

Civic Knowledge and Engagement

**An IEA Study of Upper Secondary
Students in Sixteen Countries**

**Jo-Ann Amadeo, Judith Torney-Purta,
Rainer Lehmann, Vera Husfeldt, and
Roumiana Nikolova**



The International Association for the
Evaluation of Educational Achievement

Civic Knowledge and Engagement

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The International Association for the
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The International Association for the Evaluation of Educational Achievement, known as IEA, is an independent, international consortium of national research institutions and governmental research agencies, with headquarters in Amsterdam. Its primary purpose is to conduct large-scale comparative studies of educational achievement with the aim of gaining more in-depth understanding of the effects of policies and practices within and across systems of education.

FOREWORD

In 1994 the General Assembly of the International Association for the Evaluation of Educational Achievement (IEA) decided to undertake a study on civic education. It was not the first time that IEA had focused on this issue. As early as 1971 it had taken its first look at civic education, in the context of the so-called Six Subject Study. But the decision, in 1994, to look again at the subject was a sound one given the huge changes by then facing many countries as a result of the events of the late 1980s and early 1990s. The considerable task of establishing or re-establishing democratic governments in a number of countries highlighted even more the need to develop citizenship and the role that educational systems could play in meeting that aim. Assessing civic education was important not only for those countries, however, but also for societies with long-established democratic traditions. In general, it could be said that changes in the political, social, and educational scenes of many countries suggested the timeliness of this new study, particularly in terms of its potential to make a substantial contribution to an understanding of these changes.

The International Association for the Evaluation of Educational Achievement (IEA) was, and is, in an excellent position to make such a contribution. It was founded in 1959 for the purpose of conducting comparative studies focusing on educational policies and practices in various countries and educational systems around the world. Since that time, it has completed a significant number of studies in different subjects, as varied as reading literacy, mathematics, science, pre-primary education, languages, and information and communication technologies in education, among others. With its nearly 60 member countries, its Secretariat located in Amsterdam, and a number of interconnected research centers in all continents, IEA is in a very sound situation to produce cross-country comparative studies that are based on rigorously collected and analysed data.

In 1994, the IEA General Assembly approved the Civic Education Study as a two-phased project. The aim of Phase 1 was to collect extensive information describing the circumstances, content, and process of civic education in participating countries. In doing this, IEA summarised what country experts considered 14-year-old students should know about a number of topics related to democratic institutions and citizenship, including elections, individual rights, national identity, political participation, and respect for ethnic and political diversity.

The results of Phase 1 were presented in *Civic education across countries: Twenty-four national case studies from the IEA Civic Education Project*, a book that received wide recognition from researchers, practitioners, and policy-makers. Its 24 national case studies were written mostly by National Research Coordinators, and also took into account opinions expressed by National Expert Panels.

The information collected in Phase 1 was also used for preparing Phase 2. This second part of the project consisted of a test (keyed cognitive items) and a survey (un-keyed attitudinal and behavioural items) administered in each participating country to representative samples of students belonging to two

different populations. In 1999, about 90,000 students in the modal grade for 14-year-olds from 28 countries were tested. A questionnaire was also administered to civic-related teachers and to school principals. The international findings were presented in 2001 in the volume *Citizenship and education in twenty-eight countries: Civic knowledge and engagement at age fourteen*, which received wide attention.

In 2000, over 50,000 upper secondary students from 16 countries were also tested. The test for that older population included similar questions to those for the younger one, but also some new, more difficult items, and some items on economic literacy. The older students also received the same survey of civic concepts and attitudes as the younger students.

This new publication, the third of a series, presents the results of the older population—upper secondary students—for Phase 2 of the study. The information presented here complements the qualitative data of the first volume and the quantitative data of the second volume (documenting the findings for the younger students) with new data about civic knowledge and engagement. Together, the three publications provide a complete and remarkable picture of civic education policies, practices, and results across countries in the late 1990s.

Having identified and discussed the policies and the outcomes of our respective countries in an international context, we know that the time has arrived to pay special attention to the factors that merit consideration and should orient our action. Wise action requires a deep knowledge of the field. The comparative view helps us set our reflections in a context that allows us to interpret and to explain. In this manner, the value of an international approach can be truly realised. It is this realisation that is exactly the kind of contribution IEA can make to the development of education and educational systems. In the end, our activities can only be justified if they contribute to the advancement of societies made up of better-developed individuals.

IEA is particularly grateful to the following organisations that are the major contributors to the international overhead of Phase 2 of the study: the Deutsche Forschungsgemeinschaft (DFG or German Science Association) and the William T. Grant Foundation of New York. As in all IEA studies, the individual participating countries have also provided funding.

This new volume represents the result of initiatives developed by the International Steering Committee of the study and by the National Research Coordinators and National Experts. Special thanks should necessarily go to the International Coordinators, Professor Judith Torney-Purta (University of Maryland) and Professor Rainer Lehmann (Humboldt Universität zu Berlin). As the leaders of this study, they have provided its special spirit, and so deserve our recognition and thanks.

Alejandro Tiana
CHAIR OF IEA



Introduction to the IEA Civic Education Study

Civic education in many countries traditionally has been either a neglected or contested subject. Questions are raised about how broadly it should be framed and the extent to which schooling is important. What do young people think and know about democracy and government? Do they understand how democratic institutions and processes work? Do they expect to vote or take part in other civic activities as adults? Finally, what roles do schools and community groups play in preparing adolescents for civic and political life?

While no single piece of research could be expected to fully answer questions such as these, the IEA Civic Education Study broke new ground in addressing these and other questions. The International Association for the Evaluation of Educational Achievement (IEA) Civic Education Study was designed as a two-phased research project to create the possibility of a rigorous data-based approach to a number of questions with implications for policy and educational practice. Its major publications are Torney-Purta, Schwille, and Amadeo (1999), Torney-Purta, Lehmann, Oswald, and Schulz (2001), Steiner-Khamsi, Torney-Purta, and Schwille (2002), and this volume.

THE IEA CIVIC EDUCATION STUDY

The International Association for the Evaluation of Educational Achievement (IEA), headquartered in Amsterdam, is a consortium of educational research organizations in 58 countries, with a history of conducting cross-national research in education. In 1971, IEA conducted a civic education survey that employed nationally representative samples of three age groups in the Federal Republic of Germany, Finland, Ireland, Israel, Italy, the Netherlands, New Zealand, Sweden, and the United States (Torney, Oppenheim, & Farnen, 1975). About 30,000 students responded to instruments measuring knowledge and attitudes, while 5,000 teachers and 1,300 principals and headmasters described pedagogy and the characteristics of schools. The instrument included a test of civic knowledge, measures of support for democratic values (including tolerance and support for women's political rights), support for the national and local government, and participation in political activities.

In 1994, the governing body of IEA, its General Assembly, voted to undertake a second Civic Education Study because of interest among its diverse member countries, many of which were experiencing political, economic, and social transitions. The decision was made to initiate a two-phased study of civic education to explore how students view their citizenship identity and how their views are influenced by the political, educational, and social context in the countries in which they live. Broadly speaking, the overall goal of the study was to identify and examine in a comparative framework the ways in which young people are prepared for their roles as citizens in democracies.

During the first phase of the IEA Civic Education Study, conducted in 1996 and 1997, researchers developed qualitative case studies that examined the contexts and meaning of civic education in their countries. They also provided background for the development of the instruments administered to students during Phase 2 (Torney-Purta et al., 1999). The second phase of the study, conducted from 1998 to 2000, consisted of a test of civic knowledge and a

survey of civic attitudes and engagement administered to students and then submitted to statistical analysis. The study completed testing of the 'standard population' of 14-year-olds from 28 countries in 1999 and released an international report in early 2001 covering differences by country and gender, as well as analysis of predictors (Torney-Purta, Lehmann et al., 2001). Results from the 14-year-olds as well as the study instrument can be found at www.wam.umd.edu/~iea/.

In line with a desire to assess students nearer to the age of first vote, upper secondary school students (ranging from 16 to 19 years of age) in 16 countries were tested during Phase 2. Testing of this older population of students was completed in 2000, and the findings are reported in this volume.

The study was massive, both in terms of the breadth of its coverage as well as the number of respondents. Approximately 90,000 14-year-old students were tested in 1999 and nearly 50,000 students aged 16 to 19 years were tested in 2000. The testing met IEA technical standards of sampling, instrumentation, and translation verification.

Both groups of students were tested on their civic knowledge and skills. They also were surveyed on their concepts of democracy and government; their attitudes related to trust in institutions, political efficacy, and opportunities for immigrants and women; and, finally, their expected participatory actions relating to politics. A final part of the student survey assessed the students' perceptions of the climate for discussion in their classrooms as well as other background variables. In addition, an internationally relevant list of organizations to which students might belong was developed. Students were asked to indicate to which groups they belonged. This list included organizations such as student governments, school clubs, environmental groups, and other youth organizations.

RESULTS FROM THE 14-YEAR-OLD STUDENTS

Results from the survey of 14-year-old students indicated that students in most of the 28 participating countries had an understanding of fundamental democratic values, processes, and institutions, although this understanding lacked depth. Also, the 14-year-old students in most of the participating countries agreed that good citizenship includes the obligation to vote, and that schools that model democratic processes are those most effective in promoting civic knowledge and engagement. The students' patterns of trust in government-related institutions varied widely across countries, but across countries, students were supportive of immigrants' rights and the political rights of women. Another across-country pattern revealed differences between students from the more and the less durable democracies in the areas of political trust and the belief that government should be responsible for the economic well-being of citizens. In short, the survey of 14-year-old students indicated that young people of this age are nascent members of the political cultures in their countries.

But what about students who are nearing the completion of their secondary schooling? To what extent are their views influenced by age and developmental trajectory as well as by home background and cultural norms or values?

WHY STUDY UPPER SECONDARY STUDENTS?

During the second round of Phase 2 testing, the civic knowledge test and the survey of attitudes and behavior were given to upper secondary students in 16 countries. This instrument was very similar to the one used with the 14-year-olds. The countries that tested the older population of students included Chile, Colombia, Cyprus, the Czech Republic, Denmark, Estonia, Hong Kong (SAR), Israel, Latvia, Norway, Poland, Portugal, the Russian Federation, Slovenia, Sweden, and Switzerland (German).

It was not possible because of differences in the educational systems at this level to sample a grade of a defined age. The students' mean ages, therefore, ranged from 16.6 years in Latvia to 19.4 years in Denmark, with a mean age of 17.9 for the international sample. In two countries—Israel and Latvia—the average student was under 17 years of age, and in only one country—Denmark—the average student was over 19 years of age. Throughout the text, we refer to this older population of students (ranging in age from 16 to slightly more than 19 years) as upper secondary students.

Fifteen countries tested both 14-year-olds (in 1999) and the upper secondary students (in 2000). Israel tested only the older students. Samples at the upper secondary level from Colombia and Hong Kong (SAR) could not be weighted because the requisite information was unavailable. Their mean scores are based on unweighted data and appear in an appendix and not in Chapters 3 through 7.

These older students, nearing the end of their secondary schooling, are an interesting age cohort to examine. Many of them are making the transition from adolescence to adulthood and, in so doing, are taking on new life roles. For example, older adolescents may be preparing to enter the job market or military service, considering marriage, setting up their own households, or competing for places in higher education. Government policies in a wide range of areas, especially the economy, may therefore be important to them. Moreover, 18-year-olds are eligible to vote in all 16 countries in the study, and as they approach the age of first vote, politics, politicians, and political issues may become particularly salient to them. Developmental psychologists have argued that identity development in the area of political beliefs and values generally develops later than identity in other domains (Archer, 1982; Goossens, 2001; Waterman, 1982). While many individuals address the questions of social roles, occupation, and religious beliefs early in adolescence, many do not form their political identities until late adolescence or early adulthood.

Furthermore, societies' expectations for older adolescents may very well differ from their expectations for 14-year-olds. The older students may be expected to be more active members of their communities. Moreover, with three more years of schooling than the younger age group, they may be expected to have a greater in-depth understanding of democratic processes and institutions. Although we did not directly investigate the extent to which these expectations exist for older students, we did examine the extent to which differences are to be found between the older and younger students in the areas of knowledge, attitudes, and behaviors.

Testing of the older students provided an opportunity to examine the complexities of civic education in multiple ways. In the chapters that follow, we look at similarities and differences in civic knowledge, attitudes, and behaviors from the perspective of age, gender, and cross-national patterns.

The current volume, unlike the one documenting the study of 14-year-olds (Torney-Purta, Lehmann et al., 2001), also gives attention to economics as a civic-related topic for knowledge questions. The instrument developers, in consultation with the IEA Civic Education Study National Research Coordinators, and on the basis of re-examination of the Phase 1 case studies, decided that knowledge of economics was an important and feasible topic for testing with the upper secondary population. The opinions of secondary teachers in some countries were reviewed, suggesting that knowledge of economics is thought of as related to citizenship because of the economic dimension of political issues such as taxation, school funding, and employment opportunities (Becker, Walstad, & Watts, 1994; Van Fossen, 2000).

In developing this part of the upper secondary instrument (which did not exist in the 14-year-old item set), we relied upon portions of the Test of Economic Literacy (TEL) developed and administered in the United States by Soper and Walstad (1987), especially the items subsequently used in a German version and administered in Austria, Germany, and Switzerland (Beck & Krumm, 1991). These results and others reviewed in Lietz and Kotte (2000) from the United Kingdom and Australia showed that males consistently outperformed females, while low income level of the family was associated with lower performance. A similar gender difference favoring males was found in the United States and the United Kingdom by Whitehead and Hall (1991). Jackstadt and Grootaert (1980) found that students who did not gender-stereotype economics scored higher on a test of economic understanding than those who held a stereotype of either type. In addition to the items adapted from the TEL, some items with economic content were developed in the same way that other items suitable for upper secondary students were formulated. Further details about test characteristics are given in Chapter 3.

CROSS-NATIONAL RESEARCH

What can a cross-national study contribute to the educational debate? It can document similarities and differences in student outcomes, and also in the organization and content of programs and practices across the world. Another contribution of well-designed cross-national research is that it can show connections between practices or policies and the achievement of certain goals for civic education in different nations. It can also foster awareness of the importance of education for citizenship in its many forms. The goal of the IEA Civic Education Study is to identify and examine in a comparative framework the ways in which young people are prepared to undertake their role as citizens in democracies. One focus of the study is the school. This is not limited to the formal curriculum in any particular school course, but includes several subject areas across the curriculum. Opportunities for discussion in the classroom and participation in the school are important, as are textbooks and curriculum. A second focus is on opportunities for civic participation outside

the school, especially in the community. A primary purpose is to obtain a picture of how young people are initiated into the political communities of which they are members, including in- and out-of-school experience. The study concentrates on political processes and institutions. The concept 'political' is used in a fairly broad sense, however, and is not limited to formal political organizations or legislative structures.

THE ORGANIZATION OF THE STUDY BY IEA

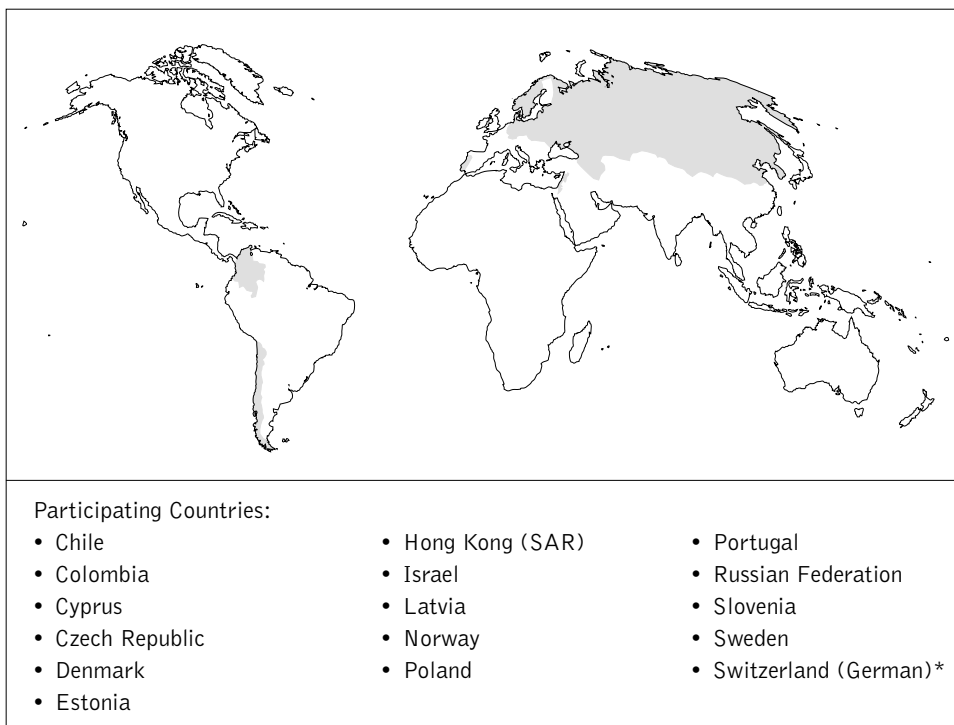
An International Steering Committee and an International Coordinating Center were appointed. The former has guided the research, and the latter has coordinated its day-to-day operations. The international oversight and coordination of this study has been funded by agencies and foundations in Germany and the United States, by the IEA organization, and by contributions from participating countries. The authors of the current volume have been associated either with the International Steering Committee (Judith Torney-Purta, Steering Committee Chair, at the University of Maryland, College Park, USA) or with the International Coordinating Center (Rainer Lehmann, International Coordinator, along with Vera Husfeldt and Roumiana Nikolova at the International Coordinating Center at the Humboldt University of Berlin, Germany). Jo-Ann Amadeo (University of Maryland, College Park, USA) worked with the International Coordinating Center and the Chair of the Steering Committee. National Research Coordinators were appointed by each participating country. Their work, including data collection, has been funded by government agencies and foundations within each country.

PARTICIPATING COUNTRIES

As noted above, 28 countries tested 14-year-olds and 16 countries tested upper secondary students. (Figure 1.1 lists the countries that participated in the upper secondary study.) The National Research Coordinators from these countries were involved in the consensus building, design, theoretical framework, and instrument development for the study as a whole.

Three aspects of the participating countries are important in terms of understanding the data collected: national demographics, characteristics of the educational system, and characteristics of the political system. Table 1.1 presents selected demographic data from the participating countries. As is evident from the population column of the table, both large and small countries participated in the study. The table also presents each country's ranking on the United Nations Human Development Index, its GDP per capita, and its unemployment rate. Table 1.2 presents some educational characteristics of the participating countries. Adult literacy levels are generally high in these countries. The table also provides information about expenditures for public education. Table 1.3 presents political characteristics of the participating countries. These include the number of political parties represented in the lower house, voter turnout at the last election for the lower house, and the percentage of seats in the national legislature held by women. All participating countries can be classified as liberal or electoral democracies, according to Diamond (1999). The age at which people can cast their first vote is 18 in all the countries in the study.

Figure 1.1 Countries Participating in the IEA Civic Education Study, Upper Secondary Population



NOTE: *Only the German-speaking part of Switzerland participated.

Table 1.1 Selected Demographic Characteristics of Participating Countries

| Country | Population (in millions) (1999) | Human Development Index ^a (value & rank) (1999) | GDP per capita (PPP US \$) ^b (1999) | Unemployment Rate (% of labor force) (1999) |
|--------------------------|---|---|--|---|
| Chile | 15.0 | .83 (39) High | 8,652 | N/A |
| Colombia | 41.4 | .77 (62) Medium | 5,749 | N/A |
| Cyprus | 0.8 | .88 (25) High | 19,006 | N/A |
| Czech Republic | 10.3 | .84 (33) High | 13,018 | 8.8 |
| Denmark | 5.3 | .92 (15) High | 25,869 | 5.2 |
| Estonia | 1.4 | .81 (44) High | 8,355 | 5.1 ^c |
| Hong Kong (SAR) | 6.7 | .88 (24) High | 22,090 | N/A |
| Israel | 5.9 | .84 (22) High | 18,440 | N/A |
| Latvia | 2.4 | .79 (50) Medium | 2,420 | 9.2 ^c |
| Norway | 4.4 | .94 (1) High | 28,433 | 3.2 |
| Poland | 38.6 | .83 (38) High | 8,450 | 13.9 |
| Portugal | 10.0 | .87 (28) High | 16,064 | 4.5 |
| Russian Federation | 146.2 | .78 (55) Medium | 7,473 | 13.3 ^c |
| Slovenia | 2.0 | .87 (29) High | 15,977 | 14.6 ^c |
| Sweden | 8.9 | .94 (4) High | 22,636 | 5.6 |
| Switzerland ^d | 7.2 | .92 (11) High | 27,171 | 2.7 |

a The Human Development Index (HDI) is a composite index that reflects three basic dimensions: (a) longevity (life expectancy at birth); (b) knowledge (adult literacy and combined gross primary, secondary, and tertiary enrollment ratio); and (c) standard of living (adjusted per capita income in Purchasing Power Parity (PPP) US\$). The HDI value ranges from 0 to 1. Countries are divided into categories of high, medium, and low human development, and are ranked.

b Data refer to GDP calculated using the World Bank Atlas method, in current PPP US dollars. PPP accounts for price differences across countries, allowing international comparisons of real outputs and incomes.

c Source: *Human development report 2000*, Oxford/New York, Oxford University Press. Data are estimates by the UN Economic Commission for Europe, based on national statistics. They refer to registered unemployment, which is likely to bias unemployment figures downward.

d Figures for all of Switzerland used for Switzerland (German).

Sources:

All column sources are from the *Human development report 2001*, Oxford/New York, Oxford University Press (published for the United Nations Development Programme), unless noted otherwise.

Population (pp. 154–57).

Human Development Index (HDI) (pp. 141–44).

Gross Domestic Product per capita (GDP) (pp. 141–44).

Unemployment rate (p. 199).

Table 1.2 Selected Educational Data from Participating Countries

| Country | Adult Literacy Rate (in %) (1998) | Public Education Expenditure (as % of GDP) (1995–97) ^b |
|--------------------------|---|--|
| Chile | 95.4 | 3.3 |
| Colombia | 91.2 | 4.4 ^c |
| Cyprus | 96.6 | 4.5 |
| Czech Republic | 99.0 ^a | 5.1 |
| Denmark | 99.0 ^a | 8.1 |
| Estonia | 99.0 ^a | 7.2 |
| Hong Kong (SAR) | 92.9 | 2.9 |
| Israel | 95.7 | 7.6 ^d |
| Latvia | 99.8 | 6.3 |
| Norway | 99.0 ^a | 7.4 |
| Poland | 99.7 | 7.5 |
| Portugal | 91.4 | 5.8 |
| Russian Federation | 99.5 | 3.5 |
| Slovenia | 99.6 | 5.7 |
| Sweden | 99.0 ^a | 8.3 |
| Switzerland ^e | 99.0 ^a | 5.4 |

a Human Development Report Office estimate.
b Data refer to the most recent year available during the period 1995–97.
c Data refer to expenditures by Ministry of Education only.
d Data refer to a year other than 1995–97.
e Figures for all of Switzerland used for Switzerland (German).

Sources:

All column sources are from the *Human development report 2000*, Oxford/New York, Oxford University Press (published for the United Nations Development Programme), unless noted otherwise.

Literacy rate (pp. 157–60).

Public education expenditures (pp. 194–97).

Table 1.3 Selected Political Characteristics of Participating Countries

| Country | Seats in Lower or Single House of Parliament Held by Women as of March 2001 ^a (% of total) | Voter Turn-out at Latest Elections for Lower or Single House as of March 2000 ^b (%) | Political Parties Represented in Lower or Single House ^b | Compulsory Voting and Level of Enforcement ^c | Age of First Vote ^c |
|--------------------|--|---|---|---|--------------------------------|
| Chile | 10.8 | 86 | 7* | Yes (only if registered) Strict | 18 |
| Colombia | 11.8 | 45 | 2* | No | 18 |
| Cyprus | 7.1 | 93 | 5 | Yes Strict | 18 |
| Czech Republic | 15.0 | 74 | 5 | No | 18 |
| Denmark | 37.4 | 86 | 10 | No | 18 |
| Estonia | 17.8 | 57 | 7 | No | 18 |
| Hong Kong (SAR) | n.a. | n.a. | n.a. | No | 18 |
| Israel | 12.5 | 79 | 15* | n.a. | 18 |
| Latvia | 17.0 | 72 | 6 | No | 18 |
| Norway | 36.4 | 78 | 7* | No | 18 |
| Poland | 13.0 | 48 | 6 | No | 18 |
| Portugal | 18.7 | 62 | 5 | No | 18 |
| Russian Federation | 7.6 | 62 | 7* | No | 18 |
| Slovenia | 12.2 | 74 | 8 | No | 18 |
| Sweden | 42.7 | 81 | 7 | No | 18 |
| Switzerland** | 23.0 | 43 | 8* | Yes Schaffhausen Strict | 18 |

NOTES:

* There are also independent and other parties not sufficiently represented to constitute a parliamentary group.

** Figures for all of Switzerland used for Switzerland (German).

Sources:

a Column source: *Human development report 2001*, Oxford/New York, Oxford University Press (published for the United Nations Development Programme).

Seats in lower or single house of parliament by women (pp. 226–29)

b Column source: *Human development report 2000*, Oxford/New York, Oxford University Press (published for the United Nations Development Programme).

Voter turn-out (pp. 243–46)

Political parties (pp. 243–46)

c Column source: The International Institute for Democracy and Electoral Assistance (IDEA) web site ([<http://www.idea.int/turnout/>](http://www.idea.int/turnout/)).

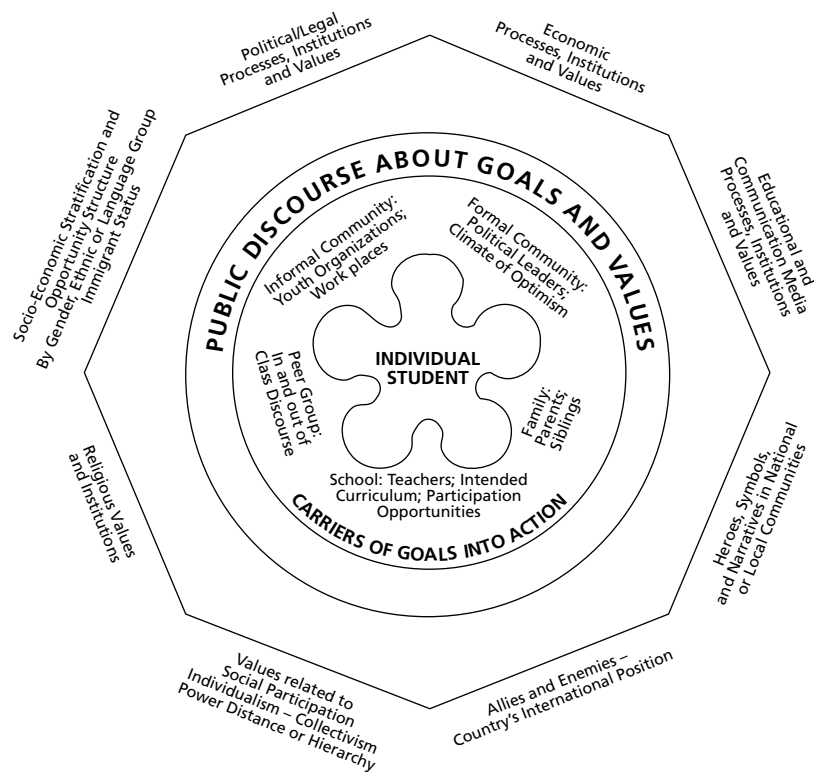
THEORETICAL FRAMEWORKS GUIDING THE STUDY

The National Research Coordinators at their first meeting took on the task of developing an overall model that would guide both phases of the study. This model, described as the Octagon (Figure 1.2), graphically represents a framework for organizing the information being collected in both phases. It is a visualization of ways in which the everyday lives of young people in homes, with peers, and at school serve as a ‘nested’ context for young people’s thinking and action in the social and political environment. Learning about citizenship involves engagement in a community and development of an identity within that group. These ‘communities of discourse and practice’ provide the situation in which young people develop progressively more complex concepts and ways of behaving. The model has its roots in two contemporary psychological theories—ecological development (Bronfenbrenner, 1988) and situated cognition (Lave & Wenger, 1991; Wenger, 1998). At the center of this model is the individual student. The public discourse and practices of the society have an impact on the student through contacts with family (parents, siblings, and sometimes extended family), school (teachers, implemented curriculum, and participation opportunities), peer group (both in and out of class), and neighbors (including people in out-of-school youth organizations). Earlier work in political socialization usually referred to these groups of people as ‘agents’ of socialization. In addition to these face-to-face relationships, there is also a broader society that has an impact through its institutions and the mass media. The outer octagon in Figure 1.2, which circumscribes these processes, includes institutions, processes, and values in domains such as politics, economics, education, and religion. It also includes the country’s position internationally, the symbols or narratives important at the national or local level, and the social stratification system, including ethnic and gender-group opportunities.

Other models have also influenced the study. Sociologists and political scientists see the IEA study in relation to studies of political socialization—a sub-field of political science research that was popular 20 to 25 years ago and seems recently to be experiencing renewed interest (Conover & Searing, 2000; Flanagan & Sherrod, 1998; Niemi & Hepburn, 1995). Social scientists link studies in this area to recent surveys of adults concerned with social capital (Van Deth, Maraffi, Newton, & Whiteley, 1999), democratic transitions (Dalton, 2000; Diamond, 1999), post-materialist values (Inglehart, 1997; Inglehart & Baker, 2000), and political culture and citizenship (Norris, 1999). Economists argue about the importance of investigating knowledge and skills relating to economic issues. Webley, Burgoyne, Led, and Young (2001) pay special attention to adolescence and early adulthood in their life-span examination of the economic psychology of everyday life.

These models from the social sciences suggest that young people move from peripheral to central participation in a variety of overlapping communities (at the school or neighborhood level, as well as potentially at the national level). Learning about citizenship is not limited to teachers explicitly instructing young people about their rights and duties. The political community itself (and

Figure 1.2 Model for IEA Civic Education Study



its everyday practices) surrounds and provides a context for developing political understanding (Wenger, 1998; Torney-Purta, Hahn, & Amadeo, 2001).

For young people, the peer group plays a vital role. The reactions of peers to ideas and choices are essential parts of the context for civic development. The extent to which students are able to incorporate what they are learning into meaningful identities is also important. Schools as well as neighborhoods are important sites for peer interaction and identity development.

POLICY AND RESEARCH ISSUES IN THE IEA CIVIC EDUCATION STUDY

In addition to these models, a list of policy-relevant questions was developed to focus the study and make it useful to those who teach, make education policy, educate teachers, prepare curriculum materials, provide guidance to youth associations, and conduct research. The original list of 18 questions has been merged into 12 questions for the purpose of reporting results.

Information from Phase 1 (reported in Torney-Purta et al., 1999) and Phase 2 (reported both in this volume and in Torney-Purta, Lehmann et al., 2001) is covered in the following examination of each policy question.

Some of the policy-relevant questions deal with the organization of educational programs:

1. *What is the status of citizenship education as an explicit goal for schools?* There is considerable diversity among countries in the extent to which the preparation of future citizens is thought of as an important responsibility

for schools. Phase 1 indicated that all the participating countries have courses under a variety of titles with specific responsibilities to prepare students for citizenship. The aims of civic education also are addressed throughout the curriculum and the entire school day, as well as through the climate for interaction in the classroom. In many countries, civic education courses and programs do not have a high status, however. Analysis relating to school experience from Phase 2 is relevant to this question (found in Chapters 7 and 8 in this volume and 7 through 9 in Torney-Purta, Lehmann et al., 2001).

2. *To what extent is there agreement among nations about priorities within formal civic education?* Knowledge of domestic political institutions and traditions is a focus in most of the participating countries. Decreasing the levels of youth alienation or raising levels of interest in political participation is also important in many. During Phase 1, a high level of unanimity was identified across participating countries about the major content domains of civic education. These domains encompass democracy and democratic institutions, citizenship, national identity, international or regional organizations, and social cohesion and diversity. Items relating to these topics form the core of the Phase 2 test and survey (reported in Chapters 3 through 8 in this volume and 3 through 9 in Torney-Purta, Lehmann et al., 2001).
3. *Around what instructional principles and through what courses are formal programs of civic education organized?* There is considerable diversity in the extent to which citizenship education is addressed through subjects such as history, through more interdisciplinary programs such as social studies or social science, through courses focused on conduct such as moral education, and through specific courses in civic education or government. There is also variation in the extent to which the community or the school is thought of as an arena in which the student should practice citizenship. The case studies prepared for Phase 1 showed agreement among specialists that civics-related courses should be participative, interactive, related to life in school and community, conducted in a non-authoritarian environment, cognizant of diversity, and co-constructed with parents and the community. Many countries, however, saw difficulties in implementing this kind of civic education because it is not a curriculum-bound subject. Most countries thought that the school had an important role in regard to it, however. The Phase 2 results include data from students about their opportunities for interactive and participatory experience (especially in classroom discussion and in organizations inside and outside the school, reported in Chapters 7 and 8 in both this volume and Torney-Purta, Lehmann et al., 2001). They also include data from teachers of the 14-year-olds about their methods, reported in Chapter 9 of Torney-Purta, Lehmann et al. (2001). Teachers of the upper secondary students were not surveyed.
4. *To what extent does formal education deal with civic identity development in students?* In societies that have recently become independent, national identity is an especially important component of citizenship. Civic

education must often balance identities relating to the ideal values of democracy with support for the current structure. Phase 1 of the Civic Education Study indicated the complexity of this issue in many countries. The data from Phase 2 deal with positive feelings about one's nation, with concepts of the role of the good citizen, and with groups that shape identity (reported in Chapters 4 and 5 of both volumes).

5. *To what extent is civic education intended to contribute to the resolution of conflicts and tensions between societal groups?* Many societies are experiencing such tensions. The information collected during Phase 1 indicated that this was an area of widespread concern but did not suggest clear-cut directions for program development. Some countries experience diversity primarily in terms of race or ethnicity, others in terms of immigration (often related to diversity in language or religion). Phase 2 assessed attitudes relating to support for opportunities for immigrants (reported in Chapter 5 of both volumes).

Some of the policy-relevant questions focus on students:

6. *How do students define and understand the concept of citizenship and related issues?* Students have developed their own ideas about their political system and society, and about what citizenship means within it. The Phase 1 process identified major concepts that experts in all the participating countries agreed were important. Many country representatives also pointed to substantial gaps between the concepts that schools were trying to foster and what students actually believed. The Phase 2 data provide descriptive information on how students understand citizenship, democracy, and government. They also allow an analysis of the extent to which knowledge of civics relates to expected civic engagement. These data are reported in Chapters 3, 4, 6, and 8 in both the older and younger population reports.
7. *For what rights and responsibilities of participation are students being prepared in their own political system or society?* In democratic societies, participation in the community and political system is vital, although the nature of that participation may vary. Information from Phase 1 indicated that educators often seek to make students aware of the excitement of politics and the importance of participation. Students, however, often show a general disdain for politics. Some countries are responding by using student-generated projects, while others are encouraging students to assist other people in the community. Such programs do not yet exist on a widespread basis across countries. The Phase 2 data describe students' current civic participation and their future expectations of participation (reported in Chapters 6 through 8 of both reports).
8. *Do male and female students develop different conceptions of citizenship, and do they develop different potential roles in the political process?* Beliefs about the role of women in politics still vary across countries, even though there have been rapid changes in the past decade. Phase 1 indicated that most countries did not see gender issues as central in preparation for citizenship, although some did refer to the small proportion of women

holding political office as an issue. Phase 2 data indicate the extent to which male and female students see the civic culture and citizenship similarly or differently. A set of items relating to support for women's political rights was included in the instrument. These data are reported in Chapters 3 through 8 in both volumes.

9. *Are there socioeconomic differences in students' understanding of or attitudes toward civic-related topics or in the way their civic education is structured?* Research in political socialization and civic education suggests that there are important differences in civic knowledge between students from homes with ample educational and economic resources and those from homes that are less well endowed. The Phase 1 case studies in a few countries dealt with this concern. The Phase 2 analyses presented in this volume address this question by looking at the relation of civic education outcomes to a measure of home literacy resources (in Chapters 3 and 8 of both reports).

Some policy-relevant questions focus on teachers and teaching and on schools:

10. *How do teachers deal with civic education in their teaching, and what is the effect of different types of classroom practices on civic-related learning outcomes?* Research suggests that different pedagogies make a difference, particularly in terms of whether discussion is encouraged and how controversy and conflicting beliefs are handled. The Phase 1 material across countries confirmed that teachers are expected to balance cognitive, attitudinal, and behavioral goals in preparing students for citizenship. The relevant Phase 2 data are discussed in the chapters where students report about their schools (Chapter 7 in both this volume and Torney-Purta, Lehmann et al., 2001) and in the chapter about teachers (Chapter 9 in Torney-Purta, Lehmann et al., 2001).
11. *How well does the education of teachers prepare them to deal with the different facets of civic education?* Teacher education or training programs often do not address civic education issues explicitly. The Phase 1 documents showed that, in some countries, teachers who have prepared to teach another subject have been asked to serve as teachers of civic education. The Phase 2 volume of findings from the 14-year-olds provides data on the extent to which the teachers themselves believe that their training has prepared them adequately to teach topics relevant to civic education (reported in Chapter 9 of Torney-Purta, Lehmann et al., 2001). Teachers of the upper secondary students were not surveyed, and so this question is not directly addressed in this volume.
12. *How does the way in which schools are organized influence students' civic education?* The opportunities schools provide for meaningful participation, self-government, and respect for rights are among the factors potentially influencing students' attitudes and behaviors. Most countries' Phase 1 submissions highlighted aspirations to provide students with such experiences but few reported successful concrete initiatives. The idea that schools should be models of democracy is often stated but difficult to put into practice. Participation in the school as a community is covered in Phase 2 (Chapters 7 and 8 of both this and the 14-year-old report).

SUMMARY OF AIMS OF THE STUDY AND INFLUENCES ON IT

This two-phased research study is intended to inform and stimulate discussion among policy-makers, curriculum developers, teachers, teacher educators, researchers, and the general public. The study tries to deepen the understanding of possibilities and practices in civic education as it takes place in different contexts. Although our conceptual model has focused the study's attention on school-based, family, community, and peer-group factors, the study is not an effort to refine theory. It has not been a curriculum development effort, although the test framework and the findings have implications for others who will develop curricula, programs, and materials in the future.

Three major sources of influence shaped this study. The first relates to the IEA organization and the member countries that chose to participate in the study. Rigor and collaboration are the hallmarks of IEA studies. The rigorous standards for research developed by IEA over the past decades therefore served as our standard (Martin, Rust, & Adams, 1999). At several points we chose to narrow the scope of the study to ensure that we could meet the standards of rigor in instrumentation, sampling, and analysis set by recent IEA studies, including the Third International Mathematics and Science Study (TIMSS). The participating countries were collaborators in the design of the Civic Education Study, providing the International Coordinators and the International Steering Committee with advice about models, items, and interpretations throughout the process.

The second source of influence includes the theoretical frameworks and research literature not only in civic education but also in sociology, political science, and developmental psychology. Some aspects of these frameworks are discussed in the sections of this chapter on the model (Figure 1.2), and others will become evident as the construction of particular scales is described in subsequent chapters.

The policy questions guiding and linking both phases of the study are the third source of influence. Although formulated by the International Steering Committee five years ago, these questions remain important. We collected data to address all of them, either for the 14-year-olds or the upper secondary students, or both.

The remainder of this volume provides analysis that is closely related to the original aims of the study, and suggests directions that future analysis might take. It follows the design of the international report of findings from the 14-year-olds, but does not duplicate information on previous research and scale development found in the first report (Torney-Purta, Lehmann et al., 2001). Throughout the volume on findings from the 14-year-olds, research literature on civic education and political socialization processes relating to each scale reported was summarized. For example, research on civic knowledge in the United States and Australia, such as that by Niemi and Junn (1998) and by Doig, Piper, Mellow, and Masters (1993–94) was included. Research on cross-national attitudes with adults (Inglehart, 1997) and with young people

(Flanagan, Bowes, Jonsson, Csapo, & Sheblanova, 1998) was also cited. Those literature reviews are not repeated in this volume. They are, however, referred to and cited in the chapters that follow. Similarly, extensive information provided in the 14-year-old report on item selection and scale development is not replicated in this volume.

Finally, examination of findings from both the 14-year-olds and the upper secondary students provides an interesting picture of both national and developmental trends. As will be discussed in Chapter 2, the measures were scaled on a common metric, allowing for a comparison between the scores of the younger and older students. However, it should be noted that the two groups of students were different in ways beyond their ages. The age cohort coverage (presented in Chapter 2 of this volume) varied widely among the 16 participating countries because many of these older adolescents had dropped out of school or left to attend other institutions. Thus, the upper secondary students were both an older and, in some countries, more selective sample than the 14-year-olds. Yet, despite this difference, it is interesting to note how similar the two groups of students were, especially in the area of attitudes.



**Instrument
Development,
Sampling, Testing,
and Quality
Control**

HIGHLIGHTS RELATING TO METHODS

- Instruments for the test and survey of 14-year-olds were adapted and extended in the course of pilot testing for the sample of upper secondary students. The domain of economic literacy is new in the test. For the survey, the scales for concepts, attitudes, and activities were adopted from the survey of the 14-year-olds.
- Any comparisons and interpretation of differences in student achievement, attitudes, and behavioural intentions has to take into consideration both the students of different ages sampled by different countries for the upper secondary population and selection effects in the definition of the samples.

The test and survey for the upper secondary population, covered in the first section of this chapter, was built directly on the instrument developed for 14-year-olds (Torney-Purta, Lehmann, Oswald, & Schulz, 2001). The four domains of civic education content treated in the test and survey of upper secondary school students on civic knowledge and engagement are:

- Democracy and its associated institutions, including the rights and responsibilities of citizens.
- National identity, including relations between groups within countries and relations with other countries.
- Social cohesion and diversity.
- Economics.

For the test (keyed items), the first three domains were the same as those covered in the 14-year-old version, while economics was new to the upper secondary version (see review of this aspect of the content and of item sources in Chapter 1). All items for the survey and many items for the test were adopted from the instruments for the 14-year-old population (Torney-Purta, Lehmann et al., 2001). The test was formed of the items assessing *knowledge of civic content* and *skills in interpretation* of material with civic or political content (including short-text passages and cartoons), as well as 14 items about economic literacy.

The survey included items assessing students' concepts of democracy and citizenship, students' *attitudes* (e.g., feelings of trust in the government), and students' current and expected participatory *actions* relating to politics. In addition to the items that had also been used for the 14-year-olds, some items on the *effectiveness of political action* and on the *use of military force* were included. As in the 14-year-old instrument, the survey items had four response alternatives, each measuring the extent of endorsement. And, as was the case for the 14-year-olds, a little less than half of the testing time was scheduled for the test and the same time for the survey. The rest of the testing time was devoted to questions about students' perceptions of classroom climate, their confidence in participation at school, and background information. In contrast to the study of 14-year-olds, the study of the upper secondary students did not include a teacher questionnaire.

PILOTING AND THE RESULTING FINAL TEST

The pilot and final testing of the 14-year-old students showed that although the difficulty levels of the cognitive items were adequate for this age group, a test composed only of these items would be too easy for students who were two to four years older. Therefore, some new items had to be developed. A pilot test for upper secondary school students conducted in the spring of 1999 (see below) served to test these newly developed cognitive items as well as some attitude items. The final questionnaire for the upper secondary students included all attitude items from the final questionnaire for the 14-year-old students and two new eight-item scales. In addition, the background questionnaire, which provided demographic information as well as information pertaining to the students' families and out-of-school activities was adapted from the test for the 14-year-olds.

Between April and May 1999, six countries conducted classroom-based pilot studies of the test and survey. Samples of about 100 to 500 students in Grades 10 to 12 were tested. The piloting countries included Chile, Colombia, Estonia, Germany (which eventually decided not to participate in the main study of upper secondary students), Israel, and the Russian Federation. Table 2.1 shows the number of students and the target grade for the participating countries.

Table 2.1 Number of Students and Target Grade in the Pilot Study

| Country | Students | Target Grade |
|--------------------|----------|--------------|
| Chile | 497 | Grade 12 |
| Colombia | 356 | Grade 11 |
| Estonia | 228 | Grade 10 |
| Germany | 187 | Grade 11 |
| Israel | 119 | Grade 11 |
| Russian Federation | 197 | Grade 11 |
| Total | 1,584 | Grades 10–12 |

In addition to undertaking the pilot study, National Research Coordinators were asked to evaluate the newly developed cognitive items with respect to translation problems and structures, contexts, and school instruction effects, and to estimate their difficulty.

In July 1999 the analysis of the pilot data of upper secondary students was performed and a sub-group from the International Steering Committee and the National Research Coordinators made a final decision about which items to include. Those research coordinators who were unable to pilot test agreed to abide by choices made in relation to the six countries. This was feasible because all non-piloting countries planning to participate at the upper secondary level had participated at the 14-year-old level using tests with a high overlap of items.

The pilot test as well as the final instruments were prepared in English and then translated into the national languages by the National Research Centers. The procedure of translation verification was the same as for the 14-year-olds (see Torney-Purta, Lehmann et al., 2001, p. 36), and the coverage of content was similar to that in the 14-year-old instrument (Appendix Table A.1).

SAMPLING, TESTING, AND SCALING

Sampling from an Internationally Defined Population

In light of the differences between educational systems across countries at the upper secondary level, no agreement could be reached as to a common target group. Many of the participating countries conclude compulsory education by age 15 and have systems that channel students toward different programs. Curricular patterns and research priorities as well as access to certain grades also differ across countries. It therefore was left for each country to define the grade or age group tested in this part of the study, with the only requirement that it had to fall into upper secondary education.

For sampling, two stratification methods were used: explicit and implicit stratification. Explicit stratification variables were, for example, regions, school tracks, administrative relationship with the state (private, public), and school size. Variables for implicit stratification were, for example, region, school type, mode of financing, socioeconomic status, urbanization, and school size. As was the situation for the 14-year-olds, the sampling employed a two-stage stratified cluster design. At the first stage, a systematic probability-proportional-to-size (PPS) technique was used to sample the schools. At the second stage, intact classrooms within schools were sampled either with equal probability or with probability proportional to size.

Panel 2.1 briefly describes the target population of each participating country.

First, information is given as to the grade that each country chose, if it was the last grade of upper secondary education, and how many students were estimated to be in the target population.

Second, a section on exclusions and coverage presents the information on school-level exclusions or within-school exclusions. The ‘coverage index’ is defined as the size of the target population divided by the size of the respective age cohort. If, for example, a young person had started working after the ninth grade, he or she would not have been in the target population, which included only those students enrolled in school in Grades 10, 11, or 12 (whatever the case may have been for that country). The ‘coverage indices’ are reported for all countries except for Colombia and Hong Kong (SAR) because of missing weights.

Due to differences in the organization of upper secondary education and to differences in the chosen target grade in various countries, the coverage index turned out to be quite different for the countries included in the study. The study of the upper secondary school students was never intended to sample the whole cohort but only that part still in the school system. The coverage index is therefore not a sign of quality but an indication of differences between school systems or the chosen target grades.

Table 2.2 Participation Rates and Sample Sizes

| Country | School Participation Before Replacement (Weighted Percentage) | School Participation After Replacement (Weighted Percentage) | School Participation After Replacement (Unweighted Percentage) | Total Number of Schools that Participated | Student Participation Rate | Total Number of Students Assessed | Overall Participation Rate Before Replacement | Overall Participation Rate After Replacement |
|----------------------|---|--|--|---|----------------------------|-----------------------------------|---|--|
| Chile | 99 | 100 | 100 | 180 | 96 | 5777 | 95 | 96 |
| Colombia | * | * | 92 | 149 | * | 5347 | * | * |
| Cyprus | 100 | 100 | 98 | 41 | 89 | 1700 | 89 | 89 |
| Czech Republic | 96 | 98 | 98 | 147 | 92 | 3362 | 89 | 91 |
| Denmark | 71 | 71 | 71 | 141 | 88 | 2761 | 62 | 62 |
| Estonia | 75 | 77 | 86 | 142 | 91 | 3215 | 68 | 70 |
| Hong Kong (SAR) | * | * | 54 | 81 | * | 5810 | * | * |
| Israel | 88 | 98 | 98 | 233 | 84 | 4430 | 74 | 83 |
| Latvia | 84 | 87 | 86 | 125 | 97 | 2756 | 81 | 85 |
| Norway | 83 | 83 | 83 | 124 | 88 | 2099 | 72 | 72 |
| Poland | 90 | 100 | 100 | 150 | 93 | 4050 | 83 | 93 |
| Portugal | 94 | 94 | 95 | 149 | 79 | 2795 | 74 | 74 |
| Russian Federation | 98 | 98 | 95 | 165 | 97 | 1787 | 94 | 94 |
| Slovenia | 96 | 96 | 94 | 145 | 88 | 3746 | 84 | 84 |
| Sweden | 90 | 91 | 89 | 88 | 76 | 2678 | 69 | 76 |
| Switzerland (German) | 69 | 95 | 95 | 69 | 94 | 1270 | 65 | 90 |

* Participation rates are not reported for Colombia and Hong Kong (SAR) because only unweighted data were available.

Source: IEA Civic Education Study, Older Population of upper secondary school students tested in 2000.

The denominator of the coverage index reported in Panel 2.1 is calculated on the basis of the total number of 15- to 19-year-olds living in each country in the year 2000 (United Nations, 2001) divided by 5 to get an estimated average of the total number of people born in one year. The numerator is the size of the defined target population. Thus, the coverage index is the proportion of people who are in the target population, and the assumption here is that the differences between the grade-based and age-based estimates can be ignored.

Finally, the section on sample design gives some information on the organization of explicit and implicit stratification in each country.

Coverage indices ranged from .39 to .99, and must be taken into account when examining the results.

Table 2.2 shows the participation rates of the 16 countries. National Research Centers made every attempt to meet the sampling requirements, but in some countries there was resistance from schools. Seven countries failed to reach the 75 percent overall participation rate, before employing the replacement procedure specified in the sampling guidelines. In four countries, the overall participation rate, even after replacement of schools, was lower than 75 percent. Student-level participation rates were at least 76 percent in all participating countries.

Panel 2.1 Descriptive Information Regarding the Target Population for Each Participating Country (including ‘coverage index’ computed as indicated above)

| Chile | |
|-------------------------|---|
| Target Population | In Chile, the national target population comprised 164,685 students from Grade 12 for all regions within the country. Grade 12 is the last year of upper secondary education. |
| Coverage and Exclusions | School-level exclusions related to schools with 15 or fewer students in Grade 12, schools with difficult access, and schools out of the explicit strata (i.e., privately paid and offering technical education). Within-schools exclusions related to students with functional and mental disabilities. The coverage index was 0.64. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification variables were connected to the school’s administrative relationship with the state (municipal, subsidized, and/or privately paid). Chile used two explicit stratification variables: administrative relationship with the state (which also includes a financial relationship); and the track (scientific-humanistic and technical-professional). • Implicit stratification was organized by region (north, south, and metropolitan area), giving a total of three implicit strata. |

| Colombia | |
|--------------------------------|---|
| Target Population | In Colombia the national target population was 413,214 students from Grade 11. This grade is the last year of upper secondary education. |
| Coverage and Exclusions | Very small schools were excluded. No coverage index was estimated because of missing weights. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification related to regions (Atlántica, Bogotá, Occidente, Centro Oriente, Orinoquía-Amazonía) and type of school (private or public), to give a total of five explicit strata. • Implicit stratification was organized according to four different levels of population within each municipality and by the average score that schools attained in social studies– Colombia’s national examination (Grade 11). The latter was organized into four levels as well. The total number of implicit strata therefore was 16. • Note that the Colombian sample could not be weighted. |

| Cyprus | |
|--------------------------------|---|
| Target Population | In Cyprus the national target population was 8,467 students from the eleventh grade. Grade 12 is the last year of upper secondary education. |
| Coverage and Exclusions | All schools were included. The coverage index was 0.67 |
| Sample Design | <ul style="list-style-type: none"> • The explicit stratification used urbanization (rural and urban schools) and regions (Nicosia, Limassol, Larfam, and Paphos). • Implicit stratification was not used. |

| Czech Republic | |
|--------------------------------|--|
| Target Population | Within the Czech Republic the national target population was Grade 12 (107,662 students). Grade 13 is the last year of upper secondary education. |
| Coverage and Exclusions | Exclusions covered very small schools, special schools for students with functional and mental disabilities, and Polish language schools. The coverage index was 0.78. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was organized by school track (academic, technical, and vocational), giving a total of three explicit strata. • Implicit stratification was not used. |

| Denmark | |
|--------------------------------|--|
| Target Population | In Denmark the national target population was 30,137 Grade 12 students. Grade 12 is the last year of upper secondary education. |
| Coverage and Exclusions | All schools were included. However, students attending vocationally oriented programs were not in the sampling frame. This is because these students do not attend classes or schools on a full-time basis. The coverage index was 0.55. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was not used. • Implicit stratification was organized by school type. |

| Estonia | |
|--------------------------------|--|
| Target Population | In Estonia the national target population comprised 10,368 students in Grade 12, the last year of upper secondary education. |
| Coverage and Exclusions | Special schools for students with functional and mental disabilities were excluded. The coverage index was 0.49. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was organized by five different regions (Central, North-eastern, Southern, Western, and Northern Estonia), to give a total of five explicit strata. • Implicit stratification was not used. |

| Hong Kong (SAR) | |
|--------------------------------|---|
| Target Population | In Hong Kong (SAR) the national target population was 27,400 Grade 12 students. Grade 13 is the last year of upper secondary education. |
| Coverage and Exclusions | Non-native-language-speaking schools were excluded. No coverage index was estimated because of missing weights. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was not used. • Implicit stratification was organized by mode of financing (government-aided, government, and private fee-paying), giving a total of three implicit strata. • Note that the Hong Kong (SAR) sample could not be weighted. |

| Israel | |
|--------------------------------|---|
| Target Population | In Israel the national target population was 86,775 students in Grade 11. The last year of upper secondary education is Grade 12. |
| Coverage and Exclusions | Ultra-orthodox Jewish schools and Arab private church schools, special education schools, and schools that do not follow the state curriculum were excluded. The coverage index was 0.83. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification employed type of school (Hebrew and Arab), giving a total of two explicit strata. • Implicit stratification was organized by school type (regular state and state religious schools), regions, socioeconomic status within each region, and number of eligible students in each listed school within each region, to give a total of 11 implicit strata. |

| Latvia | |
|-------------------------|--|
| Target Population | In Latvia the national target population was 32,517 students in Grade 10. The last year of upper secondary education is Grade 12. |
| Coverage and Exclusions | Coverage in Latvia was restricted to students whose languages of instruction were Latvian or Russian (tests and questionnaires in both languages). Very small schools and special schools for students with physical and mental disabilities were excluded. The coverage index was 0.89. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification employed school size (very small schools, moderately small schools, and large schools), giving a total of three explicit strata. • Implicit stratification was organized by school type and urbanization, giving a total of four implicit strata. |

| Norway | |
|-------------------------|---|
| Target Population | In Norway the national target population was 52,244 students in Grade 11, the last year of upper secondary education. |
| Coverage and Exclusions | Exclusions within the nationally defined target population were schools for individual education, remote schools, and extremely small schools. The coverage index was 0.99. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was not used. • Implicit stratification related to counties, which produced a total of 19 implicit strata. |

| Poland | |
|-------------------------|--|
| Target Population | In Poland the national target population was 604,070 Grade 11 students. For technical, vocational, and general lycees, the last grade is Grade 12. For technical schools that award professional certificates of upper secondary vocational education, the last grade is 13. |
| Coverage and Exclusions | Schools serving students with various forms of physical disability were excluded. These schools included job preparation schools, special basic vocational schools, special technical secondary schools, special vocational secondary schools, and special general secondary schools. The coverage index was 0.90. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was not used. • The implicit stratification employed provinces, resulting in 16 implicit strata. |

| Portugal | |
|-------------------------|--|
| Target Population | In Portugal the national target population was 100,889 Grade 11 students. The last year of upper secondary education is Grade 12. |
| Coverage and Exclusions | All schools were included. The coverage index was 0.76. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was organized by region (Norte, Centro, Lisboa e Vale Do Tejo, Alentejo, Algarve, Madeira, and Azores), to give a total of 11 explicit strata. • Implicit stratification was organized by school size and school type (regular or professional), giving a total of three implicit strata. |

| Russian Federation | |
|-------------------------|---|
| Target Population | In the Russian Federation the national target population was 1,194,853 Grade 11 students. Grade 11 is the last year of upper secondary education. |
| Coverage and Exclusions | Schools for students with mental and physical disabilities and schools that were non-Russian-language teaching were excluded. The coverage index was 0.50. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was organized by regions. • Implicit stratification was organized by school type (rural or urban), giving two implicit strata. |

| Slovenia | |
|-------------------------|---|
| Target Population | In Slovenia the national target population was 18,936 students in Grade 12, the last year of upper secondary education. |
| Coverage and Exclusions | All schools were included. The coverage index was 0.68. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was not used. • Implicit stratification was organized by geographical areas, to give a total of three implicit strata. |

| Sweden | |
|-------------------------|---|
| Target Population | In Sweden the national target population was 84,742 students in Grade 12, the last year of upper secondary education. |
| Coverage and Exclusions | Very small schools were excluded. The coverage index was 0.84. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was organized in the same way as for the 14-year-olds, that is, by type of community, in order to concentrate the sample of schools within strata to the more relevant parts of Sweden. This procedure gave a total of three explicit strata. • Implicit stratification was sorted by type of program, giving a total of four implicit strata. |

| Switzerland (German) | |
|-------------------------|---|
| Target Population | In Switzerland the national target population was 23,365 Grade 11 students living in the German-speaking part of the country. Grade 13 is the last grade of upper secondary education. |
| Coverage and Exclusions | Special schools for students with physical and mental handicaps were excluded. The coverage index was 0.39. |
| Sample Design | <ul style="list-style-type: none"> • Explicit stratification was organized by school type, resulting in a total of six strata. • Implicit stratification was sorted by school track, which gave one implicit stratum. |

In most countries the sample size of schools per country was between 120 and 240. Only in Cyprus (41), Switzerland (German) (69), Hong Kong (SAR) (81), and Sweden (88) was it lower. Student sample sizes ranged from 1,270 in Switzerland (German) to 5,810 in Hong Kong (SAR).

The main sample characteristics—age, grade, percentage of females, and percentage of students who responded that they had not been born in the country—are shown in Table 2.3 by country. These have a direct cross-national and cross-age influence on the interpretation of the results because each comparison of achievement has to take into account the ‘coverage index’ to control for selectivity and the different age and grade levels chosen for testing. The majority of countries selected Grade 12. Six chose Grade 11, and

Table 2.3 Sample Characteristics

| Country | Age | | | Percentage of Females | Percentage of Students not Born in Country |
|---|------|--------------------|--------------|-----------------------|--|
| | Mean | Standard Deviation | Tested Grade | | |
| Chile | 17.9 | 0.8 | 12 | 54 | 1 |
| Colombia ¹ | 17.7 | 1.3 | 11 | 58 | 2 |
| Cyprus | 17.7 | 0.4 | 12 | 54 | 10 |
| Czech Republic | 17.9 | 0.7 | 12 | 51 | 2 |
| Denmark | 19.4 | 0.9 | 12 | 59 | 11 |
| Estonia | 18.2 | 0.4 | 12 | 61 | 5 |
| Hong Kong (SAR) ¹ | 18.5 | 0.8 | 12 | 52 | 15 |
| Israel | 16.8 | 0.4 | 11 | 50 | 14 |
| Latvia | 16.6 | 1.2 | 10 | 54 | 17 |
| Norway | 18.1 | 0.7 | 12 | 53 | 5 |
| Poland | 17.6 | 0.4 | 11 | 51 | 1 |
| Portugal | 17.6 | 1.1 | 11 | 58 | 8 |
| Russian Federation | 17.0 | 0.4 | 11 | 60 | 8 |
| Slovenia | 18.4 | 0.5 | 12 | 53 | 3 |
| Sweden | 18.9 | 0.4 | 12 | 53 | 10 |
| Switzerland (German) | 17.9 | 1.1 | 11 | 59 | 10 |
| International Sample² | 17.9 | 1.0 | 12 | 55 | 7 |

1 Unweighted data for Colombia and Hong Kong (SAR).
2 International sample based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary school students tested in 2000.

one (Latvia) tested Grade 10. In most of the participating countries the mean age was between 17 and 19. However, in Latvia and Israel the average age of tested students was below 17; in Denmark it was above 19.

More females than males were tested in all the countries. The highest gender disparity was in Estonia, where 61 percent of the student respondents were female. The proportion of students not born in the country ranged from 1 percent in Chile and Poland to 17 percent in Latvia.

Data Collection, Quality Control, Data Processing, and Weighting

For pragmatic reasons, and contrary to the practice in the study of the 14-year-olds, the International Coordinating Center did not require the use of common testing dates across countries. The survey instruments were administered between October 1999 and February 2001 to national samples of students in school, totaling nearly 53,400 students. Just as in the test and survey for the 14-year-olds, the National Research Centers of the participating countries were responsible for the data collection. Manuals relating to field operations and for school coordinators and test administrators, together with tracking forms, were adapted from those developed for the 14-year-olds. The distribution of the material, the data collection at the schools, and the data entry were conducted as in the test for 14-year-olds (see Torney-Purta, Lehmann et al., 2001, p. 36). For quality control purposes, every National Research Center performed internationally obligatory control monitoring (for example, follow-up calls). In addition to this, the National Research Coordinators in Chile, the Czech Republic, Slovenia, and Sweden completed a questionnaire on how the test and survey were administered in their countries.

After the data collection, the IEA Data Processing Center (DPC) in Hamburg compared the data sets to tracking forms and then checked and cleaned them. The DPC also computed the weights to be applied to the sample according to the previously approved sampling design for each country. For Colombia and Hong Kong (SAR), the information provided was insufficient for calculating the appropriate weights. Results for Colombia and Hong Kong (SAR) are unweighted and are reported in the appendices.

Confirmatory Factor Analysis and IRT Scaling

The structures of the attitude scales in the test for the 14-year-olds were examined by way of a series of confirmatory factor analyses. Since all attitudinal items used for the upper secondary group had been adopted from the test for 14-year-olds, their inter-relationships were expected to remain constant across the two studies (14-year-old and upper secondary students). The confirmation of the structure of attitude scales therefore was not repeated.

In order to confirm the theoretically expected structure of the test items (those with right and wrong answers), a confirmatory factor analysis was performed (see details in Chapter 3). The inclusion of a new set of items involving knowledge of economics made this especially important. Just as in the test and survey for the 14-year-olds, item response theory (IRT) scaling methods were used for both the multiple-choice as well as the categorical items. In technical terms, this procedure had two main implications:

1. For the cognitive test, a one-parameter Rasch model was fitted to the data. Some of the items of the cognitive test had been adopted from the test for 14-year-olds, and their item parameters were fixed to the value that had been estimated during the scaling procedure for that test. The other item parameters were floated.
2. For attitudinal items, the partial credit model was applied, and all item parameters were fixed to the value previously estimated for the 14-year-olds. This practice made comparisons between the 14-year-olds and the upper secondary students, at least in principle, possible, because all item and person parameters of both tests could be measured on the same metric. This is one reason for the use of IRT scaling methods. Another advantage is that this method provided common scales for all countries, allowing the exclusion of items that did not fit the model in a few countries without jeopardizing the comparability of the international scales. For attitudinal items, especially, the problem of missing values is very common because of the possibility of individual respondents leaving out an item or answering 'don't know'.

THE DATA ANALYSIS PROCESS

Analysis of the international data consisted of several steps.

First, for the test items:

- Computation of item statistics for all 43 items, leading to the deletion of three items from further analysis.
- Confirmatory factor analysis with structural equation modeling on an international random sample of 500 students from each country.
- Selection of scales based on theoretical and empirical grounds.
- Item adjudication to examine scales by country and to make further refinements.
- Estimation of Rasch models for the selected scales. This required the use of an international calibration sample of 500 students per country, selected randomly from weighted country data, and the fixing of parameters of items that had been adopted from the test for the 14-year-olds. New parameters were estimated for all other items.
- Scaling of country data sets using the previously estimated item parameters as anchors.

Second, for the survey items:

- Computation of item statistics for all survey items.
- Item adjudication to examine scales by country.
- Scaling of country data sets, using fixed item parameters from the test for 14-year-olds as anchors.

Complex sampling (such as the multiple-stage sampling used here) makes simple random sampling formulas for estimating standard errors inadequate. To estimate correct sampling errors for each statistic in this report, the ‘jack-knife’ procedure was applied (except for Colombia and Hong Kong (SAR)).¹ The overall estimate of a sample statistic plus or minus two standard errors gives a 95 percent probability of inferring the correct mean for the population based on the student sample.

GUIDE TO THE PRESENTATION OF DATA IN CHAPTERS 3–8

All scales of the survey and many items from the test were derived from the test and survey for 14-year-olds. Findings based on the test and survey, as well as differences between student achievement for the 14-year-old and upper secondary groups, are discussed in Chapters 3–8.

The multiple-choice items in the test measuring *civic content knowledge*, *skills in interpreting political communication*, and *economic literacy* have keyed correct answers. The IRT scaling process is covered in Chapter 3. As mentioned above, item parameters from items used in the research on the 14-year-olds were fixed, while new item parameters were floated. As such, the Rasch scores presented in Chapter 3 are based on the anchor items estimated in the scaling process for the 14-year-olds, and where the scale was normed to have a mean of 100 and a standard deviation of 20. The scores based on these items are presented in the same format as that in the report on the 14-year-old population, but with the countries in alphabetical order. For the upper secondary students, the age and grade ranges were much wider than was the case for the 14-year-olds. Another point to note is that a reduced coverage index is likely to be associated with considerable cognitive and social background selection effects. Therefore, differences in civic achievement between different countries need to be interpreted very carefully, with account being taken of both the age differences and possible selection effects. Moreover, for all comparisons between the 14-year-old and upper secondary students, it is important to remember that the study of the 14-year-olds included the total cohort (or, at least, that was the intention), whereas the upper secondary students were a selected group of those still school settings where testing was feasible. The coverage index for each country gives an indication of the proportion of students who are still in school in relation to the total age cohort.

The items in the survey of *concepts, attitudes, and actions* do not have correct answers, but any of the four different alternatives as well as the option ‘don’t know’ was accepted. The majority of these items were scaled in 11 Rasch scales, which were adopted from the survey for the 14-year-olds and were calibrated to have an international mean of 10 and a standard deviation of 2. Again, comparisons between country means and the international mean, between one country’s mean and that of another, and between the 14-year-old and the upper secondary students by country are possible in principle. This is

¹ Due to missing weights, the ‘jack-knife’ procedure could not be applied in Colombia and Hong Kong (SAR).

because, for each scale, a single metric is used. But just as for the test, age differences and the coverage index must be considered when interpreting differences in survey results between countries. Appendix B includes an item-by-score map for each concept, attitude, or action scale in Chapters 4–7, allowing readers to ascertain the response on the four-point scale that corresponds to Rasch scores from 4 to 16. The item-by-score maps are identical to those shown in the report for the 14-year-olds, differing only in terms of the percentage distribution of responses to each scaled item found in the lower part of the figures.

The figures in Chapters 4–7 present country means for the 14-year-olds and the upper secondary students on these scaled scores. All countries appear in alphabetical order, with a confidence band of two standard errors for each mean. The upward or downward arrows indicate whether a country's mean is significantly higher or lower than the corresponding international mean for the respective population. The international mean for the 14-year-olds included here was based on 13 country means (exclusions are Colombia, Hong Kong (SAR), and Israel). Data from Colombia and Hong Kong (SAR) could not be weighted; for Israel there was no sample of 14-year-olds. The international mean for the upper secondary school students was based on 14 country means (exclusions are Colombia and Hong Kong (SAR)). Although the IRT attitude scales means computed for the 14-year-olds from 28 countries had means of 10.0 and standard deviations of 2, this was not the case for the upper secondary group (because these items were not re-scaled). Chapter 9 summarizes the differences across all scales and countries.

A figure comparing country means is included for each of the Rasch scores in Chapters 4–7. An additional figure is included to illustrate gender differences only for those scales where half or more of the countries showed a significant gender difference ($p < .05$ with a Dunn-Bonferroni correction for multiple comparisons). In those instances where fewer than half of the countries showed a significant difference, the text lists the gender differences that are statistically significant at the .05 level, but a separate figure is not included.

In interpreting these results it is important to keep in mind the following. In countries with low coverage rates (small proportions of the age cohort still enrolled in school), the 14-year-old and the upper secondary groups were likely to differ in home background (assessed by home literacy resources and parents' level of education). Although several attempts were made to adjust comparisons for this, none provided an appropriate solution to the problem, a situation that may have biased the results for the test and that is discussed in Chapter 3. On the basis of analysis indicating that home background is less likely to influence concept and attitude results, comparisons are provided of the 14-year-olds with the upper secondary students in the 13 countries that tested both groups and for which there were weighted samples (found in Chapters 4–7). Where applicable, the caveat that countries with low coverage rates may overestimate the change associated with age is indicated.

SUMMARY OF METHODS

The following were used to develop the two class-hours of the IEA Civic Education Study test and survey for upper secondary groups:

- A careful review of the instrument administered in 1999 to 14-year-olds in 28 countries as well as of the associated analysis.
- Selection of items from the 14-year-old test and addition of new items, especially covering economics.
- Inclusion of all of the items from the 14-year-old survey and the addition of 16 new items.
- Pilot testing in six countries.

The test and survey were administered to national samples of upper secondary students in 16 countries, giving a total sample of about 50,000 students. Confirmatory factor analysis and Rasch scaling were used to develop a test score (for the cognitive items with 'right' and 'wrong' answers). The scaling specifications used for the attitude items with the 14-year-olds were also used for the upper secondary population data.

Details about relevant literature, quality control, and other procedures can be found in the report of results for the 14-year-olds (Torney-Purta, Lehmann et al., 2001).



**Knowledge of
Civic Content,
Skills in Interpreting
Civic Information
and Economic
Literacy**

HIGHLIGHTS RELATING TO CIVIC KNOWLEDGE AND ECONOMIC LITERACY

- For the upper secondary students, a meaningful, reliable, and valid international test of student knowledge about democratic institutions, principles, processes, and related topics could be constructed, as was the case in the parallel study of 14-year-olds. The use of (IRT) scaling techniques made it possible to link achievement scores among upper secondary students to the scores obtained by the 14-year-olds, such that differences in civic knowledge between the younger and the older students could be determined both within and across countries.
- As in the study of 14-year-olds, civic knowledge was conceived as a combination of content knowledge and interpretative skills. Nevertheless, it was also deemed to be meaningful to report specific results for the two sub-dimensions. Economic literacy, however, was introduced to the test as an entirely new component that had no parallel in the test for the 14-year-olds. Therefore, the respective results are reported separately in this chapter.
- Between-country differences in civic achievement were slightly larger at the upper secondary level than among the 14-year-olds. To some extent, this was due to age differences between the nationally defined target populations. Between-country differences in the proportion of adolescents still in school at the selected grade also appeared to contribute to the observed achievement differences.
- As was to be expected, the upper secondary students were generally more knowledgeable about democracy, national identity, and social diversity and cohesion than the 14-year-olds. Even allowing for some overestimation at the upper secondary level in some countries, the average annual knowledge increment was comparable in size to annual achievement gains in more curriculum-driven domains of school learning, such as mathematics.
- At the upper secondary level, there was a tendency for male students to attain higher levels of civic knowledge than females. This tendency was present in the two sub-dimensions of content knowledge and interpretative skills. It was most pronounced, however, in the domain of economic literacy.
- Students reporting more home literacy resources consistently did better on the test. While some between country-differences existed in this respect, it is noteworthy that the size of this effect was remarkably constant within countries across grades.

CIVIC KNOWLEDGE AND ECONOMIC LITERACY IN THE STUDY OF UPPER SECONDARY STUDENTS: HOW IT WAS MEASURED

One of the major aims of the present study was to assess, within and between countries, levels of civic knowledge among upper secondary students, that is, students at the threshold between adolescence and adulthood. In many countries, age 18 marks the beginning of full suffrage, and thus it is of major significance to know how young adults handle civic information, including economic issues, that determine—or are about to determine—important facets of their lives.

As was the case in the study of 14-year-olds, the task of measuring the civic knowledge of upper secondary students presented a number of challenges. While it was clear at an early stage of the project that full comparability of results for the two age groups could not be achieved (see Chapter 2 for more detail), it appeared desirable in many respects to have sufficient commonality between the two studies to facilitate meaningful cross-references. This, in turn, required carrying over a substantial number of cognitive items from the younger age group, yet leaving room for more demanding tasks as well as the newly introduced domain of economic literacy. It also meant drawing upon the valuable experience gained from measuring civic knowledge among 14-year-olds. In other words, the study researchers attempted to use a sub-set of the items from the earlier study to attain two goals simultaneously: (i) ensure conceptual comparability across the two studies; and (ii) arrive at a scale (or several sub-scales) linked to the IRT scale(s) used in the earlier study (anchoring).

Thus, the cognitive test for the upper secondary students consisted of 43 multiple-choice items. Sixteen of these had been used in the study of 14-year-olds. Of these, 14 proved to be suitable anchor items. Ten were items from the domain of content knowledge ('Type 1 items'), and four were items that measured students' skills in interpreting civic information ('Type 2 items'). The remaining two items from this group (one Type 1 item and one Type 2 item), while retained in the test, had to have their difficulties re-estimated, because their relative position on the scale had changed as compared with the other items from the original test. The remaining 27 items were new. These included three new content items (Type 1), intended to tap more advanced levels of civic knowledge, seven additional skills items (Type 2), also meant to be more demanding than the ones previously used, and 14 items that referred to the new domain of 'economic literacy'. Three new items eventually were discarded on psychometric grounds.

In order to ensure that the test for the upper secondary students would meet the conditions for scaling, the 43 items—the 16 items from the original test for the 14-year-olds and the 27 newly developed ones—were piloted in six countries in 1999. It was the aim of this exercise to check, for this set of items as well as its constituent sub-sets, the applicability of the one-parameter logistic test model ('Rasch scaling'). On the basis of the evidence thus obtained, it appeared justified to administer the whole set of 43 items to students in all 16 participating countries.

Using the full data set on which this chapter is based, checks of the psychometric properties of the test were repeated. Once the three items identified above were eliminated, the final test for the upper secondary students showed satisfactory psychometric properties for a 40-item test.

Many of the latter 14 economic literacy items were modeled after the *Test of Economic Literacy* (Beck & Krumm, 1999), which had already proven its qualities in a number of different countries (see, for example, Beck, Krumm, & Dubs, 1998). It is, of course, an open question—both theoretically and empirically speaking—as to whether economic literacy can rightfully be considered an integral component of civic knowledge, or whether it should be regarded as a separate, but important, set of competencies referring to the issues with which young people are confronted. In any event, an attempt was made to widen the scope of the investigation, both in terms of the complexity of its demands and in terms of the range of competencies covered. Given that a great number of civic issues—in particular some of the more complex ones—revolve around economic matters, most national researchers deemed it appropriate to include economic literacy in the test for the upper secondary students. The decision on whether to define a separate economic literacy scale for this report could then be based, at least in part, on the empirical evidence produced by the testing.

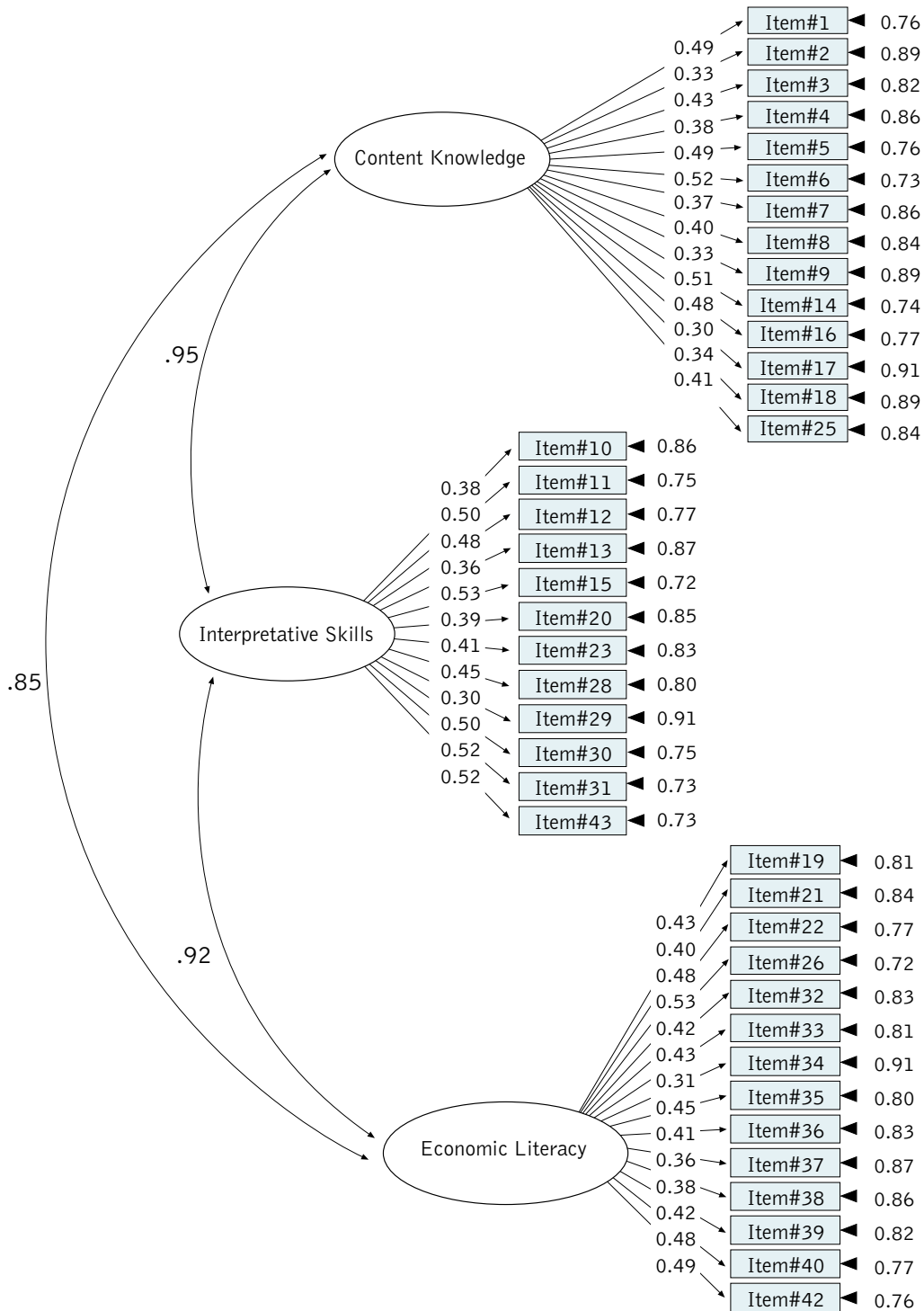
DISTINGUISHING BETWEEN CONTENT KNOWLEDGE, INTERPRETATIVE SKILLS, AND ECONOMIC LITERACY

In structural terms, the question of whether to include items measuring economic literacy in a test of civic knowledge is similar to that of the distinction between content knowledge and interpretative skills discussed in the report for the 14-year-olds (Torney-Purta, Lehmann, Oswald, & Schulz, 2001, p. 58). The difference between the studies of the two populations is, of course, that with the older group of students three instead of two possible sub-dimensions had to be considered. Nonetheless, the statistical approach to investigating the differences and commonalities of the latent constructs involved was essentially the same. Figure 3.1 presents the results of the respective confirmatory factor analysis, which distinguishes content knowledge, interpretative skills, and economic literacy.

The diagram shows that the distinctions do produce a sound statistical solution, which allows reporting of three sub-scales' means while leaving open the option of combining at least two sub-dimensions into a more comprehensive measure. The latent variable correlation between content knowledge and interpretative skills ($r = .95$) is even higher than that reported for the 14-year-olds ($r = .91$). Applying the reasoning adopted in the earlier report, we concluded that a correlation of this magnitude appeared to justify the computation of a combined scale for content knowledge and interpretative skills. At the same time, we felt that separate reporting in addition might render insights, for example, in the analysis of sub-group performance.

Figure 3.1 also shows that the correlation between interpretative skills and economic literacy ($r = .92$) is slightly lower than that between content knowledge and interpretative skills, and that the correlation between content knowledge and economic literacy is even smaller ($r = .85$). The latter

Figure 3.1 Confirmatory Factor Analysis of Content Knowledge, Interpretative Skills, and Economic Literacy Items



Standardized estimates
 chi-square=6622.666 df=737 p-value=.000
 gfi=.974 agfi=.971 rmsea=.024 pclose=1.000

coefficient, in particular, suggests that economic literacy items possess sufficient unique variance to provide additional insight into possibly diverging patterns of civic knowledge in the participating countries or among certain sub-groups. It should be noted that a combination of content knowledge and interpretative skills maximizes comparability with the 'total scores' of the earlier report. However, the decision to keep economic literacy separate also pays tribute to the fact that not all participating countries considered this particular domain to be a constitutive part of civic education.

The existence of anchor items that link the earlier study to the present investigation allowed us to build upon the scale already established (the 'total scores' for the 14-year-olds) and to express the upper secondary students' achievement on the combination of content knowledge and skills in interpreting political information in these terms. For the 28 countries with data from 14-year-olds, the international mean (with equal weights given to all participating countries) was set to a value of 100 scale points. For the 13 of these countries that also contributed a properly weightable sample for the upper secondary level, the recomputed international mean of the 14-year-olds was almost identical (99.4 scale points). The upper secondary students in these countries, with the addition of Israel, attained an international average score of 119 scale points. While it is highly plausible to attribute this difference, at least in part, to cognitive growth and instruction, other factors likely would have been involved. Above all, in those countries with a diminished coverage of the age cohort at the upper secondary stage, it is probable that the responses of the omitted segments of the population (that is, early school-leavers, young employees, participants in vocational training programs, etc.) would have differed from those of the young adults included in the study. In the case of these countries, the attained average levels of civic knowledge and economic literacy probably have been overestimated. For details on the computation of the age coverage index, see Chapter 2 of this report.

In the 14-year-old study, the *separate* scores for content knowledge and interpretative skills were calibrated not on the total score scale, but on separate scales, also with a mean of 100 and a standard deviation of 20. Where these two sub-dimensions are referred to separately in the present chapter, the anchoring technique described above was employed on the basis of the existing sub-scales. The respective scores were used in the analysis of gender effects (discussed below).

Since no anchor items existed for the sub-scale of economic literacy, a new scale had to be defined (using data from all countries). In line with earlier conventions, it had an international mean of 100 and a standard deviation of 20 scale points. Due to the anchoring procedure employed to make the scales from the two age populations comparable, the total content and skills score had a mean of 119 for the upper secondary sample. Due to sub-scale-specific anchoring procedures, the mean of the content subscale was 118 and of the skills subscale 113 for the upper secondary population. It should be noted that the choice of 100 as a mean for the economic literacy subscale *should not be interpreted* as meaning that economic literacy was less well-developed among the upper secondary students than was content knowledge and interpretative skills.

RELATING TEST RESULTS FROM THE UPPER SECONDARY STUDENTS TO THOSE FROM THE 14-YEAR-OLDS

One of the prerequisites for expressing the test results from an older sample in terms of those derived from a younger one is that the anchor items are sensitive to growth in both sub-populations. We therefore considered it instructive to show, for selected items, changes in the percentages of correct answers in those countries that participated in the study at both the 14-year-old and upper secondary levels. For this purpose, it is best to use concrete examples (Figures 3.2a–d), some of which were discussed in the 14-year-old report.

The first example (Figure 3.2a) is a Type 1 item, which had been comparatively easy for the 14-year-olds to answer. The item asked respondents to demonstrate content knowledge by acknowledging the general role of institutional pluralism in democratic countries (option C: ‘many organisations provide opportunities to express different points of view’). From the percentages given, it is clear that in all participating countries, the portion of upper secondary students selecting the correct response was significantly higher than the portion of 14-year-olds making this selection. Due to the anchoring procedure, the international scale value that stands for the difficulty of the item remained constant. Given that the upper secondary students were more likely than the 14-year-olds to answer this item correctly, they were credited with higher scale scores, on the condition that similar increments should be observed for the other anchor items. As already mentioned, this

Figure 3.2a Item Example: Importance of many organisations for democracy

| Country | 14-year-olds Correct Answers (in %) | Upper Secondary Students Correct Answers (in %) | Example 1 (Item #03) Knowledge of Content |
|---|---|---|--|
| Chile | 69 (1.1) | 87 (0.8) | <p>3. In a democratic country [society] having many organisations for people to join is important because this provides ...</p> <p>A. a group to defend members who are arrested.</p> <p>B. many sources of taxes for the government.</p> <p>C. opportunities to express different points of view.*</p> <p>D. a way for the government to tell people about new laws.</p> <p><i>International Scale Value: 93</i></p> |
| Cyprus | 80 (1.1) | 92 (1.1) | |
| Czech Republic | 76 (1.1) | 89 (0.8) | |
| Denmark | 75 (0.9) | 98 (0.3) | |
| Estonia | 61 (1.1) | 84 (1.3) | |
| Israel ¹ | n.a. n.a. | 84 (1.0) | |
| Latvia | 55 (1.8) | 68 (1.4) | |
| Norway | 69 (0.9) | 81 (1.2) | |
| Poland | 78 (1.6) | 83 (1.1) | |
| Portugal | 59 (1.2) | 87 (0.9) | |
| Russian Federation | 68 (1.6) | 78 (1.8) | |
| Slovenia | 62 (1.1) | 82 (1.7) | |
| Sweden | 70 (1.5) | 92 (0.7) | |
| Switzerland (German) | 66 (1.5) | 89 (1.4) | |
| International Sample² | 68 (0.4) | 85 (0.3) | |

() Standard errors appear in parentheses.
 * Correct answer.
 1 Israel did not participate in the 14-year-old study.
 2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 3.2b Item Example: Identify a non-democratic government

| Country | 14-year-olds Correct Answers (in %) | Upper Secondary Students Correct Answers (in %) | Example 2 (Item #6) Knowledge of Content |
|---|---|---|---|
| Chile | 44 (1.3) | 76 (1.0) | <p>6. Which of the following is most likely to cause a government to be called non-democratic?</p> <p>A. People are prevented from criticising the government.*</p> <p>B. The political parties criticise each other often.</p> <p>C. People must pay very high taxes.</p> <p>D. Every citizen has the right to a job.</p> <p><i>International Scale Value: 106</i></p> |
| Cyprus | 59 (1.3) | 76 (1.6) | |
| Czech Republic | 60 (1.6) | 86 (1.0) | |
| Denmark | 46 (1.1) | 85 (0.8) | |
| Estonia | 39 (1.4) | 83 (0.9) | |
| Israel ¹ | n.a. n.a. | 88 (0.8) | |
| Latvia | 36 (1.9) | 58 (2.3) | |
| Norway | 57 (1.0) | 80 (1.6) | |
| Poland | 65 (2.3) | 71 (1.8) | |
| Portugal | 55 (1.5) | 88 (0.9) | |
| Russian Federation | 57 (2.3) | 76 (2.3) | |
| Slovenia | 50 (1.3) | 74 (1.9) | |
| Sweden | 66 (1.6) | 91 (1.0) | |
| Switzerland (German) | 56 (1.9) | 91 (1.3) | |
| International Sample² | 53 (0.4) | 80 (0.4) | |

() Standard errors appear in parentheses.
 * Correct answer.
 1 Israel did not participate in the 14-year-old study.
 2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

condition held for all but two of the items from the original test. In these two cases, the item difficulty parameters had to be re-estimated in the computation of scale scores for the upper secondary students.

The second example (Figure 3.2b) also pertains to the domain of content knowledge, in particular the knowledge of democratic practices and institutions. It stipulates the identification of a practice that ‘most likely causes a government to be called non-democratic’. The correct answer (A: ‘People are prevented from criticising the government’) requires a reliable knowledge base as to the properties of democratic governments and the ability to apply that knowledge to the opposite case (‘non-democratic government’). As can be seen, and as was to be expected, the percentages of correct answers were again generally higher for the upper secondary students than they were for the 14-year-olds.

The third example (Figure 3.2c) measures skills in interpreting civic-related texts. As with the two previous examples, it refers to democratic practices and institutions. It does so with some reference to economic policy, although it was *not* considered part of the economic literacy scale. Here, students were asked to interpret an electoral leaflet directed against an imaginary political party. The correct answer is B (‘a party or group in opposition to the Silver Party’). There are several clues suggesting the solution, although the interpretation of some of these requires complex inferences as to the two parties’ approaches to taxation and government spending. An adequate reaction to these clues requires the ability to identify the alleged negative consequences of the Silver

Figure 3.2c Item Example: This is an election leaflet ...

| Country | 14-year-olds Correct Answers (in %) | Upper Secondary Students Correct Answers (in %) | Example 3 (Item #11) Skills in Interpretation |
|---|--|--|---|
| Chile | 54 (1.5) | 80 (1.0) | <p style="text-align: center;">We citizens have had enough! A vote for the Silver Party means a vote for higher taxes. It means an end to economic growth and a waste of our nation's resources. Vote instead for economic growth and free enterprise. Vote for more money left in everyone's wallet! Let's not waste another 4 years! VOTE FOR THE GOLD PARTY.</p> <p>11. This is an election leaflet which has probably been issued by ...</p> <p>A. the Silver Party. B. a party or group in opposition to the Silver Party.* C. a group which tries to be sure elections are fair. D. the Silver Party and the Gold Party together.</p> <p><i>International Scale Value: 97</i></p> |
| Cyprus | 81 (0.9) | 91 (0.9) | |
| Czech Republic | 66 (1.6) | 85 (0.8) | |
| Denmark | 49 (1.1) | 84 (0.9) | |
| Estonia | 54 (1.4) | 83 (1.0) | |
| Israel ¹ | n.a. n.a. | 82 (1.2) | |
| Latvia | 44 (1.9) | 63 (2.6) | |
| Norway | 57 (0.9) | 74 (1.7) | |
| Poland | 58 (2.0) | 66 (1.8) | |
| Portugal | 55 (1.3) | 88 (0.8) | |
| Russian Federation | 45 (1.9) | 69 (2.0) | |
| Slovenia | 75 (1.0) | 84 (2.0) | |
| Sweden | 73 (1.5) | 93 (0.9) | |
| Switzerland (German) | 80 (1.6) | 96 (0.8) | |
| International Sample² | 61 (0.4) | 81 (0.4) | |


() Standard errors appear in parentheses.
 * Correct answer.
 1 Israel did not participate in the 14-year-old study.
 2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Party's fiscal policy and to recognize that the counter-arguments could come only from an opposing group. The last line of the leaflet ("Vote for the Gold Party") is unambiguous, however, and clearly marks its origin. The conclusion that the Gold Party is opposed to the Silver Party appears rather obvious. This item was slightly easier for the 14-year-olds to answer than the average item in their test as a whole. Since the percentages of correct responses were notably higher for the upper secondary students, this item—like the earlier examples—could be used as a 'bridge' in relating upper secondary students' civic knowledge to the scale used in the analysis of test results among the 14-year-olds.

This example is also interesting when considered from a different angle. Even though the item carries economic connotations, the analysis of the test for the 14-year-olds produced no evidence that it has less to do with 'skills in interpreting civic-related material' than the other skills items. Quite to the contrary, a confirmatory factor analysis showed it to have more in common with the full set of skills items than any other item in this group (cf. Torney-Purta, Lehmann et al., 2001, p.61, item # 23). The same is true for this item among the upper secondary students (Figure 3.1, item # 11), which justifies the decision not to move this item to the scale of economic literacy, but to retain it as an indicator for the students' skill in interpreting civic-related material. This decision also broadened the basis for cross-references to the results reported for the 14-year-olds.

Figure 3.2d Item Example: This is the way history textbooks are sometimes written

| Country | 14-year-olds Correct Answers (in %) | Upper Secondary Students Correct Answers (in %) | Example 4 (Item #10) Skills in Interpretation |
|---|--|--|--|
| Chile | 49 (1.5) | 75 (0.9) |  <p>10. What is the message or main point of this cartoon? History textbooks ...</p> <p>A. are sometimes changed to avoid mentioning problematic events from the past.*</p> <p>B. for children must be shorter than books written for adults.</p> <p>C. are full of information that is not interesting.</p> <p>D. should be written using a computer and not a pencil.</p> <p><i>International Scale Value: 110</i></p> |
| Cyprus | 53 (1.1) | 71 (2.3) | |
| Czech Republic | 54 (1.5) | 72 (1.3) | |
| Denmark | 60 (1.0) | 71 (1.1) | |
| Estonia | 39 (1.2) | 69 (1.8) | |
| Israel ¹ | n.a. n.a. | 67 (1.1) | |
| Latvia | 48 (1.7) | 60 (2.4) | |
| Norway | 49 (1.0) | 58 (1.8) | |
| Poland | 64 (2.1) | 59 (1.6) | |
| Portugal | 49 (1.1) | 58 (1.5) | |
| Russian Federation | 45 (2.1) | 56 (2.5) | |
| Slovenia | 56 (1.1) | 68 (1.7) | |
| Sweden | 52 (1.2) | 79 (1.4) | |
| Switzerland (German) | 66 (1.6) | 79 (2.2) | |
| International Sample² | 53 (0.4) | 67 (0.5) | |

() Standard errors appear in parentheses.
 * Correct answer.
 1 Israel did not participate in the 14-year-old study.
 2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

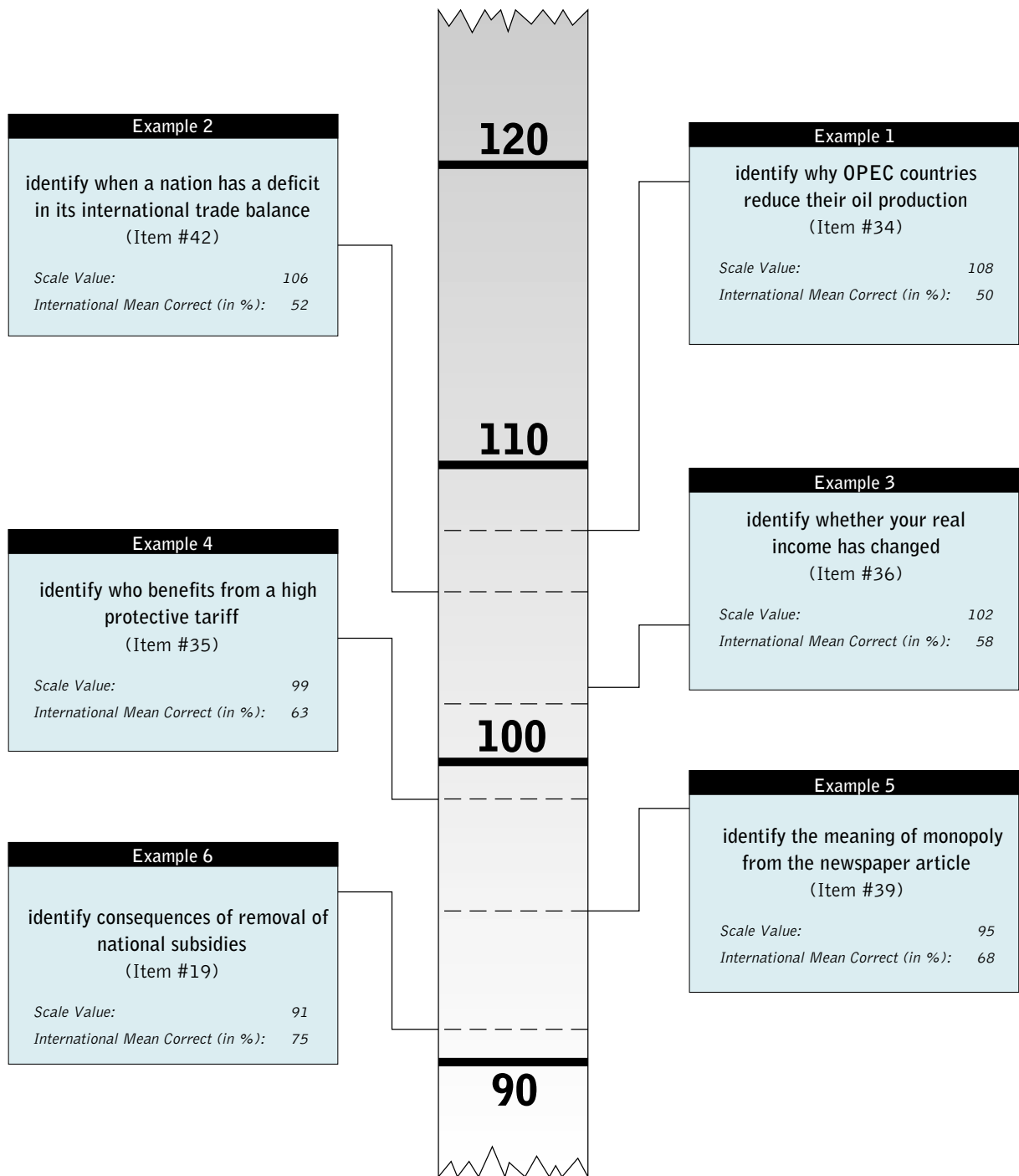
Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

A fourth example (Figure 3.2d), also discussed in the report on the 14-year-olds, demonstrates, once more, how percentages of correct answers—and consequently student ability estimates—increased across the two age groups. The interpretative inference required of the students—the reconstruction of the meaning of a newspaper cartoon—again illustrates the kind of mental process involved, which is compatible with, although distinguishable from, mere knowledge and recall. As one might expect, such ability was more developed in the older (and in some instances more select) group of students than in the younger and more comprehensive samples.

Since no economic literacy items were included in the test for the 14-year-olds, respective changes between the samples of lower and upper secondary students cannot be determined. It is all the more useful, therefore, to exemplify the nature of test items measuring economic literacy in a way that takes their relative difficulties for upper secondary students into account.

In Figure 3.3, six items from the domain of economic literacy (short titles only) are arranged in such a way as to relate them to this newly formed respective scale (international sample mean: 100 scale points; international standard deviation: 20 scale points). Here, too, a clear hierarchical test structure emerges, with difficulties ranging from 91 scale points (Example 6) to 108 scale points (Example 1). Student abilities, defined in terms of a 65 percent probability to solve an item located at the corresponding difficulty level, can be derived from the test model employed. The respective ability

Figure 3.3 International Difficulty Map for Sample Items Relating to Economic Literacy



NOTE: Each item was placed onto the International Economic Literacy Scale. Items are shown at the point on the scale where students with that level of proficiency had a 65 percent probability of providing a correct response.

Because percentages and scale values are rounded to the nearest whole number, some results may appear inconsistent.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

estimates for economics can *not* be projected onto the existing scales for content knowledge and skills, either separately or together.

It had been anticipated that some of the economic literacy items could be quite difficult for the upper secondary students tested. As can be seen from the international means for correct responses, given for the six examples in Figure 3.3, the difficulty range was quite acceptable, with a low level of difficulty for Example 6 (75 percent correct) to a medium difficulty level of 50 percent correct for Example 1.

The difficulty structure of the test for the 14-year-olds was illustrated in the report for the 14-year-olds (Torney-Purta, Lehmann et al., 2001, p. 52). Since the respective scale was carried over to the analysis of test performance of the upper secondary students, such illustration needs not be repeated here for items used already in the original test. Figure 3.3 shows the hierarchical structure for the sub-set of economic literacy items.

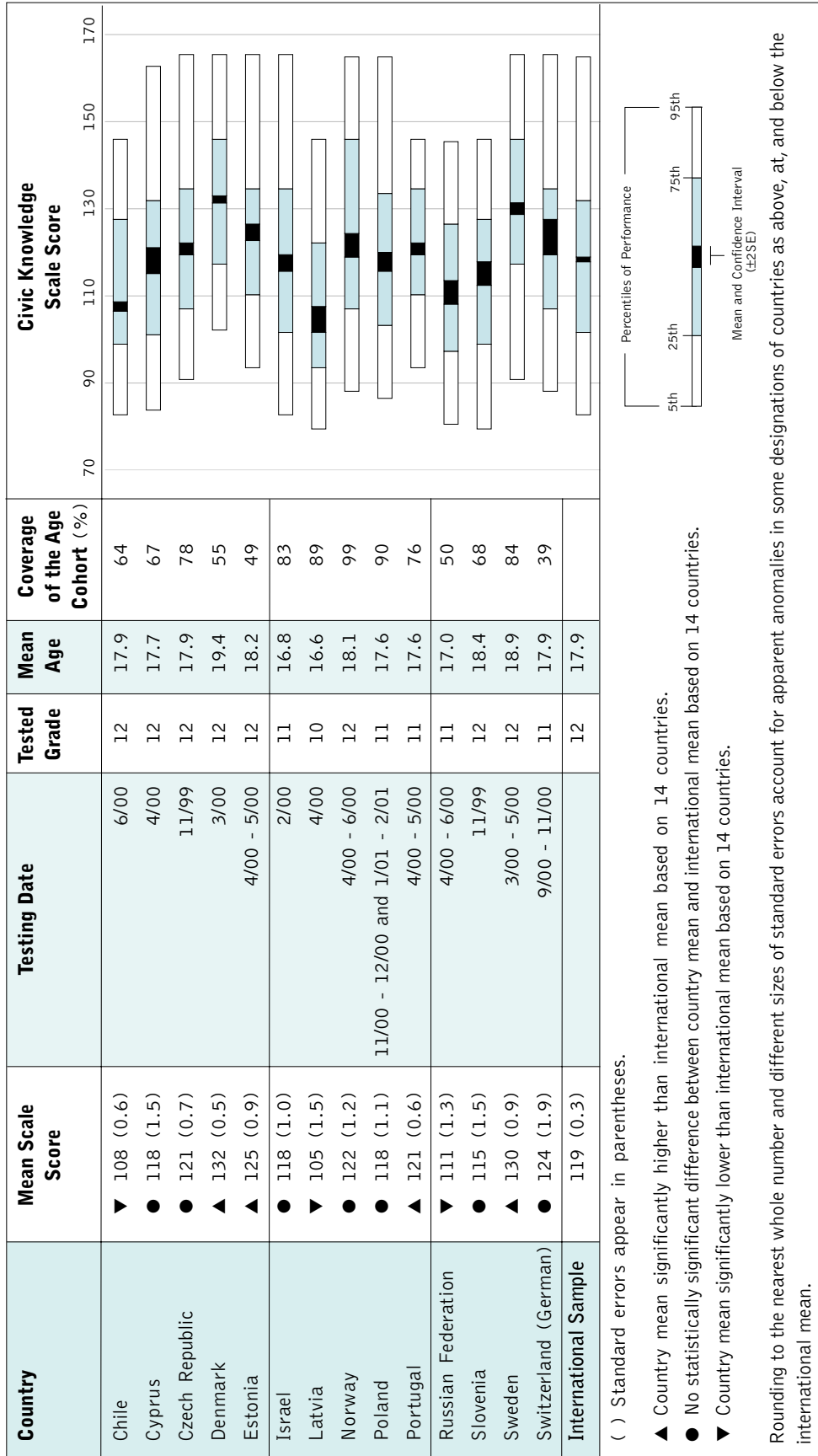
CIVIC KNOWLEDGE ACROSS COUNTRIES: SUMMARY AND CAUTIONS

Figure 3.4a presents a summary of the results of the international test on civic knowledge (content knowledge and skills) for all 14 countries that tested a sample of upper secondary students. (Results for Colombia and Hong Kong (SAR), for which there are no weights available, are given in Appendix D.) In addition to the mean scale score (augmented by the standard error of sampling), there is information for each country on the testing date, the tested grade, and the mean age of the sample. The graphic format used is very similar to that chosen for the 14-year-olds, but in this population of upper secondary students the range of ages and the selectivity of the populations tested in some countries require much greater caution in interpreting comparisons between countries.

The graphical part of the figure contains information on the performance distributions. In addition to the mean and the corresponding 95 percent confidence interval (mean \pm two standard errors of sampling), the 5th, 25th, 75th, and 95th percentiles are also shown for each country. The ages of the students tested and the coverage index are also provided in the table, as they are essential to interpreting each of the scores. Figure 3.4a gives some indication as to the 'yield' of political socialization and civic education in a given country. Estonian students (mean age: 18.2 years), for instance, obtained a relatively high score on average (125 scale points). The Danish students scored even higher (132 scale points; mean age: 19.4 years), but their results were much less widely dispersed, as virtually no Danish students scored below 100. Note, however, the low coverage of the age cohort in the Danish sample, which may be a very selective group (for the mode of computing the coverage index, consult Chapter 2 of this report).

It may be worth mentioning that the students in three out of the four countries scoring significantly above the international mean had, on average, passed voting age, set at 18 in all participating countries. In none of the three countries significantly below the international mean was students' mean age above age of first vote. There are also differences between students aged about

Figure 3.4a Distributions of Civic Knowledge (Content Knowledge and Interpretative Skills), Tested Grade, Mean Age, and Coverage of the Age Cohort



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

16 and those aged about 19 in both educational experiences and cognitive sophistication that could also account for differences in their performance.

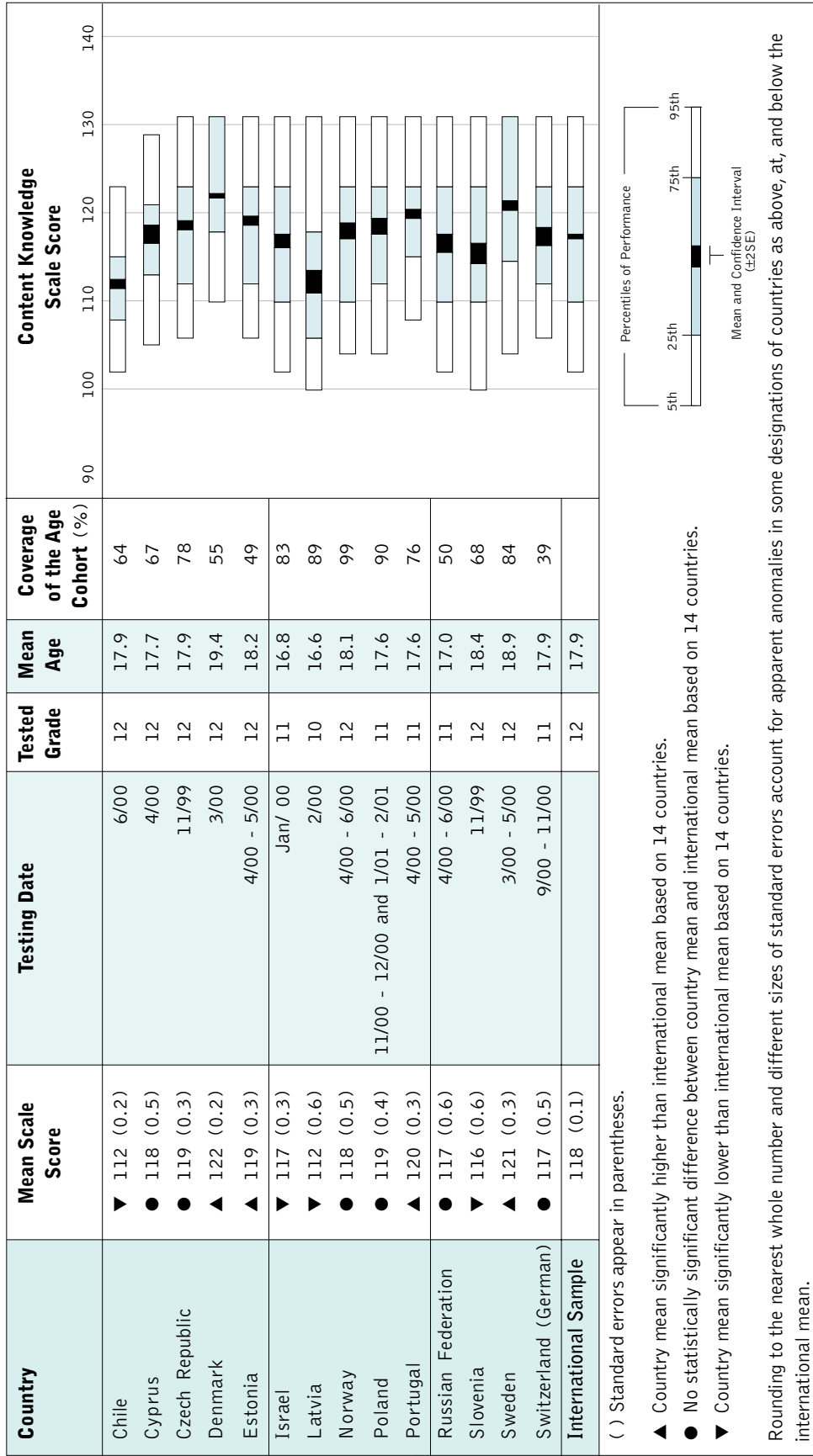
The range of national mean scores, as shown in the figure, is 27 scale points, with a low of 105 for Latvia and a high of 132 for Denmark. This range is not much larger than the observed range of 23 points for corresponding countries in the study of 14-year-olds, despite the substantial increase in the age range of tested students and the different coverage of the age cohorts in the country samples. Therefore, the comparisons with the international mean (the results of which are indicated by symbols on the left-hand margin of the figure) are only of value when considered alongside both age and selectivity (coverage). In order to maximize the value of the study within countries, each national research team chose an age group for testing based on their needs for information (for example, to look at the effects of a particular course offered to 15- or 16-year olds or to focus on students who became eligible to vote at age 18). For instance, Latvia chose the youngest sample and, at the same time, a very comprehensive one (coverage index of 0.89, the third highest among the 14 countries listed). According to the international requirements of the IEA Civic Education Study for the younger population, Latvia's target population was Grade 8 students, although the subject civic education is taught in Grade 9 in Latvia. For the older population level (Grades 10 to 12, upper secondary), Latvia's target population was Grade 10. The main reason for drawing the sample from Grade 10 students was the need to assess the results of teaching and learning the subject civic education in Grade 9 regarding acquired civic knowledge and skills. This put Latvia at a potential disadvantage when compared to countries testing older or more selective samples of students (for example, countries with lower coverage indices). Special attention is paid to such problems below.

As in the study of 14-year-olds, there is no obvious pattern in these outcomes that serves as a simple explanation for the between-country differences. In terms of overall civic achievement, students from both the traditional and more recently established democracies are found in the top group. Some countries that stood out by virtue of their high performance in the 14-year-old group can now be found in the middle category (not significantly different from the international mean score). None of the four countries where the upper secondary students were scored significantly above the international mean (Denmark, Estonia, Portugal, Sweden) had been in the above-average group in the study of 14-year-olds. These changes are, of course, also influenced by differences between the samples in terms of mean age and coverage.

When the sub-scale findings are analyzed, it becomes clear that the rank orders of countries' results are generally quite similar to the total scores (see Figures 3.4b and 3.4c).

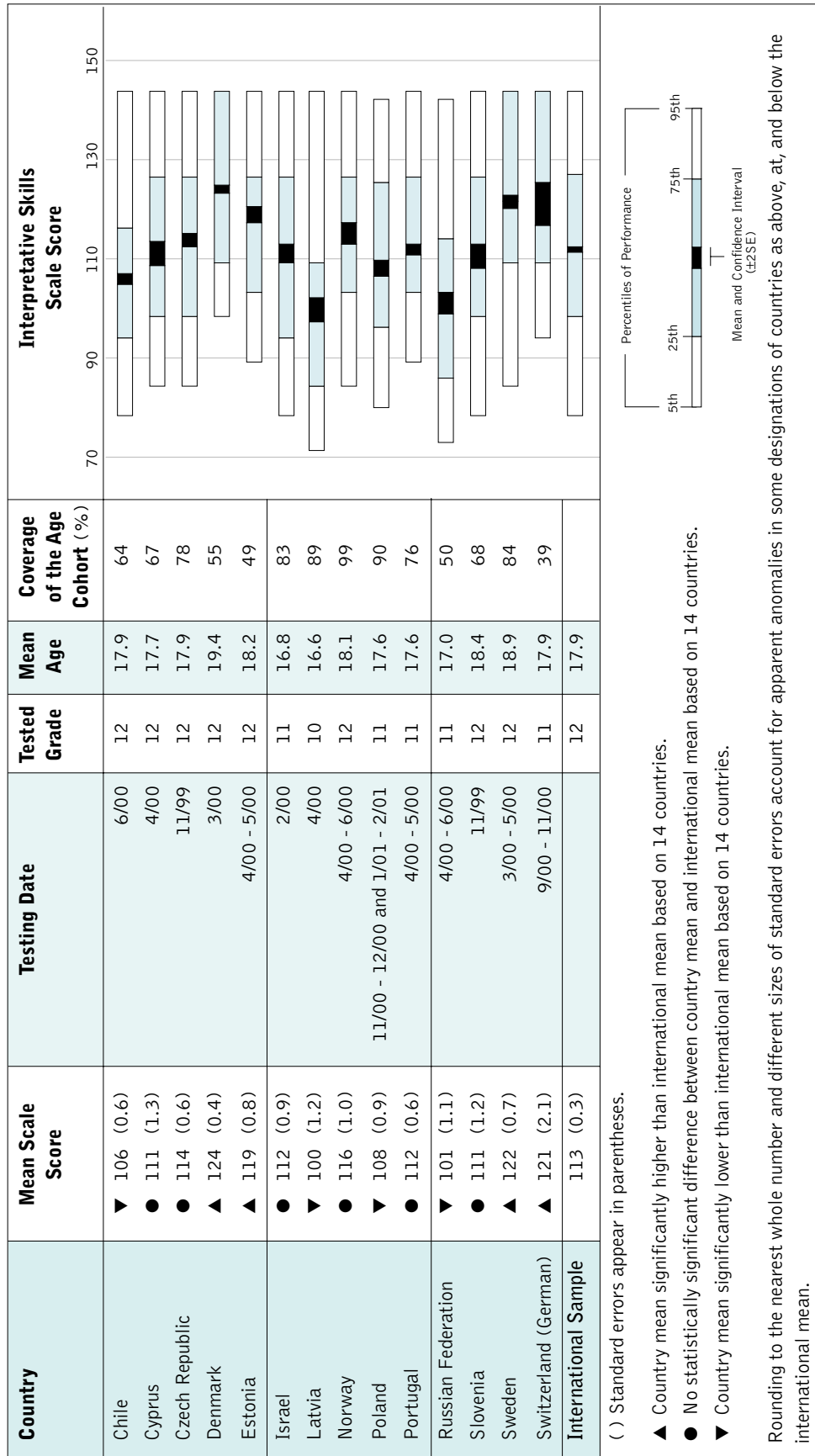
With respect to the dimension of economic literacy (Figure 3.4d), the dominant finding is again that the relative position of countries closely resembles their positions on the combined content knowledge/skills scale. In 10 out of the 14 countries that could be weighted, the country mean is significantly above, at, or below the international mean on both scales. Where there are deviations between the two, the more frequent pattern is that of a relative weakness on the economic literacy scale (Israel, Poland, and Portugal). Only in the Russian Federation does the opposite pattern appear.

Figure 3.4b Distributions of Content Knowledge, Tested Grade, Mean Age, and Coverage of the Age Cohort



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 3.4c Distributions of Interpretative Skills, Tested Grade, Mean Age, and Coverage of the Age Cohort



In summary, it seems unlikely that the inclusion of the economic literacy items into a total score would have influenced the relative position of countries in any major way. However, conceptually it seemed clearer to have a score for the upper secondary students that was constructed from the same components as the total civic knowledge score for the 14-year-olds. Comparisons of these total scores (reported in Figure 3.4a) with scores on its two constituent subscales reported in Figures 3.4b (civic content) and 3.4c (skills in interpreting civic information) produced generally similar findings, with some evidence of country-specific strengths and weaknesses, stable across age groups or grades, respectively. Results for the separate domain of economic literacy (presented in Figure 3.4d), though also quite similar, demonstrate the potential of distinguishing between this domain and civic knowledge.

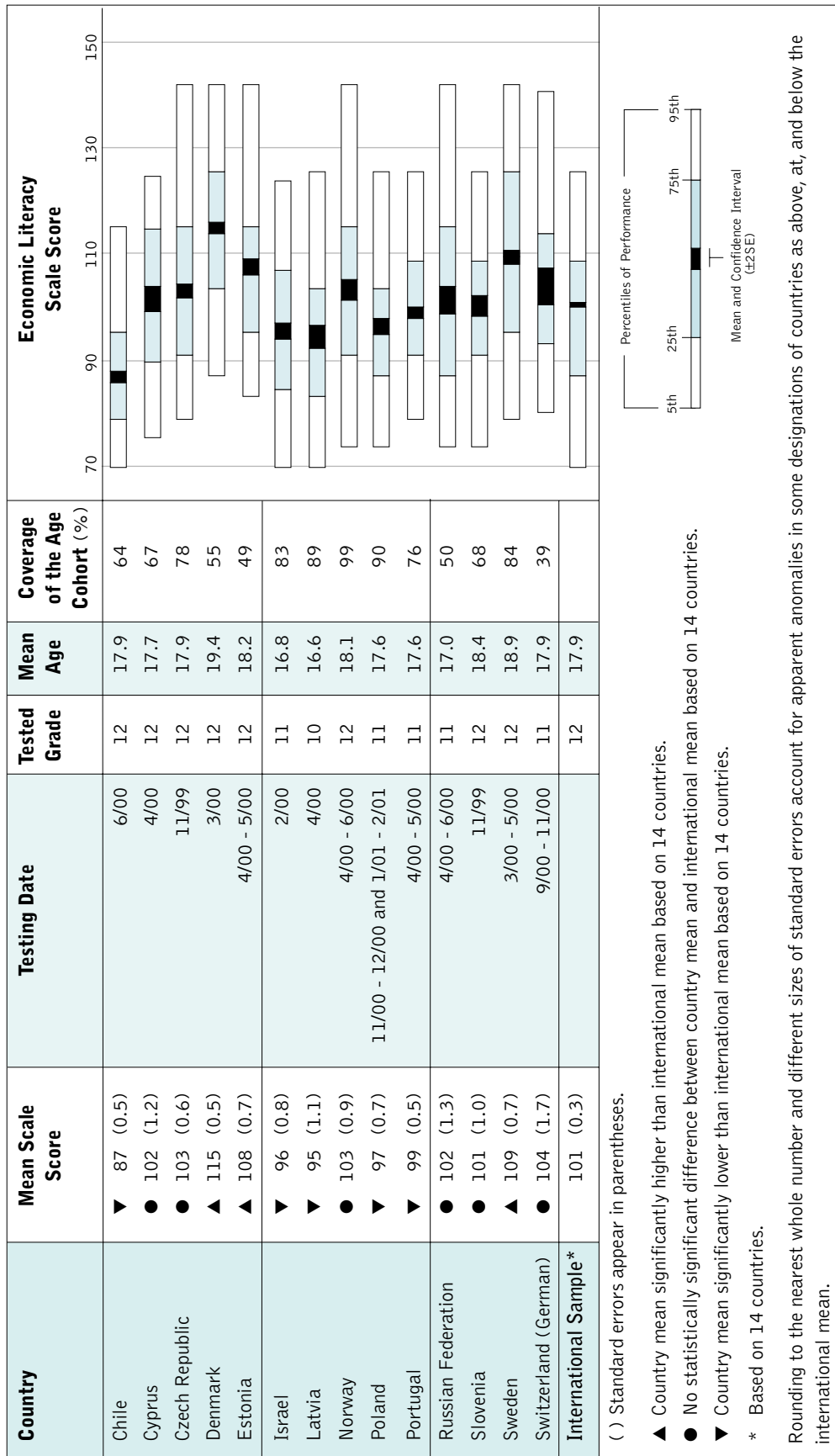
CIVIC KNOWLEDGE, AGE, AND THE SELECTIVITY OF SAMPLING

As far as the measurement of growth is concerned, it was clear from the beginning of the project that the parallel studies of 14-year-olds and upper secondary students would not constitute a longitudinal investigation but a combination of two cross-sectional surveys. The expectation was that age effects ('cognitive growth'), the potential impact of instruction, and possible cohort effects would be inseparably intertwined ('confounded'), leaving us somewhat unsure as to which part of any observed differences could be attributed to growth and instruction and which part to inter-generational changes. However, given that the dates of birth in the two samples differed by little more than two years on average (though substantially more within countries), we assumed that the cohort effect would be small, and that any such effect would probably largely be associated with errors of sampling.

A much more serious issue concerned the age differences both within and between the two cross-sections investigated. Although the first study had a target population defined according to the modal grade for age 14, the actual national averages for age ranged from 14.1 to 15.1 years, which clearly contributed to the observed differences in mean performance on the test (cf. Torney-Purta, Lehmann et al., 2001, pp. 55f). This problem is considerably greater with respect to the findings covered in this report. Since no international definition of the upper secondary target population could be agreed upon within the constraints of the different participating countries, each was free to select that grade closest to the end of upper secondary school that interested the national research groups and/or funders. Across the countries participating at this level, national averages for age ranged from 16.6 (Latvia) to 19.4 years (Denmark). As a consequence, observed differences in test performance between countries at the upper secondary level may have been a product of variable age differences between countries, and, by the same argument, the observed difference in civic knowledge between any country's two samples may be attributable to the particular age difference within that country. We attempt to take this into account in our interpretation of the results.

A third problem arose from the fact that the defined target populations in the participating countries covered different portions of the age cohort designated

Figure 3.4d Distributions of Economic Literacy, Tested Grade, Mean Age, and Coverage of the Age Cohort



Source: IEA *Civic Education Study*, Older Population of upper secondary students tested in 2000.

for study (see Chapter 2 for a description of the nationally defined target populations). As ‘dropping out’ of the school system typically occurs at or soon after the end of lower secondary school, and as it is often quite closely related to school achievement, some of the observed differences in test performance between countries also may have been a consequence of such selectivity effects. This, too, will have to be borne in mind when interpreting the findings.

In summary, the scores of civic knowledge as defined in the studies of the 14-year-old and the upper secondary students can be directly compared because of the scaling method applied. However, the same cannot be said for the comparisons between the national samples in the study of upper secondary students, primarily because of differences in age and selectivity (coverage).

Given the theoretical importance of the issue, it seemed nevertheless worth the effort at least to estimate changes concomitant with age. Since the international mean achievement score (combined content knowledge and skills) is known for the 13 countries¹ that contributed weighted data to both studies (99 scale points), and since the same applies for the upper secondary students (119 scale points), a tentative conclusion is in order. Bearing in mind the unknown effects of a reduced coverage in some countries, the civic knowledge scores at an international mean age of 17.9 years were, on average, 20 scale points or almost one standard deviation higher than those in the corresponding, albeit more comprehensively defined, sample of 14-year-olds (international mean age 14.7 years). From these figures, it was possible to derive an average annual increment of 6.3 scale points or .31 standard deviations of the international population of 14-year-olds per year of age. This value is not unlike findings for other cognitive domains in the age range under investigation. Using the international means for age and civic knowledge achievement for the 14-year-olds as well as for the upper secondary students, Figure 3.5 illustrates the general relationship between age and civic knowledge achievement in the two parallel studies. The slope of the dashed connecting line indicates the average annual increment just discussed.

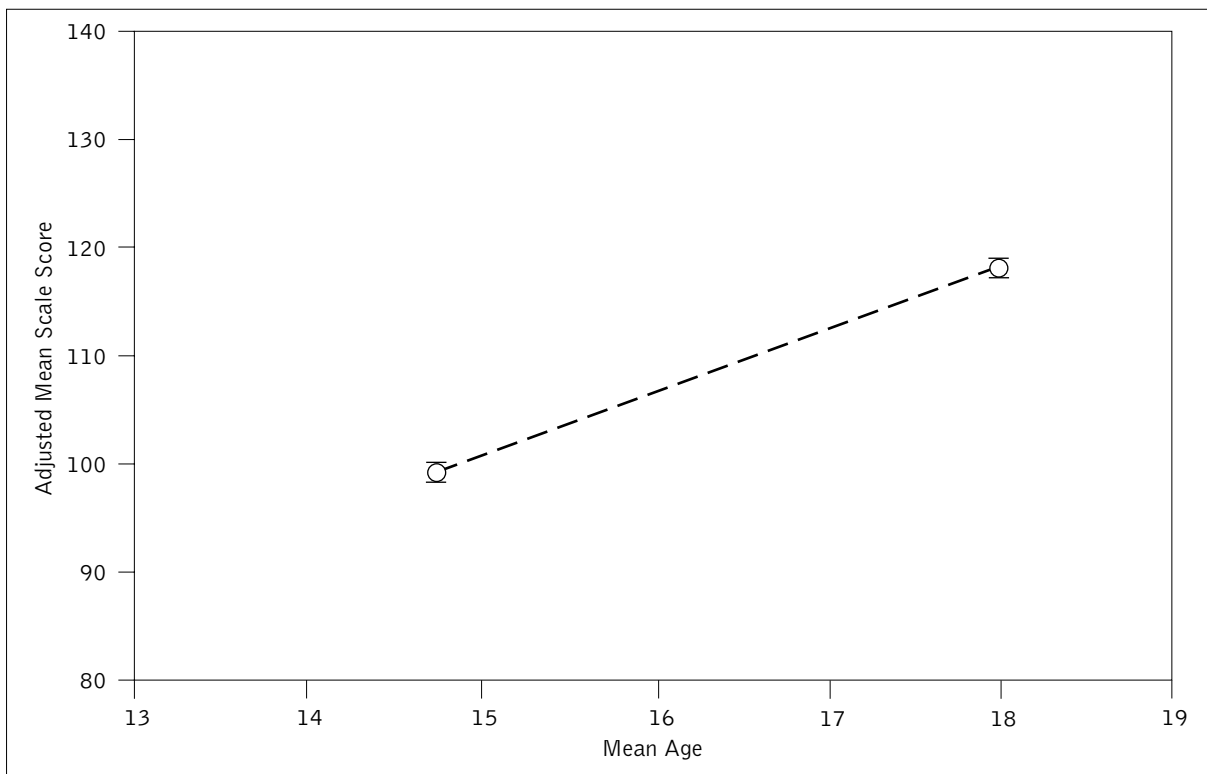
It is almost certain, however, that the figure just given overestimates growth in civic knowledge, because the effects associated with selectivity in the chosen populations were not taken into account. Thus, a country that tested only about 50 percent of the age cohort probably gained an advantage over another country, such as Norway, where 99 percent of the age cohort was in school and available for testing. We therefore attempted to adjust for the presence of selectivity by holding it constant statistically and then considering the ‘net increment’ attributable to age.²

Figure 3.6 presents scores for the combined knowledge/skills scale adjusted for coverage (vertical axis) and relates them to age (horizontal axis). The data from which this graph was produced are simple country aggregates. The slope

1 Israel, which did not test 14-year-olds, is excluded from this comparison, as are Colombia and Hong Kong (SAR), for which the upper secondary data are unweighted.

2 The adjustment was computed by regressing, on a between-country basis, mean civic knowledge on the coverage index and adding the residual to the national score. Thus, in countries with achievement levels higher than expected, given their coverage of the age cohort, the total scores were adjusted upwards while downward adjustments occurred in countries where the mean scores were lower than expected on the basis of their coverage index. It should be noted that this adjustment is applied only in the context of discussing Figure 3.5.

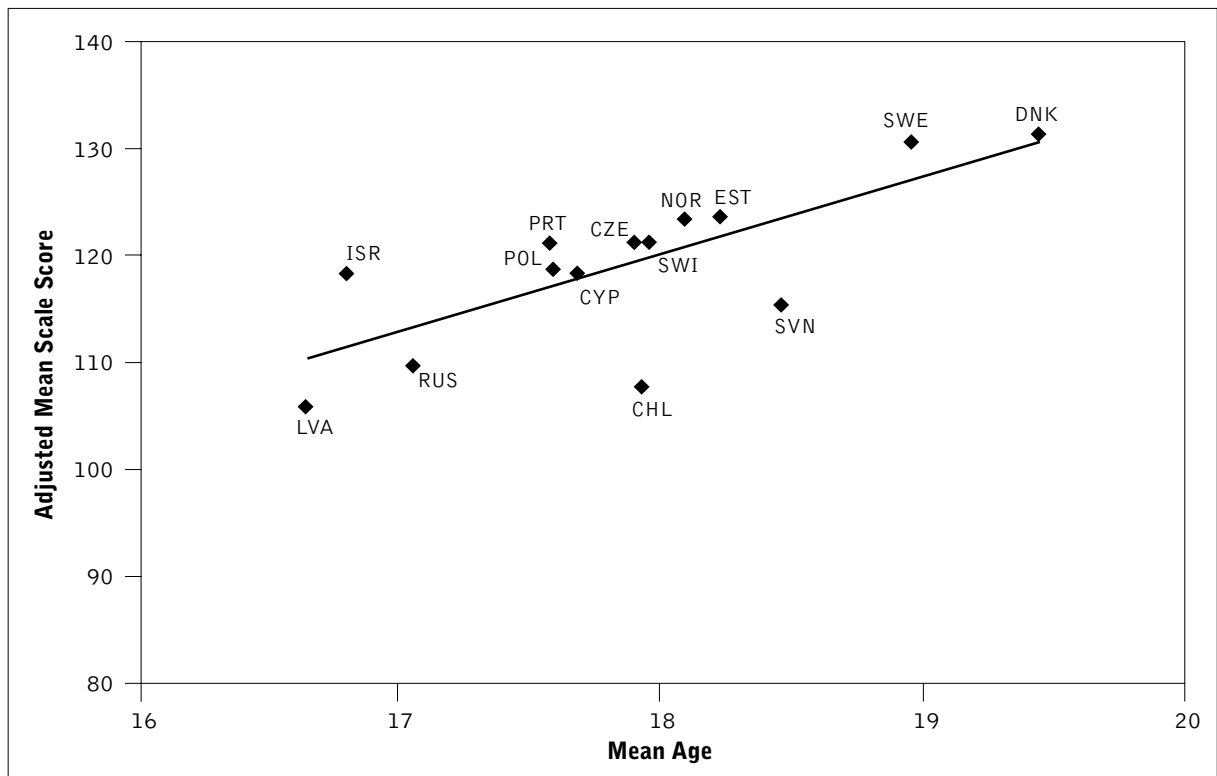
Figure 3.5 International Means for Age and Civic Knowledge by Population Tested (14-year-olds and Upper Secondary Students)



of the regression line (7.3 scale points per year of age) can now be interpreted as an adjusted estimate of average annual change computed across countries. Its value is not significantly lower (in fact, it is slightly higher) than the estimate already given by comparing the international means for 14-year-olds, as opposed to the upper secondary students (6.3 scale points per year). The implications are twofold. First, the attempt to capture the effects that differential selectivity had on country outcomes was, at best, partially successful. Incidentally, this was also true for an alternative approach, in which the variable ‘home literacy resources’—a proxy for the *social* selectivity of the defined upper secondary populations—was used as a basis for adjustments. Second, and this is the least that can be said, a strong age-related effect is present in the data, warranting caution when interpreting between-country differences. Countries whose adjusted mean achievement is close to the regression line have scores that were very much to be expected, given the age and coverage of the sample they tested. Countries clearly above the regression line yielded somewhat better results than expected, especially when selection effects can be ruled out, as in the case of Norway. In countries clearly below the regression line, factors other than age of the sample chosen for testing were probably responsible for the comparatively low average civic achievement. Obviously, more elaborate analyses and additional investigations are needed at this point. A longitudinal study using the items from the two studies would be a more suitable way to estimate growth in civic knowledge among adolescents.

As an approximation to what might be an extremely useful extension of the current project, Figures 3.7a and 3.7b display the national ‘age gradients’ for

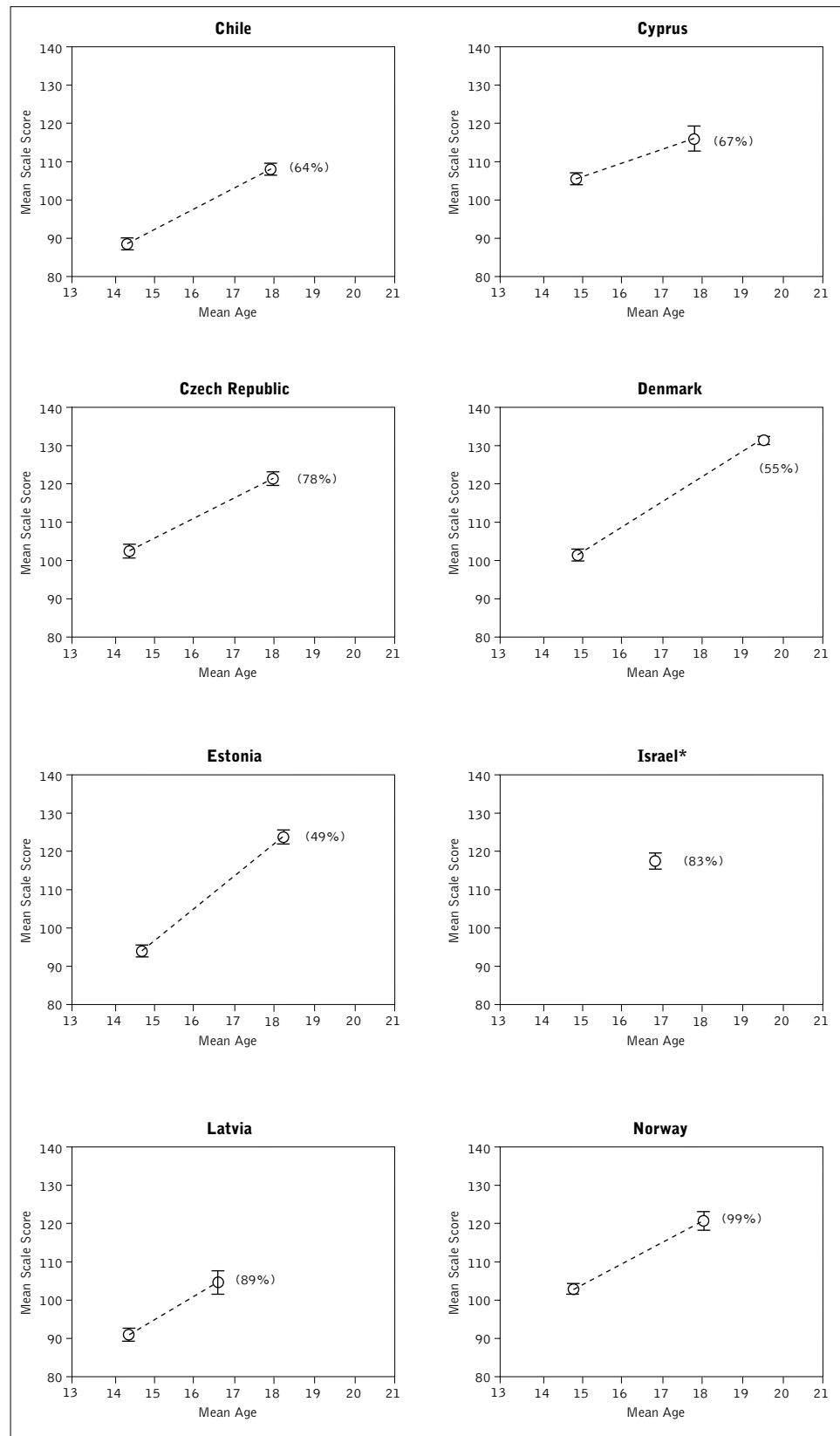
Figure 3.6 National Means for Age and Civic Knowledge, Adjusted for Coverage of the Age Cohort



the 14 countries that had weighted data in the study of upper secondary students. For each country (except Israel), the position of the younger and the older sample in terms of age and achievement is shown. The slope of the connecting dashed line gives some idea as to the difference between the two samples as a function of age. Bearing in mind *all the caveats* with respect to the measurement of growth, we need to be hesitant in seeing these slopes as unambiguous indicators of the growth of civic knowledge. The presence of selection effects almost certainly contributed to the apparent exceptional change in the case of Estonia, for instance (note its low coverage index for the upper secondary population). In other cases, for example, Cyprus and Poland, it is far from clear as to why the high achievement level of the 14-year-olds did not extend to the upper secondary students. In any event, it would seem highly desirable to investigate this finding by a series of supplementary (national) surveys.

All of this demonstrates that all too straightforward international comparisons of civic knowledge can be highly misleading if age and selectivity are not properly taken into account. For example, we cannot expect the average 16-year-old to have as much knowledge or sophistication about political and civic matters as the average 19-year-old. Further, a country where nearly all young people are still in school during the last upper secondary grade is likely to be different from a country where substantial proportions of this age group are not available for testing because they have left school for full-time work or training programs. Even so, the information provided by the present study, if interpreted in context, may render some important insights.

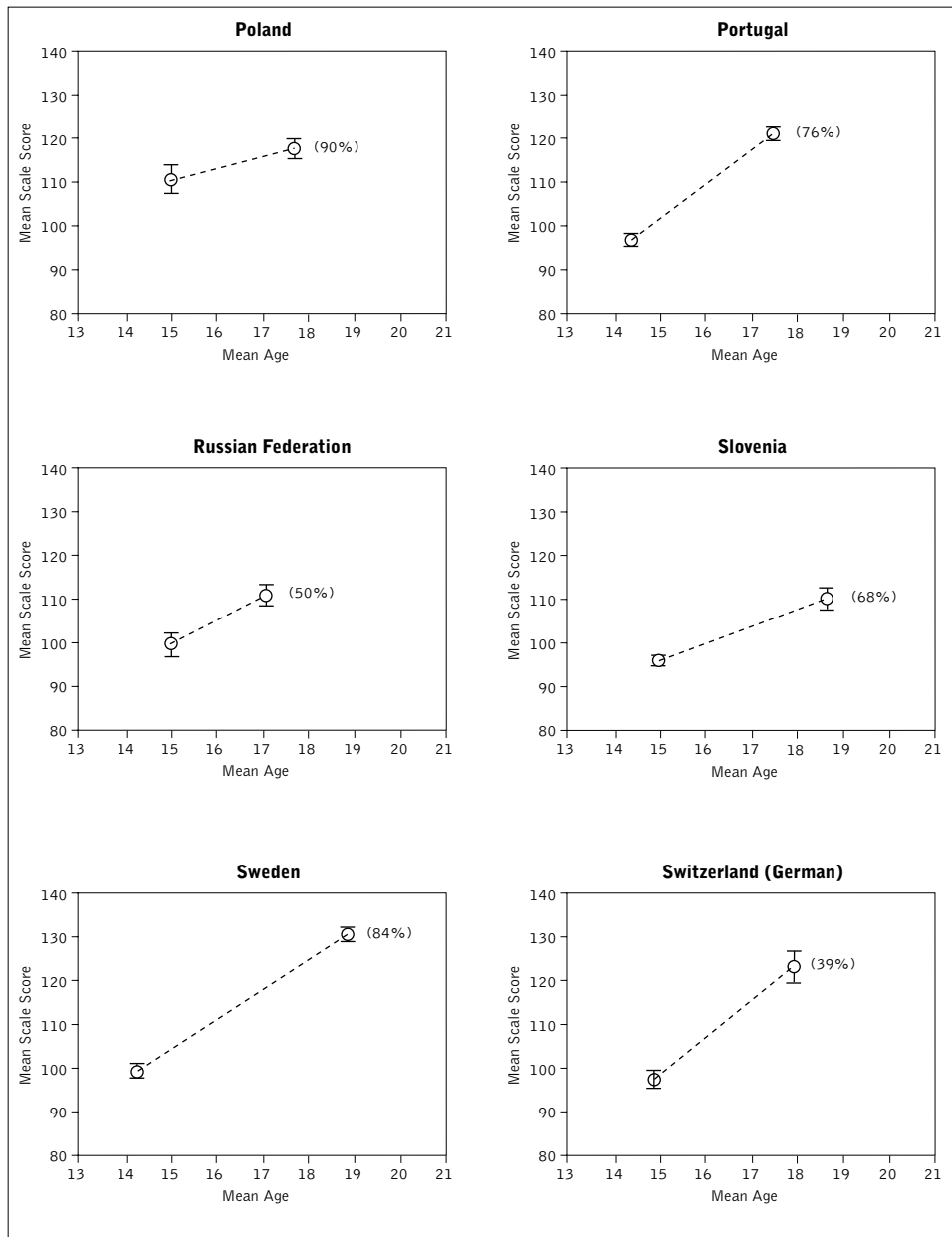
Figure 3.7a National Means for Age and Civic Knowledge, by Population Tested (14-year-olds and Upper Secondary Students), Unadjusted for Coverage of the Age Cohort



* Israel did not participate in the 14-year-old study.

** Coverage index is in parentheses.

Figure 3.7b National Means for Age and Civic Knowledge, by Population Tested (14-year-olds and Upper Secondary Students), Unadjusted for Coverage of the Age Cohort



GENDER DIFFERENCES IN CIVIC KNOWLEDGE

The study of 14-year-olds found only minor gender differences in civic knowledge. In fact, there appeared to be a slight tendency toward higher achievement among girls, at least as long as mitigating variables such as expected years of further education were not controlled for. Among the upper secondary students, this situation changed. There was a tendency for male upper secondary students to achieve higher scores on the test, best seen when we discuss separately the two sub-scales of content knowledge and interpretative skills as well as the domain of economic literacy.

Within the domain of civic knowledge, the distinction of sub-dimensions in the test renders some potential for differentiation. As Figure 3.8a demonstrates, male superiority in terms of content knowledge was in the order

of two scale points internationally and remarkably uniform across countries, although the differences were generally small and did not exceed 2.6 scale points (Denmark). A somewhat different tendency can be observed in Figure 3.8b with respect to interpretative skills.

On the skills sub-scale, the gender difference in favor of males was 2.3 scale points. Two of the 14 countries for which significance tests could be performed had significantly higher scores for males than for females (6.1 scale points in Denmark and 4.4 scale points in Portugal), but there were also four countries (Cyprus, Israel, Latvia, and Sweden) where the females outperformed males, albeit insignificantly. The latter is interesting, because the international mean for the 14-year-old girls' interpretative skills was approximately two scale points *higher* than that for the 14-year-old boys. This finding can be viewed in conjunction with findings from other studies, according to which reading literacy is generally higher among female adolescents than it is among males (see, for instance, OECD, 2001, p. 123). From this perspective, civic-related interpretative skills appear as a competency related to reading comprehension, but mediated by content knowledge. Higher content knowledge among the older male students might account, at least in part, for the reversal of the gender effect in the skills domain at this level. However, in the majority of participating countries, the skills-related gender effect was stronger than the content-related effect.

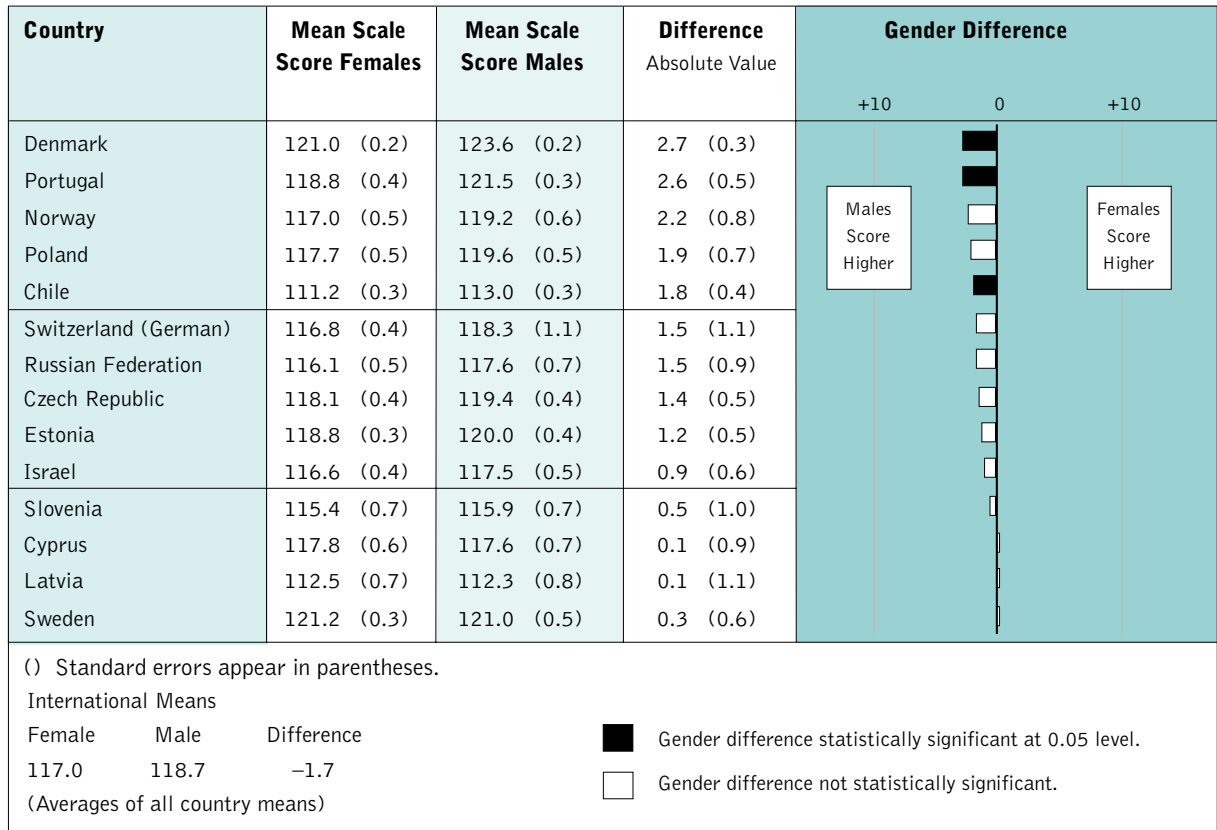
The most substantial and consistent gender differences in the test scores related to economic literacy (Figure 3.8c). In about half the countries, economic literacy represented a competency that was more highly developed among the males than among the females, and the respective effect sizes were also the largest of all three dimensions. We could, perhaps, point to an analogy in studies of mathematics achievement, particularly those where formal reasoning in open-problem contexts is emphasized, as is the case in several of the economic literacy items used in the present study. Unfortunately, the limited number of items in this component of the test did not allow us to distinguish between aspects of content familiarity and reasoning in this domain. In any event, we might add that these differential results— independent of the theoretical stance taken on the issue of civic education and economic literacy—suggest areas for work towards achieving gender equity in civic knowledge.

HOME LITERACY RESOURCES AND CIVIC KNOWLEDGE

As in the study of 14-year-olds, efforts have been made in the present study to assess the influence of out-of-school factors on the emergence of civic knowledge. In this chapter, only the standard predictor 'home literacy resources' is considered. Chapter 8 presents a more complete analysis of this as well as of related effects. Table 3.1 presents a breakdown of the test results (total civic knowledge scores) by a variable representing the number of books in the home.

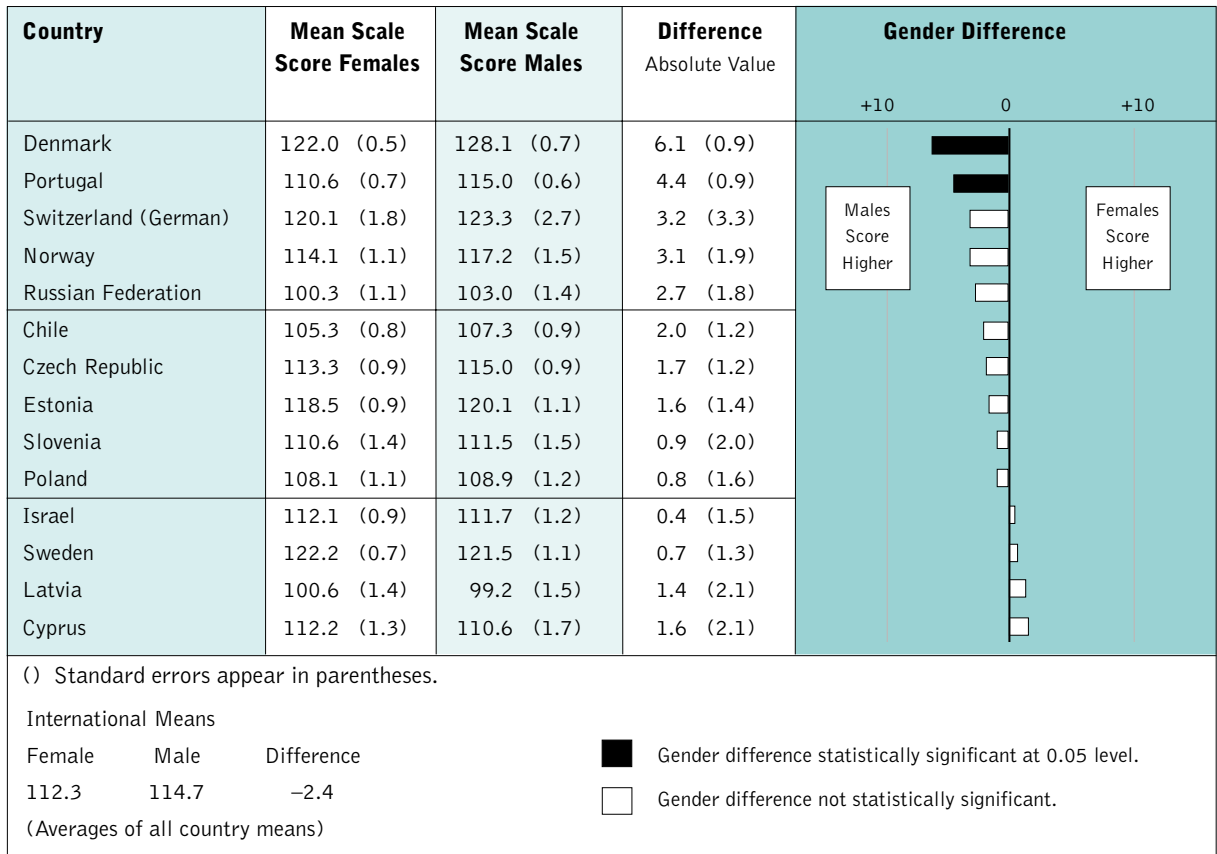
As can be seen from the table, civic knowledge as measured by the test (civic knowledge and interpretative skills combined) generally rose with the availability of books in the home, that is, home literacy resources. While this finding, as such, is no surprise—it has been a very stable result in a number of

Figure 3.8a Gender Differences on Content Knowledge Sub-scale



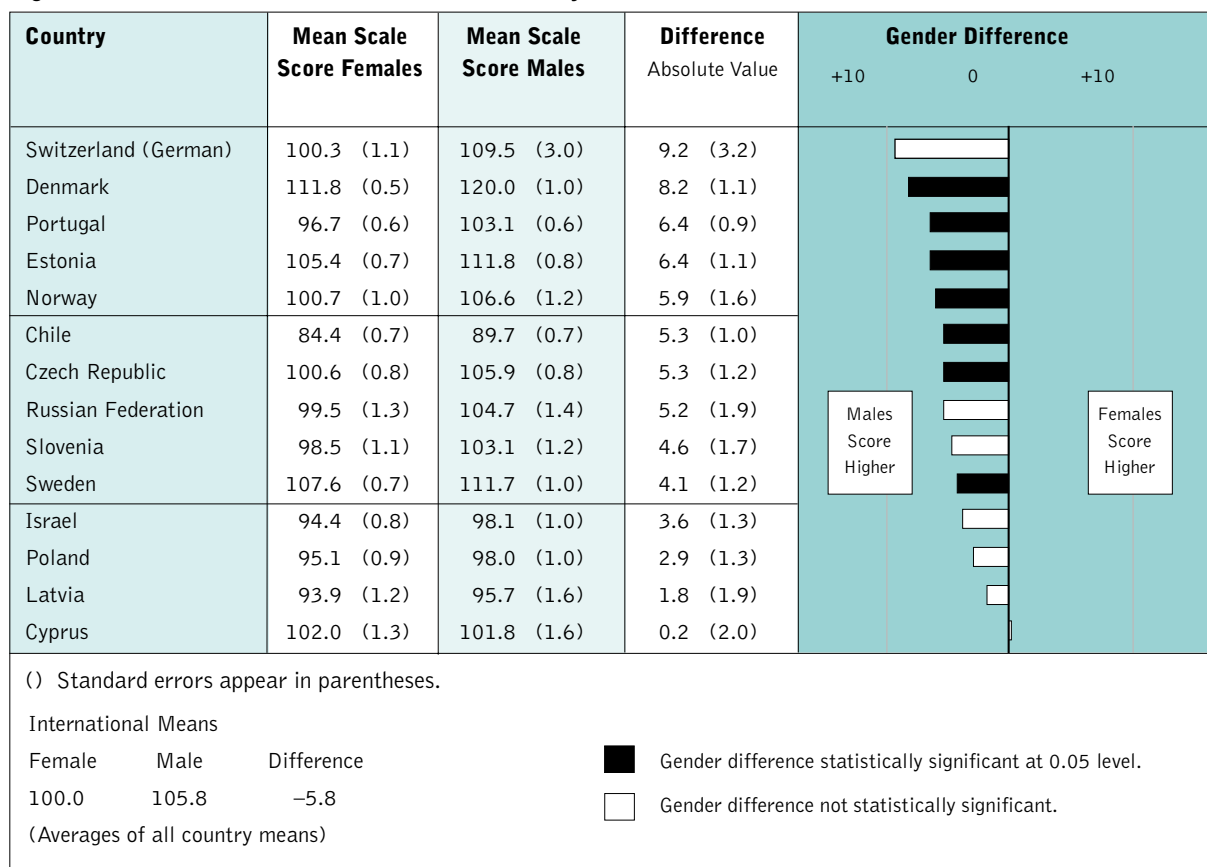
Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 3.8b Gender Differences in Interpretative Skills



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 3.8c Gender Differences in Economic Literacy



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

other international achievement studies (cf. also the more comprehensive approach chosen in PISA 2000 (OECD, 2001, pp. 143f))—the degree to which it parallels the findings from the Civic Education Study of 14-year-olds is remarkable. A comparison by country of the amounts of achievement variance associated with this variable (column labeled ‘Eta Squared’ in Table 3.1 and the corresponding table in Torney-Purta, Lehmann et al., 2001, p. 66) shows identical or nearly identical values. The robustness of these findings becomes even more significant when we consider countries with almost equal distributions of home literacy resources (such as Denmark and Sweden, for instance) and the corresponding values for Eta Squared, which are consistently different. We can only conclude that the role of cultural resources is very persistent and that the importance of these resources is highly dependent on the national context, including the system of education.

SUMMARY OF CIVIC KNOWLEDGE AND ECONOMIC LITERACY

The analysis of the upper secondary students’ responses to the IEA test of content knowledge, interpretative skills, and economic literacy shows that it is meaningful to combine two of the elements, namely content knowledge and skills in interpreting civic-related information, into a single scale (‘civic knowledge’), and that it is preferable for most purposes to consider economic literacy as a separate, albeit civic-related, dimension. Due to anchoring techniques, the upper secondary students’ civic knowledge scores are directly

Table 3.1 Civic Knowledge and Students' Reports on Home Literacy Resources

| Country | None or Very Few (0-10 books) | | About One Shelf (11-50 books) | | About One Bookcase (51-100 books) | | About Two Bookcases (101-200 books) | | Three or More Bookcases (More than 200 books) | | Eta Squared |
|-----------------------------|----------------------------------|------------------|----------------------------------|------------------|--------------------------------------|------------------|--|------------------|--|------------------|-------------|
| | Percent of Students | Mean Scale Score | Percent of Students | Mean Scale Score | Percent of Students | Mean Scale Score | Percent of Students | Mean Scale Score | Percent of Students | Mean Scale Score | |
| Chile | 23 (1.3) | 98 (0.7) | 34 (0.8) | 106 (0.7) | 23 (0.8) | 111 (0.8) | 11 (0.5) | 114 (0.8) | 10 (0.5) | 119 (0.8) | 0.13 |
| Cyprus | 8 (0.9) | 108 (2.0) | 26 (1.5) | 115 (1.4) | 29 (1.5) | 119 (1.8) | 18 (1.2) | 121 (1.6) | 19 (1.9) | 123 (2.0) | 0.05 |
| Czech Republic | * | | 12 (0.8) | 110 (1.2) | 27 (0.9) | 118 (0.9) | 28 (0.9) | 123 (0.8) | 33 (1.2) | 127 (0.9) | 0.07 |
| Denmark | 7 (0.4) | 123 (1.3) | 16 (0.9) | 126 (0.9) | 17 (0.8) | 130 (0.8) | 20 (0.9) | 132 (0.9) | 40 (1.3) | 138 (0.7) | 0.07 |
| Estonia | * | | | | 12 (0.6) | 119 (1.1) | 22 (0.9) | 122 (1.0) | 62 (1.2) | 127 (1.0) | 0.03 |
| Israel | 8 (0.7) | 103 (1.6) | 19 (0.9) | 112 (1.2) | 22 (0.7) | 117 (1.0) | 20 (0.7) | 122 (1.0) | 32 (1.3) | 123 (1.2) | 0.08 |
| Latvia | * | | 11 (1.1) | 98 (2.0) | 24 (1.7) | 102 (1.8) | 23 (1.4) | 105 (1.5) | 41 (1.7) | 109 (1.7) | 0.05 |
| Norway | 6 (0.7) | 106 (2.4) | 17 (1.0) | 114 (1.7) | 21 (1.1) | 115 (1.6) | 25 (1.1) | 121 (1.2) | 32 (1.7) | 128 (1.5) | 0.09 |
| Poland | 5 (0.5) | 103 (1.6) | 20 (0.9) | 111 (1.2) | 26 (0.8) | 115 (1.1) | 20 (0.8) | 121 (1.1) | 28 (1.3) | 125 (1.5) | 0.08 |
| Portugal | 11 (1.2) | 113 (0.9) | 32 (1.2) | 118 (0.8) | 24 (0.9) | 121 (1.1) | 13 (0.9) | 124 (1.1) | 19 (1.3) | 128 (0.9) | 0.07 |
| Russian Federation | * | | 13 (1.3) | 103 (2.4) | 27 (1.5) | 109 (1.5) | 27 (1.6) | 112 (1.5) | 29 (1.6) | 114 (1.4) | 0.04 |
| Slovenia | 4 (0.6) | 102 (2.7) | 24 (1.3) | 111 (1.7) | 30 (0.9) | 115 (1.3) | 20 (0.9) | 119 (1.6) | 22 (1.3) | 121 (2.4) | 0.04 |
| Sweden | 5 (0.9) | 105 (4.4) | 12 (0.9) | 122 (1.9) | 16 (1.1) | 126 (1.6) | 22 (1.4) | 130 (1.4) | 45 (1.8) | 137 (1.2) | 0.11 |
| Switzerland (German) | 4 (1.1) | 109 (4.1) | 17 (2.1) | 117 (2.2) | 25 (2.1) | 121 (1.3) | 20 (1.8) | 127 (2.6) | 34 (2.8) | 128 (3.1) | 0.07 |
| International Sample | 6 (0.2) | 106 (1.0) | 18 (0.3) | 113 (0.4) | 23 (0.3) | 117 (0.3) | 21 (0.3) | 121 (0.4) | 32 (0.4) | 125 (0.4) | 0.09 |

The standard errors were estimated using a jack-knife procedure for complex sampling.

* Number of students is lower than 35. Students' percentage lower than 4%.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

comparable to the scores for the 14-year-olds as obtained in the parallel study (Torney-Purta, Lehmann et al., 2001). The same is true if the sub-scale scores for content and interpretative skills only are compared *to the respective sub-scales* obtained from the parallel study.

As was to be expected, civic knowledge was more highly developed among the older group of students than the younger. Most of the upper secondary students had mastered the principles of democratic government, although, in many cases, uncertainties persisted when more demanding inferences were required. The latter is especially true in the domain of economic literacy, even though the economic literacy scores cannot be compared directly to the civic knowledge scores.

The apparent increase of civic achievement, as indicated by the score differences between the younger and older students, was not uniform across countries. Even after taking the variation into account that is attributable to age and coverage in the defined target populations, the acquisition of civic knowledge appears to be enhanced more effectively in some countries than in others during the years of later adolescence. At this stage of the analysis, no systematic pattern has yet been identified that would explain these differences.

In contrast to the study of 14-year-olds, the present investigation has produced evidence that, at the upper secondary stage, males have attained higher levels of civic knowledge and of economic literacy in particular than have females. This finding is in line with other research. At the same time, it suggests areas of civic education in which equity has not yet been obtained.

The influence of factors not directly related to schools was demonstrated by investigating the relationship between home background factors and civic achievement. This influence was also present in the study of 14-year-olds, and similarly in many studies related to other domains of school learning. The presence of non-school-related influences does not mean, however, that schools have no effect on the emergence of civic knowledge and economic literacy, as will be demonstrated later in this volume.



Students' Concepts of Democracy, Citizenship, and Government

HIGHLIGHTS RELATING TO CIVIC CONCEPTS

- The upper secondary students across countries recognized the importance of some of the basic attributes of democracy that are highlighted by political theorists. For example, they believed that free elections and freedom of expression strengthen democracy, and that democracy is weakened when politicians influence the courts and when wealthy people have undue influence on government. These responses of factors that are good and bad for democracy were quite similar to the responses from the 14-year-olds.
- While the responses of the upper secondary students and the 14-year-olds on the individual items were similar, the older group of students seemed to hold more differentiated views of democracy than did the younger students. Confirmatory factor analysis suggests that the older students possessed a more complex understanding of the various components of democracy than did the younger students.
- The upper secondary students also seemed to have developed concepts of what makes a good adult citizen in a democratic society (as had the 14-year-olds). In fact, there was a high degree of consensus among the students that three activities are important for a good adult citizen to engage in—obeying the law, voting, and following political issues—and there was moderate agreement on the importance of most of the other citizenship items on the survey.
- Upper secondary school students seem to expect more from their governments than do 14-year-old students. In every country that tested both the younger and older populations, the older students scored higher on the society-related concept scale than did the younger students, and in over half of the countries the older students scored higher on the economy-related concept scale.

In addition to assessing the civic knowledge and skills of adolescents, examining students' concepts of democracy, citizenship, and government was an important aspect of Phase 2 of the IEA Civic Education Study. The decision to include these concept items was made for several reasons.¹ First, during Phase 1 of the study, the national researchers in all participating countries identified the students' understanding of civic-related concepts as an important educational expectation in their societies (Torney-Purta, Schwille, & Amadeo, 1999). Phase 2 therefore measured the attributes that students think both strengthen and weaken democracy, the attributes they perceive to be essential to good citizenship, and the responsibilities they believe government should have. These questions on the student survey examined the students' opinions on democracy, adult citizenship, and the role of government.

Second, theoretical models in all three areas provided a basis for development of survey items, while previous research provided a context within which to view the IEA data. For example, political theorists have written extensively on

¹ For a review of the literature in the discussion of the three concept areas immediately following, see Torney-Purta, Lehmann, Oswald, & Schulz, 2001, p. 72 (concepts of democracy), p. 78 (concepts of good citizenship), and pp. 85–86 (concepts of government).

concepts of democracy, distinguishing different models, and researchers have examined the concepts of both adults and adolescents in this area. Much of the research has found, in general, that adolescents and even some adults often give simplistic or poorly formed responses to questions relating to the meaning of democracy. In regard to *concepts of citizenship*, many theorists and researchers have focused on adults. Theorists have formulated models of adult citizenship ranging from views of citizenship that include the responsibility to be an informed voter to a view of citizenship that places a low priority on trying to influence political leaders. Research in the area of *concepts of government* has explored individuals' views of what issues and areas the government should be responsible for, such as the social and/or economic well-being of citizens. In general, researchers have found considerable variation across countries in both adults' and adolescents' attitudes toward the role of government.

The third reason that concept items were included in the IEA Civic Education Study was touched on above, namely, that much of the previous research in these areas has involved only adults, or provided conflicting results. It was considered, therefore, that the IEA data could fill a gap by examining the concepts held by adolescents in both the lower and the upper secondary school.

Finally, the 1971 IEA Study of Civic Education (described in Chapter 1 of this volume) touched on the concepts of democracy, citizenship, and government and thus provided a basis on which to build. In the 1971 study, students endorsed survey items which indicated that they thought democracy gave people a chance to write or say what they think and that democracy helped people make important decisions about their lives (Torney, Oppenheim, & Farnen, 1975).

In the 1999 IEA Civic Education Study of 14-year-olds, it was evident that, across countries, 14-year-old students recognized the importance of some basic attributes of democracy (as highlighted by political theorists), such as freedom to express opinions openly. It also was apparent that they believed obeying the law and voting in elections to be important attributes of good adult citizenship. In addition, the 14-year-olds possessed concepts of social and economic governmental responsibilities that largely corresponded to those of adults in their countries. They were more likely to believe that the government should take responsibilities like providing education or preserving order than take responsibility for activities associated with the economy, such as reducing income inequalities or controlling prices (Torney-Purta, Lehmann et al., 2001).

In this chapter, we examine the responses in these three concept areas of the upper secondary students. These older students are of particular interest because most would have reached a conceptual level allowing for a fairly sophisticated level of questions. Some of the questions administered to the 14-year-olds received relatively high levels of 'don't know' responses.

RESULTS

1. Concepts of Democracy

One theme that emerged from the Phase 1 case studies was that civic-related knowledge is ‘considered necessary, but not sufficient, for learning and for becoming a competent democratic citizen’ (Schwille & Amadeo, 2002). Many of the national researchers argued that the schools’ emphasis on textbooks and formal curricula in civic-related courses gives students a positive view of democratic institutions and processes. Yet, many questions remained open. For example, do young people understand the ways in which democracy may be threatened as well as strengthened? How much consensus is there across countries among secondary school students about what is good or bad for democracy? And to what extent do young people’s views correspond to those of political theorists and researchers?

To address these and other questions relating to the students’ concepts of democracy, the researchers included 25 items on the student survey. The items were written to show whether the students thought that a given condition or situation is ‘good’ or ‘bad’ for democracy. For example, there were items concerning strengths of democracy, such as free elections and a strong civil society in the form of organizations, as well as items concerning threats to democracy, such as political corruption and limitations on free speech critical of government. Several of the items dealt with the role the mass media play in democracy. The response options allowed the students to identify each condition as: (1) very bad for democracy, (2) somewhat bad for democracy, (3) somewhat good for democracy, or (4) very good for democracy. Panel 4.1 lists the 25 concept of democracy items.

Results from the upper secondary students

Generally speaking, there was a fair amount of consensus across countries on characteristics that were both good for and detrimental to democracy. As seen in Table 4.1, about 90 percent of the students in the participating countries indicated that they thought that it was ‘somewhat good’ or ‘very good’ for democracy when ‘everyone has the right to express their opinions freely’, ‘citizens have the right to elect political leaders freely’, and ‘many different organizations exist for people who wish to belong to them’. In addition, about 80 percent of the upper secondary students responded that it was ‘somewhat good’ or ‘very good’ when ‘a minimum income is assured for everyone’, ‘people peacefully protest against a law they believe to be unjust’, ‘people demand their social and political rights’, and ‘political parties have rules to support women to become political leaders’. Thus, the majority of students in this sample agreed that these seven factors strengthen democracy. What, then, did these students view as threats to democracy?

Across countries, 80 percent or more of the students saw five items as ‘very bad’ or ‘somewhat bad’ for democracy when ‘wealthy business people have more influence on the government than others’, ‘one company owns all the newspapers’, ‘political leaders give government jobs to family members’, ‘courts and judges are influenced by political leaders’, and ‘people critical of the government are forbidden from speaking’. About 70 percent of the students thought it ‘very bad’ or ‘somewhat bad’ for democracy when

PANEL 4.1 Concept of Democracy Items

IS IT GOOD OR BAD FOR DEMOCRACY . . . ? (1 = very bad, 2 = somewhat bad, 3 = somewhat good, 4 = very good)

- . . . When citizens have the right to elect political leaders freely?
- . . . When many different organizations exist for people who wish to belong to them?
- . . . When political parties have rules that support women to become political leaders?
- . . . When people who are critical of the government are forbidden from speaking at public meetings?
- . . . When one company owns all the newspapers?
- . . . When courts and judges are influenced by politicians?
- . . . When wealthy business people have more influence on the government than others?
- . . . When everyone has the right to express their opinions freely?
- . . . When a minimum income is assured for everyone?
- . . . When people peacefully protest against a law they believe to be unjust?
- . . . When laws that women claim are unfair to them are changed?
- . . . When newspapers are forbidden to publish stories that might offend ethnic groups?
- . . . When private businesses have no restrictions from government?
- . . . When all the television stations present the same opinion about politics?
- . . . When people refuse to obey a law which violates human rights?
- . . . When immigrants are expected to give up the language and customs of their former countries?
- . . . When political leaders in power give jobs in the government to members of their families?
- . . . When people demand their social and political rights?
- . . . When young people have an obligation to participate in activities to benefit the community?
- . . . When differences in income and wealth between the rich and the poor are small?
- . . . When political parties have different opinions on important issues?
- . . . When people participate in political parties in order to influence government?
- . . . When newspapers are free of all government control?
- . . . When government leaders are trusted without question?
- . . . When there is a separation between the church and the state?

‘immigrants are expected to give up their language’ and ‘television stations present the same opinion’.

To summarize, about 80 percent of the upper secondary students across countries agreed that the 14 factors presented in Table 4.1 were either good for or bad for democracy. On the remaining 11 items (refer Panel 4.1), there was less agreement among the students.

Analysis of 14-year-olds’ and upper secondary students’ results

Both the 14-year-old students and the upper secondary students seemed to have a fairly strong grasp of most of the basic tenets of democracy, including those factors likely to strengthen and weaken it. The 14-year-olds, like the upper secondary students, endorsed free elections, different organizations, political parties supporting women, free expression, minimum incomes, and peaceful protests as factors that are good for democracy. There was, however, not as much agreement among the 14-year-old students across countries about whether or not it is good for democracy when people demand their social and political rights. As noted in Table 4.1, a substantial percentage of the older students—close to 80 percent—thought this item was good for democracy.

Table 4.1 Upper Secondary Students' Concepts of Democracy (Percentage of Students across Countries)

| | Bad for Democracy | | Good for Democracy | |
|----------------------------------|-------------------|-----------------|--------------------|-------------|
| | <i>Very</i> | <i>Somewhat</i> | <i>Somewhat</i> | <i>Very</i> |
| Express opinions | 1 | 3 | 23 | 71 |
| Elect leaders freely | 2 | 4 | 18 | 75 |
| Organizations to join | 2 | 5 | 39 | 48 |
| Minimum income assured | 4 | 7 | 42 | 40 |
| Peaceful protest | 4 | 8 | 34 | 49 |
| Demand rights | 5 | 9 | 34 | 46 |
| Parties support women | 6 | 11 | 40 | 36 |
| Wealthy have more influence | 67 | 24 | 4 | 2 |
| One newspaper company | 56 | 31 | 6 | 2 |
| Leaders give jobs to family | 55 | 32 | 5 | 2 |
| Courts and judges influenced | 64 | 23 | 6 | 3 |
| People forbidden from speaking | 56 | 30 | 7 | 3 |
| Immigrants must give up language | 35 | 40 | 13 | 6 |
| TV stations present same opinion | 43 | 35 | 11 | 5 |

The 14-year-olds and the upper secondary students also largely agreed on the items that they perceived to be threats to democracy. For example, there was a high degree of consensus across countries among the 14-year-olds that people who are critical of the government being forbidden from speaking, one company owning all newspapers, courts and judges influenced by politicians, and wealthy people having more influence are factors that are bad for democracy (Torney-Purta, Lehmann et al., 2001). Large percentages of upper secondary students also perceived these four items to weaken democracy.

Another area of comparison between the two populations related to the contrasting models of democracy (based on political theories) that provided a framework for the development of the concept of democracy items in the student survey. The models included a generic or rule of law model, a liberalism model, a pluralism model, a participation model, a communitarian model, a social welfare model, and an élitism model. A confirmatory factor analysis of the data from the 14-year-olds showed only a single factor, with items relating to a generic or rule of law model of democracy. In contrast, factor analysis of the data from the upper secondary students revealed a three-factor solution for the democracy items, which included, first, the rights and opportunities in democracy, second, limited government, and, third, threats to democracy items. Future analysis of these data will look more closely at these three factors. This finding suggests that the older students may hold more differentiated concepts of democracy than the 14-year-olds, which makes sense from a developmental perspective. With age, it would appear that young people's cognitive growth and life experiences help them to reason more coherently about abstract concepts and to see more perspectives.

2. Concepts of Citizenship

The dimensions of citizenship and ways to create the qualities of a good citizen in young people were central concerns in many of the Phase 1 case studies. Many citizens in democracies understand—and exercise—their rights, but how do they conceptualize their responsibilities? Do adolescents hold notions of citizenship that differ from those of the adults in their societies?

Citizenship can have broad meaning, including individuals' perceptions of rights and responsibilities. In this section, we focus specifically on concepts young people have of what makes a good adult citizen. Students were asked to rate the importance of activities an adult citizen might undertake. The stem of all concept of citizenship items was 'An adult who is a good citizen ...'.

Confirmatory factor analysis revealed two factors—one with items concerned with conventional citizenship activities and the other with items concerned with social-movement-related citizenship activities. These then formed two IRT scales.

In broad terms, conventional citizenship includes activities such as voting, joining a political party, and engaging in political discussion. Some theorists have described these kinds of activities as minimal aspects of citizenship. Social-movement-related citizenship (as conceptualized for this study) refers to legal actions a citizen may take, such as participating in a peaceful protest or taking part in activities to protect the environment or promote human rights. Political theorists sometimes consider these activities as those that might be added on to minimal aspects of citizenship (that is, as more maximal aspects).

Results from the upper secondary students

Students rated, on a four-point scale ranging from 'not important' to 'very important', the extent to which an adult who is a good citizen 'votes', 'joins a political party', 'knows the country's history', 'follows political issues', 'shows respect for government representatives', and 'engages in political discussions'. These six items formed the Importance of Conventional Citizenship Scale.

Figure 4.1 shows that conventional citizenship activities were most important to the upper secondary students' concepts of what makes a good adult citizen in these countries: Chile, Cyprus, and Poland. In other words, the means of these countries on the Importance of Conventional Citizenship Scale fell above the international mean. Conversely, students in nine of the 14 countries scored below the international mean on this scale (the Czech Republic, Denmark, Estonia, Israel, Norway, Portugal, the Russian Federation, Slovenia, and Sweden). Switzerland (German) and Latvia were the only countries that were neither significantly above nor significantly below the international mean on the conventional citizenship scale. Note that the upper secondary students were scored on the same IRT scales as the 14-year-olds in order to make it possible to compare the means for the younger and older students. The international means, however, were recomputed and are indicated in the figures. These international means are not always 10, as they were for the 14-year-olds in 28 countries as reported in Torney-Purta, Lehmann et al., 2001.

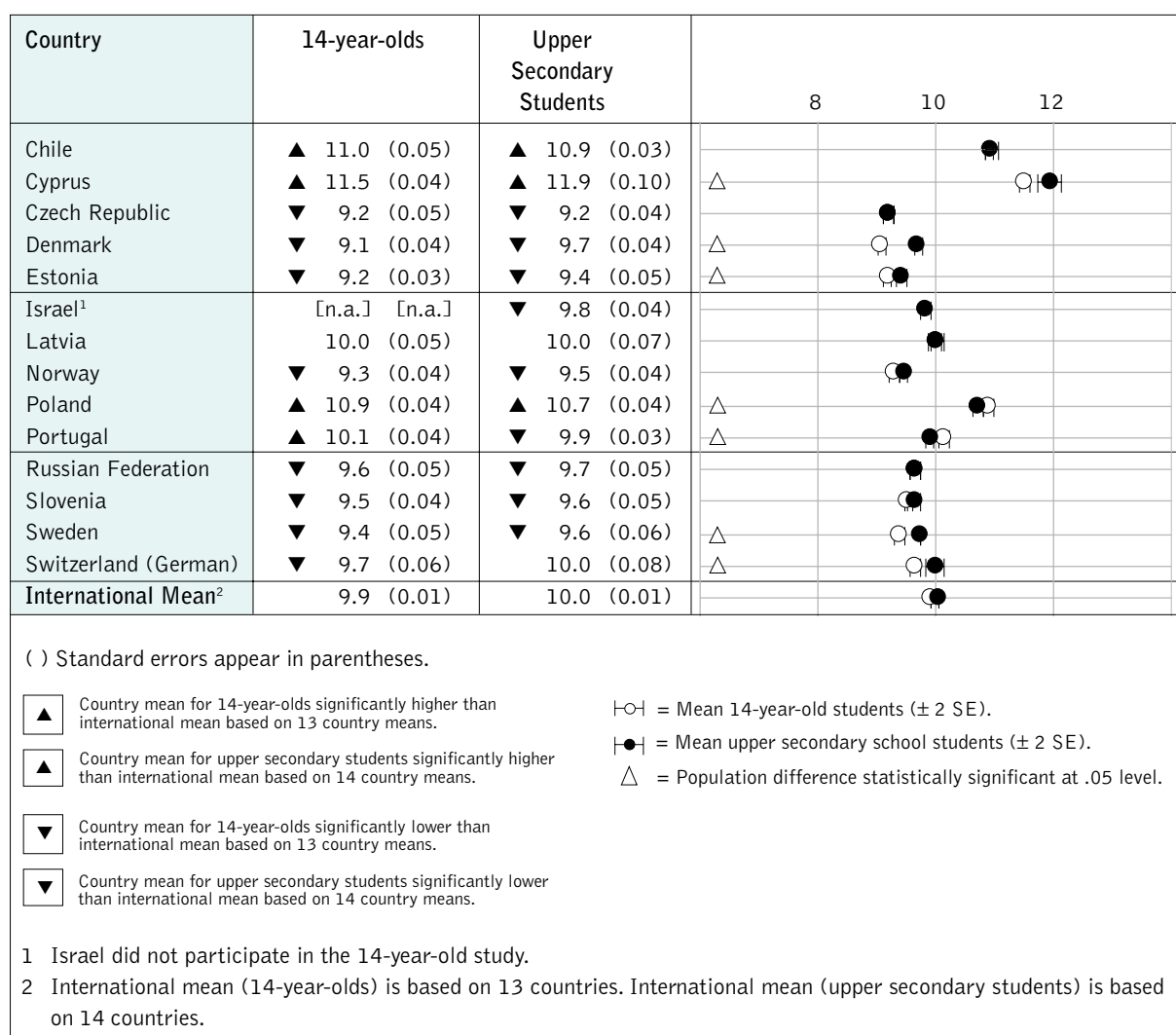
Students also were asked to rate the extent to which a good adult citizen participates in 'a peaceful protest', 'activities to benefit the community',

‘activities promoting human rights’, and ‘activities that protect the environment’. These four items formed the Importance of Social-movement-related Citizenship Scale.

As can be seen in Figures 4.1 and 4.2, the social-movement-related citizenship and the conventional citizenship scores revealed a similar but not an identical country pattern. Five countries were significantly above the international mean (Chile, Cyprus, Norway, Portugal, and Switzerland (German)), and eight countries were below the mean (the Czech Republic, Denmark, Estonia, Israel, Latvia, the Russian Federation, Slovenia, and Sweden). Only Poland did not deviate from the social-movement-related citizenship international mean.

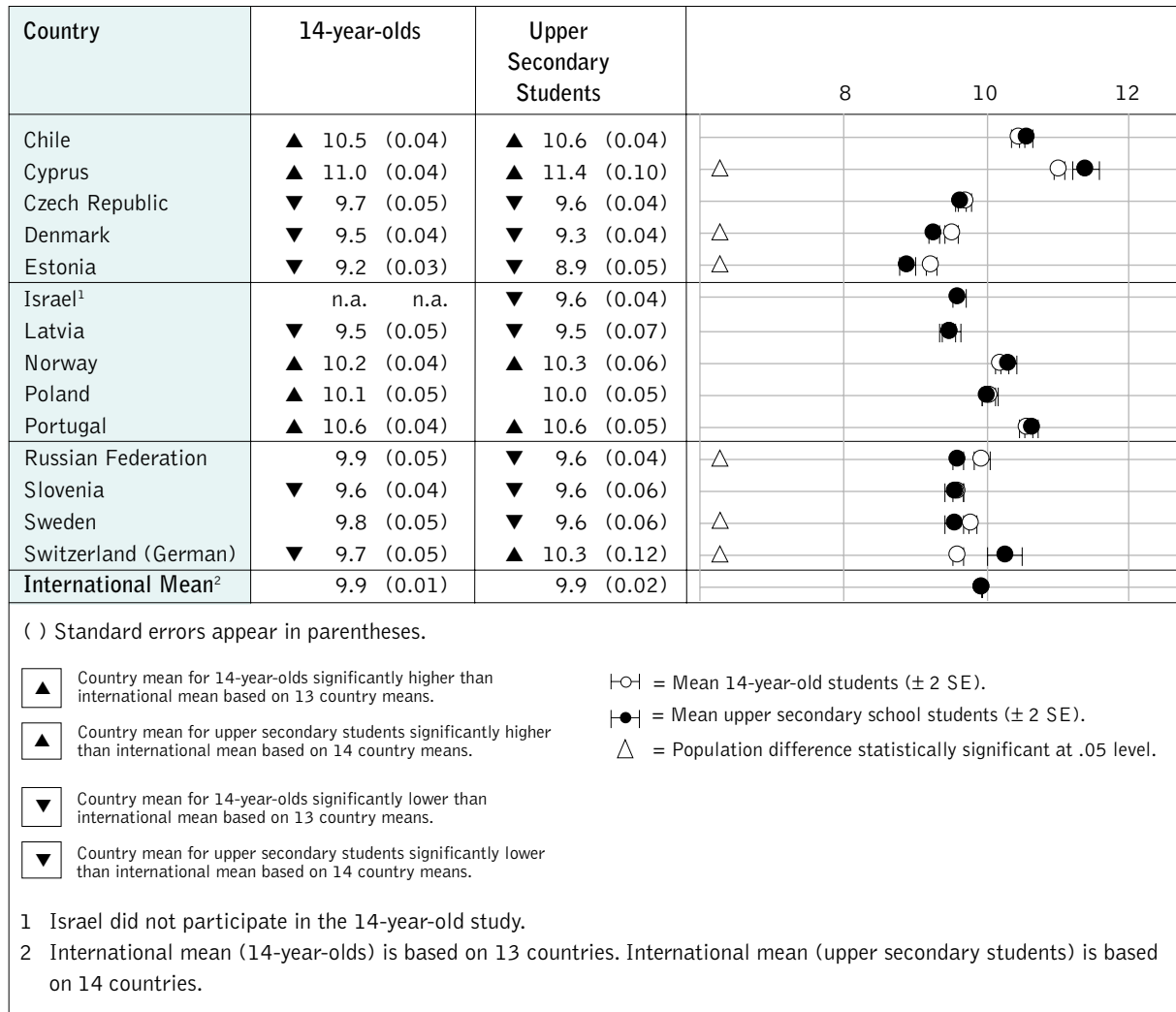
To summarize, when looking across countries, we can see that the international mean scores on the conventional citizenship and social movement-related activities scales are similar, suggesting that the students generally endorsed both types of activities as important for adult citizenship. On examining individual countries, we find that the upper secondary students in the Czech Republic, Denmark, Estonia, Israel, the Russian Federation, Slovenia, and Sweden ranked low relative to the other countries in their support for

Figure 4.1 Importance of Conventional Citizenship



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 4.2 Importance of Social-Movement-related Citizenship



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

conventional or social-movement-related citizenship activities for adults while students in Chile and Cyprus more strongly endorsed both types of citizenship activities.

Another way to examine these data is to look at the international distribution of item frequencies. Therefore, in addition to reporting the mean scores on the two citizenship scales, we also examined the frequency percentages of individual items.

Examination of item response frequencies across countries indicated a fair amount of variation among several of the conventional citizenship items. Stated another way, while some conventional activities were endorsed by significant majorities of students, other so-called conventional activities were considered to be far less important. For example, 86 percent of the upper secondary students in the participating countries agreed that it is somewhat or very important for an adult citizen to vote; while only about 20 percent of the students thought it somewhat or very important for citizens to join political parties. And, while 80 percent of the students thought it was important for adult citizens to follow political issues in the media, approximately 40 percent rated engaging in political discussion as an important element of citizenship.

Activities found on the social-movement-related scale were more consistently endorsed by students, however. The item attracting the highest endorsement across countries (85 percent of the students) was that a good adult citizen would participate in activities to benefit people in the community, whereas the item attracting the lowest, but still substantial, endorsement (about 75 percent of the students) was that a good adult citizen would participate in peaceful protest against a law believed to be unjust. The international percentage distributions of item responses for the sample are given in Appendix Figures B.2a (item-by-score map for importance of conventional citizenship) and B.2b (item-by-score map for importance of social-movement-related citizenship).

As noted above, several items that assessed students' concepts of good adult citizenship did not factor onto either of the two concept of citizenship scales. Those items were a good adult citizen 'obeys the law', 'works hard', 'is willing to serve in the military', and 'is patriotic and loyal to the country'.

Analysis of 14-year-olds' and upper secondary students' results

In half the countries where comparisons could be made, there were significant differences between the 14-year-old students and the upper secondary students on the Importance of Conventional Citizenship Scale. The older students in Cyprus, Denmark, Estonia, Sweden, and Switzerland (German) had higher mean scores on this scale than did the 14-year-olds in those countries. In two countries, however, that pattern was reversed. In Poland and Portugal the 14-year-olds reported higher scores on this scale than did the upper secondary students.

Similarly, differences between the two age groups (by country) were found on the Importance of Social-movement-related Citizenship Scale. In Cyprus and Switzerland (German), the upper secondary students were more likely than the 14-year-old students in those countries to endorse social-movement-related citizenship, but in four countries—Denmark, Estonia, the Russian Federation, and Sweden—the 14-year-olds scored significantly higher than the upper secondary students on the social-movement-related citizenship scale. However, a look at Figures 4.1 and 4.2 shows that the international means for the 14-year-olds and the upper secondary students on both citizenship scales were the same, or almost the same.

Another way to analyze the data from the 14-year-olds and the upper secondary students is to look at the individual countries and their rankings around the international mean. Such an examination showed the country trends around the international mean to be similar across the two populations of students. In only four countries—Chile, Cyprus, Poland, and Portugal—were the 14-year-olds above the international mean on both the conventional and social-movement-related citizenship scales. The upper secondary students in Chile and Cyprus also strongly endorsed both concepts of citizenship.

In the Czech Republic, Denmark, Estonia, and Slovenia, 14-year-old students responded that both types of citizenship activities were relatively unimportant. The scores of the older students in all of these countries as well as in the Russian Federation and Sweden also fell below the international mean on both citizenship scales. The Israeli students' scores were below the international

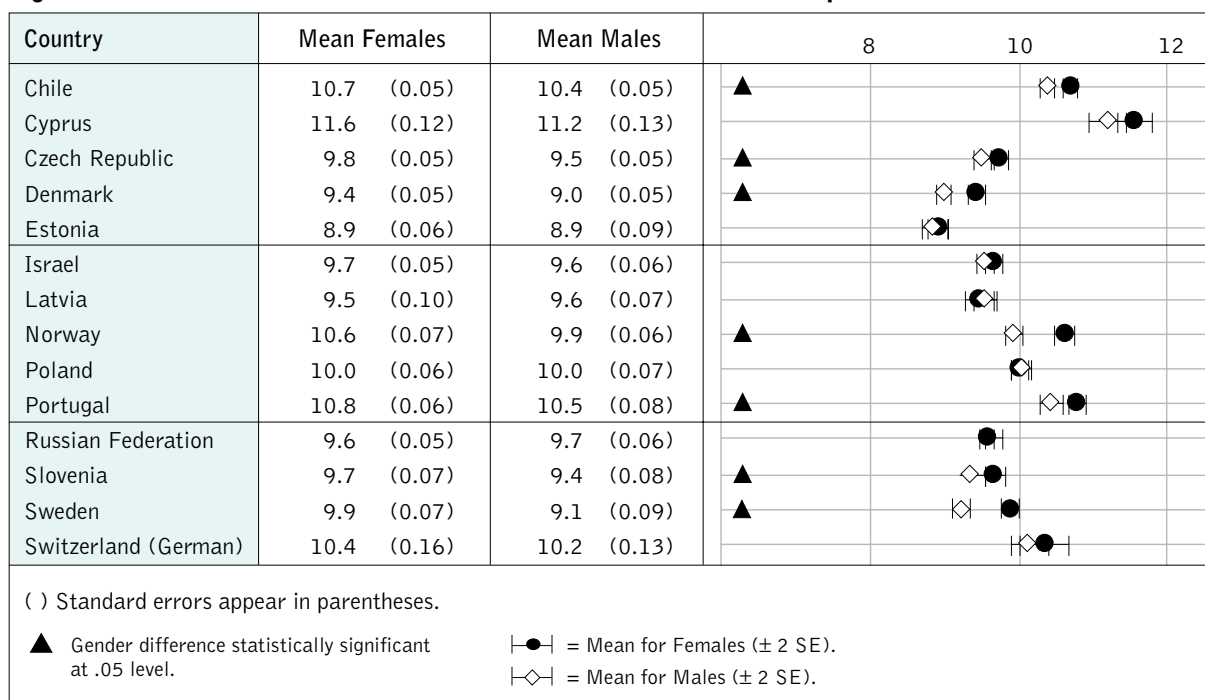
mean on both concept of citizenship scales. Israel did not test 14-year-old students, and so no comparison by age population could be made.

Analysis by gender

The upper secondary female students in only one country—Chile—were significantly more likely than the male students to endorse conventional citizenship activities. In no countries were males more likely than females to endorse conventional citizenship activities. This pattern is somewhat similar to that for the 14-year-old students in that significant gender differences on the conventional citizenship scale were found in only three countries. Interestingly, however, gender differences at age 14 were not found in Chile, and in the three countries where they were found, males scored higher than females.

In comparison, upper secondary females in half of the countries were significantly more likely than males to endorse social-movement-related citizenship (Chile, the Czech Republic, Denmark, Norway, Portugal, Slovenia, and Sweden); see Figure 4.3. As was the case with conventional citizenship, there were no countries where male students were more likely than female students to endorse social-movement-related citizenship. Among the 14-year-olds, gender differences in the same direction (females scoring higher than males) were found in nine countries.

Figure 4.3 Gender Differences in Social-movement-related Citizenship



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

3. Concepts of the Responsibilities of Government

What do upper secondary students expect from the governments of their respective countries? Do they view governmental responsibilities as primarily social, economic, or both? How do their views compare to the 14-year-olds in their countries? Or, stated another way, as these older students anticipate taking on their roles as adult citizens, do their expectations of governmental responsibilities change?

To elicit answers to these questions, students were asked to indicate, on a four-point scale, the extent to which a set of actions or activities should be the government's responsibility. Once again, a confirmatory factor analysis showed two separable factors: (1) society-related responsibilities, and (2) economic responsibilities. The society-related responsibilities included seven items: 'provide health care', 'provide for old people', 'provide for education', 'ensure political opportunities for women', 'control pollution', 'guarantee order', and 'promote moral behavior'. There were five items on the economic responsibilities scale: 'guarantee a job', 'keep prices under control', 'support industries', 'provide for the unemployed', and 'reduce income differences among people'.

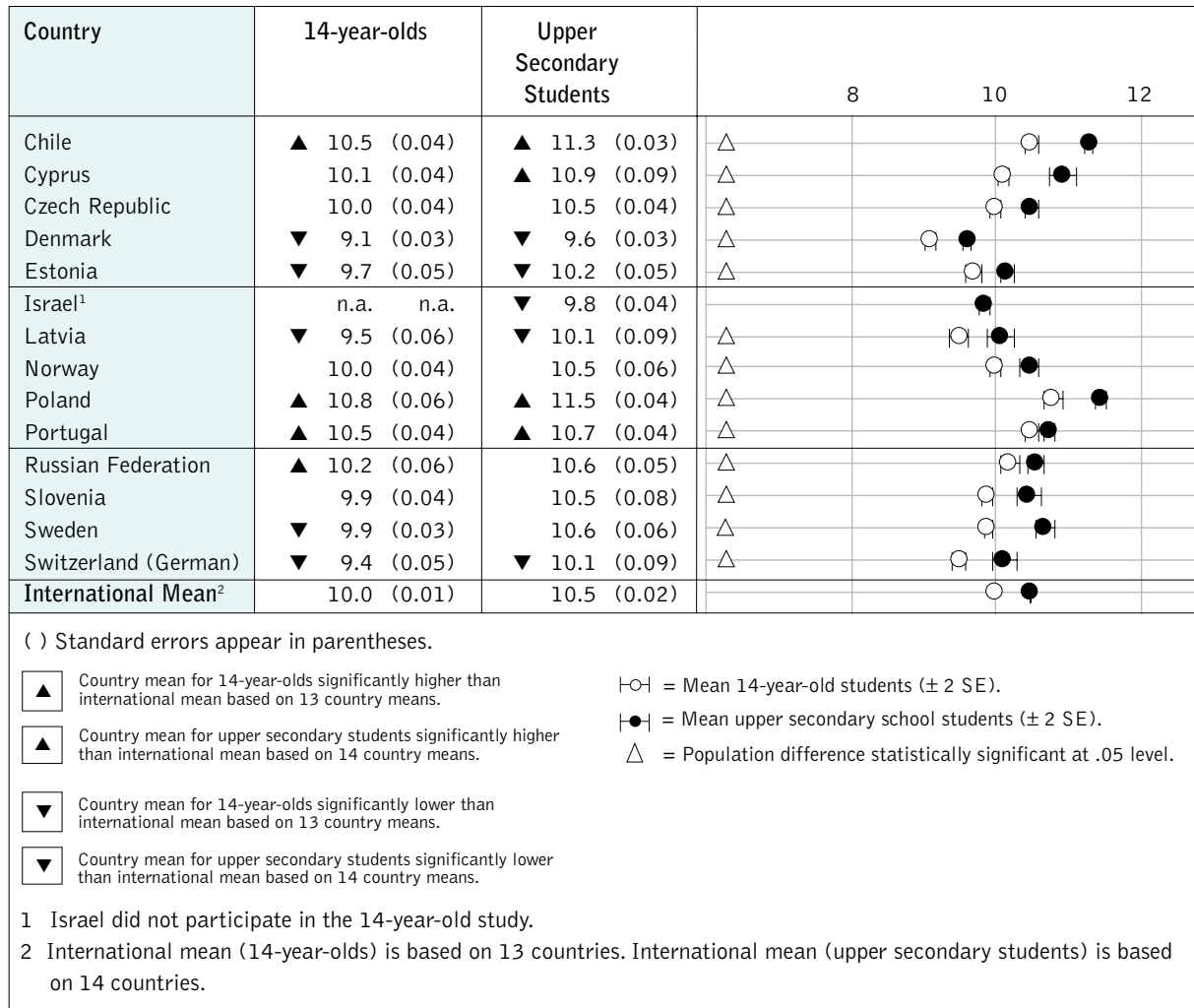
Results from the upper secondary students

As noted in Figures 4.4 and 4.5, four countries were above the older population international mean on the society-related government responsibilities scale (Chile, Cyprus, Poland, and Portugal), and six countries were above the older population's international mean on the economy-related government responsibilities scale (Chile, Cyprus, Israel, Poland, Portugal, and the Russian Federation). Among the participating countries, the students in Cyprus, Poland, and the Russian Federation were most likely to endorse economy-related views of governmental responsibility while students in Denmark were the least likely. In contrast, students in Chile and Poland were those most likely to endorse society-related responsibilities while students in Denmark and Israel were those least likely to give this endorsement.

Finally, the Israeli students scored above the international mean on the economy-related scale but below the mean on the society-related scale. Israel was the only country to exhibit this pattern.

A look at the individual items shows that over 90 percent of the upper secondary students across countries rated five of the society-related items as responsibilities that the government either probably or definitely should have. Those five items were: 'provide for health care', 'provide for the elderly', 'provide education', 'guarantee equal political opportunities for men and women', and 'guarantee peace and order'. Close to 90 percent of the students agreed that the government should control pollution, while 75 percent endorsed the idea that the government should promote honesty and moral behavior among people in the country. Similarly, large percentages of students (72 to 88 percent) agreed that the government should have responsibilities for activities related to the economy. The economy-related item endorsed by the largest percentage of students (88 percent) was the government's responsibility to provide an adequate standard of living for the unemployed.

Figure 4.4 Society-related Government Responsibilities



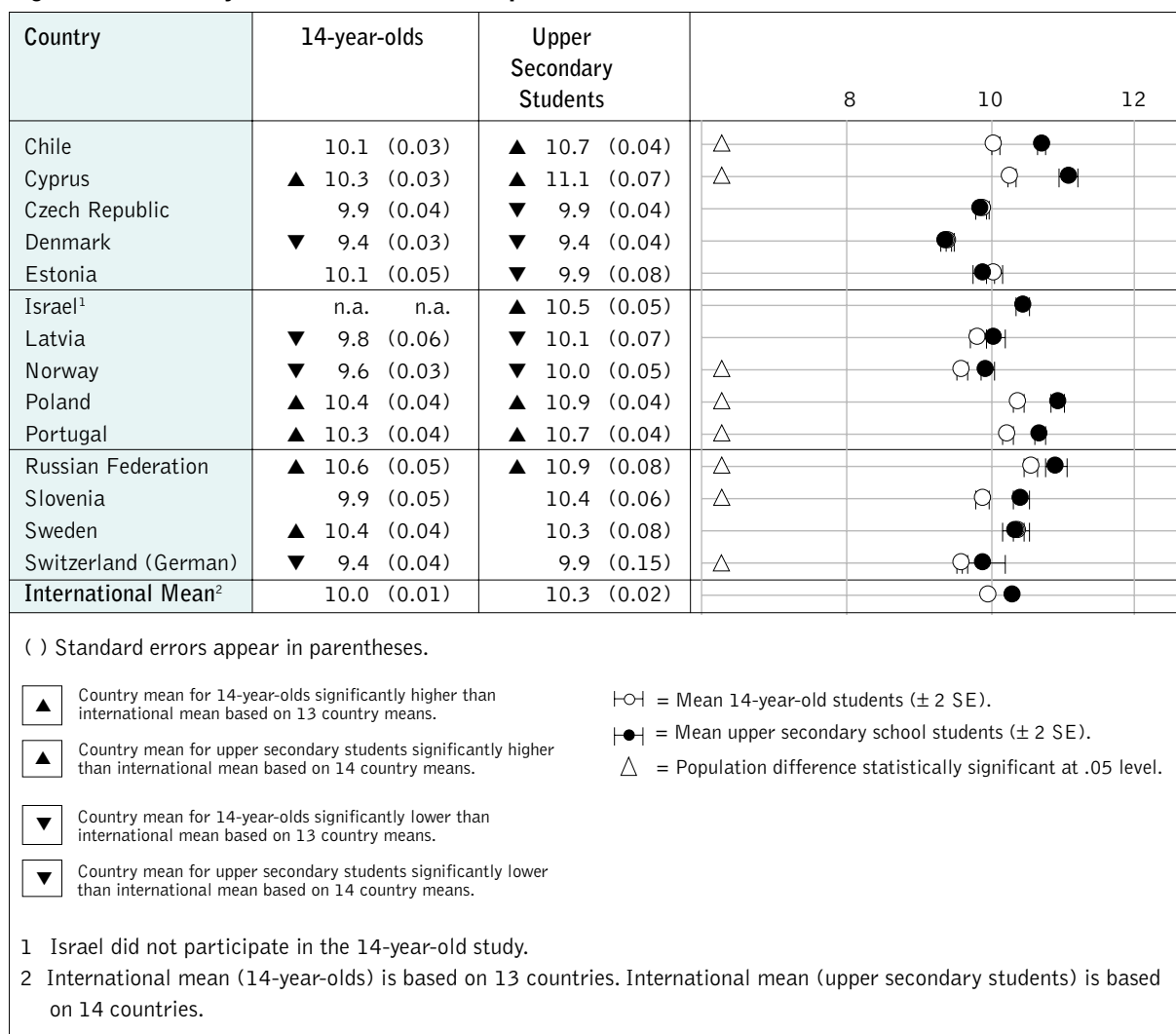
Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Analysis of 14-year-olds' and upper secondary students' results

Figure 4.4 shows that in every country of the 13 where comparisons could be made, the older students scored higher on the society-related concept scale than did the younger students. Moreover, in more than half of the countries, the upper secondary students were more likely to endorse economy-related responsibilities of government than were the 14-year old students (Figure 4.5). Specifically, in Chile, Cyprus, Norway, Poland, Portugal, the Russian Federation, Slovenia, and Switzerland (German), the older students' means on the economy-related scale were significantly higher than the means for the 14-year-olds.

It should be noted that while the upper secondary students scored higher on these government concept scales than did the younger students, the older population in three countries were nevertheless below the international mean on both scales. The older students in Denmark, Estonia, Latvia, and Switzerland (German) scored below the international mean on both economy-related and society-related government responsibilities concept scales. In other words, while the older students in general were more supportive of the government's social and economic responsibilities than were the younger students, there was also some variation among the countries that tested the older students.

Figure 4.5 Economy-related Government Responsibilities



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Analysis by gender

In only two countries were female students more likely than male students to endorse economy-related government responsibilities—the Czech Republic and Denmark. No countries exhibited significant gender differences on the society-related government responsibility scale.

SUMMARY

Many of the students in this study had reached or were very near the age of first vote in their countries (18 years) at the time they completed the survey. As students in this age bracket take on the rights and responsibilities of adult citizenship, it is interesting to note their concepts of democracy and of what makes a good citizen. Indeed, their opinions proved to be similar to those of the 14-year-olds in their countries, suggesting that a major shift in these attitudes does not occur. One explanation may be that attitudes toward democracy and citizenship by the age of 14 have already been influenced by the cultural, educational, and historical context within which these adolescents live.

Younger and older students do differ, however, in their views of the responsibilities of government, although country trends were similar. In many of the participating countries, the older students were more likely than the younger students to think that both economic-related and society-related activities were among the government's responsibilities. This could be because upper secondary students are close to the age when they can directly benefit from these government activities. Another explanation may be that these students are more likely to be able to take a societal perspective and understand the benefits to society as a whole of education and high standards of health and economic well-being.



5

**Students' Attitudes
Toward the Nation,
the Government,
Immigrants, and
Women's Political
Rights**

HIGHLIGHTS RELATING TO CIVIC ATTITUDES

- Examination of students' attitudes across countries revealed that the upper secondary school students held generally positive attitudes toward government-related institutions and their nations. However, the upper secondary students indicated less trust in government-related institutions than did the 14-year-old students. The older students also were less likely than the 14-year-olds to agree with positive statements about their country.
- Like the 14-year-olds, the upper secondary students expressed a great deal of trust in the police, the courts, and in the media, and the least amount of trust in political parties.
- Upper secondary students across countries were generally positive about immigrants' rights, especially in the area of educational opportunities. The majority of students also supported immigrants' rights to vote and retain their language and culture. These findings are consistent with those from the 14-year-olds.
- The majority of upper secondary students endorsed the political and economic rights of women. Females were much more likely than males to be supportive of these rights, and the upper secondary students were more likely than the 14-year-olds to endorse women's rights.

Knowledge of the rights and responsibilities of citizenship are important for creating and sustaining democratic institutions, but they are by no means sufficient for that purpose. The legitimacy of democratic governments depends heavily on the extent to which citizens identify with their nation, trust their government, and participate in the democratic process. Examining the attitudes young people have toward their nation and government is an important ingredient in understanding their current and future plans for civic engagement.

Moreover, issues related to social cohesion and diversity are also key elements of citizenship in democratic societies. The transmission of civic-related knowledge may not be enough. If democratic nations thrive on an informed, active citizenry in diverse communities, then civic education also should address attitudes, tolerance, and willingness to participate. The IEA Civic Education Study, therefore, gives attention to students' civic attitudes and beliefs as well as to their civic knowledge and skills.

During Phase 1 of the study, the national researchers wrote extensively in their case studies about students' attitudes toward government-related institutions. Concern was expressed about young people's general apathy toward and, in some countries, outright mistrust in government institutions and political processes. Researchers in some of the participating countries feared that this distrust could lead to an undermining of the legitimacy of democratic processes (Torney-Purta, Schwille, & Amadeo, 1999).

There has been a considerable amount of research, primarily by political scientists, on issues related to citizens' trust in government-related institutions. Much of the previous research done in this area relied on surveys of adults

about their confidence in civic and political institutions. One theme that emerged from a cross-national analysis of trust in government was that adult citizens in countries with fewer than 40 years of continuous democracy tend to have lower levels of trust than citizens in countries with longer histories of democratic rule (Inglehart, 1997). Torney-Purta, Lehmann, Oswald, and Schulz (2001, pp. 94–95) provide a review of this and related research. The IEA Civic Education Study of 14-year-olds also found that students from countries with fewer than 40 years of continuous democracy showed lower levels of trust than did students from the other participating countries. In fact, all of the countries whose scores were below the international mean on this scale fell into this category (Torney-Purta, Lehmann et al., 2001, pp. 95–96).

The Phase 1 national researchers also identified the development of national identity as an important expectation that their societies hold for young people. While it is clear that national identity can have multiple meanings and negative as well as positive connotations, it has been identified as an important element of citizenship and the subject of considerable research. For example, political researchers Dalton (1999) and Norris (1999) view national pride as support for the national political community and as a vital element of healthy democracy (see Torney-Purta, Lehmann et al., 2001, p. 99, for a review of the research in this area).

From a developmental perspective, examining older adolescents' notions of national identity seems particularly salient. According to developmental psychologist Erik Erikson (1968), identity development is a major task of adolescence and occurs in four domains, including political attitudes and values. Often, a political or national identity develops later in adolescence. As young people grow closer to assuming their adult roles and responsibilities in society, including voting, this aspect of identity may take on more meaning.

In addition to trust and national identity, an important element of citizenship in democratic societies is the development of tolerance and an appreciation for life in a complex and diverse society. Immigration is a significant issue—with social, economic, and political ramifications—in many countries around the world. As borders and other barriers have loosened over the past decade, many nations are experiencing major demographic shifts. Often these changes result in societal tensions, particularly in the areas of language, customs, education, and employment. However, a major strength of democracy is in how it is able to deal with these tensions and foster community bonds. Examination of young people's attitudes of this type, therefore, relates to an area important to the democratic well-being of nations, that is, social cohesion.

During the first phase of the IEA Civic Education Study, nearly all the national researchers recognized problems of discrimination or disenfranchisement among certain groups of people in their societies. These groups ranged from those defined by race or ethnicity to those defined by language or religion or economically deprived groups. In many countries in the study, discrimination against immigrants or foreign-born individuals was identified as a problem in the area of social cohesion. Given the complex and rapidly changing societies in which adolescents live, it seemed important to explore their attitudes toward immigrants in their nations. Indeed, seven percent of the students across

countries were themselves born outside of the country where they now reside (see Table 2.2 in Chapter 2 for sample characteristics).

Many studies investigating attitudes toward immigrants have addressed the notion of immigrants as economic threats to a nation. Not surprisingly, a common finding across these studies is that where economic threat is perceived, support for immigrants' rights is weak. Moreover, negative stereotyping and perceptions of threats from immigrants tend to be related to opposition to immigration by both adults and adolescents. Finally, females and people who were themselves immigrants tend to be more supportive of immigrants' rights than do males and people who were not immigrants. For a review of the literature related to attitudes toward immigrants, see Torney-Purta, Lehmann et al. (2001, p. 103).

Although discrimination against immigrants or minority groups was more widely discussed in the Phase 1 national case studies, gender discrimination, especially in the area of political power, also was mentioned by some of the national researchers. Consequently, in addition to ascertaining attitudes toward immigrants, Phase 2 assessed young people's attitudes toward women, especially relating to women's political and economic rights.

Previous research (including both the 1971 Civic Education Study and the 1999 Civic Education Study of 14-year-olds) found generally supportive attitudes toward the political rights of women. However, gender differences were significant. In 1971 and again in 1999, the IEA researchers found that among the student respondents, females were more supportive of women's political rights than were males. This finding is generally consistent with other research in the area (see Torney-Purta, Lehmann et al., 2001, p. 108).

To summarize, in this chapter we address young people's attitudes from each of the three major domains of the study—democracy and democratic institutions, national identity, and social cohesion. For the first domain of democracy and democratic institutions, we address the students' trust in government-related institutions, including the media. For the second domain of national identity, we examine the students' attitudes toward and attachment to their nation. Finally, for the third domain of social cohesion and diversity, we examine the students' attitudes toward immigrants' rights as well as the extent to which they support the political and economic rights of women.

RESULTS

1. Trust in Government-related Institutions and the Media

A) GOVERNMENT-RELATED INSTITUTIONS

As noted above, during Phase 1 of the study, the national researchers in both the long-established and the newly emerging democracies observed that young people seemed to lack confidence in government-related institutions. Questions that addressed students' level of trust in institutions therefore were included on the student survey. After a confirmatory factor analysis, six items were combined using IRT scaling methods to create a scale entitled Trust in Government-related Institutions. Specifically, students were asked how much

of the time they could trust: (1) the national government, (2) the local government, (3) the courts, (4) the police, (5) political parties, and (6) the national parliament. The response options were ‘never’, ‘only some of the time’, ‘most of the time’, and ‘always’. Students also were asked about their trust in the news media—television, radio, and newspapers. These media items were not scaled and are presented here as individual items.

Results from the upper secondary students

On looking at the students’ responses to the individual items on the Trust in Government-related Institutions Scale, we found that across countries the upper secondary students expressed the highest levels of trust in the courts and in the police and the least amount of trust in political parties. Specifically, over 60 percent of the students responded that the courts in their countries could be trusted ‘most of the time’ or ‘always’, and slightly over 50 percent of the students in the international sample thought the police could be trusted ‘most of the time’ or ‘always’. In contrast, 20 percent of these students expressed the same trust in political parties. Item frequencies can be found in the item-by-score maps in Appendix Figure B.2e.

At the national level, we can see from Figure 5.1 that the older students in six of the 14 countries expressed levels of trust in government-related institutions that were above the international mean of 9.6 for upper secondary students. Those countries with high levels of trust included Cyprus, Denmark, Israel, Norway, Sweden, and Switzerland (German). In a pattern very much like that found among the 14-year-old students, the highest levels of trust in government-related institutions were expressed by students in Denmark, Norway, and Switzerland (German)—countries with long-standing democratic traditions. In contrast, upper secondary students in Chile, the Czech Republic, Latvia, Poland, Portugal, the Russian Federation, and Slovenia indicated levels of trust that were below the international mean. As was the case with the 14-year-olds, the Slovenian responses showed the lowest level of trust.

Analysis of 14-year olds’ and upper secondary students’ results

In general, the upper secondary students indicated less trust in government-related institutions than did the younger students. In only one country—Denmark—did the older students score higher on the trust scale than the younger students. In eight of the 13 countries where comparisons could be made, upper secondary students were less trusting than their younger compatriots. This pattern of the older group being less trusting than the younger corresponds with the finding in the 1971 IEA Civic Education Study (Torney-Purta, 1990) and with research in political socialization, which suggests that older adolescents tend more toward voicing critical opinions than do younger adolescents.

However, a look at the individual items on the Trust in Government-related Institutions Scale reveals that both the 14-year-olds and the upper secondary students expressed the most trust in the courts and the police and the least amount of trust in political parties. The country trends for levels of trust are largely the same. As can be seen in Figure 5.1, the 14-year-olds in Cyprus, Denmark, Norway, and Switzerland (German) were among those most trusting of government-related institutions, while the 14-year-olds in the Czech

Table 5.1 Trust in Media and National Government

| Country | Percentage of Students Who Trust Always or Most of the Time in... | | | |
|-----------------------------------|---|--------------------|-------------------|-------------------|
| | the national government | news on television | news on the radio | news in the press |
| Chile | ▼ 40 (0.9) | ▼ 58 (0.9) | ▼ 56 (0.9) | 54 (0.9) |
| Cyprus | ▲ 53 (2.0) | ▼ 48 (1.5) | ▼ 51 (1.3) | 54 (1.6) |
| Czech Republic | ▼ 25 (1.0) | ▼ 44 (1.1) | ▼ 51 (1.0) | ▼ 48 (1.0) |
| Denmark | ▲ 91 (0.6) | ▲ 88 (0.7) | ▲ 90 (0.6) | ▲ 85 (0.9) |
| Estonia | ▲ 52 (1.6) | ▲ 68 (1.5) | ▲ 69 (1.4) | 54 (1.5) |
| Israel | ▼ 41 (1.0) | ▼ 58 (1.0) | ▼ 60 (0.9) | ▼ 45 (1.0) |
| Latvia | ▼ 23 (2.3) | 65 (1.7) | 61 (2.4) | 52 (2.0) |
| Norway | ▲ 66 (1.2) | ▲ 74 (1.1) | ▲ 75 (1.1) | ▲ 66 (1.3) |
| Poland | ▼ 23 (0.9) | ▲ 66 (1.0) | ▲ 67 (1.0) | 54 (1.1) |
| Portugal | ▼ 25 (0.9) | ▲ 68 (1.1) | 65 (1.1) | ▲ 61 (1.4) |
| Russian Federation | ▼ 32 (1.7) | ▼ 51 (2.2) | ▼ 49 (2.0) | ▼ 37 (1.5) |
| Slovenia | ▼ 18 (1.4) | ▼ 53 (1.2) | ▼ 52 (1.2) | ▼ 42 (1.5) |
| Sweden | ▲ 55 (1.5) | ▲ 76 (1.2) | ▲ 77 (1.3) | ▲ 66 (1.6) |
| Switzerland (German) | ▲ 76 (2.3) | 68 (4.2) | 68 (3.7) | ▲ 68 (3.8) |
| International Sample ¹ | 44 (0.4) | 63 (0.4) | 64 (0.4) | 56 (0.4) |

() Standard errors appear in parentheses.
¹ International sample is based on 14 countries.
▲ Country mean significantly higher than international mean based on 14 country means.
▼ Country mean significantly lower than international mean based on 14 country means.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Republic, Estonia, Latvia, Portugal, the Russian Federation, and Slovenia were among those least trusting of these institutions. This pattern is similar to that for the upper secondary students.

Analysis by gender

Significant gender differences in this area were found in only two of the countries that tested the upper secondary students. In Poland and Switzerland (German), female students expressed higher levels of trust in government-related institutions than did the males. In the remaining countries, no significant gender differences were found. Since significant gender differences were found in only two countries, a figure is not included here.

There were few gender differences among the 14-year-old students also. In three countries, 14-year-old females expressed more trust in government-related institutions than did male students. In two countries, the reverse was found.

B) NEWS MEDIA

The news media play an important role in the working of any democracy. Indeed, freedom of the press is essential to a democratic nation, and is considered as one of the pillars of democracy. Students therefore were asked whether they trusted news on television, radio, and in the press, and to give their responses on a four-point scale.

Results from the upper secondary students

As seen in Table 5.1, the majority of upper secondary students indicated high levels of trust in the news media—especially in television and radio. In fact, across countries, a higher percentage of students expressed trust in the media than trust in the national government. Over 60 percent of the students responded that they trusted news on television and on the radio ‘always’ or ‘most of the time’; 56 percent expressed trust in news in the press (newspapers). In contrast, only 44 percent of the international sample indicated that they trusted their national governments.

Analysis of 14-year-olds’ and upper secondary students’ results

The 14-year-old students also generally expressed trust in the news media. Across countries, television was the news medium most trusted by these students, followed by radio news and, finally, news in the press (newspapers). About half of the 14-year-olds and the upper secondary students in the international sample indicated that they trusted news in the press.

2. Positive Attitudes Toward One’s Nation

During Phase 1, the national experts identified the development of national identity as an important element of civic education in their countries. In addition to assessing trust, therefore, the survey instrument administered to the students contained 10 items relating to national attitudes. A confirmatory factor analysis revealed two factors: protecting the country from outside influences, and attitudes toward one’s nation. Four items were retained to create an IRT scale entitled Positive Attitudes Toward One’s Nation, which is presented in this chapter. The other six national attitude items have been left for later analysis, as they have been for the 14-year-olds, and will provide an interesting possibility for additional research in the area of national attitudes.

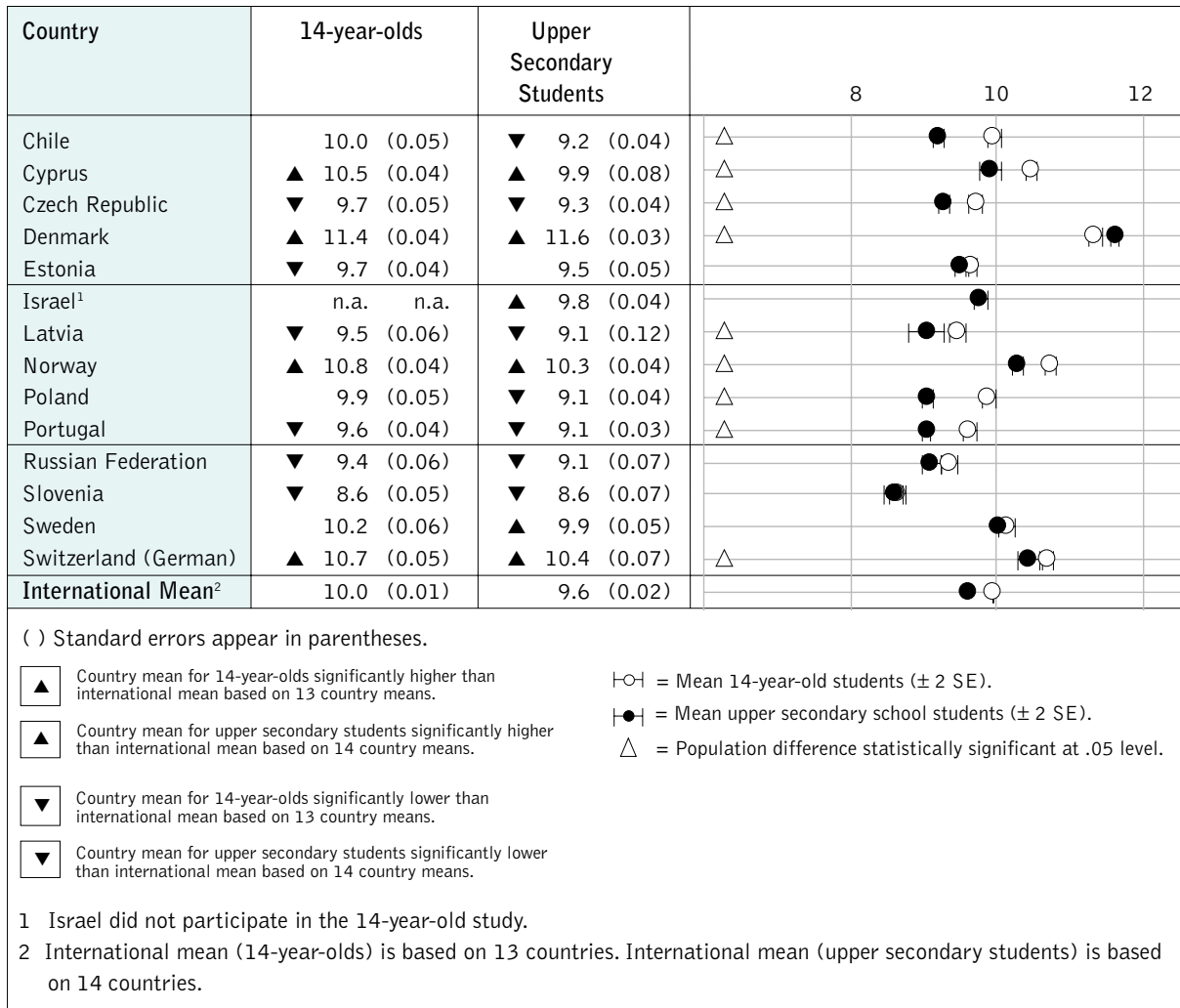
The Positive Attitudes Toward One’s Nation Scale asked students to agree or disagree (on a four-point scale) with questions about the extent to which: (1) their country’s flag was important to them; (2) they had great love for their country; (3) their country should be proud of what it has achieved; and (4) they would prefer to live in another country.

Results from the upper secondary students

In general, the upper secondary students held positive feelings about their countries. Examination of the international frequencies revealed that about 80 percent of the students across countries ‘agreed’ or ‘strongly agreed’ with positive statements about the importance of their countries’ flag, their love for their country, and pride in their country’s achievements. Only about 20 percent of the students indicated that they would prefer to live permanently in another country.

Students from five countries had scores on this attitude scale that were significantly above the international mean for the upper secondary students (Figure 5.2). The countries were Chile, Cyprus, Israel, Poland, and Portugal. However, in half the countries, students scored below the mean on this scale. These countries were the Czech Republic, Denmark, Estonia, Latvia, Norway, Sweden, and Switzerland (German).

Figure 5.1 Trust in Government-related Institutions



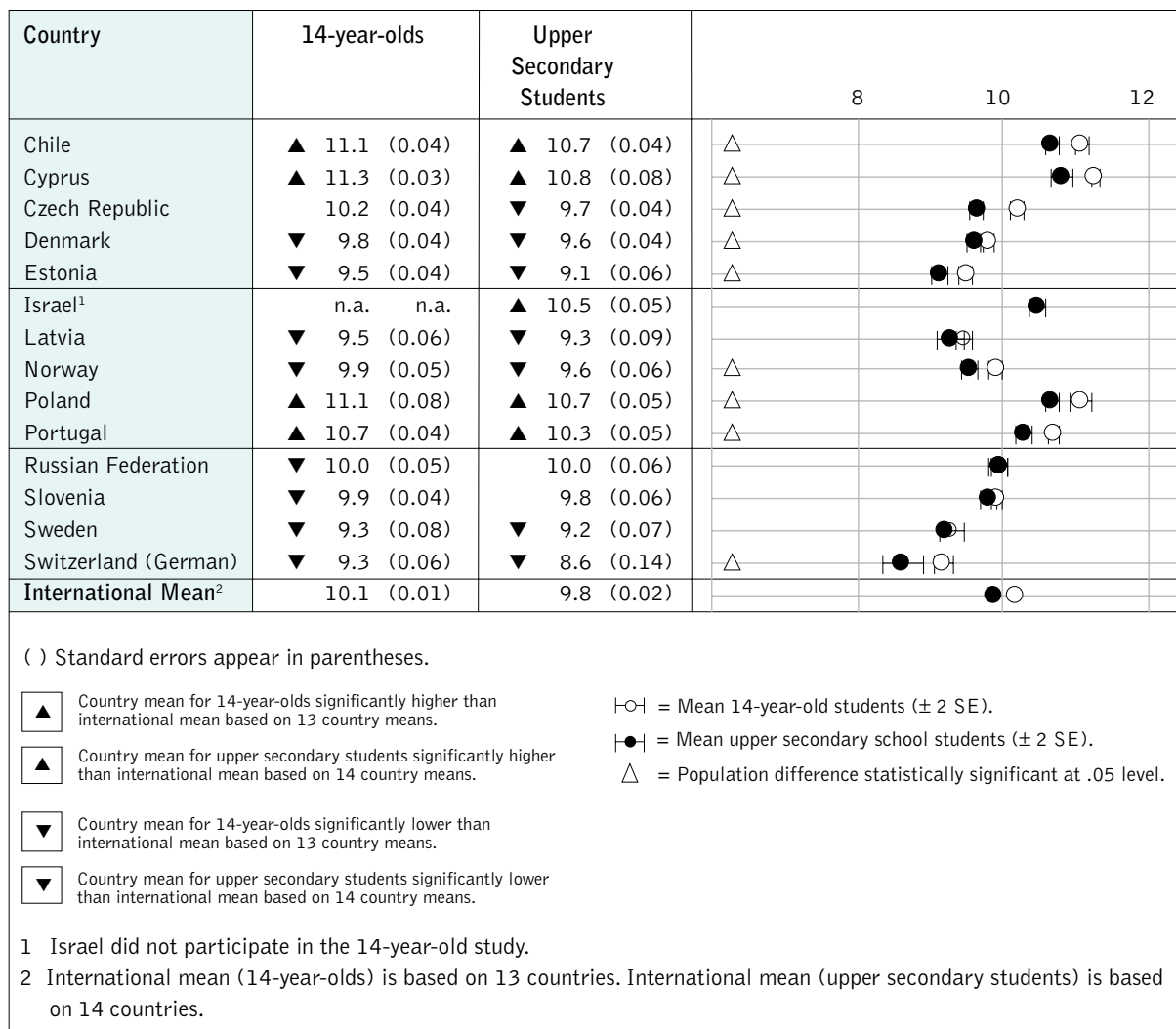
Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Analysis of 14-year-olds' and upper secondary students' results

The trend found among the upper secondary students was also evident in the 14-year-old data. Thus, large percentages of the 14-year-old students agreed with the three positive statements about their countries, and only a comparatively small percentage of this age group expressed a preference to live elsewhere.

However, it is interesting to note from a look at the individual countries (illustrated in Figure 5.2) that, in nine of them, the 14-years-olds were more likely than the upper secondary students to agree with positive statements about their country (Chile, Cyprus, the Czech Republic, Denmark, Estonia, Norway, Poland, Portugal, and Switzerland (German)). In no countries were the upper secondary students more likely than the 14-year-olds to express positive national feelings. These results suggest that, in most countries in the study, there is more positive national feeling among the younger students than among the older students. However, it should be noted here that large majorities of both younger and older students expressed positive views of their nation. While the older students may have been less trusting (as noted above)

Figure 5.2 Positive Attitudes Toward One's Nation



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

of their government-related institutions and relatively less positive toward their nation than the 14-year-olds, the older students (on average) did not appear to be cynical about their nations. In other words, it would appear that while upper secondary students can take a critical view of their respective governments, they do not become cynical about their nations.

Analysis by gender

In the two countries where gender differences among the upper secondary students were found (the Czech Republic and Slovenia), males were more likely than females to express positive attitudes about their nation.

How does this finding compare to that for the 14-year-olds? The direction of the gender effects, but not the magnitude, is the same as that found for the 14-year-old students. Here, significant gender differences were found in 10 of the 28 countries that tested this age level. In all but one of the countries where there were differences between males and females, the male students reported more positive attitudes than the females.

3. Positive Attitudes Toward Immigrants

To assess their attitudes toward immigrants, students were asked to respond to a set of survey items pertaining to immigrant rights and opportunities. Because some countries in the study have large immigrant populations and some have comparatively small immigrant populations to be integrated into the economic sphere, questions dealing with the economic threat were not included, as they were thought to be ambiguous in meaning across countries. A confirmatory factor analysis of the immigrant items revealed a single factor solution with five items. The items included support for opportunities for immigrants to: (1) keep their own language; (2) receive the same education as other children; (3) vote; (4) keep their customs and lifestyle; and (5) generally have the same rights as other members of the country. Because of its unique immigration policy, Israel was not included in the analysis of the scores on the Attitudes Toward Immigrants Scale. The immigration scale in its questionnaire was adapted to the Israeli scene, a situation that made comparison with other countries meaningless.

Results from the upper secondary students

In general, the upper secondary students expressed positive attitudes toward immigrants' rights, especially in the area of education. In fact, over 90 percent of the students in the international sample agreed that immigrants should have the same opportunities for education that other children in the country have. Just over 80 percent of the students also thought that immigrants should have the opportunity to keep their own customs and lifestyles and have the same rights as everyone else in the country. A similar percentage of the students agreed that immigrants should have the opportunity to vote in elections and the opportunity to keep their own language. All item frequencies are reported in the item-by-score maps found in Appendix B.2g.

While these generally are positive findings, it is striking to note the percentages of students that did not support these opportunities for immigrants. Six percent of the students 'disagreed' or 'strongly disagreed' with educational opportunities for immigrants; 20 percent did not support immigrants retaining their language. Similarly, about 20 percent of the students did not endorse immigrants' opportunity to obtain the vote.

While the percentages cited in this section of the chapter reflect the responses of students from all participating countries (excluding Israel), there were national differences on the countries' scale scores. As seen in Figure 5.3, in five countries, students scored significantly above the international mean on the Attitudes Toward Immigrants Scale (Chile, Cyprus, Poland, Portugal, and Sweden). However, the upper secondary students in four countries (the Czech Republic, Latvia, Slovenia, and Switzerland (German)) scored significantly below the international mean on this scale. Finally, it is important to note that while the scores of some countries fell below the international mean on this scale, the responses (on average) of their students nevertheless indicated positive attitudes toward immigrants.

Analysis of 14-year-olds' and upper secondary students' responses

As was found with the older population of students, the majority of 14-year-olds also expressed generally positive attitudes toward immigrants. Examination of the international item frequencies indicated a pattern identical to that found among the upper secondary students. Thus, the largest percentage of 14-year-old students agreed that immigrants should have the same opportunities for education as other children and the opportunity to keep their own customs and lifestyles, while the smallest percentage agreed that immigrants should have the opportunity to keep their own language.

On looking at the scale scores, we found significant differences between the attitudes of the 14-year-olds and the upper secondary students in only four countries. In three of these countries—the Czech Republic, Norway, and Slovenia—the older students expressed a level of support for the rights of immigrants that was lower than that expressed by the younger students (see Figure 5.3). One reason for this finding could be that the older students were closer to entering the job market than were the 14-year-olds, and so their responses reflected a perceived economic threat from immigrants. However, if that were so, then we might have expected to find age differences in more than just three countries. In the fourth country—Denmark—the older students were significantly more likely than the younger students to support immigrant rights. Denmark also was the only country where the older students expressed greater trust in government-related institutions than the younger students. Moreover, the Danish students were the oldest students in the upper secondary sample.

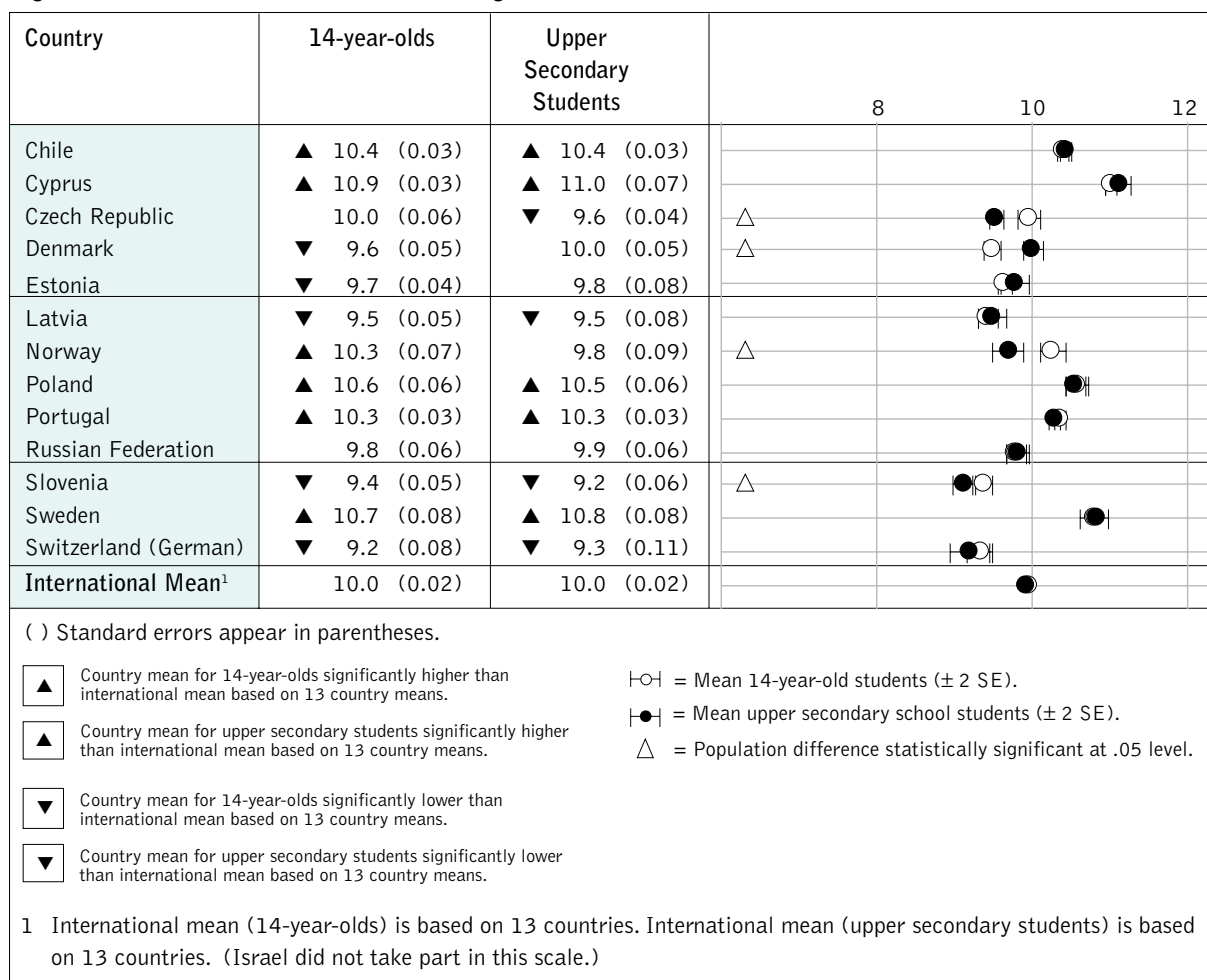
In general, as noted elsewhere in this volume, these comparisons between the 14-year-olds and the upper secondary students should be viewed with caution, as the older group may have been a less representative sample of the age group than the younger group due to a relatively small proportion of the age cohort being still in school and available for testing.

Analysis by gender

As reported in Figure 5.4, in almost all of the participating countries, the female students in the upper secondary school sample were more likely than the male students to endorse rights and opportunities for immigrants, supporting the findings of previous research (including those for the survey of 14-year-olds). The only three countries where significant gender differences were not found on this scale were Estonia, the Russian Federation, and Switzerland (German).

The question of why there is such a substantial gender difference in this area remains unanswered. There are, however, several plausible explanations. It could be that in some or all of the countries in the study, females are more likely than males to be socialized to respond in what they perceive to be socially acceptable ways. Or, it might be that there is a greater expectation for males than for females to enter the job market and that males therefore perceive immigrants as an economic threat. Finally, it may be more likely for females than males to have experienced some form of discrimination themselves. They, therefore, may be more sensitive than males to discrimination directed at others. Future research is needed to explore the hypotheses.

Figure 5.3 Positive Attitudes Toward Immigrants



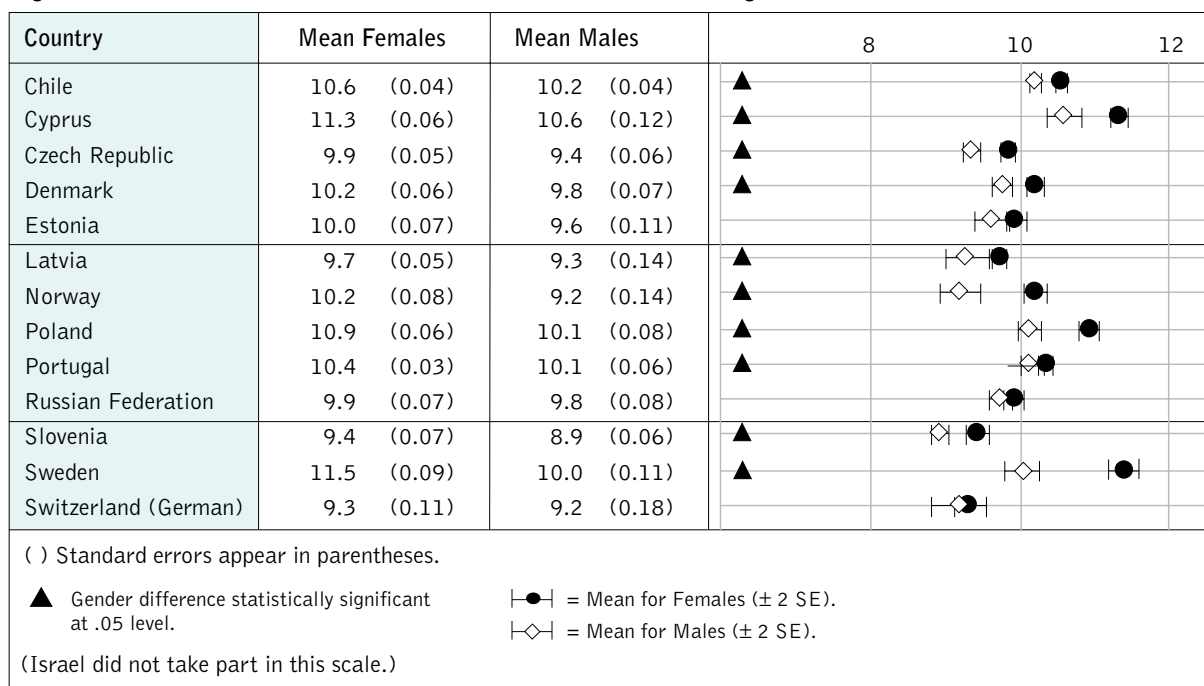
Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

4. Support for Women’s Political Rights

The extent to which young people support the political and economic rights of women is an important component of civic attitudes. In many countries, only small percentages of women are elected to national political office—although there is considerable variation among countries in this area (see Table 1.2 in Chapter 1 of this volume). The paucity of visible, elected role models at the national level may be one reason that female students express less interest in politics than their male counterparts. Since democracies function best when all members of society participate, the examination of both males’ and females’ attitudes toward women in the political realm is important when assessing civic attitudes.

In order to examine their attitudes toward women, the students were asked to respond to six items, including two items dealing with economic matters in the public sphere. More specifically, they were asked to agree or disagree (on a four-point scale) with the following statements: (1) women should run for public office; (2) women should have the same rights as men; (3) women should stay out of politics; (4) when jobs are scarce, men have more right to a job than women; (5) men and women should get equal pay; and (6) men are better qualified to be political leaders than women. A confirmatory analysis showed these items on a single factor, and an IRT scale was created.

Figure 5.4 Gender Differences in Positive Attitudes Toward Immigrants



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

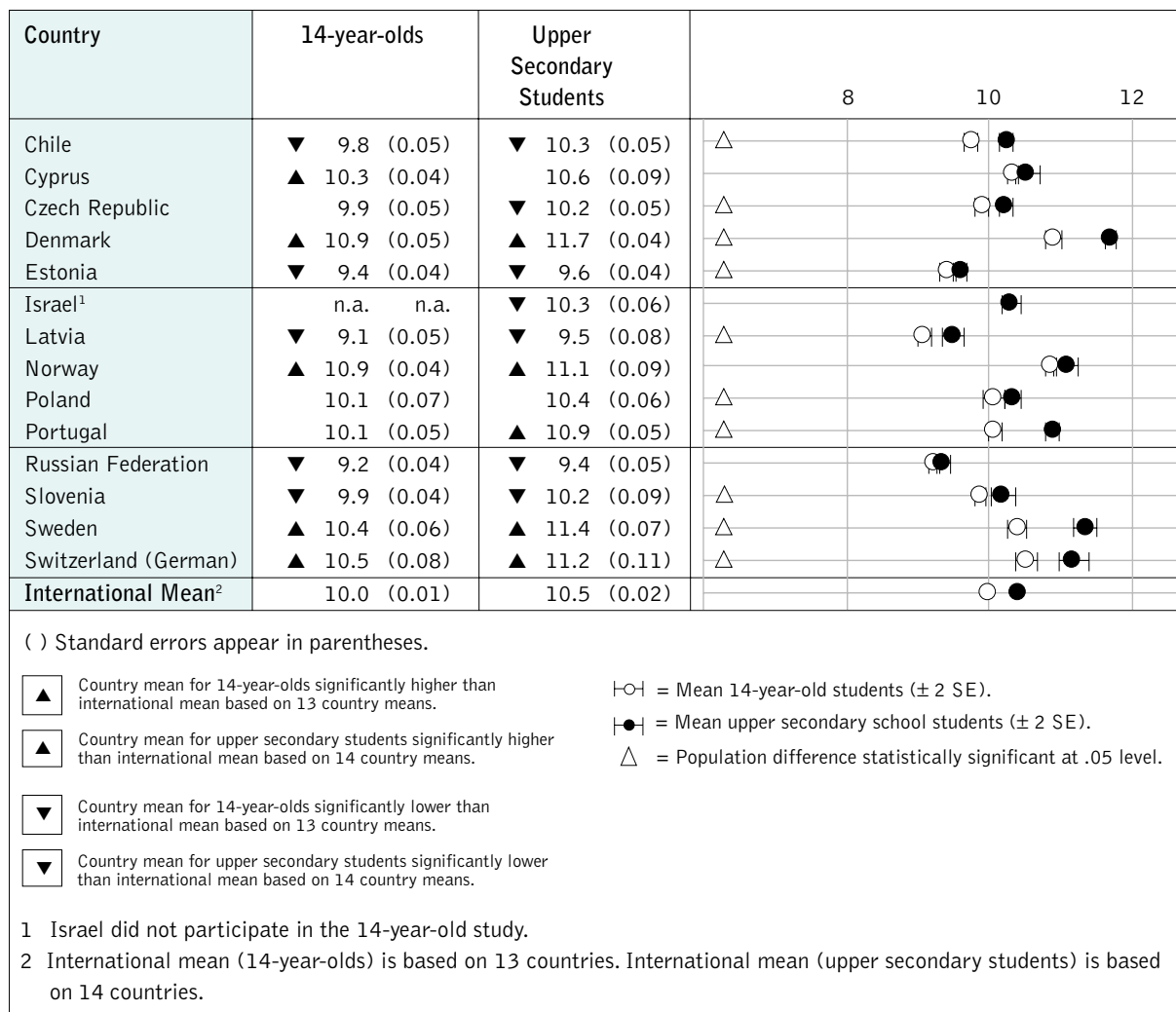
Results from the upper secondary students

Among the upper secondary students, overall support for women’s political rights was strong, with some variation across items and countries. For example, over 90 percent of the students agreed that men and women should receive equal pay, that women should run for public office, and that women should have the same rights as men. Ninety-two percent of the students disagreed with the statement that women should stay out of politics, with close to 60 percent of those students strongly disagreeing. Consensus on the economic item was not as definite: 81 percent of the students disagreed that, when jobs are scarce, men have more right to a job than women; 19 percent agreed with the statement.

In spite of these generally positive attitudes, students in five countries were more likely to endorse political rights for women than students in the other countries. As seen in Figure 5.5, the countries were Denmark, Norway, Portugal, Sweden, and Switzerland (German). Perhaps not surprisingly, the Nordic countries participating in this study strongly supported women’s rights, a finding that seems to be consistent with the percentage of women elected to national positions in these countries (refer to Table 1.3, Chapter 1).

There were, however, countries where students expressed less support for women’s rights. Students’ scores on the IRT scale fell below the international mean in Chile, the Czech Republic, Estonia, Israel, Latvia, the Russian Federation, and Slovenia. It should be noted that despite the fact that scores for these countries fell below the international mean, those item responses generally indicated positive attitudes toward women.

Figure 5.5 Support for Women’s Political Rights



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Analysis of 14-year-olds’ and upper secondary students’ responses

Data from the 14-year-olds revealed that the majority of these students were also supportive of political rights for women. However, examination of each country’s mean score on this scale (reported in Figure 5.5) indicated that the upper secondary students were more likely than the 14-year-olds to support political and economic rights for women in 10 of the 13 countries where comparable data were available. The only three countries where there were not statistically significant differences between the two age groups were Cyprus, Norway, and the Russian Federation. Israel did not test 14-year-olds.

It is interesting to speculate on the reason for the age differences regarding attitudes toward women in three-quarters of the countries. It could be that older males and females interact with each other more often, both as friends and romantic partners. Or, it could be a reflection of the slightly higher percentage of females than males in the upper secondary student sample. As noted in Chapter 2 (Table 2.3), higher percentages of females than males were sampled in many countries. However, in the country with the second highest percentage of females in the older sample (the Russian Federation), there was not a significant difference between the 14-year-olds and the upper secondary students.

Analysis by gender

Female students in all countries expressed greater support for women's political rights than did the male students, and these differences were quite large (see Figure 5.6). That difference in support also was found among the 14-year-old students and is consistent with other research in this area.

Figure 5.6 Gender Differences in Support for Women's Political Rights



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

SUMMARY

Results indicate that the upper secondary students in the international sample trust many, though not all, government-related institutions as well as the media and tend to hold positive attitudes toward their nations. There are, however, several differences based on country, age, and gender. Consistent with previous research, the 14-year-old students tested were generally more positive about their nation and government than the upper secondary students. Nevertheless, country trends and patterns remained quite similar across both populations of students.

In regard to the students' attitudes toward immigrants and the political rights of women, we found, in general, largely positive attitudes among the upper secondary students in the participating countries. These findings are consistent with those from the study of 14-year-olds. In three countries, the older students expressed a level of support for immigrants that was lower than that expressed by the 14-year-olds. However, the older group expressed a higher level of support for women's rights than did the younger group.



Students' Civic Engagement and Political Activities

HIGHLIGHTS RELATING TO CIVIC ACTIVITIES

- Half the upper secondary students across countries expressed an interest in politics, and the degree of interest appeared to be greater among the upper secondary students than among the 14-year-olds.
- In almost all countries, news broadcasts on television were the most prominent sources of political information. Newspapers ranked second, followed by news broadcasts on the radio. This trend is the same as that found with the 14-year-olds.
- A majority of upper secondary students indicated that they planned to vote in national elections. In three-quarters of the countries where comparisons could be made, the older students were more likely than the 14-year-olds to indicate their intentions to vote.
- Only a minority of students—mostly males—reported that they were likely to engage in protest activities such as spray-painting slogans on walls, blocking traffic, and occupying buildings. This is similar to the findings from the 14-year-olds. However, the 14-year-old students were more likely than the upper secondary students to indicate that they would spray-paint slogans.

Much has been written about the lack of interest and growing cynicism, particularly among young people, toward politics and government. This concern over political disinterest and disengagement among adolescents was reflected in many of the national case studies from Phase 1 of the Civic Education Study. National researchers, during the first phase, observed that while educators try to make students aware of the importance of staying informed and of participation in the political process, students themselves often exhibit little interest in politics, particularly at the national level (Torney-Purta, Schwille, & Amadeo, 1999). Thus, to many experts, there appeared to be a gap between the societal expectation that civic education should create political interest among students, and the reality.

Is this lack of interest in politics evident among students who are at or nearing the age of first vote? Do young people use the mass media to stay informed on social and political issues? Moreover, as students come to the end of their secondary schooling, what civic activities do they anticipate taking part in as adults? To examine these questions, students were surveyed about three related elements of citizenship and democracy: first, their interest in politics; second, their exposure to political news; and, third, their plans for civic participation, including voting.

Previous research indicates that political interest is a positive predictor of voting, although political interest among young people is only moderate in most countries. In many studies, males report higher levels of interest in politics than females. There is some indication, however, that the gender gap in this area is narrowing, at least in some countries.

In addition, researchers in several countries have found that reading and watching news in the mass media seem to have positive effects on adolescents' political knowledge and involvement. Many adolescents, however, indicate little interest in using the media to stay informed about politics. Studies on the

influence of the mass media also suggest that exposure to political news is associated with higher levels of political knowledge among adults. And, for both adolescents and adults, there is some evidence of gender differences in this area, with males reporting media use more frequently than females.¹

Finally, in the 1971 IEA Study of Civic Education (described in Chapter 1), the researchers asked students about their current political activities. In the study reported in this volume, this area was expanded to include questions about what the students planned to do as adults. Stated another way, the questions on this more recent survey addressed both the students' current and future civic involvement.

In this chapter, we examine the political interest, exposure to political news, and expected participation activities of upper secondary students. The students' reported intentions to vote are also reported here. The latter is an especially salient issue given that many of the students in this sample had reached the age of first vote.

RESULTS

1. Interest in Politics

As noted above, during Phase 1 of the IEA Civic Education Study, the researchers found that creating political interest in students was a goal of civic education in many countries. Experts in the area of civic education, however, perceived that this goal was not always easy to achieve among young people, who often expressed a general disinterest or even disdain for politics.

As a follow-up on information gathered during Phase 1, the second phase measured political interest. Students' interest was measured by a single item on the survey—'I am interested in politics'. The four response options for this item ranged from 'strongly disagree' to 'strongly agree'.

Results from the upper secondary students

As shown in Table 6.1, almost half of the upper secondary students in the international sample 'agreed' or 'strongly agreed' with the statement 'I am interested in politics'. The responses ranged from a high of 63 percent in Cyprus and the Russian Federation to a low of 36 percent in Slovenia.

Politics appears to be especially salient in the lives of many Cypriots, with 63 percent of the students in the Cypriot sample expressing political interest. During Phase 1, the authors of the case study for Cyprus argued that given the small population of Cyprus, every vote in the country is considered important. Young people often discuss politics with their parents and share those discussions with teachers and fellow students in school (Papanastasiou & Koutselini-Ioannidou, 1999). Thus, the students' responses to this survey item seem to reflect national contexts and traditions.

¹ For reviews of previous research in these three areas, see Torney-Purta, Lehmann, Oswald, and Schulz (2001): page 115 (interest in politics); page 116 (exposure to political news); and page 121 (political activities).

Table 6.1 Students' Reports on Their Interest in Politics

| Country | Percentage of Students Who 'Agreed' or 'Strongly Agreed' with the Statement 'I am Interested in Politics' | |
|---|---|--------------------------|
| | 14-year-olds | Upper Secondary Students |
| Chile | ▲ 46 (1.4) | 54 (1.1) |
| Cyprus | 66 (0.9) | 63 (1.8) |
| Czech Republic | ▲ 28 (1.0) | 41 (1.1) |
| Denmark | ▲ 30 (1.0) | 62 (1.3) |
| Estonia | ▲ 34 (1.1) | 47 (1.6) |
| Israel ¹ | n.a. n.a. | 58 (0.9) |
| Latvia | ▲ 41 (1.1) | 50 (1.6) |
| Norway | ▲ 31 (1.1) | 40 (1.4) |
| Poland | 43 (1.9) | 44 (1.0) |
| Portugal | ▲ 35 (1.2) | 43 (1.2) |
| Russian Federation | ▲ 54 (1.6) | 63 (1.4) |
| Slovenia | 35 (1.1) | 36 (1.4) |
| Sweden | ▲ 23 (1.5) | 40 (1.3) |
| Switzerland (German) | ▲ 34 (1.3) | 46 (2.8) |
| International Sample² | 38 (0.4) | 49 (0.4) |

() Standard errors appear in parentheses. Percentages based on valid responses.
▲ Population difference statistically significant at .05 level.
1 Israel did not participate in the 14-year-old study.
2 International mean (14-year-olds) is based on 13 countries. International mean (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Analysis of 14-year-olds' and upper secondary students' results

As students approach the end of their secondary schooling, it does appear that their interest in politics becomes greater than that of 14-year-olds. Almost half of the upper secondary students in the international sample 'agreed' or 'strongly agreed' that they were interested in politics, while slightly less than 40 percent of the 14-year-old students from these same countries responded in this way. These findings, however, should be interpreted with caution. As noted elsewhere in this volume, the upper secondary students were not only an older but also, in some countries, more selective sample than the 14-year-olds.

When looking at the individual countries in Table 6.1, we can see that in 10 of the countries the percentage of older students expressing an interest in politics was significantly higher than the percentage of younger students. In no country were the 14-year-olds more likely than the older students to report an interest in politics. However, in the country where students expressed the greatest interest (Cyprus), there was little difference between the 14-year-olds and upper secondary students: over 60 percent of both age groups 'agreed' or 'strongly agreed' that they were interested in politics.

It is also interesting to note that the students in Cyprus scored above the international mean on both concepts of citizenship scales reported on in Chapter 4 of this volume. In other words, students in Cyprus expressed relatively high levels of political interest and indicated their belief that both

conventional and social-movement-related activities are the responsibilities of adult citizens. These findings held true for both the 14-year-old students and the upper secondary school students. In short, political interest and beliefs about the importance of civic engagement were evident among both the younger and older adolescents in Cyprus.

In contrast, as can be seen in Table 6.1, the percentage of both 14-year-old and upper secondary students expressing interest in politics in Slovenia was comparatively low. Unlike other countries in the sample, an increase in political interest at the older age level was not evident in Slovenia. The Slovenian students also scored relatively low on both the conventional and social-movement-related citizenship scales, as well as low on the trust in government-related institutions (see Chapters 4 and 5).

Finally, the differences between the 14-year-olds and the upper secondary students reflected in Table 6.1, while interesting, are probably not surprising. As students prepare to take on adult roles—in many realms of their lives—politics may become more salient to them. Upper secondary students are much closer to the time when they must make decisions about beginning careers, establishing families, entering military service, finding their own housing, or other life transitions, which may make political trends and policies more pressing issues in their lives. Many of these transitions have political dimensions, for example, required military service, the national economy and finding a job, financial support for education, and finding housing. For many of the 14-year-olds, these issues probably seem more distant from and less relevant to their daily lives, although it should be noted that some of the 14-year-olds may be close to leaving school and entering the labor force.

Analysis by gender

In almost every country where gender differences were found, upper secondary males were significantly more likely than females to indicate an interest in politics. In only one country—Chile—did a higher percentage of females than males agree with the statement ‘I am interested in politics’ (see Table 6.2). This finding relating to interest in politics is generally consistent with previous research, including the results from the survey of 14-year-olds, where gender differences were found in 18 of the 28 participating countries. In those 18 countries, and consistent with the findings of numerous previous studies, 14-year-old males reported greater interest in politics than did 14-year-old females.

While these gender differences for the older population are consistent with the preponderance of research in this area, there are multiple interpretations of their meaning. It could be, for example, that females and males interpret the meaning of politics in different ways. Or, the differences might reflect national or cultural norms relating to gender roles. Finally, in many of the countries, female students likely have fewer role models in the political realm than do male students, although that does not hold true for all countries in the study (see Table 1.3 in Chapter 1).

Table 6.2 Gender Differences in Students' Reports on Their Interest in Politics

| Country | Percentage of Students Who 'Agreed' or 'Strongly Agreed' with the Statement 'I am Interested in Politics' | | | |
|---|---|----|-------|----------|
| | Females | | Males | |
| Chile | ▲ | 57 | (1.6) | 50 (1.5) |
| Cyprus | ▲ | 57 | (2.1) | 69 (2.3) |
| Czech Republic | ▲ | 34 | (1.3) | 49 (1.7) |
| Denmark | ▲ | 57 | (1.8) | 70 (1.8) |
| Estonia | ▲ | 41 | (1.8) | 56 (2.0) |
| Israel | ▲ | 53 | (1.3) | 63 (1.1) |
| Latvia | | 50 | (1.7) | 50 (2.3) |
| Norway | ▲ | 34 | (1.8) | 47 (2.3) |
| Poland | ▲ | 37 | (1.3) | 51 (1.3) |
| Portugal | ▲ | 37 | (1.4) | 51 (2.0) |
| Russian Federation | | 61 | (1.6) | 67 (1.9) |
| Slovenia | ▲ | 31 | (1.9) | 42 (1.4) |
| Sweden | | 38 | (1.9) | 43 (2.5) |
| Switzerland (German) | ▲ | 37 | (4.1) | 59 (3.0) |
| International Sample¹ | | 45 | (0.5) | 55 (0.5) |

() Standard errors appear in parentheses. Percentages based on valid responses.
▲ Gender difference statistically significant at .05 level.
1 International mean is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

2. Exposure to Political News

During the first phase of the study, many of the national researchers and national experts discussed the importance of exposure to news in the media, and to helping students understand and interpret the news that they read, see, and hear. While there is wide variation across (and within) countries with regard to media education, one thing is clear: most adolescents in industrialized countries are frequent consumers of the mass media. Yet, several questions remained unanswered. How much news are young people exposed to on television or radio? Do they read newspapers? Does exposure to news predict civic knowledge, skills, or engagement?

During Phase 2, the national researchers examined these and other issues related to the media by asking students to report the extent to which they: (1) read newspaper articles about their own country; (2) listen to news broadcasts on television; and (3) listen to news broadcasts on the radio. The response options were 'never', 'rarely', 'sometimes', or 'often'.

Results from the upper secondary students

Across the participating countries, students most frequently watched news broadcasts on television and least frequently listened to news broadcasts on the radio. (These percentages are reported in Table 6.3.) Specifically, about 90 percent of all students surveyed indicated that they 'sometimes' or 'often' watched television news, whereas only about 60 percent reported listening to news on the radio. In addition, 75 percent of the students indicated that they read newspaper articles about their own countries.

Table 6.3 Students' Reports on Their Exposure to Political News

| Country | Percentage of Students who Sometimes or Often... | | | | | |
|---------------------------------------|--|--------------------------|---|--------------------------|--|--------------------------|
| | read newspaper articles about own country | | listen to news broadcasts on television | | listen to news broadcasts on the radio | |
| | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students |
| Chile | ▲ 61 (1.1) | 77 (0.9) | ▲ 89 (0.6) | 92 (0.5) | 47 (1.1) | 51 (0.8) |
| Cyprus | 68 (1.1) | 69 (1.6) | 89 (0.6) | 91 (0.8) | ▲ 55 (1.2) | 61 (1.3) |
| Czech Republic | ▲ 69 (1.1) | 79 (1.1) | 94 (0.5) | 93 (0.5) | ▲ 60 (1.2) | 69 (1.0) |
| Denmark | ▲ 65 (1.1) | 84 (0.9) | ▲ 83 (0.7) | 94 (0.5) | ▲ 47 (1.2) | 69 (1.1) |
| Estonia | ▲ 75 (1.0) | 88 (1.1) | ▲ 84 (0.8) | 94 (0.5) | ▲ 70 (0.9) | 85 (0.9) |
| Israel ¹ | n.a. n.a. | 83 (0.8) | n.a. n.a. | 85 (0.7) | n.a. n.a. | 69 (0.7) |
| Latvia | ▲ 69 (1.4) | 77 (1.9) | 89 (1.0) | 89 (1.1) | 62 (1.4) | 63 (1.0) |
| Norway | ▲ 82 (0.9) | 87 (0.8) | ▲ 90 (0.6) | 93 (0.6) | ▲ 47 (1.1) | 61 (1.2) |
| Poland | 73 (0.9) | 74 (0.9) | 91 (0.6) | 92 (0.5) | ▲ 71 (1.3) | 82 (0.7) |
| Portugal | ▲ 69 (1.0) | 81 (0.9) | ▲ 93 (0.5) | 97 (0.3) | ▲ 55 (1.0) | 61 (1.2) |
| Russian Federation | ▲ 75 (1.4) | 82 (1.2) | ▲ 89 (0.7) | 93 (1.1) | 57 (1.8) | 59 (1.8) |
| Slovenia | ▲ 65 (1.1) | 69 (1.0) | 84 (1.0) | 85 (1.2) | ▲ 56 (1.2) | 33 (2.1) |
| Sweden | ▲ 79 (1.2) | 89 (1.0) | ▲ 84 (1.2) | 92 (0.8) | ▲ 47 (1.2) | 61 (1.6) |
| Switzerland (German) | ▲ 66 (1.3) | 78 (1.0) | 84 (1.1) | 85 (1.8) | 61 (1.1) | 69 (2.9) |
| International Mean² | 70 (0.3) | 75 (0.3) | 88 (0.2) | 91 (0.2) | 57 (0.3) | 64 (0.4) |

() Standard errors appear in parentheses. Percentages based on valid responses.
▲ Population difference statistically significant at .05 level.
1 Israel did not participate in the 14-year-old study.
2 International mean (14-year-olds) is based on 13 countries. International mean (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

On looking at the individual countries listed in Table 6.3, we find that newspaper readership among the upper secondary students was especially prevalent in Estonia (88 percent), Norway (87 percent), and Sweden (89 percent). It was less prevalent in Cyprus and Slovenia, where about 68 percent of the students responded that they 'sometimes' or 'often' read newspaper articles.

The pattern in relation to watching television news broadcasts was fairly consistent across countries. In 10 countries, over 90 percent of the students said that they 'sometimes' or 'often' watched television news. This trend was especially strong in Portugal, where 97 percent of the students surveyed indicated that they watched television news.

Finally, the percentage of students who reported listening to radio news broadcasts ranged from a low of 33 percent in Slovenia to a high of 85 percent in Estonia. In most countries, only 50 to 60 percent of the students indicated that they listened to radio news.

Analysis of 14-year-olds' and upper secondary students' results

In most countries that tested both the older and younger students, the older students were significantly more likely than the 14-year-olds to read newspaper articles about their own country. Only in Cyprus and Poland were the percentages of older and younger students who said they 'sometimes' or 'often' read newspaper articles essentially the same.

In regard to watching news on television, in half of the countries, differences between the two populations were significant. These countries were Chile, Denmark, Estonia, Norway, Portugal, the Russian Federation, and Sweden. Once again, a higher percentage of older students than younger students reported watching television news.

Finally, the older students in nine countries were more likely to listen to news broadcasts on the radio than were the younger students. In one country, Slovenia, the trend was reversed, in that significantly more 14-year-olds than upper secondary students 'sometimes' or 'often' listened to radio news.

In general, the older students appeared to be more frequent consumers of news about their nations than were the younger students. This was true of all three media sources and may indicate a developing awareness of the importance of keeping informed. It also may reflect the fact that many news stories take on added importance as students prepare to leave secondary school and embark on careers or further education. It is also consistent with findings from the 'interest in politics' item (see Table 6.1), where greater percentages of older students than younger students expressed an interest in politics. It follows that if upper secondary students are interested in politics, they are likely to attend to political news. Again, caution needs to be taken in interpreting these findings from the two age groups.

Analysis by gender

As illustrated in Table 6.4, gender differences in regard to reading newspapers were found in only three countries. In the Czech Republic and Poland, significantly higher percentages of females than males reported reading newspapers, but in Slovenia, more males than females reported that they 'sometimes' or 'often' read newspaper articles about their country.

There were no significant gender differences with regard to viewing television news broadcasts. In general, substantial percentages of both male and female students across countries indicated that they watched news on television. This pattern, however, did not hold true for radio broadcasts. Here, we found significant gender differences in nine of the 14 countries (see Table 6.4). In all cases, more females than males reported listening to radio news broadcasts. This pattern is consistent with the findings from the 14-year-old students. In the 15 countries where significant differences were found between the 14-year-old females and males, females were more likely than males to listen to news broadcasts on the radio.

Table 6.4 Gender Differences in Exposure to Political News

| Country | Percentage of Students who Sometimes or Often... | | | | | |
|-----------------------------------|--|----------|---|----------|--|----------|
| | read newspaper articles about own country | | listen to news broadcasts on television | | listen to news broadcasts on the radio | |
| | Females | Males | Females | Males | Females | Males |
| Chile | 78 (1.3) | 78 (1.2) | 92 (0.7) | 92 (0.7) | ▲ 54 (1.2) | 48 (1.1) |
| Cyprus | 66 (2.4) | 68 (1.6) | 91 (1.4) | 91 (1.2) | 61 (1.8) | 60 (2.0) |
| Czech Republic | ▲ 82 (1.2) | 78 (1.5) | 93 (0.7) | 92 (0.8) | ▲ 76 (1.3) | 63 (1.4) |
| Denmark | 83 (1.3) | 84 (1.1) | 94 (0.6) | 95 (0.9) | ▲ 72 (1.3) | 63 (1.8) |
| Estonia | 88 (1.1) | 88 (1.5) | 93 (0.8) | 94 (0.8) | ▲ 88 (0.8) | 80 (1.7) |
| Israel | 84 (0.8) | 83 (1.4) | 85 (1.1) | 85 (0.9) | ▲ 72 (1.0) | 65 (1.2) |
| Latvia | 81 (1.9) | 79 (3.2) | 89 (1.3) | 89 (1.6) | ▲ 67 (2.0) | 58 (1.8) |
| Norway | 88 (1.2) | 88 (1.2) | 93 (0.9) | 92 (0.9) | ▲ 65 (1.4) | 56 (2.1) |
| Poland | ▲ 77 (1.1) | 75 (1.2) | 93 (0.7) | 91 (0.8) | ▲ 86 (1.0) | 78 (1.1) |
| Portugal | 81 (1.2) | 81 (1.2) | 97 (0.4) | 97 (0.5) | 63 (1.2) | 58 (1.8) |
| Russian Federation | 83 (1.6) | 82 (2.1) | 92 (1.4) | 94 (1.2) | 60 (2.2) | 58 (2.5) |
| Slovenia | ▲ 66 (1.4) | 69 (1.3) | 83 (1.6) | 86 (1.3) | 31 (3.0) | 35 (2.1) |
| Sweden | 91 (1.3) | 88 (1.4) | 92 (1.0) | 92 (1.2) | 65 (2.4) | 57 (2.0) |
| Switzerland (German) | 77 (1.5) | 80 (2.3) | 83 (2.2) | 88 (2.0) | ▲ 76 (3.2) | 59 (3.8) |
| International Sample ¹ | 80 (0.4) | 80 (0.4) | 91 (0.3) | 91 (0.3) | 67 (0.5) | 60 (0.5) |

() Standard errors appear in parentheses. Percentages based on valid responses.
▲ Gender difference statistically significant at .05 level.
1 International mean is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

3. Expected Participation in Political Activities

Five items on the student survey dealt with students' intentions to participate in conventional political activities as adults. A confirmatory factor analysis revealed a three-item scale, which asked students to indicate the extent to which they would be willing, as adults: (1) to join a political party; (2) to write letters to newspapers about social or political concerns; and (3) to be a candidate for a local or city office. The confirmatory analysis did not include intention to vote as part of this scale. It therefore is reported in this chapter as a single item.

In addition to the Conventional Political Activities Scale just described, students also were asked about their intentions to take part in so-called social-movement-related activities (described in Chapter 4). Specifically, students were asked about their willingness, as adults, to collect signatures for a petition, to collect money for a social charity, and to participate in a non-violent protest march or rally. They also were asked to report on whether they expected to participate in typically illegal forms of political activities, including spray-painting protest slogans on walls, blocking traffic as a form of protest, and occupying public buildings as a form of protest. The response options for all these items were 'I will certainly not do this', 'I will probably not do this', 'I will probably do this', and 'I will certainly do this'. As with the case of intention to vote, we have presented these six items in this chapter as single items.

In summary, the findings relating to political activities are reported here in four sections. First, we examine students' expectations to vote in national elections. Second, we report on the results from the three-item Conventional Political Activities Scale. Third, we deal with the individual social-movement-related participation items, and finally, we look at the items dealing with students' expectations in the area of protest activities that may be illegal.

A) VOTING IN NATIONAL ELECTIONS

Results from the upper secondary students

As mentioned above, the confirmatory factor analysis did not include intention to vote on the Conventional Political Activities Scale, and so it is discussed here as a separate item. Across countries, 85 percent of the students surveyed responded that they expected 'probably' or 'definitely' to vote in national elections (Table 6.6). This is a positive indicator of students' engagement in one aspect of the democratic process. However, examination of individual countries reveals some variations. While 97 percent of the students in Denmark indicated that they intended to vote, only 42 percent of the Swiss (German) students responded that they would do so. It is important to note here the age of the respondents and the age of first vote. In Denmark, the average age of students in the study was 19 years, and the age at which citizens may vote is 18 years (as it is with all countries in the study). We cannot distinguish from these data how many Danish students planned to vote, and how many had actually cast their first ballot. Similarly, in other countries, the average age of the respondents was 18 years or over (Estonia, Norway, Slovenia, and Sweden), and in each of these countries at least 85 percent or more of the students responded that they would be likely to vote. Again, we do not know how many of the students planned to vote, had actually voted, or had had the opportunity to vote but did not do so.

With the exception of Switzerland (German), even in those countries with students with lower mean ages, the percentage of students willing to vote was generally high. As seen in Table 6.5, substantial percentages of the youngest students in this upper secondary sample—those from Israel and Latvia—indicated that they would probably vote.

Thus, the variation of responses relating to likelihood of voting may not reflect age differences among the students but rather differences in political processes, voter laws, or variations in national voting trends. In Switzerland (German), for example, only 42 percent of the students indicated that they would be likely to vote. The reason for this may be because Swiss cabinet posts are shared by the four major political parties according to a distribution that is not really influenced by elections (barring an overwhelming landslide by one of the parties). Thus, since all parties are represented, large segments of the population feel represented. However, this situation could also have an adverse effect on Swiss voting, because voters have little influence on the composition of the government. In addition, frequent voting in Switzerland on national initiatives and referenda may lead to citizens growing tired of voting or focusing on something other than the national elections inquired about in the survey question.

Table 6.5 Mean Age and Students' Reports on Expected Voting

| Country | Mean Age (Years) | Expect to Vote (%) |
|----------------------|------------------|--------------------|
| Chile | 17.9 | 79 |
| Cyprus | 17.7 | 93 |
| Czech Republic | 17.9 | 80 |
| Denmark | 19.4 | 97 |
| Estonia | 18.2 | 87 |
| Israel | 16.8 | 89 |
| Latvia | 16.6 | 79 |
| Norway | 18.1 | 92 |
| Poland | 17.6 | 92 |
| Portugal | 17.6 | 93 |
| Russian Federation | 17.0 | 93 |
| Slovenia | 18.4 | 85 |
| Sweden | 18.9 | 89 |
| Switzerland (German) | 17.9 | 42 |

Analysis of 14-year-olds' and upper secondary students' results

Although a clear pattern did not emerge when we examined the differences between the 16- to 19-year-olds' intentions to vote, a trend is clearly evident when comparing the 14-year-olds' and the upper secondary students' responses. As can be seen in Table 6.6, in every country except for three, a higher percentage of the upper secondary students than the 14-year-olds stated that they expected to vote in national elections.

The three countries that did not follow this pattern were Cyprus, Slovenia, and Switzerland (German). In Cyprus and Slovenia, the younger and older student percentages were essentially the same—95 percent and 93 percent in Cyprus and 84 percent and 85 percent in Slovenia. This is interesting in light of the high levels of stated political interest in Cyprus and the comparatively low levels in Slovenia. However, even though this difference was not statistically significant, in Switzerland (German), the 14-year-olds seemed more likely than the upper secondary students to indicate that they expected to vote: 48 percent of the 14-year-olds expected to vote, while only 42 percent of the older students responded in the same manner.

In all other countries, higher percentages of the older students agreed that they would 'probably' or 'definitely vote' in national elections. This finding could be because of these students having reached, or being very near, the age of first vote, or it could reflect emphases schools place on voting in the later grade levels. (Chapter 7 provides a discussion of the students' perceptions of what they had learned in school.) This finding may also be related to the greater interest in politics expressed by older students. Upper secondary students were more likely than 14-year-olds to express an interest in politics, attend to news about their nation, and express a willingness to vote, and so may have been taking on more of a political or civic identity than the younger students.

Table 6.6 Students' Reports on Expected Political Activities as an Adult

| Country | Percentage of Students Who Expected Probably or Definitely to... | | | | | | | | | |
|---|--|--------------------------|----------------------------------|--------------------------|-----------------------------------|--------------------------|--|--------------------------|--------------|--------------------------|
| | vote in national elections | | collect money for a social cause | | collect signatures for a petition | | participate in a non-violent protest march | | | |
| | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students |
| Chile | ▲ 74 (1.0) | 79 (0.9) | 85 (0.9) | 83 (0.8) | 77 (0.8) | 78 (0.7) | ▲ 47 (0.8) | 61 (0.9) | | |
| Cyprus | 95 (0.5) | 93 (0.7) | 82 (0.7) | 79 (1.3) | 64 (1.0) | 66 (1.4) | 86 (1.0) | 83 (1.4) | | |
| Czech Republic | ▲ 65 (1.7) | 80 (1.0) | ▲ 28 (1.0) | 19 (1.0) | 29 (1.0) | 27 (0.9) | ▲ 28 (1.0) | 38 (1.2) | | |
| Denmark | ▲ 91 (0.7) | 97 (0.4) | 51 (1.3) | 50 (1.2) | 43 (1.2) | 45 (1.1) | ▲ 46 (1.2) | 61 (1.1) | | |
| Estonia | ▲ 68 (1.1) | 87 (0.6) | ▲ 41 (1.2) | 33 (1.5) | 33 (1.2) | 31 (1.2) | ▲ 37 (1.2) | 43 (1.4) | | |
| Israel ¹ | n.a. | 89 (0.7) | n.a. | 64 (1.1) | n.a. | 42 (0.9) | n.a. | 61 (1.0) | | |
| Latvia | ▲ 71 (1.3) | 79 (2.1) | 57 (1.6) | 53 (1.4) | 44 (1.5) | 45 (1.4) | 39 (1.5) | 45 (1.6) | | |
| Norway | ▲ 87 (0.7) | 92 (0.9) | ▲ 68 (1.1) | 62 (1.6) | ▲ 32 (1.2) | 27 (1.2) | 39 (1.2) | 43 (1.6) | | |
| Poland | ▲ 88 (1.2) | 92 (0.6) | 57 (1.7) | 59 (1.3) | 48 (1.1) | 47 (1.2) | 43 (1.1) | 40 (1.0) | | |
| Portugal | ▲ 88 (0.8) | 93 (0.7) | ▲ 74 (1.0) | 69 (1.2) | 54 (1.3) | 52 (1.5) | ▲ 42 (1.3) | 61 (1.3) | | |
| Russian Federation | ▲ 82 (1.0) | 93 (0.8) | 56 (1.4) | 56 (2.2) | 34 (1.0) | 29 (1.5) | 46 (1.0) | 42 (1.9) | | |
| Slovenia | 84 (1.0) | 85 (1.2) | ▲ 68 (1.0) | 55 (1.2) | 36 (1.2) | 38 (1.5) | ▲ 35 (1.2) | 42 (1.1) | | |
| Sweden | ▲ 75 (1.4) | 89 (1.0) | ▲ 42 (1.3) | 31 (1.4) | ▲ 31 (1.8) | 23 (1.1) | ▲ 36 (1.8) | 44 (1.5) | | |
| Switzerland (German) | 48 (1.6) | 42 (3.2) | 58 (1.4) | 55 (4.5) | 39 (1.3) | 38 (2.8) | ▲ 36 (1.2) | 53 (3.3) | | |
| International Sample² | 78 (0.3) | 85 (0.3) | 59 (0.3) | 55 (0.5) | 43 (0.3) | 42 (0.4) | 43 (0.3) | 51 (0.4) | | |

() Standard errors appear in parentheses. Percentages based on valid responses.
▲ Population difference statistically significant at .05 level.
1 Israel did not participate in the 14-year-old study.
2 International mean (14-year-olds) is based on 13 countries. International mean (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Analysis by gender

As reported in Table 6.7, in four countries higher percentages of females than males responded that they expected that they would ‘probably’ or ‘definitely’ vote in national elections. The countries where gender differences were found included Chile (where females also reported higher levels of political interest than males), Israel, Poland, and Sweden. Interestingly, in Israel and Poland higher percentages of males than females indicated an interest in politics, yet the female students in those countries expressed a greater willingness to vote than males. In Sweden, no gender difference was found in the students’ reports of their interest in politics, but females were more likely than males to indicate that they would vote.

These data do not, of course, tell us why this difference occurs. One possible explanation is that females are more likely than males to respond to a questionnaire in what they perceive to be more socially acceptable ways. An alternative explanation is that the term ‘politics’ does not resonate with female students, but when asked about a concrete political activity, such as voting, they do express interest. It would be an interesting follow-up to this study to examine the extent to which gender differences occur in the actual voting behavior of young people in these countries.

B) CONVENTIONAL POLITICAL ACTIVITIES

The three-item Conventional Political Activities Scale measured students’ expectations that they would participate in conventional political activities as adults. (As noted above, items in this scale were ‘join a political party’, ‘write a letter to newspaper’, and ‘be a candidate for office’.) Despite the fact that the upper secondary students were close to an age when these activities would become real possibilities, in about one third of the participating countries, these students scored below the international mean of 9.7 on this scale (Figure 6.1). The countries with relatively lower scores on this scale were the Czech Republic, Denmark, Norway, Slovenia, and Sweden.

Students in Chile, Cyprus, Estonia, Israel, Latvia, and Portugal, however, scored above the mean on this scale. In the case of Cyprus, this finding was consistent with the relatively high levels of political interest and willingness to vote evident among both the upper secondary students and the 14-year-olds.

Analysis of 14-year-olds’ and upper secondary students’ results

Another way to look at these data is to compare the 14-year-olds’ and the upper secondary students’ responses within countries. As seen in Figure 6.1, in all countries but four, younger students were significantly more likely than older students to indicate that they would participate in conventional political activities as adults. In Cyprus, Estonia, Latvia, and Switzerland (German) there were no significant differences between the responses of the 14-year-olds and the upper secondary students on the Conventional Political Activities Scale. Israel did not test 14-year-olds.

Many of the students in the older population sample would have reached not only the age of first vote, but also the age at which many people in their societies would have perceived them to be adults. It is thus quite interesting

Table 6.7 Gender Differences in Students' Reports on Expected Political Activities as an Adult

| Country | Percentage of Students Who Expected Probably or Definitely to... | | | | | | | | | | | | | | | |
|---|--|----------|------------|----------|----------------------------------|----------|------------|----------|-----------------------------------|--|-------|--|--|--|-------|--|
| | vote in national elections | | | | collect money for a social cause | | | | collect signatures for a petition | | | | participate in a non-violent protest march | | | |
| | Females | | Males | | Females | | Males | | Females | | Males | | Females | | Males | |
| Chile | ▲ 82 (1.2) | 75 (1.0) | ▲ 89 (0.7) | 76 (1.1) | ▲ 82 (0.8) | 72 (1.2) | 61 (1.4) | 61 (1.2) | | | | | | | | |
| Cyprus | 95 (0.8) | 91 (1.5) | ▲ 85 (1.8) | 72 (1.8) | 68 (2.2) | 64 (1.9) | 86 (1.6) | 80 (2.1) | | | | | | | | |
| Czech Republic | 80 (1.5) | 81 (1.2) | ▲ 26 (1.3) | 12 (0.9) | ▲ 32 (1.6) | 21 (1.2) | ▲ 33 (1.8) | 42 (1.3) | | | | | | | | |
| Denmark | 97 (0.4) | 97 (0.7) | ▲ 62 (1.5) | 33 (1.7) | ▲ 52 (1.5) | 34 (1.5) | ▲ 64 (1.5) | 55 (1.7) | | | | | | | | |
| Estonia | 88 (0.7) | 86 (1.3) | ▲ 39 (1.7) | 24 (2.2) | ▲ 35 (1.4) | 25 (2.0) | 41 (1.5) | 47 (2.2) | | | | | | | | |
| Israel | ▲ 92 (0.7) | 87 (1.1) | ▲ 70 (1.3) | 58 (1.6) | ▲ 46 (1.2) | 39 (1.3) | 63 (1.5) | 59 (1.4) | | | | | | | | |
| Latvia | 82 (2.1) | 76 (2.8) | 56 (1.8) | 50 (1.8) | 49 (1.8) | 41 (2.2) | 42 (2.1) | 48 (2.4) | | | | | | | | |
| Norway | 94 (0.9) | 90 (1.3) | ▲ 75 (1.4) | 48 (2.1) | 30 (1.8) | 24 (1.7) | ▲ 47 (2.3) | 39 (1.7) | | | | | | | | |
| Poland | ▲ 95 (0.6) | 90 (1.1) | ▲ 68 (1.3) | 49 (1.5) | ▲ 51 (1.5) | 44 (1.5) | 38 (1.2) | 43 (1.5) | | | | | | | | |
| Portugal | 94 (0.9) | 92 (1.0) | ▲ 77 (1.3) | 58 (2.0) | 55 (1.7) | 48 (2.2) | 59 (1.6) | 63 (1.7) | | | | | | | | |
| Russian Federation | 93 (1.0) | 93 (1.0) | 59 (2.2) | 52 (3.3) | 28 (2.2) | 30 (2.1) | 39 (2.3) | 46 (2.8) | | | | | | | | |
| Slovenia | 86 (1.5) | 83 (1.5) | ▲ 63 (1.5) | 47 (1.4) | 39 (2.0) | 36 (1.7) | 39 (1.5) | 45 (1.6) | | | | | | | | |
| Sweden | ▲ 93 (0.9) | 85 (1.9) | ▲ 40 (2.3) | 21 (1.7) | 26 (1.6) | 20 (1.6) | ▲ 49 (2.1) | 39 (2.3) | | | | | | | | |
| Switzerland (German) | 35 (3.2) | 51 (4.8) | 63 (3.7) | 43 (6.9) | 42 (4.3) | 32 (1.5) | 51 (5.6) | 57 (3.6) | | | | | | | | |
| International Sample¹ | 86 (0.4) | 84 (0.5) | 62 (0.5) | 46 (0.7) | 45 (0.5) | 38 (0.5) | 51 (0.6) | 52 (0.5) | | | | | | | | |

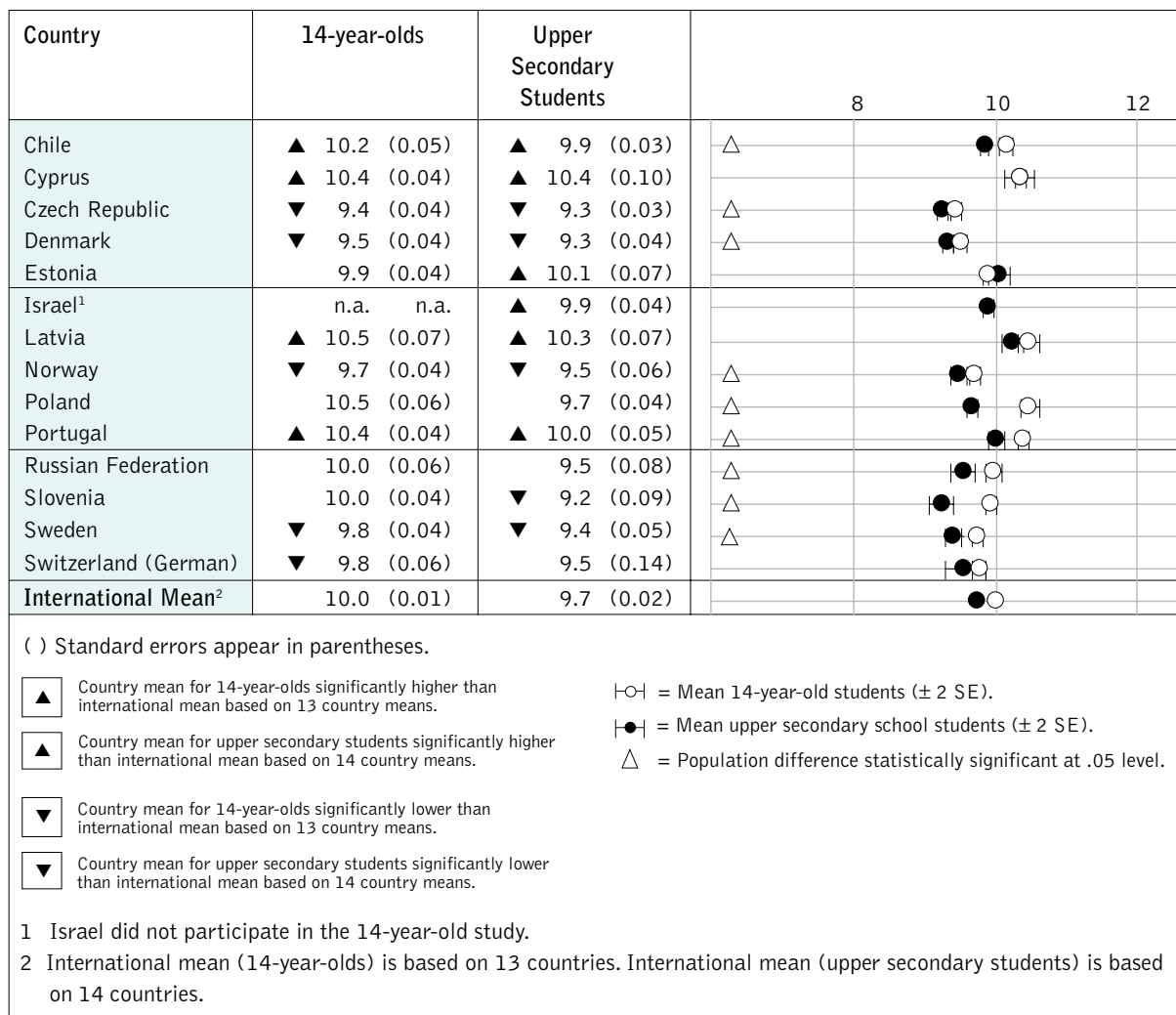
() Standard errors appear in parentheses. Percentages based on valid responses.

▲ Gender difference statistically significant at .05 level.

1. International mean is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 6.1 Expected Participation in Conventional Political Activities



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

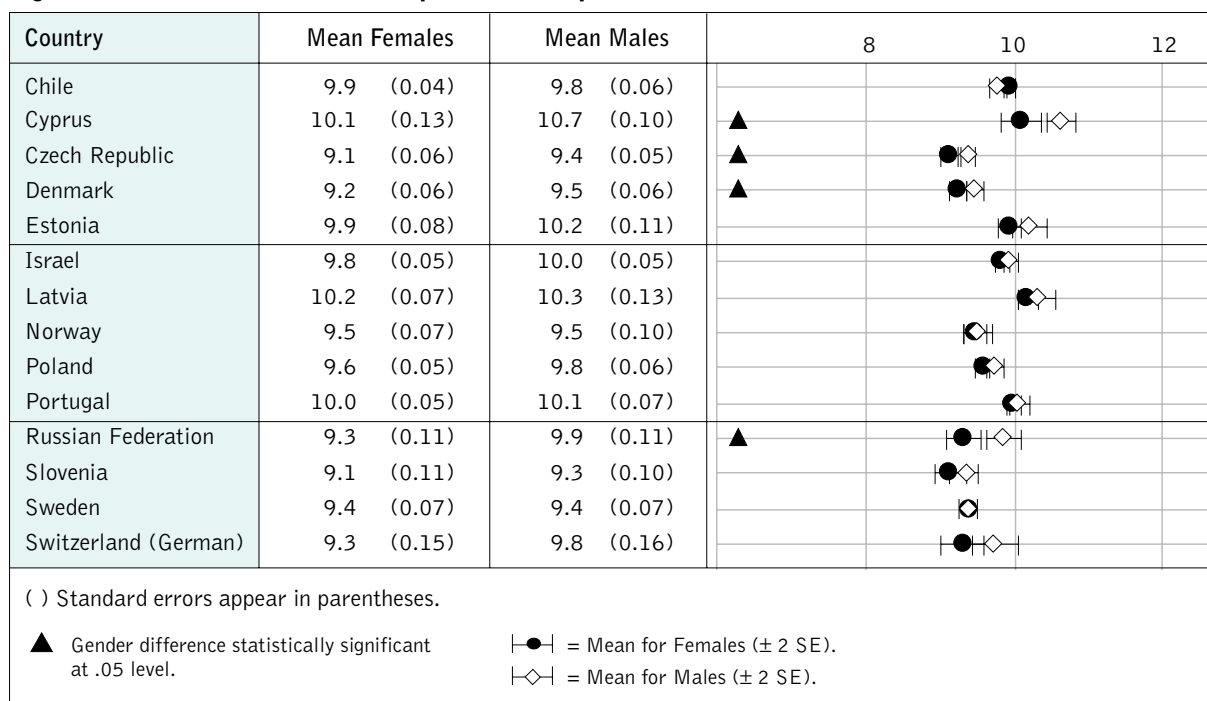
that these students were less likely than the younger students in their countries to expect to participate in conventional political activities. On the one hand, the upper secondary students were more likely than the 14-year-old students to express an interest in politics, and also were more likely than the younger students to indicate that they expected to vote in national elections. On the other hand, the upper secondary students were less likely than the younger students to expect to participate in conventional activities such as writing letters to newspapers, joining a political party, or running for public office.

Analysis by gender

In less than half of the countries, significant gender differences were found on this scale (see Figure 6.2). In all cases, the male students were more likely than the female students to expect to participate in conventional political activities. The countries where significant gender differences were found were Cyprus, the Czech Republic, Denmark, and the Russian Federation.

Gender differences in the same direction were also found among the 14-year-old students. This finding may seem somewhat inconsistent with the findings relating to another political activity—expectation of voting—where females in

Figure 6.2 Gender Differences in Expected Participation in Conventional Political Activities



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

four countries were more likely than males to indicate that they intended to vote. However, this could be a reflection of females' sense of civic responsibility, whereas the other conventional political activities may be more associated with interest in politics.

C) SOCIAL-MOVEMENT-RELATED ACTIVITIES

The social-movement-related activities are examined in this section as individual items (see Table 6.6). Examination of the responses to these items indicated the following: close to 60 percent of the upper secondary students in the international sample expected that they would 'probably' or 'definitely' collect money for a social cause or charity; slightly more than 40 percent of the students expected they would collect signatures for a petition; and over 50 percent expected they would participate in a non-violent protest march.

Once again we found national differences (shown in Table 6.6). In Chile, 83 percent of the students said they would collect money for a charity while only 19 percent of the Czech Republic students expected to do so. This difference might reflect a difference in opportunities: in some countries, more charities may exist than in other countries, or some countries may mobilize young adults to participate more effectively than others.

Chilean students were also highly likely to expect to collect signatures for a petition. Seventy-eight percent of the students from Chile expected to do so. In contrast, only about 20 percent of the Swedish students thought they would be likely to collect signatures. Again, this finding may reflect differences in political cultures: petitions may be used more often in some countries than in others.

Finally, 83 percent of the students in Cyprus expected to participate in a non-violent protest march while only 38 percent expected to do so in the Czech Republic. This finding is consistent with other data from Cyprus. In this country, students are interested and aware of politics, and actively engaged. The same trend in Cyprus also was identified in the results from the data for the 14-year-olds.

Analysis of 14-year olds' and upper secondary students' results

The percentages of 14-year-olds and upper secondary students who anticipated collecting charity money and collecting petition signatures were essentially the same (Table 6.6), with slightly fewer older than younger students expressing willingness to engage in those activities. However, a higher percentage of older students than younger students responded that they would probably or definitely participate in a non-violent protest march. In fact, in eight of the 13 countries where comparisons could be made, the older students were more likely than the younger students to indicate that they would participate in a non-violent march. An interesting follow-up to this study would be to investigate the possible reasons for the age differences in this area, or to examine within-country explanations.

Analysis by gender

In almost all of the participating countries where comparisons could be made, higher percentages of female students than male students agreed they would be likely to collect money for a charity. In about half of the countries, females were more likely than males to indicate that they would collect signatures for a petition. However, gender differences in willingness to participate in a non-violent protest march were found in only four countries. In three of these countries—Denmark, Norway, and Sweden—higher percentages of females than males expressed their willingness to participate, and in the other country—the Czech Republic—the reverse was found (Table 6.7).

D) ILLEGAL PROTEST ACTIVITIES

Among all the political activities that the upper secondary students were asked about, it was the protest activities likely to be illegal in many countries for which the students indicated the lowest levels of probable participation. Only 10 percent of the international sample said that they would occupy buildings as a form of protest, and only 13 percent said that they would block traffic or spray-paint slogans on walls. Students in Cyprus were more likely than students in any of the other countries to indicate that they would engage in these three illegal activities. In fact, close to 35 percent of the Cypriot students said they would probably or definitely spray-paint protest slogans on walls, and close to 30 percent said they would block traffic and occupy buildings. In contrast, very low percentages of students in the Czech Republic, Sweden, and Switzerland (German) (under 10 percent) said they would participate in spray-painting, blocking traffic, or occupying buildings. While these findings could, in part, reflect cultural and political differences and traditions, it is interesting that they do not seem to reflect differences in levels of trust in government-related institutions. As reported in Chapter 5, students' trust in government-related institutions was relatively high in both Denmark and Cyprus.

Analysis of 14-year olds' and upper secondary students' results

On all three items, the 14-year-old students were more likely than the upper secondary students to agree that they would participate in these illegal protest activities. The difference was most pronounced on the spray-painting item. When asked about spray-painting slogans on walls, close to 20 percent of the 14-year-olds expected they would do this, while only 13 percent of the upper secondary students agreed that they would. The differences on the other two items were slight—see Table 6.8.

Table 6.8 Students' Reports on Expected Illegal Activities as an Adult

| Country | Percentage of Students Who Expected Probably or Definitely to... | | | | | |
|---|--|--------------------------|------------------------------------|--------------------------|---------------------------------------|--------------------------|
| | spray-paint protest slogans on walls | | block traffic as a form of protest | | occupy buildings as a form of protest | |
| | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students | 14-year-olds | Upper Secondary Students |
| Chile | ▲ 31 (0.9) | 23 (0.8) | 19 (0.8) | 20 (1.0) | 14 (0.7) | 15 (0.7) |
| Cyprus | 37 (1.1) | 34 (1.4) | 28 (0.9) | 27 (1.3) | 28 (1.0) | 28 (1.3) |
| Czech Republic | ▲ 12 (1.0) | 5 (0.5) | 7 (0.8) | 6 (0.5) | 7 (0.8) | 5 (0.5) |
| Denmark | ▲ 15 (0.9) | 3 (0.4) | ▲ 15 (0.9) | 11 (0.9) | ▲ 12 (0.8) | 8 (0.6) |
| Estonia | ▲ 22 (0.9) | 15 (1.0) | 12 (0.7) | 11 (0.6) | 9 (0.7) | 7 (0.5) |
| Israel ¹ | n.a. n.a. | 10 (0.6) | n.a. n.a. | 15 (0.8) | n.a. n.a. | 9 (0.7) |
| Latvia | 21 (1.3) | 16 (1.4) | 17 (1.2) | 16 (1.3) | 15 (1.3) | 11 (1.3) |
| Norway | ▲ 15 (0.9) | 9 (1.1) | 12 (0.9) | 12 (1.1) | 12 (0.7) | 9 (0.9) |
| Poland | ▲ 18 (0.9) | 14 (0.9) | 17 (1.1) | 14 (0.9) | 16 (1.0) | 14 (0.8) |
| Portugal | ▲ 13 (0.8) | 8 (0.6) | ▲ 11 (0.7) | 15 (0.9) | 10 (0.7) | 9 (0.7) |
| Russian Federation | ▲ 23 (1.1) | 13 (1.0) | ▲ 13 (1.1) | 7 (0.7) | ▲ 9 (0.8) | 5 (0.6) |
| Slovenia | 18 (1.0) | 15 (1.7) | 12 (0.8) | 12 (1.6) | 12 (0.9) | 11 (1.5) |
| Sweden | ▲ 12 (1.2) | 6 (0.6) | 9 (0.8) | 7 (0.8) | ▲ 10 (1.0) | 5 (0.7) |
| Switzerland (German) | ▲ 15 (1.2) | 8 (1.9) | 12 (0.9) | 8 (1.1) | 11 (1.1) | 8 (1.2) |
| International Sample² | 19 (0.3) | 13 (0.3) | 14 (0.2) | 13 (0.3) | 13 (0.2) | 10 (0.2) |

() Standard errors appear in parentheses. Percentages based on valid responses.
▲ Population difference statistically significant at .05 level.
1 Israel did not participate in the 14-year-old study.
2 International mean (14-year-olds) is based on 13 countries. International mean (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

This pattern seems consistent with the findings relating to older students' interest in politics, staying informed, and willingness to vote. That is, as adolescents get closer to the age when they are likely to be looking for jobs, applying to universities, or making other major life transitions, they may be less likely to engage in an activity, such as spray-painting, that may jeopardize their futures. Similarly, this difference between 14-year-olds and upper secondary students may reflect a developmental difference. As students approach the age when they will increasingly be taking on adult roles and responsibilities, peer pressure (so prevalent during early adolescence) may start

to diminish. Greater maturity also may allow them to take a broader view of the issues surrounding such actions.

However, an interesting paradox emerges here. On the one hand, the upper secondary students were less trusting of government-related institutions than were the 14-year-old students (as reported in Chapter 5 of this volume). On the other hand, the older students were less likely than the 14-year-olds to indicate that they would participate in protest activities that may be illegal. It may be that although older students are more critical of their governments, their criticism is more constructive. Or, it may be that older adolescents face more severe punishment for transgressions, since some of them are legally adults.

Analysis by gender

In all countries, except for Switzerland (German), more male than female students expressed a willingness to spray-paint protest slogans. In fact, twice as many males as females in the international sample said they ‘probably’ or ‘definitely’ would expect to spray-paint (see Table 6.9). Males also were more likely than females to indicate a likelihood of participating in the other two illegal activities. This is consistent with findings from the 14-year-old students, in which males were more likely than females to say they would probably participate in illegal political activities.

Table 6.9 Gender Differences in Students’ Reports on Expected Illegal Activities as an Adult

| Country | Percentage of Students Who Sometimes or Often... | | | | | |
|---|--|----------|------------------------------------|----------|---------------------------------------|----------|
| | spray-paint protest slogans on walls | | block traffic as a form of protest | | occupy buildings as a form of protest | |
| | Females | Males | Females | Males | Females | Males |
| Chile | ▲ 19 (1.2) | 28 (1.2) | 18 (1.3) | 22 (1.4) | ▲ 13 (1.0) | 17 (1.0) |
| Cyprus | ▲ 27 (1.7) | 42 (1.8) | ▲ 20 (2.0) | 35 (2.3) | ▲ 23 (2.2) | 33 (1.9) |
| Czech Republic | ▲ 3 (0.5) | 8 (0.9) | ▲ 2 (0.4) | 10 (0.9) | ▲ 2 (0.4) | 8 (0.7) |
| Denmark | ▲ 2 (0.3) | 6 (0.8) | 11 (1.4) | 11 (1.1) | 8 (0.8) | 8 (0.9) |
| Estonia | ▲ 9 (0.9) | 23 (2.0) | ▲ 6 (0.6) | 19 (1.3) | ▲ 4 (0.4) | 13 (1.0) |
| Israel | ▲ 8 (0.7) | 13 (0.9) | ▲ 12 (0.9) | 17 (1.3) | ▲ 7 (0.7) | 10 (1.0) |
| Latvia | ▲ 10 (1.3) | 23 (2.0) | ▲ 9 (1.3) | 24 (1.9) | ▲ 7 (1.3) | 16 (1.6) |
| Norway | ▲ 5 (0.9) | 14 (2.0) | ▲ 7 (1.0) | 16 (1.8) | ▲ 6 (0.9) | 12 (1.6) |
| Poland | ▲ 7 (0.8) | 21 (1.3) | ▲ 7 (0.8) | 20 (1.4) | ▲ 9 (0.7) | 19 (1.3) |
| Portugal | ▲ 5 (0.7) | 13 (1.2) | 13 (1.2) | 17 (1.3) | 8 (0.9) | 9 (0.9) |
| Russian Federation | ▲ 10 (1.1) | 18 (2.1) | 6 (0.7) | 10 (1.3) | ▲ 3 (0.6) | 7 (1.1) |
| Slovenia | ▲ 10 (1.9) | 21 (1.6) | 9 (1.8) | 16 (1.8) | 9 (1.9) | 13 (1.5) |
| Sweden | ▲ 2 (0.5) | 9 (1.3) | ▲ 4 (0.9) | 11 (1.4) | ▲ 3 (0.4) | 9 (1.4) |
| Switzerland (German) | 5 (1.5) | 13 (3.1) | 6 (1.4) | 12 (2.1) | 7 (1.5) | 9 (2.9) |
| International Sample¹ | 9 (0.3) | 18 (0.5) | 9 (0.3) | 17 (0.4) | 8 (0.3) | 13 (0.4) |

() Standard errors appear in parentheses. Percentages based on valid responses.
 ▲ Gender difference statistically significant at .05 level.
 1 International mean is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

SUMMARY

As students reach or attain the age of first vote, politics and political participation may take on new meaning for them. The upper secondary students in most of the participating countries were more likely than the 14-year-old students to express an interest in politics, to indicate that they planned to vote, and to follow national news in the media. However, the 14-year-old students seemed slightly more willing to express an interest in participating in conventional political activities as adults and slightly more willing to participate in political protest activities that may be illegal. The patterns relating to country differences and gender trends in these areas are quite similar.



**Students' Views of
Opportunities for
Civic Engagement in
Classrooms,
Schools, and Youth
Organizations**

HIGHLIGHTS RELATING TO SCHOOLS AND CIVIC EDUCATION

- The upper secondary students reported low levels of participation in school and community activities, although this varied considerably from country to country and from organization to organization.
- The upper secondary students were more likely than the 14-year-olds to report that their classrooms were open to discussion of issues.
- In countries where there were gender differences related to the students' confidence in school participation, females were more confident than males. The direction of these findings is consistent with that found among the 14-year-olds. It is also consistent with what was found on the classroom climate scale. In almost all of the countries, female students were more likely than male students in the upper secondary school to perceive that there was an open climate for discussion in their classrooms. Once again, this replicates the findings from the 14-year-olds.

Understanding the development of civic knowledge, attitudes, and engagement among young people is a complex task. It is important to recognize not only the broad political and social culture of the societies in which adolescents live, but also to take into account their daily activities, their need to develop and maintain relationships with teachers and classmates, and to be part of a community of peers. Schools and youth organizations play an important role in this regard, and more generally in the lives of young people. They can be places where students have the opportunity to discuss issues, interact with peers, solve problems, and develop a sense of autonomy and initiative.

Civic education in schools and the influence of formal education on civic knowledge and engagement are emphases of the IEA Civic Education Study. Previous research suggests that students, when in classrooms where they feel free to express their opinions, report high levels of political interest and efficacy. Opportunities for open classroom discussion of issues may vary widely, however, not just among countries, but also within schools. (See Torney-Purta, Lehmann, Oswald, & Schulz, 2001, pp. 138, 141, for a review of the research in this area.)

In addition to the influence of classroom discussion, a sense of civic responsibility and community involvement as adults has been linked to earlier civic participation (both in and outside of school) during adolescence. Although more research in this area is warranted, it does appear that, within countries, adolescents who are active members of their schools and communities are likely to become active adult citizens. The preponderance of research in this area of school and civic involvement suggests that a climate in the school classroom that encourages discussion as well as participation in civic organizations is an important aspect of citizenship education. In this

chapter, therefore, we examine students' perceptions of opportunities for participation available to them in their classrooms, schools, and communities.

RESULTS

1. Confidence in Participation at School

Schools offer adolescents not only opportunity to acquire content knowledge and skills but also to interact with peers, participate in groups, and engage in decision-making. The ideal school and classroom atmosphere can model the democratic process and foster a belief in students that they can contribute to the functioning/well-being of their school. This sense of efficacy—the belief that officials are responsive to an individual's input and that an individual can effect change, especially by joining in groups—is a long-standing interest of researchers in the field of political socialization. (For a review of research on confidence in the effectiveness of school participation, see Torney-Purta, Lehmann et al., 2001, p. 132.)

The school is one of the main settings where adolescents can experience this sense of confidence or efficacy and prepare for their roles as adult citizens in the broader community and nation. The items in the scale reported in this section examine students' beliefs about the value of students working together in groups or as elected representatives to solve school problems. Specifically, four items were included in the Confidence in School Participation Scale. Students were asked to agree or disagree with the following statements: (1) electing student representatives to suggest changes makes schools better; (2) positive changes happen in school when students work together; (3) organizing groups of students to state their opinions helps solve school problems; and (4) students acting together can have more influence than acting alone. The four-point response scale ranged from 'strongly disagree' to 'strongly agree'.

Students' responses on the confidence in school scale indicates a generally positive perception on the part of the upper secondary students on the effectiveness of school participation. Over 85 percent of these students 'agreed' or 'strongly agreed' with each of the four items on the scale. (See item-by-score map, Appendix Figure B.2j.)

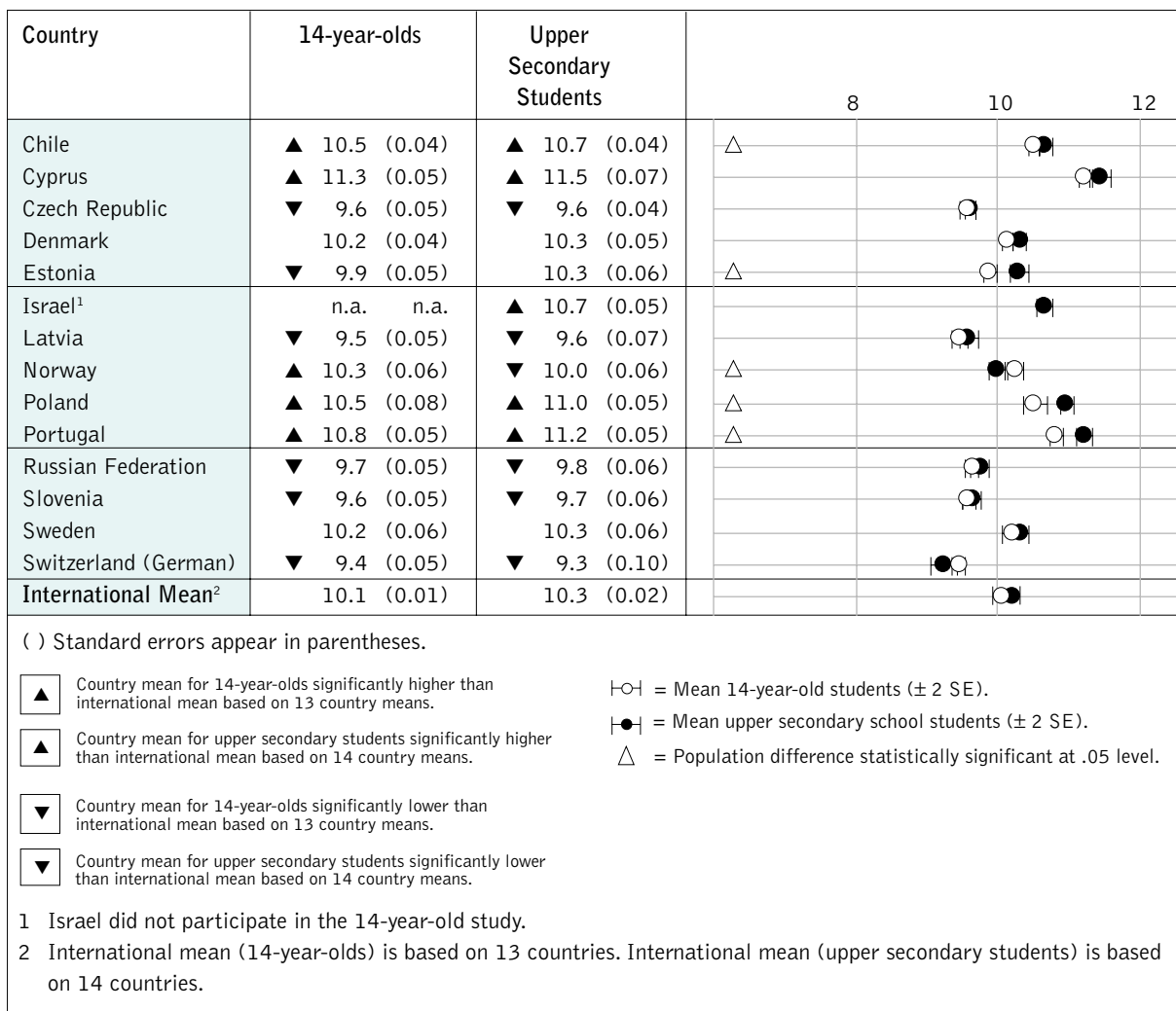
In five countries, confidence in school participation was significantly higher than the international mean (Chile, Cyprus, Israel, Poland, and Portugal). There were also countries, however, whose scores fell below the international mean—the Czech Republic, Latvia, Norway, the Russian Federation, Slovenia, and Switzerland (German). These variations in scores among countries could be because of differences in students' opinions about the value of participating in school activities as well as national differences in opportunities available to students to participate in their schools. Ceding power to student groups is not the tradition in some countries.

Analysis of the 14-year-olds' and the upper secondary students' results

As noted elsewhere in this volume, there were 13 countries with weighted data where comparisons could be made between the upper secondary students and the 14-year-olds. In five of these 13 countries, there were significant differences between the two age groups, with the upper secondary students in Chile, Estonia, Poland, and Portugal reporting higher levels of confidence in school participation than did the 14-year-old students in those same countries. In Norway, the opposite was found: the upper secondary students felt less efficacious at school than did the 14-year-olds.

Country trends on this scale, however, remained largely the same as with the 14-year-olds. As can be seen from Figure 7.1, the older students in Chile, Cyprus, Israel, Poland, and Portugal were those most likely to agree with items about the effectiveness of school participation. The mean scores for the 14-year-old students in these countries also fell above the international mean. (Note that Israel did not test 14-year-olds.) Similarly, in countries where the older students' scores fell below the international mean, the scores of the younger students did so also, with the exception of Norway, as noted above.

Figure 7.1 Confidence in Participation at School



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Analysis by gender

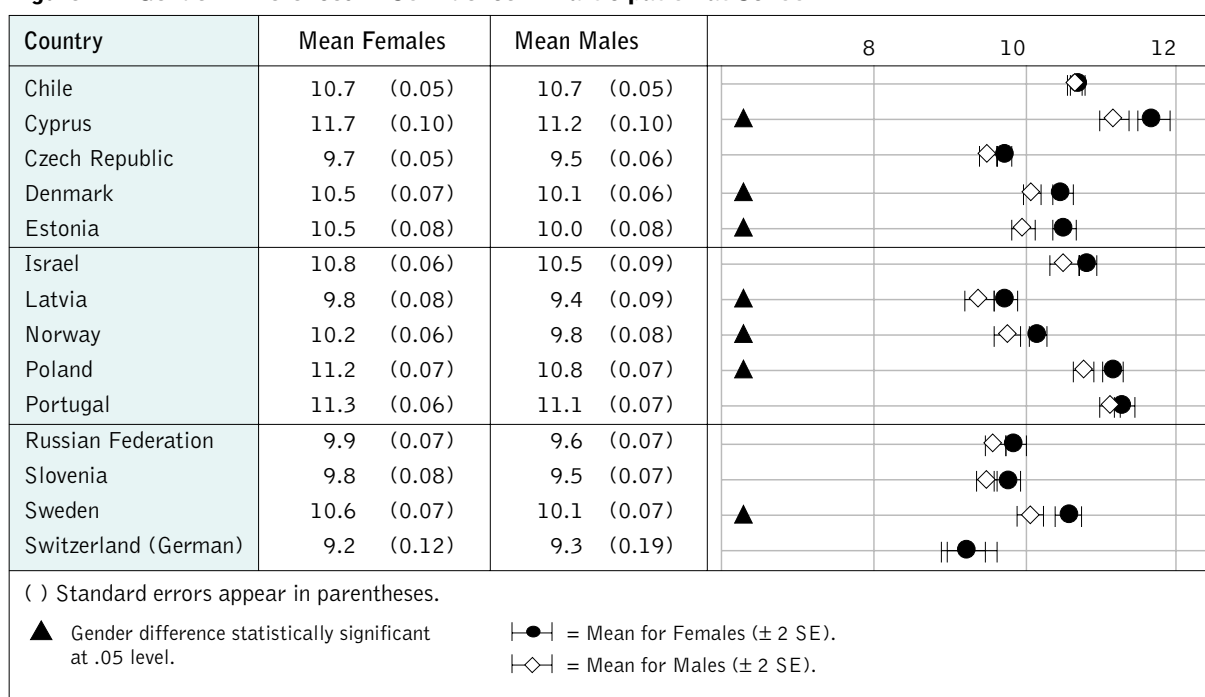
In half of the countries, females were more likely than males to express confidence in school participation (Figure 7.2). This finding is consistent with the 14-year-olds' responses. In over half of the countries that tested 14-year-old students, females expressed more confidence in school participation than did males.

2. Students' Views of Their Learning

IEA studies in a variety of subject areas have used measures of 'opportunities to learn' to ensure test fairness and to assist with interpretation of results. Most frequently, these measures are administered to teachers, who are asked to rate the extent to which students have studied the content material required to answer each test item. However, civic education occurs not just within the formal classroom, but also in homes, peer groups, extracurricular activities, and through the media. Further, as the Phase 1 researchers argued, civic education takes place not just in civics classes, but across school subjects—in courses such as history, literature, religion, and mother tongue especially. In short, civic education is often spread across the curriculum in a variety of classes over multiple years of instruction. Therefore, it would be misleading to discuss 'opportunity to learn' solely on the ratings of one current civic-related teacher. In so doing, we would ignore the cumulative effect of civic-related education in the many arenas where it may occur. A further difficulty is that no teacher data were collected for the upper secondary school students.

Despite the challenge to collecting this information, it is quite valuable to know some of the emphases schools place on civic-related knowledge and skills. Students were one source for this information, and while the national researchers agreed that it would be too time-consuming to rate every item on

Figure 7.2 Gender Differences in Confidence in Participation at School



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

the test and survey, a seven-item scale was developed to explore students' views of what they had learned in school in broader topic areas. To determine students' perceptions of their civic-related learning, the students were asked to agree or disagree (on a four-point response scale) with the following statements. 'In school I have learned' (1) to cooperate in groups; (2) understand people who have different ideas; (3) how to act to protect the environment; (4) to be concerned about what happens in other countries; (5) to contribute to solving problems in the community; (6) to be a patriotic and loyal citizen; (7) about the importance of voting in elections.

Results from the upper secondary students

As Table 7.1 indicates, 90 percent of the older students 'agreed' or 'strongly agreed' that in school they had learned to cooperate in groups with other students. In contrast, slightly less than half of these students 'agreed' or 'strongly agreed' that they had learned in school to be a patriotic and loyal citizen. These findings seem to support the Phase 1 national researchers' argument that, in many school systems, patriotic rituals and traditions have declined in the past several decades while goals of cooperation have increased. However, disaggregation of this international percentage revealed substantial national differences. For example, in Sweden, only about 15 percent of the students 'agreed' or 'strongly agreed' that they had learned in school to be a patriotic and loyal citizen. In contrast, more than 70 percent of the students in Chile and Cyprus indicated that they had learned patriotism and loyalty in school.

Fifty-five percent of the students across countries 'agreed' or 'strongly agreed' that in school they had learned about the importance of voting. Here, too, we found national differences: 76 percent of the students in Norway perceived voting to be a topic covered in school, whereas only 29 percent of the Slovenian students, 37 percent of the Czech students, and 41 percent of the Portuguese students indicated that they had learned about the importance of voting.

Interestingly, as is evident from Table 7.2, there does not seem to be a consistent pattern at the country level regarding the percentage of students who reported they had learned in school about the importance of voting, and the percentage who indicated that they expected to vote (reported in the previous chapter). For example, as stated above, only about 40 percent of the students in Portugal reported that they had learned in school about the importance of voting, but over 90 percent of these same students expected to vote. In Israel, about half of the students responded that they had learned about voting in school, but close to 90 percent expected to vote.

Analysis of 14-year-olds' and upper secondary students' results

A look at the international percentages found in Table 7.1 reveals that the perceptions of the 14-year-old students about what they had learned in school appear to be similar to the perceptions of the older students in a number of areas. For example, as was found with the older students, more 14-year-olds agreed (91 percent) with the statement that in school they had learned to cooperate in groups than with any of the other school learning statements.

Table 7.1 Students' Reports on What They Believe They Had Learned in School

| Country | Percentage of Students Who 'Agreed' or 'Strongly Agreed' with... | | | | | | | | | | | | | |
|-----------------------------------|---|--------------------------|--|--------------------------|--|--------------------------|--|--------------------------|---|--------------------------|--|--------------------------|---|--------------------------|
| | In school I have learned to cooperate in groups with other students | | In school I have learned to understand people who have different ideas | | In school I have learned how to act to protect the environment | | In school I have learned to be concerned about what happens in other countries | | In school I have learned to contribute to solving problems in the community | | In school I have learned to be a patriotic and loyal citizen of my country | | In school I have learned about the importance of voting in national and local elections | |
| | 14-year-olds | Upper secondary students | 14-year-olds | Upper secondary students | 14-year-olds | Upper secondary students | 14-year-olds | Upper secondary students | 14-year-olds | Upper secondary students | 14-year-olds | Upper secondary students | 14-year-olds | Upper secondary students |
| Chile | 94 (0.5) | 95 (0.4) | 94 (0.4) | 94 (0.4) | 70 (1.0) | 70 (1.0) | 77 (0.9) | 62 (1.0) | 81 (0.7) | 74 (0.9) | 87 (0.6) | 73 (1.1) | 76 (1.1) | 67 (1.4) |
| Cyprus | 93 (0.6) | 89 (1.0) | 88 (0.7) | 87 (1.1) | 70 (1.9) | 70 (1.9) | 81 (0.9) | 61 (1.5) | 80 (0.8) | 73 (1.4) | 91 (0.7) | 76 (1.7) | 72 (1.1) | 59 (1.8) |
| Czech Republic | 90 (0.9) | 87 (0.7) | 74 (1.2) | 66 (1.1) | 56 (1.4) | 56 (1.4) | 57 (1.5) | 50 (1.3) | 69 (1.6) | 55 (1.3) | 58 (1.1) | 35 (1.2) | 42 (1.6) | 37 (1.3) |
| Denmark | 92 (0.5) | 92 (0.8) | 72 (0.9) | 81 (1.0) | 56 (1.2) | 56 (1.2) | 68 (1.1) | 86 (0.8) | 63 (1.0) | 65 (1.0) | 44 (1.1) | 21 (0.8) | 39 (1.3) | 64 (1.4) |
| Estonia | 91 (0.7) | 93 (0.8) | 85 (0.9) | 84 (0.9) | 67 (1.5) | 67 (1.5) | 71 (1.1) | 74 (0.9) | 54 (1.3) | 38 (1.4) | 48 (1.3) | 37 (1.5) | 43 (1.5) | 57 (1.8) |
| Israel | n.a. | 80 (0.9) | n.a. | 72 (1.0) | 46 (1.2) | 46 (1.2) | n.a. | 46 (1.0) | n.a. | 64 (1.0) | n.a. | 45 (1.3) | n.a. | 49 (1.3) |
| Latvia | 87 (1.0) | 89 (1.3) | 81 (1.1) | 82 (1.6) | 63 (1.7) | 63 (1.7) | 72 (1.3) | 71 (1.6) | 61 (1.5) | 69 (2.3) | 52 (1.6) | 45 (1.7) | 48 (1.6) | 51 (2.8) |
| Norway | 92 (0.6) | 92 (0.9) | 79 (1.1) | 81 (1.4) | 67 (1.3) | 67 (1.3) | 76 (1.0) | 71 (1.5) | 61 (1.3) | 61 (1.5) | 55 (1.0) | 38 (1.5) | 48 (1.3) | 76 (1.4) |
| Poland | 89 (1.1) | 90 (0.5) | 79 (1.5) | 77 (0.9) | 63 (1.4) | 63 (1.4) | 74 (1.7) | 58 (1.0) | 74 (2.1) | 63 (1.1) | 81 (1.1) | 64 (1.3) | 70 (1.4) | 58 (1.3) |
| Portugal | 96 (0.5) | 96 (0.6) | 95 (0.5) | 93 (0.6) | 80 (1.1) | 80 (1.1) | 76 (0.9) | 69 (1.4) | 82 (0.9) | 75 (1.2) | 84 (0.8) | 64 (1.4) | 48 (1.1) | 41 (1.5) |
| Russian Federation | 88 (0.8) | 90 (1.2) | 87 (0.8) | 90 (1.0) | 76 (1.8) | 76 (1.8) | 78 (1.2) | 80 (1.5) | 45 (1.2) | 37 (2.2) | 66 (1.3) | 66 (1.5) | 64 (1.8) | 69 (1.5) |
| Slovenia | 92 (0.6) | 90 (1.3) | 80 (1.0) | 77 (1.3) | 61 (1.3) | 61 (1.3) | 57 (1.0) | 54 (1.4) | 80 (1.1) | 75 (1.3) | 64 (1.2) | 55 (1.4) | 35 (1.2) | 29 (1.6) |
| Sweden | 91 (1.1) | 91 (0.9) | 84 (1.4) | 77 (1.4) | 65 (1.8) | 65 (1.8) | 76 (1.6) | 71 (1.5) | 61 (1.2) | 53 (1.7) | 42 (2.0) | 14 (1.0) | 57 (1.8) | 63 (1.8) |
| Switzerland (German) | 91 (1.0) | 92 (1.1) | 83 (1.0) | 85 (1.6) | 64 (1.7) | 59 (3.1) | 78 (1.3) | 76 (2.5) | 77 (1.0) | 72 (2.9) | 49 (1.8) | 29 (2.3) | 43 (2.0) | 53 (3.7) |
| International Sample ¹ | 91 (0.2) | 90 (0.2) | 83 (0.3) | 82 (0.3) | 64 (0.4) | 64 (0.4) | 72 (0.3) | 66 (0.4) | 68 (0.4) | 63 (0.4) | 63 (0.4) | 47 (0.4) | 53 (0.4) | 55 (0.5) |

() Standard errors appear in parentheses. Percentages based on valid responses.

1 International mean (14-year-olds) is based on 13 countries. International mean (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Table 7.2 Upper Secondary Students Who Reported That They Had Learned about Voting in School and Who Expected to Vote

| Country | Learned about Voting (%) | Expected to Vote (%) |
|----------------------|--------------------------|----------------------|
| Chile | 67 | 79 |
| Cyprus | 59 | 93 |
| Czech Republic | 37 | 80 |
| Denmark | 64 | 97 |
| Estonia | 57 | 87 |
| Israel | 49 | 89 |
| Latvia | 51 | 79 |
| Norway | 76 | 92 |
| Poland | 58 | 92 |
| Portugal | 41 | 93 |
| Russian Federation | 69 | 93 |
| Slovenia | 29 | 85 |
| Sweden | 63 | 89 |
| Switzerland (German) | 53 | 42 |

Also, and again similar to the findings from the upper secondary students, only slightly more than half of the younger students (53 percent) indicated that in school they had learned about the importance of voting.

However, there were also differences between the two age groups. One of the most notable was the finding that while 63 percent of the 14-year-olds 'agreed' or 'strongly agreed' that in school they had learned to be a patriotic and loyal citizen, only 47 percent of the upper secondary students agreed with this statement. This finding seems consistent with the older students generally reporting lower levels of trust in government-related institutions and less positive attitudes toward their nation than the 14-year-olds (see Chapter 5).

Analysis by gender

There was substantial agreement between males and females on the extent to which they had learned in school about the importance of voting. However, in over half of the countries, significantly higher percentages of females than males indicated that in school they had learned to understand people who have different ideas. In fact, wherever differences were found, they were found in the direction of higher percentages of females than males agreeing with the statement (Table 7.3). Interestingly, females were also more likely than males to express positive attitudes toward immigrants. (See chapter 5.)

3. Open Classroom Climate for Discussion

An important finding from the 1971 IEA Civic Education Study was that students' beliefs that they were encouraged to speak openly in class was a potent predictor of their knowledge of and support for democratic values (Torney, Oppenheim, & Farnen, 1975). This relationship was also clear in the findings from the 14-year-olds tested in 1999. Here, students' perceptions of an open classroom climate for discussion was a predictor of both civic knowledge and civic engagement in most of the 28 participating countries.

The scale that was developed and used for both the 14-year-old and the upper secondary students included 12 items (many of which were adapted from the 1971 study). It included items related to classroom climate for open discussion

Table 7.3 Gender Differences in What Students Believe They Had Learned in School

| Country | Percentage of Students Who 'Agreed' or 'Strongly Agreed' with the Statement ... ¹ | | | | | | | | | | | | | |
|---|--|----------|---|----------|---|----------|--|----------|--|----------|--|----------|---|----------|
| | In school I have learned to understand people who have different ideas | | In school I have learned to cooperate in groups with other students | | In school I have learned to contribute to solving problems in the community | | In school I have learned to be a patriotic and loyal citizen of my country | | In school I have learned how to act to protect the environment | | In school I have learned to be concerned about what happens in other countries | | In school I have learned about the importance of voting in national and local elections | |
| | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males |
| Chile | ▲ 95 (0.5) | 92 (0.5) | 96 (0.5) | 94 (0.6) | ▲ 76 (1.3) | 71 (1.0) | 73 (1.6) | 72 (1.4) | 71 (1.4) | 69 (1.3) | 63 (1.4) | 60 (1.2) | 70 (1.8) | 63 (1.7) |
| Cyprus | ▲ 90 (1.1) | 83 (1.8) | 92 (1.1) | 86 (1.7) | 73 (2.1) | 74 (2.0) | 79 (2.1) | 73 (2.6) | 71 (2.7) | 68 (2.3) | 59 (2.4) | 63 (1.8) | 56 (3.0) | 61 (1.9) |
| Czech Republic | 68 (1.5) | 64 (1.6) | ▲ 90 (0.9) | 85 (1.2) | 56 (1.9) | 54 (1.3) | 34 (1.8) | 36 (1.6) | 59 (1.9) | 54 (1.7) | ▲ 57 (1.8) | 44 (1.5) | 36 (1.8) | 38 (1.7) |
| Denmark | 82 (1.2) | 78 (1.4) | 93 (0.9) | 90 (1.3) | 63 (1.4) | 68 (1.6) | 21 (1.1) | 22 (1.1) | 54 (1.3) | 58 (1.6) | 88 (1.0) | 84 (1.2) | 64 (1.8) | 64 (1.9) |
| Estonia | 86 (0.9) | 81 (1.6) | 94 (0.7) | 91 (1.1) | 35 (1.7) | 43 (2.6) | 36 (1.8) | 39 (1.8) | 68 (1.8) | 63 (2.1) | 75 (1.2) | 72 (1.7) | 58 (2.1) | 57 (2.1) |
| Israel | 72 (1.2) | 71 (1.2) | ▲ 82 (1.1) | 77 (1.2) | 66 (1.4) | 63 (1.4) | 43 (1.7) | 47 (1.8) | 46 (1.5) | 47 (1.5) | 46 (1.5) | 46 (1.4) | 47 (1.7) | 50 (1.4) |
| Latvia | 84 (1.8) | 79 (3.3) | 91 (1.7) | 86 (2.2) | 72 (2.2) | 66 (3.4) | 42 (2.6) | 48 (2.2) | 64 (2.2) | 62 (2.3) | 73 (1.6) | 69 (2.6) | 51 (2.6) | 51 (3.7) |
| Norway | ▲ 86 (1.3) | 75 (2.2) | ▲ 95 (0.6) | 88 (1.5) | 63 (2.1) | 60 (2.0) | 37 (1.7) | 39 (2.1) | 68 (1.6) | 66 (1.8) | ▲ 76 (1.6) | 65 (2.0) | 78 (1.6) | 73 (2.1) |
| Poland | ▲ 82 (1.1) | 72 (1.3) | ▲ 92 (0.7) | 88 (0.8) | 65 (1.3) | 60 (1.5) | 65 (1.8) | 63 (1.7) | ▲ 67 (1.9) | 59 (1.6) | ▲ 61 (1.3) | 55 (1.6) | 59 (1.7) | 58 (1.7) |
| Portugal | ▲ 95 (0.6) | 91 (1.0) | ▲ 98 (0.5) | 93 (1.1) | ▲ 78 (1.5) | 71 (1.8) | ▲ 68 (1.7) | 59 (1.7) | ▲ 83 (1.4) | 75 (1.5) | 72 (2.0) | 65 (1.7) | 41 (1.9) | 41 (2.0) |
| Russian Federation | 90 (1.4) | 89 (1.4) | 91 (1.0) | 89 (1.9) | 37 (2.7) | 38 (2.7) | 66 (2.1) | 65 (2.8) | 79 (1.5) | 70 (2.7) | 81 (1.7) | 78 (2.4) | 71 (1.7) | 67 (2.0) |
| Slovenia | ▲ 81 (1.5) | 73 (1.3) | 91 (1.8) | 88 (1.1) | ▲ 79 (1.6) | 70 (1.7) | 55 (1.9) | 56 (1.6) | 63 (1.6) | 59 (1.7) | 57 (1.8) | 50 (1.7) | 29 (2.1) | 29 (1.7) |
| Sweden | ▲ 80 (1.2) | 72 (2.5) | 92 (1.0) | 90 (1.2) | 52 (1.9) | 54 (2.6) | ▲ 10 (1.3) | 17 (1.5) | 63 (2.2) | 67 (1.9) | ▲ 76 (1.8) | 66 (2.4) | 63 (2.2) | 63 (2.4) |
| Switzerland (German) | ▲ 83 (1.2) | 71 (2.5) | 93 (1.6) | 89 (1.2) | 69 (3.8) | 77 (4.2) | 26 (2.8) | 33 (3.5) | 57 (4.1) | 62 (3.5) | 78 (2.3) | 73 (4.3) | 51 (5.5) | 57 (3.0) |
| International Sample¹ | 84 (0.3) | 78 (0.5) | 92 (0.3) | 88 (0.4) | 63 (0.5) | 62 (0.6) | 47 (0.5) | 48 (0.5) | 65 (0.6) | 63 (0.5) | 69 (0.5) | 64 (0.6) | 55 (0.7) | 55 (0.6) |

() Standard errors appear in parentheses. Percentages based on valid responses.

▲ Gender difference statistically significant at .05 level.

1 International mean is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

as well as the emphasis that teachers place on factual learning, and also items related to the students' perceptions of rigorous instruction from their teachers. A confirmatory factor analysis revealed a six-item classroom climate factor about openness of the classroom for discussion and a smaller factor related to the emphasis placed on factual knowledge. The factual knowledge items did not scale to IEA standards, and thus are not presented in this report.

The six items on the Open Classroom Climate for Discussion Scale were: (1) students feel free to disagree openly with teachers about political/social issues in class; (2) students are encouraged to make up their own minds about issues; (3) teachers respect our opinions and encourage us to express them in class; (4) students feel free to express opinions in class even when their opinions are different from those of most other students; (5) teachers encourage us to discuss political or social issues about which people have different opinions; and (6) teachers present several sides of an issue when explaining it in class. The response scale was 'never', 'rarely', 'sometimes', and 'often'.

Results from the upper secondary students

In general, the upper secondary students seemed to feel free to discuss issues and express their opinions in their classrooms. However, there was substantial variation in terms of the individual items in the scale. For example, across all countries, slightly less than half of the students responded that they were often encouraged to make up their own minds about issues and that they felt free to express opinions even when their opinions differed from those of their classmates. However, a much smaller percentage (about 20) of the students indicated that they were often encouraged by their teachers to discuss political or social issues about which people have different opinions. In fact, close to 10 percent of the students across countries said they were never encouraged to discuss these kinds of issues in their classrooms. The international item frequencies can be found in Appendix Figure B.2k.

As reported in Figure 7.3, there was also variation across countries. Students in Denmark, Estonia, Norway, the Russian Federation, Sweden, and Switzerland (German) were especially likely to report an open classroom climate for discussion. In contrast, students in Chile, Cyprus, the Czech Republic, Israel, Poland, Portugal, and Slovenia had scores below the international mean on this scale.

Analysis of 14-year-olds' and upper secondary students' results

In most of the countries where comparisons could be made, the upper secondary students were significantly more likely than the 14-year-olds to perceive that their classroom climate was open for discussion. These countries, as is evident from Figure 7.3, were the Czech Republic, Denmark, Estonia, Latvia, Norway, Portugal, the Russian Federation, Sweden, and Switzerland (German). In only one country—Poland—were the 14-year-olds more likely than the upper secondary students to report an open classroom climate. The reason for the greater openness in most countries may be because the objectives and topics of older students' courses are more likely to be appropriate for discussion than are the courses for younger students, which leads the former group to perceive that the classroom climate itself is more open for discussion.

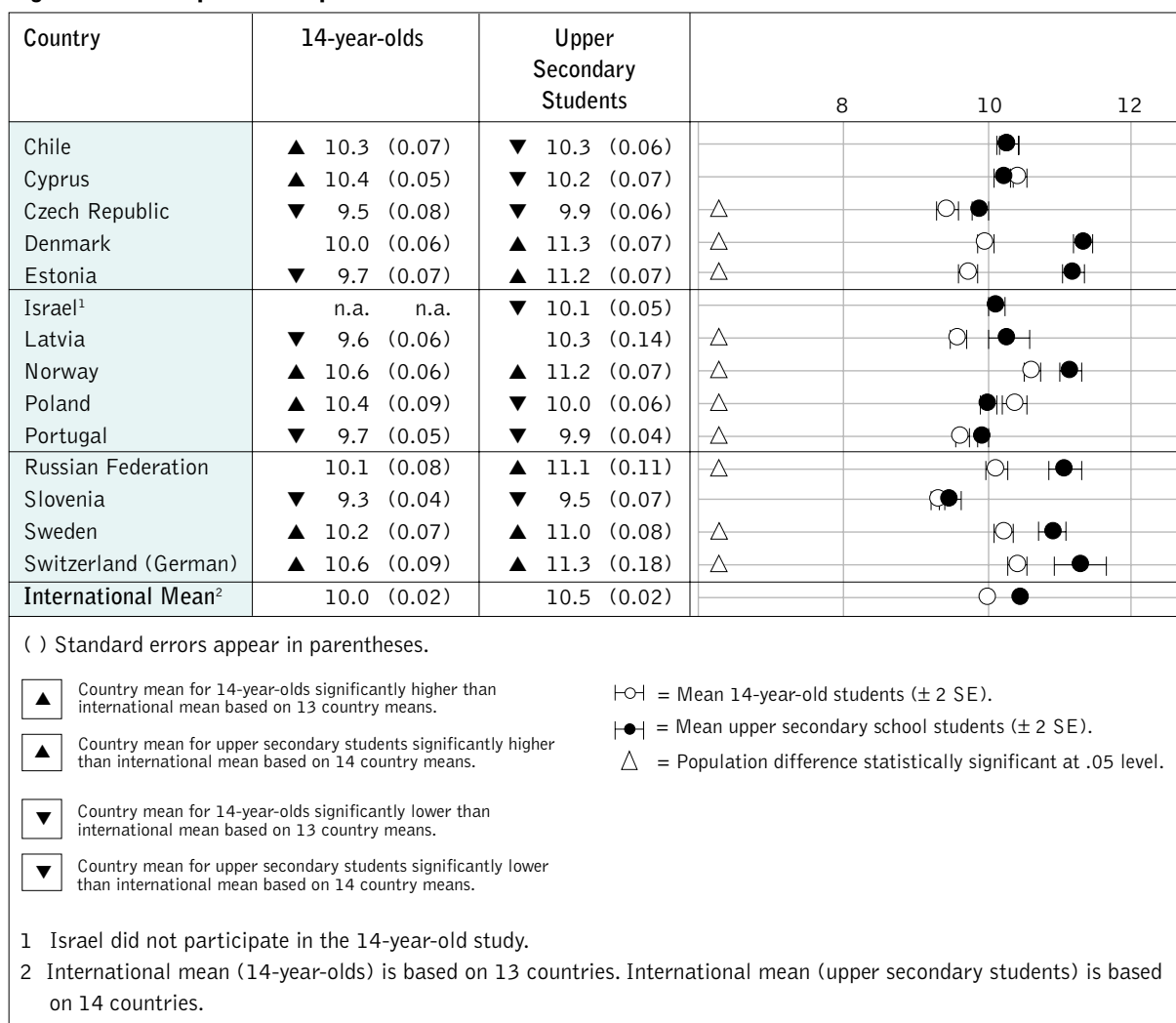
Analysis by gender

In every country but three, the upper secondary female students were significantly more likely than the male students to report an open climate for classroom discussion (see Figure 7.4). The only countries where this finding did not hold true were Cyprus, Denmark, and Switzerland (German). This finding is similar to the age 14 results in this area: in 23 of the 28 participating countries, 14-year-old females were more likely than the males to see the classroom climate as open. An interesting follow-up to this finding would be to investigate the extent to which females are more likely than males to actually engage in classroom discussions, particularly on issues where their teachers or classmates are likely to hold differing views.

4. Participation in Civic-Related Organizations

During the first phase of the IEA Study, the national researchers expressed the belief that organizations—both in and out of school—provide students with valuable opportunities to learn about democratic processes. A number of studies in the United States that have used longitudinal data to trace the links between civic and/or school activities during adolescence and community

Figure 7.3 Perceptions of Open Classroom Climate for Discussion



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 7.4 Gender Differences in Perceptions of Open Classroom Climate for Discussion



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

involvement during adulthood support this view (see Torney-Purta, Lehmann et al., 2001, p. 141, for a review of the literature). Thus, learning about students' participation in clubs, youth organizations, and other activities is important to a holistic view of young people's civic knowledge and engagement. Simply put, in addition to asking what civic activities students plan to engage in in the future, the Phase 2 researchers wanted to know what activities presently were engaging students. To that end, a list of voluntary organizations inside and outside of school to which students might belong was developed. Care was taken to ensure that the list was applicable across the range of countries in the study, and some language adaptations were made (e.g., 'school parliament' for 'school council'). To get a picture of peer group activity outside of formal organizations, students additionally were asked about how much time they spent informally with their friends, both after school and in the evening.

Results from the upper secondary students

The international percentages from the participating countries revealed somewhat low rates of student participation in selected civic-related organizations and activities. As can be seen in Table 7.4, between 5 to 33 percent of the students reported participation in a student council/parliament, a youth organization affiliated with a political party, an environmental organization, a human rights organization, a community group, or a charity that collects money for a social cause. Of these activities, the highest percentages of students (slightly over 30 percent) indicated that they were involved with a student council/parliament and collecting money for a social cause, whereas the lowest percentage of students (5 percent) indicated that they belonged to a human rights organization. Collecting money for a social cause was an activity that was especially prevalent in two countries—Denmark (71%) and Norway (80%).

Despite the relatively low aggregate participation percentages, it is interesting to look at the participation rates in individual countries. The percentages likely reflect national differences in opportunities available to young people, historic priorities, and national norms and customs. For example, while 67 percent of the students in Cyprus reported participating in a student council/parliament, only 9 percent of the students in Poland did so. And while, across countries, involvement in youth organizations affiliated with a political party or union was quite low (10 percent), in Cyprus, 34 percent of the students indicated their participation in such organizations. These variations can be found in all categories. For example, in most countries, fewer than 20 percent of the students reported participation in an environmental organization. This did not hold true in Portugal, however, where 25 percent of the students participated in environmental organizations. One of the most striking differences can be seen in the students' reports of their involvement with groups conducting voluntary activities in the community. While close to half of the students in Chile and Israel said that they participated in community volunteer activities, less than 10 percent said this in Estonia, Poland, the Russian Federation, and Sweden. Finally, as noted above, collecting money for a charity was quite high in Denmark and Norway, but quite low in Estonia, Latvia, Poland, and the Russian Federation. In general, participation in all organizations was low in these four countries, particularly in Poland, where less than 10 percent of the students indicated participation in any of the organizations reported here. This could be, however, a reflection of the particular organizations reported on in this volume.

Analysis of 14-year-olds' and upper secondary students' results

Within countries, the responses from the 14-year-old students were generally similar to those of the older students (see Torney-Purta, Lehmann et al., 2001). For example, as was the case with the older students, the 14-year-olds in Cyprus reported the highest percentage of membership in youth organizations affiliated with political parties. Similarly, collecting money for charities was high among both younger and older students in Denmark and Norway and low among both groups of students in Estonia, Poland, and the Russian Federation.

SUMMARY

The upper secondary students generally expressed high levels of confidence in the effectiveness of participating in school and indicated that they felt free to discuss issues and offer opinions in their classrooms. This is an important finding given that previous research (including findings from the 14-year-olds tested in 1999) suggests a link between open classroom climate and civic knowledge and engagement.

There are, however, national differences in these areas as well as substantial gender differences. In many of the participating countries, female students expressed higher levels of confidence in school participation than did the males, and also perceived more often than males that their classrooms were open for discussion. Furthermore, female students were more likely than male students to report that in school they had learned to understand people who

Table 7.4 Students' Reports on Their Participation in Civic-Related Organizations

| Country | Percentage of Students Who Reported Having Participated in... | | | | | |
|---|---|---|--|-----------------------------|---|---|
| | a student council/student government/class or school parliament | a youth organization affiliated with a political party or union | a political environmental organization | a human rights organization | a group conducting voluntary activities to help the community | a charity collecting money for a social cause |
| Chile | 14 (0.6) | 7 (0.5) | 18 (0.9) | 3 (0.3) | 45 (1.1) | 24 (0.8) |
| Cyprus | 67 (1.6) | 34 (1.4) | 21 (1.6) | 12 (1.0) | 26 (1.7) | 43 (2.3) |
| Czech Republic | 19 (1.1) | 4 (0.8) | 12 (0.8) | 1 (0.3) | 25 (1.2) | 16 (1.0) |
| Denmark | 50 (1.1) | 9 (0.7) | 9 (0.7) | 7 (0.6) | 39 (1.0) | 71 (1.1) |
| Estonia | 29 (1.2) | 6 (0.9) | 7 (0.8) | 2 (0.4) | 9 (0.9) | 6 (0.7) |
| Israel | 48 (1.0) | 23 (1.0) | 15 (0.7) | 9 (0.6) | 46 (1.1) | 51 (1.0) |
| Latvia | 20 (1.3) | 2 (0.3) | 5 (0.6) | 5 (0.8) | 10 (1.0) | 5 (0.6) |
| Norway | 53 (1.2) | 14 (1.2) | 15 (1.2) | 6 (0.6) | 21 (1.1) | 80 (1.3) |
| Poland | 9 (0.6) | 1 (0.2) | 7 (0.9) | 1 (0.2) | 6 (0.5) | 9 (0.8) |
| Portugal | 36 (1.2) | 6 (0.6) | 25 (1.2) | 7 (0.8) | 22 (1.0) | 37 (1.4) |
| Russian Federation | 47 (2.1) | 2 (0.5) | 10 (1.8) | 4 (0.5) | 9 (1.8) | 7 (1.0) |
| Slovenia | 11 (1.0) | 3 (0.4) | 10 (0.6) | 5 (0.7) | 20 (1.1) | 30 (1.0) |
| Sweden | 45 (1.2) | 15 (1.3) | 14 (1.2) | 10 (0.9) | 8 (0.8) | 21 (1.0) |
| Switzerland (German) | 16 (4.6) | 9 (0.8) | 8 (1.4) | 3 (0.6) | 26 (3.1) | 35 (4.7) |
| International Sample¹ | 33 (0.5) | 10 (0.2) | 13 (0.3) | 5 (0.2) | 22 (0.4) | 31 (0.4) |

() Standard errors appear in parentheses. Percentages based on valid responses.

1 International mean is based on 13 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

have different ideas. (This latter finding seems consistent with the finding reported in Chapter 5 that females were more likely than males to support the rights of immigrants.) This gender difference may be a reflection of differences in the ways in which males and females respond to surveys or it may be that females feel more engaged and comfortable in the school environment than do males. The gender difference on the items relating to the school environment was found at both the lower and upper secondary levels and warrants further investigation.

In terms of participation in both in-school and out-of-school activities, national norms and traditions appear to play a large role. For example, the long tradition of joining organizations in the Nordic countries was reflected in the responses of the students from Denmark, Norway, and Sweden. Similarly, the high participation rate of the Israeli students in all organizations reported in this volume likely reflects cultural or national norms and practices. While the participation in these school and community activities may vary in meaning and opportunity from country to country, it enhances our understanding of adolescents to know not only what they plan to do as adults, but also what activities they currently engage in. Note, however, that only those activities and organizations that loosely fit the definition of being civic-related are reported in this and the 14-year-old volumes. Students also were asked about their participation in other activities, such as sports and scouting, and these data will be available for secondary analysis.

In summary, students are members of both a school community and a broader social network. Their opportunities for and willingness to engage in political discussions and civic activities may predict their activities as adults. The similarities between the responses of the 14-year-olds and the upper secondary students are particularly interesting, and it may be that engaging students early on is beneficial to both their future and current levels of civic knowledge, skills, and engagement.



**A Model for
Explaining
Students' Civic
Knowledge and
Engagement**

HIGHLIGHTS RELATING TO THE CORRELATES OF CIVIC KNOWLEDGE AND ENGAGEMENT

- At upper secondary school level, the learning environments of homes play the most important role in students' acquisition of civic knowledge and skills. Upper secondary students from more educated and not very large families who reported higher exposure to books at home had considerably higher knowledge scores.
- More knowledgeable upper secondary students who knew about the functioning and the values of democracy, who showed interest in politics, and who reported having learned about the importance of voting at school were more willing to participate in future elections.
- Democratic practices and civic activities at school play an important role in the civic education process. Encouragement of open classroom climate for discussion accounted for higher knowledge scores in almost half of the countries. Upper secondary students who reported participation in a school council or parliament performed considerably better than other students in the civic knowledge test.
- Among the older adolescents, gender accounted for strong and significant differences in the overall performance on the civic knowledge test. Female students scored lower than males in at least 10 countries. At the same time, girls expressed greater willingness than boys to vote in about one quarter of the countries.
- Reading of news in the newspaper was more important than watching news on television for a better performance on the civic knowledge test. However, in the majority of countries, watching news programs on television accounted for more positive effects on the intention to vote.

The country differences described in the previous chapters present a useful view of civic education. However, a fuller understanding of the differences in student outcomes arising out of the civic education cognitive and attitudinal testing can be achieved by examining the relative importance of school and socioeconomic background factors. The explanatory power of selected student characteristics is also useful in predicting civic achievement.

The report for the 14-year-olds (see Torney-Purta, Lehmann, Oswald, & Schulz, 2001, Chapter 8) presented a multiple regression model focusing on between-student differences across and within countries in two important dimensions of citizenship—civic knowledge and civic engagement. The major aim of the model was to analyze the main factors relating to civic educational outcomes, whereas more elaborate investigation of the complex interactions between civic knowledge, engagement, and attitudes was to be conducted in later analysis.

This chapter contains a similar analysis of civic knowledge and civic engagement for students at the upper secondary level. Its primary purpose is to present a multiple regression model designed to give estimates of the balance of home, school, and individual factors on a cross-national comparative basis, and also to indicate the specific characteristics important for explaining the acquisition of civic knowledge and students' intention to participate in

elections within the individual countries. The analysis of these two dimensions of civic education—civic knowledge and civic engagement—was based on the fully weighted population samples of 13 countries out of 16 that tested upper secondary students. The population samples of Colombia, Hong Kong (SAR), and Switzerland (German) were not included in the regression model. The availability of unweighted data was the reason for excluding Colombia and Hong Kong (SAR), whereas for Switzerland (German) it was due to a great amount of missing information in the predictor variables used in the regressions, which would have led to an immense reduction of the effective population size for this country.

The regression analysis provided in this volume includes a slightly different selection of predictor variables than did the model in Torney-Purta, Lehmann et al. (2001). We have included here four additional predictors: political interest, frequency of reading news in the newspaper, educational level of parents, and family size. From a developmental perspective, upper secondary students, who are the target population in this report, are expected to have a greater in-depth understanding of civic-related concepts and to be more mature in their civic attitudes and behaviors than are younger secondary students. It was therefore expected that the older students in the Civic Education Study would be more likely than the 14-year-old students to express an interest in politics and to read newspapers. (This is, in fact, what we found and reported in Chapter 6 of this volume.)

We were also interested in examining more explicitly the relationship between social background and student performance. An understanding of this relationship is a useful starting point for analysis of the distribution of educational opportunities. From a school policy perspective, understanding of the relationship is also important because it indicates how equitably the benefits of schooling are being shared among students from different socioeconomic backgrounds. In the volume of findings from the 14-year-olds (see Chapter 8 in Torney-Purta, Lehmann et al., 2001), the social background factor was captured by one predictor only—home literacy resources. It turned out to be the second largest predictor of civic knowledge. The more books that 14-year-olds reported having in their house, the higher their level of civic competency. In this model, we added to home literacy resources the educational level of parents as proxies for socioeconomic status and cultural resources, thereby allowing us to examine more explicitly the influence of the home. Apart from that we were interested in exploring, on a cross-national basis, the relationship between school achievement and family structure. The factor ‘family size’ was included in the model on the assumption, as based on previous research, that students from larger families tend to have lower school achievement than those from smaller family structures. To give one example, in a recent study in Germany, Lehmann and Peek (1997) found that the more children living in the family, the lower the mean school achievement of the individual child. Undoubtedly, this factor may have different interpretations in the different countries included in the model, depending on their economic, cultural, historical, or educational situation. In countries with lower economic development, it is more likely to be a proxy for socioeconomic status than it is in economically developed countries. Nonetheless, it was assumed that, in

general, individuals living in larger family structures would be more likely to have fewer academic and economic resources at their disposal than those in smaller families. Therefore, family size is treated in the model as an indicator for socioeconomic and educational resources at one's disposal in the family. In the present study, the factor 'family size' was measured by the students' reports on the number of people living in their house. Hence, it was not possible to differentiate families with more children from families with other members living in the family, such as grandparents. It was possible, however, to explore, from a more general perspective, the relationship between large family structures and student mean achievement in the civic knowledge test.

THE MODEL

A detailed description of the variables included in the multivariate regression analysis is given in Panel 8.1. As already stated, the two dependent variables or criteria whose variance was to be explained by the regression model are *civic knowledge* and *civic engagement*. The former was measured by the total score based on knowledge of civic content and skills in interpreting civic communication. The latter was measured by the students' reports on their willingness to participate in national elections. In short, the 'total test score' in this chapter (and in Chapter 3 as well) is a comprehensive variable measuring the students' overall performance on two out of the three sub-dimensions that were tested in the present study.

The two criteria, civic knowledge and civic engagement, were linked to several explanatory factors that could be grouped together in four main blocks of predictors: background factors, school factors, mass media, and students' activities out of school (or peer-group activities). In addition to these independent factors, we were interested, as was the case in the younger population study, in analyzing the impact of civic knowledge on the students' expressed willingness to vote. One of the major findings in the study of the 14-year-old students was the strong relationship between their civic competency and their expectations to vote. The more young people knew about the values and functioning of democracy, and of democratic institutions and citizenship, the more they were willing to exercise their fundamental right to vote.

The extent to which civic knowledge predicts other types of civic engagement, as well as the extent to which civic engagement predicts civic knowledge, will be examined in a later, more elaborate analysis. In this model it was not possible to investigate the influence of civic engagement on civic knowledge, for the reason that, here, civic engagement was captured by the students' reports on their willingness to participate in elections. This variable, as defined in the student questionnaire, implies an expected single, personal action. It could not be treated, however, either as an established behavior pattern, or as an already completed experience. In this sense, it cannot, theoretically, serve as a predictor of civic knowledge.

Four background factors were included in the model presented in this chapter: gender, home literacy resources, educational level of parents, and family size. The analysis of social background effects, such as ethnic group, could not be

PANEL 8.1 Description of Variables Included in the Model

The dependent variables or criteria are (i) the total test score for civic knowledge, and (ii) the expectation of students that they will vote in the future.

The independent variables or predictors included in the model were:

1. Background factors

- *Gender*: This variable was coded 0 for males and 1 for females.
- *Home literacy resources*: This variable was measured by students' reports on the number of books at home. It was coded 1 for fewer than 11 books at home, 2 for about one shelf (11 to 50 books), 3 for about one bookcase full (51 to 100 books), 4 for about two bookcases (101 to 200 books), and 5 for three or more bookcases (more than 200 books). Home literacy resources was the second most important predictor of civic knowledge in the 14-year-old study.
- *Educational level of parents*: Students were asked to report their parents' level of education. This variable was coded 1 if one or both parents had a college or university degree (i.e., of a higher educational level) and 0 for parents with other educational tracks and certificates that are generally considered of a lower educational level.
- *Family size*: This variable was measured by students' reports on the number of people at home. The upper boundary was set to 20 people at home.

2. Background factor/school factor

- *Expected years of further education*: Measured by students' reports on their estimated years of future education, this variable was the most powerful predictor of knowledge at the 14-year-old level. In the regression model, it was coded as follows: 0 for zero years; 1 for one or two years; 2 for three or four years; 3 for five or six years; 4 for seven or eight years; 5 for nine or 10 years; and 6 for more than 10 years of further education. This variable not only indicates the individual's aspirations and parental influences, but also reflects the type of school or track the student was in.

3. School factors

- *Open classroom climate for discussions*: This is the international Rasch scale score presented in Chapter 7. The scale was based on six items reflecting students' perceptions about whether their classrooms provided open climates for discussion. The freedom of expression encouraged in the classroom was a strong predictor of civic knowledge and of support for democratic values in the 1971 IEA Civic Education Study, and was a positive predictor of both civic knowledge and of likelihood of future voting in about three-quarters of the countries in the 14-year-old study.
- *Reported participation in school council or parliament*: Participation in a school organization was positively related to civic knowledge in one-third of the countries that tested 14-year-olds. This variable was coded 1 for participants and 0 for all other students.
- *Students' reports about having learned about the importance of voting*: In the 14-year-old study, this variable was, after civic knowledge, the second most important predictor of the likelihood of participation in future voting. The response options were coded as follows: 1 'strongly disagree', 2 'disagree', 3 'agree', and 4 'strongly agree'.

4. Mass media experience

- *Frequency of watching television news:* Measured by students' reports on how often they watched news broadcasts on television, this variable had a significant positive effect on civic knowledge in about half of the countries and on the likelihood of voting in nearly all countries in the 14-year-old study. The response options were coded 0 'never', 1 'rarely', 2 'sometimes', and 3 'often'.
- *Students' reports of how often they read newspaper articles about what was happening in their own country:* Although students made less frequent use of newspapers than television as a source of information, we were interested in exploring the influence of newspapers on civic knowledge and civic engagement. We considered that in a multivariate analysis, these two media sources might have effects that would not manifest themselves in the reported frequencies. This variable was coded in the same manner as frequency of watching television news.

5. Students' activities out of school

- *Evenings spent outside home:* This variable, which covered time spent with peers outside the home, had a negative effect on civic-related knowledge in the study with the younger population (see Chapter 8 in Torney-Purta, Lehmann et al., 2001). The response options were 0 'never', 1 'few times each month', 2 'several days', 3 'almost every day'.
- *Students' reports about having political interest:* The inclusion of this variable was based on the assumption from previous research that political interest, especially among upper secondary students, would be one of the important predictors of civic knowledge and civic engagement. We assumed that students who did not know whether they were interested in politics were more likely to have no such interest. Therefore, the response options were coded 1 for 'strongly disagree' and 'don't know', 2 for 'disagree', 3 for 'agree', and 4 for 'strongly agree'.

used at a cross-national level because of the different response categories for these variables between countries.

The group of school factors contains four predictors: the students' reports of the extent to which there is an open climate for discussions in their classrooms; the students' reports of opportunities to learn about voting in school (in predicting likelihood of voting only); their reported participation in school councils or parliaments; and their reported expected further education. It may be worth mentioning here that, in some of the participating countries, the predictor 'expected years of further education' may also be considered as a proxy for home background because it reflects the joint impact of school and home environment.

The influence of mass media on civic knowledge and civic engagement was examined by two independent factors: frequency of watching television news and frequency of reading news in the newspaper. Only the television variable had been included for the 14-year-olds.

The fourth block of factors contains two predictors addressing the influence of peer group and out-of-school experience. The two variables included were the reported time spent outside the home with peers in the evening, and the students' reports of having political interest. Only the former had been included for the 14-year-olds.

The statistical investigations done in this chapter include two separate regression analyses for each dependent variable. First, we estimated a simple path regression model for civic knowledge and a model for likelihood to vote based on the fully weighted population samples of all countries except Colombia, Hong Kong (SAR), and Switzerland (German). Second, we estimated separate regression models within each of the 13 countries. We used the program WesVar 4, using a jack-knife procedure for complex samplings, to compute the correct standard errors of the models within the individual countries, and then used the Dunn-Bonferroni correction for multiple comparisons to correct the resulting test statistics.

INTERPRETING THE MODEL¹

Figures 8.1 and 8.2 show the results for the overall regression models for civic knowledge and likelihood of voting for the upper secondary students. The models presented here are full saturated regression models for civic knowledge and civic engagement. The path diagrams contain only significant beta coefficients (the path coefficients) and the total percentage of variance (R^2) explained. For civic knowledge, this model explained about 21 percent of the variance, and for likelihood of voting, about 20 percent. The variables included in the multiple regression analysis were checked for multicollinearity. There was no correlation higher than $r = .35$ between two predictors, which was the correlation coefficient between home literacy resources and educational level of parents. The collinearity statistics of the model showed that this amount of correlation could still be tolerated. In other words, the variable 'home literacy resources' correlated highly with the educational level of parents because both variables are indicators of the same latent factor, 'cultural/home background'. But, nevertheless, because they measure different dimensions of the latent factor, both were included in the model.

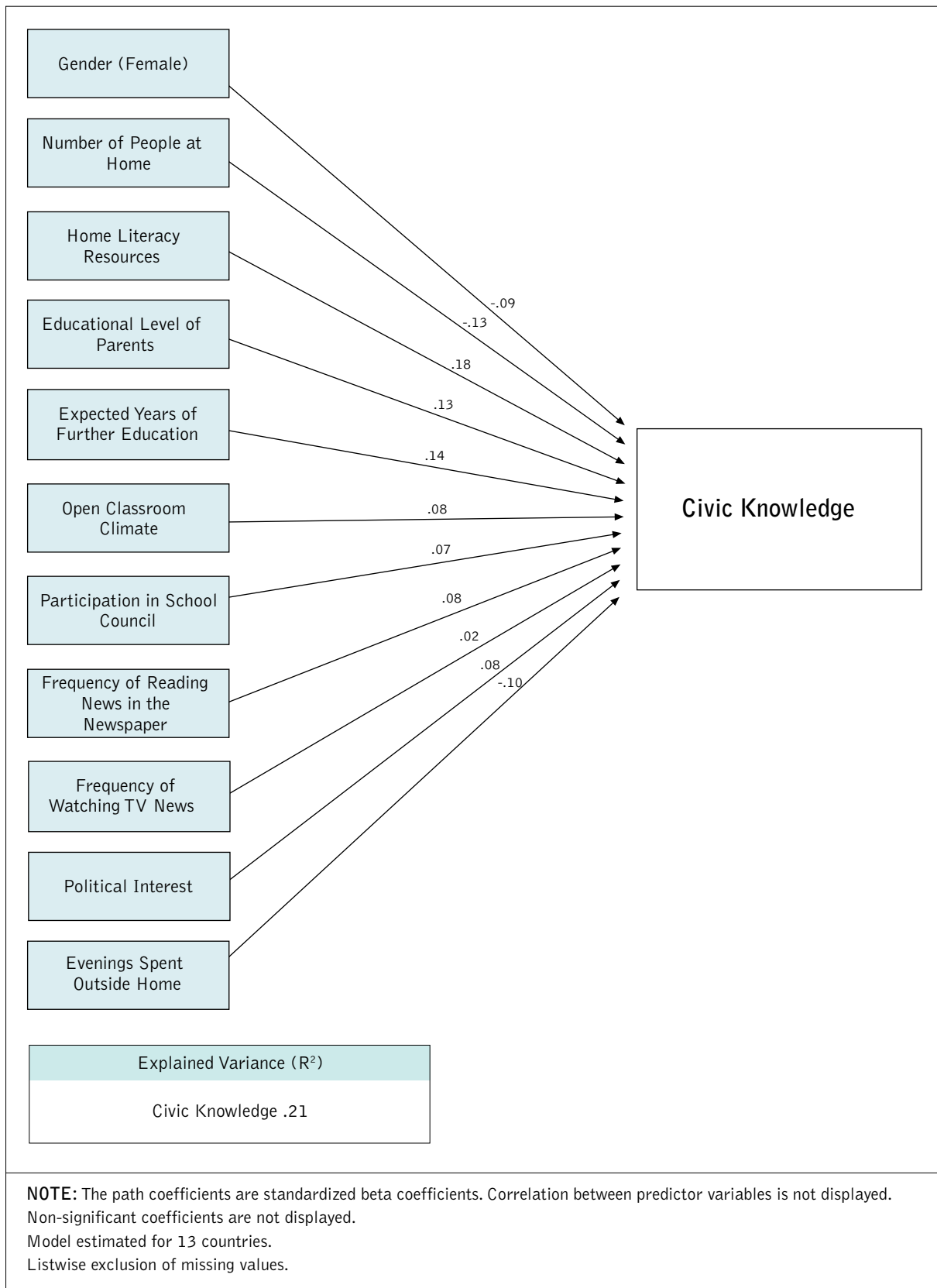
PREDICTION OF CIVIC KNOWLEDGE

Predictors of Civic Knowledge in the Sample Containing 13 Countries

The most important predictor of civic knowledge in the presented path model for upper secondary students (estimation is based on the standardized beta coefficients) turned out to be home literacy resources, as indicated by the associated path coefficient of .18 in the overall model for civic knowledge (Figure 8.1). (The strong positive relationship between number of books at home—considered as a proxy for the emphasis placed on education as well as for the academic support in the family—and the students' civic outcomes in

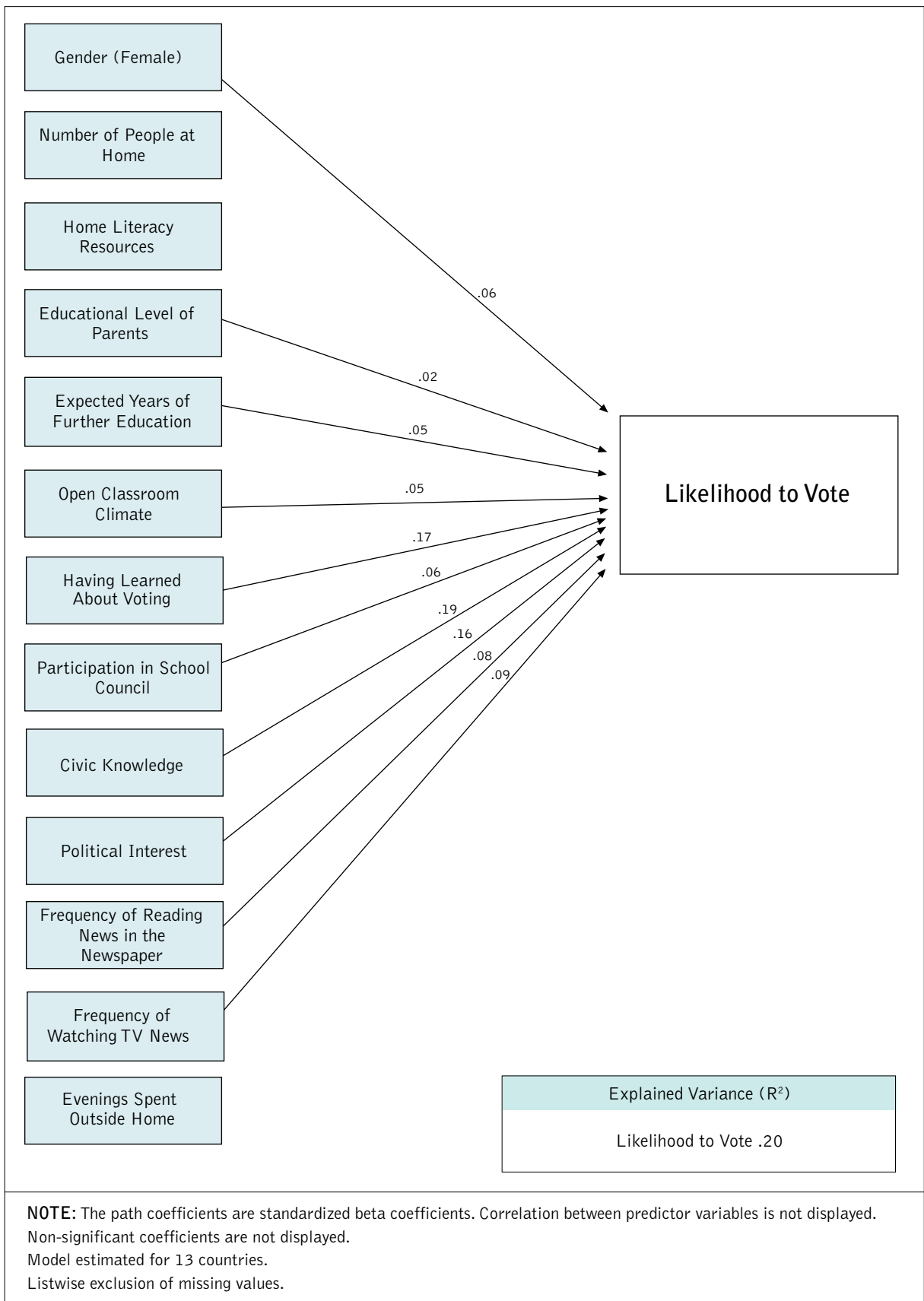
¹ When interpreting the results from this multivariate data analysis, it is important to keep in mind the same caveats as those in the report for the 14-year-olds (Torney-Purta, Lehmann et al., 2001, p. 149).

Figure 8.1 Path Model for Civic Knowledge



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure 8.2 Path Model for Likelihood to Vote



Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

the cognitive test was discussed in the bivariate analysis in Chapter 3.) The multivariate regression analysis not only confirmed the findings of the bivariate comparison but also showed that home cultural resources play an even more important role in students' acquisition of civic competency at upper secondary level than do the aspects of the school included in this analysis. The findings from the 14-year-old study that students from homes with low educational support have lower knowledge scores and that higher exposure to books at home accounts for higher scores in the civic knowledge test have, in this sense, not only been replicated with the upper secondary students, but also, or so it appears, are at least as significant.

The second largest predictor of civic knowledge in the model was the number of years of further education that the students expected to undertake (.14). The amount of education expected by the students would have reflected, in varying degrees, their educational tracks, self-concept, and external constraints. In some countries this factor may be seen as a strong indicator of home background as well. Certainly, it was the strongest predictor of civic-related knowledge in the 14-year-old study. However, on taking into account the selective nature of the upper secondary sample discussed in Chapters 2 and 3 of this report, we could relate the decreased explanatory power of expected years of further education to the possible homogenizing effects of specific factors in some countries.

Educational level of parents as well as family size—the other two predictors reflecting home background effects in the model—showed the third strongest effect (.13) on the students' knowledge outcome. There was a significant difference between the scores of students from more and less educated families. Moreover, as assumed, the more people there were at home, the lower the achievement in the civic knowledge test. This finding corresponds to the results of the 1971 IEA Civic Education Study where size of family was consistently negatively related to civic knowledge. Although this negative relationship between larger family structure and civic competency is likely to mean different things in different countries, a possible explanation for it could be that larger family structures are more likely to possess fewer academic and economic resources than smaller families. The conclusion that we can draw from the fact that all factors measuring socioeconomic background and home environment explained the highest amount of variance among the achievement scores for the upper secondary students is this: the learning environments of homes have a strong influence on student civic competency at upper secondary school level.

In contrast to the study of the 14-year-olds, where gender differences played only a minor role in the regression, the study of the upper secondary students revealed gender to be an important predictor, accounting for a considerable amount of the variance (.09). The resulting statistics showed female students scoring significantly lower than males in terms of overall performance in the civic knowledge test.

The school factors—students' perception of an open classroom climate for discussion (.08) and students' reported participation in a school council or

parliament (.07)—were two other factors accounting for large effects on students' civic knowledge outcomes in the model. Although these effects were not as strong as the impact of home background factors, they still had, to a considerable extent, a significant and important influence on students' acquisition of civic-related competency. Thus, individuals perceiving their classroom environment to be open for discussion or for expressing their opinions freely tended to achieve higher levels of civic knowledge scores than did those perceiving no such environment in the classroom. This finding replicates the results in the 14-year-old study and underlines the important role that schools play in fostering civic knowledge. Another strong positive predictor of civic cognitive achievement at the upper secondary school level, which was explicitly defined as a school factor, was participation in a school organization. Here, and unlike the findings for the 14-year-olds, the upper secondary students who reported participation in a school council or parliament, that is, engaged in civic activities at their school, achieved considerably higher civic knowledge scores than did those students who reported no such participation.

In regard to the impact of exposure to mass media, the frequency of reading news in the newspaper was found to have a considerable positive relationship to performance on the civic knowledge test (.08). In comparison, the effect of exposure to television news on performance was found to be almost insignificant. Spending evenings outside home with peers had a significant negative effect on the students' civic achievement. This finding replicates the results for the 14-year-olds.

As assumed, in the overall model for civic knowledge, we found a strong positive relationship between expressed political interest and civic knowledge. Those students who reported that they were interested in politics achieved accordingly higher test scores than the other students. We can assume as well that students with higher levels of civic knowledge would be more likely to be politically interested and engaged than those scoring lower. In any respect, this finding reinforces the importance of high-quality civic education programs at school that motivate and stimulate students' interest in civic-related issues.

Predictors of Civic Knowledge within Individual Countries

Table 8.1 reports separately by country the results for each of the variables entered into the regression for civic knowledge. Only the significant beta coefficients are included in the table. The total percentage of variance explained differed greatly among the countries, ranging from 10 percent in Estonia to 27 percent in Chile and Norway; the median was 23 percent.

Table 8.1 shows that home literacy resources was consistently related to civic achievement in all but two of the countries (Cyprus and the Russian Federation) that were included in the model. The effect of cultural resources was strongest in Chile (.15), Norway (.17), and Sweden (.20), where the scores of those students who reported having the highest number of books at home were around two to four points higher than the scores of those students reporting lower numbers.

In general, no one significant predictor came through consistently in all 13 countries included in the regression analysis of upper secondary students' civic knowledge. The educational level of parents was found to be significant in all but one country (Norway). Its effect was strongest in Chile, Israel, and the Russian Federation. Students from more educated families in these countries performed six to seven score points higher than did the other students. Students from larger families performed less well in about half of the countries. In Israel, family size was the second largest predictor of civic knowledge, after years of further education.

Expected years of further education was significant in predicting differences in students' civic knowledge in all countries except Estonia, the Russian Federation, and Sweden. In eight out of 13 countries, however, it appeared as the most important predictor of civic knowledge. In the Czech Republic, it was associated with a beta coefficient of .38, in Cyprus with .30, in Chile with .27, and in Norway with .26. This variable reflects the influence of home background as well as the role of school or a student's educational track. Hence, its strong effect in almost two-thirds of the countries demonstrates that both the students' school environment or school program and the academic support at their homes are important for scoring higher levels of civic knowledge.

Gender (female) was consistently negatively related to civic knowledge, with males scoring better than females in all countries except Cyprus, Latvia, and Slovenia. Considerable differences between males and females were evident in Denmark, where it was the strongest predictor (.20), in Norway (.18), and in Portugal (.17). Somewhat less but still strong was the difference in civic competency between males and females in the Czech Republic (.12), the Russian Federation (.11), and Chile and Sweden (.10).

Encouragement of open classroom climate for discussions accounted for higher knowledge scores in seven out of the 13 countries, most notably in Latvia (.20), the Russian Federation (.18), and Sweden (.17). In Latvia, perception of open classroom climate proved to be the second strongest predictor in the model. Those students who reported participation in a school council or parliament performed better in Cyprus and Sweden.

Spending evenings outside home with peers had consistently negative effects on knowledge in all nine countries where it was a significant predictor. The negative relationship was especially notable in Cyprus, Estonia, Latvia, and Poland. In these four countries, it was the factor that had the strongest negative effect. Reported interest in politics accounted for significant positive effects on students' civic competency in all countries, except Poland and Slovenia. Students who reported being politically interested showed higher levels of civic competency, most notably in Denmark, Norway, and Sweden.

Frequency of watching television news had a significant positive relationship to civic knowledge only in Slovenia. In spite of this, in this country it came through as the most important positive predictor of civic achievement.

Frequency of reading news in the newspaper accounted for more knowledgeable students in about three of the 13 countries, especially in Israel.

Table 8.1 Regression Models for Civic Knowledge of Upper Secondary Students Within Individual Countries

| Predictor Variables | Chile | Cyprus | Czech Republic | Denmark | Estonia | Israel | Latvia | Norway | Poland | Portugal | Russian Federation | Slovenia | Sweden |
|--|-------|--------|----------------|---------|---------|--------|--------|--------|--------|----------|--------------------|----------|--------|
| Gender (Female) | -.10 | - | -.12 | -.20 | -.08 | -.06 | - | -.18 | -.09 | -.17 | -.11 | - | -.10 |
| Number of People | -.07 | - | - | - | - | -.20 | -.08 | - | -.09 | -.06 | - | - | -.15 |
| Home Literacy Resources | .15 | - | .13 | .13 | .11 | .10 | .09 | .17 | .15 | .10 | - | .14 | .20 |
| Educational Level of Parents | .15 | .12 | .07 | .10 | .12 | .16 | .10 | - | .10 | .10 | .14 | .10 | .13 |
| Expected Years of Education | .27 | .30 | .38 | .17 | - | .21 | .23 | .26 | .24 | .24 | - | .12 | - |
| Open Classroom Climate | - | - | - | - | .07 | .07 | .20 | - | - | .07 | .18 | .12 | .17 |
| Student Council/Parliament | - | .15 | - | - | - | - | - | - | - | - | - | - | .06 |
| Reading News in the Newspaper | .07 | - | - | - | - | .13 | - | - | .08 | - | - | - | - |
| Watching TV News | - | - | - | - | - | - | - | - | - | - | - | .17 | - |
| Political Interest | .08 | .09 | .10 | .19 | .10 | .05 | .14 | .18 | - | .14 | .11 | - | .17 |
| Spending Evenings Outside | - | -.11 | - | -.06 | -.18 | -.06 | -.12 | - | -.13 | -.09 | -.10 | - | -.07 |
| R ² | .27 | .24 | .26 | .20 | .10 | .23 | .25 | .27 | .21 | .20 | .16 | .14 | .25 |
| Weighted N | 5522 | 1579 | 3200 | 2429 | 2918 | 4769 | 2332 | 1374 | 3741 | 2594 | 1467 | 3538 | 2217 |
| NOTES: | | | | | | | | | | | | | |
| Standardized (beta) regression coefficients. Not significant coefficients were omitted (-). | | | | | | | | | | | | | |
| The standard errors were estimated using a jack-knife procedure for complex sampling; significance tests corrected for multiple comparisons. | | | | | | | | | | | | | |
| Listwise exclusion of missing values. | | | | | | | | | | | | | |

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Most of these findings replicate the results for the 14-year-olds, at least for those variables included in the model that were the same (see Torney-Purta, Lehmann et al., 2001, Figure 8.1 and Table 8.1).

In almost all countries, students from homes with more educational resources and who had more substantial educational aspirations performed better in the civic knowledge test at both school levels. The perception of an open classroom climate for discussion, which is an indication of the learning conditions at school, was positively related to civic achievement in more than half of the countries for upper and lower secondary students, most notably in Latvia and the Russian Federation. For the upper secondary students as well as for the 14-year olds, time spent ‘hanging out’ with peers was consistently negative for their performance on the civic knowledge test.

PREDICTION OF LIKELIHOOD OF VOTING

Predictors of Likelihood of Voting in the Sample Containing 13 Countries

In the sample containing 13 out of 16 countries participating at the upper secondary level (see Table 8.2), three factors had almost equally strong explanatory power. These were the total civic knowledge score, the reported learning about the importance of voting at school, and the reported interest in politics. As with the 14-year-old study, civic knowledge came through consistently as the most important factor, explaining an overall beta coefficient of at least .19. The students' reports of whether they had learned in school about the importance of voting showed the second largest effect on their expectations of participating in future voting (.17). The third, almost equally, important factor, which was included only in the model for the upper secondary students, was reported interest in politics. The overall model thus reveals that more knowledgeable students, that is, those who know about the functioning and the values of democracy, who have interest in politics, and who report having learned about the importance of voting at school, are more willing to participate in future elections. This finding replicates, to a great extent, the multivariate analysis results from the 14-year-olds, thereby reinforcing assumptions regarding the important role that schools play in fostering democratic knowledge, values, and attitudes. As can be seen in Figure 8.2, other important factors whose measurement adds much to the prediction of students' disposition to participate in elections are reported frequency of watching news broadcasts on television and the frequency of reading news in the newspaper.

Encouragement of open classroom climate for discussions and reported participation in a school council or parliament accounted for moderately positive effects on the students' intention to vote as adults. The same moderately positive impacts on the expectation to vote were observed also with respect to anticipated further education and gender. In the overall model, girls at the upper secondary level showed more willingness than boys to vote as adults.

The home background variables of home literacy, educational level of parents, and family size had insignificant predictive power in the overall model for likelihood to vote. However, their important role is indirectly implied in the effects they played on civic knowledge acquisition, which is one of the strongest predictors of likelihood to vote in this model.

Predictors of Likelihood of Voting within Individual Countries

The model results for the upper secondary students' expectations to vote as adults examined separately by country are reported in Table 8.2 (only the significant beta coefficients are included). The total percentage of variance explained ranged from 11 percent in Slovenia to 30 percent in Chile. The median of the country totals was 21 percent.

Two significant predictors came through consistently in all 13 countries: the indicator for civic knowledge and the reported learning about the importance of voting at school. The total test score on the civic knowledge test proved to be an especially prominent predictor of likelihood of voting in Estonia and

Table 8.2 Regression Models for Likelihood to Vote of Upper Secondary Students Within Individual Countries

| Predictor Variables | Chile | Cyprus | Czech Republic | Denmark | Estonia | Israel | Latvia | Norway | Poland | Portugal | Russian Federation | Slovenia | Sweden |
|--|-------|--------|----------------|---------|---------|--------|--------|--------|--------|----------|--------------------|----------|--------|
| Gender (Female) | .08 | - | - | - | - | .05 | - | - | .09 | - | - | - | - |
| Number of People at Home | - | - | - | - | - | -.06 | - | - | - | - | - | - | - |
| Home Literacy | - | - | - | - | - | - | - | - | - | - | - | - | - |
| Educational Level of Parents | .04 | - | .05 | .06 | .07 | - | - | - | - | - | - | - | - |
| Expected Years of Education | - | - | .13 | - | - | - | - | .12 | .07 | - | - | - | - |
| Open Classroom Climate | - | - | - | - | - | .08 | .15 | .09 | .06 | - | .08 | - | - |
| Learned to Vote | .24 | .12 | .20 | .19 | .25 | .06 | .20 | .19 | .18 | .18 | .19 | .13 | .14 |
| Student Council/Parliament | - | - | - | - | - | .06 | - | - | - | - | - | .06 | - |
| Civic Knowledge | .10 | .11 | .24 | .10 | .17 | .21 | .17 | .10 | .13 | .11 | .14 | .13 | .30 |
| Reading News in the Newspaper | .09 | - | - | - | .08 | .20 | - | - | .08 | - | - | .11 | - |
| Watching TV News | .07 | - | - | .09 | .07 | .11 | .21 | - | .12 | .08 | - | .11 | - |
| Political Interest | .31 | .14 | .19 | .30 | .10 | - | .09 | .20 | .09 | .22 | - | .06 | .11 |
| Spending Evenings Outside | - | - | - | - | - | - | - | - | - | - | - | - | - |
| R ² | .30 | .16 | .28 | .25 | .18 | .22 | .27 | .26 | .14 | .15 | .15 | .11 | .28 |
| Weighted N | 5112 | 1478 | 2920 | 2274 | 2557 | 4761 | 1804 | 1392 | 3612 | 2429 | 1398 | 3151 | 2046 |
| NOTES: | | | | | | | | | | | | | |
| Standardized (beta) regression coefficients. Not significant coefficients were omitted (-). | | | | | | | | | | | | | |
| The standard errors were estimated using a jack-knife procedure for complex sampling; significance tests corrected for multiple comparisons. | | | | | | | | | | | | | |
| Listwise exclusion of missing values. | | | | | | | | | | | | | |

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Latvia (.17), Israel (.21), the Czech Republic (.24), and Sweden (.30). This variable was the strongest predictor of civic engagement in the Czech Republic, Israel, and Sweden.

The other prominent predictor that was consistently related to students' expectations to vote in all countries was the reported learning about the importance of voting at school. This variable contributed considerably to explaining differences in voting expectations within Poland as well as Portugal (.18), Denmark (.19), Norway and the Russian Federation (.19), the Czech Republic and Latvia (.20), Chile (.24), and Estonia (.25). In Estonia, Poland, and the Russian Federation, it was the factor adding most to the prediction. Both factors—civic knowledge and reported learning about voting at school—were, in Slovenia, equally strong in predicting students' expectations to vote in future elections.

Reported interest in politics was the third predictor to show a strong and significant effect on students' expectation to vote in all participating countries that were included in the analysis, except in Israel and the Russian Federation. The strongest effects were found in Chile, Denmark, Portugal, and Norway, where it was the most prominent factor explaining the civic engagement of upper secondary students. Considerable effects were also found in Cyprus, the Czech Republic, Estonia, Norway, and Sweden.

Frequency of watching television news came through consistently in all but five countries. It was especially large in Latvia (.21), and Poland (.12), and in Israel and Slovenia (.11). The reported frequency of reading news in the newspaper had an important positive effect on the reported likelihood of voting in five of the 13 countries. In Israel it was the second largest predictor, associated with a beta coefficient of .20.

Students who experienced classroom climates open for discussions were more determined to participate in elections as adults in about half of the countries. The positive effect of this variable was most notable in Latvia. The students' expected level of future educational attainment had considerable significance as a predictor of expected voting only in the Czech Republic and Norway, and a moderate effect in Poland. The reported participation in a school council or parliament had a moderate positive relationship with voting expectations, significant in Israel and Slovenia.

Within the background factors, the educational levels of parents had moderate positive effects in Chile, the Czech Republic, Denmark, and Estonia, while family size accounted for moderate effects only in Israel. In Israel, however, family size was negatively related to likelihood of voting. Gender (female) played consistently small positive effects in three countries, with girls significantly more inclined to engage in future voting than boys in Chile, Israel, and Poland.

Four variables were significant predictors of expected future voting in, respectively, at least eight out of the 13 countries. Two of these were school-related factors, namely civic knowledge and the opportunity to learn about the importance of voting at school. The other two were interest in politics and frequency of watching television news.

SUMMARY

The data presented in this chapter suggest that the school plays an important role in accounting for differences in civic knowledge and civic engagement. Major findings of the upper secondary population study concerning school effects are the consistent positive relationship between expected educational attainment and civic achievement. The relative consistency of findings relating to open classroom climate for discussion reinforces the hypothesis that democratic practices at school are important in fostering civic knowledge and intention to vote.

Another important finding that is related to the impact of the school and which replicates the results from the study of the 14-year-olds is the strong

positive relationship between civic knowledge, the opportunity to learn about voting in school, and expected engagement in democratic elections. However, when school effects were held constant, the role of home literacy resources was found to be even more important for scoring higher on the civic knowledge test for the upper secondary students than for the 14-year-old students. Generally, it can be concluded that the home environment is of major importance at the upper secondary level, and that these effects are cumulative over time.

Gender played a significant role as well among older adolescents, with boys performing better than girls on the civic knowledge test. Exposure to television news had a positive effect on the intention to vote in the majority of the participating countries, whereas the reading of news in the newspapers led to a better performance on the civic knowledge test than did viewing news on television.

With regard to the considerable impact that home background factors played in this model, it should be emphasised here that this was a single-level regression analysis, which did not allow us to disentangle context effects on the school or class level from individual effects. A more refined analysis using multi-level modelling procedures would allow us to clarify more precisely the exact role of individual effects, school or classroom influences, and home background factors. Secondary analyses at the international level and analyses undertaken by individual countries will expand the models and their usefulness. It also is likely that interpretation of these predictors will vary from country to country.



Civic Knowledge and Engagement: A Synthesis

HIGHLIGHTS RELATING TO THE IEA CIVIC EDUCATION STUDY OF UPPER SECONDARY STUDENTS

- The testing of upper secondary students by IEA provided an opportunity to examine both national and age-related trends pertaining to civic knowledge, attitudes, and actions. Overall, there is evidence that many aspects of civic attitudes are stable across this time period.
- Policy questions that were addressed especially by Phase 2 included the description of the images that students hold of civic life and citizenship. Here, the study found that older adolescents grasped major elements of democracy and citizenship in a somewhat more differentiated way than 14-year-olds and expected more rather than less from their government. Obeying the law and voting were still seen as important attributes of being good citizens while political party affiliation continued to hold little attraction. The older students were somewhat less trusting of governmental institutions than the younger group.
- Another set of policy questions dealt with gender and socioeconomic differences among students in regard to civic knowledge, engagement, and attitudes. Gender differences were most substantial in knowledge of economic processes (not measured in the 14-year-olds) and in support for women's rights and immigrants' rights. Differences between students from homes with high and low levels of home educational resources were also substantial among upper secondary students (and may even be underestimated due to the fact that many students with few educational resources leave school before reaching the upper secondary level).
- Finally, at least three realms within schools seem to have leverage in contributing to the civic preparation of youth. These are the content of the curriculum (both as it fosters civic knowledge and emphasizes the importance of voting), how frequently students are encouraged to discuss issues in their classroom, and the culture of the school as it promotes students' opportunities to participate. Most of these relationships maintained themselves at both age levels and in countries with very different histories.

The IEA Civic Education Study was initiated in the mid-1990s to examine the ways in which young people are prepared for their rights and responsibilities as citizens in democratic societies. As reported in Chapter 1 of this volume, the Civic Education Study was designed and implemented in two phases. During the first phase, researchers from more than 20 countries collected documentary evidence on the circumstances, content, and processes of civic education in their countries. These case studies provided insight into the political, social, and economic context within which civic education occurs. The data collected during Phase 1 also contributed to the design of a test of civic knowledge and skills as well as a survey of civic concepts and attitudes, administered to students during the second phase of the study. In short, the Phase 1 case studies provided information for the design of the Phase 2 instrument and a context within which to interpret the Phase 2 data.

During the second phase of the study, 90,000 14-year-old students from 28 countries were administered tests of civic knowledge and skills and surveys of civic concepts and attitudes. The data were collected in 1999, and the international findings were released in 2001 and reported in *Citizenship and education in twenty-eight countries: Civic knowledge and engagement at age fourteen* (Torney-Purta, Lehmann, Oswald, & Schulz, 2001).

In the following year, over 50,000 upper secondary students from 16 countries received a similar test of civic knowledge and skills (including some new, more difficult items and economic literacy items not given to the 14-year-olds) and the same survey of civic concepts and attitudes. Those results, reported in this volume, enabled us to examine both national and age-related trends pertaining to civic knowledge and attitudes. Stated another way, data were collected from over 140,000 students to provide us with a series of snapshots of the civic knowledge, attitudes, and engagement of both younger and older adolescents.

The analyses provided in this volume and in the volume of findings from the 14-year-olds are but a beginning of what can be gleaned from these massive sets of data. Further analyses, such as multivariate modeling, examination of results by geographic region, and a closer examination of the relationship between social and economic factors and civic knowledge and engagement will expand our understanding in this area. Also, the individual countries participating in the study may have areas of interest reflecting their social, political, or educational contexts. For example, the IEA national researchers may choose to investigate, in their respective countries, the differences and similarities among students in different secondary school programs, the role of the media in the development of civic knowledge and attitudes, and the performance of immigrant and non-immigrant students. Many possibilities remain open, and the public release of both the upper secondary student data as well as the 14-year-old data will give researchers from around the world the opportunity to conduct secondary analyses on a wide range of topics.

As noted, the Phase 2 tests and surveys were administered to two age groups of students. The 14-year-olds were tested to capture the diversity of students before they enter the specialized programs of the upper secondary school or leave formal schooling. In all the participating countries, education is mandatory for 14-year-olds.

The second administration of tests included students in the upper secondary school who are close to the age when they will start taking on the adult responsibilities of citizenship. They are at or near the age of first vote, and to ending their secondary schooling. They also are getting ready to embark on major life transitions, careers, tertiary education, and the establishment of families. Thus, governmental policies and political processes may be more obvious to them in their daily lives.

It was considered that data from the older adolescents would allow us to examine the attitudes and knowledge of young citizens who are or will be participating in the political process and institutions of their societies and developing adult identities in many domains, including political and social

values and beliefs. The limitation, however, is that the study could not include those older adolescents who had dropped out of school by age 16 or those in some specialized upper secondary school programs. The proportion of the upper secondary school age group included in the national samples therefore varied from country to country, and this variance is explained in Chapter 2 of this volume.

RESULTS FROM THE UPPER SECONDARY STUDENTS

1. What Do They Know?

In general, the upper secondary students scored well on the test of civic knowledge. Not surprisingly, these students, who were two to five years older than the 14-year-olds, had higher scores on the test of civic content and skills than did the younger sample of students tested in 1999 (a comparison that was possible because of the inclusion of anchor items and IRT scaling to a common metric). However, interpretation of these knowledge scores must be made with caution, and is limited by at least one factor—the upper secondary samples were not representative samples of all young people in that age group.

The average ages of the upper secondary students tested ranged from 16 years of age in Israel and Latvia to over 19 years of age in Denmark. The older students in the sample, with more years of schooling and more life experiences, tended to perform better on the test of civic knowledge than did the younger students. And, not surprisingly, the upper secondary students were generally more knowledgeable about democratic institutions and processes, national identity, and social cohesion and diversity than were the 14-year-old students tested in 1999.

As was the case with the study of 14-year-olds, total civic knowledge was conceived of as a combination of two dimensions: content knowledge and skills in interpretation. We have also reported the specific results for the two dimensions (content and skills) to provide more detailed information. In addition, economic literacy items were added to the test for the upper secondary students, although not included in the test administered to the 14-year-olds. Chapter 3 of this report provides details of the development, scaling, and analysis of the test of civic knowledge and economic literacy.

As seen in Table 9.1, in three of the 14 countries where comparisons could be made, male students scored higher on the total civic knowledge test than female students. This was also the case with the 14-year-olds, where only minor gender differences were found. Most of the differences in the test administered to the upper secondary students can be found by examining the civic knowledge sub-scale scores. As reported in Chapter 3, few statistically significant gender differences were found on the civic knowledge and civic skills sub-scales (although there did appear to be higher scores among the males in most of the countries; see Chapter 3 for a more complete discussion of gender differences). In two countries—Denmark and Portugal—males scored higher than females on all three sub-scales of the knowledge test. However, in half of the countries, males scored higher on the economic literacy sub-scale than females.

Table 9.1 Gender Differences in Civic Knowledge, Civic Engagement, and Civic Attitudes

| Country | Civic Knowledge | | | | Civic Engagement | | | | Civic Attitudes and Other Concepts | | | | | | | |
|----------------------|------------------------------|----------------------------------|------------------------------|-----------------------|--------------------|--------------------------|-------------------------------------|--|---------------------------------------|---|---|--------------------------------------|--|--|--------------------------------------|---------------------------------------|
| | Content Knowledge (subscale) | Interpretative Skills (subscale) | Economic Literacy (subscale) | Total Civic Knowledge | Political Interest | Conventional Citizenship | Social-movement-related Citizenship | Expected Participation in Political Activities | Confidence in Participation in School | Economy-related Government Responsibilities | Society-related Government Responsibilities | Positive Attitudes Toward Immigrants | Positive Attitudes Toward One's Nation | Trust in Government-related Institutions | Support for Women's Political Rights | Open Climate for Classroom Discussion |
| Chile | ▲ | | ▲ | ▲ | ▲ | ▲ | | | | | | ▲ | | | ▲ | ▲ |
| Cyprus | | | | | ▲ | | ▲ | ▲ | ▲ | | | ▲ | | | ▲ | |
| Czech Republic | | | ▲ | ▲ | ▲ | ▲ | | | | ▲ | | ▲ | | | ▲ | ▲ |
| Denmark | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | | ▲ | | | ▲ | |
| Estonia | | | ▲ | ▲ | ▲ | | | ▲ | ▲ | | | * | | | ▲ | ▲ |
| Israel | | | | | ▲ | | | | | | | | | | ▲ | ▲ |
| Latvia | | | | | | | | ▲ | ▲ | | | | | | ▲ | ▲ |
| Norway | | | ▲ | ▲ | ▲ | ▲ | | ▲ | ▲ | | | ▲ | | | ▲ | ▲ |
| Poland | | | | | ▲ | | | ▲ | ▲ | | | ▲ | | ▲ | ▲ | ▲ |
| Portugal | ▲ | | ▲ | ▲ | ▲ | ▲ | | | | | | ▲ | | | ▲ | ▲ |
| Russian Federation | | | | | | | ▲ | | | | | | | | ▲ | ▲ |
| Slovenia | | | | | ▲ | | | | | | | ▲ | | | ▲ | ▲ |
| Sweden | | | ▲ | | | ▲ | | | | | | ▲ | | | ▲ | ▲ |
| Switzerland (German) | | | | | ▲ | | | | | | | | | ▲ | | ▲ |

▲ Males' mean significantly higher than females.

▼ Females' mean significantly higher than males.

* Israel did not take part in this scale.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

What does this mean for schools? It could mean that the inclusion of economic education is not viewed as within the purview of civic education. It could also mean that economic literacy does not fit as neatly into the octagon model (Figure 1.2 in Chapter 1) used as a framework for the Civic Education Study. Thus, at least for females, if students are not learning economic information at school, they are also not learning it from families, peers, the media, and so on. Unfortunately, the Phase 1 case studies shed little light on this area, as few of them addressed economic literacy education (although the participating countries were given the option of elaborating on this topic if they chose).

2. What Do They Believe?

While knowledge about democratic processes and institutions, along with skills in interpreting political communication, are vital elements of citizenship, many commentators believe that it is also important for citizens in democratic societies to be tolerant, willing to participate, and cognizant of both their responsibilities and their rights. The IEA Civic Education Study addressed all three of these aspects of citizenship.

Specifically, four scales from the survey dealt with students' concepts (of citizenship and of governmental responsibilities), while seven scales related to students' attitudes. These were positive national feeling, trust in government-related institutions, support for the rights of immigrants, support for the political rights of women, expected participation in political activities as adults, confidence in participation at school, and open classroom climate for discussion.

In regard to civic concepts, the upper secondary students seemed to have clear notions of what factors are benefits for and threats to democracies. Across countries, the older students, like the 14-year-olds, endorsed free elections, different organizations, political parties supporting women, free expression, minimum incomes, and peaceful protests as factors that are good for democracy. Conversely, they saw as threats to democracy, wealthy people having more influence, one newspaper company owning all newspapers, leaders giving jobs to family, and courts and judges being influenced by others.

The older students, however, seemed to hold more differentiated views of democracy than the 14-year-olds, as noted in Chapter 4. Perhaps this finding is a reflection of the older students' deeper conceptual understanding of democracy or their cognitive growth in the area of analytical skills.

The upper secondary students also seemed to have well-developed concepts of what makes a good adult citizen in a democratic society (as did the 14-year-olds). In fact, there was a high degree of consensus among the students that three activities are important for a good adult citizen to engage in (obeying the law, voting, and following political issues). There was moderate agreement on the importance of most of the other citizenship items on the survey. Obeying the law was the most strongly endorsed aspect of citizenship among both the upper secondary students and the 14-year-olds.

Interestingly, but perhaps not surprisingly, the upper secondary students seemed to expect more from their governments than did the 14-year-old students. In every country that tested both the younger and older populations, the older students scored higher on the society-related government responsibilities scale than did the younger students. And, in about two-thirds of the countries, the older students were more likely than the younger students to endorse the economy-related responsibilities of government (see Chapter 4). Perhaps upper secondary students believe that such activities are within the government's responsibility because they are at an age when government policies with regard to the economy, education, and social welfare can have a direct impact on their lives and livelihoods. Or, it may be because they are better able to take a societal perspective and understand the benefits to the whole society of education and high standards of health and economic well-being.

There were differences across countries, however, in the extent to which the upper secondary students endorsed social and economic activities as governmental responsibilities. On the one hand, as seen in Table 9.2, students in Chile, Cyprus, Poland, and Portugal were more likely than students in the other countries to endorse both social and economic activities as responsibilities of the government (as described in Chapter 4). At the 14-year-old level, only two of these countries—Poland and Portugal—had scores above the international mean (for 28 countries) on both of the government responsibility scales. On the other hand, the upper secondary students in Denmark, Estonia, and Latvia scored below the international mean on both government responsibility scales. Fourteen-year-olds in Denmark were also below the international mean on these two scales.

Both the upper secondary students and the 14-year-olds held generally positive attitudes toward their nations, government-related institutions, immigrants, and the political rights of women. Like the 14-year-olds, the older students expressed a great deal of trust in the police, the courts, and the media, and the least amount of trust in political parties. Despite these similarities in attitudes between the younger and the older adolescents, there is an interesting paradox. On the one hand, the upper secondary students expressed positive attitudes toward their nation, but were less trusting of government-related institutions than the 14-year-old students. On the other hand, the older students were somewhat less likely than the younger to indicate that they would participate in possibly illegal protest activities (especially spray-painting protest slogans). Thus, while there may be some moderation of idealism among upper secondary students, and even though these students might appear more critical and less trusting than the younger students, their criticism may be seen as more constructive and tempered by a more realistic view of society.

It is also interesting to note the relative stability of some country patterns in the area of civic attitudes. It may be that such attitudes develop early (at least by age 14) and remain relatively stable throughout adolescence. As an example, the upper secondary school students in Chile, Cyprus, Israel, Poland, and Portugal scored above the international mean on the scale measuring

Table 9.2 Civic Engagement and Civic Attitudes Across Countries

| Country | Civic Engagement | | | | Civic Attitudes and Other Concepts | | | | | | | |
|----------------------|--------------------|--------------------------|-------------------------------------|--|---------------------------------------|---|---|--------------------------------------|--|--|--------------------------------------|---------------------------------------|
| | Political Interest | Conventional Citizenship | Social-movement-related Citizenship | Expected Participation in Political Activities | Confidence in Participation in School | Economy-related Government Responsibilities | Society-related Government Responsibilities | Positive Attitudes Toward Immigrants | Positive Attitudes Toward One's Nation | Trust in Government-related Institutions | Support for Women's Political Rights | Open Climate for Classroom Discussion |
| Chile | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Cyprus | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Czech Republic | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Denmark | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Estonia | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Israel | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Latvia | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Norway | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Poland | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Portugal | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Russian Federation | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Slovenia | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Sweden | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |
| Switzerland (German) | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ | ▲ |

▲ Country mean significantly higher than international mean. ▼ Country mean significantly lower than international mean.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

positive attitudes toward one's nation. The 14-year-olds in those same countries (with the exception of Israel, which did not survey this age group) also scored above the international mean on this attitude scale. Along the same lines, in six of the seven countries where upper secondary school students scored below the international mean on this scale, the 14-year-olds did so also (see Figure 5.2).

This same pattern emerged when we looked at students' attitudes toward the rights of immigrants. In almost all of the countries where the upper secondary students were most likely to endorse the rights of immigrants, 14-year-olds in those countries were also most likely to endorse immigrants' rights (Chile, Cyprus, Poland, Portugal, and Sweden). And, in most of the countries where the upper secondary students' scores were below the international mean, the 14-year-olds' scores were as well.

Although some countries were above the international mean on the attitudes toward immigrants scale, it should be noted that, across all countries, students' attitudes toward the rights of immigrants were quite positive. During Phase 1 of the Civic Education Study, the national researchers in many of the countries acknowledged that understanding social cohesion and developing an appreciation for diversity were important elements of civic education. Many national researchers, however, were concerned about schools' abilities to address these issues. Although we have not been able to determine from these Phase 2 data the extent to which matters of social cohesion, diversity, immigration, or political rights were being addressed in the schools, we can conclude that most of the students surveyed were developing generally positive attitudes. This was an expectation their societies held for them, as identified by experts in all countries participating in Phase 1. A note of caution should be raised here, however. Variations occurred both within and across countries on students' attitudes in this area. In all participating countries, there are groups of students who hold negative attitudes toward the rights of immigrants. These groups should not be overlooked, and further analysis of their characteristics, level of civic knowledge, and other attitudes and attributes is warranted.

In a similar vein to their attitudes toward immigrants, the upper secondary students across countries expressed support for the political rights of women. Students in Denmark, Norway, Portugal, Sweden, and Switzerland (German) were most likely to endorse these rights (Table 9.2). Fourteen-year-olds were also largely supportive of the political rights of women, with the means for the 14-year-olds in Denmark, Norway, Sweden, and Switzerland (German) above the international mean for this scale (see Figure 5.5).

Finally, as shown in Table 9.1, males and females shared similar civic attitudes in most countries, with three notable exceptions. Females were more likely than males to indicate positive attitudes toward the rights of immigrants and toward the political rights of women, and to perceive open climate for classroom discussion. The findings in these three areas are consistent with the findings from the 14-year-olds, and consistent with findings from other studies in this area. The magnitude of these gender differences is illustrated in Table 9.1. It is particularly striking that, despite differences in history, social

context, and even age of the respondents, females in all countries were more likely than males to endorse the political rights of women.

3. How Are They Engaged in Civic Activities?

The third aspect of citizenship examined by the IEA Civic Education Study relates to young people's engagement, both now and in the future. Across countries, students were engaged in a variety of school and community organizations and activities, ranging from participation in student government organizations to collecting money for charities. However, the opportunities for participation and the time involved varied greatly from country to country, making comparisons across countries difficult.

One thing is clear from the findings, however, and that is what the students planned on doing. Over 80 percent of both the older and younger students indicated that they intended to vote in national elections, although the extent to which they did or will do so remains unanswered. And, in almost every country that tested both age groups, higher percentages of upper secondary students than 14-year-old students responded that they would vote. Thus, it appears that as students reach or get close to the age of first vote in their countries, they are more likely than younger adolescents to indicate that they plan to vote. This situation could be a reflection of an increased emphasis on voting in schools during the later grades, or an overall increased awareness of civic responsibilities among the older students. An interesting follow-up to this finding would be to compare age-related voting patterns with the percentage of upper secondary students who said they would vote in each country. It is likely that, in many countries, there would be a gap between intention to vote and actual voting behavior.

In addition to the single item 'intention to vote', two scales addressed students' civic and social engagement. One scale related to the students' expected conventional political activities as an adult, the other to their confidence in the effectiveness of participation at school. In other words, the first scale dealt with students' intentions for the future, and the second with their current circumstances. Students' political interest also was assessed, on the premise that political interest is a prerequisite to participation in political activities.

As students approach the end of their secondary schooling, it does appear that their interest in politics is greater than that of younger adolescents. As discussed in Chapter 6 of this volume, half of the upper secondary students in the international sample agreed or strongly agreed that they were interested in politics. On looking at national variations (Table 9.2), we find that students in the Czech Republic, Norway, Poland, Portugal, Slovenia, and Sweden scored below the international mean on this item. In other words, students in these countries were less likely than students in the other participating countries to express an interest in politics. As might be expected, the students in five of these countries—the Czech Republic, Norway, Portugal, Slovenia, and Sweden—were also less likely than the students in the other participating countries to say they were likely to participate in political activities as adults. (These activities—joining a political party, writing letters about political concerns, and becoming a candidate for public office—are discussed in Chapter 6.)

Of the countries with lower levels of political interest (noted above), students in the Czech Republic, Norway, and Slovenia were also below the international mean on the Confidence in School Participation Scale. Interestingly, students in Portugal expressed relatively low levels of political interest, but relatively high levels of willingness to participate. In contrast, the mean scores of students in the Russian Federation were above the international mean on the political interest item, but below the mean on intention to participate in political activities and confidence in school participation scales.

Examination of gender differences in the area of participation reveals an interesting dichotomy (Table 9.1). That is, in every case where there was a statistically significant difference between males and females on the political participation scale, males scored higher. This occurred in four countries, with males expressing a greater intention than females to participate in conventional political activities as adults. However, in the countries with gender differences related to the students' confidence in school participation, the females' scores were higher. The direction of these findings is consistent with that found among the 14-year-olds on these two scales. It is also consistent with what was found on the school climate scale. In about two-thirds of the countries where statistical comparisons could be made, female students in the upper secondary school were more likely than male students to perceive that there was an open climate for discussion in their classrooms. Once again, this replicates the findings from the 14-year-olds: in 23 of the 28 countries that surveyed 14-year-olds, females were more likely than males to perceive that their classrooms were open to discussion. These findings suggest that schools may need to consider ways to engage male students in the school community, while political entities outside the school may need to reach out to females.

Finally, in every country but one where gender differences were found in the area of political interest, males reported higher levels of interest than females. This is consistent with numerous other studies and also replicates what was found in the parallel study of 14-year-olds.

CONCLUSIONS, LESSONS, AND HOPES FOR THE FUTURE

The IEA Civic Education Study began with a series of questions with policy implications. It therefore seems appropriate to conclude with those questions and what we have learned. The study researchers intended that some questions be addressed in Phase 1 and the others in Phase 2.

The policy questions addressed in Phase 1 dealt primarily with characteristics of civic education objectives and their place in education more generally, for example, their status, priorities, and the courses around which they are organized. The preliminary answers given to those questions in that phase were that these objectives are often of relatively low status and priority compared to other aspects of the curriculum and that they are carried out through a variety of courses that may or may not include 'civic education' in their titles (particularly national history and social sciences or social studies). These points were confirmed in the Phase 2 survey administered to the teachers of the 14-year-olds. The issue of the extent to which priority ought to be given to these areas is, of course, a matter that this study's data cannot

answer. What this study has been able to do is to indicate what the results are when such programs experience pressure of various kinds, including low status and minimal time in the curriculum.

A second set of policy-related questions dealt with students' images of the area of civic education and what it means to be a citizen and to have a sense of civic engagement as well as national, gender, and group identities. Because the study surveys utilized only multiple-choice items, it was not possible to fully answer these questions either. What we did learn, though, was that students have somewhat more complex images of citizenship and democracy than many commentators might previously have imagined. This was certainly true for the upper secondary students, but even the lower secondary students (the 14-year-olds) grasped the major elements of democracy and citizenship, knew basic elements of how government operates, were somewhat cynical about political parties, and thought that schools could be organized in a way that allowed some measure of democratic participation. The upper secondary students, who additionally were tested with some economics items, also had a nascent grasp of those topics that are increasingly important in a global society. Moreover, senses of identity (national, gender, etc), strong preferences in favor of community action, and less favorable views about political parties and conventional politics were certainly developing in most students by the upper secondary years.

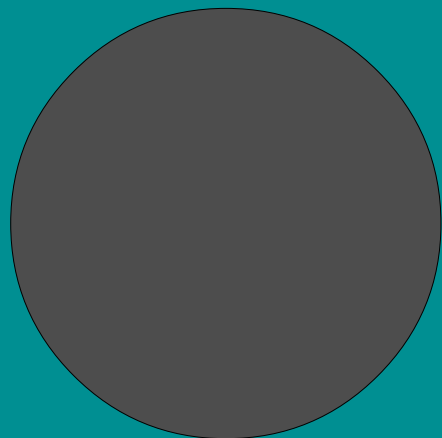
A third set of policy-related questions, addressed in the Phase 2 analysis, dealt with gender and socioeconomic differences among students in regard to civic knowledge, engagement, and attitudes. Here, we found relatively few gender differences at both age levels. If anything, the differences were larger for the older group in terms of the knowledge test, although this appeared to be a function of the inclusion of items about economics, which male students answered better than did females. However, gender differences also were apparent on a number of the attitudinal and concept scales. In particular, it was the females who had more positive attitudes about social-movement-related activity for adult citizens, more positive attitudes toward immigrants' rights, and much more positive attitudes toward women's political and economic rights. On the matter of differences according to socioeconomic status (here measured with literacy resources at home), the analysis showed powerful effects upon student knowledge. This was a sobering finding, suggesting considerable further probing of the data and attempts extending beyond the IEA study to ascertain what schools can do to decrease a potential gap in knowledge and electoral participation between more and less advantaged students.

The fourth set of policy-related questions dealt with the influence of the schools upon the civic preparation of young people. We identified at least three realms within which schools appear to have leverage on these issues: the content of the curriculum (e.g., the extent to which topics such as elections and voting receive explicit emphasis); how frequently students are encouraged to discuss issues in their classrooms; and the culture of the school (e.g., the extent to which that culture promotes students' sense of confidence). Of particular interest was that most of the relationships maintained themselves at

both age levels and in countries with very different histories and emphases in civic education (such as the post-Communist countries and the more longstanding democracies).

In short, what have we learned from the IEA Civic Education Study? We can see civic knowledge is important, but not enough. Tolerance, willingness to participate, and understanding responsibilities as well as rights are important elements of citizenship in democracies. While there is no single approach that is likely to enhance all facets of citizenship, the school can play a valuable role. School factors predicted civic knowledge and engagement for both the lower and upper secondary school students. It would seem that schools offer places for students to practice democracy as much as they offer places for learning facts.

As with the report on data collected from the 14-year-olds, it is our hope that this present report will further encourage individual countries to examine their upper secondary students' position in relation to the various dimensions documented here and to conduct further analyses. We also hope that this report will encourage policy-makers, educators, and the public to engage in dialogue about the ways that curriculum, teacher education, and community involvement can better prepare young people for citizenship.



Appendices

APPENDIX A EXAMPLES OF ITEMS FROM THE CIVIC KNOWLEDGE TEST

Figure A.1a Item Example: Result if large publisher buys many newspapers

| Country | 14-year-olds Correct Answers (in %) | Upper Secondary Students Correct Answers (in %) | Example 5 (Item #07) Knowledge of Content |
|---|---|---|--|
| Chile | 40 (1.1) | 63 (1.2) | <p>7. Which of the following is most likely to happen if a large publisher buys many of the [smaller] newspapers in a country?</p> <p>A. Government censorship of the news is more likely.</p> <p>B. There will be less diversity of opinions presented.*</p> <p>C. The price of the country's newspapers will be lowered.</p> <p>D. The amount of advertising in the newspaper will be reduced.</p> <p><i>International Scale Value: 103</i></p> |
| Cyprus | 71 (1.0) | 85 (1.3) | |
| Czech Republic | 51 (1.4) | 60 (1.1) | |
| Denmark | 70 (0.9) | 93 (0.5) | |
| Estonia | 61 (1.0) | 79 (1.2) | |
| Israel ¹ | n.a. n.a. | 61 (1.3) | |
| Latvia | 57 (1.6) | 67 (1.4) | |
| Norway | 65 (0.8) | 80 (1.4) | |
| Poland | 78 (1.5) | 86 (1.0) | |
| Portugal | 34 (1.0) | 80 (1.0) | |
| Russian Federation | 66 (1.9) | 75 (1.8) | |
| Slovenia | 55 (1.2) | 65 (1.9) | |
| Sweden | 69 (1.0) | 89 (0.9) | |
| Switzerland (German) | 57 (1.4) | 73 (4.3) | |
| International Sample² | 60 (0.3) | 75 (0.5) | |

() Standard errors appear in parentheses.
 * Correct answer.
 1 Israel did not participate in the 14-year-old study.
 2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure A.1b Item Example: Which is an example of discrimination in pay equity?

| Country | 14-year-olds Correct Answers (in %) | Upper Secondary Students Correct Answers (in %) | Example 6 (Item #15) Skills in Interpretation |
|---|---|---|--|
| Chile | 31 (1.2) | 62 (1.3) | <p>15. Two people work at the same job but one is paid less than the other. The principle of equality would be violated if the person is paid less because of ...</p> <p>A. fewer educational qualifications.</p> <p>B. less work experience.</p> <p>C. working for fewer hours.</p> <p>D. gender [sex].*</p> |
| Cyprus | 56 (1.3) | 63 (2.9) | |
| Czech Republic | 48 (1.6) | 66 (1.2) | |
| Denmark | 67 (1.2) | 94 (0.5) | |
| Estonia | 41 (1.3) | 77 (2.0) | |
| Israel ¹ | n.a. n.a. | 66 (1.6) | |
| Latvia | 33 (1.8) | 43 (2.1) | |
| Norway | 57 (1.3) | 73 (1.5) | |
| Poland | 68 (2.3) | 69 (1.8) | |
| Portugal | 41 (1.4) | 74 (1.2) | |
| Russian Federation | 29 (2.4) | 31 (2.5) | |
| Slovenia | 46 (1.2) | 71 (1.9) | |
| Sweden | 68 (1.6) | 92 (1.1) | |
| Switzerland (German) | 56 (2.2) | 82 (2.6) | |
| International Sample² | 49 (0.5) | 69 (0.5) | <i>International Scale Value: 108</i> |

() Standard errors appear in parentheses.
* Correct answer.
1 Israel did not participate in the 14-year-old study.
2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure A.1c Item Example: What are the economic effects of curtailing production?

| Country | Upper Secondary Students Correct Answers (in %) | Example 7 (Item #34) Economic Literacy |
|---|---|---|
| Chile | 40 (0.8) | <div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p>OPEC TO REDUCE OIL PRODUCTION</p> <p>The Organisation of Petroleum Exporting Countries met in Vienna last week. Leaders of the oil producing countries agreed to reduce the amount of oil each of them pump. At a press conference today, the organisation's spokesman said that this will help to keep the world's economy in balance.</p> </div> <p>34. Why would the OPEC countries decide to reduce their oil production?</p> <p>A. To help economic growth in the world</p> <p>B. To keep oil prices from falling *</p> <p>C. To save oil for future generations</p> <p>D. To promote the development of new energy sources</p> <p><i>International Scale Value: 108</i></p> |
| Cyprus | 36 (1.9) | |
| Czech Republic | 55 (1.1) | |
| Denmark | 71 (1.1) | |
| Estonia | 62 (1.2) | |
| Israel ¹ | 33 (1.0) | |
| Latvia | 49 (2.3) | |
| Norway | 47 (1.6) | |
| Poland | 58 (1.3) | |
| Portugal | 35 (1.0) | |
| Russian Federation | 55 (2.6) | |
| Slovenia | 39 (1.6) | |
| Sweden | 67 (1.3) | |
| Switzerland (German) | 54 (4.1) | |
| International Sample² | 50 (0.5) | |

() Standard errors appear in parentheses.
 * Correct answer.
 1 Israel did not participate in the 14-year-old study.
 2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Figure A.1d Item Example: What is the effect of high national tariffs?

| Country | Upper Secondary Students Correct Answers (in %) | Example 8 (Item #35) Economic Literacy |
|---|---|---|
| Chile | 55 (1.3) | <p>35. If there were a high protective tariff [tax] in Brazil on cars made in Japan, who would most directly benefit?</p> <p>A. car-makers in Japan B. people in Brazil who buy cars made in Japan C. car-makers in Brazil * D. the government in Japan</p> <p><i>International Scale Value: 99</i></p> |
| Cyprus | 71 (2.2) | |
| Czech Republic | 75 (1.3) | |
| Denmark | 66 (1.2) | |
| Estonia | 79 (1.2) | |
| Israel ¹ | 56 (1.4) | |
| Latvia | 52 (2.8) | |
| Norway | 63 (1.4) | |
| Poland | 57 (1.5) | |
| Portugal | 53 (1.5) | |
| Russian Federation | 70 (2.1) | |
| Slovenia | 62 (1.7) | |
| Sweden | 68 (1.7) | |
| Switzerland (German) | 60 (3.1) | |
| International Sample² | 63 (0.5) | |

() Standard errors appear in parentheses.
 * Correct answer.
 1 Israel did not participate in the 14-year-old study.
 2 International sample (14-year-olds) is based on 13 countries; international sample (upper secondary students) is based on 14 countries.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Table A.1 Domain Content Categories and Short Titles for Items in Final Test**I A: Democracy and Its Defining Characteristics**

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|--|--------|--|------------------------|-----------------------------|
| Identify defining characteristics of democracy | 1 | ...necessary feature of democratic government | 91 | 80 |
| Identify limited and unlimited government, undemocratic regimes | 6 | ...what makes a government non-democratic | 80 | 106 |
| Identify problems in transitions of government from non-democratic to democratic | 14 | ...most convincing action to promote democracy | 71 | 106 |
| | 28 | ... what direct democracy is | 70 | 111 |

I B: Institutions and Practices in Democracy

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|---|--------|---|------------------------|-----------------------------|
| Identify characteristics and functions of elections and parties | 9 | ... function of periodic elections (also IEA, 1971) | 54 | 123 |
| | 18 | ... meaning of coalition government | 71 | 106 |
| | 20 | ... main message of cartoon about elections | 60 | 119 |
| Identify qualifications of candidates for positions and making up one's mind during elections | 11 | ... which party issued political leaflet | 80 | 97 |
| | 12 | ... what issuers of leaflet think about taxes | 83 | 91 |
| | 13 | ... which policy issuers of leaflet likely to favor | 75 | 100 |
| Identify a healthy critical attitude toward officials and their accountability | 30 | ...example of corruption in national minister | 80 | 100 |
| Identify basic character of parliament, judicial system, law, police | 17 | ..part of legislative branch | 68 | 112 |
| Identify provisions of constitution | 16 | ..what countries' constitutions contain | 86 | 99 |

Table A.1 (continued)**I C: Citizenship: Rights and Duties**

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|---|--------|---|------------------------|-----------------------------|
| Identify general rights, qualifications, and obligations of citizens in democracies | 8 | ... a political right | 90 | 85 |
| Identify citizens' rights to participate | 5 | ... violation of civil liberties in democracy (also IEA 1971) | 72 | 107 |
| Understand the role of mass media in democracy | 7 | ... result if large publisher buys many newspapers | 75 | 103 |
| | 43 | ... influence of media | 75 | 101 |
| Identify network of associations and differences of political opinion | 3 | ... why organizations are important in democracy | 85 | 93 |
| Identify the human rights defined in international documents | 2 | .. purpose of Universal Declaration of Human Rights | 92 | 86 |
| Identify rights in the economic sphere | 4 | ... purpose of labor unions | 86 | 98 |

Table A.1 (continued)**II A: National Identity**

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|--|--------|---|------------------------|-----------------------------|
| Recognize sense of collective identity source of conflict | 25 | ... national or ethnic difference as the source of conflict | 68 | 110 |
| Recognize that every nation has events in its history of which it is not proud | 10 | ..main message of cartoon about history textbooks | 67 | 110 |

II B: International Relations

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|---|--------|---------------------------------------|------------------------|-----------------------------|
| Recognize major intergovernmental organizations and understand diplomatic relations between countries | 23 | ..reasons for recalling an ambassador | 67 | 113 |

III A: Social Cohesion and Diversity

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|--|--------|--|------------------------|-----------------------------|
| Recognize groups subject to discrimination | 15 | ...an example of discrimination in pay equity | 68 | 108 |
| | 29 | ..main message of a cartoon about excluding women candidates | 71 | 110 |
| | 31 | ...persistence of gender discrimination at work | 70 | 109 |

¹ The reported item parameters are based on the joint scale of civic knowledge (which includes the sub-dimensions content knowledge and interpretative skills). The item parameters mean that students with that level of proficiency had a 65 percent probability of providing a correct response.

Table A.2 Domain Content Categories and Short Titles for Economic Items in Final Test

I B: Institutions and Practices in Democracy

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|---|--------|---|------------------------|-----------------------------|
| Understand basic economic issues and their political implications | 26 | ..graph relating labor costs to factories' location | 61 | 102 |
| | 32 | ..economic effects of budget deficits | 66 | 98 |
| | 34 | ..economic effects of curtailing production | 50 | 108 |
| | 35 | ..effect of high national tariffs | 63 | 99 |
| | 37 | ..meaning of supply and demand | 39 | 115 |
| | 38 | ..meaning of market economy | 69 | 94 |
| | 39 | ..meaning of monopoly | 68 | 95 |
| | 40 | ..meaning of budget deficit | 66 | 96 |
| | 42 | ..meaning of international balance of trade | 52 | 106 |

Table A.2 (continued)**I C: Citizenship: Rights and Duties**

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|---|--------|---|------------------------|-----------------------------|
| Identify citizens' rights to participate and express criticism and their limits | 21 | ..why different groups would protest tax rates | 66 | 98 |
| Identify rights in the economic sphere | 36 | ..meaning of real income | 58 | 102 |
| Demonstrate awareness of tradeoffs or relations between social/economic | 22 | ..effect of declining birth rate and increasing life span | 72 | 94 |

II B: International Relations

| Domain Content Category | Item # | Short Titles for Items | Correct Answers (in %) | Item Parameter ¹ |
|--|--------|---------------------------------------|------------------------|-----------------------------|
| Recognize international economic issues and organizations (other than intergovernmental) active in dealing with matters with economic implications | 19 | ..effect of IMF provisions on tariffs | 75 | 91 |
| | 33 | ..why countries seek World Bank Aid | 73 | 93 |

¹ The reported item parameters are based on the scale of economic literacy. The item parameters mean that students with that level of proficiency had a 65 percent probability of providing a correct response.

APPENDIX B ITEM-BY-SCORE MAPS FOR SCALES REPORTED IN CHAPTERS 4 THROUGH 7

Item-by-Score Maps and International Item Percentages

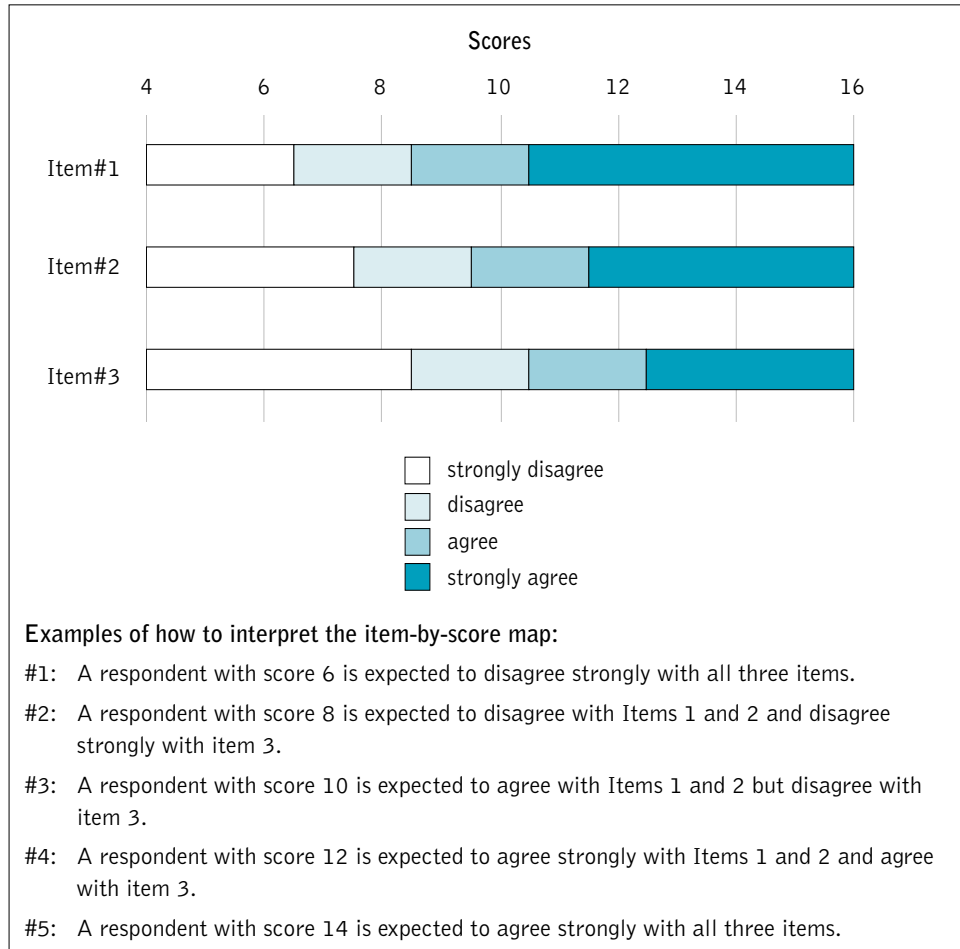
This section contains additional information on the scales presented in Chapters 4 to 7. The so-called ‘item-by-score maps’ are designed to illustrate the meaning of the international scale scores for all of the 11 scales reported in the aforementioned chapters. The attitudinal items have been scaled using the IRT (Item Response Theory) ‘Partial Credit Model’. From the item parameters of this model it is possible to determine which response can be expected for each item, given a certain scale score. Figure B.1 shows how the item-by-score map should be interpreted.

The vertical lines indicate for each of the scale scores at the top of the figure which response a student is most likely to give. If, for example, a respondent has a score of 10 in this example, he or she is likely to agree with Items 1 and 2 but to disagree with Item 3. Likewise, a respondent with a scale score of 8 will probably disagree with Items 1 and 2 and disagree strongly with Item 3, whereas a respondent with a scale score of 12 will probably strongly agree with Items 1 and 2 and agree with Item 3.

Generally, items differ according to the extent of endorsement along the latent dimension. Thus, for example, in a measurement of altruism, respondents will probably more readily agree with ‘donating smaller amounts of money’ than with ‘spending time after work in community service’. Both items may measure the same dimension, but respondents usually will score higher on the latent dimension ‘altruism’ when they agree with the second item. The scale scores are always to be seen as relative to the international mean, and in themselves do not reveal any substantial meaning regarding the item response categories.

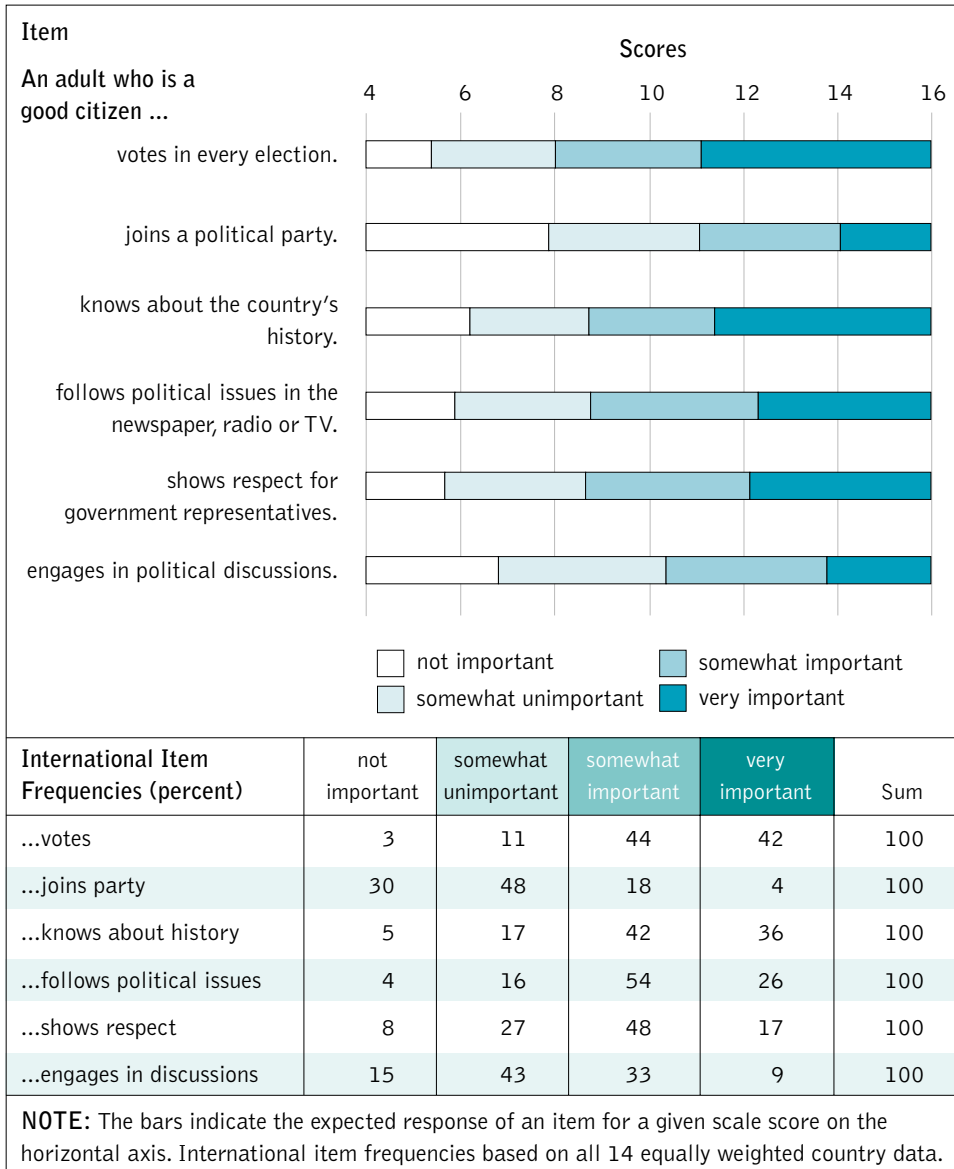
In addition to providing the item-by-score maps, we also give the international percentage for each scaled item. These percentages are based on fully weighted samples from 14 out of 16 participating countries and include only valid responses, excluding ‘don’t know’ and missing. The international percentages enable the reader to see the average level of endorsement for each of the scaled items. Figure B.1 shows a fictitious example, and consequently does not contain any percentages.

Figure B.1 Example of Item-By-Score Map



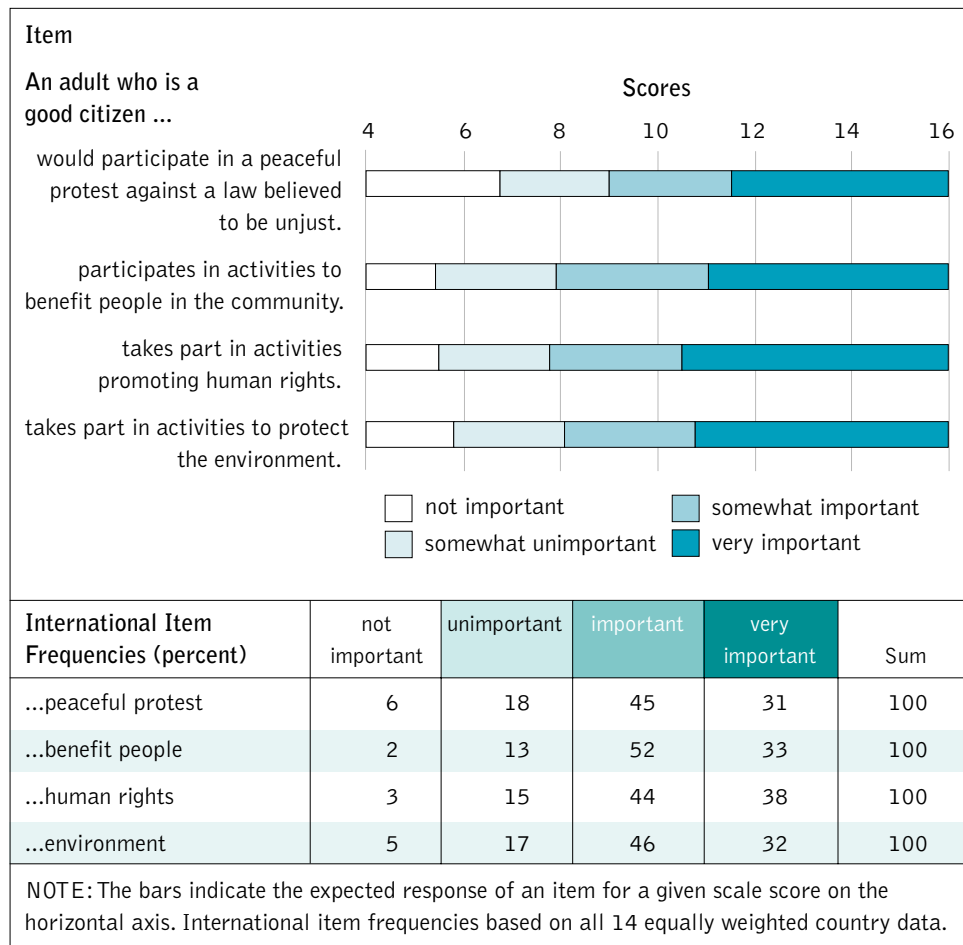
Source: International Coordinating Center of the IEA Civic Education Study.

Figure B.2a Item-By-Score Map for Importance of Conventional Citizenship



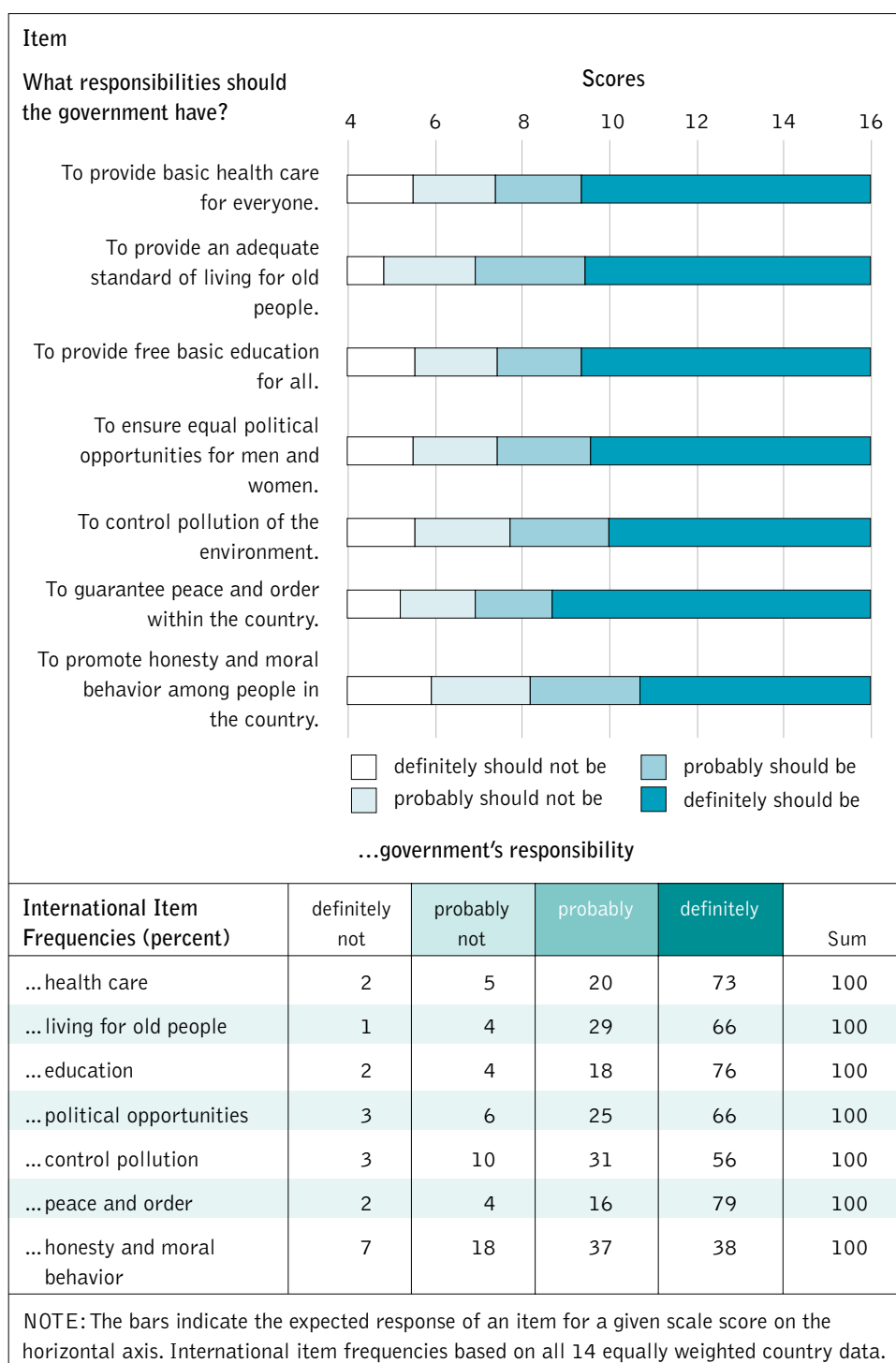
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2b Item-By-Score Map for Importance of Social-movement-related Citizenship



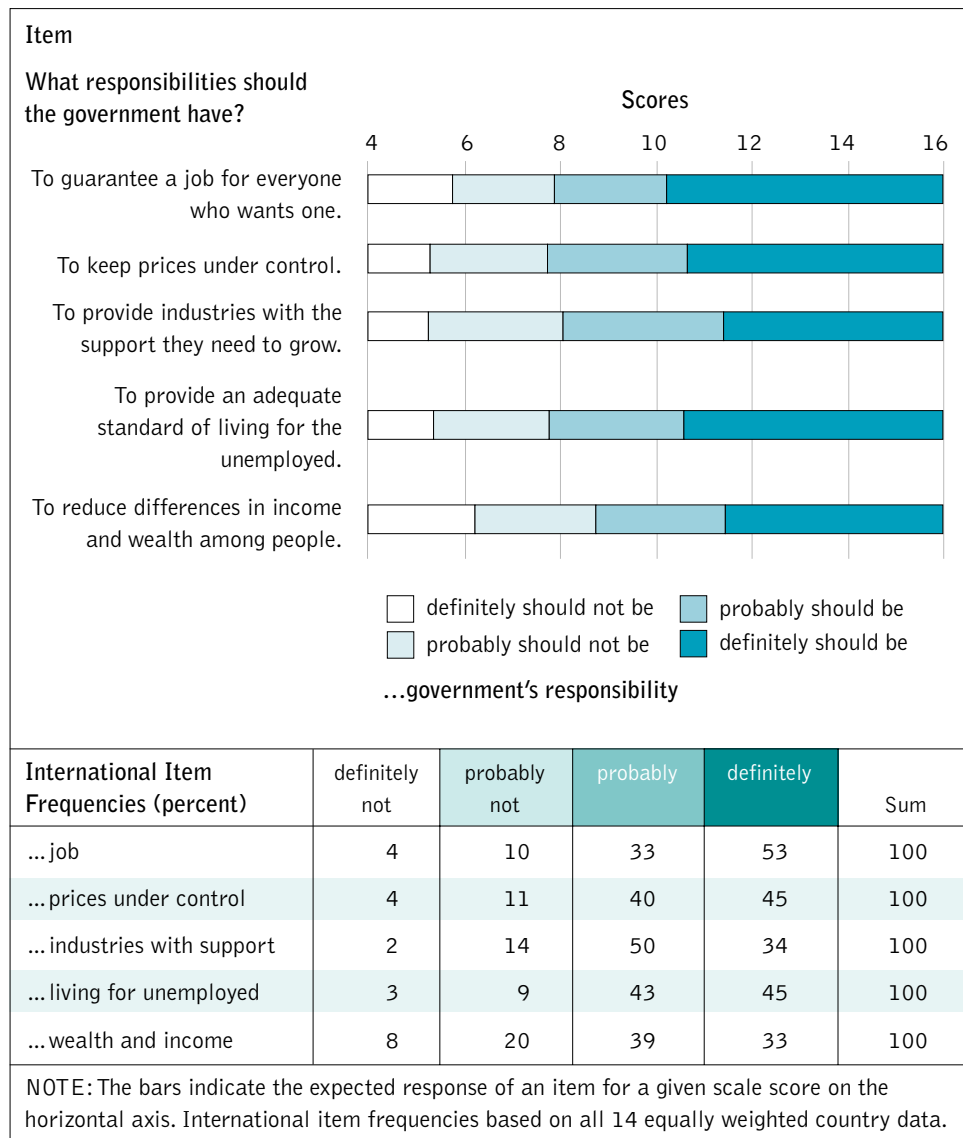
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2c Item-By-Score Map for Concept of Society-related Government Responsibilities



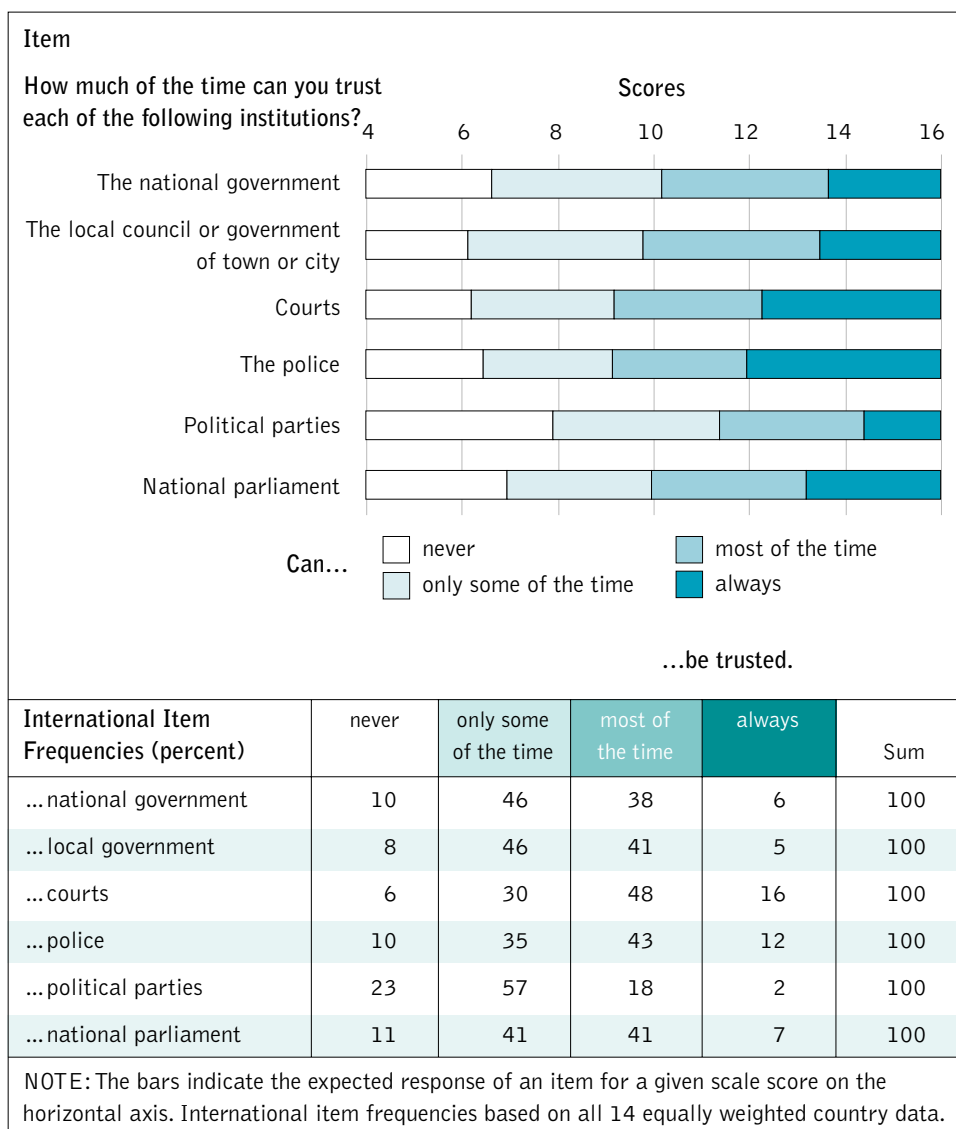
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2d Item-By-Score Map for Concept of Economy-related Government Responsibilities



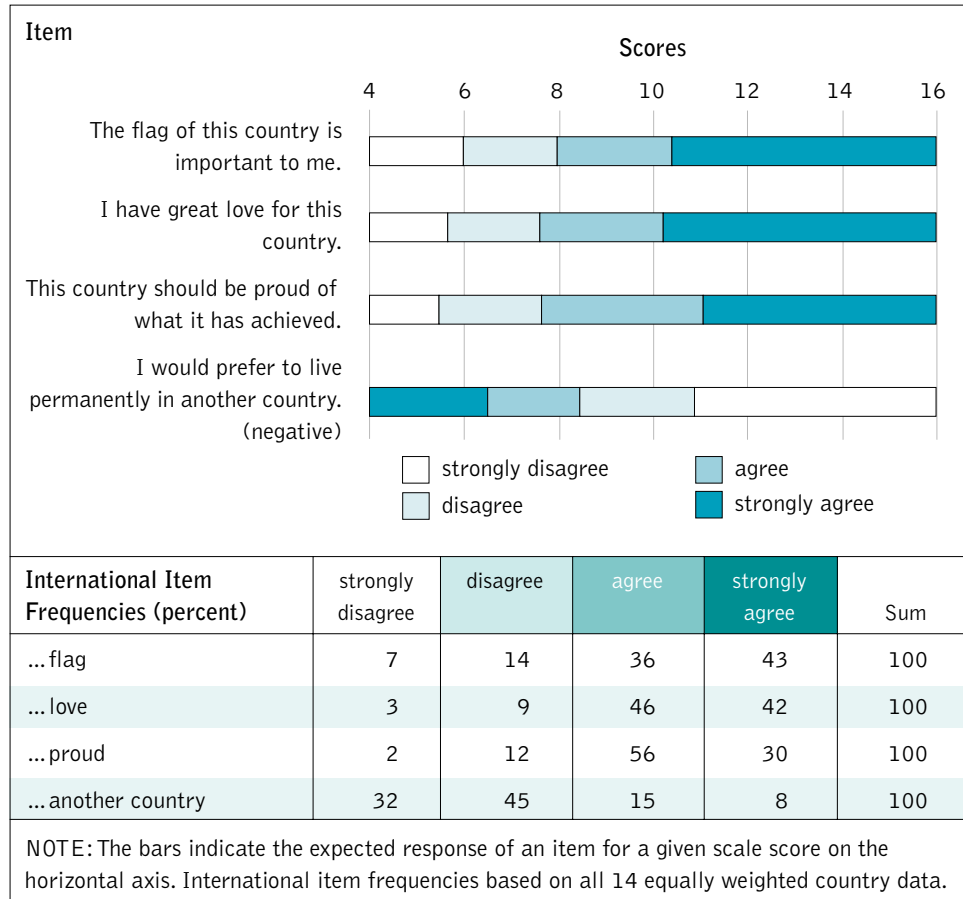
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2e Item-By-Score Map for Trust in Government-related Institutions



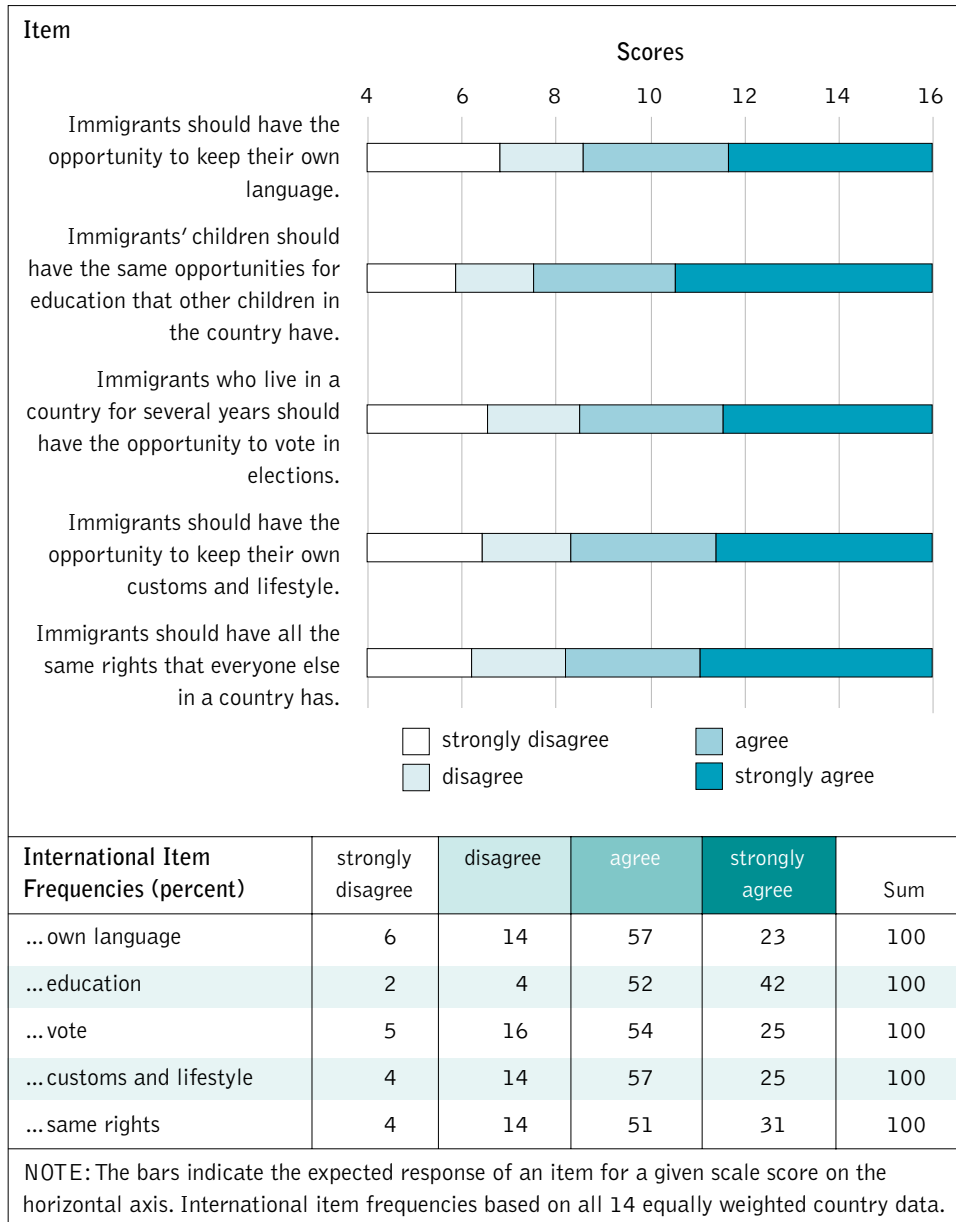
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2f Item-By-Score Map for Positive Attitudes toward One's Nation



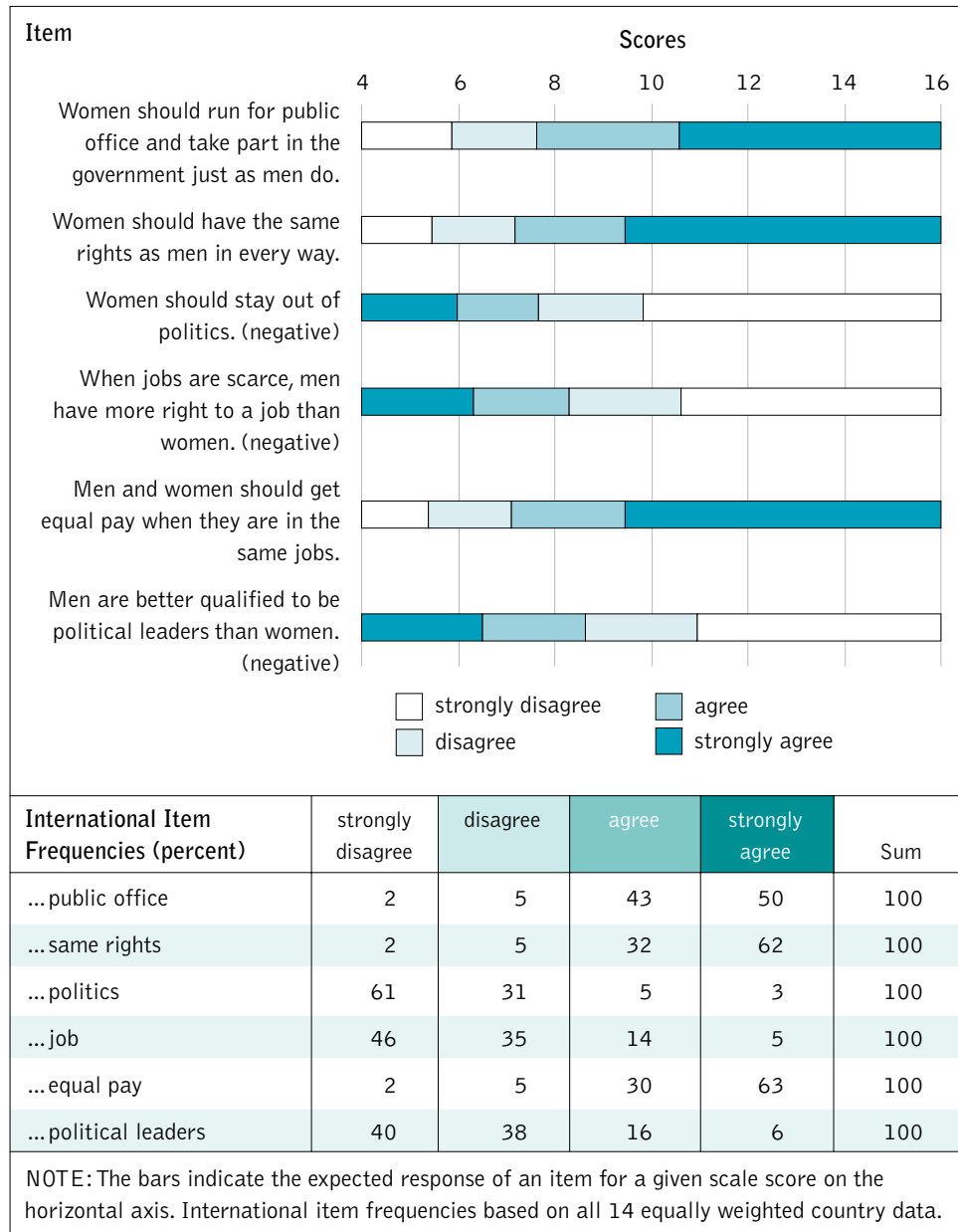
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2g Item-By-Score Map for Positive Attitudes toward Immigrants



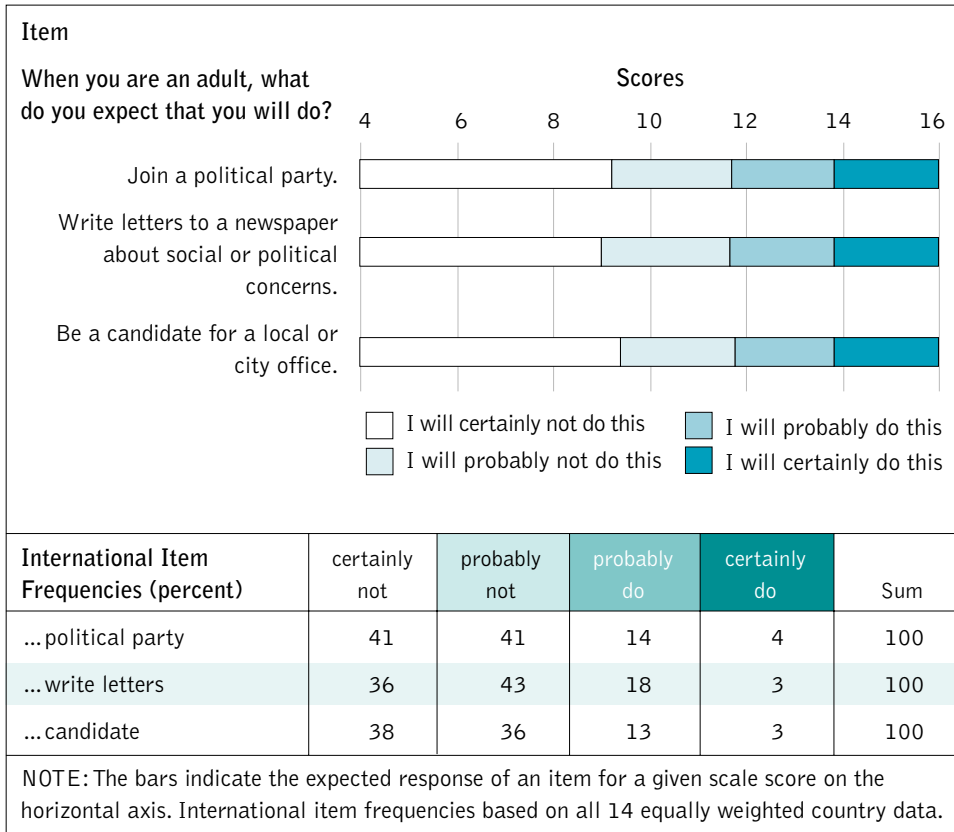
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2h Item-By-Score Map for Attitudes toward Women’s Political and Economic Rights



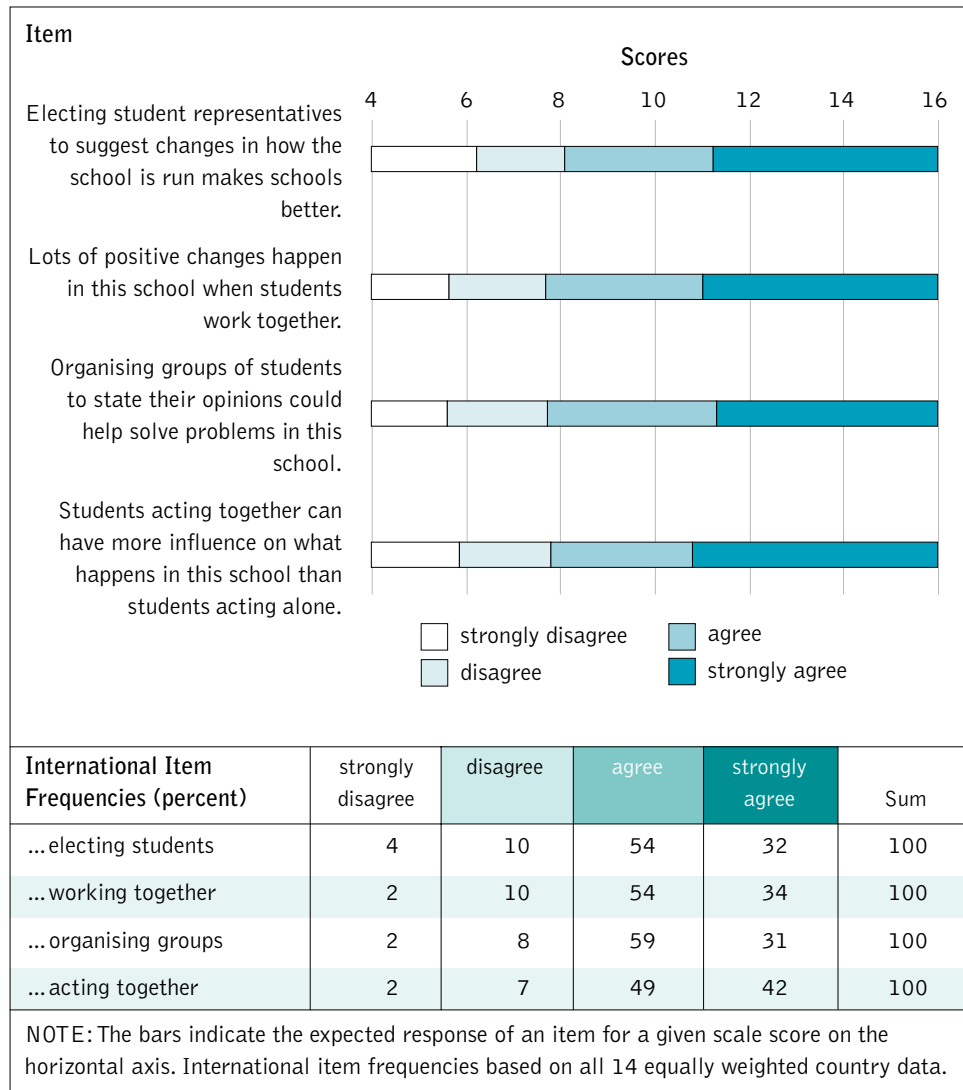
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2i Item-By-Score Map for Political Activities



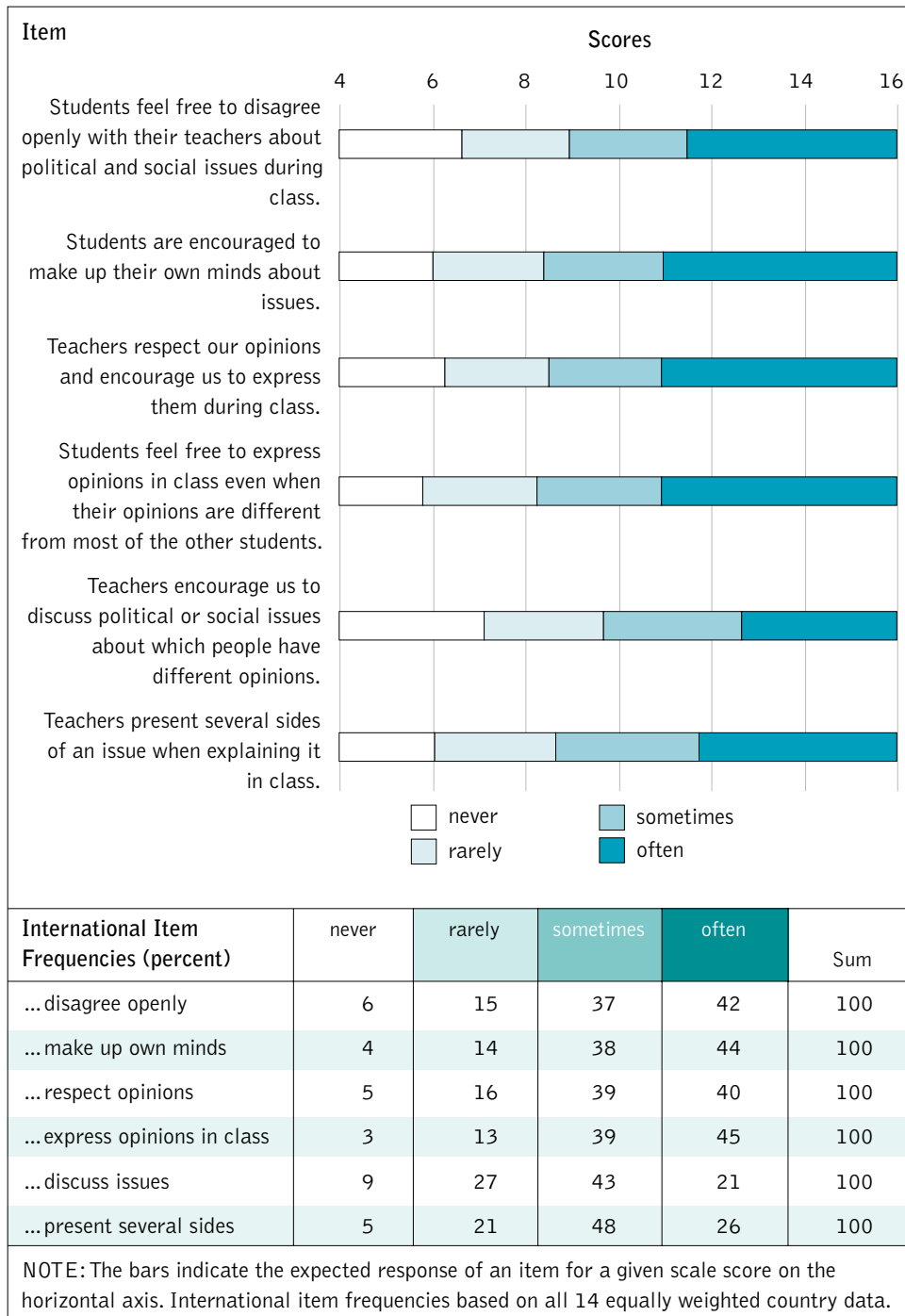
Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2j Item-By-Score Map for Confidence in Participation at School



Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Figure B.2k Item-By-Score Map for Open Classroom Climate for Discussion



Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

APPENDIX C CLASSICAL PSYCHOMETRIC INDICES (SELECTED)

Table C.1 Cronbach's Alpha Reliability Coefficients for All Scales

| Scale Name | Alpha | Number of Items in Scale |
|---|-------|--------------------------|
| Civic Knowledge (Content Knowledge and Interpretative Skills) | .86 | 26 |
| Content Knowledge | .75 | 14 |
| Skills in Interpreting Political Communication | .75 | 12 |
| Economic Literacy | .78 | 14 |
| Conventional Citizenship | .70 | 6 |
| Social-movement-related Citizenship | .70 | 4 |
| Economy-related Government Responsibilities | .57 | 5 |
| Society-related Government Responsibilities | .69 | 7 |
| Trust in Government-related Institutions | .79 | 6 |
| Positive Attitudes Toward One's Nation | .71 | 4 |
| Support for Women's Political and Economic Rights | .80 | 6 |
| Positive Attitudes Toward Immigrants | .80 | 5 |
| Confidence in Participation in School | .74 | 4 |
| Expected Participation in Political Activities | .75 | 3 |
| Open Climate for Classroom Discussion | .80 | 6 |

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Footnote: Alphas are not necessarily based on all countries because some items had to be set to missing countrywise.

Table C.2 Cronbach's Alpha Reliability Coefficients Within Countries: Civic Knowledge Sub-scales and Overall Test

| Country | Content Knowledge | Skills in Interpreting Political Communication | Economic Literacy | Civic Knowledge (Knowledge and Skills) |
|---|-------------------|--|-------------------|--|
| Chile | .70 | .72 | .73 | .83 |
| Cyprus | .70 | .72 | .74 | .82 |
| Czech Republic | .68 | .69 | .75 | .81 |
| Denmark | .59 | .62 | .71 | .74 |
| Estonia | .66 | .70 | .72 | .80 |
| Israel | .75 | .81 | .80 | .87 |
| Latvia | .75 | .74 | .75 | .85 |
| Norway | .76 | .77 | .77 | .87 |
| Poland | .73 | .72 | .74 | .84 |
| Portugal | .64 | .60 | .68 | .76 |
| Russian Federation | .80 | .75 | .80 | .87 |
| Slovenia | .80 | .77 | .75 | .88 |
| Sweden | .81 | .80 | .81 | .89 |
| Switzerland (German) | .67 | .68 | .71 | .80 |
| Median | .72 | .72 | .74 | .84 |
| <i>Number of items</i> | <i>14*</i> | <i>12**</i> | <i>14***</i> | <i>26****</i> |
| <p>* Number of items for Cyprus is 12. ** Number of items for Poland and the Russian Federation is 11. *** Number of items for Cyprus, Israel, and Switzerland (German) is 13. **** Number of items for Cyprus is 24, for Poland and the Russian Federation is 25.</p> | | | | |

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Footnote: Alphas are not necessarily based on all countries because some items had to be set to missing countrywise.

Table C.3a Cronbach's Alpha Reliability Coefficients Within Countries: Attitudinal Scales

| Country | Conventional Citizenship | Social-movement- related Citizenship | Society-related Government Responsibilities | Economy-related Government Responsibilities |
|---|-----------------------------|--|---|---|
| Chile | .65 | .63 | .66 | .54 |
| Cyprus | .69 | .69 | .76 | .61 |
| Czech Republic | .66 | .65 | .61 | .49 |
| Denmark | .64 | .72 | .62 | .57 |
| Estonia | .64 | .65 | .70 | .61 |
| Israel | .68 | .67 | .73 | .64 |
| Latvia | .62 | .61 | .72 | .53 |
| Norway | .69 | .64 | .67 | .54 |
| Poland | .69 | .68 | .66 | .54 |
| Portugal | .63 | .66 | .63 | .52 |
| Russian Federation | .62 | .62 | .72 | .63 |
| Slovenia | .66 | .67 | .68 | .56 |
| Sweden | .73 | .79 | .66 | .63 |
| Switzerland (German) | .71 | .67 | .59 | .43 |
| Median | .66 | .67 | .68 | .55 |
| <i>Number of items</i> | 6 | 4* | 7** | 5 |
| * Number of items for the Czech Republic and Slovenia is 3. | | | | |
| ** Number of items for Latvia is 6. | | | | |

Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

Table C.3b Cronbach's Alpha Reliability Coefficients Within Countries: Attitudinal Scales

| Country | Trust in Government-related Institutions | Positive Attitudes Toward One's Nation | Positive Attitudes Toward Immigrants | Attitudes Toward Women's Political and Economic Rights |
|--|--|--|--|--|
| Chile | .74 | .65 | .72 | .68 |
| Cyprus | .76 | .61 | .80 | .83 |
| Czech Republic | .76 | .67 | .75 | .78 |
| Denmark | .71 | .67 | .83 | .79 |
| Estonia | .78 | .68 | .81 | .78 |
| Israel | .71 | .81 | .74 | .81 |
| Latvia | .74 | .72 | .78 | .76 |
| Norway | .76 | .71 | .89 | .83 |
| Poland | .77 | .64 | .82 | .79 |
| Portugal | .69 | .61 | .70 | .73 |
| Russian Federation | .72 | .62 | .80 | .74 |
| Slovenia | .75 | .64 | .74 | .80 |
| Sweden | .81 | .73 | .90 | .81 |
| Switzerland (German) | .73 | .81 | .83 | .79 |
| Median | .75 | .67 | .80 | .79 |
| <i>Number of items</i> | 6 | 4* | 5** | 6*** |
| * Number of Items for Israel and Sweden is 3. | | | | |
| ** Number of items for Israel is 4. | | | | |
| *** Number of items for Latvia, the Russian Federation, Sweden, and Switzerland (German) is 5. | | | | |

Source: IEA Civic Education Study, Older population of upper secondary students tested in 2000.

**Table C.3c Cronbach's Alpha Reliability Coefficients Within Countries:
Attitudinal Scales**

| Country | Expected Political Activities | Confidence in Participation at School | Open Classroom Climate for Discussion |
|------------------------|-------------------------------|---------------------------------------|---------------------------------------|
| Chile | .75 | .64 | .78 |
| Cyprus | .72 | .77 | .76 |
| Czech Republic | .75 | .56 | .75 |
| Denmark | .76 | .76 | .77 |
| Estonia | .81 | .80 | .79 |
| Israel | .77 | .80 | .78 |
| Latvia | .73 | .67 | .78 |
| Norway | .79 | .78 | .80 |
| Poland | .78 | .77 | .82 |
| Portugal | .67 | .70 | .78 |
| Russian Federation | .78 | .65 | .78 |
| Slovenia | .73 | .64 | .72 |
| Sweden | .76 | .77 | .82 |
| Switzerland (German) | .75 | .69 | .82 |
| Median | .76 | .73 | .78 |
| <i>Number of items</i> | <i>3</i> | <i>4</i> | <i>6</i> |

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

APPENDIX D RESULTS FROM COLOMBIA AND HONG KONG (SAR)

Table D.1 Scale Scores for Colombia and Hong Kong (SAR) for All Scales*

| Scale Name | Colombia | Hong Kong (SAR) |
|---|----------|-----------------|
| Civic Knowledge (Content Knowledge and Interpretative Skills) | 102.4 | 124.8 |
| Content Knowledge | 111.6 | 120.8 |
| Skills in Interpreting Political Communication | 97.4 | 116.7 |
| Economic Literacy | 82.9 | 109.2 |
| Conventional Citizenship | 10.8 | 9.9 |
| Social-movement-related Citizenship | 11.6 | 9.5 |
| Economy-related Government Responsibilities | 10.1 | 9.5 |
| Society-related Government Responsibilities | 10.1 | 10.0 |
| Trust in Government-related Institutions | 9.1 | 10.0 |
| Positive Attitudes Toward One's Nation | 10.8 | 8.9 |
| Support for Women's Political and Economic Rights | 10.4 | 10.1 |
| Positive Attitudes Toward Immigrants | 10.7 | 10.7 |
| Confidence in Participation in School | 10.0 | 9.9 |
| Expected Participation in Political Activities | 10.8 | 10.2 |
| Open Climate for Classroom Discussion | 10.8 | 9.9 |

* Only unweighted data available. Standard error of mean could not be reported.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Table D.2 Mean Scale Scores by Gender for Colombia and Hong Kong(SAR)*

| Scale Name | Colombia | | Hong Kong (SAR) | |
|---|--------------|------------|-----------------|------------|
| | Mean Females | Mean Males | Mean Females | Mean Males |
| Content Knowledge | 110.9 | 112.6 | 120.4 | 121.3 |
| Skills in Interpreting Political Communication | 96.5 | 98.7 | 115.6 | 117.8 |
| Economic Literacy | 81.4 | 84.9 | 108.1 | 110.5 |
| Social-movement-related Citizenship | 11.7 | 11.6 | 9.6 | 9.4 |
| Support for Women's Political and Economic Rights | 10.9 | 9.8 | 10.5 | 9.6 |
| Positive Attitudes Toward Immigrants | 10.8 | 10.5 | 10.8 | 10.6 |
| Confidence in Participation in School | 10.0 | 9.9 | 10.0 | 9.9 |
| Expected Participation in Political Activities | 10.7 | 10.9 | 10.0 | 10.4 |
| Open Climate for Classroom Discussion | 11.1 | 10.5 | 10.0 | 9.7 |

* Only unweighted data available. Standard error of mean could not be reported.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Table D.3 Reported Percentages for Colombia and Hong Kong (SAR)*

| Item | | Colombia | Hong Kong (SAR) |
|---|--|----------|-----------------|
| Percentage of students who trust always or most of the time in | the national government | 33 | 47 |
| | news on television | 53 | 63 |
| | news on the radio | 53 | 65 |
| | news in the press | 55 | 28 |
| Percentage of students who agreed or strongly agreed with the statement 'I am interested in politics' | Political Interest | 64 | 34 |
| Percentage of students who sometimes or often | read newspaper articles about own country | 83 | 85 |
| | listen to news broadcasts on television | 95 | 92 |
| | listen to news broadcasts on the radio | 57 | 59 |
| Percentage of students who expected probably or definitely to | vote in national elections | 91 | 88 |
| | collect money for a social cause | 78 | 82 |
| | collect signatures for a petition | 73 | 59 |
| | participate in a non-violent protest march | 72 | 48 |
| | spray-paint protest slogans on walls | 23 | 10 |
| | block traffic as a form of protest | 23 | 10 |
| | occupy buildings as a form of protest | 15 | 10 |
| Percentage of students who agreed or strongly agreed with | In school I have learned to cooperate in groups with other students | 95 | 93 |
| | In school I have learned to understand people who have different ideas | 94 | 89 |
| | In school I have learned how to act to protect the environment | 89 | 77 |
| | In school I have learned to be concerned about what happens in other countries | 69 | 58 |
| | In school I have learned to contribute to solving problems in the community | 88 | 61 |
| | In school I have learned to contribute to be a patriotic and loyal citizen of my country | 86 | 43 |
| | In school I have learned about the importance of voting in national and local elections | 87 | 58 |
| Percentage of students who reported having participated in | a student council/student government/ class or school parliament | 24 | 73 |
| | a youth organization affiliated to a political party or union | 6 | 5 |
| | an environmental organization | 38 | 17 |
| | a human rights organization | 10 | 3 |
| | a group conducting voluntary activities to help the community | 46 | 57 |
| | a charity collecting money for a social cause | 25 | 48 |

* Only unweighted data available. Standard error of mean could not be reported.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

Table D.4 Reported Percentages by Gender for Colombia and Hong Kong (SAR)*

| Item | | Colombia | | Hong Kong (SAR) | |
|--|---|----------|-------|-----------------|-------|
| | | Females | Males | Females | Males |
| Percentage of students who agreed or strongly agreed with the statement 'I am interested in politics'. | Political Interest | 64 | 64 | 25 | 44 |
| Percentage of students who sometimes or often | read newspaper articles about own country | 84 | 81 | 87 | 84 |
| | listen to news broadcasts on television | 94 | 95 | 93 | 90 |
| | listen to news broadcasts on the radio | 56 | 57 | 62 | 56 |
| Percentage of students who expected probably or definitely to | vote in national elections | 92 | 89 | 91 | 86 |
| | collect money for a social cause | 82 | 73 | 89 | 75 |
| | collect signatures for a petition | 74 | 72 | 61 | 56 |
| | participate in a non-violent protest march | 72 | 73 | 45 | 52 |
| Percentage of students who expected probably or definitely to | spray-paint protest slogans on walls | 16 | 32 | 8 | 13 |
| | block traffic as a form of protest | 20 | 27 | 8 | 13 |
| | occupy buildings as a form of protest | 12 | 20 | 8 | 12 |
| Percentage of students who agreed or strongly agreed with | In school I have learned to cooperate in groups with other students | 96 | 91 | 92 | 86 |
| | In school I have learned to understand people who have different ideas | 97 | 94 | 96 | 90 |
| | In school I have learned how to act to protect the environment | 90 | 86 | 63 | 59 |
| | In school I have learned to be concerned about what happens in other countries | 88 | 84 | 40 | 47 |
| | In school I have learned to contribute to solving problems in the community | 91 | 86 | 80 | 73 |
| | In school I have learned to be a patriotic and loyal citizen of my country | 69 | 67 | 59 | 58 |
| | In school I have learned about the importance of voting in national and local elections | 88 | 85 | 58 | 58 |

* Only unweighted data available. Standard error of mean could not be reported.

Source: IEA Civic Education Study, Older Population of upper secondary students tested in 2000.

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