

**A question of perspective? Measuring views on equal rights and opportunities among minority groups in European large-scale surveys.**

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# **A question of perspective? Measuring views on equal rights and opportunities among minority groups in European large-scale surveys**

## **Abstract**

*Attitudes toward diversity and acceptance of minorities have increasingly become a focus of public attention due to the transition of the European region toward a more diverse society. In recent years, many studies have gathered and presented data on perceptions of tolerance or attitudes toward equal rights for social groups across European countries. Whenever respondents are asked about their views on diversity, tolerance and acceptance with regard to specific social group, it is always important to take into account whether they belong to this particular group or not. However, when studying attitudes towards smaller minority groups, comparing attitudes between majority and minority often becomes problematic due to relatively small sample sizes. This paper will present European data from the IEA Civic and Citizenship Education Study (ICCS 2009) and discuss possibilities for improving the statistical power of this kind of comparisons through oversampling of minority groups in student surveys.*

## **Introduction**

ICCS 2009 studied the ways young people are prepared to assume their roles as future citizens in 38 countries, 25 of which were countries that are geographically entirely located in Europe. The study was designed to assess both cognitive as well as affective-behavioural aspects of civic and citizenship (see Schulz, Fraillon, Ainley, Kerr & Losito, 2008). In times of decreasing diversity, one important aspect was to measure the perception of social groups, in particular immigrants and ethnic/racial minorities, and students' views about the rights these groups should have in society.

With its rich database, ICCS 2009 provides an opportunity to review factor influencing student perceptions of equal rights for all ethnic/racial groups in society as well as for immigrants. This paper mainly focuses on the role to which those students who are directly concerned by this aspect, like members of ethnic/racial minorities or young people from immigrant families, have different attitudes from those belonging to the majority in society.

The paper will illustrate the association between these variables in bivariate and multivariate analyses and discuss the implication of these results. Furthermore, given that “standard” representative samples tend to often render quite small sub-samples of minority groups with implications for statistical group comparisons, it will also discuss possible options to increase the statistical power of this kind of analyses by specific strategies for sampling.

## **Framework**

In most societies, there are different ethnic or racial groups and positive attitudes toward equal rights and opportunities for all citizens independent of their ethnic or racial origin are widely regarded as the democratic ideal of emancipation and tolerance (Angvik & von Borries, 1997; Hahn, 1998).

Aspects of equal rights and opportunities for all ethnic or racial groups typically encompass immigrants recently arrived in a country. However, apart from looking at the concept of giving equal rights independently of ethnic origin, there is the question whether people who have recently immigrated should also receive equal rights and opportunities. Negative attitudes toward immigration are often linked to attitudes toward national identity (Medrano & Koenig, 2005 and data from the International Social Survey Programme (ISSP) revealed (O’Rourke and Sinnott, 2006) that both economic factors and nationalistic sentiment influenced adult citizens’ attitudes toward immigration. Angvik and von Borries (1997) studied the attitudes of adolescents in 27 countries toward immigration and found that these young people tended to express higher support for educational opportunities than for voting rights.

Both the IEA Civic Education Study (CIVED) in 1999 and IEA Civic and Citizenship Education Study (ICCS) in 2009 showed that young people tended to have positive attitudes toward rights for immigrants (Amadeo et al., 2002; Torney-Purta et al., 2001; Schulz et al., 2010). Research findings also suggest that adolescent females tend to hold more positive attitudes toward immigrant rights than adolescent males (Amadeo et. al., 2002; Diaz-Veizades, Widaman, Little, & Gibbs, 1995; Schulz et al., 2010; Torney-Purta et al., 2001; Toth, 1995; Watts, 1996; Westin, 1998).

The ICCS 2009 contextual framework posits the individual students and their cognitive or affective-behavioural learning outcomes as influenced by antecedent or process-related variables which can be located at the levels of the individual, their home background, their school or the wider community (from the local community to the national or supra-national context (Schulz et al., 2008). With regard to the

analysis of perceptions of equal rights, variables related to individual, home and school background are regarded as relevant.

The analyses presented in this paper focus on the influences of the student background as member of a social minority or majority group, on their perceptions of equal rights for all groups in European societies. It will review the extent to which these attitudes differ between young people belonging to minority groups and others. With regard to equal rights for all ethnic/racial groups in society, majority and (one or more) minority groups will be compared, and with regard to the rights for immigrants, comparisons will be made between students with and without immigrant background.

To further review the extent to which any association between this variables and student attitudes might be explained by other covariates, the paper includes multivariate regression modelling including other potential variables like gender, expected educational attainment, socioeconomic background, civic knowledge and classroom climate for discussion of civic themes.

## **Data and Methods**

ICCS included five items reflecting attitudes toward equal rights for all ethnic or racial groups in society. Students were asked to “strongly agree” (1), “agree” (2), “disagree” (3), or “strongly disagree” (4) with the following statements (the terms in angle brackets were adapted to national contexts):

- All <ethnic/racial groups> should have an equal chance to get a good education in <country of test>;
- All <ethnic/racial groups> should have an equal chance to get good jobs in <country of test>;
- Schools should teach students to respect members of all <ethnic/racial groups>;
- <Members of all ethnic/racial groups> should be encouraged to run in elections for political office;
- <Members of all ethnic/racial groups> should have the same rights and responsibilities.

The scale measuring students’ attitudes toward equal rights for all ethnic/racial groups had a high reliability for the combined international sample (Cronbach’s alpha = 0.83).

On average across participating countries, student agreement with was lowest with 72 percent for the item “members of all ethnic/racial groups should be encouraged to run in elections for political office”, while it was highest with 93 percent for the statement “all ethnic/racial groups should have an equal chance to get a good education”.

The ICCS student questionnaire also included the following five Likert-type items (with response categories “strongly agree,” “agree,” “disagree,” and “strongly disagree”) which were designed to measure students’ attitudes toward equal rights for immigrants:

- Immigrants should have the opportunity to continue speaking their own language;
- Immigrant children should have the same opportunities for education that other children in the country have;
- Immigrants who live in a country for several years should have the opportunity to vote in elections;
- Immigrants should have the opportunity to continue their own customs and lifestyle;
- Immigrants should have all the same rights that everyone else in the country has.

The question prefacing these items was written in a way that referred to immigration to any country, not just the country the students lived in. This approach was necessary because many ICCS countries have very little immigration and because the intention behind the question was to measure students’ attitudes toward the principle of providing equal rights and opportunities to immigrants. As a consequence, the point of reference was either people coming from abroad or fellow citizens going to live in another country.

The five-item scale items formed a highly reliable scale with a Cronbach’s alpha coefficient of 0.90 for the combined international dataset. While across participating countries the agreement was lowest with 76 percent for the statement “immigrants should have the opportunity to continue speaking their language”, the highest level of endorsement was recorded with 92 percent for “immigrant children should have the same opportunities for education”.

The ethnic/racial background of students was measured with a question which was optional for countries, distinguishing between different groups including majority

and minorities. The response categories were used as an indicator variables were 1 indicated that the students was member of an ethnic/racial minority while 0 denoted that the student belonged to the majority group. Only ten out of 25 European ICCS countries had included this optional question and only their data were included in the respective analyses.

Students were also asked about their country of birth and the responses were divided into two categories. The category “students with immigrant background” (coded as 1) included students who reported that they and both parents had *not* been born in the country of test or who had been born in the country of test but whose both parents had been born abroad. The category “students from non-immigrant families” (coded as 0) comprised all other students, where the students and at least one of their parents had been born in the country. The question was available in all 25 European ICCS countries included in the analyses.

The first step in the analysis compared the scale scores for the dependent variables (attitudes toward equal rights for all ethnic/racial group, attitudes toward equal rights for immigrants) between students belonging to the minority (ethnic/racial minority, immigrant background) with those belonging to the majority (ethnic/racial minority, no immigrant background). Standard errors for the scale scores in each group as well as for the differences in scale scores between groups were computed using jackknife repeated replication (see Schulz, 2013).

Multivariate analyses of these two dependent variables included the following additional predictors:

- Female gender (1, males = 0);
- Expected university degree (1, others = 0);
- Students’ socioeconomic background using a (nationally standardised) composite index derived from student reports on parental occupation, parental educational attainment, and the number of books at home (see Schulz & Friedman, 2011);
- Civic knowledge, a test score based on 79 items reflecting students knowledge and understanding of civic issues (see Schulz, Ainley & Fraillon, 2013), for these (preliminary) analyses only the first plausible value was used;
- Openness of classroom climate for the discussion of political and social issues, an IRT scale based on six items.

Continuous variables (attitudes toward equal rights for all ethnic/racial groups and immigrants, socioeconomic background, civic knowledge, and openness of classroom climate) were standardised to have means of 0 and standard deviations of 1 within participating countries, and jackknife repeated replication was used for computing the standard errors of the (unstandardised) coefficients.

## Results

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**Table 1: National scale scores for students' attitudes toward equal rights for immigrants by immigrant background**

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Table 1 shows the national scale scores for students with and without immigrant background as well as the scale score differences between the two groups. It also records the (weighted) percentages of immigrant students within each national sample. Data from the Netherlands are recorded in a separate section of the table and were not included in the calculation of European ICCS country averages, as the national study in this country failed to meet IEA sample participation requirements.

The results show that in most countries students with immigrant background tended to be significantly more supportive of equal rights for immigrants. Across European ICCS countries, the difference was about five score points (equivalent to approximately half a standard deviation), the largest differences were recorded in Sweden (10 score points), Finland (9), Austria and England (both 8). In four countries (Bulgaria, Lithuania, Malta and Poland) no statistically significant differences were observed, however, it should be noted that in all of these countries the proportion of immigrant students in the sample was quite low (1-2%). Across many countries, the relatively large standard errors for the estimates among immigrant students suggest limited statistical power in those cases where only small sub-samples of students with immigrant background were found.

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**Table 2: National scale scores for students' attitudes toward equal rights for all ethnic/racial groups by ethnic/racial majority or minority status**

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Table 2 displays the national scales score for students' attitudes toward equal rights for all ethnic/racial groups among students belonging to the majority group and those belonging to a minority group. The percentages of students belonging to minority groups suggest that for this analyses sub-samples were adequate, which is also reflected in the only somewhat larger standard errors for minority students' average scale scores.

Overall, students belonging to a minority group tended to be more supportive of equal rights for all ethnic/racial groups (with a statistically significant 2 score points difference across European ICCS countries). The largest differences in favour of minority group students were recorded in England (6 score points) and Luxembourg (4). In Cyprus, Greece and Slovenia no statistically significant differences were found, while in Estonia students belonging to ethnic minorities had statistically significant lower scores (-2 score points) than those who were members of the ethnic majority.

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**Table 3: Multiple regression results for students' attitudes toward equal rights for immigrants**

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Table 3 shows the unstandardised regression coefficients and explained variance from the multivariate analysis of students' attitudes toward equal rights for immigrants. Female gender had statistically significant associations with the dependent variable in all countries except Liechtenstein (a very small country where all students had been assessed) and Spain. Across participating European countries, the variable was associated with a change of 0.2 standard deviations. Expected university education was a significant positive predictor in nine countries while socioeconomic background, after controlling for all other variables, had a positive impact in five, but a negative influence in three countries.

Immigrant background showed positive net effects in all but two countries (Malta and Poland, both of which had only small sub-samples of students from this group), the effect of the dichotomous variable was about 0.6 of a standard deviation in the dependent variable. Civic knowledge had significant in all but two countries (Estonia and Latvia), and a change of one standard deviation in the civic knowledge scale was associated with a change of 0.16 standard deviations in the dependent variable. Openness of classroom climate for discussion was also recorded as a significant positive predictor in all but two countries (Liechtenstein and Malta), with an average effect of 0.11.

Across European ICCS countries, the model explained 11 percent of the variance in students' attitudes toward equal rights for immigrants, ranging from three percent in Latvia to 22 percent in Sweden.

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**Table 4: Multiple regression results for students' attitudes toward equal rights for all ethnic/racial groups**

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Unstandardised regression coefficients, their respective standard errors and the explained variance in the dependent variable by the model explaining student attitudes toward equal rights for all ethnic/racial groups are displayed in Table 4.



Female gender was a significant positive predictor in all but one country (Latvia). Net differences between gender groups were one fifth of a standard deviation in the dependent variable. Expected university education was a positive predictor in four countries while in others it did not have any statistically significant effects. Socioeconomic background, after controlling for all other variables, was a negative predictor in Luxembourg, but did not have any statistically significant associations with the dependent variable in other countries.

Belonging to an ethnic minority was a significant predictor in all but one country, Estonia, where no significant net effect was recorded. The effect was equivalent to approximately a third of a standard deviation in the dependent variable. Students' civic knowledge was a statistically significant positive predictor in all countries, a change of the size of one standard deviation was associated with about a quarter of standard deviation in the dependent variable. Openness of climate discussion about civic issues was also a positive predictor in all countries.

Overall, the model predicted 13 percent of the variance in students' attitudes toward equal rights for ethnic/racial groups, ranging from seven percent in Belgium (Flemish) and Latvia to 22 percent in England.

## **Discussion**

The results show that the level of endorsement of equal rights for social groups in society by young people tends as expected to be partly a question of perspective. ICCS students from immigrant families were clearly more inclined to agree with positive statements about rights of immigrants in their countries of residence. In the few countries where no statistical significant differences were recorded, very small sub-samples of immigrant students had been included so that comparisons may not have provided a sufficient basis for reviewing this association.

When looking at differences in the endorsement of equal rights for all ethnic groups in society, in many European ICCS countries there were also significant differences according to ethnic/racial background: Generally, young people from minority groups were found to be more likely to support equal rights for all ethnic/racial groups. For this comparison, in all countries sufficiently large sub-samples were available in ICCS 2009. However, most European participants did not include this optional question so that their data could not be included in this analysis.

For both dependent variables, the association between immigrant or ethnic/racial background, respectively, was also significant after controlling for other variables. For

attitudes toward equal rights for all ethnic/racial groups, the net association was significant for all but one country (Estonia). In Cyprus, Greece and Slovenia there had been no statistical significant differences when comparing the scores between majority and minority students, but after controlling for other variables, belonging to a minority groups did have statistically significant effects on how students viewed this issue.

One of the limitations of this study is the need for combining students from quite heterogeneous backgrounds. Within the group of students with immigrant background, there is considerable variation which may have implications for students' views of society. In particular, within EU member countries it was not possible to distinguish between those from EU and non-EU countries. Given the legal rights immigrants from EU countries have when migrating to other EU member states, it could be expected that students from this type of immigrant families view aspects related to immigration differently from those whose families have come from countries outside the EU.

This is also the case when combining students from different minority groups in a country. There may be vast differences in terms of experiences with ethnic or racial discrimination depending on the particular ethnic or racial group a student belongs to, which in turn might alter their perspectives regarding the need for providing equal rights and opportunities to all ethnic/racial groups.

When trying to assess these more fine-grained differences, surveys like ICCS 2009 often do not provide a sufficient database given that the sub-groups from different minorities or immigrant groups in a representative sample (unless specifically designed to increase certain sub-populations) tend to be very small, which limits the statistical power of the analysis. As we could see from the analysis results in some countries the overall number of immigrant background students already tended to be quite small.

Oversampling strategies could be designed to help render sub-samples of sufficient size, provided that sub-groups of interest are defined at the stage of designing the survey. In principle, there are two main strategies (or a combination of both) which might be chosen in educational research based on two-stage sampling designs:

- Using explicit stratification, which encompasses dividing the sampling frame into strata that reflect differing proportions of the sub-groups of interest and for example select higher proportions school from regions with school boasting higher proportions of immigrant students; or

- Using a census approach for the sub-groups of students which need to be oversampled, for example by including all immigrant or ethnic/racial minority students in selected schools in addition to the selected class or random sample.

Both strategies require prior information about enrolment by immigrant status and/or ethnic background which may not always be available in advance. When using the first strategy, it is important to be able to target specific schools with higher levels of enrolment of students belonging to the specific sub-groups. While in countries where ethnic minorities with a different language have their own schools this might be quite straightforward (by simply selecting larger sub-samples or all of these particular type of schools), it may be more difficult to have good data on the enrolment for immigrant and/or minority students in mainstream schools which allow an appropriate way of including larger proportions of schools with higher proportions of students in the target groups.

When using the second strategy of including a census of minority students at selected schools, it will be necessary to have data at the individual student level which allow including all students of the particular target group(s) in the survey. In many countries this might be not be in line with existing privacy legislation and provisions for data protection. Furthermore, schools may also perceive such an approach as discriminatory and refuse to cooperate in cases where enrolment data do not already include information on immigrant or ethnic/racial background and where these data need to be collected prior to within-school sampling.

It is possible to combine both strategies (provided that sufficient data are available) but careful planning and design is required at the stage of the survey design. Researchers need to define the target groups prior to the survey and will need to anticipate (e.g. by using available enrolment information or prior survey data) the extent to which oversampling designs really assist with obtaining data with sufficient statistical power for comparisons between sub-groups with students from particular backgrounds.

## References

- Amadeo, J., Torney-Purta, J., Lehmann, R., Husfeldt, V., & Nikolova, R. (2002). *Civic knowledge and engagement: An IEA study of upper secondary students in sixteen countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).

- Angvik, M., & von Borries, B. (Eds.). (1997). *Youth and history: A comparative European survey on historical consciousness and political attitudes among adolescents* (Vol. A–B). Hamburg, Germany: Korber-Stiftung.
- Diaz-Veizades, J., Widaman, K., Little, T., & Gibbs, K. (1995). The measurement and structure of human rights attitudes. *The Journal of Social Psychology, 135*(3), 313–328.
- Hahn, C. (1998). *Becoming political: Comparative perspectives on citizenship education*. Albany, NY: State University of New York Press.
- Medrano, J., & Koenig, M. (2005). Nationalism, citizenship and immigration in social science research: Editorial introduction. *International Journal on Multicultural Societies, 7*(2), 82–89.
- O'Rourke, K. H., & Sinnott, R. (2006). The determinants of individual attitudes towards immigration. *European Journal of Political Economy, 22*(4), 838–861.
- Schulz, W. (2011). The reporting of ICCS results. In W. Schulz, J. Ainley, J., & J. Fraillon (Eds.). *ICCS 2009 Technical Report* (pp. 261-280). Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).
- Schulz, W., Ainley, J., Fraillon, J., Kerr, D., & Losito, B. (2010). *ICCS 2009 International Report: Civic knowledge, attitudes and engagement among lower-secondary school students in 38 countries*. Amsterdam: International Association for the Evaluation of Educational Achievement (IEA).
- Schulz, W., Fraillon, J. & Ainley, J. (2013). Measuring Young People's Understanding of Civics and Citizenship in a Cross-National Study. *Educational Psychology: An International Journal of Experimental Educational Psychology, 33*(3), 327-349.
- Schulz, W., Fraillon, J., Ainley, J., Losito, B., & Kerr, D. (2008). *International Civic and Citizenship Education Study: Assessment framework*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).
- Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries*. Amsterdam, The Netherlands: International Association for the Evaluation of Educational Achievement (IEA).
- Toth, O. (1995). Political-moral attitudes amongst young people in postcommunist Hungary. In L. Chisholm, P. Buchner, H.-H. Kruger, & M. du Bois-Reymond (Eds.), *Growing up in Europe: Contemporary horizons in childhood and youth studies* (Vol. 2, pp.189–194) Berlin, New York: Walter de Gruyter.

- Watts, M. W. (1996). Political xenophobia in the transition from socialism: Threat, racism and ideology among East German youth. *Political Psychology*, 17(1), 97–126.
- Westin, C. (1998). Immigration, xenophobia and youthful opinion. In J. Nurmi (Ed.), *Adolescents, cultures and conflicts: Growing up in contemporary Europe*. (pp. 225–241) New York: Garland Publishing.

## Tables and Figures

**Table 1 National scale scores for students' attitudes toward equal rights for immigrants by immigrant background**

Country	Non-immigrant background	Immigrant background	Difference	% of students with immigrant background in sample
Austria	46 (0.3)	54 (0.5)	<b>8</b> (0.5)	19%
Belgium (Flemish) †	45 (0.3)	52 (0.6)	<b>7</b> (0.7)	11%
Bulgaria	52 (0.2)	56 (2.4)	4 (2.5)	1%
Cyprus	49 (0.3)	52 (0.6)	<b>3</b> (0.7)	7%
Czech Republic †	48 (0.2)	53 (1.0)	<b>5</b> (1.0)	2%
Denmark †	48 (0.3)	55 (0.5)	<b>7</b> (0.5)	9%
England ‡	45 (0.3)	53 (0.6)	<b>8</b> (0.6)	15%
Estonia	47 (0.2)	52 (0.8)	<b>4</b> (0.8)	7%
Finland	48 (0.3)	57 (1.0)	<b>9</b> (1.0)	2%
Greece	51 (0.2)	54 (0.8)	<b>3</b> (0.7)	11%
Ireland	49 (0.2)	55 (0.7)	<b>6</b> (0.7)	12%
Italy	48 (0.3)	55 (0.7)	<b>7</b> (0.7)	7%
Latvia	47 (0.2)	50 (1.1)	<b>3</b> (1.1)	5%
Liechtenstein	46 (0.7)	50 (1.0)	<b>4</b> (1.2)	34%
Lithuania	51 (0.2)	52 (0.9)	1 (0.9)	2%
Luxembourg	49 (0.2)	55 (0.3)	<b>6</b> (0.4)	43%
Malta	49 (0.3)	53 (2.3)	4 (2.3)	2%
Norway †	50 (0.2)	57 (0.7)	<b>7</b> (0.8)	10%
Poland	50 (0.2)	50 (1.7)	-1 (1.7)	1%
Slovak Republic <sup>2</sup>	50 (0.3)	54 (1.9)	<b>4</b> (1.9)	1%
Slovenia	50 (0.3)	53 (0.7)	<b>3</b> (0.8)	10%
Spain	50 (0.3)	56 (0.6)	<b>6</b> (0.7)	11%
Sweden	50 (0.4)	60 (0.5)	<b>10</b> (0.7)	14%
Switzerland †	47 (0.3)	54 (0.5)	<b>7</b> (0.6)	24%
European ICCS average	<b>49</b> (0.1)	<b>54</b> (0.2)	<b>5</b> (0.2)	11%
<b>Countries not meeting sampling requirements</b>				
Netherlands	45 (0.3)	53 (1.2)	<b>8</b> (1.3)	13%

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

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

<sup>1</sup> Country surveyed the same cohort of students but at the beginning of the next school year.

<sup>2</sup> National Desired Population does not cover all of International Desired Population.

**Table 2 National scale scores for students' attitudes toward equal rights for all ethnic/racial groups by ethnic/racial background**

Country	Ethnic/racial majority group	Ethnic/racial minority group	Difference	% of students in sample belonging to ethnic/racial minority
Belgium (Flemish) †	48 (0.3)	50 (0.5)	<b>2</b> (0.6)	14%
Cyprus	47 (0.2)	47 (0.5)	0 (0.5)	20%
England ‡	48 (0.3)	55 (0.5)	<b>6</b> (0.6)	21%
Estonia	51 (0.3)	49 (0.5)	<b>-2</b> (0.6)	20%
Finland	48 (0.2)	50 (0.9)	<b>2</b> (1.0)	10%
Greece	49 (0.2)	51 (0.8)	1 (0.7)	11%
Latvia	45 (0.2)	47 (0.5)	<b>2</b> (0.5)	23%
Luxembourg	50 (0.2)	54 (0.3)	<b>4</b> (0.3)	44%
Slovenia	49 (0.2)	50 (0.8)	1 (0.8)	10%
ICCS average	<b>48</b> (0.1)	<b>50</b> (0.2)	<b>2</b> (0.2)	19%
<b>Countries not meeting sampling requirements</b>				
Netherlands	47 (0.3)	50 (0.7)	<b>3</b> (0.7)	15%

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

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

<sup>1</sup> Country surveyed the same cohort of students but at the beginning of the next school year.

<sup>2</sup> National Desired Population does not cover all of International Desired Population.

Table 3

## Multiple regression analysis results for students' attitudes toward equal rights for immigrants

Country	Unstandardised regression coefficients						Explained variance
	Gender (female)	Expected university degree	SES index	Immigrant background	Students' civic knowledge	Open climate for classroom discussion	
Austria	<b>0.29</b> (0.04)	<b>0.10</b> (0.04)	<b>0.06</b> (0.02)	<b>0.79</b> (0.05)	<b>0.14</b> (0.02)	<b>0.14</b> (0.02)	17
Belgium (Flemish) †	<b>0.27</b> (0.04)	0.01 (0.04)	0.01 (0.03)	<b>0.77</b> (0.07)	<b>0.09</b> (0.03)	<b>0.11</b> (0.02)	10
Bulgaria	<b>0.09</b> (0.04)	<b>0.08</b> (0.04)	-0.02 (0.02)	<b>0.48</b> (0.24)	<b>0.20</b> (0.03)	<b>0.09</b> (0.02)	7
Cyprus	<b>0.28</b> (0.04)	0.09 (0.05)	-0.01 (0.02)	<b>0.37</b> (0.05)	<b>0.19</b> (0.02)	<b>0.15</b> (0.03)	13
Czech Republic †	<b>0.23</b> (0.03)	-0.05 (0.03)	-0.01 (0.02)	<b>0.63</b> (0.10)	<b>0.16</b> (0.02)	<b>0.12</b> (0.02)	7
Denmark †	<b>0.23</b> (0.05)	0.00 (0.04)	<b>0.07</b> (0.02)	<b>1.00</b> (0.07)	<b>0.22</b> (0.02)	<b>0.12</b> (0.02)	16
England ‡	<b>0.14</b> (0.04)	0.01 (0.05)	<b>0.05</b> (0.02)	<b>0.77</b> (0.06)	<b>0.18</b> (0.02)	<b>0.14</b> (0.02)	16
Estonia	<b>0.23</b> (0.04)	0.02 (0.04)	0.00 (0.03)	<b>0.51</b> (0.09)	0.00 (0.03)	<b>0.07</b> (0.02)	4
Finland	<b>0.47</b> (0.04)	<b>0.11</b> (0.04)	0.01 (0.02)	<b>1.04</b> (0.10)	<b>0.22</b> (0.02)	<b>0.12</b> (0.02)	17
Greece	<b>0.19</b> (0.04)	<b>0.07</b> (0.03)	0.00 (0.02)	<b>0.52</b> (0.06)	<b>0.28</b> (0.02)	<b>0.13</b> (0.02)	16
Ireland	<b>0.20</b> (0.03)	0.05 (0.04)	<b>0.05</b> (0.02)	<b>0.61</b> (0.07)	<b>0.12</b> (0.02)	<b>0.16</b> (0.02)	12
Italy	<b>0.16</b> (0.04)	<b>0.16</b> (0.04)	0.01 (0.02)	<b>0.79</b> (0.08)	<b>0.06</b> (0.02)	<b>0.19</b> (0.02)	11
Latvia	<b>0.12</b> (0.04)	0.10 (0.06)	-0.07 (0.03)	<b>0.37</b> (0.13)	0.05 (0.02)	<b>0.09</b> (0.03)	3
Liechtenstein	0.15 (0.13)	0.18 (0.14)	-0.06 (0.06)	<b>0.36</b> (0.11)	<b>0.17</b> (0.06)	0.08 (0.06)	7
Lithuania	<b>0.14</b> (0.05)	0.04 (0.04)	0.03 (0.02)	<b>0.26</b> (0.09)	<b>0.18</b> (0.02)	<b>0.08</b> (0.02)	6
Luxembourg	<b>0.16</b> (0.03)	0.03 (0.03)	-0.09 (0.02)	<b>0.60</b> (0.04)	<b>0.17</b> (0.01)	<b>0.10</b> (0.02)	14
Malta	<b>0.18</b> (0.05)	<b>0.16</b> (0.06)	-0.09 (0.03)	0.27 (0.20)	<b>0.24</b> (0.03)	-0.03 (0.04)	8
Norway †	<b>0.17</b> (0.05)	0.07 (0.04)	0.03 (0.02)	<b>0.78</b> (0.06)	<b>0.19</b> (0.02)	<b>0.14</b> (0.02)	13
Poland	<b>0.21</b> (0.04)	0.00 (0.03)	0.00 (0.02)	-0.01 (0.19)	<b>0.19</b> (0.02)	<b>0.08</b> (0.02)	7
Slovak Republic <sup>2</sup>	<b>0.13</b> (0.05)	-0.06 (0.05)	0.04 (0.03)	<b>0.48</b> (0.23)	<b>0.07</b> (0.03)	<b>0.15</b> (0.03)	4
Slovenia	<b>0.24</b> (0.04)	0.00 (0.04)	-0.02 (0.02)	<b>0.36</b> (0.07)	<b>0.15</b> (0.02)	<b>0.15</b> (0.03)	9
Spain	0.04 (0.04)	<b>0.11</b> (0.04)	0.04 (0.02)	<b>0.65</b> (0.06)	<b>0.11</b> (0.02)	<b>0.11</b> (0.02)	8
Sweden	<b>0.27</b> (0.04)	<b>0.10</b> (0.04)	<b>0.08</b> (0.02)	<b>0.98</b> (0.06)	<b>0.20</b> (0.02)	<b>0.12</b> (0.02)	22
Switzerland †	<b>0.29</b> (0.04)	<b>0.11</b> (0.04)	-0.02 (0.03)	<b>0.75</b> (0.06)	<b>0.16</b> (0.03)	<b>0.06</b> (0.02)	15
ICCS average	<b>0.20</b> (0.01)	<b>0.06</b> (0.01)	0.00 (0.00)	<b>0.59</b> (0.02)	<b>0.16</b> (0.00)	<b>0.11</b> (0.00)	11
<b>Countries not meeting sampling requirements</b>							
Netherlands	<b>0.26</b> (0.08)	-0.03 (0.06)	0.05 (0.03)	<b>0.97</b> (0.16)	<b>0.11</b> (0.04)	<b>0.12</b> (0.03)	16

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

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

<sup>1</sup>Country surveyed the same cohort of students but at the beginning of the next school year.

<sup>2</sup>National Desired Population does not cover all of International Desired Population.



Table 4

## Multiple regression analysis results for students' attitudes toward equal rights for all ethnic groups

Country	Unstandardised regression coefficients						Explained variance
	Gender (female)	Expected university degree	SES index	Ethnic minority group	Students' civic knowledge	Open climate for classroom discussion	
Belgium (Flemish) †	<b>0.21</b> (0.05)	-0.01 (0.04)	0.03 (0.03)	<b>0.28</b> (0.05)	<b>0.16</b> (0.02)	<b>0.13</b> (0.02)	7
Cyprus	<b>0.21</b> (0.03)	0.08 (0.05)	0.04 (0.03)	<b>0.13</b> (0.04)	<b>0.22</b> (0.02)	<b>0.16</b> (0.03)	13
England ‡	<b>0.19</b> (0.04)	0.05 (0.03)	0.04 (0.02)	<b>0.61</b> (0.05)	<b>0.29</b> (0.03)	<b>0.15</b> (0.02)	22
Estonia	<b>0.17</b> (0.04)	-0.03 (0.04)	0.00 (0.02)	-0.07 (0.04)	<b>0.27</b> (0.03)	<b>0.13</b> (0.02)	12
Finland	<b>0.43</b> (0.03)	<b>0.14</b> (0.04)	0.03 (0.02)	<b>0.37</b> (0.06)	<b>0.26</b> (0.02)	<b>0.15</b> (0.02)	19
Greece	<b>0.21</b> (0.04)	<b>0.12</b> (0.04)	0.02 (0.02)	<b>0.36</b> (0.06)	<b>0.26</b> (0.02)	<b>0.12</b> (0.02)	14
Latvia	0.02 (0.04)	<b>0.12</b> (0.05)	-0.04 (0.03)	<b>0.28</b> (0.06)	<b>0.17</b> (0.03)	<b>0.13</b> (0.03)	7
Luxembourg	<b>0.20</b> (0.04)	<b>0.07</b> (0.03)	<b>-0.05</b> (0.02)	<b>0.47</b> (0.04)	<b>0.19</b> (0.02)	<b>0.12</b> (0.02)	11
Slovenia	<b>0.16</b> (0.04)	0.07 (0.04)	-0.01 (0.02)	<b>0.21</b> (0.07)	<b>0.27</b> (0.02)	<b>0.10</b> (0.02)	12
ICCS average	<b>0.20</b> (0.01)	<b>0.07</b> (0.01)	0.00 (0.01)	<b>0.30</b> (0.02)	<b>0.23</b> (0.01)	<b>0.13</b> (0.01)	13
<b>Countries not meeting sampling requirements</b>							
Netherlands	<b>0.25</b> (0.06)	0.20 (0.12)	0.05 (0.05)	<b>0.29</b> (0.11)	<b>0.10</b> (0.05)	<b>0.18</b> (0.04)	9

^ Number of students too small to report group average scores.

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

() Standard errors appear in parentheses. Because results are rounded to the nearest whole number, some totals may appear inconsistent.

‡ Nearly satisfied guidelines for sample participation only after replacement schools were included.

† Country surveyed the same cohort of students but at the beginning of the next school year.

‡ National Desired Population does not cover all of International Desired Population.