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# The Effect of Compulsory Voting on Turnout Stratification Patterns: A Cross-national Analysis

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## Abstract

As voter turnout is steadily declining in western democracies, various authors have expressed concern about the stratification in electoral participation that this trend might entail. Some research suggests that specific categories of potential voters refrain from voting, leading to the electoral dominance of more privileged groups within the population. In this article, we investigate whether systems of compulsory voting are associated with more equal participation in elections. We study 36 countries that participated in the 2004 International Social Survey Programme. The analysis shows that compulsory voting is associated with higher turnout rates, but we do not observe any significant differences in electoral participation based on gender or educational level. However, we find a significant interaction effect between age and compulsory voting, suggesting that young age cohorts are unlikely to be affected by the dynamics of the civic duty argument that is inherent in systems of compulsory voting.

## Keywords

compulsory voting, equality, turnout, voting

## Introduction

One of the most problematic effects of the structural trend towards lower turnout figures in Western societies is that low voter turnout is usually associated with strong and persistent patterns of inequality (Verba et al., 1995). The available research clearly indicates that highly educated citizens, men, the middle aged and those participating in the labor force are more likely to participate in elections than other groups within the population. Lower turnout rates are therefore expected to strengthen the social stratification of the electoral process (Blais et al., 2004; Keaney and Rogers, 2006; Kittilson, 2005). In the recent debate on possible means to counter the trend towards lower electoral participation, some scholars have suggested introducing a system of compulsory voting as a way of

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increasing voter turnout (Birch, 2008; Engelen, 2007; Hill, 2000; Lacroix, 2007; Lijphart, 1997). It is argued that compulsory voting increases turnout levels, thereby reducing the inequalities with regard to electoral participation. There is indeed some research indicating that countries with compulsory voting have higher turnout levels, but this does not necessarily imply lower inequality (Kittilson, 2005). Aggregate level data such as voter turnout data do not reveal the specific population groups most strongly affected by the legal obligation to vote. Current research does not provide adequate information on the effect (if any) of compulsory voting on the social composition of those who turn out to vote. It is even doubtful whether there is indeed any effect. Earlier research has shown that with regard to partisan preferences, there are no significant differences between the preferences of voters and non-voters (in compulsory voting systems). Put differently, compulsory voting systems do not seem to affect the results of the various parties competing in an election (Birch, 2008; Citrin et al., 2003; Hooghe and Pelleriaux, 1998; Lutz and Marsh, 2007; Nagel and McNulty, 1996; Pettersen and Rose, 2007; van der Eijk and van Egmond, 2007).

In this article, we investigate whether compulsory voting indeed reduces the inequality present in the electoral process. We will focus on gender, education and age, since these three socio-demographic variables tend to have the strongest impact on the stratification of political participation in general (Blais et al., 2004; Rosenstone and Hansen, 2003).<sup>1</sup> Although political attitudes and other elements of the election system may also affect turnout rates, their impact is beyond the scope of the current article. Given the comparative nature of our research question and the limited number of compulsory systems throughout the world, we will need a dataset that covers a sufficient number of territories and political systems with compulsory voting. Such a dataset is provided by the 2004 International Social Survey Programme (ISSP), which covers sufficient jurisdictions with compulsory voting.

## Defining compulsory voting

A system of compulsory voting legally requires citizens to participate in elections (Birch, 2008; Jackman, 2001). Compulsory voting is by no means rare. Worldwide, 32 countries have or have had a system of compulsory voting. Furthermore, compulsory voting is not a new phenomenon: for instance, Belgium introduced compulsory voting in 1892, Mexico in 1911 and Australia in 1924 (IDEA, 2002). There are no examples of countries that have introduced compulsory voting in the last ten years, and even authors in favor of introducing compulsory voting question the feasibility of such a change (Helmke and Meguid, 2007; Lijphart, 1997; Wattenberg, 2007). In fact, during the final quarter of the 20th century, an opposite tendency seems to have manifested itself, with compulsory voting being abolished in the Netherlands, Spain, Czechoslovakia and Italy (Massicotte et al., 2004). Currently, around 30 percent of all citizens in democratic societies live in a country with compulsory voting. For about 17 percent of these, failure to vote may result in legal sanctions (Jackman, 2001; Massicotte et al., 2004).

Although the term 'compulsory voting' is commonly used, 'compulsory attendance' (Hill, 2006) or 'compulsory turnout' (Keaney and Rogers, 2006) would be more accurate descriptions, as only attendance or turnout at the polls is required, not the act of voting itself. In most compulsory voting systems, the authorities can only check whether a citizen showed up at the polling station. Given the secrecy of the ballot, it is impossible to determine whether a citizen actually casts a (valid) vote (Wattenberg, 2007). In most countries with a system of compulsory voting, electoral law provides penalties for citizens who fail to show up at the polling station: these may range from financial sanctions, ineligibility for certain types of government employment, or possible

imprisonment (Jackman, 2001; Keaney and Rogers, 2006; Panagopoulos, 2008). In most countries, penalties for not showing up are relatively modest (Engelen and Hooghe, 2007; Irwin, 1974; Keaney and Rogers, 2006; MacKerras and McAllister, 1999; Wattenberg, 2007). Not only are the financial sanctions relatively low and 'comparable to a fine for parking violations' (Lijphart, 1997: 2); in most countries these fines are rarely imposed (Bennett, 2005; Irwin, 1974), and the prosecution of non-voters is seldom a priority for the courts (Hooghe and Pelleriaux, 1998). Even in Australia, where abstention is followed up, less than 1 percent of all non-voters faced a fine (MacKerras and McAllister, 1999). Still, it is estimated that following the 1996 elections, some 25,000 Australian citizens were fined for failing to turn up at the polling station. A few hundred of these contested this fine in court (MacKerras and McAllister, 1999).

Not all systems of compulsory voting, however, provide legal sanctions (Jackman, 2001; Massicotte et al., 2004). In a number of countries, electoral law states that voting is compulsory but fails to provide any sanctions for those who do not comply with this provision. From the perspective of a rational actor, it is quite puzzling why the mere provision of compulsory voting should have an effect on voter turnout in the absence of sanctions (Bennett, 2005). The precise causal mechanism underlying this effect remains to be determined (Panagopoulos, 2008).

In general, countries with compulsory voting tend to be divided into two types (IDEA, 2002; Massicotte et al., 2004). A first category consists of countries with a predominantly Christian history, such as Belgium, Australia, Greece and Luxemburg. These countries implemented compulsory voting towards the end of the 19th century or the start of the 20th century, because the political elites considered voting a moral obligation towards the state and the community. Furthermore, these elites feared that a generalized pattern of abstention would weaken electoral support for the conservative and/or religious political parties. A second category of countries includes former Spanish and Portuguese colonies located in South America. During the colonial era, Spain and Portugal introduced a legal obligation to vote and this practice seems to have continued after independence (IDEA, 2002; Massicotte et al., 2004).

## **Why introduce compulsory voting?**

As is well-known, almost every form of political participation is spread unevenly across the population (Marien et al., 2010; Rosenstone and Hansen, 2003). Groups with high levels of resources (whether these are civic skills, income or higher educational levels) participate more often and more intensively than those who do not have these resources at their disposal (Verba et al., 1995). Compared with other forms of political participation, voting is distributed fairly evenly throughout society. This may be explained by the fact that voting is a relatively easy form of participation for which almost all population groups have sufficient resources. Moreover, this mode of participation is legally limited to one vote per person.

Declining voter turnout, however, raises concern about electoral stratification, since several studies indicate that this decline is mainly concentrated among economically disadvantaged and more vulnerable population groups (Keaney and Rogers, 2006). Whereas previous research indicated that strong socio-economic inequalities in turnout existed, especially in the United States (Powell, 1986; Topf, 1995), recent research reveals increasing socio-economic inequalities in turnout outside the United States (Kittilson, 2005). From the late 1980s onwards, turnout levels gradually decreased in advanced democracies, resulting in a 10 percent decline between 1950 and 2005 (Gray and Kittilson, 2000). The strongest decline was found among the least privileged segments of society. Therefore, it can be expected that as turnout decreased, socio-economic determinants of

voter participation – such as income, education and age – became more important. In the United Kingdom, for instance, the difference in turnout between earners in the top quartile and those in the bottom quartile almost doubled between 1964 and 2005. Similarly, the strong difference in turnout between older and younger age groups almost doubled between 1970 and 2005 (Keaney and Rogers, 2006).

There are three main reasons to be concerned about the social stratification of participation in the electoral process: the effects on election results, the legitimacy of the political system and the spill-over effects of voting. First, as the group of voting citizens has different preferences or priorities than the non-voting ones, the abstention of specific groups results in a systematically biased representation of the different views within the political system. Politically inactive citizens do not promote their interests as effectively as others do and therefore they become invisible in the political process. As a consequence, politicians are more likely to pay attention to the concerns and policy demands of the active groups within the population (Lijphart, 1997; Verba et al., 1995; Verba and Nie, 1972). Verba (2003) argues that low turnout rates will have an impact on the ideological platform of political parties, which have no incentive to consider the needs and political preferences of those who do not bother to vote at all. So regardless of whether compulsory voting would have an immediate effect on electoral results, a strong argument in favor of such a system is that low turnout rates lead to a distortion of the ideological and political preferences of the enfranchised population at large. As a result, some segments of the electorate become more influential in the decision-making process, which runs counter to the democratic principle of equal consideration of all interests (Hooghe, 1999; Lijphart, 1997; Parry et al., 1992). Moreover, there is some evidence that the political preferences of voters indeed receive more weight in the decision-making process than the preferences of non-voters (Martin, 2003). With regard to welfare policies, it has been demonstrated that strong electoral participation by less advantaged segments of society is positively associated with government welfare spending (Hicks and Swank, 1992; Mueller and Stratmann, 2003; Quaile Hill and Leighley, 1992). Critics could argue that some empirical research suggests that compulsory voting does not affect electoral outcomes. For instance, a number of studies suggest that the outcomes of US Senate elections would remain unchanged even with (almost) universal participation (Citrin et al., 2003; Highton and Wolfinger, 2001; Nagel and McNulty, 1996). In multi-party systems, we do not find any evidence either, that compulsory voting would substantially change the electoral strength of the various competing political parties (Pettersen and Rose, 2007; van der Eijk and van Egmond, 2007). These findings, however, only take into account the electoral scores of political parties, and not the background characteristics of those who vote.

A second reason for being concerned about social stratification is the possible effect of voter turnout on democratic legitimacy (Dahl, 2006; Engelen, 2007). The legitimacy of an elected majority can be eroded if only a small segment of the population has voted for a particular candidate or party. Low levels of input legitimacy might also have a negative impact on the government's ability to ensure compliance with government regulations (Marien and Hooghe, 2011). In short, democratic decision-making institutions and processes are assumed to gain legitimacy if substantial proportions of the population participate in elections and if resources to influence decision making are distributed equally among the population (Dahl, 2006). Moreover, low and unequal participation can also serve as an indicator of citizens' discontent with the democratic process (Lutz and Marsh, 2007). Franklin (1999) argues that citizens refrain from voting if they feel powerless to have any impact on the political decision-making process. In Franklin's view, however, compulsory voting does not offer a solution for this problem, as it only cures the symptoms of dissatisfaction.

A third reason for concern about unequal participation is that electoral abstention might also have a negative impact on other forms of political engagement and involvement. A number of authors have argued that voting can be seen as a habit that is picked up quite early in life. Once this habit is acquired, it takes relatively little effort to continue it throughout one's life (Franklin, 2004; Galston, 2001; Jennings, 1987; Plutzer, 2002). It is assumed, furthermore, that the habit of voting has positive spill-over effects on political knowledge, on reading of newspapers and on other forms of engagement and involvement (Lijphart, 1997). Empirical evidence for this claim, however, is scarce. Gordon and Segura (1997) found a significant increase in political sophistication in countries with compulsory voting, and this finding is supported by Moises (1993), who demonstrated that the voting act itself increased a citizen's feeling of efficacy. Engelen and Hooghe (2007), on the other hand, found little effect of compulsory voting on political interest, political efficacy or political trust at an aggregate level.

The three arguments presented above are not equally convincing and nor are they unequivocally supported by empirical research. Taken together, however, they suggest strong support among scholars in this field for high and equal participation in the electoral process.

Given the importance of voter turnout for democratic legitimacy, various policy measures have been suggested to counter declining voter turnout. First of all, a number of 'soft' incentives were introduced. Targeted media campaigns and 'get out the vote' drives, for instance, were found to boost voter turnout. The available research suggests, however, that these effects are at best temporary, and that they do not succeed in overturning the structural decline in turnout (Gerber and Green, 2000). Similarly, various citizen initiatives were found to lead to higher turnout rates in subsequent elections, but again these failed to reverse the structural trend (Tolbert et al., 2001). The introduction of voting by absentee ballot, on the other hand, is unlikely to have any effect on a citizen's decision to vote (Knack and White, 2000; Dyck and Gimpel, 2005). Given the ineffectiveness of these soft incentives, some authors have proposed a much more stringent method to boost voter turnout, in other words by introducing or enforcing the legal obligation to vote (Birch, 2008; Engelen, 2007; Hill, 2002; Lacroix, 2007; Lijphart, 1997). The main argument of these authors is that voting is such a central act in the democratic political process that states can impose a duty to vote on their citizens. Although voting is no longer an act of voluntary political participation in such a system, it is still assumed that the benefits of voting, both for the individual and for the political system, far outweigh the disadvantages of imposing the obligation to vote.

In this article, we do not intend to examine the normative account of compulsory voting. Rather, we merely want to ascertain whether systems with compulsory voting are indeed associated with lower levels of inequality with regard to electoral participation. The other arguments advanced in favor of compulsory voting are beyond the scope of this article since they are difficult to test with available empirical research designs.

## **Consequences of compulsory voting**

Earlier studies have indicated that turnout rates are significantly higher and remain stable in countries with compulsory voting, while voter turnout has declined in most democratic societies without compulsory voting (Franklin, 2004). Therefore, compulsory voting is sometimes suggested as an effective remedy against low or declining turnout levels (Bennett, 2005; Lijphart, 1997; Norris, 2002; Franklin, 2004; Powell, 1986; Verba et al., 1978). More specifically, Powell's (1986) research indicates that the introduction of compulsory voting in the United States would increase voter turnout by about 16 percent. Australia actually introduced compulsory voting in the 1920s in order to

combat low turnout at the polls, which resulted in an increase of 23.2 percent (MacKerras and McAllister, 1999). About a full century later, support for compulsory voting seems quite general in Australia: the 2004 Australian Election Study indicated that more than 70 percent of all Australian respondents support the continuation of compulsory voting (Jackman, 1997; Wattenberg, 2007). Conversely, the abolition of compulsory voting leads to a decrease in turnout: in the Netherlands, for instance, turnout levels went down by more than 10 percent after compulsory voting was abolished in the early 1970s (Irwin, 1974).

In countries with compulsory voting, it is difficult to estimate the precise effects of the legal obligation. Most research in this field relies on simulations: survey responses are used to estimate the effects of abolishing compulsory voting. Based on these simulations, Hooghe and Pelleriaux (1998) estimate that the abolition of compulsory voting in Belgium would lead to a drop in turnout from 91 to 70 percent of the eligible population. Similarly, opinion polls in Brazil indicate that 45 percent of the electorate would not turn out to vote if compulsory voting was abolished (Power and Roberts, 1995). Moreover, previous research indicates that the effect of abolishing compulsory voting is often underestimated (Jackman, 1997).

Proponents of compulsory voting, however, argue that the system not only increases turnout levels, but also promotes equal participation in the electoral process. Lijphart (1997) for instance, argues that 'the most important argument in favor of compulsory voting is its contribution to high and relatively equal voter turnout.' Compulsory voting is clearly expected to increase participation among groups least likely to vote: these include citizens with low socio-economic status (Hill 2000; Lijphart, 1997), younger voters (Wattenberg, 2007) and women (Engelen and Hooghe, 2007). If this claim were to be substantiated, this would imply that compulsory voting reduces the main inequalities that are traditionally associated with any form of political participation, i.e. socio-economic status, age, and gender. The following paragraphs summarize research findings concerning these three factors and their effect on political participation.

First, research indicates that socio-economic status is one of the strongest predictors of political participation and voter turnout (Milbrath and Goel, 1977; Rosenstone and Hansen, 2003). In practice, lower turnout means a larger turnout gap (with regard to education level and income) between voters and non-voters (Lijphart, 1997; Solt, 2008). Irwin (1974) has shown that after compulsory voting was abolished in the Netherlands in 1970, differences in the likelihood to vote increased substantially according to education level. The simulation study by Hooghe and Pelleriaux (1998) demonstrated that the abolition of compulsory voting in Belgium would lead to overrepresentation of people with a high education level and high professional status. In Brazil, the introduction of compulsory voting resulted in similar turnout levels among literate and illiterate citizens (Power and Roberts, 1995).

A second factor possibly affecting political participation is age. In countries with compulsory voting, younger people are more likely to go to the polls than in voluntary voting systems (IDEA, 2002). While a strong positive association between age and voting can be observed in most countries, this association is much weaker in countries with compulsory voting (Print, 2007). In the Netherlands, the abolition of compulsory voting led to a substantial age gap (of about 20 percent) in voter turnout (Irwin, 1974). This may be due to the fact that older people are more likely to have been socialized into the habit of voting and have a stronger sense of civic duty, which is confirmed by the available evidence, in countries both with and without compulsory voting. After controlling for several demographic characteristics, Wolfinger and Rosenstone (1980: 102) conclude that 'the positive relationship between age and turnout continues for much more of the life cycle than observers have thought.' Both life-cycle and generation effects can be assumed to play a role in

explaining this pattern, but in the literature there is no consensus on how much weight should be attributed to either phenomenon (Blais et al., 2004; Franklin, 2004; Goerres, 2007).

Third, gender may play a role: compulsory voting can be expected to have a positive effect on women's voting turnout. The available empirical evidence, albeit scarce, suggests that abolishing compulsory voting in favor of a voluntary system would increase the gender gap from 0.2 percent to 5.6 percent, with men more likely to vote than women (Irwin, 1974).

In this article, we want to test the hypothesis that compulsory voting reduces these three forms of inequality in the electoral process. More specifically, our hypothesis is that in countries with compulsory voting, gender, age and socio-economic status will have a more limited impact on enfranchised citizens' likelihood to vote than in countries without such a system. As the aim of this paper is to investigate whether compulsory voting can reduce the inequality in voting, we will not assess other equality-improving measures such as the introduction of proportional representation.

## **Data and methods**

This hypothesis will be tested using the results of the 2004 International Social Survey Programme (ISSP, 2004). The ISSP is an annual program of cross-national collaboration on surveys covering topics that are considered important for social science research. In 2004, the questionnaire and the data collection focused on the topic of 'citizenship', including numerous questions on politics, political interest, voting behavior and political participation. The dataset provides us with information from 38 countries, with a total of 52,550 respondents. The data, which also contains information on non-European countries (Chile, Mexico, Uruguay and the Philippines), allows us to investigate the impact of compulsory voting in different (European and non-European) countries. This is an important benefit of the ISSP data, since most of the research on compulsory voting is limited to Western Europe and Australia. Other comparative survey data are less well suited to answer our research questions. The World Values Study, for instance, did not include countries like Australia, Cyprus, and Switzerland, which are essential to study the effects of compulsory voting in industrialized countries. Furthermore, as the World Values Study dataset was collected in waves spanning several years, there could be a time-effect in the data. Similarly, the European Social Survey only contains data about a few (European) countries with compulsory voting. Hence, the ISSP 2004 data seemed to be the only viable option.

Although the ISSP dataset is ideally suited to test our hypothesis, four caveats should be considered. First, the dependent variable is self-reported voting. It has frequently been demonstrated that respondents tend to overreport voting (Katosh and Traugott, 1981; Silver et al., 1986). This phenomenon also occurs in this dataset: overall, reported and actual turnout differ by 7 percent (see Appendix).<sup>2</sup> Nevertheless, we are forced to rely on survey data, since official turnout figures do not include any information about who exactly participates in the elections. Furthermore, overreporting in this survey is unlikely to be larger or smaller than in other surveys.

Second, the ISSP data are collected through different modes in the various countries (face-to-face interviews, mail surveys and/or self-completion questionnaires), which might lead to different reporting on some variables; Groves et al., 2004). However, in each country the polling agencies used what they considered as the most appropriate method for their country and cultural setting. Thus, countries with low literacy levels did not use self-administered questionnaires.

A third caveat is that polling agencies in some countries did not ask all the questions. For instance, interviewers in Russia, Belgium and Brazil did not ask whether the respondents had voted in the last elections. These missing data pose a serious problem, as both Belgium and Brazil apply a fairly strict



system of compulsory voting. For Brazil and Russia, we did not manage to find an alternative data source. For Belgium, we could rely on the Belgian Election Studies 2003 dataset, based on similar questions and a similar design to those of ISSP (Billiet et al., 2004). After careful consideration of the relevant variables, these Belgian data were merged into the ISSP dataset.<sup>3</sup> Unfortunately, as the Belgian survey included different questions and answer categories, certain important control variables such as political interest, norms of good citizenship etc. could not be included in the analysis. Note, however, that including these control variables did not affect the results.<sup>4</sup> Equally, health was not surveyed in the ISSP, even though it might be an important life-cycle effect, affecting turnout.

A fourth problem is that survey response rates differ substantially between countries, ranging from 15 percent in France to 100 percent in Chili (see Appendix). In some countries the response rate was unacceptably low, which may compromise the representativeness of the data. As a precaution, we performed the analyses twice: once with all ISSP countries included and once with a selection of countries with a response rate of more than 50 percent. However, both analyses produced the same results.<sup>5</sup>

As this article focuses on the effect of compulsory voting laws on stratification patterns with regard to voter turnout, self-reported voting during the most recent elections will be used as the main dependent variable. This variable is a dichotomy, with a score of 1 indicating that respondents did vote, and 0 that they did not vote. Respondents who were not (yet) eligible to vote were not included in the analysis. Our main independent variable at the country level is compulsory voting. As already mentioned, various forms of compulsory voting can be distinguished, ranging from a general recommendation without any real sanctions to a well-enforced legal obligation. To take this variation into account, we relied on the coding developed by the Institute for Democracy and Electoral Assistance (IDEA, 2002), which distinguishes between:

- a) countries without compulsory voting;
- b) countries with a weakly enforced system of compulsory voting;
- c) countries with a strictly enforced system of compulsory voting.

Australia, Belgium, Cyprus and Uruguay are the most obvious countries in this final category. Note, however, that we have not integrated the sanctions imposed on non-voters (fines, imprisonment, infringements of civil rights or disenfranchisement), as it is very difficult to gather reliable data on these issues in the different countries. To further complicate things, in Switzerland and Austria compulsory voting is only implemented in some districts and not in others. In Austria, the provinces of Vorarlberg and Tyrol have compulsory voting, and in Switzerland this is limited to the canton of Schaffhausen. Since the ISSP data report the respondents' region of residence, this allows us to distinguish between respondents living in regions where voting is mandatory and respondents living in regions without compulsory voting. Basically, this means that both countries will be considered as two separate cases, one with and one without compulsory voting. In other words, the 36 countries in the dataset will be considered as 38 cases, 9 of which have compulsory voting. The number of respondents in the dataset living in a country/region where voting is mandatory amounts to about 23 percent, which is sufficient to perform a valid analysis.

At the individual level, we mainly examined independent variables with a strong impact on the likelihood of electoral participation: education, age and gender. Education and age are coded as continuous variables and gender as a dichotomy. Although we would have preferred to include different measures of socio-economic status, these were either not measured in every country or contained a substantial number of missing cases (e.g. about 20 percent missing cases for income).

At the country level, control variables are GDP per capita and level of income inequality (Gini-index). Both measures were drawn from World Bank data.<sup>6</sup> Since ISSP can be considered as a nested data set (individuals within countries or political systems), multilevel analysis is called for, which takes intra-class correlation into account and provides correct standard errors (Snijders and Bosker, 1999). Since the dependent variable is dichotomous (voted or not), we use a logistic regression model. The analyses were performed in MLwiN 2.0.

## Results

Before conducting the multivariate analysis, it is useful to present the data in a simple bivariate table (Table 1). At first sight, the correlation between compulsory voting and high turnout is confirmed. In the countries or territories with compulsory voting, average turnout stands at 85.7 percent compared with 77.5 percent in all other countries included in the sample. The highest turnout figures can be found in Australia and Belgium, two countries with strong enforcement of compulsory voting. This finding should not come as a surprise, since earlier research has already established that compulsory voting is associated with higher voter turnout. In this article, however, we are not interested in turnout levels but rather in stratification patterns. To explore these patterns, we calculated differences in turnout based on gender, education and age.

If we first look at gender differences, we can observe that differences between women and men remain minimal in the overall sample. In five out of the 35 societies men are more likely to vote than women, while the inverse phenomenon can be observed in the United States and Uruguay. With the exception of Cyprus, however, gender differences are only significant at the .05 level, which indicates that differences are quite small as these country samples contain more than 1000 cases.

To ascertain educational differences, respondents were divided into a group with only secondary education or less, and a group with higher education. On average, highly educated citizens vote more often than lower educated citizens, although there are also some marked exceptions. To present age differences in the same manner as gender and education, we divided respondents into two roughly equal groups, with the age of 44 as a cut-off point. In almost all countries, older citizens strongly outnumbered younger citizens at the polling stations, with the difference amounting to 30 percent in countries such as Chile, the United States and Great Britain. In 34 of the 38 jurisdictions under investigation, the age difference was significant.<sup>7</sup>

These bivariate results suggest that compulsory voting is indeed associated with higher turnout levels. Furthermore, age differences seem to be stronger than gender or education differences, confirming the claim that younger age cohorts are less involved in the electoral process than older cohorts are. For a more in-depth analysis, however, we now turn to a multivariate multilevel logistic regression model, with 'voting' as the dependent variable (Table 2). First, we estimate an empty null-model, showing that more than 13 percent of the observed variance can be situated at the country level. This implies that these data should indeed be analyzed using a multilevel model. Model 1 introduces the basic background variables. Gender differences are not found to be significant, but highly educated respondents are found to vote more often than less educated respondents, while there is also a marked age difference.<sup>8</sup> These effects proved to be linear when dummy variables were used for different age and educational categories.

Next, country-level variables are introduced in Model 2. Although the figures suggest that turnout levels are slightly higher in countries with a high income level (GDP) and a low level of inequality (GINI), these differences are not significant. Having compulsory voting, on the other

**Table 1.** Voter Turnout, Gender, Educational Achievement and Age

Jurisdiction	Turnout (%)	Gender difference	Sign.	Educational difference	Sign.	Age difference	Sign.
Australia <sup>o</sup>	97.11	0.01	0.063	-0.01	0.116	0.04	0.000
Belgium <sup>oa</sup>	94.64	0.02	0.017	0.03	0.011	0.01	0.569
New Zealand	91.28	0.01	0.460	-0.03	0.073	0.14	0.000
Canada	90.72	0.02	0.320	-0.02	0.486	0.10	0.000
Netherlands	90.63	0.03	0.012	0.06	0.000	0.07	0.000
Denmark	90.26	0.01	0.753	0.05	0.086	0.11	0.000
Sweden	89.71	-0.02	0.361	-0.01	0.382	0.09	0.000
Cyprus <sup>o</sup>	88.65	0.06	0.006	-0.12	0.000	0.16	0.000
Germany	88.01	0.01	0.714	0.10	0.000	0.05	0.012
Philippines <sup>o</sup>	87.42	0	0.811	-0.01	0.717	0.03	0.193
Norway	86.6	0.01	0.766	0.09	0.000	0.10	0.000
Taiwan	86.54	-0.01	0.453	-0.04	0.015	0.05	0.004
Uruguay <sup>o</sup>	86.26	-0.05	0.031	0.01	0.796	0.18	0.000
France	85.33	0.05	0.012	-0.07	0.000	0.16	0.000
South Korea	82.67	0.03	0.160	-0.01	0.699	0.06	0.007
Ireland	82.24	0.01	0.760	-0.02	0.511	0.20	0.000
Israel	82.17	-0.03	0.249	0.05	0.041	0.20	0.000
Spain	81.94	0.01	0.399	0.01	0.441	0.10	0.000
Hungary	80.57	0	0.983	0.11	0.000	0.09	0.000
Austria without CV	80.5	0.05	0.089	0.02	0.480	0.11	0.000
Slovak Republic	80.43	0.01	0.807	0.10	0.000	0.09	0.000
Finland	78.03	-0.02	0.363	0.06	0.014	0.21	0.000
South Africa	74.53	-0.03	0.061	-0.03	0.144	0.14	0.000
Japan	74.02	0.06	0.015	-0.05	0.118	0.25	0.000
Portugal	73.74	-0.03	0.170	-0.04	0.130	0.22	0.000
Slovenia	73.59	0.02	0.532	0.06	0.040	0.21	0.000
Chile	73.01	-0.01	0.658	-0.11	0.000	0.35	0.000
Great Britain	72.16	-0.04	0.165	-0.04	0.254	0.30	0.000
Bulgaria	69.62	0.02	0.547	0.03	0.408	0.16	0.000
Latvia	69.06	-0.03	0.288	0.21	0.000	0.11	0.001
Austria (with CV) <sup>oa</sup>	68.29	-0.15	0.168	0.11	0.373	0.12	0.238
Poland	67.13	0.04	0.170	0.14	0.000	0.17	0.000
Mexico <sup>o</sup>	64.78	0	0.878	0.10	0.000	0.19	0.000
United States	63.26	-0.05	0.048	0.32	0.000	0.29	0.000
Switzerland without CV	60.55	0.04	0.160	0.18	0.000	0.23	0.000
Venezuela	50.75	0.04	0.183	0.10	0.004	0.25	0.000
Czech Republic	42.81	0	0.864	0.13	0.000	0.12	0.000
Switzerland (with CV) <sup>o-</sup>	38.46	0.17	0.606	0.21	0.471	-0.03	0.935
Overall mean	78.58	0.01		0.05		0.15	
Mean with CV	85.69	0.02		0.05		0.16	
Mean without CV	77.54	0.01		0.04		0.15	
Correlation with CV		-0.005	0.236	0.004	0.338	-0.021	0.000

Notes: Bivariate figures from ISSP survey 2004, n = 46,436. Columns represent: territory, reported turnout, difference between women and men (positive = men vote more often); sign. test on difference; difference between respondents with secondary education or less and respondents with higher education (positive = highly educated vote more often); difference between ≤ 44 years/45 or older respondents (positive = older respondents vote more often); significance of that difference, difference of the difference.

<sup>o</sup> Countries with compulsory voting; <sup>+</sup> only Tyrol and Vorarlberg; <sup>-</sup> only Schaffhausen; <sup>a</sup> data obtained from Belgian Election Survey 2003 (Billiet et al. 2004). Sign.: \* = p<0.05; \*\* = p<0.01; \*\*\* = p<0.001.

**Table 2.** Logistic Multilevel Model to Predict Turnout

	Model 0	Model 1	Model 2	Model 3
<b>Background variables</b>				
Female		0.977ns (0.023)	0.977ns (0.024)	0.987ns (0.025)
Education		3.089*** (0.046)	3.146*** (0.047)	3.174*** (0.050)
Age		26.870*** (0.066)	28.304*** (0.067)	21.499*** (0.071)
<b>Country-level variables</b>				
Weakly enforced compulsory voting			1.171*** (0.046)	1.047ns (0.466)
Strictly enforced compulsory voting			3.743*** (0.053)	2.032ns (0.374)
Gini coefficient			0.734ns (0.529)	0.698ns (0.528)
GDP/capita			1.317ns (0.478)	1.294ns (0.477)
<b>Interaction-effects</b>				
Female* Compulsory voting				0.894ns (0.093)
Education*				1.000ns (0.179)
Compulsory voting				23.336*** (0.300)
Age* Compulsory voting				
Constant	3.508*** (0.117)	0.654*** (0.126)	0.557* (0.273)	0.613ns (0.274)
Residual variance at country level (in %)	13.342 (0.118)	13.864 (0.124)	10.971 (0.095)	10.971 (0.096)
N	46,435	46,415	46,415	46,415

Entries are the result of a multilevel logistic regression. Entries are odds ratios, standard errors between brackets. Sign.: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ . Frequencies and distribution of the variables are presented in the appendix. All variables were rescaled to a 0–1 range to facilitate comparison.

hand, is strongly significant and is associated with higher turnout levels. Given that we are mainly interested in inequality, however, it is striking that introducing compulsory voting at the country level does not change the odds-ratios for gender, education and age at the individual level. Put differently, these inequalities do not disappear when compulsory voting is taken into account. Neither does the addition of other variables such as the Freedom House Index yield significant effects.<sup>9</sup>

In Model 3, we introduce a more direct test by including interaction effects in order to determine whether compulsory voting has differential effects on specific groups within the population. As the figures show, there is no significant interaction effect between gender and compulsory voting, and neither is there one between education level and compulsory voting. This means that men and women, less educated and highly educated respondents are all equally affected by the obligation to vote. Hence, a system of compulsory voting is not effective in reducing inequality, since it simply raises the turnout level for all groups within society, without leveling any differences there might be between groups.

One interaction effect, however, proves to be highly significant, i.e. the interaction between age and compulsory voting (Model 3). It should be noted that the interaction effect is positive: the older respondents are, the more strongly they react to the obligation to vote. If we know that older people vote more often to start with, this finding implies that compulsory voting strengthens – rather than reduces – age differences. Further analysis suggests that this interaction effect might be strongest for countries with low levels of GDP/capita. A more in-depth analysis, furthermore, suggests that this effect is most pronounced in the 35–54 age bracket, as this age group responds much more strongly to the requirement to vote than the 18–34 age group. The effect becomes insignificant for the group aged 75 and above. At first sight, our findings contradict Wattenberg's finding (2007) that compulsory voting does not have much effect on age differences. However, both our data and our method of analysis are better suited to analyzing differential effects of compulsory voting than the data and method (i.e. bivariate tables) used in the Wattenberg volume. This interaction effect is also significant if we analyze only the European countries in the ISSP, suggesting a robust relation.

There are a number of likely explanations for the occurrence of this positive interaction effect. These explanations should be taken up in further research. First, the possibility of measurement error should be considered. Respondents indicating that they were not eligible to vote were excluded from the analysis, but some respondents may have misinterpreted this question. Particularly respondents who were eligible to vote but did not register as a voter and hence could not participate on election day may have been confused by this question. We can assume that not being registered as a voter may especially affect younger people, since in most electoral systems, since once you are registered as a voter, you simply remain on the lists. Older people, therefore, have had more opportunities to register during the course of their lifetime. Presumably, this phenomenon partly explains why turnout is generally lower among younger age groups. There is no apparent reason, however, why this phenomenon should be stronger in countries with compulsory voting. The only possible explanation could be that young people know that once they are registered, they are actually obliged to go out and vote. In other political systems, registering as a voter does not entail any real obligations. If this explanation holds, the observed interaction effect cannot be attributed to measurement error but in fact constitutes a real and direct effect of compulsory voting. In countries with a system of compulsory voting, young citizens might be reluctant to register as a voter and assume the obligations this entails.

A second possible explanation for the observed interaction effect is that during the past decades, enforcement regimes have tended to become weaker. As judicial systems worldwide have become overburdened with criminal offences, prosecuting non-voters is seldom a priority. One might speculate that older generations still remember the policy of prosecuting non-voters, while to younger age groups the idea of being taken to court for failing to vote might seem far-fetched. This line of reasoning would imply that we can currently still observe effects of compulsory voting, which will gradually disappear unless states actually try to enforce existing electoral laws. This seems to be the case in Belgium: most courts (with a few exceptions) do not receive any data about non-voters or choose not to prosecute non-voters.

A third possible explanation is that electoral laws may also have a moral appeal that older citizens are more susceptible to as they have a stronger sense of civic duty. In general, we know that citizens tend to comply with legislation not only due to fear of sanctions, but also because laws carry a strong moral message regarding the proper course of action for a 'good citizen'. Countries where voting is mandatory stress that voting is a civic duty, not an individual choice. The sense of civic duty remains a powerful incentive to go out and vote, especially in countries enforcing a system of compulsory voting (Chareka and Sears, 2006). However, research indicates quite

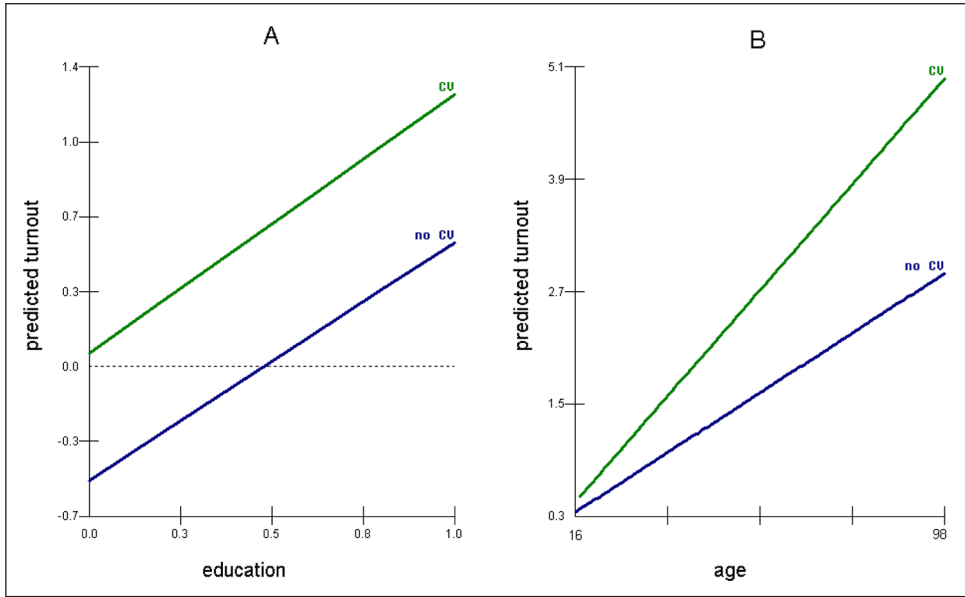
clearly that the ‘duty’ argument does not seem to affect young people anymore. Among younger age groups, self-expression and voluntary engagement are more powerful incentives for political action than any duty-based concept of citizenship (Blais et al., 2004; Dalton, 2008). The argument that compulsory voting implies a civic duty to vote is lost on younger generations, while it does seem compatible with the values cherished by older generations. We realize that invoking a sense of civic duty as a causal mechanism runs counter to the standard approach of considering voting as a rational act based on a weighing of costs and benefits. Various authors, however, have already insisted that voting cannot be solely explained by reference to such motivations, as in large-scale democracies the act of voting almost never yields clear benefits. Voting, therefore, is also driven by normative and self-expressive considerations, which are not constant across generations (Blais, 2000).

The results presented in Table 2 demonstrate that our main hypothesis is not supported. The absence of a significant interaction effect between compulsory voting (at the country level) and education or gender (at the individual level) implies that compulsory voting has an overall effect on the voting population. Compulsory voting thus tends to boost the participation of all groups within society, not just of one specific group. Only for age can a significant interaction effect be observed, but it should be noted that this finding runs counter to our hypothesis. In all countries – with or without compulsory voting – older people tend to vote more often than young people. A positive interaction effect implies that older people are more likely to respond to compulsory voting, thus rendering the age gap in voter turnout even larger than it would be in other voting systems. Compulsory voting actually strengthens stratification patterns here – in favor of the older age groups – and does not resolve the problem of low voter turnout among young people.

The interaction effect between compulsory voting and education and age can also be visualized (Figure 1). Figure 1A depicts the relationship between education and predicted turnout for a model with random intercepts and random slopes. Although the slopes are allowed to vary, the relationship between education and turnout is the same in systems with and without compulsory voting. To put it differently, there is no interaction effect between compulsory voting and education. Figure 1B, however, indicates that the slope is different for countries with or without a system of compulsory voting. In both systems, there is a positive relation between age and turnout, but the slope is clearly steeper in countries with compulsory voting (CV).

## Discussion

Lijphart (1997:10) has argued that ‘the most important argument in favor of compulsory voting is its contribution to high and relatively equal voter turnout.’ The available literature shows that compulsory voting is indeed associated with higher turnout. Also our own bivariate analysis (Table 1) reveals that average turnout is 8 percent higher in countries with compulsory voting. However, the second part of the claim – that compulsory voting leads to ‘relatively equal turnout’ – needs to be qualified. First, with regard to gender, there is no problem of inequality to start with. Whereas men might have participated more actively in elections than women in the past, the current figures do not demonstrate any significant gender differences with regard to electoral turnout. Compulsory voting does not make a difference in that gender balance, since women and men are equally affected by compulsory voting. Admittedly, our analysis relied on self-reports of participation in elections in a population survey. It could be speculated that female respondents might be more likely to



**Figure 1.** Interaction Effect between Age, Education and Compulsory Voting  
 Entries are the plotted predictions of the level of turnout, according to education (0 = lowest qualification; 1 = university degree) and age (16 years – 98 years and older) for countries with (CV) and without compulsory voting (no CV). Random slopes and random intercepts multilevel model.

falsely claim that they have voted, but it seems unlikely that such a pattern of social desirability would fundamentally change the figures.

Second, the available evidence strongly suggests that more highly educated people are more likely to vote, but again compulsory voting does not have an effect on this inequality since it also raises the participation levels of the highly educated.

Third, the literature suggests that younger people refrain from taking part in elections and it is hoped that compulsory voting might induce young citizens to participate. However, our analysis demonstrates exactly the opposite: older age groups are more strongly affected by compulsory voting than younger age groups. Although the available evidence does not allow us to reconstruct the causal mechanism responsible for this effect, it should be remembered that most countries involved in the study impose no sanctions on non-voters. It is more likely, therefore, that the observed effect of compulsory voting depends on some sort of moral appeal that stems from the legal obligation to vote. This moral appeal is apparently stronger among older age groups than among young age groups. An alternative explanation might be that older age groups might still remember past policies of penalizing non-voters; these are no longer maintained, or are no longer a priority for an overburdened legal system. Young citizens would not be affected by the memory of an abandoned policy and might even be discouraged to register as voters if this implies that voting will then be mandatory.

In any case, the introduction of compulsory voting does *not* appear to be an effective manner to motivate young people to go out and vote. Maybe the result would be different if a country

could actually impose sanctions for electoral abstention, but it remains doubtful how such a system could ever deal with huge numbers of non-voting young people. Strict sanctions might even discourage voter registration. To motivate young people to vote, different policy measures clearly need to be adopted.

The general conclusion drawn from our analysis is that compulsory voting does not lead to more equality at the polls and even increases age-related inequality. This finding does not challenge the normative arguments in favor of compulsory voting, since the system might still have other benefits. For instance, the increased turnout produced by compulsory voting may support the legitimacy of the political system. The legal obligation to vote also expresses a certain republican ideal of shared citizenship and public responsibility. Future analyses using more control variables such as political attitudes and health might lead to better insights into the interaction effect between age and compulsory voting. But, at least with respect to background characteristics that were used in this cross-national survey, compulsory voting does not seem to be a panacea to bring about equal participation in the electoral process.

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## Appendix

### Reported vs. official turnout

Country	Mean reported turnout ISSP 2004 (in %)	Official turnout (voters/registered) (in %)	Year of Parliamentary election	Difference between reported and actual turnout
Australia	97.11	94.9	2001	-2.2
Austria	80.50	84.3	2002	3.8
Austria (with CV)	68.29	84.3	2002	16.0
Belgium	94.64	96.3	2003	1.7
Bulgaria	69.62	66.6	2001	-3.0
Canada	90.72	61.2	2000	-29.5
Chile	73.01	86.6	2001	13.6
Cyprus	88.65	91.8	2001	3.2
Czech Republic	42.81	57.9	2002	15.1
Denmark	90.26	87.1	2001	-3.2
Finland	78.03	66.7	2003	-11.3
France <sup>1</sup>	85.33	60.3	2002	-25.0
Germany	88.01	79.1	2002	-8.9
Great Britain	72.16	59.4	2001	-12.8
Hungary	80.57	73.5	2002	-7.1
Ireland	82.24	62.6	2002	-19.6
Israel <sup>2</sup>	82.17	78.7	1999	-3.5

(Continued)



**Appendix (Continued)**

Country	Mean reported turnout ISSP 2004 (in %)	Official turnout (voters/registered) (in %)	Year of Parliamentary election	Difference between reported and actual turnout
Japan	74.02	59.8	2003	-14.2
Latvia	69.06	71.2	2002	2.1
Mexico <sup>3</sup>	64.78	41.7	2003	-23.1
Netherlands	90.63	80.0	2003	-10.6
New Zealand	91.28	77.0	2002	-14.3
Norway	86.60	75.5	2001	-11.1
Philippines	87.42	81.1	2001	-6.3
Poland <sup>4</sup>	67.13	46.2	2001	-20.9
Portugal	73.74	62.8	2002	-10.9
Slovak Republic	80.43	70.1	2002	-10.3
Slovenia	73.59	70.4	2000	-3.2
South Africa	74.53	89.3	1999	14.8
South Korea	82.67	57.2	2000	-25.5
Spain	81.94	68.7	2000	-13.2
Sweden	89.71	80.1	2002	-9.6
Switzerland	60.55	45.2	2003	-15.4
Switzerland (with CV)	38.46	45.2	2003	6.7
Taiwan <sup>2</sup>	86.54	82.7	2000	-3.8
United States	63.26	63.8	2000	0.5
Uruguay	86.26	91.7	1999	5.4
Venezuela	50.75	56.6	2000	5.9
Overall mean	78.58	71.61		-7.0

Source: <http://www.idea.int/vt/parl.cfm>

<sup>1</sup> Note, however, that the turnout for the presidential elections in 2000 was 79.7 percent.

<sup>2</sup> Data from presidential elections.

<sup>3</sup> Note, however, that the turnout for the presidential elections in 2000 was 64.0 percent.

<sup>4</sup> Note, however, that the turnout for the presidential elections in 2000 was 61.1 percent.

**Response Rates in ISSP 2004**

	Eligible participants	Completed questionnaires	Response rate in %
Chile	1505	1,505	100.00
Spain	2544	2,481	97.52
Venezuela	1294	1,199	92.66
South Africa	3382	2,775	82.05
Uruguay	1389	1,108	79.77
Japan	1735	1,343	77.41
Cyprus	1300	1,000	76.92
Slovak Republic	1395	1,072	76.85
Bulgaria	1565	1,121	71.63
Philippines	1730	1,200	69.36
Slovenia	1521	1,052	69.17
Mexico	1741	1,201	68.98
Poland	1902	1,277	67.14
South Korea	1969	1,312	66.63
United States	2224	1,472	66.19
Ireland	1614	1,065	65.99

**Appendix (Continued)**

	Eligible participants	Completed questionnaires	Response rate in %
Sweden	1973	1,295	65.64
New Zealand	2253	1,370	60.81
Austria	1669	1,006	60.28
Denmark	1967	1,180	59.99
Norway	2400	1,404	58.50
Israel	1769	1,034	58.45
Portugal	2808	1,602	57.05
Latvia	1785	1,000	56.02
Finland	2490	1,354	54.38
Switzerland	2154	1,078	50.05
Czech Republic	2821	1,322	46.86
Hungary	2233	1,035	46.35
Taiwan	3859	1,781	46.15
Great Britain	1878	853	45.42
Canada	2874	1,228	42.73
Netherlands	4399	1,823	41.44
Germany	3252	1,332	40.96
Australia	4996	1,914	38.31
France	9948	1,475	14.83
	Mean response rate (in %):		62.07

Source: Scholz et al. (2008).

Notes: Response rate of Belgian Election Survey (2003) is 64.42 percent (Billiet et al., 2004).

**Countries' level of compulsory voting in ISSP 2004**

Level of compulsory voting	Countries
No compulsory voting	Bulgaria, Canada, Czech Republic, Denmark, Finland, France, Germany, Great Britain, Hungary, Ireland, Israel, Japan, Latvia, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, South Korea, South Africa, Spain, Sweden, Taiwan, United States, Venezuela
Weakly enforced system of compulsory voting	Philippines, Austria (Tyrol and Vorarlberg), Chile, Mexico
Strictly enforced system of compulsory voting	Australia, Belgium, Cyprus, Switzerland (Schaffhausen), Uruguay

**Frequencies**

VARIABLE NAME	N	MEAN	SD	MINIMUM	MAXIMUM
Female	51344	0.53	0.5	0	1
Education	50977	0.54	0.5	0	1
Age	51030	0.51	0.5	0	1
Voted	46436	0.79	0.41	0	1
GDP/capita	39	31135.2	19939.76	1625	83922
Gini coefficient	39	34.67	8.36	24.7	57.8
Weakly enforced compulsory voting	39	0.10	0.31	0	1
Strictly enforced compulsory voting	39	0.13	0.34	0	1

## Notes

1. Note, that the term ‘inequality’ does not refer to any legal inequality with regard to the access to voting, since all eligible citizens in the countries examined have the right to vote, regardless of gender, age or education level. Structural and persistent differences in the extent to which these rights are actually practiced, however, can also be labeled as a form of inequality (Sen, 1992).
2. Although actual and reported turnout seem markedly different in France and Canada, this can be explained – at least for France – by the higher turnout at the presidential elections, which approaches the reported turnout.
3. As a precaution, all analyses reported in this article were performed with and without the Belgian data, showing no significant changes in the end result of the analysis.
4. The results of all additional analyses can be found in an online appendix, posted on our website: [www.kuleuven.be/citizenship](http://www.kuleuven.be/citizenship).
5. Since the 100 percent response rate for Chile could also be seen as problematical, we also performed the analyses without this country. However, both analyses produced the same results. Including survey response rate as an additional control variable in the multilevel analysis showed that the response rate did not have an effect on reported turnout (see the online appendix).
6. <http://go.worldbank.org/4C55Z0H7Z0>.
7. It should be repeated that those ineligible to vote were not included in this analysis, so that these differences only have a bearing on eligible voters.
8. Although this seems a very large odds ratio, this is due to the fact that scales were standardized, where 0 indicates the youngest person, at age 15, and 1 indicates the oldest person, of 98 years and older.
9. Note that the effect of compulsory voting (both direct and indirect) remains significant, even when the actual turnout level is included as a country-level independent variable.

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