Indicators of civic engagement among lower secondary students

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The Australian Council for Educational Research (ACER)

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Introduction and background

Educational systems, school and teachers seek to prepare young people to understand the society they live in, to engage with its political and social issues and become actively involved as citizens in later adult life. There is a consensus that formal education influences the extent of adult civic engagement (Pancer, 2015). This is reflected in the fact that many countries include civic learning as a goal of school education either as a distinct subject or through several subjects (Ainley et al., 2013). More broadly, civic engagement of citizens is seen as a central characteristic of a democratic society and refers to personal involvement in activities related to the societal governance and interaction with other people. Putnam (1995) defines civic engagement as "people's connections with the life of their communities, not merely politics" (p. 665). The IEA International Civic and Citizenship Education Study (ICCS) has investigated outcomes and processes of civic and citizenship education in 2009 (Schulz et al, 2010) and 2016 (Schulz et al, 2017). This paper is based largely on ICCS 2016 but it also references ICCS 2009. The focus of the analysis is on intended civic engagement and the patterns of association within countries rather than on comparisons of point estimates for countries.

In this paper we investigate students' intended civic engagement in relation to their:

- current civic engagement (in school and in the community),
- dispositions for civic engagement (civic knowledge and civic self-efficacy),
- beliefs about civics and citizenship (the importance of conventional citizenship and trust in civic institutions), and
- background (gender, socioeconomic background, interest in political and social issues and parental interest in political and social issues).

Data and measures

Data

In 2016, ICCS gathered data from more than 94,000 Grade 8 students in 3800 schools in 24 countries. These student data were augmented by data from more than 37,000 teachers in those schools. Our analyses focus on the 21 countries in ICCS 2016 that satisfied the participation requirements established by the IEA to reduce the risk of non-participation bias. Eighteen of these 21 countries had participated in ICCS in both 2016 and 2009 and these provide the bases for commenting on changes over time. ICCS employed two-stage cluster sampling procedures within countries. During the first stage, schools were sampled from a sampling frame with a probability proportional to their size. During the second stage, students were randomly sampled within schools.

Measures

Responses to the student questionnaire were used to measure many of the constructs underpinning the scales and items in our paper. IRT (Item Response Theory) scaling was used to derive the scales. Civic knowledge was measured using a test of 87 items which included 42 items that had been used in ICCS 2009. The test is described in a companion paper presented in this symposium (Fraillon, Gebhardt & Schulz, 2018).

<u>Dependent variables</u>

We conducted two sets of analyses based on the dependent variables: expected electoral and expected active political participation. These 2016 scales were equated to those used in ICCS 2009. For these scales, 50 reflects the mean and 10 the standard deviation of all equally weighted countries that participated in ICCS 2009.

- Expected electoral participation was measured with a scale based on items concerned with voting at elections and seeking information about candidates. Students were asked to use the following response categories: "I would certainly do this," "I would probably do this," "I would probably not do this," and "I would certainly not do this"). The activities listed were (a) "vote in local elections" (85%); (b) "vote in national elections" (85%); and (c) "get information about candidates before voting in an election" (80%). The students' responses to these items formed a highly reliable scale ($\alpha = 0.83$) reflecting intended electoral participation that we were able to equate to the scale established in ICCS 2009.
- Expected active political participation was measured with a scale based on five items that asked them how likely students would be to participate at some future date in the following activities: (a) "help a candidate or party during an election campaign" (44%); (b) "join a political party" (26%); (c) "join a trade union" (32%); (d) "stand as a candidate" (24%); and (e) "join an organization committed to a political or social cause" (34%). The scale proved to be highly reliable ($\alpha = 0.85$) and we were able to equate the 2016 scale scores to the scale scores in ICCS 2009.

<u>Independent variables</u>

Prior research using data from ICCS 2009 has shown that students' expected participation in elections or political activities is associated with gender, interest in civic issues, experience in civic engagement, self-efficacy, civic knowledge, and perceptions of civic institutions (Schulz et al., 2010). Similar findings have also emerged from other research investigating factors associated with students' civic engagement (Solhaug, 2006; Quintelier & Hooghe, 2013).

To explain variation in the dependent variables, we identified four groups of independent variables: (a) variables related to students' background such as gender or students' interest; (b) variables related to past or current participation in community groups or organizations or at school; (c) variables related to students' dispositions for engagement, such as citizenship self-efficacy and civic knowledge; and (d) variables related to students' beliefs about citizenship and institutions. The independent variables in our analyses, organised in blocks of variables, are:

- Student background variables:

  – Students' gender (female = 1, male = 0)
  – Students' socioeconomic background (nationally standardized with averages of 0 and standard deviations of 1)
  – Parental interest in political and social issues (1 = having at least one parent quite or very interested in political and social issues, 0 = other students)
  – Students' interest in political and social issues (1 = being quite or very interested in political and social issues, 0 = other students).

- Students' experience with civic participation:

  – Participation in community organizations and groups (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1)
  – Participation in civic activities at school (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1

- Students' dispositions for civic engagement:

  – Students' sense of citizenship self-efficacy (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1)
  – Civic knowledge (based on five plausible values, nationally standardized scores with averages of 0 and standard deviations of 1).

- Students' beliefs:

  – Students' perceptions of the importance of conventional citizenship (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1);
  – Students' trust in civic institutions (IRT scale, nationally standardized scores with averages of 0 and standard deviations of 1).

Readers should be aware that student's attitudes or perceptions across different national contexts may not always measure respondents' beliefs consistently across the different languages and cultures (van de Gaer, Grisay, Schulz, & Gebhardt, 2012). Although issues of measurement invariance were reviewed during the development of ICCS (Schulz & Fraillon, 2011), we acknowledge that variations of scale scores across countries may be partly due to differences related to cultural or linguistic contexts. This is a reason for focussing primarily on within-country patterns of association instead of cross-country comparisons of outcome variables.

Analyses

The analyses presented in this paper focus on explaining variation in two variables related to students' expectations to participate as adults: expected electoral participation and expected active political participation. In line with findings from other studies (Quintelier, 2008), we found only relatively low proportions of between-school variation in the dependent variables. In addition, because the non-response rates in ICCS 2016 were higher for the teacher and school principal questionnaires than for the student instruments, we adopted this focus so that we could maximize

the number of countries included in the analyses. We therefore chose a single-level multiple regression approach when analysing the factors explaining variation in this variable.

In a regression model, an estimate of the percentage of explained variance can be obtained by multiplying R^2 by 100. Furthermore, in a multiple regression model the variance in the criterion variable can be explained by the combined effect of more than one predictor or block of predictors. By reviewing the contributions of different predictor blocks, we estimated how much of the explained variance is attributable uniquely to each of the predictors or blocks of predictors, and how much these predictors or blocks of predictors in combination explain this variance. We carried out this estimation by comparing the variance explanation of four additional regression models (each without one of the four blocks of predictors) with the explanatory power of the overall model that included all predictors in combination

ICCS scale scores are standardized at the national level. Hence, regression coefficients should be interpreted in terms of effect size, which means that the coefficients reflect changes in the scores for the two dependent variables (expected electoral participation and expected active political participation), with changes of one standard deviation in each of the participating countries. When reviewing the size of the regression coefficients, readers should also keep in mind that the coefficients are relative to the metric of the two (equated) questionnaire scales, where 10 reflects one international standard deviation for equally weighted countries in ICCS 2009.

Multiple regression models were estimated using jack-knife repeated replication to obtain correct standard errors (Schulz, 2011). Where comparisons were made between ICCS 2016 and ICCS 2009 an equating error term was added to the formula for the standard error of the difference between countries because the process of equating the tests across the cycles introduces additional error into the calculation of any test statistic.

Across the participating countries, the average percentage of students in the sample with valid data was 92 percent. The national average percentages ranged from 68 to 98 percent. We compared our results with those from models that used alternative approaches to the treatment of missing values, wherein students with missing values on variables received mean scores or median values, and missing indicator variables were added for each variable (Cohen & Cohen, 1975). Because the regression coefficients from the two approaches we used the simpler approach of "list-wise" exclusion of missing values.

Although our statistical modelling used predictor variables to "explain" variation in dependent variables, our results should not be interpreted as indicating causality. Given the limitations of international large-scale assessments and their cross-sectional designs (Rutkowski & Delandshere, 2016), it is not possible to reach firm conclusions about causal relationships from the findings. It is better to regard these results as indicating associations between the dependent variables (expected electoral participation and expected active political participation) and relevant independent variables. Our findings may suggest the possibility of causal relationships, but observed significant effects are not necessarily evidence of causality.

Results

Changes between 2009 and 2016

We recorded variations across countries in scale scores from ICCS 2016 as well as changes between 2009 and 2016 (Table 1). We found statistically significant increases in expected electoral participation in nine out of 18 countries with comparable data although the increase was very (just one scale point). We also found statistically significant increases in expected active political participation in nine countries. Two countries recorded 2016 scores that were significantly lower than the 2009 scores; seven countries recorded no statistically significant differences. Overall, the increase in expected active political participation across the two cycles was very small (less than one scale point).

Table 1 here

Associations with student background characteristics

<u>Expected electoral participation</u>

Across all ICCS 2016 countries, females had slightly (albeit significantly) higher scale scores than males (Table 2). On average, the difference was one scale point. Students who were quite or very interested in political and social issues had significantly higher scale scores than the less interested students. Average difference across countries amounted to four scale points indicating a moderate association. Another significant association across all ICCS 2016 countries was that between expected electoral participation and civic knowledge. Students with higher levels of civic knowledge had significantly higher scores than the less knowledgeable students on the scale indicating expected electoral participation. On average, we found a difference of five scale points—a difference that suggests a moderately strong association between civic knowledge and expected electoral participation.

Table 2 here

Expected active political participation

Male students were more likely than female students to anticipate active political participation (Table 3). The difference, statistically significant in 16 of the countries, was small—only about one scale point. Students who said they were quite or very interested in political and social issues had higher scale scores than students with no or little interest in these issues. We observed statistically significant differences in all countries. On average, the difference across countries was three scale points. Expected active political participation tended to be negatively related to students' civic knowledge: expected active political participation tended to be higher among students with civic knowledge scores below Level B than among students with higher levels of civic knowledge. This difference was statistically significant in 12 countries. We observed differences of two scale points on average.

Explaining variation in expected electoral participation

Table 4 shows the percentages of variance in expected electoral participation explained by student background factors alone and by the full model. Student background factors explained, on average, 12 percent of the variance (ranging from 4% to 22%), while the combined model explained 31 percent of the variation in the criterion variables on average across the ICCS 2016 countries, with the range extending from 24 to 41 percent. In most countries, almost half of the explained variance could be attributed to more than one group of predictors. Both student dispositions (self-efficacy and civic knowledge) and student beliefs (importance of conventional citizenship and trust in civic institutions) made larger unique contributions to the explanation of variance in the dependent variable.

The unstandardized regression coefficients for effects on expected electoral participation displayed in Table 5 show that associations with student gender were inconsistent and significant in only a few countries. We registered significant positive, but relatively weak, associations between expected electoral participation and students' socioeconomic status in 10 countries. Students' expectations of electoral participation were unrelated to socioeconomic status in the remaining countries. Parental interest in political and social issues, and also students' interest in political and social issues were consistent predictors across countries. On average, having at least one very interested or one quite interested parent was associated with a difference of almost two score points (equivalent to a fifth of an international standard deviation) in expected electoral participation, while students' interest in political and social issues had a net effect of more than one score point (equivalent to one tenth of an international standard deviation).

Weak, but significant, positive associations between expected electoral participation and students' current or past participation in community groups or organizations emerged in only two countries. However, in 16 countries, past or current participation in civic activities at school was a significant positive predictor of expected electoral participation: overall, one (national) standard deviation was associated with an increase of 0.5 of a scale score point on average. The results therefore show that students' experience of civic participation at school was only weakly associated with students' expectations of electoral participation in the future.

Table 6 shows the unstandardized regression coefficients for variables related to students' civic dispositions and beliefs. Students' sense of citizenship self-efficacy was a consistent positive predictor of expected electoral participation across the participating countries. On average, one (national) standard deviation was associated with an increase of over one scale score point (equivalent to one tenth of an international standard deviation in the dependent variable). Students' civic knowledge was also a consistently strong, positive predictor of expected electoral participation across countries, with a net effect size of 2.4 scale score points, equivalent to almost a quarter of an

international standard deviation. These findings are similar to those from ICCS 2009, and they emphasize the importance, as reflected in the civic knowledge score, of dispositions for engagement such as self-efficacy and the student's ability to comprehend the political world.

Table 6 here

Students' belief in the importance of conventional citizenship also had consistent significantly positive associations with expected electoral participation: on average one (national) standard deviation was associated with an increase of almost two score points (Table 6). Students' trust in civic institutions likewise had consistent, positive relationships with the dependent variable; here the net effect was more than one score point.

Expected active political participation

Table 7 shows the explained variance in (e.g., working on a political campaign or running for office), once for the model that included only student background factors and once for the model that included all variables. Background variables explained, on average, six percent of the variation (with the percentages ranging from 4% to 9%), while the model with all predictor variables explained 25 percent on average (range: 16% to 34%). As for the model explaining expected electoral participation, about half of the variance was attributable to more than one group of predictors. Both dispositions and beliefs thus made relatively large contributions to the unique variance explanation

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Table 7 here

Table 8 shows the unstandardized regression coefficients for student background variables and factors reflecting experience with civic engagement. In most countries, we observed negative associations between gender (female) and expected active political participation. On average, the difference was associated with one scale score point. This finding suggests (after we had controlled for all other variables in the model) that the male students participating in ICCS 2016 were more inclined than the female students to think they would participate in explicitly political activities in the future.

Table 8 here

Several countries recorded weak but significant negative associations between students' socioeconomic background and active political participation. The remaining countries recorded no significant effects. In 11 countries, parental interest in political and social issues was positively related to expected active political participation (with a net effect of about one score point), while students' interest in political and social issues was a positive predictor in 18 of the 21 countries (with a net effect of more than one score point).

In all but one country, students' experience with participation in community groups or organizations also had consistent and significant positive associations with students' expectations of engaging actively as an adult. On average, one (national) standard deviation was associated with a very small increase in expected active political participation of little more than half a scale score point.

Students' civic engagement at school had significant positive net effects on expected active political participation in 15 countries, with similarly small-effect coefficients across countries of less than half a score point per (national) standard deviation.

Table 9 shows the results for the prediction of active political participation by variables associated with dispositions toward engagement and beliefs about citizenship and institutions. Students' sense of citizenship self-efficacy was a consistently strong and positive predictor of expected active political participation in all countries; here, a difference of one (national) standard deviation equated to an increase of more than two score points (ranging from 1.6 to 3.5), equivalent to about a fifth of an international standard deviation in the dependent variable. In keeping with bivariate analyses (see Schulz et al., 2017) students' civic knowledge had significant negative associations in all but two countries with expected active political participation, a finding that was apparent after we controlled for other variables. On average across countries, one (national) standard deviation made for a decrease of more than one scale score point (equivalent to a tenth of an international standard deviation).

These findings suggest that students who expect to be actively involved in political activities in the future are the students most likely to have the higher scores on the citizenship self-efficacy scale, while the students with the higher scores on the civic knowledge scale are the students less inclined to think they will actively engage in politics in the future. These results, which are similar to those reported from ICCS 2009, have implications for what higher levels of learning may lead to with regard to civic engagement because they indicate that students who achieve higher scores on the civic knowledge scale will hold more critical views of the functioning of conventional channels of political participation. These findings warrant further investigation. They may also be the result of the substantial gender differences we observed, in which female students tended to have higher levels of civic knowledge but male students were more likely to express expectations of active political participation.

Students' beliefs in the importance of adult participation in conventional citizenship such as voting and being informed was another consistently significant, positive predictor of expected active political participation in all countries; on average, the net effect was estimated as 1.7 score points. Students' trust in civic institutions was also positively associated with expected active political participation in all but two countries with an average net effect of one scale score point. These findings, which are similar to those from ICCS 2009, suggest that beliefs in the importance of citizen involvement through established channels as well as trust in the functioning of civic institutions have a have a bearing on whether young people expect to become actively engaged in politics in the future.

Summary

In this paper we examined factors associated with expected student civic engagement using multiple regression models using student background, experience with civic engagement, disposition toward engagement, and beliefs about citizenship and institutions explained between a quarter and a third of the variation in expected civic participation.

Parental and student interest were the most important student background predictors of expected civic engagement. Female students were less inclined than male students to expect engagement in active political involvement in the future. Experience with civic engagement in the community or at school tended to be positively associated with expectations of political engagement during adulthood. Student civic knowledge and self-efficacy as well as student beliefs were consistent predictors of expected electoral and active political participation. Students who believed in the importance of civic engagement through established channels were more likely to expect civic participation in the future. Most countries recorded positive associations between students' trust in civic institutions and their expected electoral and active political participation. Our multivariate analyses confirmed previous findings about the relationship between civic knowledge and expected civic engagement as adults. Even after controlling for other variables, we found that the more knowledgeable students were more likely than their peers to expect to vote in elections but were less likely to expect to be actively involved politically.

This suggest that higher levels of civic knowledge do not necessarily induce young people to develop a disposition for engagement in the traditional or conventional modes of active political participation. It is possible that having a higher level of knowledge about how the political system works, which includes the potentially negative aspects of its functioning, may be detrimental to adolescents' expectations of individual participation in these organizations and institutions.

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Table 1 National average scale scores for 2016 and 2019 indicating students expected electoral and active political participation

	National average scale scores indicating students'							
	expected electoral participation				expected active political participation			
Country	2016		2009	Differences (2016 - 2009)		2016		2009	Differences (2016 - 2009)
Belgium (Flemish)	49 (0.3)	▽	46 (0.2)	**3.0 (0.4)**		46 (0.3)	▼	45 (0.2)	**1.3 (0.5)**
Bulgaria	50 (0.3)	▽	48 (0.3)	**1.9 (0.4)**		50 (0.3)	▽	49 (0.3)	**1.2 (0.5)**
Chile	50 (0.2)	▽	50 (0.3)	0.3 (0.4)		50 (0.2)	▽	49 (0.2)	**1.1 (0.5)**
Chinese Taipei	53 (0.2)	△	51 (0.2)	**2.1 (0.3)**		50 (0.2)	▽	47 (0.1)	**2.6 (0.4)**
Colombia	53 (0.2)	△	54 (0.2)	-0.5 (0.3)		53 (0.3)	△	53 (0.3)	-0.1 (0.5)
Croatia	51 (0.2)		-	-		50 (0.2)		-	-
Denmark†	52 (0.2)	△	49 (0.2)	**3.3 (0.3)**		51 (0.1)		50 (0.1)	0.6 (0.4)
Dominican Republic (r)	53 (0.2)	△	52 (0.3)	**0.9 (0.3)**		60 (0.3)	▲	57 (0.4)	**2.8 (0.6)**
Estonia	48 (0.2)	▼	47 (0.3)	**1.4 (0.4)**		48 (0.2)	▽	48 (0.2)	0.1 (0.5)
Finland	51 (0.2)	▽	49 (0.2)	**1.5 (0.3)**		49 (0.2)	▽	48 (0.1)	**1.3 (0.4)**
Italy	54 (0.2)	△	54 (0.2)	0.1 (0.3)		51 (0.2)		49 (0.2)	**1.4 (0.4)**
Latvia	49 (0.2)	▽	50 (0.3)	-0.7 (0.4)		50 (0.2)	▽	51 (0.2)	**-1.2 (0.5)**
Lithuania	52 (0.2)	△	52 (0.2)	0.4 (0.3)		52 (0.2)	△	49 (0.2)	**2.7 (0.5)**
Malta	50 (0.2)	▽	49 (0.4)	0.7 (0.4)		50 (0.2)	▽	48 (0.4)	**1.6 (0.5)**
Mexico	52 (0.2)	△	53 (0.2)	**-0.7 (0.3)**		55 (0.2)	▲	54 (0.2)	0.8 (0.5)
Netherlands†	47 (0.3)	▼	-	-		48 (0.2)	▼	-	-
Norway (9)	54 (0.1)	▲	52 (0.3)	**2.1 (0.4)**		49 (0.1)	▽	49 (0.2)	-0.2 (0.4)
Peru	55 (0.2)	▲	-	-		56 (0.2)	▲	-	-
Russian Federation	51 (0.3)	▽	51 (0.2)	-0.6 (0.4)		50 (0.3)	▽	52 (0.2)	**-1.5 (0.5)**
Slovenia	50 (0.3)	▽	50 (0.2)	0.1 (0.3)		49 (0.2)	▽	48 (0.2)	**0.7 (0.5)**
Sweden	53 (0.2)	△	49 (0.3)	**4.2 (0.4)**		50 (0.3)	▽	50 (0.2)	**0.4 (0.5)**
Average ICCS 2016	51 (0.0)					51 (0.0)			
Average common countries	*51 (0.1)*		*50 (0.1)*	*1.1 (0.1)*		*51 (0.1)*		*50 (0.1)*	*0.9 (0.1)*

National results for ICCS 2016 are:

more than 3 score points above ICCS 2016 average ▲

significantly above ICCS 2016 average △

significantly below ICCS 2016 average ▽

more than 3 score points below ICCS 2016 average ▼

() Standard errors appear in parentheses. Statistically significant changes (p < 0.05) between 2009 and 2016 are displayed in bold.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.
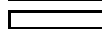
- No comparable data available.

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

Table 2   National average scale scores indicating students' expected electoral participation by parental education, students' interest and level of civic knowledge

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

Difference between comparison groups statistically significant at p < 0.05.

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

Score averages which are significantly larger (p < 0.05) than those in the comparison group are displayed in bold.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.

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

Table 3 National average scale scores indicating students' expected active political participation by student characteristics

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

Difference between comparison groups statistically significant at p < 0.05.

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

Score averages which are significantly larger (p < 0.05) than those in the comparison group are displayed in bold.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.

Table 4: Explained variance for expected electoral participation

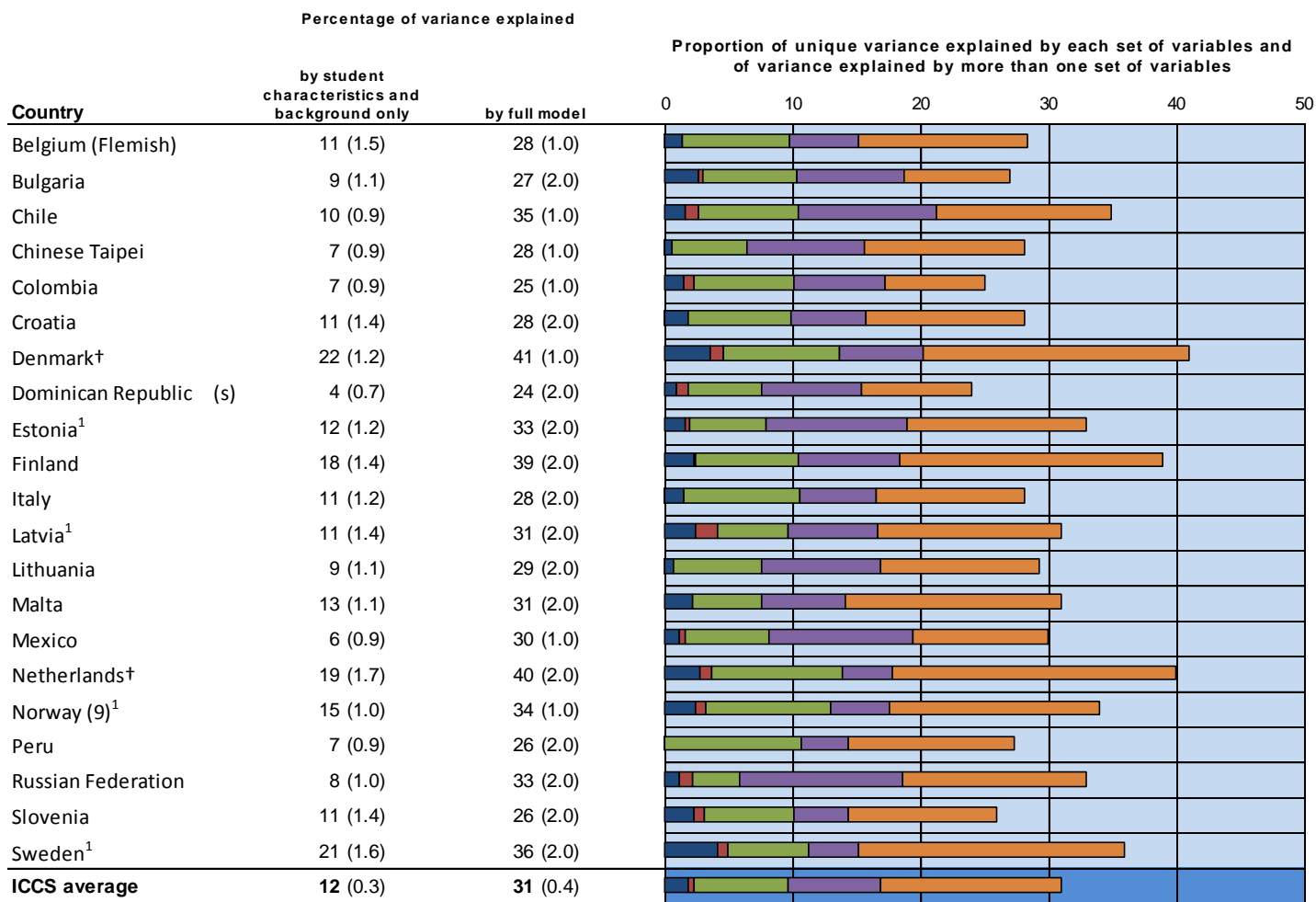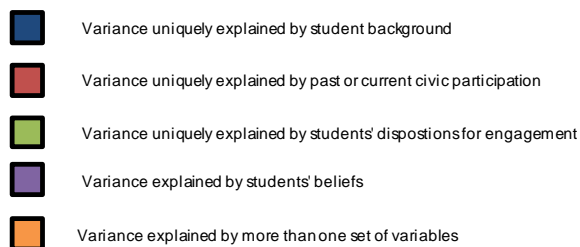|	Percentage of variance explained		Proportion of unique variance explained by each set of variables and of variance explained by more than one set of variables					
Country	by student characteristics and background only	by full model	0	10	20	30	40	50
Belgium (Flemish)	11 (1.5)	28 (1.0)						
Bulgaria	9 (1.1)	27 (2.0)						
Chile	10 (0.9)	35 (1.0)						
Chinese Taipei	7 (0.9)	28 (1.0)						
Colombia	7 (0.9)	25 (1.0)						
Croatia	11 (1.4)	28 (2.0)						
Denmark†	22 (1.2)	41 (1.0)						
Dominican Republic (s)	4 (0.7)	24 (2.0)						
Estonia[1]	12 (1.2)	33 (2.0)						
Finland	18 (1.4)	39 (2.0)						
Italy	11 (1.2)	28 (2.0)						
Latvia[1]	11 (1.4)	31 (2.0)						
Lithuania	9 (1.1)	29 (2.0)						
Malta	13 (1.1)	31 (2.0)						
Mexico	6 (0.9)	30 (1.0)						
Netherlands†	19 (1.7)	40 (2.0)						
Norway (9)[1]	15 (1.0)	34 (1.0)						
Peru	7 (0.9)	26 (2.0)						
Russian Federation	8 (1.0)	33 (2.0)						
Slovenia	11 (1.4)	26 (2.0)						
Sweden[1]	21 (1.6)	36 (2.0)						
ICCS average	**12** (0.3)	**31** (0.4)						

() Standard errors appear in parentheses.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.

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

- ■ Variance uniquely explained by student background
- ■ Variance uniquely explained by past or current civic participation
- ■ Variance uniquely explained by students' dispostions for engagement
- ■ Variance explained by students' beliefs
- ■ Variance explained by more than one set of variables

Table 5   Multiple regression coefficients for expected electoral participation (student background and civic participation)

Country	Student background variables				Current and past participation	
	Gender (female)	Socioeconomic background	Parental interest	Student interest	Participation in community organisation and groups	Participation in civic activities at school
Belgium (Flemish)	**-0.9** (0.3)	0.1 (0.2)	**1.2** (0.4)	**2.3** (0.4)	0.2 (0.2)	**0.4** (0.2)
Bulgaria	0.3 (0.4)	-0.1 (0.3)	**2.8** (0.5)	**1.6** (0.4)	0.2 (0.3)	0.2 (0.3)
Chile	0.4 (0.3)	0.2 (0.1)	**2.0** (0.3)	**1.0** (0.3)	0.1 (0.2)	**0.9** (0.2)
Chinese Taipei	-0.2 (0.3)	0.2 (0.1)	**0.7** (0.3)	**1.3** (0.2)	0.2 (0.1)	**0.3** (0.1)
Colombia	0.1 (0.3)	-0.1 (0.1)	**1.3** (0.3)	**1.1** (0.3)	0.2 (0.2)	0.3 (0.2)
Croatia	-0.5 (0.3)	**0.4** (0.2)	**2.2** (0.5)	**1.3** (0.3)	-0.1 (0.2)	0.2 (0.2)
Denmark†	**0.9** (0.2)	**0.3** (0.1)	**2.0** (0.3)	**2.0** (0.2)	**0.3** (0.1)	**0.5** (0.1)
Dominican Republic (s)	0.2 (0.3)	0.0 (0.2)	**1.3** (0.3)	0.2 (0.4)	0.0 (0.2)	**0.7** (0.2)
Estonia[1]	-0.2 (0.4)	0.3 (0.2)	**1.7** (0.4)	**1.4** (0.4)	0.2 (0.2)	0.2 (0.2)
Finland	0.0 (0.3)	**0.6** (0.1)	**2.4** (0.3)	**1.4** (0.3)	0.1 (0.1)	**0.5** (0.1)
Italy	-0.2 (0.2)	0.1 (0.1)	**3.0** (0.5)	**0.6** (0.3)	0.1 (0.1)	**0.3** (0.1)
Latvia[1]	0.1 (0.3)	**0.9** (0.2)	**2.2** (0.6)	**1.4** (0.4)	-0.1 (0.2)	**1.4** (0.2)
Lithuania	0.4 (0.3)	0.1 (0.2)	**2.1** (0.5)	**1.1** (0.3)	-0.1 (0.2)	**0.4** (0.2)
Malta	0.3 (0.3)	**0.5** (0.2)	**1.8** (0.4)	**2.0** (0.3)	**0.4** (0.1)	0.3 (0.2)
Mexico	**0.5** (0.3)	-0.1 (0.1)	**1.2** (0.3)	**0.8** (0.3)	0.0 (0.2)	**0.4** (0.2)
Netherlands†	**-1.0** (0.3)	**0.6** (0.2)	**2.6** (0.4)	**1.4** (0.5)	0.3 (0.2)	**1.0** (0.2)
Norway (9)[1]	0.4 (0.2)	**0.6** (0.1)	**2.1** (0.3)	**1.0** (0.3)	0.2 (0.1)	**0.6** (0.1)
Peru	-0.1 (0.2)	-0.1 (0.1)	**0.9** (0.3)	**0.9** (0.2)	-0.2 (0.1)	**0.4** (0.1)
Russian Federation	-0.2 (0.3)	**0.4** (0.2)	**0.8** (0.3)	**1.3** (0.3)	0.3 (0.2)	**0.8** (0.2)
Slovenia	**-1.4** (0.3)	**0.7** (0.2)	**1.7** (0.5)	**1.1** (0.4)	0.1 (0.2)	**0.7** (0.2)
Sweden[1]	0.3 (0.3)	**0.4** (0.1)	**2.6** (0.5)	**2.4** (0.3)	-0.2 (0.1)	**0.8** (0.2)
ICCS 2016 average	0.0 (0.1)	**0.3** (0.0)	**1.8** (0.1)	**1.3** (0.1)	**0.1** (0.0)	**0.5** (0.0)

* Statistically significant (p<0.05) coefficients in **bold** .

() Standard errors appear in parentheses.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.

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

Table 6 **Multiple regression coefficients for expected electoral participation (dispositions and perceptions)**

| Country | Students' dispositions for civic engagement | | Student perceptions | |
	Students' sense of citizenship self-efficacy	Students' civic knowledge	Students' perceptions of the importance of conventional citizenship	Students' trust in civic institutions
Belgium (Flemish)	**0.9** (0.3)	**2.8** (0.2)	**1.7** (0.2)	**1.1** (0.2)
Bulgaria	**1.3** (0.3)	**2.9** (0.3)	**2.1** (0.3)	**1.6** (0.2)
Chile	**1.6** (0.2)	**3.0** (0.1)	**2.6** (0.2)	**2.0** (0.2)
Chinese Taipei	**0.7** (0.2)	**2.3** (0.1)	**2.5** (0.2)	**0.6** (0.2)
Colombia	**1.3** (0.2)	**2.5** (0.2)	**1.8** (0.2)	**1.3** (0.1)
Croatia	**1.0** (0.2)	**2.5** (0.2)	**1.9** (0.2)	**0.9** (0.2)
Denmark†	**1.1** (0.2)	**2.4** (0.1)	**1.5** (0.1)	**1.1** (0.1)
Dominican Republic (s)	**1.6** (0.2)	**1.7** (0.2)	**2.1** (0.2)	**1.2** (0.2)
Estonia[1]	**1.2** (0.2)	**1.9** (0.2)	**2.3** (0.2)	**1.3** (0.2)
Finland	**1.1** (0.2)	**2.3** (0.2)	**1.9** (0.2)	**1.2** (0.2)
Italy	**0.9** (0.2)	**2.5** (0.2)	**1.7** (0.1)	**1.0** (0.1)
Latvia[1]	**1.2** (0.2)	**2.2** (0.2)	**2.1** (0.2)	**1.1** (0.2)
Lithuania	**1.0** (0.2)	**2.5** (0.2)	**2.1** (0.2)	**1.3** (0.2)
Malta	**1.6** (0.2)	**2.0** (0.2)	**2.2** (0.2)	**1.1** (0.2)
Mexico	**1.2** (0.2)	**2.4** (0.2)	**2.5** (0.2)	**1.7** (0.2)
Netherlands†	**1.2** (0.2)	**3.3** (0.2)	**1.3** (0.2)	**1.2** (0.2)
Norway (9)[1]	**1.2** (0.2)	**2.9** (0.2)	**0.8** (0.2)	**1.6** (0.1)
Peru	**1.3** (0.1)	**2.8** (0.2)	**1.5** (0.1)	**0.8** (0.2)
Russian Federation	**1.2** (0.2)	**1.7** (0.2)	**2.5** (0.2)	**1.6** (0.2)
Slovenia	**1.3** (0.2)	**2.6** (0.2)	**1.6** (0.2)	**0.9** (0.2)
Sweden[1]	**1.4** (0.2)	**2.0** (0.2)	**0.9** (0.3)	**1.3** (0.2)
ICCS 2016 average	**1.2** (0.0)	**2.4** (0.0)	**1.9** (0.0)	**1.2** (0.0)

* Statistically significant (p<0.05) coefficients in **bold**.

() Standard errors appear in parentheses.

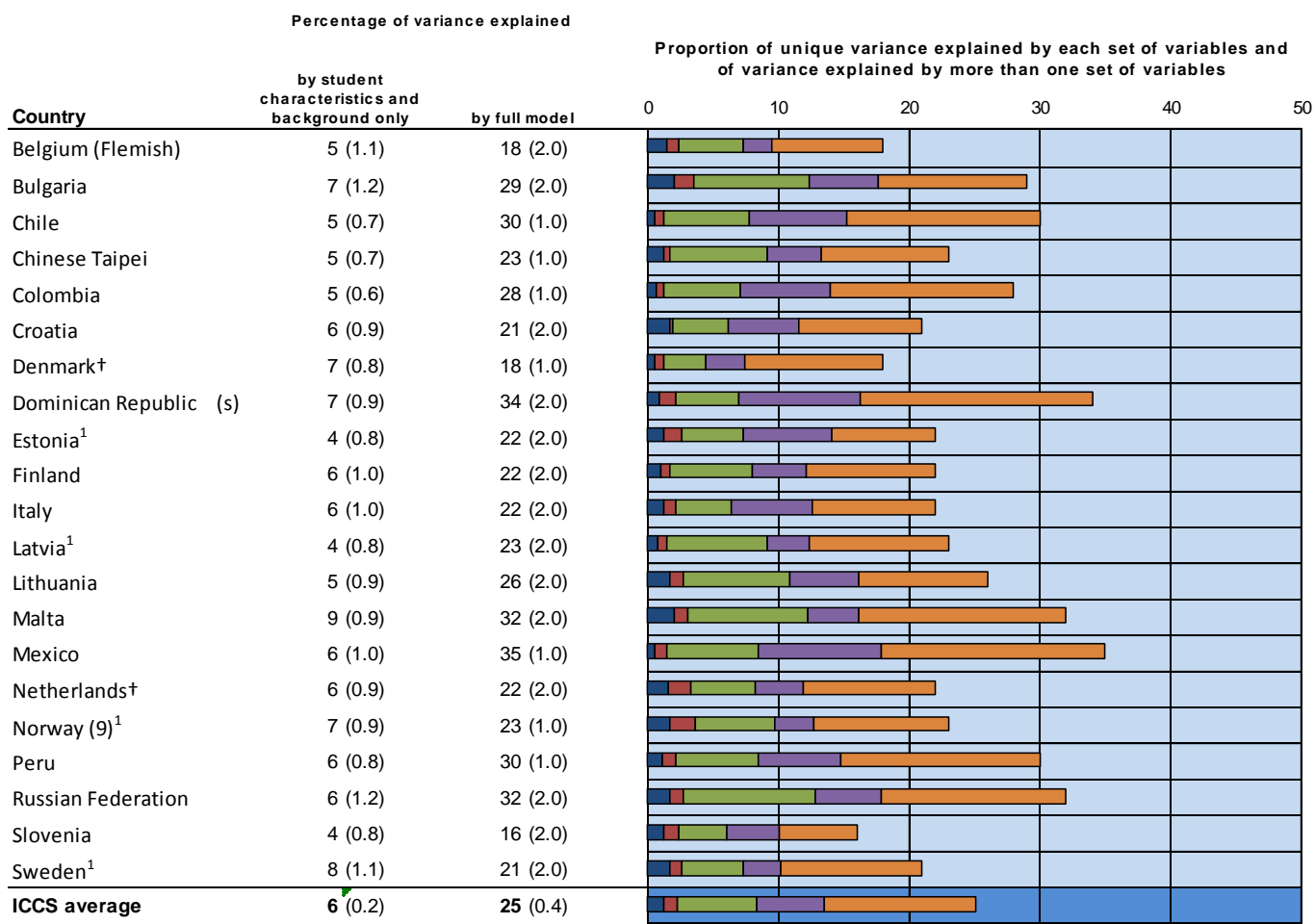(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.

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

Table 7   Explained variance for active political participation

Percentage of variance explained

Proportion of unique variance explained by each set of variables and of variance explained by more than one set of variables

Country	by student characteristics and background only	by full model	Chart
Belgium (Flemish)	5 (1.1)	18 (2.0)	
Bulgaria	7 (1.2)	29 (2.0)	
Chile	5 (0.7)	30 (1.0)	
Chinese Taipei	5 (0.7)	23 (1.0)	
Colombia	5 (0.6)	28 (1.0)	
Croatia	6 (0.9)	21 (2.0)	
Denmark†	7 (0.8)	18 (1.0)	
Dominican Republic (s)	7 (0.9)	34 (2.0)	
Estonia[1]	4 (0.8)	22 (2.0)	
Finland	6 (1.0)	22 (2.0)	
Italy	6 (1.0)	22 (2.0)	
Latvia[1]	4 (0.8)	23 (2.0)	
Lithuania	5 (0.9)	26 (2.0)	
Malta	9 (0.9)	32 (2.0)	
Mexico	6 (1.0)	35 (1.0)	
Netherlands†	6 (0.9)	22 (2.0)	
Norway (9)[1]	7 (0.9)	23 (1.0)	
Peru	6 (0.8)	30 (1.0)	
Russian Federation	6 (1.2)	32 (2.0)	
Slovenia	4 (0.8)	16 (2.0)	
Sweden[1]	8 (1.1)	21 (2.0)	
ICCS average	**6** (0.2)	**25** (0.4)	

() Standard errors appear in parentheses.
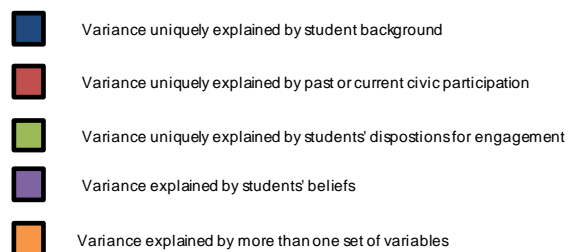
(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.

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

- ■ Variance uniquely explained by student background
- ■ Variance uniquely explained by past or current civic participation
- ■ Variance uniquely explained by students' dispostions for engagement
- ■ Variance explained by students' beliefs
- ■ Variance explained by more than one set of variables

Table 8 Multiple regression coefficients for expected active political participation (student background and civic participation)

Country	Student background variables				Current and past participation	
	Gender (female)	Socioeconomic background	Parental interest	Student interest	Participation in community organisation and groups	Participation in civic activities at school
Belgium (Flemish)	**-1.0** (0.4)	-0.1 (0.2)	**1.3** (0.5)	**1.7** (0.5)	**0.6** (0.2)	**0.6** (0.2)
Bulgaria	**-1.3** (0.4)	-0.5 (0.3)	**1.5** (0.5)	**1.1** (0.4)	**0.7** (0.3)	0.3 (0.4)
Chile	**-0.7** (0.3)	**-0.5** (0.2)	**1.5** (0.3)	**1.0** (0.4)	**0.6** (0.2)	**0.8** (0.2)
Chinese Taipei	**-1.5** (0.2)	-0.2 (0.1)	0.0 (0.3)	**1.4** (0.3)	**0.5** (0.1)	**0.5** (0.1)
Colombia	**-0.7** (0.3)	**-0.5** (0.2)	0.6 (0.4)	**0.9** (0.4)	**0.6** (0.2)	0.3 (0.2)
Croatia	**-1.7** (0.4)	-0.1 (0.2)	**1.6** (0.5)	**1.6** (0.4)	0.2 (0.2)	**0.5** (0.2)
Denmark†	-0.3 (0.2)	-0.1 (0.1)	0.4 (0.3)	**1.4** (0.2)	**0.7** (0.1)	0.2 (0.1)
Dominican Republic (s)	**-0.8** (0.4)	**-0.4** (0.2)	**1.4** (0.3)	0.5 (0.4)	**0.8** (0.2)	**0.5** (0.2)
Estonia[1]	**-1.6** (0.3)	-0.3 (0.2)	0.6 (0.5)	0.4 (0.3)	**0.7** (0.1)	**0.5** (0.2)
Finland	**-1.1** (0.3)	0.1 (0.1)	0.3 (0.4)	**0.8** (0.3)	**0.6** (0.1)	0.2 (0.2)
Italy	**-1.4** (0.3)	0.1 (0.1)	**1.5** (0.5)	**0.8** (0.4)	**0.6** (0.2)	**0.5** (0.2)
Latvia[1]	**-1.6** (0.4)	-0.1 (0.2)	**1.1** (0.5)	**1.5** (0.4)	0.4 (0.2)	**0.9** (0.2)
Lithuania	**-1.3** (0.4)	0.0 (0.2)	**1.4** (0.6)	**1.4** (0.3)	**0.8** (0.2)	0.1 (0.3)
Malta	**-1.8** (0.3)	0.0 (0.2)	0.6 (0.4)	**2.4** (0.3)	**1.0** (0.2)	0.3 (0.2)
Mexico	-0.3 (0.3)	**-0.5** (0.1)	0.3 (0.3)	0.5 (0.3)	**0.6** (0.2)	**0.4** (0.2)
Netherlands†	**-0.7** (0.3)	0.2 (0.2)	**1.5** (0.4)	**1.4** (0.5)	**0.9** (0.2)	**0.4** (0.2)
Norway (9)[1]	-0.2 (0.3)	0.2 (0.1)	**1.9** (0.3)	**1.1** (0.3)	**1.0** (0.1)	**0.4** (0.2)
Peru	-0.3 (0.3)	**-0.7** (0.1)	0.7 (0.4)	**1.0** (0.3)	**0.5** (0.2)	**0.5** (0.2)
Russian Federation	**-1.8** (0.3)	**-0.6** (0.1)	0.5 (0.5)	**1.0** (0.3)	0.4 (0.2)	**0.7** (0.2)
Slovenia	**-1.4** (0.3)	-0.1 (0.2)	0.6 (0.5)	**1.4** (0.4)	**0.8** (0.2)	**0.5** (0.2)
Sweden[1]	-0.4 (0.3)	-0.3 (0.2)	**1.7** (0.4)	**1.7** (0.4)	**0.6** (0.2)	**0.4** (0.2)
ICCS 2016 average	**-1.0** (0.1)	**-0.2** (0.0)	**1.0** (0.1)	**1.2** (0.1)	**0.6** (0.0)	**0.4** (0.0)

* Statistically significant (p<0.05) coefficients in **bold** .

() Standard errors appear in parentheses.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included .

[1] National Defined Population covers 90% to 95% of National Target Population

Table 9 Multiple regression coefficients for expected active political participation (dispositions and perceptions)

Country	Students' dispositions for civic engagement		Student perceptions	
	Students' sense of citizenship self-efficacy	Students' civic knowledge	Students' perceptions of the importance of conventional citizenship	Students' trust in civic institutions
Belgium (Flemish)	**1.9** (0.2)	**-1.2** (0.2)	**1.4** (0.2)	0.2 (0.3)
Bulgaria	**2.7** (0.3)	**-2.7** (0.3)	**1.7** (0.3)	**1.2** (0.3)
Chile	**2.8** (0.2)	**-1.8** (0.2)	**2.2** (0.3)	**2.1** (0.2)
Chinese Taipei	**2.2** (0.2)	**-1.0** (0.2)	**1.4** (0.2)	**1.0** (0.2)
Colombia	**2.1** (0.2)	**-1.7** (0.2)	**1.6** (0.2)	**2.0** (0.3)
Croatia	**2.0** (0.2)	**-1.1** (0.2)	**2.0** (0.2)	**0.9** (0.2)
Denmark†	**1.6** (0.2)	**-0.3** (0.1)	**1.2** (0.1)	**0.5** (0.1)
Dominican Republic (s)	**2.2** (0.2)	**-1.1** (0.2)	**2.3** (0.2)	**1.8** (0.2)
Estonia[1]	**2.0** (0.2)	**-1.0** (0.2)	**1.9** (0.2)	**0.8** (0.2)
Finland	**2.1** (0.2)	**-0.4** (0.2)	**1.5** (0.2)	0.3 (0.2)
Italy	**2.0** (0.2)	**-0.6** (0.2)	**1.6** (0.2)	**1.2** (0.2)
Latvia[1]	**2.6** (0.2)	**-1.5** (0.2)	**1.2** (0.2)	**1.1** (0.2)
Lithuania	**2.2** (0.2)	**-1.9** (0.2)	**1.4** (0.2)	**1.2** (0.2)
Malta	**3.3** (0.2)	**-1.9** (0.2)	**2.0** (0.2)	**0.7** (0.2)
Mexico	**2.5** (0.2)	**-1.8** (0.2)	**2.5** (0.2)	**2.1** (0.2)
Netherlands†	**2.1** (0.2)	-0.1 (0.2)	**1.4** (0.2)	**0.7** (0.2)
Norway (9)[1]	**2.4** (0.2)	**-1.0** (0.2)	**1.4** (0.1)	**0.4** (0.1)
Peru	**2.2** (0.2)	**-1.9** (0.2)	**1.6** (0.2)	**1.6** (0.2)
Russian Federation	**3.6** (0.3)	**-0.6** (0.2)	**1.8** (0.3)	**1.0** (0.2)
Slovenia	**1.7** (0.2)	**-0.9** (0.2)	**1.4** (0.2)	**1.0** (0.2)
Sweden[1]	**2.2** (0.2)	-0.4 (0.2)	**1.3** (0.3)	**0.6** (0.2)
ICCS 2016 average	**2.3** (0.0)	**-1.2** (0.0)	**1.7** (0.0)	**1.1** (0.0)

* Statistically significant (p<0.05) coefficients in **bold** .

() Standard errors appear in parentheses.

(9) Country deviated from international defined population and surveyed adjacent upper grade.

† Met guidelines for sampling paticipation rates only after replacement schools were included.

[1] National Defined Population covers 90% to 95% of National Target Population

[2] Country surveyed target grade in the first half of the school year.