1.7)	▲	39 (2.0)	△	54 (1.6)	▲
Norway	1 (0.3)	▼	1 (0.6)	▽	3 (0.7)	▼	15 (1.3)	▼	26 (1.2)	▼	49 (1.9)	▲	37 (1.5)	▽
Peru	46 (1.5)	▲	26 (1.5)	▲	22 (1.5)	△	69 (1.8)	▲	61 (1.7)	▲	55 (2.0)	▲	53 (2.1)	▲
Slovenia	9 (0.8)	▽	3 (0.4)	▽	13 (1.1)		44 (1.5)		48 (1.4)		29 (1.6)	▽	61 (1.6)	▲
Sweden	5 (0.7)	▽	1 (0.2)	▽	2 (0.4)	▼	24 (1.3)	▼	29 (1.6)	▼	7 (1.0)	▼	14 (1.2)	▼
ICCS 2016 average	12 (0.3)		8 (0.3)		15 (0.3)		46 (0.4)		48 (0.4)		35 (0.5)		41 (0.5)	
Countries not meeting sample participation requirements for teacher survey														
Denmark	2 (0.8)		1 (0.3)		3 (0.9)		24 (2.8)		31 (2.8)		14 (3.1)		14 (2.0)	
Estonia	2 (0.7)		1 (0.6)		7 (1.5)		28 (2.7)		37 (2.8)		17 (2.2)		13 (2.8)	
Korea, Republic of	27 (1.5)		7 (1.0)		16 (1.2)		51 (1.6)		70 (1.3)		52 (2.1)		40 (1.4)	
Netherlands	2 (0.5)		1 (0.3)		3 (0.4)		14 (0.8)		20 (1.2)		9 (1.1)		7 (1.0)	
Russian Federation	16 (2.9)		10 (1.8)		23 (2.3)		68 (2.5)		68 (2.9)		88 (1.6)		49 (2.9)	

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
† Met guidelines for sampling participation rates only after replacement schools were included.

Civic and citizenship activities in classrooms and teacher preparation

Chapter 2 of this report described the general approaches that the ICCS 2016 schools were taking to deliver civic and citizenship education in their classrooms. The chapter also reported principals' and teachers' perceptions of the most important aims of this area of school education, and documented the types of pre-service and in-service training that teachers in the ICCS countries experience. In this section of the current chapter, we look at the activities carried out within participating schools' classrooms during civic and citizenship education lessons from two perspectives—students' and teachers'. We also consider teachers' responses to a question about their level of preparedness for teaching topics related to civic and citizenship education.

The question in the ICCS 2016 student questionnaire on civic topics taught in school required students to indicate the extent to which they had learned about each of the following at their school: (a) "how citizens can vote in local or national election;" (b) "how laws are introduced and changed in <country of test>;" (c) "how to protect the environment (e.g. through energy-saving or recycling);" (d) "how to contribute to solving problems in the <local community>;" (e) "how citizen rights are protected in <country of test>;" and (f) "political issues and events in other countries."

We used these items to derive an IRT-based scale called civic learning at school. It had an average reliability across countries (Cronbach's alpha = 0.80). The higher scale scores indicate higher levels of reported learning of civic issues at school. (For a description of this scale, see the item map in Figure 6.4, Appendix D.)

On average across the participating countries, the highest percentages of students who said they had learned about the listed topics to a moderate or large extent were for how to protect the environment (81%), how citizens can vote in local and national elections (64%), and how citizen rights are protected in <country of test> (61%). The lowest percentages were for political issues and events in other countries (52%) and how to contribute to solving problems in the <local community> (55%). Significant differences emerged across the countries for all six topics (see Table 6.16), suggesting that students in different countries experience different degrees of emphasis on the civic-related topics they study at school.

Table 6.16 also shows the national average scale scores for students' learning of civic issues at school. Countries with the highest national average scale scores (three or more points above the ICCS 2016 average) were Chinese Taipei, Colombia, the Dominican Republic, Mexico, and Peru. Those with the lowest national averages were Belgium (Flemish), Estonia, Finland, Latvia, Lithuania, and the Netherlands.

Our analyses of students' responses to the civic-topics question included looking for possible associations between the students' learning of these topics and (dichotomous) variables reflecting students' interest in civic issues (quite or very interested versus little interest), students' expected educational attainment (a university degree versus no such degree), and civic knowledge (scores at or above Level B versus scores below this level). Table 6.17 presents the findings of these analyses.

Positive and statistically significant associations were evident in all of the ICCS 2016 countries between students' reports of civic learning at school and students' interest in social and political issues. The average difference between the national scores for students who were quite or very interested in the itemized civic issues was three scale score points above the ICCS average. We also registered in most participating countries higher scale scores for students who anticipated completing a university degree. Here, the difference was two points on average across the participating countries. Students at or above Level B of civic knowledge scored higher than students below this level, with an ICCS average difference of three points.

Table 6.16: National percentages and average scale scores for students' reports on civic learning at school

Country	Percentages of students who reported having learned the following to a moderate or large extent:							Average scale scores for students' reports on learning of civic issues at school
	How citizens can vote in local or national elections (%)	How laws are introduced and changed in <country of test> (%)	How to protect the environment (e.g. through energy-saving or recycling) (%)	How to contribute to solving problems in the <local community> (%)	How citizen rights are protected in <country of test> (%)	Political issues and events in other countries (%)	How the economy works (%)	
Belgium (Flemish)	50 (1.6) ▼	41 (1.7) ▼	85 (0.8) △	39 (0.9) ▼	36 (1.2) ▼	50 (1.2)	66 (2.1) △	46 (0.3) ▼
Bulgaria	64 (1.1)	53 (1.3) ▽	84 (1.0) △	57 (1.2)	55 (1.3) ▽	40 (1.2) ▼	45 (1.1) ▼	48 (0.2) ▽
Chile	71 (1.0) △	64 (1.1) △	81 (0.8)	63 (0.9) △	64 (1.0) △	49 (0.9) ▽	60 (0.9) △	51 (0.3) △
Chinese Taipei	88 (0.7) ▲	86 (0.7) ▲	90 (0.6) △	71 (0.9) ▲	86 (0.6) ▲	64 (1.0) ▲	59 (1.0) △	56 (0.3) ▲
Colombia	78 (1.4) ▲	58 (1.2)	92 (0.5) ▲	74 (0.9) ▲	83 (0.8) ▲	47 (1.4) ▽	73 (1.0) ▲	54 (0.2) ▲
Croatia	69 (1.6) △	61 (1.5)	91 (0.7) ▲	60 (1.3) △	67 (1.4) △	52 (1.5)	36 (1.4) ▼	50 (0.3)
Denmark†	61 (1.2) ▽	73 (1.2) ▲	61 (1.2) ▼	42 (1.0) ▼	56 (1.0) ▽	67 (1.1) ▲	68 (1.2) ▲	49 (0.2) ▽
Dominican Republic	73 (1.2) △	69 (1.0) △	84 (0.8) △	74 (1.0) ▲	81 (0.8) ▲	60 (1.1) △	73 (1.0) ▲	56 (0.3) ▲
Estonia[1]	41 (1.4) ▼	48 (1.6) ▼	72 (1.4) ▽	51 (1.1) ▽	53 (1.6) ▽	44 (1.4) ▽	41 (1.9) ▼	46 (0.3) ▼
Finland	57 (0.9) ▽	40 (1.0) ▼	85 (0.8) △	41 (1.0) ▼	45 (1.3) ▼	42 (1.1) ▼	31 (1.0) ▼	45 (0.2) ▼
Italy	70 (1.9) △	68 (1.6) △	85 (0.9) △	54 (1.2)	71 (1.6) △	64 (1.1) ▲	70 (0.9) ▲	52 (0.3) △
Latvia[1]	44 (1.3) ▼	47 (1.3) ▼	84 (0.9) △	43 (1.2) ▼	43 (1.2) ▼	43 (1.2) ▽	51 (1.6) ▽	47 (0.3) ▼
Lithuania	44 (1.4) ▼	46 (1.6) ▼	84 (1.0) △	41 (1.2) ▼	46 (1.5) ▼	45 (1.0) ▽	36 (1.0) ▼	46 (0.3) ▼
Malta	55 (0.8) ▽	46 (0.9) ▼	81 (0.7)	51 (0.8) ▽	63 (0.8)	44 (0.8) ▽	50 (0.9) ▽	48 (0.1) ▽
Mexico	72 (1.0) △	69 (0.8) ▲	85 (0.6) △	73 (0.9) ▲	78 (0.8) ▲	48 (0.8) ▽	68 (0.9) ▲	53 (0.2) ▲
Netherlands[1]	44 (1.2) ▼	37 (1.5) ▼	66 (1.3) ▼	35 (1.2) ▼	34 (1.2) ▼	53 (1.3)	64 (2.1) △	44 (0.3) ▼
Norway (9)[1]	65 (0.9) △	42 (1.2) ▼	69 (1.0) ▼	45 (1.0) ▼	46 (1.0) ▼	56 (1.0) △	47 (1.2) ▼	48 (0.2) ▽
Peru	81 (0.8) ▲	75 (0.9) ▲	86 (0.7) △	71 (0.9) ▲	79 (0.9) ▲	52 (1.2)	71 (0.8) ▲	55 (0.3) ▲
Russian Federation	55 (1.4) ▽	62 (1.3) △	81 (1.1)	50 (1.2) ▽	74 (1.0) ▲	48 (1.2) ▽	63 (1.1) △	50 (0.3)
Slovenia	76 (1.5) ▲	75 (1.2) ▲	76 (0.9) ▽	60 (1.4) △	70 (1.3) △	58 (1.3) △	68 (1.5) ▲	52 (0.3) △
Sweden[1]	80 (1.5) ▲	82 (2.0) ▲	84 (1.0) △	56 (1.8)	61 (2.2)	75 (1.7) ▲	59 (1.8)	53 (0.5) △
ICCS 2016 average	64 (0.3)	59 (0.3)	81 (0.2)	55 (0.2)	61 (0.3)	52 (0.3)	57 (0.3)	50 (0.1)
Countries not meeting sample participation requirements								
Hong Kong SAR	52 (1.6)	58 (1.6)	80 (1.0)	59 (0.9)	64 (1.3)	48 (1.1)	48 (1.3)	48 (0.3)
Korea, Republic of[2]	58 (1.2)	44 (1.2)	85 (1.1)	55 (1.3)	48 (1.1)	46 (1.1)	42 (1.1)	47 (0.3)
Benchmarking participant not meeting sample participation requirements								
North-Rhine-Westphalia (Germany)[1]	63 (3.1)	64 (2.7)	70 (2.2)	42 (2.2)	52 (2.3)	73 (1.8)	67 (2.2)	50 (0.7)

National percentage or average:
- ▲ More than 10 percentage or 3 score points above ICCS 2016 average
- △ Significantly above ICCS 2016 average
- ▽ Significantly below ICCS 2016 average
- ▼ More than 10 percentage or 3 score points below ICCS 2016 average

Notes:
- () Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
- (9) Country deviated from International Defined Population and surveyed adjacent upper grade.
- † Met guidelines for sampling participation rates only after replacement schools were included.
- [1] National Defined Population covers 90% to 95% of National Target Population.
- [2] Country surveyed target grade in the first half of the school year.

Table 6.17: National average scale scores of students' reports on civic learning at school by students' interest, expected education, and level of civic knowledge

Country	Scale score average by students' interest		Scale score average by expected university degree		Scale score average by level of civic knowledge	
	Not interested in civic issues	Quite or very interested in civic issues	Not expecting university score higher	Expecting university score higher	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (479 and above)
Belgium (Flemish)	46 (0.3)	**48** (0.4)	46 (0.5)	47 (0.3)	46 (0.5)	46 (0.3)
Bulgaria	47 (0.3)	**50** (0.4)	47 (0.4)	48 (0.3)	48 (0.4)	48 (0.3)
Chile	50 (0.3)	**55** (0.4)	49 (0.4)	**52** (0.3)	50 (0.3)	**53** (0.4)
Chinese Taipei	55 (0.3)	**58** (0.3)	53 (0.4)	**57** (0.3)	49 (0.8)	**57** (0.3)
Colombia	53 (0.3)	**57** (0.3)	52 (0.5)	**54** (0.2)	53 (0.3)	**55** (0.3)
Croatia	49 (0.3)	**52** (0.4)	50 (0.4)	50 (0.4)	49 (0.4)	**51** (0.4)
Denmark†	48 (0.2)	**51** (0.2)	49 (0.2)	**51** (0.3)	46 (0.5)	**50** (0.2)
Dominican Republic	55 (0.3)	**59** (0.4)	56 (0.4)	**57** (0.4)	56 (0.3)	**60** (0.7)
Estonia[1]	45 (0.3)	**48** (0.4)	46 (0.4)	**47** (0.4)	44 (0.6)	**47** (0.3)
Finland	44 (0.2)	**48** (0.3)	45 (0.2)	**46** (0.3)	45 (0.6)	45 (0.2)
Italy	50 (0.3)	**54** (0.4)	51 (0.3)	**53** (0.3)	50 (0.4)	**52** (0.3)
Latvia[1]	46 (0.3)	**49** (0.5)	47 (0.3)	47 (0.4)	46 (0.4)	**47** (0.3)
Lithuania	45 (0.3)	**48** (0.4)	46 (0.3)	47 (0.4)	46 (0.4)	46 (0.3)
Malta	47 (0.2)	**50** (0.2)	48 (0.2)	48 (0.2)	48 (0.3)	48 (0.2)
Mexico	52 (0.2)	**56** (0.3)	51 (0.3)	**54** (0.2)	52 (0.3)	**55** (0.3)
Netherlands†	44 (0.3)	**48** (0.5)	44 (0.3)	44 (0.4)	44 (0.6)	45 (0.3)
Norway (9)[1]	46 (0.2)	**50** (0.3)	47 (0.2)	**48** (0.2)	46 (0.4)	**48** (0.2)
Peru	53 (0.3)	**56** (0.3)	53 (0.3)	**55** (0.3)	53 (0.2)	**57** (0.4)
Russian Federation	48 (0.4)	**53** (0.3)	50 (0.4)	**51** (0.4)	49 (0.6)	**51** (0.3)
Slovenia	51 (0.3)	**54** (0.4)	51 (0.3)	**52** (0.4)	50 (0.4)	**52** (0.3)
Sweden[1]	51 (0.6)	**55** (0.4)	51 (0.5)	**53** (0.6)	50 (1.3)	**53** (0.4)
ICCS 2016 average	49 (0.1)	**52** (0.1)	49 (0.1)	**51** (0.1)	48 (0.1)	**51** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	46 (0.3)	**51** (0.3)	46 (0.4)	**49** (0.3)	45 (0.4)	**50** (0.3)
Korea, Republic of[2]	45 (0.4)	**50** (0.3)	46 (0.5)	**48** (0.3)	44 (0.8)	**48** (0.3)

Difference between comparison groups statistically significant at $p < 0.05$.
Difference between comparison groups *not* statistically significant at $p < 0.05$.

Notes:
() Standard errors appear in parentheses.
Score averages that are significantly larger ($p < 0.05$) than those in the comparison group are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

The ICCS 2016 teacher questionnaire also asked teachers who were teaching subjects labelled at the national level as "civic and citizenship education" how often ("never," "sometimes," "often," "very often") they used specific teaching methods during their lessons. This question was included in the "international option" of the questionnaire, which meant that only those teachers who were teaching these specifically identified subjects were to answer these questions. (The national research centers were responsible for identifying the subjects related to civic and citizenship education.)

The question on teaching methods included eight statements (items): (a) "Students work on projects that involve gathering information outside school" (e.g. interviews in the neighborhood, small scale surveys);" (b) "Students work in small groups on different topics/issues;" (c) "Students participate in role plays;" (d) "Students take notes during teacher's lectures;" (e) "Students discuss current issues;" (f) "Students research and/or analyze information gathered from multiple web sources (e.g. wikis, online newspapers)"; (g) "Students study textbooks;' and (h) "Students propose topics/ issues for the following lessons."

Table 6.18 displays the percentages of teachers reporting on activities that they very often or often used during their lessons. On average, use of textbooks, lectures (with students taking notes), and discussion on current issues were the three activities for which we recorded the relatively highest percentages in nearly all of the participating countries (67%, 58%, and 74%, respectively). Group work was a relatively common activity across countries (international average: 52%), with the exception of Chinese Taipei. Less frequent, on average, were the more interactive activities such as project work (16%), role playing (26%), and the direct involvement of students in terms of proposing topics for discussion during lessons (18%).

Several studies have shown that teacher preparation is one of the most important factors influencing student achievement (Organisation for Economic Co-operation and Development, 2009, 2014; Torney-Purta, Richardson, & Barber, 2005). ICCS 2009 therefore asked teachers of civic and citizenship education subjects to state how confident they felt about teaching specific civic-related topics and skills. Results showed that teachers of these subjects tended to be most confident about teaching "human rights" and "citizens' rights and responsibilities" and less confident about teaching topics relating to the economy, business, and legal institutions (Schulz et al., 2010).

ICCS 2016 included a similar question in the international option of the teacher questionnaire. However, this time, the question asked teachers to report how well prepared ("very well prepared," "quite well prepared," "not very well prepared," "not prepared at all") they felt to teach the question's 11 civic- and citizenship-related topics and skills set down in Table 6.19.[1]

Responses to this question revealed that, on average, most teachers felt very well prepared or quite well prepared to teach almost all of the topics and skills included in the question. The highest average percentages we recorded across the participating countries were those for "citizens' rights and responsibilities" (90%) and "equal opportunities for men and women" (also 90%). The lowest percentages recorded were those for "the global community and international organizations" (67%) and "the constitution and political systems" (73%). Large variation across countries was evident not only for these two items but also for "emigration and immigration." These differences may reflect the rapidly changing political and social situations of the participating countries and the fact that many teachers completed their education before some of these issues took on their current importance.

1 These same items were included in the question on teachers' initial preparation and in-service training reported in Chapter 2. One item ("the European Union") was optional for teachers from the European countries.

Table 6.18: Teachers' reports on civic and citizenship education activities in the classroom

Country	National percentages of teachers of civic-related subjects who reported having conducted often or very often the following civic and citizenship education-related activities in their classrooms:							
	Students work on projects that involve gathering information outside school	Students work in small groups on different topics/issues	Students participate in role plays	Students take notes during teacher's lectures	Students discuss current issues	Students research and/or analyze information gathered from multiple web sources	Students study textbooks	Students propose topics/issues for the following lessons
Belgium (Flemish)†	5 (0.9) ▼	36 (2.1) ▼	16 (1.6) ▽	66 (2.4) △	62 (1.6) ▼	37 (1.8) ▽	46 (2.1) ▼	5 (0.9) ▼
Bulgaria	15 (4.3)	34 (4.5) ▼	28 (4.8)	70 (4.7) ▲	63 (5.1) ▼	28 (5.2) ▼	86 (3.3) ▲	9 (2.7) ▽
Chile	14 (2.8)	55 (3.2)	22 (3.0)	50 (3.1) ▽	54 (4.6) ▼	38 (3.2)	63 (3.4)	23 (3.4)
Chinese Taipei	4 (1.7) ▼	11 (3.1) ▼	11 (2.9) ▼	86 (2.8) ▲	62 (4.0) ▼	18 (2.8) ▼	84 (3.1) ▲	16 (3.5)
Colombia	18 (1.9)	69 (2.5) ▲	46 (2.4) ▲	47 (3.1) ▼	72 (2.0)	56 (2.9) ▲	43 (2.9) ▼	25 (3.0) △
Croatia	10 (1.1) ▽	41 (1.3) ▼	25 (1.2)	42 (1.4) ▼	69 (1.6) ▽	41 (1.3)	49 (1.3) ▼	19 (1.3)
Dominican Republic	41 (5.6) ▲	84 (4.3) ▲	44 (4.8) ▲	79 (4.4) ▲	88 (3.1) ▲	71 (4.5) ▲	84 (3.8) ▲	41 (5.8) ▲
Finland†	6 (1.4) ▽	50 (3.1)	5 (1.1) ▼	42 (2.6) ▼	67 (1.9) ▽	33 (2.3) ▼	69 (2.3)	13 (1.9) ▽
Italy	9 (1.5) ▽	38 (2.6) ▼	11 (1.2) ▼	56 (2.4)	87 (1.6) ▲	65 (2.3) ▲	83 (2.1) ▲	26 (2.0) △
Latvia	22 (3.0)	59 (3.9)	27 (4.3)	55 (4.3)	76 (3.0)	45 (4.0)	65 (3.7)	17 (3.6)
Lithuania	8 (1.4) ▽	47 (4.2)	15 (3.4) ▼	51 (4.3)	87 (2.5) ▲	51 (4.4)	85 (2.3) ▲	19 (2.7)
Malta	9 (2.3) ▽	57 (4.0)	39 (4.1) ▲	26 (3.4) ▼	83 (4.3) △	32 (4.5) ▼	24 (4.5) ▼	9 (2.1) ▽
Mexico	52 (5.1) ▲	88 (1.8) ▲	52 (3.3) ▲	74 (5.3) ▲	87 (3.8) ▲	57 (5.1) ▲	89 (2.3) ▲	19 (3.3)
Norway	10 (2.4) ▽	59 (4.0)	5 (1.0) ▼	61 (3.6)	60 (3.2) ▼	34 (3.0) ▽	75 (3.1) △	5 (0.9) ▼
Peru	32 (4.7) ▲	64 (4.5) ▲	55 (5.1) ▲	78 (3.6) ▲	78 (4.5)	43 (3.2)	77 (3.5) △	24 (3.5)
Slovenia	10 (1.5) ▽	36 (2.9) ▼	33 (2.2) △	49 (2.3) ▽	74 (2.0)	35 (2.7) ▽	58 (2.1) ▽	11 (1.4) ▽
Sweden	6 (2.0) ▼	57 (4.6)	8 (2.0) ▼	60 (4.1)	89 (2.4) ▲	47 (3.8)	62 (4.1)	17 (2.7)
ICCS 2016 average	16 (0.7)	52 (0.8)	26 (0.8)	58 (0.9)	74 (0.8)	43 (0.9)	67 (0.7)	18 (0.7)
Countries not meeting sample participation requirements for teacher survey								
Denmark	15 (3.9)	86 (4.7)	6 (2.4)	63 (5.9)	74 (6.2)	55 (6.4)	50 (6.8)	10 (4.4)
Estonia	6 (3.2)	35 (6.8)	7 (3.7)	40 (6.6)	55 (6.0)	49 (6.3)	78 (5.2)	5 (3.5)
Korea, Republic of	12 (1.9)	31 (4.1)	12 (2.8)	46 (4.0)	36 (3.7)	31 (3.4)	79 (3.6)	30 (3.0)
Netherlands	3 (1.0)	33 (2.7)	4 (1.1)	59 (3.1)	47 (3.0)	38 (2.8)	89 (2.1)	4 (1.2)
Russian Federation	27 (5.5)	55 (5.9)	28 (5.6)	51 (4.7)	84 (3.5)	46 (5.0)	72 (5.4)	23 (4.2)

National percentage:
▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points or below ICCS 2016 average

Notes:
() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
† Met guidelines for sampling participation rates only after replacement schools were included.

Table 6.19: Teachers' preparedness for teaching civic and citizenship education topics and skills

Country	Percentages of teachers who felt very well or quite well prepared to teach the following topics and skills:											
	Human rights	Voting and elections	The global community and international organizations	The environment and environmental sustainability	Emigration and immigration	Equal opportunities for men and women	Citizens' rights and responsibilities	'The constitution and political systems	Responsible internet use (e.g., privacy, source reliability, social media)	Critical and independent thinking	Conflict resolution	The European Union
Belgium (Flemish)†	68 (2.5) ▼	64 (2.1) ▼	56 (2.3) ▼	80 (1.6) ▽	68 (1.9) ▽	80 (1.6) ▼	68 (1.7) ▼	43 (2.1) ▼	83 (1.7)	92 (1.2) △	79 (1.7) ▽	48 (2.2) ▼
Bulgaria	90 (3.1)	92 (2.4) ▲	82 (2.5) ▲	83 (3.4)	82 (3.8)	88 (2.8)	89 (2.9)	85 (3.2) ▲	80 (3.2)	88 (3.0)	88 (2.7)	96 (1.8) ▲
Chile	84 (2.3)	77 (4.0)	56 (4.6) ▼	72 (3.2) ▼	66 (3.0) ▼	87 (2.1)	88 (2.3)	65 (3.5) ▽	75 (3.7)	86 (2.6)	81 (3.1) ▽	
Chinese Taipei	86 (2.7)	96 (1.7) ▲	84 (2.3) ▲	88 (2.2) △	44 (5.1) ▼	95 (1.2) △	96 (1.7) △	94 (1.9) ▲	84 (2.6)	85 (2.7)	87 (2.5)	
Colombia	77 (2.9) ▼	73 (2.9) ▽	52 (3.2) ▼	81 (3.0)	62 (2.8) ▼	85 (2.7) ▽	83 (2.2) ▽	65 (2.4) ▽	67 (2.1) ▼	82 (1.8) ▽	86 (1.7)	
Croatia	81 (1.2) ▽	67 (1.5) ▼	50 (1.4) ▼	78 (1.2) ▽	52 (1.6) ▼	79 (1.1) ▼	78 (1.5) ▼	53 (1.3) ▼	82 (1.4)	87 (1.0)	88 (1.0)	58 (1.2) ▼
Dominican Republic	93 (3.3)	86 (4.3)	64 (5.1)	92 (2.3) △	92 (2.5) ▲	97 (1.6) △	96 (2.2) △	90 (3.2) ▲	72 (5.6)	95 (2.1) △	96 (1.7) △	
Finland†	85 (1.6)	60 (1.9) ▼	63 (2.9)	84 (2.1)	70 (2.0) ▽	93 (1.1) △	86 (1.4) ▽	47 (1.8) ▼	82 (1.8)	94 (1.1) △	83 (2.0) ▽	51 (2.4) ▼
Italy	96 (0.8) △	80 (2.3)	81 (1.9) ▲	87 (1.6)	94 (1.1) ▲	93 (1.3)	98 (0.8) △	90 (1.5) ▲	72 (2.3) ▽	91 (1.1)	83 (1.9) ▽	91 (1.7) ▲
Latvia	88 (3.8)	91 (1.9) △	67 (3.4)	89 (2.0) △	68 (4.6)	89 (2.7)	94 (1.9) △	70 (4.7)	87 (2.9) △	93 (1.3) △	93 (2.3) △	82 (3.3) △
Lithuania	89 (2.4)	89 (2.2) △	87 (3.5) ▲	84 (2.6)	94 (1.8) ▲	88 (2.5)	94 (1.3) △	84 (2.6) ▲	80 (2.8)	82 (2.8) ▽	89 (2.0)	98 (0.7) ▲
Malta	88 (2.6)	72 (4.4) ▽	61 (4.7)	86 (2.9)	79 (4.4)	94 (1.8) △	92 (3.0)	56 (4.6) ▼	87 (3.4) △	84 (3.0)	83 (3.0)	57 (5.2) ▼
Mexico	89 (2.4)	81 (3.7)	52 (4.3) ▼	87 (2.8)	87 (2.0) ▲	95 (1.7) △	97 (1.1) △	73 (4.7)	65 (4.5) ▼	84 (2.9)	93 (1.8) △	
Norway	95 (1.3) △	96 (0.8) ▲	80 (3.7) ▲	80 (3.6)	94 (2.0) ▲	94 (1.4) △	93 (1.1) △	92 (1.4) ▲	90 (1.7) ▲	95 (0.9) △	85 (1.7)	70 (3.7)
Peru	88 (2.4)	92 (1.7) ▲	66 (3.9)	86 (3.1)	86 (2.6) ▲	96 (1.3) △	94 (1.6) △	80 (3.9)	71 (3.4) ▽	87 (3.0)	86 (3.0)	
Slovenia	87 (1.6)	67 (2.2) ▼	52 (1.9) ▼	73 (1.8) ▼	61 (2.4) ▼	80 (1.8) ▽	86 (1.9)	65 (2.2) ▽	80 (1.8)	92 (1.4) △	87 (1.6)	67 (1.9) ▽
Sweden	98 (1.0) ▲	94 (1.9) ▲	94 (1.7) ▲	92 (2.2) △	95 (1.4) ▲	99 (0.8) △	98 (1.2) △	93 (2.1) ▲	93 (2.0) ▲	95 (1.8) △	91 (2.5)	79 (3.4)
ICCS 2016 average	87 (0.6)	81 (0.6)	67 (0.8)	84 (0.6)	76 (0.7)	90 (0.4)	90 (0.4)	73 (0.7)	79 (0.7)	89 (0.5)	87 (0.5)	73 (0.8)
Countries not meeting sample participation requirements for teacher survey												
Denmark	95 (1.9)	97 (1.6)	81 (5.8)	77 (4.6)	86 (5.1)	91 (4.1)	94 (4.0)	95 (3.8)	70 (6.4)	93 (4.1)	88 (3.1)	76 (5.3)
Estonia	62 (7.5)	64 (5.2)	49 (6.6)	84 (4.8)	56 (7.4)	51 (9.3)	79 (5.4)	57 (7.0)	70 (7.6)	72 (8.1)	69 (5.1)	73 (5.8)
Korea, Republic of	64 (3.9)	66 (4.1)	43 (3.9)	65 (3.6)	32 (3.4)	77 (4.5)	78 (3.3)	54 (3.3)	81 (3.6)	77 (3.5)	80 (3.9)	
Netherlands	75 (2.7)	69 (2.8)	63 (3.0)	77 (2.5)	73 (2.9)	85 (2.1)	73 (2.7)	56 (2.8)	90 (1.8)	96 (1.1)	78 (2.4)	60 (2.2)
Russian Federation	97 (1.8)	92 (3.2)	84 (3.7)	95 (2.3)	80 (4.2)	98 (1.0)	99 (0.5)	99 (0.7)	81 (4.1)	80 (4.3)	94 (2.2)	

National percentage:

▲ More than 10 percentage points above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 10 percentage points below ICCS 2016 average

Notes:

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.
† Met guidelines for sampling participation rates only after replacement schools were included.

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CHAPTER 7:

Explaining variation in students' civic knowledge and expected civic engagement

Chapter highlights

ICCS 2016 provides insights into factors associated with civic knowledge.

- Analyses of multilevel factor models showed large differences (overall, within, and between schools) across countries with respect to variation in students' civic knowledge. (Table 7.1)
- The analyses also showed considerable variation across countries with respect to how much specified factors explain this variance.
- Students' characteristics and social background were important predictors of their civic knowledge. (Table 7.2)
- Factors reflecting processes of civic learning showed relatively consistent associations across countries with civic knowledge at the level of individual students, but less consistency at the school level. (Tables 7.3, 7.4)
- The model controlling for student characteristics and social background showed some of the apparent associations between civic learning factors and civic knowledge as no longer significant. Students' perceptions of open classroom climate for discussion as well as their civic engagement at school remained significant predictors, however. (Table 7.5)

ICCS 2016 data analyses identified factors associated with students' expected engagement in civic activities.

- Multiple regression models using student background, experience with civic engagement, disposition toward engagement, and beliefs about citizenship and institutions explained between a quarter and a third of the variation in expected civic participation. (Tables 7.6, 7.9)
- Parental interest and students' interest in civic issues were the strongest student-background predictors of expected civic engagement. Female students were less inclined than male students to expect they would become actively involved politically in the future. (Tables 7.7, 7.10)
- Experience with civic engagement in the community or at school tended to be positively associated with students' expected civic engagement as adults. (Tables 7.7, 7.10)
- Students' civic knowledge and self-efficacy as well as students' beliefs were consistent predictors of expected electoral and active political participation. (Tables 7.8, 7.11)
- While more students with higher levels of civic knowledge were more likely to expect electoral participation, they were less likely to expect more active political involvement. (Tables 7.8, 7.11)
- Students who believed in the importance of civic engagement through established channels were also more likely to expect future civic participation. (Tables 7.8, 7.11)
- In most countries, trust in civic institutions was positively associated with expected electoral and active political participation. (Tables 7.8, 7.11)

Conceptual background

This chapter presents some results of the multivariate analyses of ICCS 2016 data that we conducted in an effort to explain variation in three commonly investigated outcomes of civic and citizenship education: civic knowledge, expected electoral participation, and expected active political participation. The content of this chapter is primarily concerned with the following research questions:

- RQ 2a: *Are there variations in civic knowledge that are associated with student characteristics and background variables?*
- RQ 2b: *Which contextual factors explain variation in students' civic knowledge?*
- RQ 3: *What is the extent of students' engagement in different spheres of society, and which factors, within or across countries, are related to it?*

The chapter includes not only multilevel analyses of the student-level and school-level factors that potentially explain variation in students' civic knowledge but also (single-level) multiple regression modeling of students' expectations of participating in electoral activities ("expected electoral participation") and in more active political activities ("expected active political participation"). Analyses of between-school variation in civic knowledge revealed considerable variation across schools in most countries that consequently made multilevel modeling of student-level and school-level factors viable. In contrast, between-school variation for indicators of expected participation was considerably more limited, thus making multilevel modeling much less appropriate. We therefore decided to use a single-level multiple regression modeling strategy for these indicators instead.

The analyses presented in this chapter focus on data drawn from the ICCS 2016 student test and questionnaire. Because the non-response rates in ICCS 2016 were higher for the teacher and school principal questionnaires than for the student instruments, we adopted this focus so that we could maximize the number of countries included in this first set of multivariate analyses of the ICCS 2016 data. We expect that other researchers conducting further multivariate analyses of the released ICCS 2016 data will draw out additional indicators from these and other sources, and that they will use the results presented in this chapter as a reference point for those more detailed analyses.

Although our statistical modeling used predictor variables to "explain" variation in dependent variables, our results should not be interpreted as indicating causality. Given the limitations of international large-scale assessments and their cross-sectional designs (Rutkowski & Delandshere, 2016), it is not possible to reach firm conclusions about causal relationships from the findings presented in this chapter. We therefore encourage readers to regard these results as a review of associations between the dependent variables (civic knowledge, expected electoral participation, and expected active political participation) and relevant contextual variables. Our findings may suggest the possibility of causal relationships, but observed significant effects are not necessarily evidence of causality. Within our statistical model, there is a clear distinction between exogenous and endogenous variables; but these, too, do not easily translate into firm conclusions about causality.

Explaining variation in civic knowledge: the history of IEA studies and the background provided by theoretical approaches

Numerous studies have identified associations between a wide range of factors and students' civic knowledge. The first IEA Civic Education Study in 1971 identified (male) gender, socioeconomic background, and encouragement of independent expression of opinion at school as factors positively associated with students' civic knowledge (Torney, Oppenheim, & Farnen, 1975). Chall and Henry (1991) pointed out an association between civic knowledge and level of reading literacy. Their finding received support from analyses of data from the American National Assessment of Educational Progress (NAEP) showing a positive association between students' use of English at home and their level of civic knowledge (Niemi & Junn, 1998).

Indicators of socioeconomic background such as parental education and family income have also been reported as positive correlates of civic knowledge (Lutkus & Weiss, 2007; Niemi & Junn, 1998). Data from CIVED 1999 revealed home literacy and parental education as positive predictors of civic knowledge across countries (Amadeo, Torney-Purta, Lehmann, Husfeldt, & Nikolova, 2002; Torney-Purta, Lehmann, Oswald, & Schulz, 2001). Evidence also exists of context-related influences of socioeconomic background, such as home literacy and the socioeconomic complexion of the school, on civic knowledge (Schulz, 2002; Schulz, Ainley, Fraillon, Kerr, & Losito, 2010).[1]

Using NAEP data from 1988, Niemi and Junn (1998) assumed if students are to acquire civic knowledge, they need to be exposed to relevant information and to have the motivation to learn. As indicators of exposure, the authors used home-environment and school-related factors, such as curriculum, coursework, and recent civic instruction at school. They also identified students' plans to attend college, their participation in mock elections, and their enjoyment of studying civic-related topics as potentially important factors. After controlling for other variables in a multiple regression model, the authors found significant positive associations between two student variables—taking classes or courses featuring civic topics and participating in role-played elections or mock trials—with students' civic knowledge. Both CIVED 1999 and ICCS 2009 confirmed positive associations between home-related factors of civic learning (e.g., discussions about civic issues, access to media information) as well as school factors (e.g., openness of the classroom climate, student participation at school) and civic knowledge (Schulz et al., 2010; Torney-Purta et al., 2001).

The ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016) assumes that acquisition of civic knowledge is influenced by contextual factors that function at different levels (e.g., community, school/classroom, home environment) and can be characterized as either antecedents or processes. Antecedents (factors such as test language use at home or socioeconomic background) set some constraints on student learning about civic-related issues and how it takes place. Factors directly related to the learning process (classroom climate for civic learning, student activities) are further important elements of context that potentially influence the development of civic-related knowledge and understanding as well as of civic attitudes and engagement. In accordance with Bronfenbrenner's *ecological systems theory* (1979), which proposes that multiple systems interact with one another and influence young people's cognitive development, the contacts adolescents have with family, school, peers, and the wider community all contribute to the development of their civic knowledge and act as agents of socialization, while young people themselves play an important role in shaping the ways in which these environments affect their development.

Bourdieu's theory of economic, cultural, and social capital (Bourdieu, 1986) provides a further perspective on the influence that multiple interacting factors have on the development of students' civic knowledge. Economic capital, as a resource for human capital (skills, knowledge, and

1 Further articles presenting analyses of factors explaining civic knowledge can be found in an annotated bibliography of secondary analyses of the IEA civic education studies compiled by Knowles and Di Stefano (2015).

qualifications), cultural capital (habits and dispositions), and social capital (societal links to other people) provide important elements shaping the development of adolescents. This perspective not only emphasizes the importance of socioeconomic background but also recognizes the relevance of other forms of resources, including those related to interactions with other people, which Coleman (1988) conceptualizes as social capital. Generated by the relational structure of interactions inside and outside the family, social capital facilitates the success of an individual's actions as well as his or her learning efforts.

Drawing on these perspectives, we selected variables from the following categories as predictors in our model seeking to explain variation in students' civic knowledge:

(a) *Student background and schools' social context:* student characteristics (gender, language use, expectation of completing a university degree, and interest in political or social issues) as well as the socioeconomic backgrounds of individual students and of schools;

(b) *Students' civic learning outside school:* discussion of political and social issues (with peers and parents) as well as obtaining information from media;

(c) *Students' civic learning at school:* students' perceptions of civic learning at school, open classroom climate for discussions, and civic engagement at school;

(d) *School contexts for civic learning*: aggregated scores of variables reflecting students' perceptions of civic learning, open classroom climate, and civic engagement at school.

To explain variation in civic knowledge, we estimated three models for these analyses, each of which included a different sub-set of variables:

- *Model 0:* This model had only the dependent variable and intercepts. We used it to estimate the variance between schools and within schools and thereby provide a baseline for the models that included predictor variables.
- *Model 1:* This model included only variables pertaining to student characteristics, socioeconomic home background, and school context (Category A variables).
- *Model 2:* This model included only those variables pertaining to civic learning outside school and at school. It did not control for student characteristics or for socioeconomic home background and school context variables (Categories B, C, and D variables).
- *Model 3:* This model included all the variables in Models 1 and 2 (Categories A, B, C, and D variables).

Our rationale for this grouping was that it allowed us to analyze, first, through Model 1, the influence of background factors on civic knowledge without having to consider process factors, and then, through Model 2, the associations between process factors related to civic learning at student and school levels without having to control for socioeconomic background. We chose this approach because of the difficulty of disentangling process factors from social context factors (e.g., students from households with higher socioeconomic status being the students more likely to obtain media information or to develop interest in civic issues). Model 3 allowed us to report the net effect of civic learning factors after controlling for personal characteristics and the socioeconomic backgrounds of students and schools.

We used the following individual variables as predictors:

- *Student background and schools' social context (Models 1 and 3):*
  - Students' gender (female = 1, male = 0)
  - Students' use of the test language at home (1 = speaks the test language at home most of the time, 0 = speaks another language at home most of the time)

  - Students' expected level of education (1 = expects a university degree, 0 = other students)
  - Students' interest in political and social issues (1 = quite or very interested in political and social issues, 0 = other students)
  - Students' socioeconomic background (nationally standardized with averages of 0 and standard deviations of 1)
  - Schools' average socioeconomic background (aggregated nationally standardized scores).
- *Civic learning outside school (Models 2 and 3):*
  - Students' discussion of political and social issues (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; items and scale are described in more detail in Chapter 4)
  - Students' use of media information (1 = use at least weekly either TV news, newspaper, or the internet to inform themselves about political and social issues, 0 = other students).
- *Civic learning at school (Models 2 and 3):*
  - Students' learning about civic issues at school (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; see Chapter 6 for details)
  - Students' perceptions of an open classroom climate for discussion (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; see Chapter 6 for details)
  - Students' participation in civic activities at school (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; some items included in this scale are described in more detail in Chapter 4).
- *School learning context (Models 2 and 3):*
  - Schools' average student learning about civic issues at school (aggregated nationally standardized scores)
  - Schools' average student perceptions of an open classroom climate for discussion (aggregated nationally standardized scores)
  - Schools' average student participation in civic activities at school (aggregate nationally standardized scores).

Students' socioeconomic background was a composite index derived from highest parental occupation, highest parental educational attainment, and home literacy (measured as the number of books at home). This index, constructed in a similar way to the corresponding ICCS 2009 index (see Schulz & Friedman, 2011), was standardized nationally so that within each participating country the scale had an average of 0 and a standard deviation of 1.

All other questionnaire-based scales were also standardized so that, within each country, scale scores had an average of 0 and a standard deviation of 1. The unstandardized regression coefficients therefore represent a change in the dependent variables (here: civic knowledge test scores, see Chapter 3 for details), with an increase of one national standard deviation in each of the independent variables. Because we took this approach, the coefficients should be interpreted as effect sizes, although there are limitations in terms of their comparability across countries. Scale scores aggregated at the school level are in the same metric as the original scales, and coefficients reflect expected changes, with a national (student-level) standard deviation of 1. Categorical variables were coded with values of 1 and 0 so that the regression coefficients would reflect the net effect of the difference between categories.

Given the hierarchical nature of the data as well as our observation of substantial proportions of variance between schools, we carried out multivariate multilevel regression analyses (for an explanation of this type of analysis, see, for example, Raudenbush & Bryk, 2002). We estimated, for each national sample, two-level hierarchical models in which students were nested within schools. We used MPlus (Version 7, see Muthén & Muthén, 2012) to conduct analyses and obtained estimates after applying sampling weights at the student and school levels.[2] Because the ICCS 2016 sampling design typically meant only one classroom was sampled from within each school, it is not possible to separate between-school variation from between-classroom variation (Rutkowski, Gonzalez, Joncas, & von Davier, 2010). In our modeling, we treated (as noted above) the students as nested within schools, even in schools where more than one classroom had been sampled and assessed. Details regarding the multilevel modeling presented in this chapter will be provided in the ICCS 2016 technical report (Schulz, Carstens, Losito, & Fraillon, forthcoming).

During multivariate analyses, proportions of missing data may increase considerably as more variables are included in the model. For the multilevel analyses of civic knowledge, 93 percent of students, on average, had valid data for all variables included in the model. However, the Dominican Republic had a considerably lower proportion of valid data, with only 81 percent of the weighted sample. Therefore, data from this country are flagged in the analysis tables, and results should be interpreted with some caution, as should the results from Hong Kong (SAR) and the Republic of Korea, both of which did not meet IEA sample participation rate requirements.

Table 7.1 shows estimates of overall variance[3] and between-school and within-school variation in civic knowledge across the ICCS 2016 countries. The percentages of between-school variance differed considerably across the countries, ranging from six percent in Finland and Norway to 55 percent in the Netherlands; on average, we found 23 percent of the variance at the school level. On average cross-nationally, Model 1 (containing student background and social context variables as predictors), explained 16 percent of the within-school variance and 63 percent of the between-school variance. Model 2 (containing civic learning factors) explained only eight percent of the within-school variance and 32 percent of the between-school variance. With Model 3 (which included all variables), the corresponding estimates at student and school level were 20 and 71 percent, respectively.

Analyses revealed considerable variation in the proportions of explained variance across countries. For Model 1, estimates of explained variance ranged from a minimum of six to a maximum of 28 percent within schools, and from 36 to 86 percent between schools. For Model 2, the lowest variance explanation was four percent within schools, ranging to a maximum of 15 percent, while the between-school variance explanation ranged from zero to 68 percent. For Model 3, which included all predictor variables, estimates of explained variance ranged from nine to 30 percent within schools, and from 45 to 90 percent between schools.

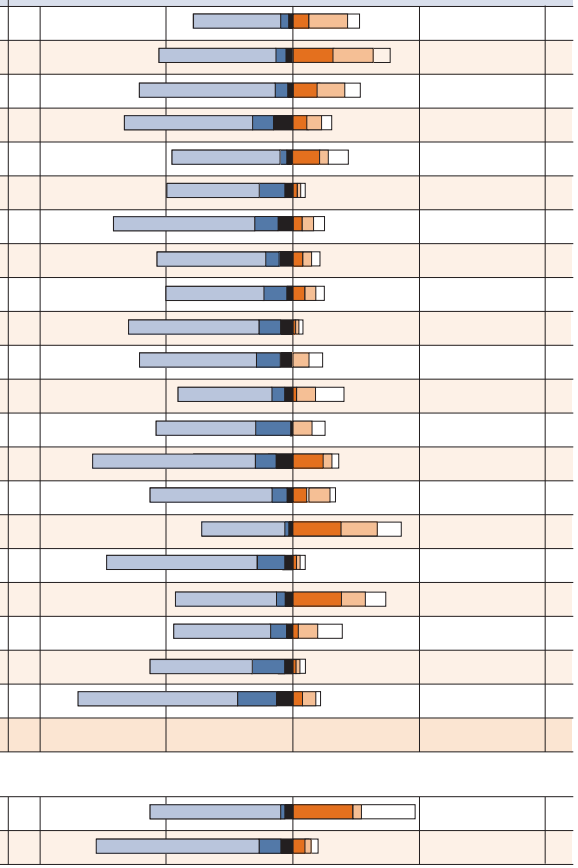
The graphic on the right-hand side of Table 7.2 illustrates the proportions of variance found at student level (left side of the graph) and school level (right side of graph). The color shadings indicate how much each model explained the variance. The bar chart illustrates the considerable differences across the ICCS 2016 countries in both overall between-school variation and explained variance. This observation is in line with previous comparative multilevel analyses of civic knowledge (see Schulz et al., 2010).

2 Student-level and school-level weights were normalized so that at each level the sum of weights was equal to the number of sampled students or schools.

3 The overall variance was computed as the sum of within-school and between-school variance. Note, however, that with multilevel modeling, this variance is not necessarily equal to the square of the standard deviation of test scores in a country.

Table 7.1: Total and explained variance in civic knowledge

Country	Percent of variance explained by:										
	Variance estimates (Model 0)				Model 1		Model 2		Model 3		Variance within schools / Variance between schools
	Total variance	Within schools	Between schools	Percent between schools	Within schools	Between schools	Within schools	Between schools	Within schools	Between schools	
Belgium (Flemish)	6516	3879	2637	40	8	82	6	22	13	82	
Bulgaria	9168	5299	3869	42	9	73	7	40	13	81	
Chile	8662	6036	2626	30	11	66	4	35	12	78	
Chinese Taipei	8128	6632	1496	18	17	77	12	39	24	82	
Colombia	6954	4757	2197	32	6	53	6	48	11	64	
Croatia	5503	4974	529	10	24	48	8	27	27	60	
Denmark†	8390	7114	1276	15	19	62	9	35	22	66	
Dominican Republic (r)	6386	5351	1035	16	12	65	11	38	20	75	
Estonia[1]	6325	5013	1312	21	21	56	6	36	23	68	
Finland	6890	6479	411	6	17	53	9	40	21	60	
Italy	7197	6041	1157	16	20	56	8	4	24	56	
Latvia[1]	6491	4542	1949	30	13	36	11	7	19	45	
Lithuania	6643	5348	1295	19	28	53	8	0	29	56	
Malta	9671	7909	1762	18	13	82	9	68	20	86	
Mexico	7347	5613	1734	24	11	86	5	32	15	90	
Netherlands†	7807	3520	4287	55	7	74	5	44	9	78	
Norway (9)	7833	7363	471	6	17	69	8	27	21	72	
Peru	8230	4572	3658	44	9	63	6	55	14	80	
Russian Federation	6606	4638	1969	30	18	43	7	11	20	50	
Slovenia	6098	5632	467	8	24	51	15	27	30	70	
Sweden[1]	9547	8461	1086	11	23	81	10	37	27	84	
ICCS 2016 average				**23**	**16**	**63**	**8**	**32**	**20**	**71**	
Countries not meeting sampling requirements											
Hong Kong SAR	10447	5583	4864	47	4	34	6	49	9	55	
Korea, Republic of[2]	8778	7745	1033	12	13	69	12	44	20	76	



Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

- Within-school variance explained by Model 2 predictors
- Additional within-school variance explained by Model 3 predictors
- Within-school variance *not* explained by Model predictors
- Between-school variance explained by Model 2 predictors
- Additional between-school variance explained by Model 3 predictors
- Between-school variance *not* explained by model predictors

Table 7.2 also shows the unstandardized regression coefficients for student characteristics and social background variables included in Model 1 in comparison with those recorded when we included these variables, together with predictors reflecting civic learning contexts, in Model 3. We recorded significant positive effects in nearly every country for (female) gender and use of the test language at home. After controlling for other variables in the model, we found that, on average across countries, females outperformed males by 18 civic knowledge scale score points (14 points when included in Model 3 with the variables related to civic learning), while students speaking the test language at home achieved scores 28 points higher than the scores of students who spoke another language at home (27 points in Model 3).

In all countries, students expecting to attain a university degree had significantly higher levels of civic knowledge than those who did not expect to attain a university degree. On average, the score point difference between the two categories was 39 points—a difference that was only slightly higher than the difference in Model 3 of 36 points. In more than half of the ICCS 2016 countries, students' interest in political or social issues was positively associated with civic knowledge, with a score point difference of 11 points between those who were "quite or very interested" and those who were "not at all or not very interested." However, after controlling for other civic learning factors included in Model 3, we observed a considerably lower difference of six scale score points.

Students' socioeconomic background was positively associated with civic knowledge in all countries, and a change of one (national) standard deviation corresponded with an increase of 14 score points, which was of a similar size in Model 3 (13 score points). The socioeconomic context of schools, computed as the composite score for students aggregated at the school level, was positively associated with civic knowledge in all except five countries (Croatia, Finland, Lithuania, Norway, Slovenia), all of which had relatively low proportions of between-school variance (see Table 7.1). The average net effect was 28 score points per (national student-level) standard deviation. After we controlled for civic learning factors, we recorded a slightly lower average effect of 24 score points. The largest Model 1 regression coefficients recorded (of 50 score points or more, equivalent to half an international standard deviation) were for Belgium (Flemish), Bulgaria, and the Netherlands, all three of which were where we found the highest estimates of between-school variance across the ICCS 2016 countries.

Table 7.3 shows the unstandardized regression coefficients for student-level indicators of civic learning processes contrasted with those in Model 2, which included only process variables, and those in Model 3, which controlled for student characteristics and the schools' social context. Analyses revealed significant positive associations between students' participation in discussion of political or social issues (with peers or parents) and civic knowledge in 10 countries, and significant negative associations in three countries—Colombia, the Dominican Republic, and Peru. On average, a difference of almost four score points corresponded to a change of one national standard deviation.

After controlling for student characteristics and social background, we found that, on average, many of the associations were no longer statistically significant. Significant positive regression coefficients remained in just three countries, and Model 3 results also included significant negative coefficients in four other countries. Students' exposure to media information (a dichotomous variable) was significantly and positively associated with civic knowledge in four countries (Chile, Chinese Taipei, Italy, Netherlands), which all recorded relatively large effects (from 11 to 30 score points). The associations in these countries remained significant after we controlled for student characteristics and social background (Model 3).

The variable denoting students' perceptions of having learned about specific civic topics at school was a positive and significant predictor of civic knowledge in seven countries. Finland and Lithuania recorded significant negative coefficients. On average, a difference of one national

Table 7.2: Student-level and school-level regression coefficients for civic knowledge (student background and schools' social context)

Country	Student characteristics								Schools' social context			
	Students' gender (female)		Test language use at home		Expected university degree		Students' interest in political and social issues		Socioeconomic background at home		School average of students' socioeconomic background	
	Model 1	Model 3	Model 1	Model 3	Model 1	Model 3	Model 1	Model 3	Model 1	Model 3	Model 1	Model 3
Belgium (Flemish)	6.7 (4.5)	2.7 (4.0)	**40.1** (6.2)	**38.7** (6.5)	**22.8** (4.5)	**19.7** (4.0)	**9.1** (4.2)	4.4 (4.1)	**9.6** (2.6)	**8.8** (2.5)	**51.3** (6.1)	**48.3** (6.4)
Bulgaria	**25.6** (4.7)	**20.9** (4.7)	13.5 (8.3)	11.6 (7.5)	**32.2** (6.8)	**29.1** (6.9)	-3.7 (5.0)	-5.8 (5.3)	**9.6** (3.1)	**9.3** (3.0)	**57.5** (7.7)	**49.4** (7.8)
Chile	**15.4** (3.6)	**12.9** (3.6)	**40.4** (12.4)	**36.3** (12.0)	**43.8** (3.2)	**41.2** (3.1)	**13.7** (4.1)	**9.2** (4.0)	**10.4** (2.4)	**10.1** (2.4)	**32.7** (6.3)	**30.7** (5.8)
Chinese Taipei	**21.3** (3.5)	**17.7** (3.4)	**16.7** (4.8)	**15.5** (4.9)	**54.5** (3.9)	**47.2** (3.8)	2.3 (3.7)	-4.4 (4.0)	**13.6** (2.4)	**12.6** (2.1)	**32.1** (5.3)	**28.4** (5.7)
Colombia	1.6 (2.9)	-2.7 (2.7)	10.9 (18.0)	7.2 (17.4)	**40.2** (4.9)	**37.5** (4.9)	3.7 (3.7)	1.1 (3.5)	**9.0** (1.5)	**8.2** (1.5)	**27.1** (5.8)	**15.9** (4.8)
Croatia	**14.2** (3.4)	**11.0** (3.6)	12.4 (11.6)	13.1 (11.5)	**54.8** (4.4)	**52.1** (4.4)	**16.8** (4.4)	**12.3** (4.4)	**10.6** (2.3)	**9.5** (2.4)	3.9 (4.7)	6.7 (4.5)
Denmark†	**19.8** (2.4)	**17.9** (2.4)	**41.5** (7.3)	**40.8** (7.0)	**37.5** (3.0)	**34.2** (3.0)	**30.1** (2.9)	**20.3** (3.1)	**19.5** (1.6)	**18.5** (1.7)	**27.3** (6.8)	**22.0** (6.4)
Dominican Republic (r)	**22.1** (3.9)	**18.0** (3.7)	5.6 (12.9)	3.2 (12.8)	**33.1** (3.7)	**30.2** (3.6)	-7.2 (4.4)	**-9.4** (4.4)	**13.3** (2.1)	**10.9** (2.1)	**25.6** (6.6)	**19.8** (6.8)
Estonia[1]	**20.1** (3.2)	**17.7** (3.2)	**45.6** (6.9)	**45.1** (6.7)	**36.1** (3.8)	**34.3** (3.8)	**21.0** (3.5)	**16.2** (3.8)	**16.7** (2.0)	**16.5** (2.0)	**18.8** (5.4)	**14.4** (5.1)
Finland	**28.0** (4.1)	**24.4** (4.2)	**41.9** (13.8)	**43.3** (13.7)	**28.1** (3.9)	**26.1** (4.0)	**23.4** (5.4)	**12.4** (5.2)	**17.7** (1.9)	**15.5** (2.0)	2.4 (5.6)	0.9 (6.7)
Italy	**13.6** (3.4)	**9.9** (3.4)	**31.1** (5.6)	**27.9** (5.4)	**44.9** (4.4)	**41.2** (4.4)	**12.3** (3.7)	**7.8** (3.8)	**13.7** (2.0)	**14.1** (2.0)	**23.2** (5.3)	**24.0** (5.4)
Latvia[1]	**24.8** (3.6)	**17.5** (3.3)	**19.3** (7.1)	**18.0** (6.8)	**29.3** (3.9)	**27.0** (3.9)	**9.1** (3.6)	**7.4** (3.3)	**12.0** (2.2)	**10.2** (2.1)	**17.2** (7.0)	**25.0** (6.2)
Lithuania	**16.6** (3.5)	**13.3** (3.9)	**47.8** (11.9)	**48.3** (11.1)	**59.9** (3.9)	**56.8** (3.9)	4.6 (3.8)	3.6 (4.1)	**14.1** (2.1)	**12.9** (2.2)	13.2 (6.9)	**15.8** (6.7)
Malta	**20.7** (8.0)	9.8 (7.4)	**13.3** (4.0)	**14.6** (4.2)	**50.5** (4.9)	**45.5** (4.5)	1.1 (3.8)	-6.2 (3.7)	**17.3** (2.1)	**15.5** (2.0)	**40.1** (7.1)	**26.8** (8.3)
Mexico	**22.4** (5.4)	**18.5** (5.1)	**35.7** (9.8)	**27.3** (7.9)	**40.3** (6.1)	**38.0** (5.4)	0.4 (7.1)	-6.4 (7.0)	**15.3** (3.0)	**13.3** (3.1)	**27.0** (5.3)	**25.3** (4.9)
Netherlands†	**13.1** (2.4)	**11.2** (2.5)	6.6 (8.8)	5.5 (8.8)	**18.9** (3.0)	**17.2** (3.1)	**19.3** (4.7)	**12.6** (5.0)	**9.4** (1.6)	**8.4** (1.5)	**86.9** (6.0)	**71.7** (7.0)
Norway (9)[1]	**21.0** (3.2)	**18.3** (3.1)	**36.9** (6.0)	**35.9** (5.7)	**33.5** (3.5)	**30.7** (3.3)	**21.3** (3.1)	**15.8** (3.5)	**20.0** (2.0)	**18.0** (2.0)	11.8 (6.7)	11.6 (5.9)
Peru	2.5 (3.4)	0.3 (3.5)	16.6 (9.6)	10.3 (9.7)	**38.6** (3.7)	**35.3** (3.7)	-4.8 (4.0)	-5.7 (3.8)	**11.8** (2.1)	**11.6** (2.1)	**45.0** (6.8)	**29.4** (6.0)
Russian Federation	**10.3** (3.3)	6.2 (3.3)	**42.6** (9.4)	**42.9** (9.6)	**41.1** (3.6)	**38.4** (3.7)	**11.1** (3.4)	5.6 (3.5)	**13.2** (1.9)	**12.9** (1.9)	**20.1** (6.7)	**22.3** (6.6)
Slovenia	**33.6** (3.7)	**28.5** (3.5)	**31.5** (6.8)	**32.1** (7.2)	**36.4** (4.0)	**31.8** (3.8)	**16.9** (4.7)	4.5 (4.8)	**20.1** (2.2)	**17.0** (2.2)	8.0 (5.0)	**12.2** (4.6)
Sweden[1]	**24.3** (5.1)	**20.4** (4.9)	**43.4** (8.9)	**49.1** (7.8)	**40.0** (4.8)	**35.8** (5.1)	**36.9** (4.6)	**27.7** (5.1)	**22.1** (3.0)	**20.4** (3.1)	**23.5** (5.6)	**18.9** (6.4)
ICCS 2016 average	**18.0** (0.9)	**14.0** (0.9)	**28.3** (2.1)	**27.0** (2.0)	**38.9** (0.9)	**35.7** (0.9)	**11.3** (0.9)	**5.9** (0.9)	**14.2** (0.5)	**13.1** (0.5)	**28.3** (1.4)	**24.7** (1.3)
Countries not meeting sample participation requirements												
Hong Kong SAR	**15.2** (3.8)	**14.1** (3.8)	-3.3 (6.2)	-1.0 (6.5)	**23.6** (4.0)	**20.9** (3.8)	**17.3** (3.2)	**12.3** (3.5)	-0.6 (2.1)	-1.8 (2.1)	**57.6** (12.5)	21.2 (15.6)
Korea, Republic of[2]	**28.8** (5.8)	**27.1** (5.2)	38.7 (34.0)	28.3 (35.0)	**38.6** (5.0)	**34.1** (5.0)	**20.7** (3.6)	7.5 (4.0)	**18.1** (2.3)	**13.4** (2.3)	**34.8** (7.2)	**30.1** (7.2)

Notes:
() Standard errors appear in parentheses. Statistically significant changes ($p < 0.05$) between 2009 and 2016 are displayed in **bold**.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of national target population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Table 7.3: Student-level regression coefficients for civic knowledge (students' civic learning outside school and at school)

Country	Civic learning outside school				Civic learning at school					
	Discussion of political or social issues		Media information		Having learned at school about civic issues		Open classroom climate for discussion of political/social issues		Students' civic engagement at school	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Belgium (Flemish)	0.9 (2.1)	0.3 (2.2)	4.1 (3.8)	1.7 (3.6)	-0.8 (2.3)	0.2 (2.3)	**10.9** (2.2)	**10.5** (2.2)	**10.5** (2.6)	**8.0** (2.4)
Bulgaria	-1.8 (2.7)	-1.8 (2.8)	4.9 (6.1)	7.3 (5.9)	1.7 (2.7)	0.0 (2.6)	**19.7** (3.1)	**16.7** (3.0)	-2.2 (2.9)	-3.4 (2.8)
Chile	2.9 (2.0)	-0.7 (1.8)	**12.2** (3.6)	**11.5** (3.8)	2.1 (1.8)	1.5 (1.7)	**11.1** (1.6)	**9.1** (1.5)	3.1 (1.8)	0.5 (1.7)
Chinese Taipei	-0.9 (2.0)	**-3.7** (1.9)	**29.8** (6.7)	**25.3** (6.4)	**21.3** (1.9)	**17.8** (1.9)	**7.1** (2.0)	**5.4** (2.0)	**5.1** (2.1)	3.7 (2.0)
Colombia	**-4.1** (1.8)	**-4.8** (1.5)	-1.7 (4.2)	-2.0 (4.2)	2.3 (1.9)	1.5 (1.9)	**14.6** (1.5)	**13.7** (1.5)	**8.6** (1.6)	**8.2** (1.6)
Croatia	**5.6** (2.0)	1.3 (2.0)	6.0 (4.6)	1.2 (4.2)	-0.5 (2.1)	0.5 (1.9)	**10.8** (2.0)	**7.2** (2.0)	**11.8** (2.0)	**6.1** (1.8)
Denmark†	**11.2** (1.8)	2.2 (1.9)	4.5 (3.7)	3.0 (3.5)	2.1 (1.5)	2.3 (1.4)	**16.7** (1.6)	**13.3** (1.6)	**7.8** (1.7)	**4.1** (1.7)
Dominican Republic (r)	**-5.7** (1.9)	**-4.3** (1.9)	3.3 (5.8)	1.5 (5.4)	**12.9** (2.1)	**11.2** (2.0)	**20.5** (2.3)	**17.2** (2.3)	-2.4 (2.2)	-3.2 (2.1)
Estonia[1]	**9.2** (2.0)	1.9 (2.0)	-3.1 (4.6)	-3.5 (4.4)	2.5 (2.1)	1.3 (1.9)	**6.8** (1.9)	**6.4** (1.7)	**9.2** (2.1)	**3.8** (1.9)
Finland	**17.7** (2.9)	**13.3** (2.6)	2.5 (5.3)	0.4 (5.0)	**-11.2** (2.1)	**-8.6** (2.1)	**11.2** (3.2)	**7.9** (2.9)	**9.7** (3.1)	5.6 (2.9)
Italy	1.2 (2.2)	-3.4 (2.2)	**10.7** (3.7)	**7.8** (3.8)	**11.6** (2.6)	**8.6** (2.3)	**15.3** (2.2)	**12.3** (1.9)	0.5 (2.0)	-1.2 (1.9)
Latvia[1]	0.3 (2.0)	-2.2 (1.8)	-1.5 (3.9)	-3.2 (4.0)	1.2 (2.1)	0.9 (2.0)	**15.7** (2.1)	**13.5** (2.0)	**14.4** (1.9)	**8.7** (1.8)
Lithuania	4.3 (2.9)	-0.6 (2.0)	0.3 (4.9)	-0.8 (4.8)	**-5.8** (2.5)	-3.8 (2.1)	0.5 (2.7)	-0.3 (2.2)	**20.7** (2.4)	**9.1** (2.4)
Malta	**7.3** (2.1)	**5.5** (2.1)	1.0 (4.0)	1.2 (3.8)	-2.3 (2.4)	-0.7 (2.1)	**23.1** (2.4)	**21.1** (2.1)	**8.3** (2.0)	**5.0** (1.9)
Mexico	-2.2 (2.2)	-1.4 (2.6)	3.2 (5.9)	2.6 (5.3)	**10.0** (2.4)	**8.6** (2.2)	**8.4** (2.4)	**6.4** (2.0)	**6.7** (2.3)	**4.1** (2.0)
Netherlands†	**3.4** (1.6)	0.0 (1.7)	**11.2** (2.9)	**9.4** (2.9)	**4.8** (1.9)	**4.6** (1.9)	4.0 (2.2)	3.7 (2.1)	**5.8** (1.7)	**4.3** (1.6)
Norway (9)[1]	**4.6** (2.2)	-0.9 (2.1)	-0.1 (3.4)	-3.4 (3.1)	-1.2 (2.0)	0.3 (1.9)	**13.7** (2.3)	**11.0** (2.1)	**16.7** (1.7)	**11.1** (1.6)
Peru	**-7.7** (2.4)	**-7.7** (2.3)	9.6 (5.6)	6.8 (5.2)	**8.1** (2.0)	**6.7** (1.9)	**13.0** (2.0)	**12.3** (1.9)	2.5 (2.1)	1.4 (2.0)
Russian Federation	**4.6** (2.0)	1.9 (1.8)	-0.6 (5.2)	-1.7 (4.9)	1.0 (1.9)	-0.3 (1.7)	**11.6** (2.3)	**10.4** (2.1)	**8.9** (2.0)	3.5 (1.9)
Slovenia	**8.6** (2.1)	**6.0** (1.8)	-6.4 (3.5)	-4.5 (3.1)	**4.8** (1.8)	**4.6** (1.7)	**13.9** (2.0)	**9.9** (1.9)	**18.3** (2.0)	**11.3** (1.9)
Sweden[1]	**13.8** (2.9)	2.9 (3.1)	-6.0 (4.8)	-6.2 (5.3)	4.2 (2.6)	3.7 (2.9)	**12.3** (2.5)	**10.6** (2.3)	**16.4** (2.7)	**11.5** (2.4)
ICCS 2016 average	**3.5** (0.5)	0.2 (0.5)	**4.0** (1.0)	**2.6** (1.0)	**3.3** (0.5)	**2.9** (0.4)	**12.4** (0.5)	**10.4** (0.5)	**8.6** (0.5)	**4.9** (0.4)
Countries not meeting sample participation requirements										
Hong Kong SAR	**-5.2** (2.1)	**-7.1** (2.2)	**20.1** (5.3)	**17.6** (5.3)	**11.9** (2.1)	**11.0** (2.0)	**7.7** (2.2)	**7.0** (2.2)	**6.2** (2.1)	**5.3** (2.1)
Korea, Republic of[2]	**7.1** (2.5)	2.4 (2.4)	**14.2** (5.7)	**14.0** (5.4)	**9.6** (2.9)	**8.9** (2.9)	-2.6 (2.7)	-3.0 (2.4)	**22.5** (2.3)	**17.9** (2.4)

Notes:
Statistically significant ($p < 0.05$) coefficients in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of national target population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

standard deviation was associated with a very small test score difference of about three points. We found similar associations after controlling for student characteristics and socioeconomic context (Model 3).

In line with findings from ICCS 2009, all of the ICCS 2016 countries, except Lithuania and the Netherlands, recorded significant positive associations between students' perceptions of an open classroom climate for discussion of political and social issues and civic knowledge. On average, a change of 12 test score points (about an eighth of an international standard deviation) was associated with a change in one (national) standard deviation in the open classroom climate scale. The regression coefficients were only slightly smaller after we controlled for student characteristics and socioeconomic factors (Model 3).

Students' engagement in civic activities at school was significantly and positively associated with civic knowledge in 16 countries. On average, a change in one national standard deviation was associated with a change of almost nine civic knowledge scale points. When we included student characteristics and socioeconomic background in our modeling (Model 3), we found a significant positive association for this variable in 13 countries, with an average net effect of five scale points.

Table 7.4 shows the multilevel regression coefficients for the three variables related to civic learning, which were aggregated at the school level. Based on analyses of Model 2, average perceptions of students' learning of civic issues were significant positive predictors of civic knowledge in four countries (Chile, Chinese Taipei, Mexico, Peru); the effects were negative in two countries—Bulgaria and the Netherlands. According to the Model 3 analyses, the only country where we recorded a statistically significant positive regression coefficient was Chile.

Average school-level perceptions of open classroom climate were positively associated with civic knowledge in eight countries in Model 2. This predictor remained significant in five countries after we controlled for student characteristics and socioeconomic context (Model 3). Average measures of students' civic engagement at school were significantly positively associated with civic knowledge in two countries (Belgium/Flemish, Netherlands), while in two other countries (Dominican Republic, Peru) we recorded significant negative relationships. According to Model 3, this variable had statistically significant associations in only two countries—Bulgaria, where it was a positive predictor, and Peru, where it was a negative predictor.

Table 7.5, which summarizes the results of the multilevel analyses, displays the statistically significant positive and negative effects for each predictor variable. While effects of student-level factors related to civic learning (with the exception of discussions of political and social issues) remained mostly statistically significant after we controlled for background variables, school-level factors related to civic learning tended to have fewer significant effects after we controlled for the associations with the socioeconomic context of schools. However, in Model 3, the positive effects of average perceptions of open classroom climate remained significant in five out of eight countries.

Table 7.4: School-level regression coefficients for civic knowledge (school context for civic learning)

Country	Student learning of civic issues (aggregate)		Open classroom climate for discussion (aggregate)		Students' civic engagement at school (aggregate)	
	Model 2	Model 3	Model 2	Model 3	Model 2	Model 3
Belgium (Flemish)	1.5 (12.4)	5.7 (6.7)	0.5 (10.9)	-6.8 (9.3)	**31.8** (8.9)	4.3 (6.9)
Bulgaria	**-54.9** (19.7)	-3.9 (13.9)	**79.6** (14.9)	**27.3** (10.1)	20.3 (17.2)	**21.0** (9.2)
Chile	**32.6** (15.4)	**33.2** (8.7)	25.1 (15.2)	8.7 (7.8)	-1.5 (14.1)	-5.1 (9.9)
Chinese Taipei	**35.6** (12.5)	4.2 (7.8)	7.4 (13.1)	-2.2 (8.1)	9.0 (18.2)	14.8 (11.4)
Colombia	-27.4 (17.0)	-25.7 (13.8)	**61.5** (12.7)	**34.7** (14.2)	-6.4 (11.9)	-2.3 (10.8)
Croatia	-3.9 (12.5)	6.5 (10.9)	20.0 (10.4)	8.0 (9.1)	-5.4 (7.4)	2.5 (6.5)
Denmark†	6.2 (13.6)	9.0 (10.7)	**26.4** (12.3)	2.3 (7.2)	-16.6 (9.7)	-12.4 (8.0)
Dominican Republic (r)	-1.5 (14.3)	-9.1 (10.1)	**32.9** (12.2)	18.1 (9.4)	**-24.7** (11.5)	-12.5 (8.8)
Estonia[1]	-2.7 (9.0)	8.2 (7.6)	**38.4** (11.1)	**21.0** (8.8)	0.2 (8.8)	1.5 (6.7)
Finland	-1.6 (8.5)	-4.9 (7.0)	-2.2 (9.5)	-2.7 (9.0)	5.0 (8.3)	-2.3 (8.7)
Italy	0.5 (12.1)	-3.1 (8.3)	-10.4 (14.9)	-15.2 (9.5)	9.6 (6.4)	4.3 (4.7)
Latvia[1]	7.4 (16.1)	23.3 (14.0)	10.6 (14.3)	9.0 (12.3)	-22.5 (13.4)	-16.9 (11.6)
Lithuania	-19.9 (22.1)	-7.9 (12.0)	6.8 (17.8)	8.3 (13.6)	-5.0 (20.1)	6.7 (10.9)
Malta	-30.2 (17.6)	-9.3 (14.4)	**72.0** (18.4)	32.6 (19.0)	11.3 (12.9)	3.1 (10.2)
Mexico	**42.6** (15.3)	13.5 (8.4)	13.3 (14.9)	0.6 (7.4)	-1.0 (18.6)	8.6 (9.8)
Netherlands†	**-38.2** (15.8)	-13.0 (9.5)	**82.4** (17.0)	**36.3** (12.2)	**34.7** (15.6)	7.5 (10.0)
Norway (9)[1]	8.0 (13.0)	9.3 (10.4)	6.8 (11.1)	0.3 (11.0)	11.9 (10.7)	2.9 (9.0)
Peru	**32.2** (14.1)	6.8 (10.1)	**56.8** (12.0)	**38.1** (9.0)	**-34.2** (14.2)	**-21.9** (9.5)
Russian Federation	13.5 (14.6)	17.2 (10.4)	5.4 (10.1)	9.1 (10.2)	-14.5 (13.0)	-11.3 (10.4)
Slovenia	0.4 (7.2)	7.3 (5.5)	0.5 (7.4)	0.7 (6.6)	0.4 (8.1)	0.1 (6.7)
Sweden[1]	2.4 (13.4)	11.1 (10.2)	5.5 (12.6)	-9.9 (9.5)	15.0 (8.5)	6.6 (9.1)
ICCS 2016 average	0.1 (3.2)	3.7 (2.3)	**25.7** (2.9)	**10.4** (2.3)	0.8 (2.8)	0.0 (2.0)
Countries not meeting sample participation requirements						
Hong Kong SAR	**79.5** (24.8)	**63.0** (21.2)	-4.1 (17.5)	0.6 (16.5)	**72.1** (20.1)	**54.5** (24.1)
Korea, Republic of[2]	6.3 (12.0)	1.3 (10.9)	-4.4 (11.9)	**16.6** (8.2)	**38.4** (10.8)	-2.2 (10.8)

Notes:
Statistically significant ($p < 0.05$) coefficients in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of national target population.
[2] Country surveyed target grade in the first half of the school year.
An "(r)" indicates that data are available for at least 70% but less than 85% of students.

Explaining variation in expected civic participation in the future

Verba, Schlozman, and Brady (1995) identified three types of variables that condition political participation: (i) resources enabling individuals to participate (time, knowledge), (ii) psychological engagement (interest, efficacy), and (iii) the "recruitment networks" that help to bring individuals into politics (such as social movements, church groups, political parties). Although all of these variables could potentially relate to social background, individuals with higher levels of educational attainment tend to have higher levels of civic knowledge, interest, and self-confidence, and to be more engaged in social networks (Janoski & Wilson, 1995; Vollebergh, Iedema, & Raaijmakers, 2001). Putnam (1993), building on Coleman's (1988) concept of social capital, emphasized the importance of three components (social trust, social norms, and social networks) that together form a "virtuous cycle" and provide a context for successful cooperation and participation in a society. Prior research using data from ICCS 2009 has shown that students' expected participation in elections or political activities is associated with gender, interest in civic issues, experience in civic engagement, self-efficacy, civic knowledge, and perceptions of civic institutions (see Schulz et al., 2010; Schulz, Fraillon, & Ainley, 2015). Similar findings have also emerged from other research investigating factors associated with students' civic engagement (Solhaug, 2006; Quintelier, 2008).[4]

4 Knowles, Torney-Purta, and Barber (2017) review many other studies presenting analyses of factors explaining students' expected civic engagement, with the analyses based on data from CIVED 1999 and ICCS 2009.

Table 7.5: Summary of statistically significant effects across countries

Predictor variables	MODEL 1: Number of countries where the predictor had a statistically significant...		MODEL 2: Number of countries where the predictor had a statistically significant...		MODEL 3: Number of countries where the predictor had a statistically significant...	
	positive effect	negative effect	positive effect	negative effect	positive effect	negative effect
Students' personal and social background						
Gender (female)	18	0			16	0
Test language used at home	15	0			15	0
Expected university education	21	0			21	0
Interest in political or social issues	13	0			10	1
Socioeconomic context						
Socioeconomic home background	21	0			21	0
Average socioeconomic background (aggregate)	16	0			18	0
Civic learning outside school						
Discussion of political or social issues			10	3	3	4
Media information			4	0	4	0
Civic learning at school						
Having learned about civic issues			7	2	7	1
Open classroom climate for discussion			19	0	19	0
Civic engagement at school			16	0	13	0
School and community learning context						
Student learning of civic issues (aggregate)			4	2	1	0
Open classroom climate for discussion (aggregate)			8	0	5	0
Civic engagement at school (aggregate)			2	2	1	1

The analyses presented in this chapter focus on explaining variation in two variables related to students' expectations to participate as adults: expected electoral participation and expected active political participation (see Chapter 4 for details). In line with findings from other studies (see, for example, Quintelier, 2008), we found only relatively low proportions of between-school variation in the dependent variables. We therefore chose a single-level multiple regression approach when analyzing the factors explaining variation in this variable.

To explain variation in the dependent variables, we identified four groups of independent variables: (a) variables related to students' background such as gender or students' interest; (b) variables related to past or current participation in community groups or organizations or at school; (c) variables related to students' dispositions for engagement, such as citizenship self-efficacy and civic knowledge; and (d) variables related to students' beliefs about citizenship and institutions.

The individual variables that we selected as predictors were as follows:

- *Student background variables:*
  - Students' gender (female = 1, male = 0)
  - Students' socioeconomic background (nationally standardized with averages of 0 and standard deviations of 1)
  - Parental interest in political and social issues (1 = having at least one parent quite or very interested in political and social issues, 0 = other students)
  - Students' interest in political and social issues (1 = being quite or very interested in political and social issues, 0 = other students).
- *Students' experience with civic participation:*
  - Participation in community organizations and groups (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; some of the items included in this scale are described in more detail in Chapter 4)

  - Participation in civic activities at school (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; some of the items included in this scale are described in more detail in Chapter 4).
- *Students' dispositions for civic engagement:*
  - Students' sense of citizenship self-efficacy (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; see Chapter 4 for details)
  - Civic knowledge (based on five plausible values, nationally standardized scores with averages of 0 and standard deviations of 1; see Chapter 3 for details).
- *Students' beliefs:*
  - Students' perceptions of the importance of conventional citizenship (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; see Chapter 5 for details)
  - Students' trust in civic institutions (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1; see Chapter 5 for details).

Across the participating countries, the average percentage of students in the sample with valid data was 92 percent. The national average percentages ranged from 68 percent in the Dominican Republic to 98 percent in Chinese Taipei. Mindful of these missing values, we compared our results with those from models that used an alternative approach to the treatment of missing values, wherein students with missing values on variables received mean scores or median values, and missing indicator variables were added for each variable (Cohen & Cohen, 1975). Because the regression coefficients from the two approaches were almost identical, we used this simpler approach of "list-wise" exclusion of missing values.

The results in this section of the chapter from three countries—Hong Kong (SAR), the Republic of Korea, and the Dominican Republic—should be interpreted with caution: the surveys in Hong Kong (SAR) and the Republic of Korea did not meet the IEA sample participation requirements and are therefore reported in a separate section of the reporting tables; the results from the Dominican Republic are annotated because fewer than 70 percent of participating students had valid data.

The multiple regression models were estimated using jackknife repeated replication to obtain correct standard errors (see Schulz, 2011). In a regression model, an estimate of the percentage of explained variance can be obtained by multiplying R^2 by 100. Furthermore, in a multiple regression model the variance in the criterion variable can be explained by the combined effect of more than one predictor or block of predictors. By reviewing the contributions of different predictor blocks, we can estimate how much of the explained variance is attributable uniquely to each of the predictors or blocks of predictors, and how much these predictors or blocks of predictors in combination explain this variance. We carried out this estimation by comparing the variance explanation of four additional regression models (each without one of the four blocks of predictors) with the explanatory power of the overall model that included all predictors in combination.[5]

When interpreting the results from these analyses, readers should keep in mind that the ICCS scale scores are standardized at the national level. Hence, regression coefficients should be interpreted in terms of effect size, which means that the coefficients reflect changes in the scores for the two dependent variables (students' expected electoral participation and students' expected active political participation), with changes of one standard deviation in each of the participating countries. When reviewing the size of the regression coefficients, readers should also keep in mind that the

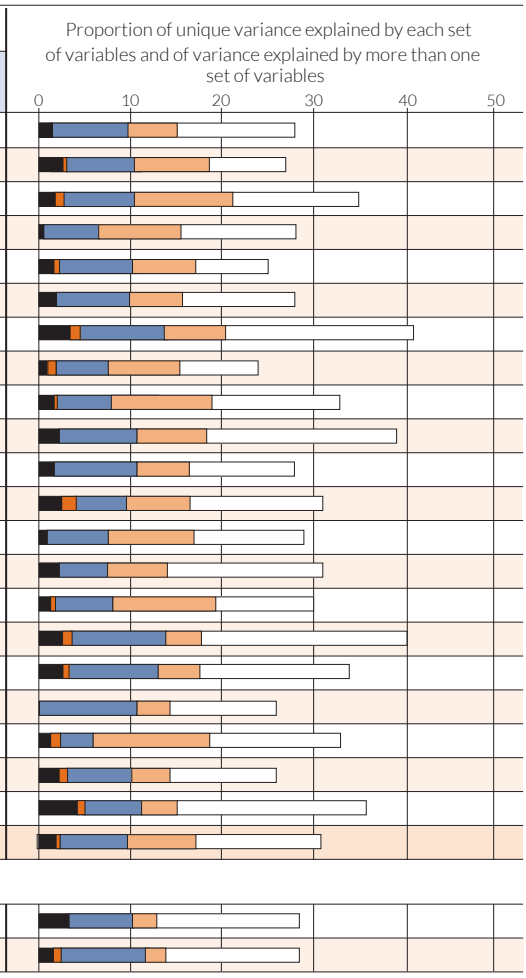
5 The differences between each of the comparison models with the full model provide an estimate of the unique variance attributable to each block of variables. The difference between the sum of block variances and the explained variance by all predictors provides an estimate of the common variance attributable to more than one block of variables.

coefficients are relative to the metric of the two (equated) questionnaire scales, where 10 reflects one international standard deviation for equally weighted countries in ICCS 2009.[6]

Table 7.6 shows the percentages of variance in students' expected electoral participation explained by student background factors alone and by the combined model. Student background factors explained, on average, 12 percent of the variance (ranging from 4% to 22%), while the combined model explained 31 percent of the variation in the criterion variables on average across the ICCS

Table 7.6: Explained variance for expected electoral participation

Country	Percentage of variance explained		Proportion of unique variance explained by each set of variables and of variance explained by more than one set of variables
	by student characteristics and background only	by full model	
Belgium (Flemish)	11 (1.5)	28 (1.0)	
Bulgaria	9 (1.1)	27 (2.0)	
Chile	10 (0.9)	35 (1.0)	
Chinese Taipei	7 (0.9)	28 (1.0)	
Colombia	7 (0.9)	25 (1.0)	
Croatia	11 (1.4)	28 (2.0)	
Denmark†	22 (1.2)	41 (1.0)	
Dominican Republic (s)	4 (0.7)	24 (2.0)	
Estonia[1]	12 (1.2)	33 (2.0)	
Finland	18 (1.4)	39 (2.0)	
Italy	11 (1.2)	28 (2.0)	
Latvia[1]	11 (1.4)	31 (2.0)	
Lithuania	9 (1.1)	29 (2.0)	
Malta	13 (1.1)	31 (2.0)	
Mexico	6 (0.9)	30 (1.0)	
Netherlands†	19 (1.7)	40 (2.0)	
Norway (9)[1]	15 (1.0)	34 (1.0)	
Peru	7 (0.9)	26 (2.0)	
Russian Federation	8 (1.0)	33 (2.0)	
Slovenia	11 (1.4)	26 (2.0)	
Sweden[1]	21 (1.6)	36 (2.0)	
ICCS 2016 average	12 (0.3)	31 (0.4)	
Countries not meeting sampling requirements			
Hong Kong SAR	12 (1.1)	29 (2.0)	
Korea, Republic of[2]	9 (1.3)	29 (2.0)	



Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

6 In the multilevel modeling for civic knowledge presented earlier in this chapter, regression coefficients reflected the metric of civic knowledge test scores, where 100 was the international standard deviation for equally weighted countries in ICCS 2009. Therefore, and also due to the differences across modeling approaches (i.e., multilevel versus single-level regression), the size of regression coefficients should not be compared across the different analyses presented in this chapter.

Table 7.7: Multiple regression coefficients for expected electoral participation (student background and civic participation)

Country	Student background variables				Current and past participation	
	Gender (female)	Socioeconomic background	Parental interest	Students' interest	Participation in community organization and groups	Participation in civic activities at school
Belgium (Flemish)	**-0.9** (0.3)	0.1 (0.2)	**1.2** (0.4)	**2.3** (0.4)	0.2 (0.2)	**0.4** (0.2)
Bulgaria	0.3 (0.4)	-0.1 (0.3)	**2.8** (0.5)	**1.6** (0.4)	0.2 (0.3)	0.2 (0.3)
Chile	0.4 (0.3)	0.2 (0.1)	**2.0** (0.3)	**1.0** (0.3)	0.1 (0.2)	**0.9** (0.2)
Chinese Taipei	-0.2 (0.3)	0.2 (0.1)	**0.7** (0.3)	**1.3** (0.2)	0.2 (0.1)	**0.3** (0.1)
Colombia	0.1 (0.3)	-0.1 (0.1)	**1.3** (0.3)	**1.1** (0.3)	0.2 (0.2)	0.3 (0.2)
Croatia	-0.5 (0.3)	**0.4** (0.2)	**2.2** (0.5)	**1.3** (0.3)	-0.1 (0.2)	0.2 (0.2)
Denmark†	**0.9** (0.2)	**0.3** (0.1)	**2.0** (0.3)	**2.0** (0.2)	**0.3** (0.1)	**0.5** (0.1)
Dominican Republic (s)	0.2 (0.3)	0.0 (0.2)	**1.3** (0.3)	0.2 (0.4)	0.0 (0.2)	**0.7** (0.2)
Estonia[1]	-0.2 (0.4)	0.3 (0.2)	**1.7** (0.4)	**1.4** (0.4)	0.2 (0.2)	0.2 (0.2)
Finland	0.0 (0.3)	**0.6** (0.1)	**2.4** (0.3)	**1.4** (0.3)	0.1 (0.1)	**0.5** (0.1)
Italy	-0.2 (0.2)	0.1 (0.1)	**3.0** (0.5)	**0.6** (0.3)	0.1 (0.1)	**0.3** (0.1)
Latvia[1]	0.1 (0.3)	**0.9** (0.2)	**2.2** (0.6)	**1.4** (0.4)	-0.1 (0.2)	**1.4** (0.2)
Lithuania	0.4 (0.3)	0.1 (0.2)	**2.1** (0.5)	**1.1** (0.3)	-0.1 (0.2)	**0.4** (0.2)
Malta	0.3 (0.3)	**0.5** (0.2)	**1.8** (0.4)	**2.0** (0.3)	**0.4** (0.1)	0.3 (0.2)
Mexico	**0.5** (0.3)	-0.1 (0.1)	**1.2** (0.3)	**0.8** (0.3)	0.0 (0.2)	**0.4** (0.2)
Netherlands†	**-1.0** (0.3)	**0.6** (0.2)	**2.6** (0.4)	**1.4** (0.5)	0.3 (0.2)	**1.0** (0.2)
Norway (9)[1]	0.4 (0.2)	**0.6** (0.1)	**2.1** (0.3)	**1.0** (0.3)	0.2 (0.1)	**0.6** (0.1)
Peru	-0.1 (0.2)	-0.1 (0.1)	**0.9** (0.3)	**0.9** (0.2)	-0.2 (0.1)	**0.4** (0.1)
Russian Federation	-0.2 (0.3)	**0.4** (0.2)	**0.8** (0.3)	**1.3** (0.3)	0.3 (0.2)	**0.8** (0.2)
Slovenia	**-1.4** (0.3)	**0.7** (0.2)	**1.7** (0.5)	**1.1** (0.4)	0.1 (0.2)	**0.7** (0.2)
Sweden[1]	0.3 (0.3)	**0.4** (0.1)	**2.6** (0.5)	**2.4** (0.3)	-0.2 (0.1)	**0.8** (0.2)
ICCS 2016 average	0.0 (0.1)	**0.3** (0.0)	**1.8** (0.1)	**1.3** (0.1)	**0.1** (0.0)	**0.5** (0.0)
Countries not meeting sample participation requirements						
Hong Kong SAR	**-0.8** (0.3)	**0.6** (0.2)	-0.1 (0.4)	**4.0** (0.4)	0.3 (0.2)	**0.6** (0.2)
Korea, Republic of[2]	0.6 (0.4)	0.2 (0.2)	**1.8** (0.6)	**1.5** (0.3)	0.4 (0.2)	**0.7** (0.2)

Notes:
Statistically significant ($p < 0.05$) coefficients are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

2016 countries, with the range extending from 24 to 41 percent. The graph on the right-hand side illustrates that, in most countries, almost half of the explained variance could be attributed to more than one group of predictors. Both student dispositions (self-efficacy and civic knowledge) and student beliefs (importance of conventional citizenship and trust in civic institutions) made larger unique contributions to the explanation of variance in the dependent variable.

The unstandardized regression coefficients for effects on students' expected electoral participation displayed in Table 7.7 show that associations with student gender were inconsistent and significant in only a few countries. We registered significant positive, but relatively weak, associations between students' expected electoral participation and students' socioeconomic status in 10 countries. Students' expectations of electoral participation were unrelated to socioeconomic status in the remaining countries. Parental interest in political and social issues and also students' interest in political and social issues were, however, consistent predictors across countries. On average, having at least one very interested or one quite interested parent was associated with a difference of almost two score points (equivalent to a fifth of an international standard deviation) in expected electoral participation, while students' interest in political and social issues had a net effect of more than one score point (equivalent to one tenth of an international standard deviation).

Weak, but significant, positive associations between expected electoral participation and students' current or past participation in community groups or organizations emerged in two countries. However, in 16 countries, past or current participation in civic activities at school was a significant positive predictor of expected electoral participation: overall, one (national) standard deviation was associated with an increase of 0.5 of a scale score point on average. The results therefore show that students' experience of civic participation at school was only weakly associated with students' expectations of electoral participation in the future.

Table 7.8 shows the unstandardized regression coefficients for variables related to students' civic dispositions and beliefs. Students' sense of citizenship self-efficacy was a consistent positive predictor of expected electoral participation across the participating countries. On average, one (national) standard deviation was associated with an increase of over one scale score point (equivalent to one tenth of an international standard deviation in the dependent variable). Students' civic knowledge was also a consistently strong, positive predictor of expected electoral participation across countries, with a net effect size of 2.4 scale score points, equivalent to almost a quarter of an international standard deviation. These findings are similar to those from ICCS 2009, and they emphasize the importance, as reflected in the civic knowledge score, of dispositions for engagement such as self-efficacy and the student's ability to comprehend the political world.

Table 7.8: Multiple regression coefficients for expected electoral participation (dispositions and perceptions)

Country	Students' dispositions for civic engagement		Students' perceptions	
	Students' sense of citizenship self-efficacy	Students' civic knowledge	Students' perceptions of the importance of conventional citizenship	Students' trust in civic institutions
Belgium (Flemish)	**0.9** (0.3)	**2.8** (0.2)	**1.7** (0.2)	**1.1** (0.2)
Bulgaria	**1.3** (0.3)	**2.9** (0.3)	**2.1** (0.3)	**1.6** (0.2)
Chile	**1.6** (0.2)	**3.0** (0.1)	**2.6** (0.2)	**2.0** (0.2)
Chinese Taipei	**0.7** (0.2)	**2.3** (0.1)	**2.5** (0.2)	**0.6** (0.2)
Colombia	**1.3** (0.2)	**2.5** (0.2)	**1.8** (0.2)	**1.3** (0.1)
Croatia	**1.0** (0.2)	**2.5** (0.2)	**1.9** (0.2)	**0.9** (0.2)
Denmark†	**1.1** (0.2)	**2.4** (0.1)	**1.5** (0.1)	**1.1** (0.1)
Dominican Republic (s)	**1.6** (0.2)	**1.7** (0.2)	**2.1** (0.2)	**1.2** (0.2)
Estonia[1]	**1.2** (0.2)	**1.9** (0.2)	**2.3** (0.2)	**1.3** (0.2)
Finland	**1.1** (0.2)	**2.3** (0.2)	**1.9** (0.2)	**1.2** (0.2)
Italy	**0.9** (0.2)	**2.5** (0.2)	**1.7** (0.1)	**1.0** (0.1)
Latvia[1]	**1.2** (0.2)	**2.2** (0.2)	**2.1** (0.2)	**1.1** (0.2)
Lithuania	**1.0** (0.2)	**2.5** (0.2)	**2.1** (0.2)	**1.3** (0.2)
Malta	**1.6** (0.2)	**2.0** (0.2)	**2.2** (0.2)	**1.1** (0.2)
Mexico	**1.2** (0.2)	**2.4** (0.2)	**2.5** (0.2)	**1.7** (0.2)
Netherlands†	**1.2** (0.2)	**3.3** (0.2)	**1.3** (0.2)	**1.2** (0.2)
Norway (9)[1]	**1.2** (0.2)	**2.9** (0.2)	**0.8** (0.2)	**1.6** (0.1)
Peru	**1.3** (0.1)	**2.8** (0.2)	**1.5** (0.1)	**0.8** (0.2)
Russian Federation	**1.2** (0.2)	**1.7** (0.2)	**2.5** (0.2)	**1.6** (0.2)
Slovenia	**1.3** (0.2)	**2.6** (0.2)	**1.6** (0.2)	**0.9** (0.2)
Sweden[1]	**1.4** (0.2)	**2.0** (0.2)	**0.9** (0.3)	**1.3** (0.2)
ICCS 2016 average	**1.2** (0.0)	**2.4** (0.0)	**1.9** (0.0)	**1.2** (0.0)
Countries not meeting sample participation requirements				
Hong Kong SAR	**1.6** (0.2)	**2.7** (0.2)	**1.6** (0.2)	**1.1** (0.3)
Korea, Republic of[2]	**1.5** (0.2)	**2.6** (0.2)	**1.2** (0.2)	**0.7** (0.2)

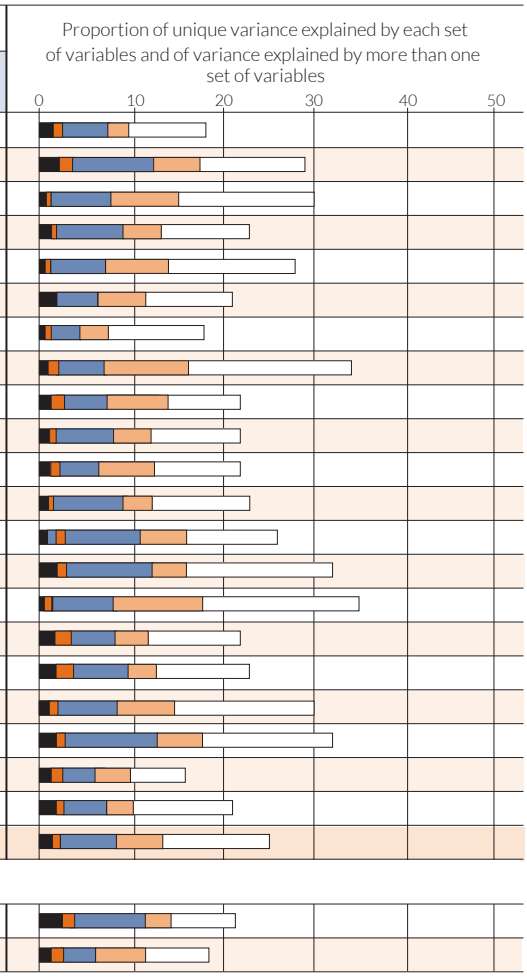
Notes:
Statistically significant ($p < 0.05$) coefficients are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

Students' belief in the importance of conventional citizenship also had consistent significantly positive associations with expected electoral participation: on average one (national) standard deviation was associated with an increase of almost two score points (refer Table 7.8). Students' trust in civic institutions likewise had consistent, positive relationships with the dependent variable; here the net effect was more than one score point.

Table 7.9 shows the explained variance in expected active political participation (e.g., working on a political campaign or running for office), once for the model that included only student background factors and once for the model that included all variables. Background variables explained, on average, six percent of the variation (with the percentages ranging from 4% to 9%), while the model with all predictor variables explained 25 percent on average (range: 16% to 34%). As for the model explaining expected electoral participation, about half of the variance was attributable to more than one group of predictors. Both dispositions and beliefs thus made relatively large contributions to the unique variance explanation.

Table 7.9: Explained variance for active political participation

Country	Percentage of variance explained	
	By student characteristics and background only	by full model
Belgium (Flemish)	5 (1.1)	18 (2.0)
Bulgaria	7 (1.2)	29 (2.0)
Chile	5 (0.7)	30 (1.0)
Chinese Taipei	5 (0.7)	23 (1.0)
Colombia	5 (0.6)	28 (1.0)
Croatia	6 (0.9)	21 (2.0)
Denmark†	7 (0.8)	18 (1.0)
Dominican Republic (s)	7 (0.9)	34 (2.0)
Estonia[1]	4 (0.8)	22 (2.0)
Finland	6 (1.0)	22 (2.0)
Italy	6 (1.0)	22 (2.0)
Latvia[1]	4 (0.8)	23 (2.0)
Lithuania	5 (0.9)	26 (2.0)
Malta	9 (0.9)	32 (2.0)
Mexico	6 (1.0)	35 (1.0)
Netherlands†	6 (0.9)	22 (2.0)
Norway (9)[1]	7 (0.9)	23 (1.0)
Peru	6 (0.8)	30 (1.0)
Russian Federation	6 (1.2)	32 (2.0)
Slovenia	4 (0.8)	16 (2.0)
Sweden[1]	8 (1.1)	21 (2.0)
ICCS 2016 average	**6** (0.2)	**25** (0.4)
Countries not meeting sampling requirements		
Hong Kong SAR	5 (0.9)	22 (2.0)
Korea, Republic of[2]	3 (0.8)	19 (2.0)



Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

- Variance uniquely explained by student background
- Variance uniquely explained by past or current civic participation
- Variance uniquely explained by students' dispositions for engagement
- Variance explained by students' beliefs
- Variance explained by more than one set of variables

Table 7.10 shows the unstandardized regression coefficients for student background variables and factors reflecting experience with civic engagement. In most countries, we observed negative associations between gender (female) and expected active political participation. On average, the difference was associated with one scale score point. This finding suggests (after we had controlled for all other variables in the model) that the male students participating in ICCS were more inclined than the female students to think they would participate in explicitly political activities in the future.

Several countries recorded weak but significant negative associations between students' socioeconomic background and active political participation. The remaining countries recorded no significant effects. In 11 countries, parental interest in political and social issues was positively related to students' expected active political participation (with a net effect of about one score point), while students' interest in political and social issues was a positive predictor in 18 of the 21 countries (with a net effect of more than one score point).

Table 7.10: Multiple regression coefficients for expected active political participation (student background and civic participation)

Country	Student background variables				Current and past participation	
	Gender (female)	Socioeconomic background	Parental interest	Student interest	Participation in community organization and groups	Participation in civic activities at school
Belgium (Flemish)	**-1.0** (0.4)	-0.1 (0.2)	**1.3** (0.5)	**1.7** (0.5)	**0.6** (0.2)	**0.6** (0.2)
Bulgaria	**-1.3** (0.4)	-0.5 (0.3)	**1.5** (0.5)	**1.1** (0.4)	**0.7** (0.3)	0.3 (0.4)
Chile	**-0.7** (0.3)	**-0.5** (0.2)	**1.5** (0.3)	**1.0** (0.4)	**0.6** (0.2)	**0.8** (0.2)
Chinese Taipei	**-1.5** (0.2)	-0.2 (0.1)	0.0 (0.3)	**1.4** (0.3)	**0.5** (0.1)	**0.5** (0.1)
Colombia	**-0.7** (0.3)	**-0.5** (0.2)	0.6 (0.4)	**0.9** (0.4)	**0.6** (0.2)	0.3 (0.2)
Croatia	**-1.7** (0.4)	-0.1 (0.2)	**1.6** (0.5)	**1.6** (0.4)	**0.2** (0.2)	**0.5** (0.2)
Denmark†	-0.3 (0.2)	-0.1 (0.1)	0.4 (0.3)	**1.4** (0.2)	**0.7** (0.1)	0.2 (0.1)
Dominican Republic (s)	**-0.8** (0.4)	**-0.4** (0.2)	**1.4** (0.3)	0.5 (0.4)	**0.8** (0.2)	**0.5** (0.2)
Estonia[1]	**-1.6** (0.3)	-0.3 (0.2)	0.6 (0.5)	0.4 (0.3)	**0.7** (0.1)	**0.5** (0.2)
Finland	**-1.1** (0.3)	0.1 (0.1)	0.3 (0.4)	**0.8** (0.3)	**0.6** (0.1)	0.2 (0.2)
Italy	**-1.4** (0.3)	0.1 (0.1)	**1.5** (0.5)	**0.8** (0.4)	**0.6** (0.2)	**0.5** (0.2)
Latvia[1]	**-1.6** (0.4)	-0.1 (0.2)	**1.1** (0.5)	**1.5** (0.4)	**0.4** (0.2)	**0.9** (0.2)
Lithuania	**-1.3** (0.4)	0.0 (0.2)	**1.4** (0.6)	**1.4** (0.3)	**0.8** (0.2)	0.1 (0.3)
Malta	**-1.8** (0.3)	0.0 (0.2)	0.6 (0.4)	**2.4** (0.3)	**1.0** (0.2)	0.3 (0.2)
Mexico	-0.3 (0.3)	**-0.5** (0.1)	0.3 (0.3)	0.5 (0.3)	**0.6** (0.2)	**0.4** (0.2)
Netherlands†	**-0.7** (0.3)	0.2 (0.2)	**1.5** (0.4)	**1.4** (0.5)	**0.9** (0.2)	**0.4** (0.2)
Norway (9)[1]	-0.2 (0.3)	0.2 (0.1)	**1.9** (0.3)	**1.1** (0.3)	**1.0** (0.1)	**0.4** (0.2)
Peru	-0.3 (0.3)	**-0.7** (0.1)	0.7 (0.4)	**1.0** (0.3)	**0.5** (0.2)	**0.5** (0.2)
Russian Federation	**-1.8** (0.3)	**-0.6** (0.1)	0.5 (0.5)	**1.0** (0.3)	**0.4** (0.2)	**0.7** (0.2)
Slovenia	**-1.4** (0.3)	-0.1 (0.2)	0.6 (0.5)	**1.4** (0.4)	**0.8** (0.2)	**0.5** (0.2)
Sweden[1]	-0.4 (0.3)	-0.3 (0.2)	**1.7** (0.4)	**1.7** (0.4)	**0.6** (0.2)	**0.4** (0.2)
ICCS 2016 average	**-1.0** (0.1)	**-0.2** (0.0)	**1.0** (0.1)	**1.2** (0.1)	**0.6** (0.0)	**0.4** (0.1)
Countries not meeting sample participation requirements						
Hong Kong SAR	**-1.9** (0.4)	-0.3 (0.2)	-0.2 (0.5)	**2.2** (0.4)	**0.6** (0.2)	**0.9** (0.2)
Korea, Republic of[2]	**-0.8** (0.4)	**-0.5** (0.2)	**1.6** (0.7)	**1.8** (0.5)	**1.2** (0.2)	0.5 (0.3)

Notes:
Statistically significant ($p < 0.05$) coefficients are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

In all but one country (Croatia), students' experience with participation in community groups or organizations also had consistent and significant positive associations with students' expectations of engaging actively as an adult. On average, one (national) standard deviation was associated with a very small increase in expected active political participation of little more than half a scale score point. Students' civic engagement at school had significant positive net effects on expected active political participation in 15 countries, with similarly small-effect coefficients across countries of less than half a score point per (national) standard deviation.

Table 7.11 shows the results for the prediction of active political participation by variables associated with dispositions toward engagement and beliefs about citizenship and institutions. Students' sense of citizenship self-efficacy was a consistently strong and positive predictor of expected active political participation in all countries; here, a difference of one (national) standard deviation equated to an increase of more than two score points (ranging from 1.6 to 3.5), equivalent to about a fifth of an international standard deviation in the dependent variable. In keeping with our bivariate analyses presented in Chapter 4, students' civic knowledge had significant negative associations in all but two countries with expected active political participation, a finding that was apparent after we controlled for other variables. On average across countries, one (national) standard deviation made for a decrease of more than one scale score point (equivalent to a tenth of an international standard deviation).

Table 7.11: Multiple regression coefficients for expected active political participation (dispositions and perceptions)

Country	Students' dispositions for civic engagement		Students' perceptions	
	Students' sense of citizenship self-efficacy	Students' civic knowledge	Students' perceptions of the importance of conventional citizenship	Students' trust in civic institutions
Belgium (Flemish)	**1.9** (0.2)	**-1.2** (0.2)	**1.4** (0.2)	0.2 (0.3)
Bulgaria	**2.7** (0.3)	**-2.7** (0.3)	**1.7** (0.3)	**1.2** (0.3)
Chile	**2.8** (0.2)	**-1.8** (0.2)	**2.2** (0.3)	**2.1** (0.2)
Chinese Taipei	**2.2** (0.2)	**-1.0** (0.2)	**1.4** (0.2)	**1.0** (0.2)
Colombia	**2.1** (0.2)	**-1.7** (0.2)	**1.6** (0.2)	**2.0** (0.3)
Croatia	**2.0** (0.2)	**-1.1** (0.2)	**2.0** (0.2)	**0.9** (0.2)
Denmark†	**1.6** (0.2)	**-0.3** (0.1)	**1.2** (0.1)	**0.5** (0.1)
Dominican Republic (s)	**2.2** (0.2)	**-1.1** (0.2)	**2.3** (0.2)	**1.8** (0.2)
Estonia[1]	**2.0** (0.2)	**-1.0** (0.2)	**1.9** (0.2)	**0.8** (0.2)
Finland	**2.1** (0.2)	**-0.4** (0.2)	**1.5** (0.2)	0.3 (0.2)
Italy	**2.0** (0.2)	**-0.6** (0.2)	**1.6** (0.2)	**1.2** (0.2)
Latvia[1]	**2.6** (0.2)	**-1.5** (0.2)	**1.2** (0.2)	**1.1** (0.2)
Lithuania	**2.2** (0.2)	**-1.9** (0.2)	**1.4** (0.2)	**1.2** (0.2)
Malta	**3.3** (0.2)	**-1.9** (0.2)	**2.0** (0.2)	**0.7** (0.2)
Mexico	**2.5** (0.2)	**-1.8** (0.2)	**2.5** (0.2)	**2.1** (0.2)
Netherlands†	**2.1** (0.2)	-0.1 (0.2)	**1.4** (0.2)	**0.7** (0.2)
Norway (9)[1]	**2.4** (0.2)	**-1.0** (0.2)	**1.4** (0.1)	**0.4** (0.1)
Peru	**2.2** (0.2)	**-1.9** (0.2)	**1.6** (0.2)	**1.6** (0.2)
Russian Federation	**3.6** (0.3)	**-0.6** (0.2)	**1.8** (0.3)	**1.0** (0.2)
Slovenia	**1.7** (0.2)	**-0.9** (0.2)	**1.4** (0.2)	**1.0** (0.2)
Sweden[1]	**2.2** (0.2)	-0.4 (0.2)	**1.3** (0.3)	**0.6** (0.2)
ICCS 2016 average	**2.3** (0.0)	**-1.2** (0.0)	**1.7** (0.0)	**1.1** (0.0)
Countries not meeting sample participation requirements				
Hong Kong SAR	**3.0** (0.3)	**-0.8** (0.3)	**1.2** (0.3)	**0.9** (0.3)
Korea, Republic of[2]	**0.7** (0.3)	**-2.2** (0.3)	**2.2** (0.3)	**1.5** (0.3)

Notes:
Statistically significant ($p < 0.05$) coefficients are displayed in **bold**.
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.
An "(s)" indicates that data are available for at least 50% but less than 70% of students.

These findings suggest that students who expect to be actively involved in political activities in the future are the students most likely to have the higher scores on the citizenship self-efficacy scale, while the students with the higher scores on the civic knowledge scale are the students less inclined to think they will actively engage in politics in the future. These results, which are similar to those reported from ICCS 2009, have implications for what higher levels of learning may lead to with regard to civic engagement because they indicate that students who achieve higher scores on the civic knowledge scale will hold more critical views of the functioning of conventional channels of political participation. These findings definitely warrant further investigation in the future. They may also be the result of the substantial gender differences we observed, in which female students tended to have higher levels of civic knowledge but male students were more likely to express expectations of active political participation.

Students' beliefs in the importance of adult participation in conventional citizenship such as voting and being informed was another consistently significant, positive predictor of expected active political participation in all countries; on average, the net effect was estimated as 1.7 score points. Students' trust in civic institutions was also positively associated with expected active political participation in all but two countries—Belgium (Flemish) and Finland—with an average net effect of one scale score point. These findings, which are highly similar to those from the previous cycle of ICCS in 2009, suggest that beliefs in the importance of citizen involvement through established channels as well as trust in the functioning of civic institutions have a bearing on whether young people expect to become actively engaged in politics in the future.

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CHAPTER 8:

Main findings and implications for policy and practice

After the collapse of communist regimes in Eastern Europe and the subsequent replacement of authoritarian regimes with democratic systems both there and in a number of countries in other regions of the world since the mid-1970s, Huntington (1991) postulated a "third wave" of democratization. The end of the 20th century consequently saw widespread expectation that free elections, recognition of human rights, freedom of speech, and rule of law would become commonplace around the world. However, during the past decade, concerns have arisen over what Diamond (2014) has termed a worldwide "democratic recession." This concern has arisen because of a surge in authoritarian government practices, for example in the Latin American region, as well as the failure of popular movements to replace undemocratic regimes in a number of Middle-Eastern countries. Lately, there has also been an increase in populist movements in many democratic societies. Their successes have been attributed, at least partly, to failures to mobilize young people to vote (see, for example, Center for Information and Research on Civic Learning and Engagement, 2016; Jackson, Thorsen, & Wring, 2016).

Set in this global context, the second cycle of the IEA International Civic and Citizenship Education Study (ICCS 2016) aimed to investigate the ways in which young people are prepared to undertake their current and future roles as citizens in a range of countries. ICCS 2016 gathered data on students' knowledge and understanding of civics and citizenship as well as students' attitudes, perceptions, and activities related to civics and citizenship. These data were used to examine differences among and within the countries that participated in the study. ICCS 2016 has both continued and extended ICCS 2009 by studying civic and citizenship education in relation to continuing and new challenges in environments where contexts of democracy and civic participation change.

Based on data collected from about 94,000 students and 37,000 teachers from about 3800 schools in 24 countries, ICCS 2016 generated measures of enduring aspects of civic and citizenship outcomes and contexts and provided a basis for comparing those outcomes between 2009 and 2016. The study also measured selected characteristics of civic and citizenship education that have become prominent since 2009: the increase in the use of social media by young people as a tool for civic engagement, the growing concerns about global threats and sustainable development, and widespread recognition about the role of schools in fostering peaceful modes of interaction among young people.

In this final chapter of the ICCS 2016 international report, we summarize the main findings from the study relating to each of the research questions that were the main focus in the reporting chapters 2 to 7. In addition, we discuss potential implications for policy and practice stemming from the findings of ICCS 2016, and consider prospects for future research in the field of civic and citizenship education.

Summary of main findings

National contexts for civic and citizenship education

Drawing on published sources as well as contextual information collected by ICCS 2016, we compared the implementation of civic and citizenship education across participating countries, and focused as we did so on the aims and principles of this area of educational provision as well as curricular approaches to it. We also looked at changes and developments in civic and citizenship education in the countries that participated in both ICCS 2009 and ICCS 2016.

The participating countries' demographic, economic, and political contexts all differ. We found considerable variation in such indices as population size, gross domestic product (GDP), and voter turnout at elections. Such findings are not uncommon for international studies of this kind, and the differences are ones that interested parties need to take into account when interpreting the results of ICCS 2016. For example, according to official statistics, literacy rates are generally high in the participating countries. However, the still considerable variation in student literacy within as well as across countries could have influenced students' ability to comprehend instructions, questions, and items in the ICCS instruments designed to measure the cognitive, affective-behavioral, and contextual variables of relevance to civic and citizenship education.

Schools in participating countries (also referred to in this report as education systems) have relatively large degrees of autonomy in civic and citizenship education, especially with respect to learning activities and projects. Similar to the findings from ICCS 2009, we observed variation in approaches to teaching of civic and citizenship education across and within the education systems. About half of the countries were offering a subject dedicated to this learning area, and in almost all countries it was an area taught by teachers of subjects related to human or social sciences. Seventeen of the 24 participating education systems positioned civic and citizenship education as a learning area integrated into all subjects at school. Fifteen of the 24 countries gave some degree of recognition to the importance that students' experiences at school serve with respect to students' civic learning.

We observed across the participating countries a relatively high degree of consensus among teachers and school principals that the most important aims of civic and citizenship education concern the promotion of students' knowledge of citizens' rights and responsibilities and development of students' critical and independent thinking. Of particular interest is the finding that, cross-nationally, about half of the teachers saw promoting respect for and safeguarding of the environment as a key objective of this learning area.

Student knowledge and understanding of civics and citizenship

We investigated the extent and variation of students' civic knowledge within and across participating countries in 2016 and compared students' civic knowledge between the countries that participated in both 2009 and 2016. We also explored the associations between civic knowledge and selected student characteristics, home background variables, and contextual factors.

ICCS 2009 established a described civic knowledge proficiency scale that was employed again in the current cycle, albeit with one major change regarding the described levels of civic knowledge (see below). The scale reflects development ranging from a grasp of the concrete, familiar, and mechanistic elements of civics and citizenship through to understanding of the wider policy and institutional processes that shape our civic communities. The scale is hierarchical in the sense that civic knowledge becomes more sophisticated as student achievement progresses up the scale. However, it is also developmental because of the assumption that any given student is probably able to demonstrate achievement of the scale content below his or her measured level of achievement. Although the scale does not describe a necessary sequence of learning, it does imply that learning growth typically follows the sequence the scale encapsulates.

- Students working at the highest level (Level A, called Level 3 in ICCS 2009) are able to make connections between the processes of social and political organization and influence, and the legal and institutional mechanisms used to control them. They generate accurate hypotheses on the benefits, motivations, and likely outcomes of institutional policies and citizens' actions. They integrate, justify, and evaluate given positions, policies, or laws according to the principles that underpin them. Students also demonstrate familiarity with broad international economic forces and the strategic nature of active participation.

- Students working at the next level (Level B, called Level 2 in ICCS 2009) are able to demonstrate familiarity with the broad concept of representative democracy as a political system. They recognize ways in which institutions and laws can be used to protect and promote a society's values and principles. They acknowledge the potential role of citizens as voters in a representative democracy, and they generalize principles and values from specific examples of policies and laws (including human rights). Students demonstrate understanding of the influence that active citizenship can have beyond the local community. They generalize the role of the individual active citizen to broader civic societies and the world. One key factor differentiating Level B from Level A is the degree to which students use knowledge and understanding to evaluate and justify policies and practices.
- Students working at Level C (called Level 1 in ICCS 2009) demonstrate familiarity with the democratic principles of equality, social cohesion, and freedom. They relate these broad principles to everyday examples of situations that demonstrate protection of or challenges to these principles. Students also demonstrate familiarity with fundamental concepts of the individual as an active citizen: they recognize the necessity for individuals to obey the law; they relate individual courses of action to likely outcomes; and they relate personal characteristics to the capacity of an individual to effect civic change. The key factors that differentiate Level C achievement from that of higher levels relate to the specificity of students' knowledge and the amount of mechanistic rather than relational thinking that students express in regard to the operations of civic and civil institutions.
- Students working at Level D (a level introduced for ICCS 2016) recognize explicit examples representing basic features of democracy. They identify the intended outcomes of simple examples of rules and laws and recognize the motivations of people engaged in activities that contribute to the common good. The key factors differentiating student achievement at Level D from student achievement at the higher levels are the breadth of knowledge students demonstrate with respect to the fundamental aspects of democracy and democratic institutions and their capacity to engage with abstract concepts that extend beyond concrete, explicit examples of democratic principles and citizenship behaviors.

On average across the participating countries, 35 percent of students obtained test scores reflecting civic knowledge at Level A. Thirty-two percent recorded scores at Level B, 21 percent at Level C, and 10 percent at Level D. Three percent of students showed very low levels of civic knowledge—levels that could be classified as below Level D.

While there were considerable differences in students' civic knowledge across countries, the variation in civic knowledge within countries was even larger. Across all countries, the median range between the lowest five percent and the highest five percent of student civic knowledge scores was 275 scale points, which is equivalent to more than three levels on the civic knowledge scale. The largest range was 349 scale points (in Bulgaria) and the smallest range was 245 scale points (in Chinese Taipei). However, when interpreting differences in civic knowledge across countries, it is important to acknowledge that, as in other studies of this kind, the particular group of countries that chose to participate in this study had an impact on the amount of observable variance.

When we compared civic knowledge results from ICCS 2016 with the last survey cycle in 2009, we identified 11 countries where national average scores in civic knowledge were significantly higher. We did not observe any statistically significant declines in civic knowledge in any of the countries that participated in both cycles. Comparison of the results across time from some of the relatively low-performing countries, such as Colombia, Mexico, and the Dominican Republic, revealed slightly higher percentages of students with civic knowledge at Level B or above in 2016. This level is characterized by demonstrable familiarity with the broad concepts of civics and citizenship.

Countries also differed with regard to the student background variables included in ICCS 2016. In all except two countries, female students demonstrated higher civic knowledge than male students. Students with higher levels of socioeconomic background (measured by student reports on parental occupation, level of parental education, and the number of books in the home) also had higher levels of civic knowledge. We furthermore found that in most countries students from immigrant backgrounds and those who spoke a language other than the ICCS 2016 test language at home had lower levels of civic knowledge. It should be noted, however, that these results were computed without controlling for the influence of socioeconomic background.

Aspects of students' civic engagement

ICCS 2016 looked at the extent of students' engagement in different spheres of society and sought to identify the factors within or across countries related to that engagement. Limitations on the extent to which lower-secondary students can actively participate in civic activities meant that, apart from reviewing students' age-appropriate civic activities at and outside of school, ICCS 2016 placed a particular focus on the following: students' beliefs about their capacity to engage, the value they place upon participation in civic-related activities at school, and their expectations of future civic engagement. ICCS 2016 also examined factors associated with civic engagement, and measured changes in some aspects of student engagement since 2009.

For students, television news and discussions with parents remained important sources of information about political and social issues. We recorded a general decline since 2009 in the use of newspapers as a source of information about political and social issues in nearly every country that participated in both surveys. The frequency with which students were using television as a source of national and international news also appeared to have declined in about half of these countries. However, students talking with their parents about what was happening in other countries became more frequent between 2009 and 2016 in most countries, a finding which suggests an increase in students' attention to global developments. Use of new social media for civic engagement was still limited, but it too varied considerably across the participating countries.

In comparison with ICCS 2009, ICCS 2016 found somewhat higher levels of student engagement in discussions about political and social issues. The same was evident for confidence in civic participation. Students with higher levels of interest in political and social issues were more likely to discuss these issues. Although students' confidence in civic engagement was positively associated with their interest in civic issues, it was not related to their levels of civic knowledge.

We also found few changes over the seven years between the two surveys in the extent of students' participation at school and students' endorsement of the value of participation at school. Students' willingness to participate in future civic activities appeared to be higher among female than male students. Willingness to participate at school was also greater among students who were more interested in political and social issues, but positive associations between this construct and civic knowledge were not evident in about half of the countries.

Between 2009 and 2016, students' reported participation in voluntary activities and in their expectations to engage in elections (once eligible to do so) increased in a number of countries. We found no association between students' expected participation in legal protest activities and civic knowledge, but did find that expected participation in illegal protest activities was higher among students with lower levels of civic knowledge. Expected active political participation, such as becoming a candidate for office, was higher among students who were interested in political and social issues but notably lower among students who had high levels of civic knowledge. These findings suggest that acquisition of civic knowledge influences young people's expectations of civic engagement in the future in different ways. The differences certainly warrant further investigation, in particular the negative association between civic knowledge and expectation of active conventional political participation.

Students' attitudes toward important issues in society

We also analyzed ICCS 2016 data with regard to students' beliefs about important civic issues in their societies. We looked at factors associated with the variation in students' attitudes toward civic institutions and society, their beliefs regarding the importance of different principles underlying society, and their perceptions of their communities and societies. We also examined changes in students' beliefs, attitudes, and values since 2009.

ICCS 2016 found differences in what the students perceived as good or bad for democracy. In some countries, the lower-secondary students viewed situations such as political leaders giving government jobs to their family members as good for democracy. In most other countries, however, students viewed this practice as bad for democracy. Students across the participating countries consistently saw government interference in court decisions, free election of political leaders, the right to peaceful protest, and equal rights for all ethnic/racial groups in a country as good for democracy. Students also consistently regarded the right to criticize the government and the existence of small differences in income in their country as positive for democracies. These results indicate that differences in national contexts (e.g., related to particular political cultures and everyday experiences) may shape students' perceptions of how democracies function.

ICCS also measured students' perceptions of what constitutes good citizenship. When asked about behaviors indicating good citizenship, the ICCS 2016 students tended to attach somewhat more importance to conventional engagement than did the students who participated in ICCS 2009. The ICCS 2016 results also showed high levels of endorsement of personally responsible citizenship behavior, with majorities rating obedience to the law, ensuring the economic welfare of families, and respecting others' opinions as very important. Students who were interested in political and social issues were more likely to regard conventional social-movement-related or personally responsible citizenship behaviors as important. Students with higher levels of civic knowledge were more inclined to regard behaviors related to social-movement activities and personally responsible citizenship as important for being a good adult citizen. We found no consistent associations between civic knowledge and endorsement of the importance of conventional citizenship behaviors. This finding might relate to other results from ICCS 2016 indicating that students with higher levels of civic knowledge are less inclined to anticipate actual participation in conventional forms of political action when they reach adulthood.

Students strongly endorsed gender equality and equal rights for ethnic and racial groups in their countries. Endorsement of gender equality increased between 2009 and 2016 in a number of countries. However, the pattern of males giving substantially less support than females to gender equality that we observed in 2009 was still evident in 2016. In contrast, levels of endorsement of equal rights for all ethnic and racial groups in society increased over the period between the two surveys. We also found that female students, students who were more interested in social and political issues, and students with higher levels of civic knowledge were the students most likely to endorse gender equality and equal rights for all ethnic and racial groups.

Majorities of students viewed pollution, terrorism, water and food shortages, infectious diseases, and poverty as major threats to the world's future. However, the extent to which students saw these issues as threats varied across countries, a finding that suggests the influence of local contexts on these perceptions. Variation was particularly marked for the perceptions of water shortages and crime. Students from countries where these issues were more likely to be part of their everyday experience were also more likely to regard them as substantial threats to the world's future.

In many countries, the ICCS 2016 students expressed greater trust than the 2009 students did in their government, parliament, and courts of justice. However, they expressed less trust than their 2009 counterparts in the media and in people in general. In more established and economically stable democracies, the more knowledgeable 2016 students tended to have greater trust in civic

institutions. In countries with perceived higher levels of corruption and low government efficiency, the more knowledgeable students expressed lower levels of trust in civic institutions.

ICCS 2016 also included a section (optional for countries) in its student questionnaire that asked students about their endorsement of religious influence in civic society. Results from countries participating in this option suggest that young people's support for this kind of religious influence remains limited. Relatively small proportions of students across these countries supported religious influence on civic life; in four countries, significantly fewer students than in 2009 endorsed these views. While more frequent attendance at religious service was associated with higher levels of endorsement of religious influence, we recorded negative associations with parental education and levels of civic knowledge. The relatively large differences between students with high and low levels of civic knowledge indicate that learning about civic issues may have the by-product of strengthening convictions about the necessary separation of state and religion.

School contexts for civic and citizenship education

We studied aspects of the organization of civic and citizenship education in schools and its associations with students' learning outcomes; specifically, school approaches to civic and citizenship education, processes thought to facilitate civic engagement, and interactions between schools and communities. The ICCS 2016 results indicate that in most countries students had the opportunity to participate in classroom and school elections. Although teachers across the participating countries said they were often involved in decision-making processes at school, the extent to which students were actively participating in decision-making at school varied considerably cross-nationally. The findings also suggest that while parents in most countries were frequently involved in discussions about student learning, they tended to have little influence on actual decision-making processes at schools.

Generally across participating countries, students had positive perceptions of the openness of their classroom climates for discussions of political and social issues. This degree of openness was positively associated with students' interest in political and social issues, students' expected level of education, and students' civic knowledge. These associations not only correspond with results from the previous civic studies but also support the notion of the importance of "democratic environments" for civic learning. Cross-nationally, positive views of teacher–student relationships were also common among the lower-secondary students. However, those students with at least one parent who had a university degree and those students who had higher levels of civic knowledge tended to have more positive perceptions than other students.

More than half of the surveyed students reported forms of verbal abuse (such as being called offensive nicknames or experiencing others laughing at them). More direct forms of abuse (such as physical attacks or posting offensive texts or pictures online) were reported less frequently, however. Abuse was more frequent among male students, students who were not expecting to attain a university degree, and students who had lower levels of civic knowledge. These findings may reflect differences in the social and academic contexts of the schools these students were attending. Results from the school survey also suggest that most students were enrolled at schools that had established procedures to deal with problems related to bullying.

Across the ICCS 2016 countries, lower-secondary students tended to have some opportunities for participation in civic-related activities in the community where their school was located. Most students were also studying at schools where principals reported initiatives intended to promote environmental sustainability, such as differential waste collection, water saving, and recycling. In addition, the teacher survey data suggest that the participating students tended to be involved in activities related to environmental sustainability, and that these activities were usually organized at schools.

We recorded considerable variation in the extent to which students had learned about civic issues at their school. Almost two thirds of students said they had learned to a moderate or large extent about how to protect the environment. Approximately 50 percent of the students, on average across countries, reported having learned to a moderate or large extent about political issues or events in other countries. These higher levels of civic learning were consistently and positively associated with students' interest in political and social issues, and in most countries with expected attainment of a university degree and with higher levels of civic knowledge.

Results from the optional survey of teachers teaching civic-related subjects at the target grade showed variations both in how teachers were teaching this learning area and in their approaches to learning activities. Generally, teachers of civic-related subjects expressed quite high levels of confidence in their capacity to teach a variety of topics and skills. While most teachers in nearly every country expressed confidence in teaching certain issues (such as equal opportunities for men and women, and critical independent thinking), we recorded greater variation with respect to confidence in teaching about issues such as emigration and immigration or the global community and international organizations. This pattern may reflect differences in priorities with regard to the training of teachers for civic-related subjects or it may reflect the period of time when these teachers were trained.

Explaining variation in students' civic knowledge and expected engagement

In addition to presenting average scores for a series of civic-related cognitive and affective-behavioral measures, this report of the ICCS 2016 international findings included the results of multivariate analyses seeking to identify the factors that explain the variation in the national and international average scores on the ICCS civic knowledge scale, expected electoral participation (such as voting in national elections) scale, and active conventional political participation (such as joining a political party) scale.

Our multilevel modeling showed large differences in the amount of variation overall and within and between schools. Students' characteristics and social backgrounds were important predictors of students' civic knowledge. Factors reflecting civic learning processes showed relatively consistent associations with civic knowledge at the level of individual students, but less consistency at the school level. The results also showed that after we controlled for associations with student characteristics and social background, some of the previous statistically significant associations between civic learning processes and civic knowledge were no longer significant. Of particular interest, however, was our finding that an open classroom climate for discussion remained positively associated with civic knowledge after we had taken socioeconomic contexts into account. Participation in civic activities at school was another factor that had positive associations with students' civic knowledge in numerous countries.

ICCS 2016 also examined factors associated with expected student civic engagement in the future. Multiple regression models using student background, experience with civic engagement, disposition toward engagement, and beliefs about citizenship and institutions explained between a quarter and a third of the variation in expected civic participation.

Parental and student interest were the most important student background predictors of expected civic engagement. Female students were less inclined than male students to expect engagement in active political involvement in the future. Experience with civic engagement in the community or at school tended to be positively associated with expectations of political engagement during adulthood.

Student civic knowledge and self-efficacy as well as student beliefs were consistent predictors of expected electoral and active political participation. Students who believed in the importance of civic engagement through established channels were more likely to expect civic participation in the future. Most countries recorded positive associations between students' trust in civic institutions

and their expected electoral and active political participation. Our multivariate analyses confirmed previous findings about the relationship between civic knowledge and expected civic engagement as adults. Even after controlling for other variables, we found that the more knowledgeable students were more likely than their peers to expect to vote in elections, yet were less likely to expect to be actively involved politically.

This latter finding poses an interesting issue, which was originally raised in ICCS 2009. It suggests that higher levels of civic knowledge do not induce young people to develop a disposition for engagement in the traditional or conventional modes of active political participation. It is possible that having a higher level of knowledge about how the political system works, which includes the potentially negative aspects of its functioning, may be detrimental to adolescents' expectations of individual participation in these organizations and institutions. This finding should be considered in light of the positive association between socioeconomic background and civic knowledge. One could further hypothesize that young people from socially advantaged families tend to consider conventional political involvement as only one component of a broad set of ways for them to influence civic decision-making and effect change (either as part of a group or as individuals). Thus, this advantaged group of young people may tend to see conventional active involvement as a relatively less important means of civic engagement, while those young people who consider they have fewer mechanisms of influence available to them may value it more highly.

Comparing student outcomes across countries

ICCS 2016 collected a wide range of cognitive and affective-behavioral measures reflecting the different dimensions that were identified as relevant in the ICCS 2016 assessment framework (Schulz, Ainley, Fraillon, Losito, & Agrusti, 2016). Comparison of these outcomes across countries is therefore of interest. Table 8.1 illustrates the relative position of national scale score averages to the overall ICCS 2016 averages for scales reflecting civic knowledge, aspects of engagement, and student attitudes. The markers in the columns indicate whether each country's score was more than one third of an international standard deviation above or below the ICCS 2016 international average, but still significantly above or below the ICCS 2016 average.

In some countries with higher average scores for students' civic knowledge, scores on the scales reflecting indicators of students' engagement were relatively low. Finland and the Netherlands were two such countries. Conversely, in some countries with low civic knowledge (such as Colombia, the Dominican Republic, and Peru), the scale scores for engagement-related scales were low. However, this pattern was not consistent. For example, some countries with relatively low average civic knowledge scores had above-average scale scores for most of the affective-behavioral indicators but had below-average scores for students' endorsement of gender equality. In addition, some countries (such as Chinese Taipei and Italy) had relatively high levels of civic knowledge and showed above-average results for many of the affective-behavioral indicators.

The finding that some countries with low average scores for students' civic knowledge had relatively high average scores for engagement-related indicators while some countries with high averages of civic knowledge had students who appeared to be (relatively) less disposed to engage in society was also observed in ICCS 2009. Some of this variation may be due to differences across countries in how students responded to the attitudinal questionnaire formats used in ICCS. There may have been, for example, a tendency among students from particular cultural contexts to more strongly agree with statements.

These results may also be related to the previously cited findings at the individual level where students' higher expectations of active engagement were not associated with higher levels of civic knowledge. Countries with lower levels of civic knowledge are typically characterized by more social inequality and less political stability, factors that could make civic engagement appear a relatively promising way of achieving political and social goals in society. In countries with higher levels of

Table 8.1: Comparison of country averages for cognitive and affective-behavioral ICCS 2016 scales

Country		Student engagement									Student attitudes				
	Civic knowledge	Engagement with social media	Discussions of political and social issues	Sense of student citizenship self-efficacy	Valuing student participation at school	Preparedness to participate in school activities	Expectations to participate in legal activities	Expectations to participate in illegal activities	Expected electoral participation activities	Expected active political participation	Importance of conventional citizenship	Importance of social-movement-related citizenship	Importance of personally responsible citizenship	Endorsement of gender equality	Endorsement of equal rights for all ethnic/racial groups
Belgium (Flemish)	△	▽	▽	▽	▽	▼	▼	▽	▽	▼	▼	▽	▽	△	▽
Bulgaria	▼			△			△	▲	▽	▽	▽	▲	▽	▼	▼
Chile	▼	▽	▽		▲	△	△	▲	▽	▽		△	△	△	▲
Chinese Taipei	▲	▲	▽		△	△	△	▼	△	▽	△	△	▲	▲	▲
Colombia	▼	△	▽	△	△	▲	▲	▲	△	△	△	▲	△	▽	△
Croatia	△	▽	△	△	△	△		▽			△	△	△	△	▽
Denmark[†]	▲		△	▽	▽	▼	▽	▼	△		▽	▼	▽	▲	▽
Dominican Republic	▼	▲	△	▲	▲	▲	▲	▲	△	▲	▲	▲	▲	▼	△
Estonia[1]	△	▽		▽		▽	▽	▽	▼	▽	▼	▽	▼		
Finland	▲	▼	▽	▼	▽	▼	▼	▼	▽	▽	▼	▼	△	▲	
Italy	△	△	△			△	▽	▽	△		▲	△	△	△	▽
Latvia[1]	▽	△	△	▼	▽	▽	▽	▽	▽	▽	▽	▽	▼	▼	▼
Lithuania		△	△	▽	▽	△	△	△	△	△	△	▽	▽	▽	
Malta	▽	▽	△	▽		△	▽		▽	▽	▽	▽	△	△	▽
Mexico	▼	△	▽	△	△	▲	▲	▲	△	▲	▲	▲	△	▼	△
Netherlands[†]		▼	▽	▼	▼	▼	▼	▽	▼	▼	▼	▼	▼	△	▼
Norway (9)[1]	▲	▽	▽	▽	▽	▽	▼	▽	▲	▽	▽	▽		▲	△
Peru	▼	△	△	▲	△	▲	▲	▲	▲	▲	▲	△	△	▽	△
Russian Federation	△	△		▽	▽	△	△	▽	▽	▽	△	▽	▽	▼	▽
Slovenia	△	▼	▽	▽	▽	▽	▽		▽	▽	▼	▽	▽	△	▽
Sweden[1]	▲		△		▽	▼	▼	▽	△	▽	▽	▽		▲	▲

National average:
▲ More than 0.3 of an international standard deviation above ICCS 2016 average
△ Significantly above ICCS 2016 average
▽ Significantly below ICCS 2016 average
▼ More than 0.3 of an international standard deviation below ICCS 2016 average

economic stability and stable institutions, however, students' level of trust in civic institutions and the rule of law may be sufficient for them to see little or no need for individual engagement.

Implications for policy and practice

Any discussion of potential implications of the ICCS 2016 findings for policy and practice needs to recognize the limitations that arise from some of the features of this study. As pointed out earlier in this report, firm causal relationships cannot be established given the study's cross-sectional design. The "self-selective" nature of country participation also poses limitations. For example, although many European countries and a sizeable group of Latin American countries participated in the survey, participation in other regions was either scarce or non-existent, and two of the Asian countries did not meet the sample participation requirements that would have permitted their inclusion in the ICCS 2016 average calculations or comparison with the 2009 findings. However, the study has clearly contributed a number of interesting findings to research on civic and citizenship education, and some of these have possible policy implications.

One positive outcome found as a result of this study was the general improvement in civic knowledge among the target-grade students in about half of the countries since 2009—an improvement that was not limited to countries with already high average levels of civic knowledge. We also observed trends toward even more tolerant views among students regarding gender equality (in many countries) and equal opportunities for all ethnic and racial groups (in most countries). It is important to recognize in this context the positive association between higher levels of civic knowledge and students' endorsement of equal opportunities.

While the results mentioned above paint an encouraging picture, there is still considerable variation in civic knowledge within and across countries. While in some countries the average student demonstrated a high level of familiarity with issues concerning civics and citizenship—a familiarity that enables them to make connections across a wide range of areas—in other countries the average student showed only basic levels of familiarity with broad concepts in this area. Furthermore, within countries, a large gap remains evident between the students achieving the highest scores on the civic knowledge scale and those who recorded the lowest scores. As in ICCS 2009, we also observed a consistent and significant difference in the achievement of female and male students, with female students recording higher levels of civic knowledge. We additionally observed some variations across countries with regard to students' views of gender equality, and here females also had the consistently higher scores on the relevant scale.

Overall, findings from this study suggest that there is ample room for improvement, and that education systems should seek to strengthen their capacity to teach civic and citizenship education in ways that are inclusive. The ICCS 2016 test data suggest that emphasis could be given to supporting the needs of the lowest achieving students and understanding the differences between the civic and citizenship knowledge of female and male students. Given the absence of clear associations between the observed national levels of civic knowledge and the ways in which the corresponding countries had implemented civic and citizenship education in their national curricula, there is no obvious recommendation about the best way to organize civic and citizenship education. Context data indicate that different approaches tend to coexist, either through integration across subjects or the establishment of subjects specifically focused on civics and citizenship content.

The view that students' experiences at school are important for shaping future engagement as citizens is a long-held one. In keeping with evidence from other studies, a number of findings in this report suggest an association between how students experience democratic forms of engagement at school and their dispositions toward future civic engagement. For example, we found students' perceptions of open classroom climate and their experiences with engagement at school were associated with their intention to engage in civic life in the future and with higher levels of civic knowledge. These associations give some support to long-standing arguments that establishing

basic democratic structures within schools and providing students with early opportunities for active participation have the potential to promote students' civic knowledge and their disposition to engage in civic-related activities in the future.

Many countries in the world continue to express concern about low levels of voter participation among young people, and there have been claims that voter abstention among this segment of the population has been a decisive factor shaping voting results. The links that the ICCS 2016 findings suggest between civic knowledge, school-based experiences with civic engagement, and expectations to vote and participate in other civic activities in adulthood indicate that promotion of civic and citizenship education, in both formal and informal ways, should be considered as an essential means of helping young people become more conscious of their political roles and the importance of being participating citizens.

Outlook

ICCS 2016, like its predecessor ICCS 2009, has provided a rich database that we expect will contribute to generating new research and findings with substantial potential for providing further insights into civic and citizenship education. This publication is but a first report of the main findings based on initial analyses because ICCS 2016 will provide an ongoing basis for numerous research studies in the form of secondary analysis after the public release of the study's database.

IEA implemented ICCS as a fully developed cycle of comparative studies of civic and citizenship education. ICCS 2009 was the first in the cycle; ICCS 2016 has been the second. Over coming years, the ICCS 2016 data will contribute to a wide range of secondary research activities, as occurred with the CIVED 1999 and the ICCS 2009 datasets. The international research team will soon commence preparations for the next study in the ICCS cycle, with data collection scheduled for 2022. The initiation of this study will again address new developments and challenges in this learning area, such as implications from growing migration, the prevalence of new social media in young people's engagement with civic issues, the increased importance of notions of global citizenship, and the necessity of learning about sustainable development.

This report has highlighted the relevance of civic and citizenship education in modern democracies during the second decade of the 21st century. It has also emphasized the importance of a comparative study of this learning area across a wide range of different societies. Given the ongoing challenges of preparing young people for citizenship in a rapidly changing world, we expect continued interest and an increased engagement in this unique study across a wide range of regions, cultures, and societies.

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APPENDIX A: SAMPLING INFORMATION AND PARTICIPATION RATES

Table A.1: Coverage of ICCS 2016 target population

Country	International Target Population	Exclusions from Target Population		
	Coverage (%)	School-level exclusions (%)	Within-sample exclusions (%)	Overall exclusions (%)
Belgium (Flemish)	100	4.8	0.1	4.9
Bulgaria	100	1.6	0.9	2.5
Chile	100	1.1	2.4	3.5
Chinese Taipei	100	1.6	1.7	3.3
Colombia	100	0.2	0.2	0.4
Croatia	100	0.5	4.6	5.2
Denmark	100	1.7	2.7	4.4
Dominican Republic	100	1.1	0.0	1.1
Estonia	100	5.1	1.6	6.7
Finland	100	2.2	1.1	3.3
Hong Kong SAR	100	4.7	0.0	4.7
Italy	100	0.8	3.9	4.8
Korea, Republic of	100	1.7	3.0	4.7
Latvia	100	4.3	2.2	6.5
Lithuania	100	3.5	1.8	5.3
Malta	100	1.6	0.2	1.8
Mexico	100	0.9	1.1	2.0
Netherlands	100	3.0	0.9	3.9
Norway	100	1.3	4.2	5.5
Peru	100	3.0	0.0	3.1
Russian Federation	100	2.1	3.0	5.1
Slovenia	100	1.8	0.8	2.7
Sweden	100	2.2	4.3	6.4
Benchmarking participant				
North Rhine-Westphalia (Germany)	100	1.4	5.6	7.0

Note:
Because results are rounded to the nearest whole number, some totals may appear inconsistent.

Table A.2: Participation rates and sample sizes for student survey

Country	School participation rate (in %)			Total number of schools that participated in student survey	Student participation rate (weighted) in %	Total number of students assessed	Overall participation rate (in %)	
	Before replacement (weighted)	After replacement (weighted)	After replacement (unweighted)				Before replacement (weighted)	After replacement (weighted)
Belgium (Flemish)	79.9	98.2	98.2	162	94.7	2931	75.7	92.9
Bulgaria	100.0	100.0	100.0	147	94.4	2966	94.4	94.4
Chile	93.9	100.0	100.0	178	94.8	5081	89.0	94.8
Chinese Taipei	93.2	93.9	94.0	141	97.7	3953	91.0	91.7
Colombia	96.2	100.0	100.0	150	95.9	5609	92.3	95.9
Croatia*	96.2	98.0	98.3	175	91.7	3896	88.1	89.8
Denmark	54.5	84.8	84.8	184	93.0	6254	50.7	78.9
Dominican Republic	96.8	100.0	100.0	141	96.6	3937	93.5	96.6
Estonia	96.2	98.3	98.2	164	90.5	2857	87.0	88.9
Finland	88.0	98.3	98.4	179	91.7	3173	80.7	90.1
Hong Kong SAR	56.3	61.7	61.5	91	95.9	2653	54.0	59.2
Italy	92.4	100.0	100.0	170	96.0	3450	88.7	96.0
Korea, Republic of	58.6	61.8	62.4	93	98.0	2601	57.5	60.6
Latvia	92.7	93.9	94.2	147	89.3	3224	82.7	83.8
Lithuania	99.3	99.3	99.5	182	92.1	3631	91.5	91.5
Malta**	100.0	100.0	100.0	47	95.5	3764	95.1	95.1
Mexico	93.5	96.7	95.9	213	95.6	5526	89.4	92.5
Netherlands	52.6	81.9	82.0	123	92.5	2812	48.7	75.8
Norway	95.2	100.0	100.0	148	93.7	6271	89.2	93.7
Peru	100.0	100.0	100.0	206	96.8	5166	96.8	96.8
Russian Federation	100.0	100.0	100.0	352	97.0	7289	97.0	97.0
Slovenia	90.5	96.7	96.7	145	92.1	2844	83.4	89.0
Sweden	98.3	98.8	98.7	155	90.8	3264	89.2	89.7
Benchmarking participant								
North Rhine-Westphalia (Germany)	16.7	40.5	38.6	59	90.8	1451	15.1	36.8

Notes:
* The weighted class participation rate in Croatia is 99.9 percent.
** The weighted class participation rate in Malta is 99.5 percent.

Table A.3: Participation rates and sample sizes for teacher survey

Country	School participation rate (in %)			Total number of schools that participated in teacher survey	Teacher participation rate (weighted) in %	Total number of teachers assessed	Overall participation rate (in %)	
	Before replacement (weighted)	After replacement (weighted)	After replacement (unweighted)				Before replacement (weighted)	After replacement (weighted)
Belgium (Flemish)	74.6	95.2	95.2	157	89.9	2021	67.1	85.6
Bulgaria	96.9	96.9	95.2	140	93.0	1549	90.1	90.1
Chile	88.1	95.1	94.9	169	85.1	1452	75.0	80.9
Chinese Taipei	95.3	95.9	96.0	144	98.8	2239	94.1	94.7
Colombia	89.5	91.3	90.7	136	92.0	1580	82.3	84.0
Croatia	97.5	98.9	98.9	176	96.6	2723	94.2	95.5
Denmark	17.7	27.6	27.6	59	83.0	489	14.7	22.9
Dominican Republic	89.9	91.7	90.8	128	93.1	754	83.7	85.4
Estonia	27.9	29.5	29.3	49	62.4	403	17.4	18.4
Finland	81.0	92.6	93.4	170	83.5	2097	67.7	77.3
Hong Kong SAR	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Italy	92.7	100.0	100.0	170	95.7	2331	88.7	95.7
Korea, Republic of	68.7	72.9	71.1	106	99.4	1368	68.3	72.4
Latvia	92.6	93.7	92.3	144	94.9	1946	87.8	88.9
Lithuania	98.0	100.0	100.0	183	96.2	2674	94.3	96.2
Malta	100.0	100.0	100.0	47	96.5	737	96.5	96.5
Mexico	93.7	97.3	94.6	210	92.7	1918	86.8	90.2
Netherlands	49.3	74.8	74.7	112	82.5	1374	40.7	61.7
Norway	89.2	96.7	96.6	143	87.8	2010	78.4	85.0
Peru	100.0	100.0	100.0	206	99.7	2384	99.7	99.7
Russian Federation	43.1	43.1	39.8	140	99.8	1743	43.0	43.0
Slovenia	89.1	95.3	95.3	143	93.3	2056	83.2	89.0
Sweden	85.5	86.0	86.0	135	84.1	1542	71.9	72.4
Benchmarking participant								
North Rhine-Westphalia (Germany)	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

APPENDIX B: REGRESSION ANALYSIS FOR CIVIC KNOWLEDGE AND AGE

Table B.1: Regression results for civic knowledge and student age

Country	Unstandardized regression coefficient		Explained variance (in %)	
Belgium (Flemish)	**-38**	(4.2)	7	(1.3)
Bulgaria	**-26**	(5.6)	1	(0.5)
Chile	**-30**	(3.0)	5	(1.1)
Chinese Taipei	**-8**	(3.9)	0	(0.1)
Colombia	**-15**	(1.7)	4	(0.8)
Croatia	**-25**	(5.0)	1	(0.6)
Denmark†	**-34**	(4.6)	2	(0.6)
Dominican Republic	**-21**	(1.8)	9	(1.3)
Estonia[1]	-2	(4.6)	0	(0.1)
Finland	**-24**	(6.0)	1	(0.5)
Italy	**-30**	(4.0)	3	(0.9)
Latvia[1]	**-24**	(4.3)	2	(0.6)
Lithuania	-4	(4.2)	0	(0.1)
Malta	-10	(5.8)	0	(0.1)
Mexico	**-11**	(3.8)	1	(0.4)
Netherlands†	**-31**	(6.5)	3	(1.1)
Norway (9)[1]	**16**	(7.1)	0	(0.2)
Peru	**-32**	(2.2)	10	(1.4)
Russian Federation	-7	(5.4)	0	(0.2)
Slovenia	-9	(5.1)	0	(0.2)
Sweden[1]	**-28**	(6.3)	1	(0.4)
ICCS 2016 average	**-19**	(1.0)	2	(0.2)
Countries not meeting sample participation requirements				
Hong Kong SAR	-4	(5.3)	0	(0.2)
Korea, Republic of[2]	**13**	(5.4)	0	(0.1)

Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.
[2] Country surveyed target grade in the first half of the school year.

APPENDIX C: STUDENT PERCENTAGES FOR DICHOTOMOUS VARIABLES

Table C.1: Percentages of students in categories for dichotomous variables used in Chapters 4, 5, and 6

Country	Gender		Students' interest in political and social issues		Levels of civic knowledge		Parental education		Media information		Attendance at religious services	
	Males	Females	Not or not very interested	Quite or very interested	Civic knowledge below Level B (below 479)	Civic knowledge at or above Level B (above 479)	No parents with university degree	At least one parent with university degree	Less than once a week	At least once a week	Not or rarely attending	At least once a month
Belgium (Flemish)	51 (1.8)	49 (1.8)	74 (1.0)	26 (1.0)	24 (1.8)	76 (1.8)	42 (1.9)	58 (1.9)	21 (1.1)	79 (1.1)	87 (0.9)	13 (0.9)
Bulgaria	54 (1.8)	46 (1.8)	68 (1.3)	32 (1.3)	45 (2.1)	55 (2.1)	53 (1.7)	47 (1.7)	22 (1.0)	78 (1.0)	73 (1.3)	27 (1.3)
Chile	51 (1.1)	49 (1.1)	78 (0.7)	22 (0.7)	47 (1.5)	53 (1.5)	76 (1.2)	24 (1.2)	20 (0.7)	80 (0.7)	71 (1.0)	29 (1.0)
Chinese Taipei	51 (1.1)	49 (1.1)	71 (0.9)	29 (0.9)	13 (1.0)	87 (1.0)	68 (1.4)	32 (1.4)	12 (0.5)	88 (0.5)	84 (0.7)	16 (0.7)
Colombia	47 (1.3)	53 (1.3)	71 (1.1)	29 (1.1)	47 (1.8)	53 (1.8)	71 (1.5)	29 (1.5)	16 (0.6)	84 (0.6)	44 (1.3)	56 (1.3)
Croatia	50 (0.9)	50 (0.9)	64 (1.1)	36 (1.1)	24 (1.4)	76 (1.4)	73 (1.4)	27 (1.4)	28 (0.9)	72 (0.9)	22 (1.1)	78 (1.1)
Denmark†	49 (0.8)	51 (0.8)	60 (0.9)	40 (0.9)	13 (1.0)	87 (1.0)	75 (1.0)	25 (1.0)	29 (0.9)	71 (0.9)	–	–
Dominican Republic	49 (0.9)	51 (0.9)	63 (1.2)	37 (1.2)	88 (1.0)	12 (1.0)	76 (1.2)	24 (1.2)	20 (0.9)	80 (0.9)	44 (0.9)	56 (0.9)
Estonia[1]	50 (1.2)	50 (1.2)	66 (1.3)	34 (1.3)	20 (1.2)	80 (1.2)	57 (1.9)	43 (1.9)	25 (0.9)	75 (0.9)	94 (0.6)	6 (0.6)
Finland	53 (1.1)	47 (1.1)	67 (1.1)	33 (1.1)	13 (0.8)	87 (0.8)	58 (1.1)	42 (1.1)	41 (1.1)	59 (1.1)	–	–
Italy	52 (0.9)	48 (0.9)	68 (1.1)	32 (1.1)	29 (1.2)	71 (1.2)	81 (1.2)	19 (1.2)	19 (0.8)	81 (0.8)	–	–
Latvia[1]	48 (1.3)	52 (1.3)	72 (0.9)	28 (0.9)	42 (1.7)	58 (1.7)	57 (1.2)	43 (1.2)	31 (1.0)	69 (1.0)	85 (0.9)	15 (0.9)
Lithuania	50 (0.8)	50 (0.8)	64 (1.1)	36 (1.1)	31 (1.5)	69 (1.5)	66 (1.1)	34 (1.1)	20 (0.8)	80 (0.8)	72 (1.4)	28 (1.4)
Malta	51 (0.5)	49 (0.5)	66 (0.8)	34 (0.8)	42 (1.3)	58 (1.3)	69 (0.8)	31 (0.8)	28 (0.8)	72 (0.8)	36 (0.9)	64 (0.9)
Mexico	50 (0.7)	50 (0.7)	73 (1.3)	27 (1.3)	54 (1.4)	46 (1.4)	75 (1.1)	25 (1.1)	28 (0.9)	72 (0.9)	–	–
Netherlands†	49 (1.2)	51 (1.2)	82 (1.1)	18 (1.1)	32 (2.3)	68 (2.3)	56 (1.8)	44 (1.8)	32 (1.2)	68 (1.2)	83 (1.5)	17 (1.5)
Norway (9)[1]	50 (0.6)	50 (0.6)	69 (0.9)	31 (0.9)	18 (0.8)	82 (0.8)	40 (1.2)	60 (1.2)	35 (0.9)	65 (0.9)	65 (1.2)	35 (1.2)
Peru	52 (1.6)	48 (1.6)	47 (1.1)	53 (1.1)	65 (1.7)	35 (1.7)	73 (1.0)	27 (1.0)	12 (0.7)	88 (0.7)	45 (1.1)	55 (1.1)
Russian Federation	51 (1.1)	49 (1.1)	54 (1.3)	46 (1.3)	21 (1.5)	79 (1.5)	47 (1.7)	53 (1.7)	29 (1.1)	71 (1.1)	–	–
Slovenia	52 (0.7)	48 (0.7)	76 (1.1)	24 (1.1)	25 (1.1)	75 (1.1)	66 (1.4)	34 (1.4)	34 (1.0)	66 (1.0)	49 (1.6)	51 (1.6)
Sweden[1]	51 (1.0)	49 (1.0)	56 (1.2)	44 (1.2)	17 (1.0)	83 (1.0)	41 (1.0)	59 (1.0)	31 (1.2)	69 (1.2)	–	–
ICCS 2016 average	50 (0.2)	50 (0.2)	67 (0.2)	33 (0.2)	34 (0.3)	66 (0.3)	63 (0.3)	37 (0.3)	25 (0.2)	75 (0.2)	64 (0.2)	36 (0.2)
Countries not meeting sample participation requirements												
Hong Kong SAR	52 (2.9)	48 (2.9)	54 (1.1)	46 (1.1)	33 (2.9)	67 (2.9)	77 (1.3)	23 (1.3)	23 (1.2)	77 (1.2)	80 (1.1)	20 (1.1)
Korea, Republic of[2]	54 (2.7)	46 (2.7)	51 (1.0)	49 (1.0)	22 (1.4)	78 (1.4)	37 (1.9)	63 (1.9)	31 (1.0)	69 (1.0)	0 (0.0)	0 (0.0)

Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population
[2] Country surveyed target grade in the first half of the school year.
- No comparable data available.

APPENDICE D: ITEM MAPS

ICCS 2016 used sets of student, teacher, and school questionnaire items to measure constructs relevant in the field of civic and citizenship education. Usually, sets of Likert-type items with four categories (e.g., "strongly agree," "agree," "disagree," and "strongly disagree") were used to obtain this information, but at times two-point or three-point rating scales were chosen (e.g., "yes" and "no;" or "never," "sometimes," and "often"). The items were then recoded so that the higher scale scores reflected more positive attitudes or higher frequencies.

The Rasch Partial Credit Model (Masters & Wright, 1997) was used for scaling, and the resulting weighted likelihood estimates (Warm, 1989) were transformed into a metric with a mean of 50 and a standard deviation of 10 for equally weighted ICCS 2016 national samples that satisfied guidelines for sample participation. For scales that were equated to ICCS 2009, the averages and standard deviations were 50 and 10 respectively for all countries that participated in the previous survey. The ICCS 2016 technical report will provide more details on scaling and equating procedures (Schulz, Carstens, Losito, & Fraillon, forthcoming).

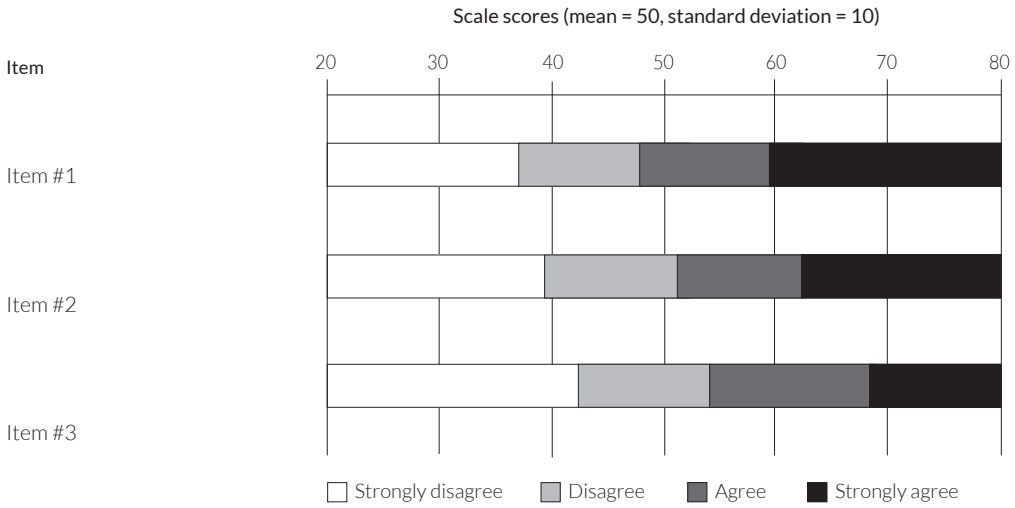
The resulting ICCS 2016 scale scores can be interpreted with regard to the average across countries participating in ICCS 2016 (or ICCS 2009 where scales were equated), but they do not reveal the extent to which students endorsed the items used for measurement. However, our application of the Rasch Partial Credit Model allowed us to map scale scores to item responses, making it possible for us to predict, for each scale score, the most likely item response for a respondent. (For an application of these properties in the previous survey, see Schulz & Friedman, 2011.)

Appendix D provides item maps for each questionnaire scale presented in the report. The maps provide a prediction of the minimum coded score (e.g., 0 = "strongly disagree," 1 = "disagree," 2 = "agree," and 3 = "strongly agree") a respondent would obtain on a Likert-type item based on their questionnaire scale score. For example, we can predict that students with a certain scale score will have a 50 percent probability of at least agreeing (or strongly agreeing) with a particular item (see example item in Figure D.1). For each item, it is possible to determine Thurstonian thresholds, the points at which a minimum item score becomes more likely than any lower score and which determine the boundaries between item categories on the item map.

This information can also be summarized at the scale level by calculating the average thresholds across all of the corresponding scaled items. For four-point Likert-type scales, we typically did the calculation for the second threshold, thereby allowing us to predict how likely it would be for a respondent with a certain scale score to have (on average across items) responses in the two lower or upper categories. Use of this approach in the case of items measuring agreement made it possible to distinguish between scale scores with which respondents were most likely to agree or disagree with the average item used for scaling.

In some of the reporting tables with national average scale scores, means are depicted as boxes that indicate their mean values plus or minus sampling error. The boxes are set in graphical displays (e.g., Table 4.4 in the main body of the text) that have two underlying colors. National average scores located in the darker shaded area indicate that, on average across items, students would have had responses in the respective lower item categories (e.g., "agree, disagree, or strongly disagree," "not at all or not very interested," or "never or rarely"). National average scores found in the lighter shaded area indicate that students' average item responses would have been in the upper item response categories (e.g., "strongly agree," "quite or very interested," or "sometimes or often"). Choice of thresholds between categories depended on the distributions of responses. For example, instances where over 80 percent of students responded with agreement meant a threshold set between "strongly agree" and all other categories.

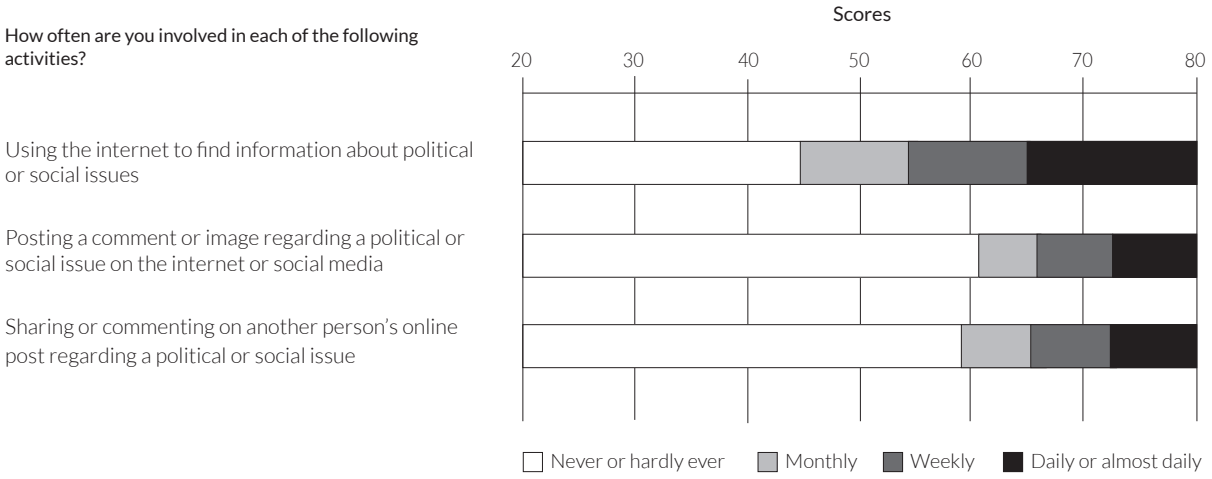
Figure D.1: Example of questionnaire item map



Example of how to interpret the item-by-score map

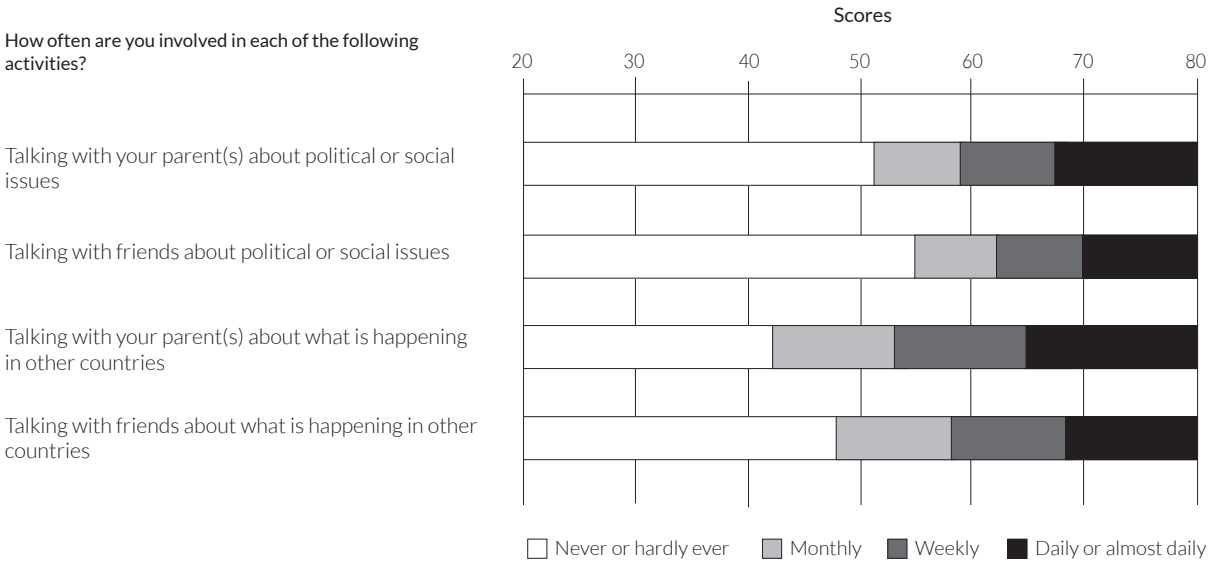
#1:	A respondent with score 30 has more than a 50% probability of strongly disagreeing with all three items
#2:	A respondent with score 40 has more than a 50% probability of *not* strongly disagreeing with Items 1 and 2 but of strongly disagreeing with Item 3
#3:	A respondent with score 50 has more than a 50% probability of agreeing with Item 1 and of disagreeing with Items 2 and 3
#4:	A respondent with score 60 has more than a 50% probability of strongly agreeing with Item 1 and of at least agreeing with Items 2 and 3
#5:	A respondent with score 70 has more than a 50% probability of strongly agreeing with Items 1, 2, and 3

Figure 4.1: Item map for the scale reflecting students' engagement with social media



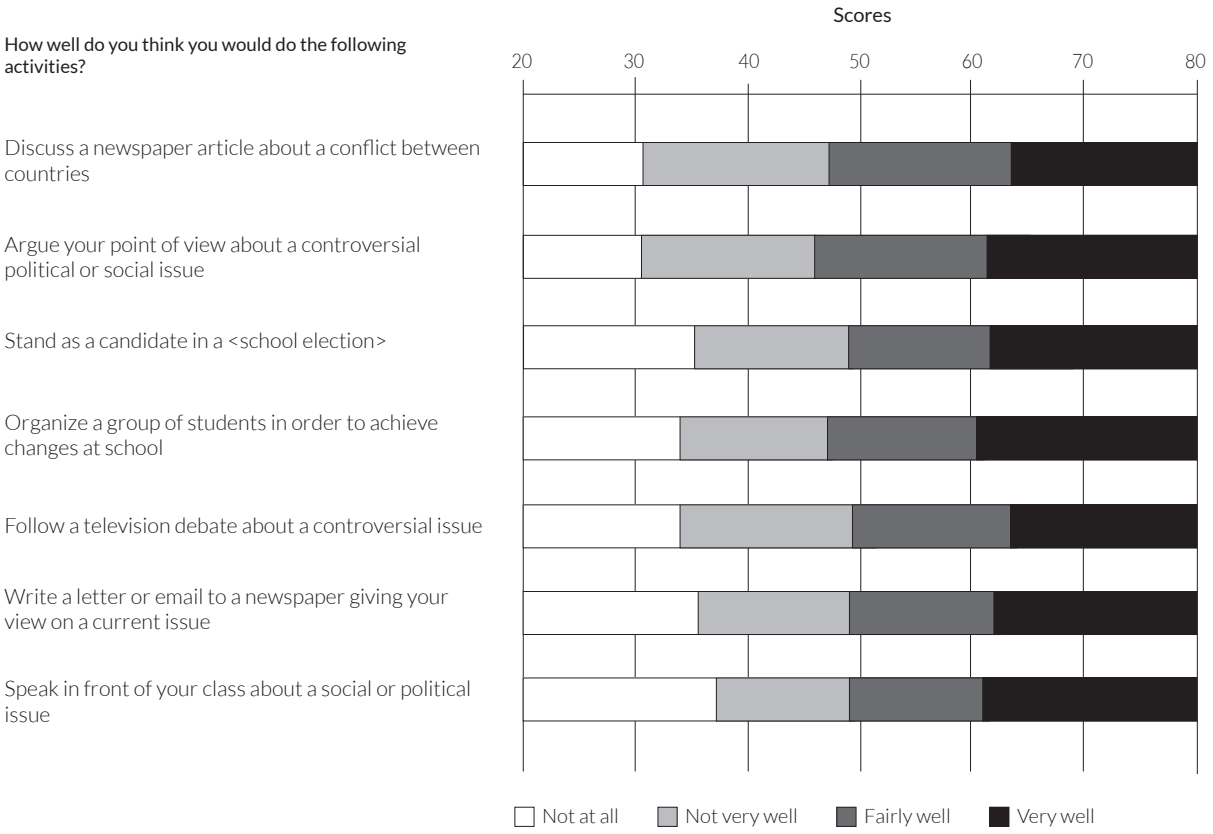
					Sum
Using the internet to find information about political or social issues	42	28	19	11	100
Posting a comment or image regarding a political or social issue on the internet or social media	80	12	5	3	100
Sharing or commenting on another person's online post regarding a political or social issue	77	14	6	4	100

Figure 4.2: Item map for the scale reflecting students' discussion of political and social issues outside school



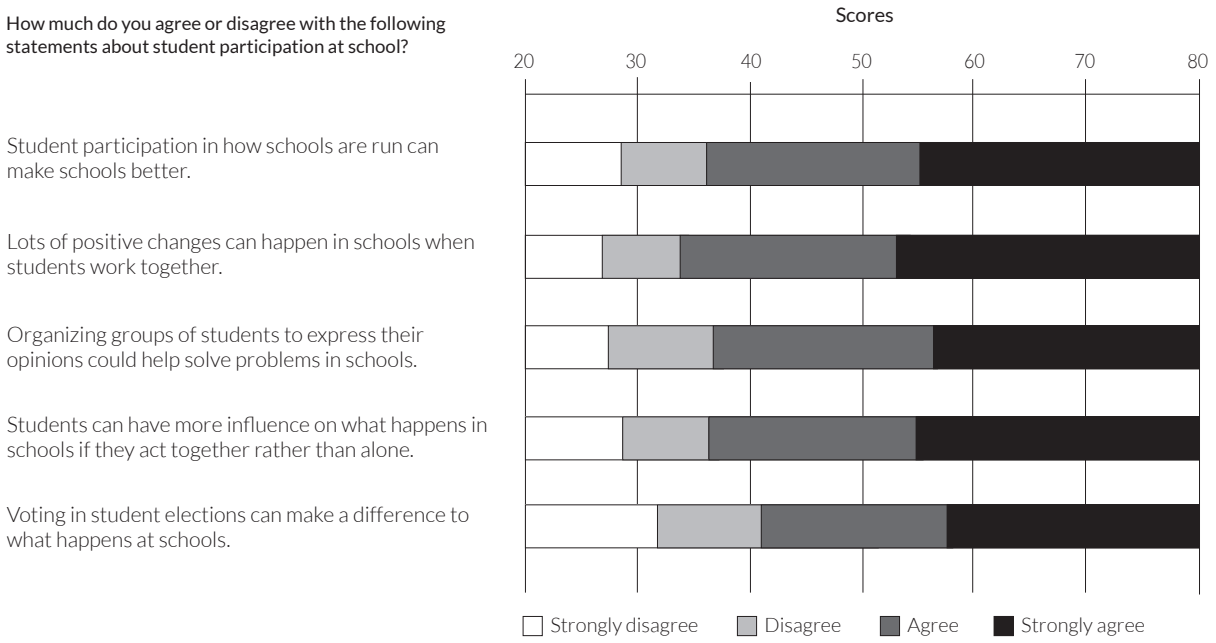
					Sum
Talking with your parent(s) about political or social issues	47	29	17	7	100
Talking with friends about political or social issues	60	25	11	4	100
Talking with your parent(s) about what is happening in other countries	20	35	33	13	100
Talking with friends about what is happening in other countries	36	36	21	7	100

Figure 4.3: Item map for the scale reflecting students' sense of citizenship self-efficacy



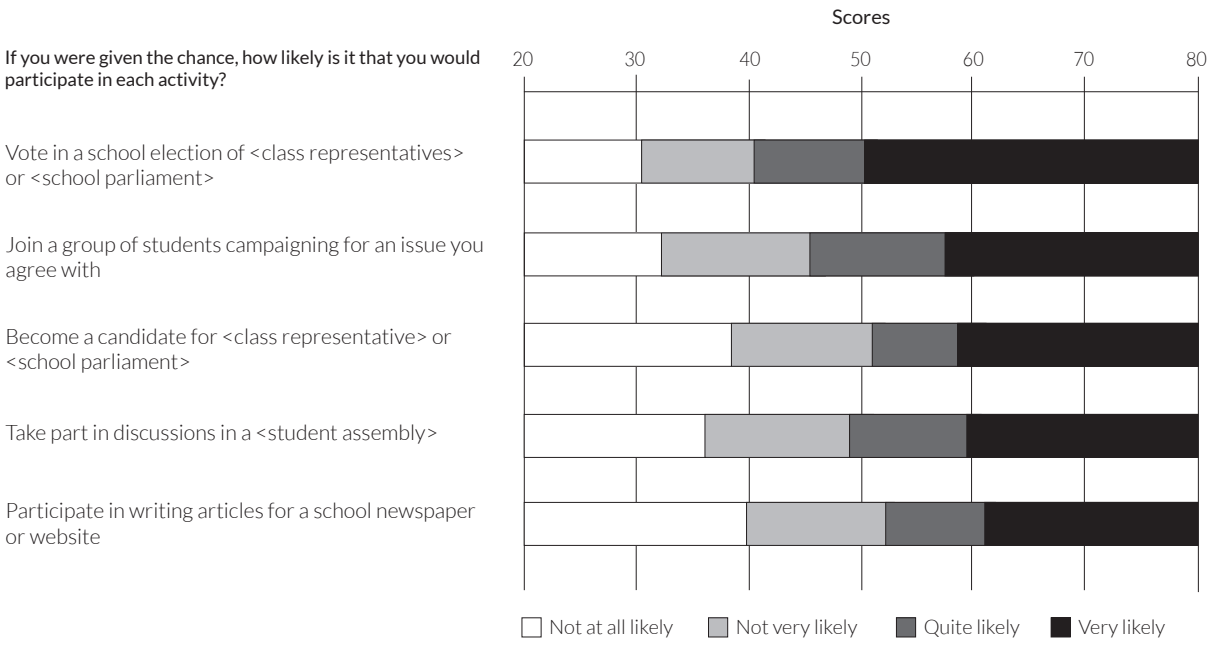
					Sum
Discuss a newspaper article about a conflict between countries	6	31	46	18	100
Argue your point of view about a controversial political or social issue	5	27	45	22	100
Stand as a candidate in a <school election>	10	32	38	21	100
Organize a group of students in order to achieve changes at school	8	28	41	24	100
Follow a television debate about a controversial issue	9	34	40	18	100
Write a letter or email to a newspaper giving your view on a current issue	10	32	38	20	100
Speak in front of your class about a social or political issue	12	30	36	22	100

Figure 4.4: Item map for the scale reflecting students' perception of the value of participation at school



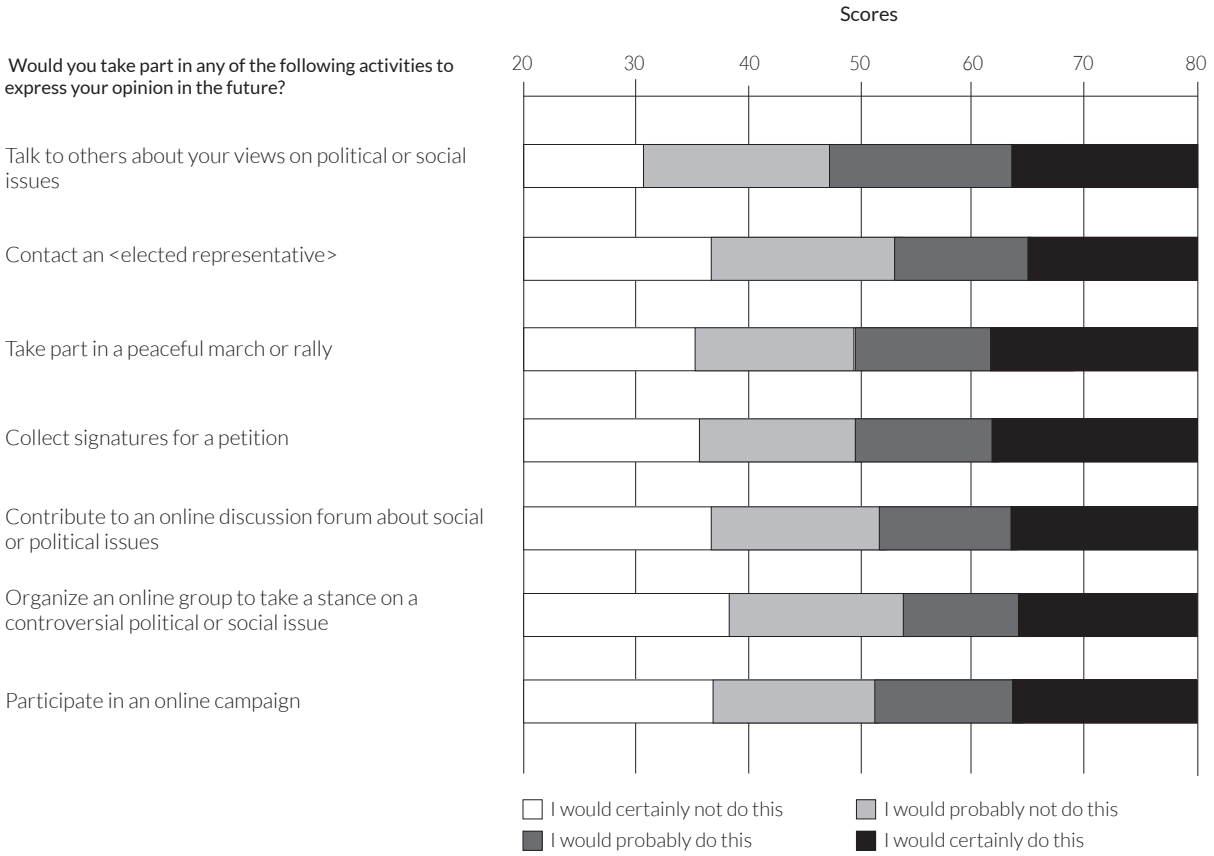
					Sum
Student participation in how schools are run can make schools better.	2	8	53	38	100
Lots of positive changes can happen in schools when students work together.	1	5	49	44	100
Organizing groups of students to express their opinions could help solve problems in schools.	2	9	55	35	100
Students can have more influence on what happens in schools if they act together rather than alone.	2	8	51	39	100
Voting in student elections can make a difference to what happens at schools.	4	15	51	30	100

Figure 4.5: Item map for the scale reflecting students' preparedness to participate in school activities



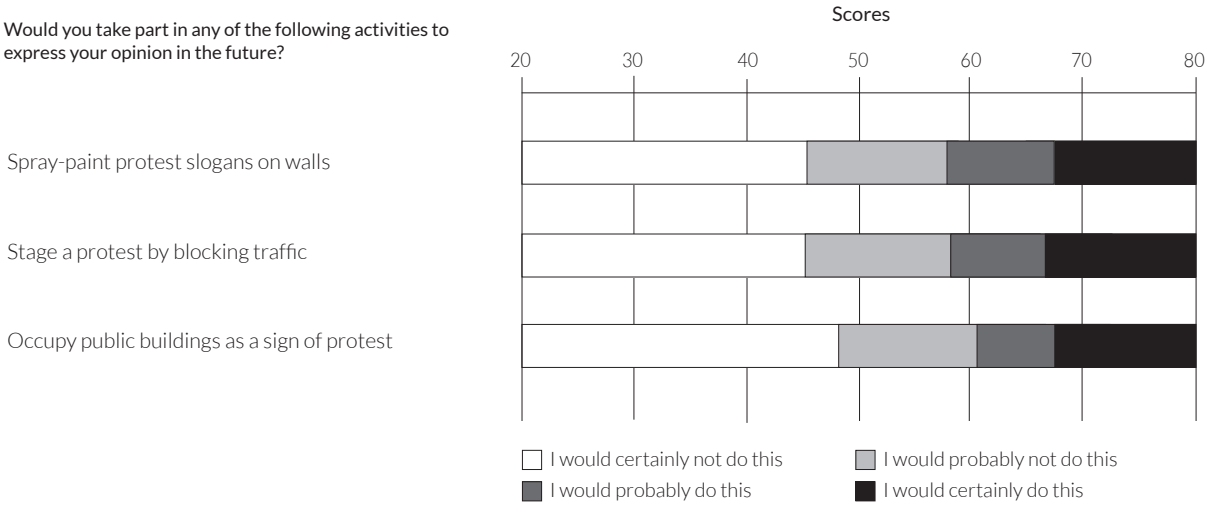
					Sum
Vote in a school election of <class representatives> or <school parliament>	5	15	32	48	100
Join a group of students campaigning for an issue you agree with	7	28	39	26	100
Become a candidate for <class representative> or <school parliament>	17	36	25	22	100
Take part in discussions in a <student assembly>	12	34	33	21	100
Participate in writing articles for a school newspaper or website	20	38	26	17	100

Figure 4.6: Item map for the scale reflecting students' expectations to participate in legal activities



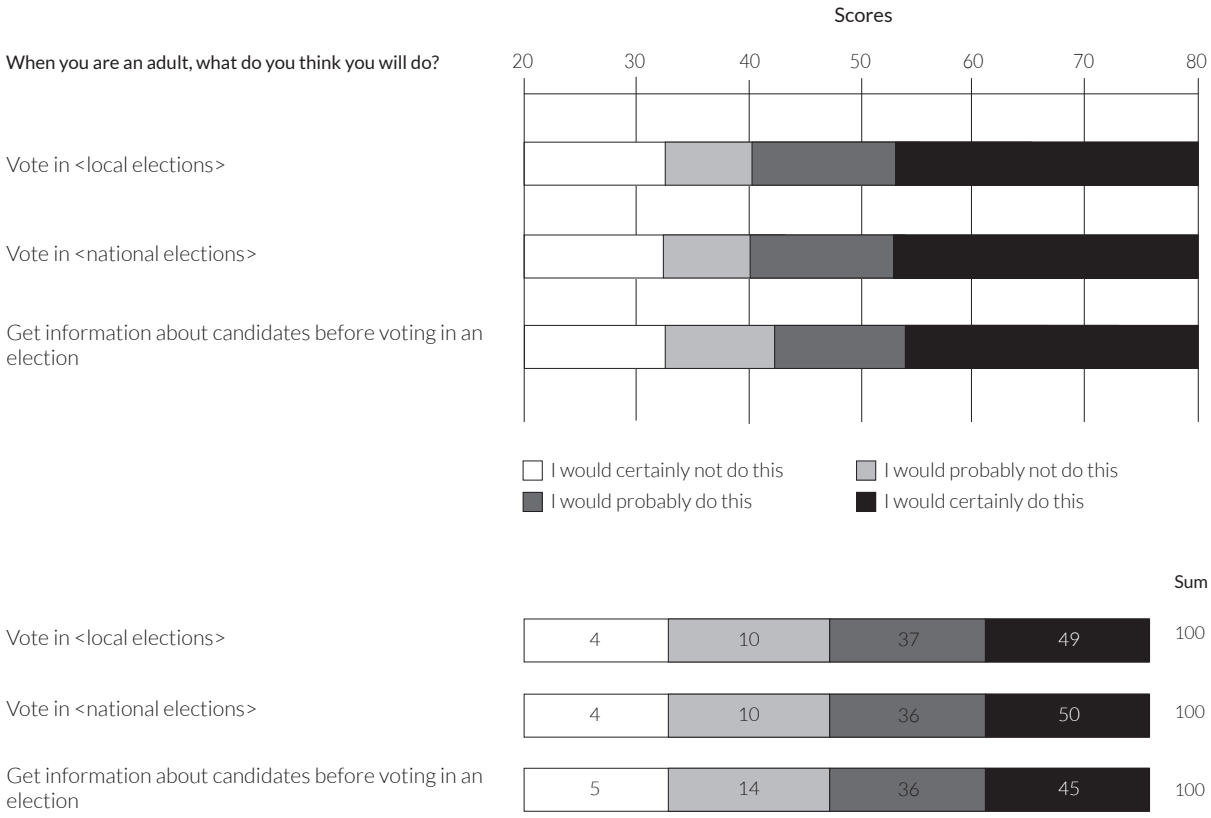
					Sum
Talk to others about your views on political or social issues	7	27	44	21	100
Contact an <elected representative>	14	46	31	10	100
Take part in a peaceful march or rally	11	36	36	16	100
Collect signatures for a petition	12	37	36	16	100
Contribute to an online discussion forum about social or political issues	13	42	33	12	100
Organize an online group to take a stance on a controversial political or social issue	17	46	27	11	100
Participate in an online campaign	14	40	34	12	100

Figure 4.7: Item map for the scale reflecting students' expectations to participate in illegal protest



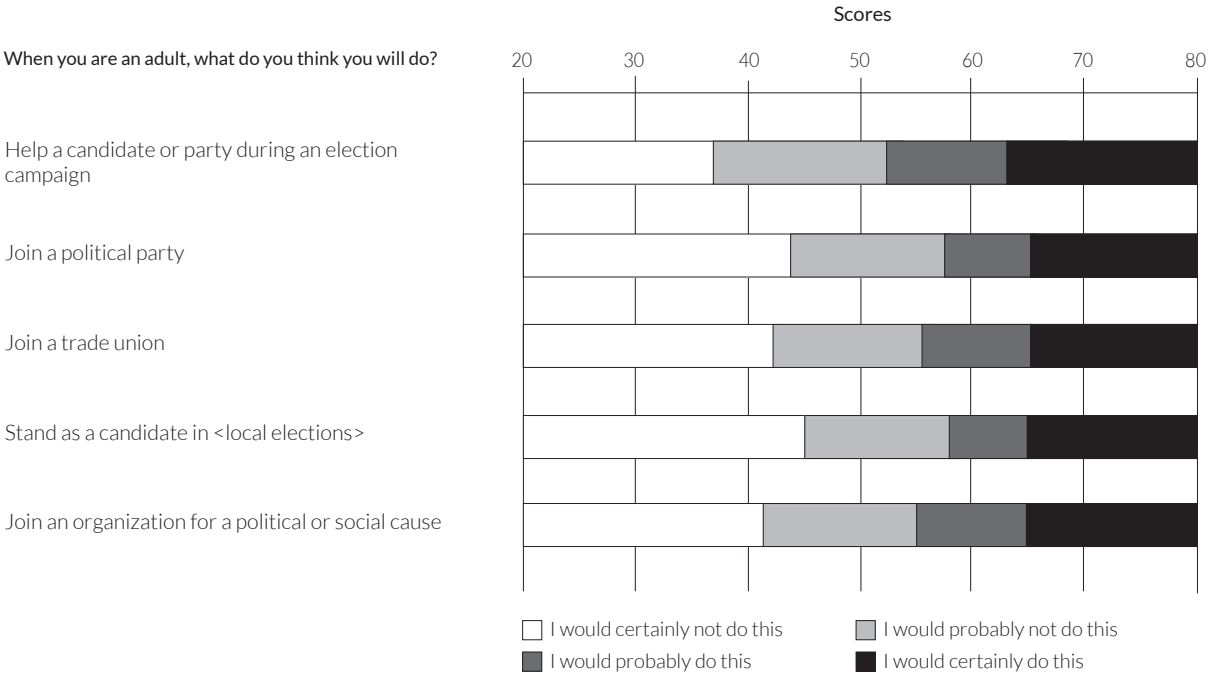
					Sum
Spray-paint protest slogans on walls	43	34	15	8	100
Stage a protest by blocking traffic	46	34	13	7	100
Occupy public buildings as a sign of protest	50	32	12	7	100

Figure 4.8: Item map for the scale reflecting students' expected electoral participation



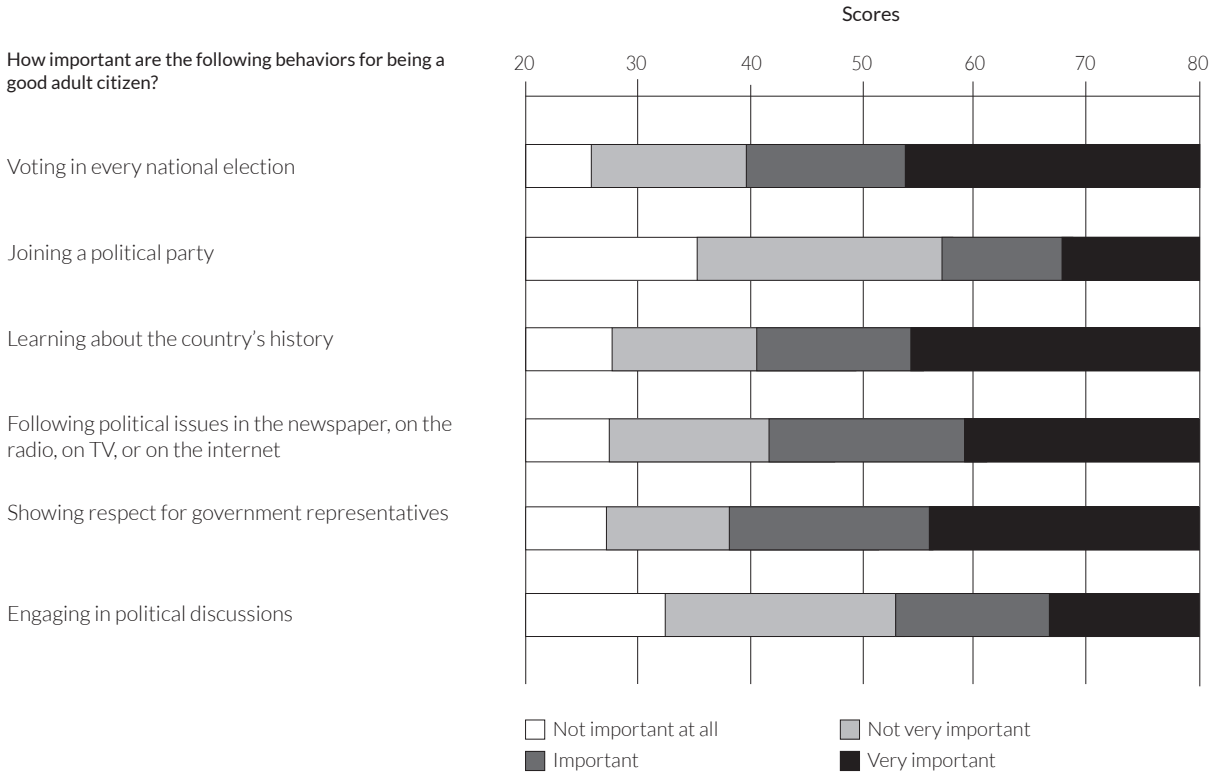
					Sum
Vote in <local elections>	4	10	37	49	100
Vote in <national elections>	4	10	36	50	100
Get information about candidates before voting in an election	5	14	36	45	100

Figure 4.9: Item map for the scale reflecting students' expected active political participation



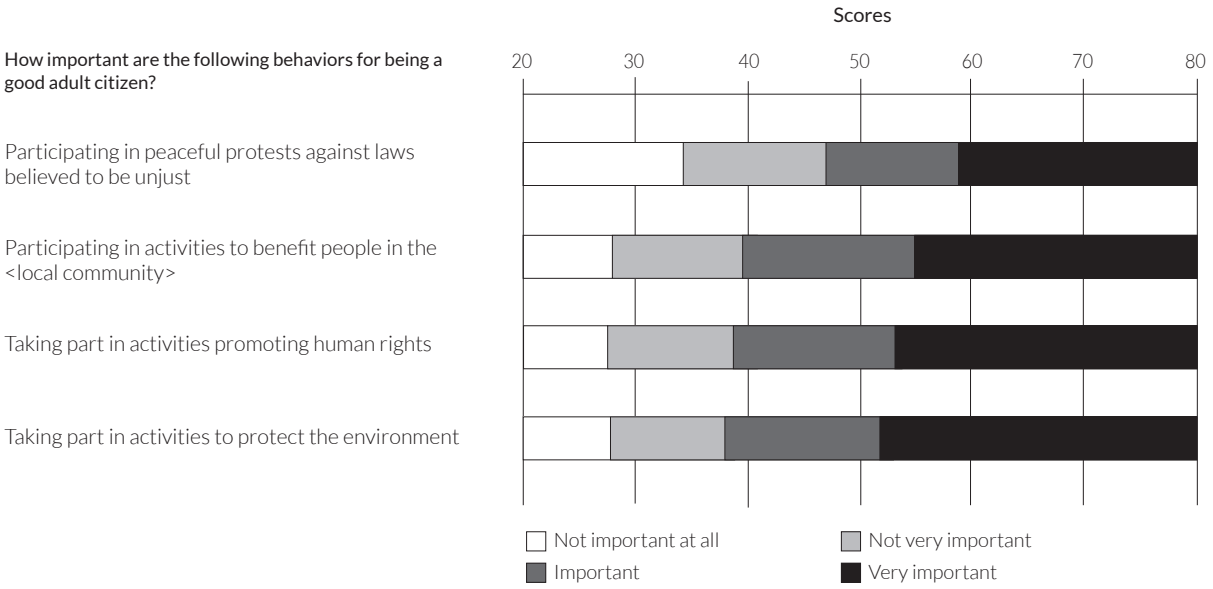
					Sum
Help a candidate or party during an election campaign	13	44	31	13	100
Join a political party	27	47	18	8	100
Join a trade union	23	45	24	9	100
Stand as a candidate in <local elections>	31	44	16	9	100
Join an organization for a political or social cause	21	45	25	9	100

Figure 5.1: Item map for the scale reflecting students' perception of the importance of conventional citizenship



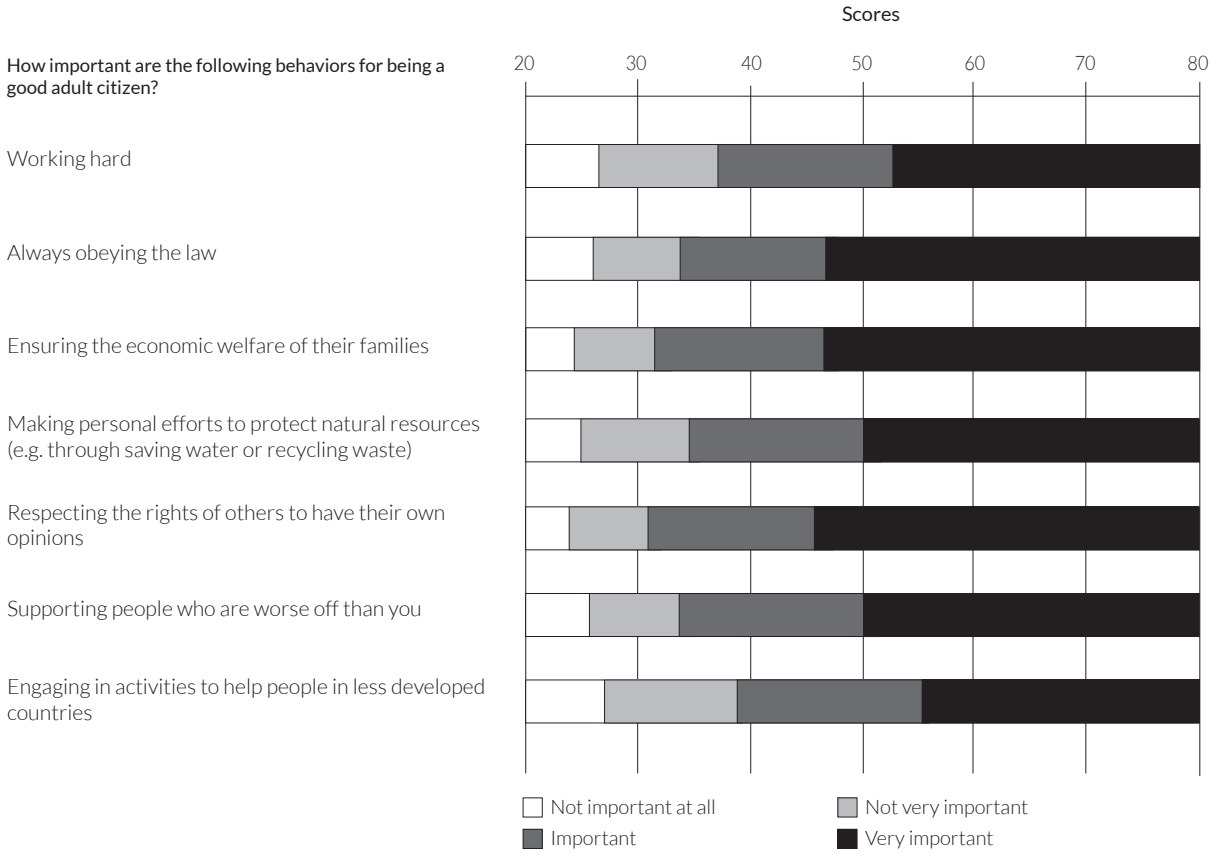
					Sum
Voting in every national election	3	16	41	41	100
Joining a political party	14	53	23	9	100
Learning about the country's history	4	17	40	39	100
Following political issues in the newspaper, on the radio, on TV, or on the internet	4	20	48	28	100
Showing respect for government representatives	3	13	47	36	100
Engaging in political discussions	10	46	33	12	100

Figure 5.2: Item map for the scale reflecting students' perception of the importance of social-movement-related citizenship



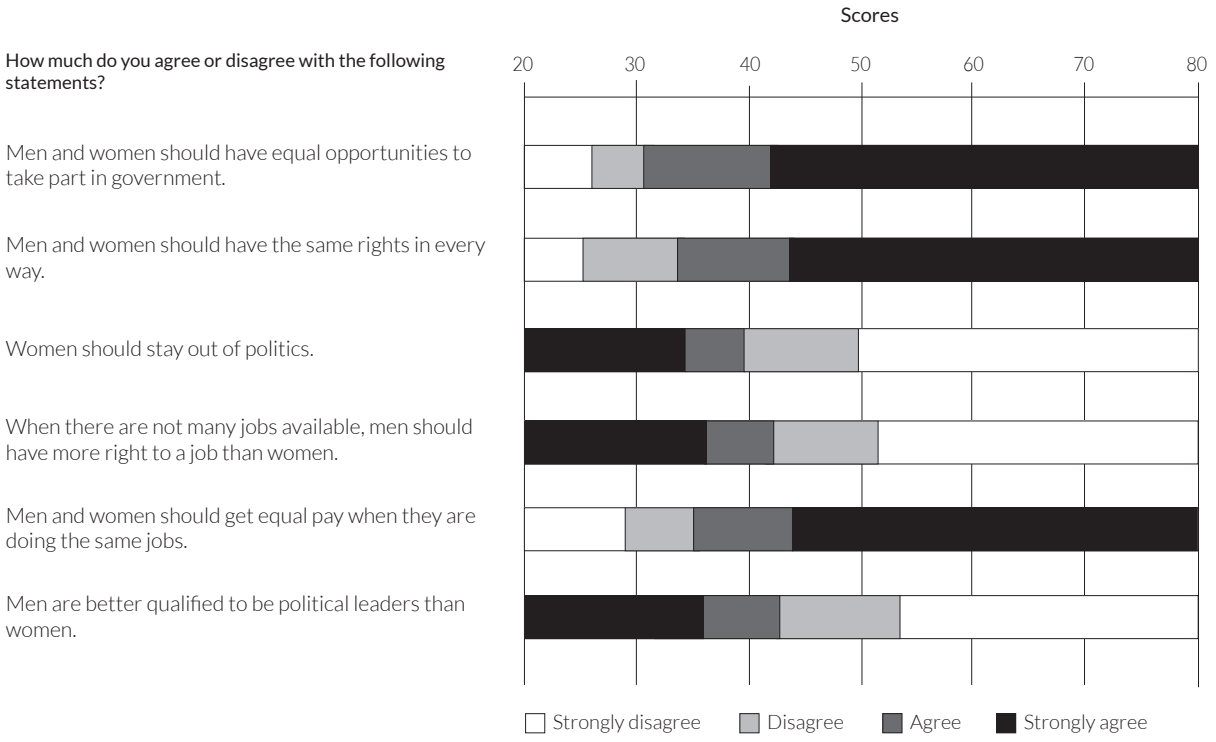
					Sum
Participating in peaceful protests against laws believed to be unjust	8	30	38	24	100
Participating in activities to benefit people in the <local community>	3	15	47	35	100
Taking part in activities promoting human rights	2	14	44	40	100
Taking part in activities to protect the environment	2	12	41	45	100

Figure 5.3: Item map for the scale reflecting students' perception of the importance of personal responsibility for citizenship



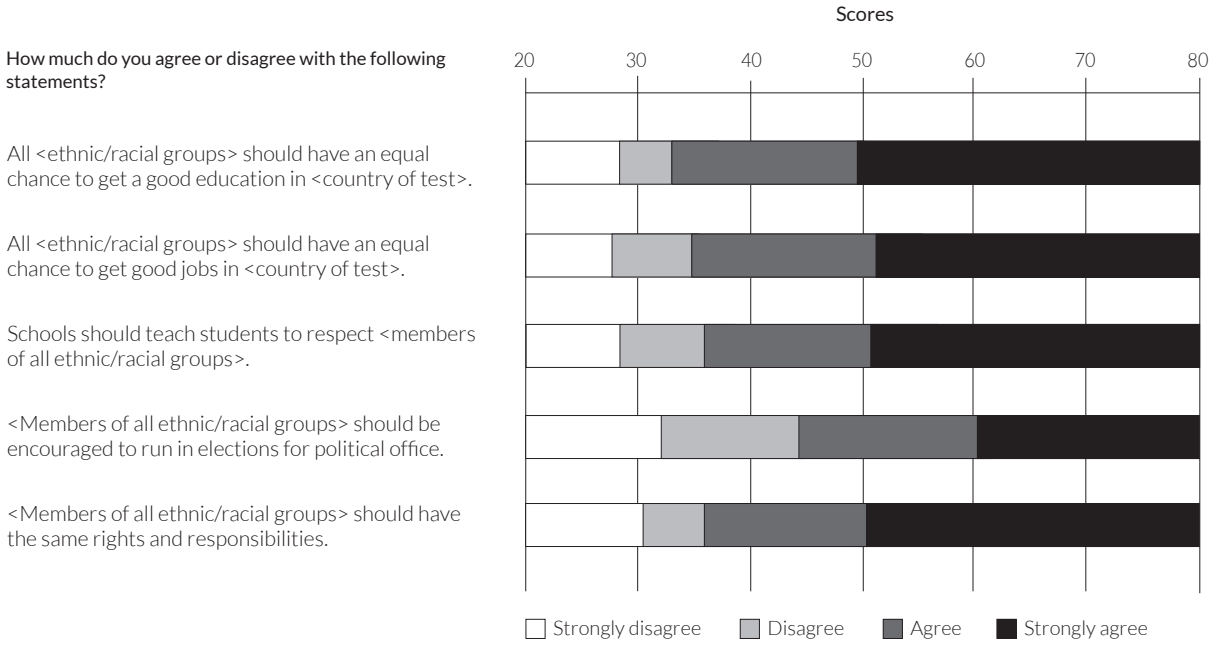
					Sum
Working hard	3	12	43	42	100
Always obeying the law	2	7	33	59	100
Ensuring the economic welfare of their families	1	5	34	60	100
Making personal efforts to protect natural resources (e.g. through saving water or recycling waste)	2	9	40	49	100
Respecting the rights of others to have their own opinions	1	4	33	62	100
Supporting people who are worse off than you	2	7	42	49	100
Engaging in activities to help people in less developed countries	3	16	46	35	100

Figure 5.4: Item map for the scale reflecting students' endorsement of gender equality



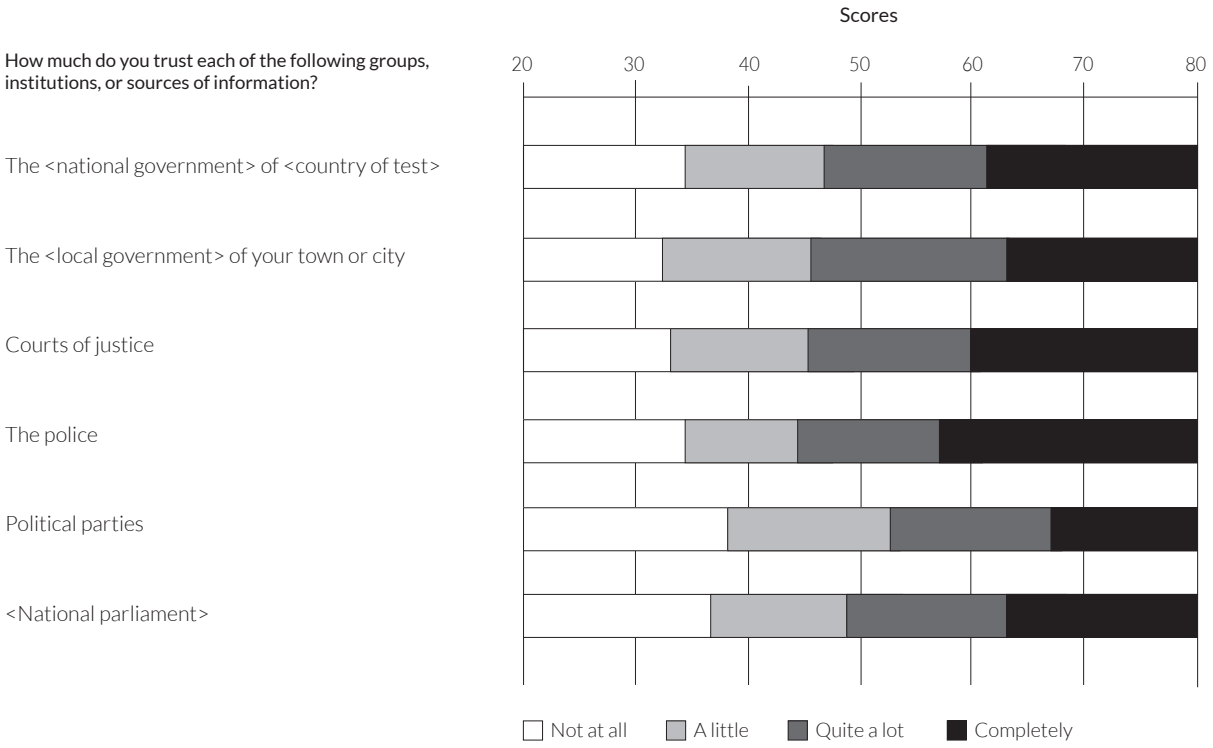
					Sum
Men and women should have equal opportunities to take part in government.	1	2	21	75	100
Men and women should have the same rights in every way.	1	5	22	72	100
Women should stay out of politics.	6	9	30	55	100
When there are not many jobs available, men should have more right to a job than women.	9	13	29	50	100
Men and women should get equal pay when they are doing the same jobs.	2	6	22	71	100
Men are better qualified to be political leaders than women.	9	15	32	45	100

Figure 5.5: Item map for the scale reflecting students' endorsement of equal rights for all ethnic/racial groups



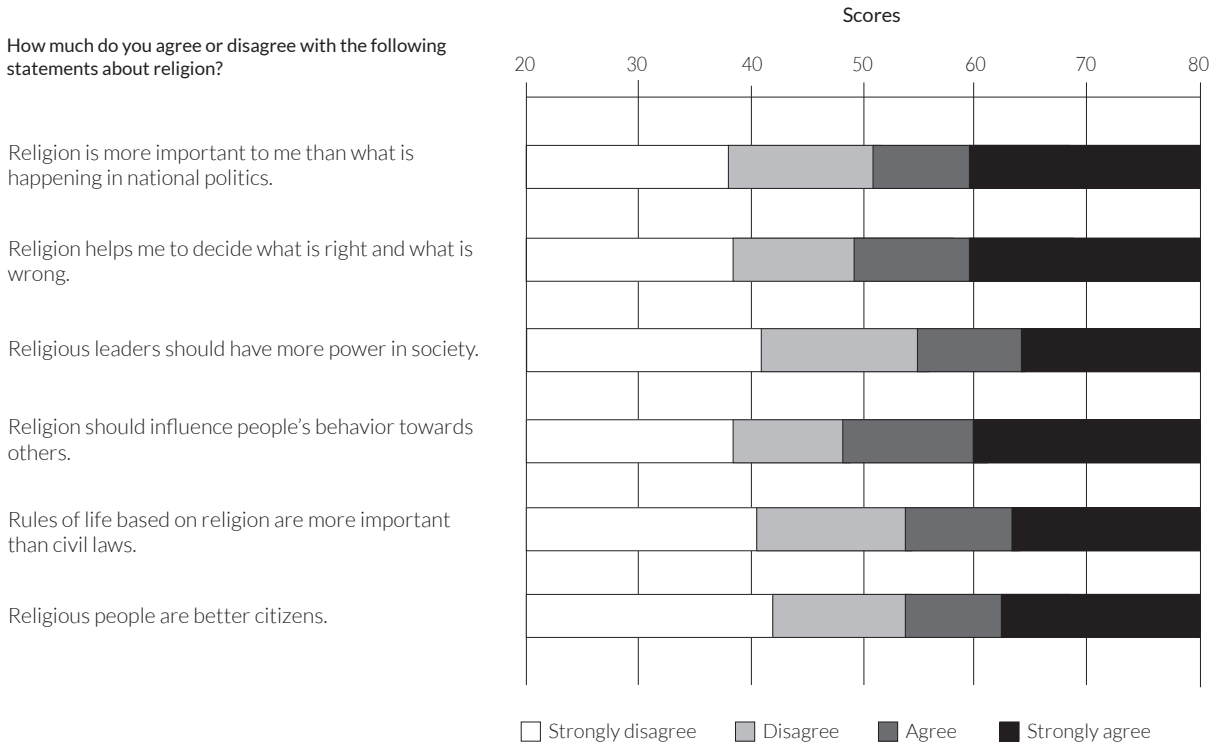
					Sum
All <ethnic/racial groups> should have an equal chance to get a good education in <country of test>.	1	3	35	61	100
All <ethnic/racial groups> should have an equal chance to get good jobs in <country of test>.	1	5	38	56	100
Schools should teach students to respect <members of all ethnic/racial groups>.	1	6	35	58	100
<Members of all ethnic/racial groups> should be encouraged to run in elections for political office.	4	20	46	30	100
<Members of all ethnic/racial groups> should have the same rights and responsibilities.	2	5	35	58	100

Figure 5.6: Item map for the scale reflecting students' trust in civic institutions



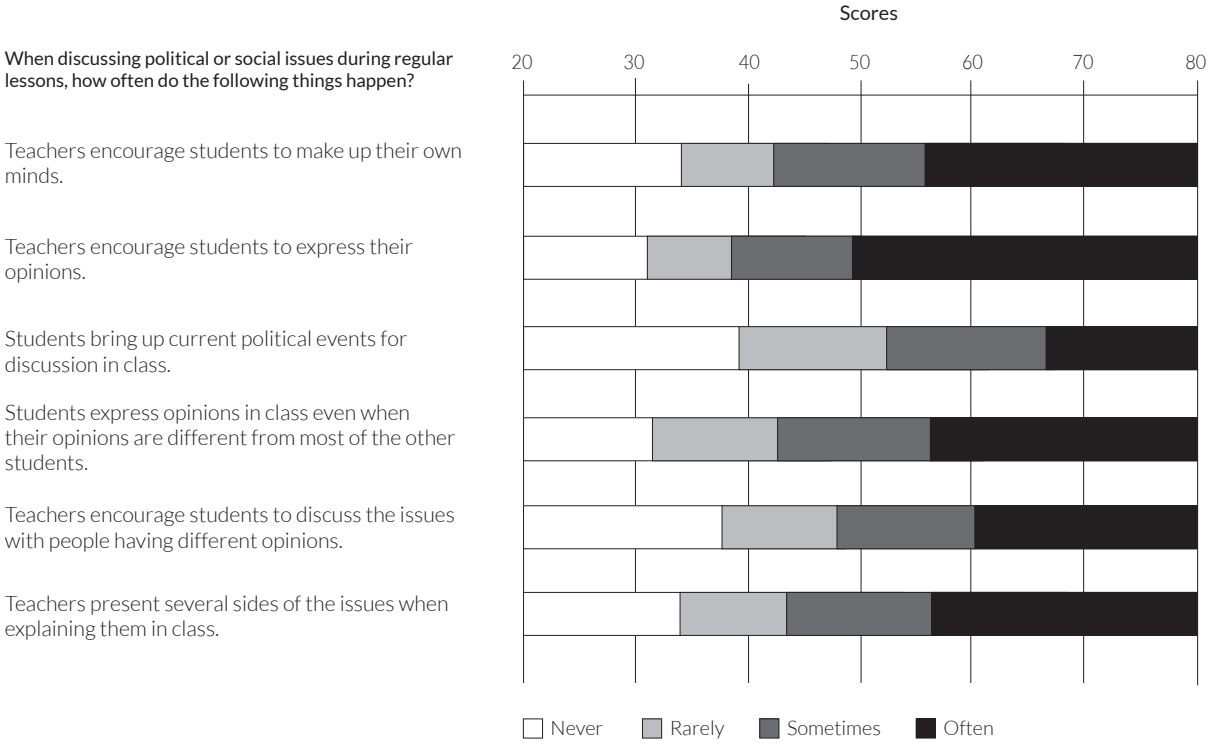
					Sum
The <national government> of <country of test>	7	28	46	19	100
The <local government> of your town or city	5	27	52	16	100
Courts of justice	5	25	48	22	100
The police	6	20	43	30	100
Political parties	12	43	36	9	100
<National parliament	9	31	44	15	100

Figure 5.7: Item map for the scale reflecting students' endorsement of religious influence in society



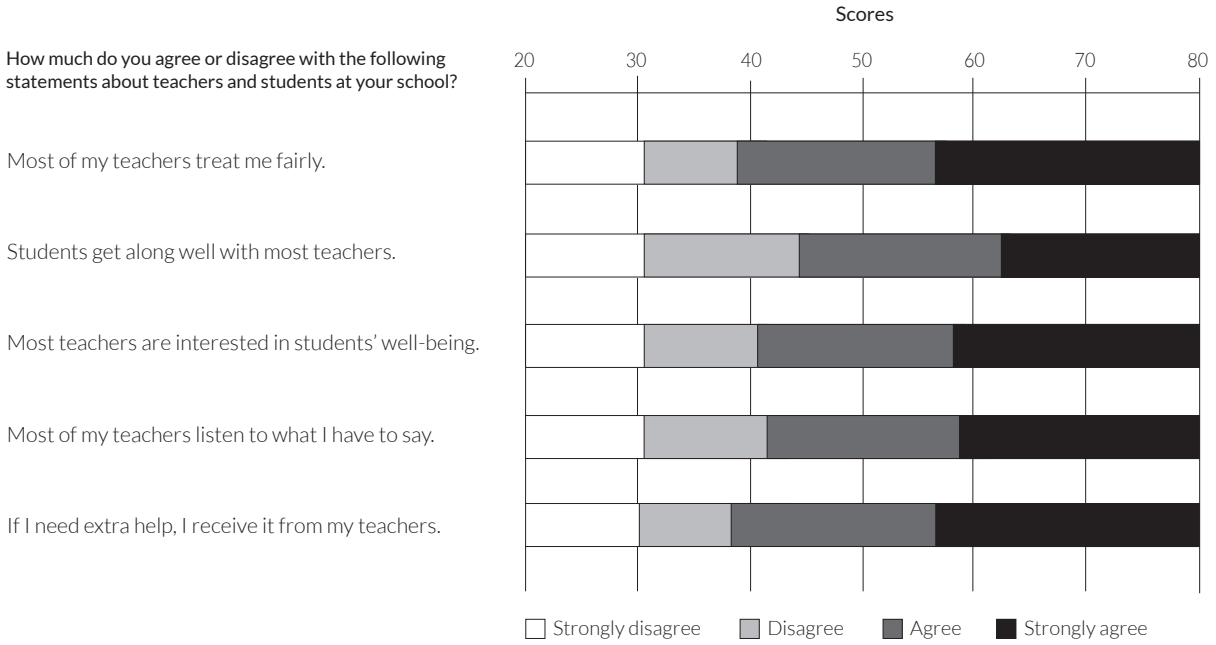
					Sum
Religion is more important to me than what is happening in national politics.	20	36	27	17	100
Religion helps me to decide what is right and what is wrong.	20	30	32	18	100
Religious leaders should have more power in society.	26	44	22	9	100
Religion should influence people's behavior towards others.	20	27	37	17	100
Rules of life based on religion are more important than civil laws.	25	41	24	10	100
Religious people are better citizens.	29	38	22	11	100

Figure 6.1: Item map for the scale reflecting students' perception of openness in classroom discussions



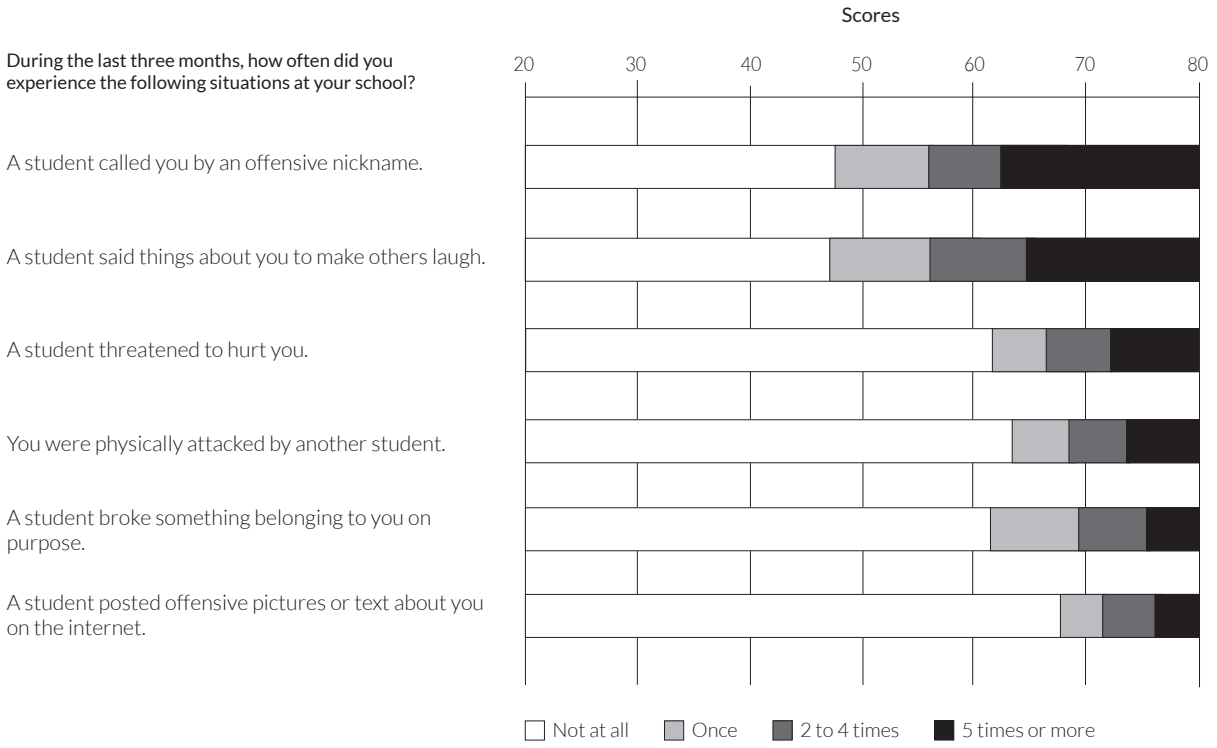
					Sum
Teachers encourage students to make up their own minds.	9	16	41	34	100
Teachers encourage students to express their opinions.	5	11	32	53	100
Students bring up current political events for discussion in class.	19	37	32	11	100
Students express opinions in class even when their opinions are different from most of the other students.	7	19	41	33	100
Teachers encourage students to discuss the issues with people having different opinions.	15	26	37	22	100
Teachers present several sides of the issues when explaining them in class.	9	19	40	32	100

Figure 6.2: Item map for the scale reflecting students' perception of student–teacher relations at school



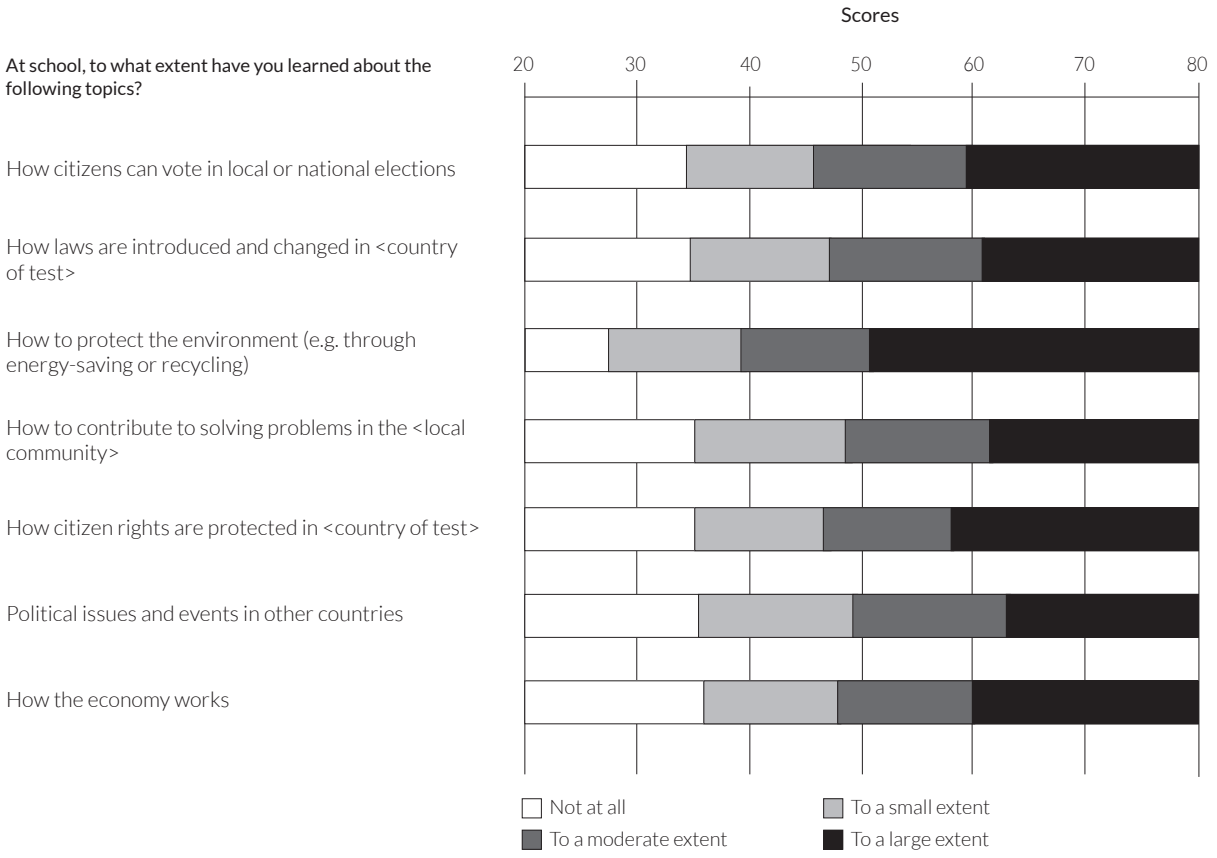
					Sum
Most of my teachers treat me fairly.	3	10	50	37	100
Students get along well with most teachers.	3	23	53	21	100
Most teachers are interested in students' well-being.	3	14	51	33	100
Most of my teachers listen to what I have to say.	3	16	51	31	100
If I need extra help, I receive it from my teachers.	2	10	51	37	100

Figure 6.3: Item map for the scale reflecting students' reports on physical or verbal abuse



					Sum
A student called you by an offensive nickname.	45	26	15	14	100
A student said things about you to make others laugh.	44	27	18	12	100
A student threatened to hurt you.	81	11	5	3	100
You were physically attacked by another student.	84	11	4	2	100
A student broke something belonging to you on purpose.	80	15	4	2	100
A student posted offensive pictures or text about you on the internet.	90	7	2	1	100

Figure 6.4: Item map for the scale reflecting students' reports on learning of civic issues at school



					Sum
How citizens can vote in local or national elections	11	26	40	23	100
How laws are introduced and changed in <country of test>	12	30	39	20	100
How to protect the environment (e.g. through energy-saving or recycling)	4	15	35	47	100
How to contribute to solving problems in the <local community>	12	33	36	19	100
How citizen rights are protected in <country of test>	12	27	36	26	100
Political issues and events in other countries	13	34	37	16	100
How the economy works	13	30	35	22	100

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APPENDIX E: PAIR-WISE COMPARISONS OF CIVIC KNOWLEDGE

Table E.1: Pair-wise comparisons of average country civic knowledge scale scores

Country	Average scale score	Denmark†	Chinese Taipei	Sweden[1]	Finland	Norway (9)[1]	Estonia[1]	Russian Federation	Belgium (Flemish)	Slovenia	Croatia	Italy	Netherlands†	Lithuania	Latvia[1]	Malta	Bulgaria	Chile	Colombia	Mexico	Peru	Dominican Republic
Denmark†	586 (3.0)				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Chinese Taipei	581 (3.0)					▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Sweden[1]	579 (2.8)					▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Finland	577 (2.3)	▼				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Norway (9)[1]	564 (2.2)	▼	▼	▼	▼		▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Estonia[1]	546 (3.1)	▼	▼	▼	▼	▼				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Russian Federation	545 (4.3)	▼	▼	▼	▼	▼				▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Belgium (Flemish)	537 (4.1)	▼	▼	▼	▼	▼						▲	▲	▲	▲	▲	▲	▲	▲	▲	▲	▲
Slovenia	532 (2.5)	▼	▼	▼	▼	▼	▼	▼				▲		▲	▲	▲	▲	▲	▲	▲	▲	▲
Croatia	531 (2.5)	▼	▼	▼	▼	▼	▼	▼						▲	▲	▲	▲	▲	▲	▲	▲	▲
Italy	524 (2.4)	▼	▼	▼	▼	▼	▼	▼	▼	▼					▲	▲	▲	▲	▲	▲	▲	▲
Netherlands†	523 (4.5)	▼	▼	▼	▼	▼	▼	▼	▼						▲	▲	▲	▲	▲	▲	▲	▲
Lithuania	518 (3.0)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼				▲	▲	▲	▲	▲	▲	▲	▲
Latvia[1]	492 (3.1)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼				▲	▲	▲	▲	▲
Malta	491 (2.7)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼				▲	▲	▲	▲	▲
Bulgaria	485 (5.3)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼						▲	▲	▲
Chile	482 (3.1)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼				▲	▲	▲
Colombia	482 (3.4)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼				▲	▲	▲
Mexico	467 (2.5)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼		▲	▲
Peru	438 (3.5)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼		▲
Dominican Republic	381 (3.0)	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	▼	

▲ Achievement significantly higher than in comparison country

▼ Achievement significantly lower than in comparison country

Notes:
() Standard errors appear in parentheses.
(9) Country deviated from International Defined Population and surveyed adjacent upper grade.
† Met guidelines for sampling participation rates only after replacement schools were included.
[1] National Defined Population covers 90% to 95% of National Target Population.

APPENDIX F: ORGANIZATIONS AND INDIVIDUALS INVOLVED IN ICCS 2016

International Study Center

The international Study Center is located at the Australian Council for Educational Research (ACER). ACER is responsible for designing and implementing the study in close cooperation with LPS (Laboratorio di Pedagogia Sperimentale at the Roma Tre University, Rome, Italy) on behalf of the IEA.

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International Association for the Evaluation of Educational Achievement (IEA)

IEA provides overall support and supervision for ICCS. The IEA Hamburg, Germany, as the international coordinating center for ICCS, is responsible for overall coordination of all activities, relations with participating countries, and sampling and data-processing. The IEA Amsterdam, the Netherlands, is responsible for translation verification and quality monitoring of the data collection.

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Project advisory committee (PAC)

The ICCS 2016 PAC has, from the beginning of the project, advised the international study center and its partner institutions during regular meetings.

PAC members

Erik Amnå, *Örebro University, Sweden*
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Other project advisors

ICCS sampling referee

Marc Joncas from Statistics Canada in Ottawa was the sampling referee for the study. He provided invaluable advice on all sampling-related aspects of it.

Expert

Christian Monseur (Université de Liège) conducted a review of test and questionnaire scaling methodology. In addition, the international study center invited him to review the content of the international report.

ICCS 2016 National Research Coordinators (NRCs)

The national research coordinators (NRCs) played a crucial role in the development of the project. They provided policy- and content-oriented advice on the development of the instruments and were responsible for the implementation of ICCS in participating countries.

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The IEA's International Civic and Citizenship Education Study (ICCS) investigates the ways in which young people around the world are prepared to undertake their roles as citizens in the second decade of the 21st century. ICCS 2016, the second assessment cycle of a study initiated in 2009, allows, for the first time, robust comparisons over time for a broad range of aspects related to civic knowledge, attitudes, and engagement in a wide range of countries. Twenty-four countries in Asia, Europe, and Latin America took part in ICCS 2016.

The ICCS 2016 international report responds to enduring and emerging challenges of educating young people in a world where contexts of democracy and civic participation continue to change. It focuses on students' knowledge and understanding of key aspects of civics and citizenship, as well as students' attitudes to, and engagement with, civic life. New developments include the increase in the use of social media by young people as a tool for civic engagement, growing concerns about global threats and sustainable development, and increased recognition of the role of schools in fostering peaceful ways of interaction among young people.

Over the past 50 years, the IEA has conducted comparative research studies in a range of domains focusing on educational policies, practices, and outcomes in many countries around the world. The association initiated its first survey of civic education in 1971. The reliable comparative data collected in ICCS 2016 will allow education systems to evaluate the strengths of educational policies, both internationally and in a regional context, and to measure progress toward achieving critical components of the United Nations' 2030 agenda for sustainable development.

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