How to make young people vote

The effect of electoral institutions and the welfare context

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Abstract

Low and biased political participation are likely to negatively affect the functioning, the legitimacy, and the quality of democratic political systems. Particular concern was raised by the increasing age gap in voter turnout. Age-related resources and the cost of electoral participation are identified as the main causes of young voters' abstention. Based on theoretical expectations and empirical evidence of cross-national variations in the age gap, the micro-macro relationship between age and electoral institutions, and the welfare context is analysed. The analysis combines individual level data from the Comparative Study of Electoral Systems (CSES) and the European Social Survey (ESS) for the period 2001-2006 with country level information for seven electoral institutions, e.g. postal voting and compulsory voting, and two characteristics of the welfare context. The empirical results reveal a mixed pattern. While welfare characteristics exert only little influence on young citizens' electoral participation, electoral institutions appear to effectively moderate the effect of age.

Keywords: political participation, young citizens, elections, electoral institutions, welfare systems, labour market regulation
Introduction

The legitimacy and functioning of democratic political systems rest on the involvement of citizens (Dalton 2008: 32). Citizens’ participation is considered to be one of the central pillars supporting democracy (Lijphart 1997: 1). In evaluating the trends in political participation for the last decades, scholars and political actors have lamented a significant decline in citizens’ participation (Franklin 2004, Wattenberg 2002, Siaroff 2009). Concern has been raised with regard to electoral participation, which suffered a 9% decline between the 1970s and the early 2000s (Blais 2007). A decline which was mostly driven by the steady decrease in participation among young citizens (Franklin 2004, Blais 2007). This is particularly true for recent elections (Wattenberg 2006). Low participation is particularly problematic due to its relation with political equality (Dahl 2006, Verba et al. 1995, Lijphart 1997). Political equality entails that the political system and the elected representatives are equally responsive to the needs and interests of the broad citizenry (Christiano 2004, Sen 1992). Conversely, the political process should allow equal participation possibilities for all individuals affected by a particular decision (Rueschmeyer 2004). To the extent to which only a segment of the citizenry participates in the election, responsiveness is limited and the quality of the democracy is negatively affected. Evidence shows that political participation is more likely in some social groups than in others, leading to a biased transmission of needs and interests to the political system (Teorell et al. 2007a, Teorell et al. 2007b).

Electoral participation is divided along the lines of certain social groups: gender, education, and age (Teorell et al. 2007a, Teorell et al. 2007b, Gallego 2008a, Gallego 2010). While the former two divides have already drawn some scholarly attention, this is only partially true for age. While there is a general agreement that young people participate to a lower extent than older and more experienced citizens, little is known about the causes and mechanisms responsible for such a phenomenon. So far, theoretical explanations have mainly focused on individual level factors such as resources, or rather the absence thereof, and the costs of political participation. Accordingly, young citizens fail to participate due to their position in life cycle (Kimberlee 2002). Further, changing economic and social conditions have affected young adults’ transition to adulthood and their entry into the labour market, thereby affecting their chances of increasing the resources at their disposal (Spannring 2008). However, costs of political participation are located not only at the individual but also at the country level; suggesting that the effect of age on political participation is a function of the characteristics of the political and socioeconomic context of a country. Indeed, initial evidence shows that electoral participation among young adults varies from 18% in Switzerland to 81% in Sweden (Milner 2010). Building on the legal-institutional theory and the literature on welfare systems and labour market policies, the paper aims at analysing to what extent electoral institutions and the welfare context affect young citizens’ electoral participation.

The paper will first, develop a theoretical framework based on both the resource model of political participation as well as the legal-institutional theory, and the welfare and labour market literature. The research design will be presented in the second part of the paper. The analysis of the effects of electoral institutions and welfare characteristics will be based on individual level information about electoral participation collected by the CSES and the ESS surveys between 2001 and 2006. The empirical results will be presented and critically discussed in the concluding remarks.

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Political inequalities and turnout

Political equality and political participation are two basic and intertwined aspects of democracy (Lijphart 1997; Verba 2003). Political equality entails that the needs and preferences of all citizens shall benefit equal consideration by the political system (Verba 2003: 663). Political equality rests upon the principle that no qualitative basis exists which would allow weighing the needs and preferences of a particular citizen higher than those of another citizen (Dahl 2006: 4). In other words, elected representatives should be responsive towards the broad citizenry, not only towards a segment of the (enfranchised) population (Christiano 2004: 269). However, in order for equal consideration to be achieved, needs and preferences ought to be expressed. Political participation is therefore crucial in achieving political equality because it’s the central mean by which political needs and preferences are formulated (Verba 2003: 663). In other words, “[c]itizen participation is at the heart of democracy” (Verba et al. 1995a: 1).

Political participation is a complex term that refers to a broad array of forms of participation available to citizens (Teorell et al. 2007a: 334). In the paper, political participation is understood as “those activities by private citizens that […] aim at influencing the government, either by affecting the choice of government personnel or by affecting the choices made by government personnel” (Verba/Nie 1972: 2). Keeping this definition in mind, the paper will focus on what Verba (2003: 664) calls “basic democratic institutions”, namely elections.

In elections, equal voting rights – “one person, one vote” – reflect the concept of political equality. While de jure equal participation is guaranteed (formal participation rights2), de facto opportunities to participate are governed by social and demographic characteristics (Lutz 2006: 48-50). More specifically, electoral participation shows a bias towards privileged citizens (Lijphart 1997). Hence, differences between privileged and underprivileged citizens in the availability of resources needed to participate in elections give rise to structural inequalities beyond the control of individual citizens (Young 2000: 92-99). Resource sensitivity is in sharp contrast with the ideal of "ambition-sensitive" but "endowment-insensitive" political participation (Dworkin 1981: 311). According to this line of thought, the quality of a democratic system hinges on its ability to first, foster political participation which is insensitive to the resources available to the single citizens (Abromeit 2004: 78), and second, to encourage broad based responsiveness by elected representatives (Powell 2004).

Concern has been raised by political actors and scholars in response to declining trends in voter turnout. Comparing period averaged mean turnouts for established democracies, Blais (2007: 624) finds a 9% decline in voter turnout between the 1970s and early 2000s. Interestingly, the decline was even larger between the 1990s and early 2000s. Similarly, the evidence collected by Franklin (2004: 10), also suggests a turnout decline (4% until 2000).

Why should the decline in voter turnout be of concern? Empirical findings suggest that the segmentation in elections, and thus political inequalities, are exacerbated when turnout is low. Accordingly, in order to mitigate political inequalities, turnout should be maximized (Lijphart 1997: 2).

At the individual level, three main sources of inequality have been identified: education, gender, and age (Verba et al. 1995b; Marien et al. 2010; Gallego 2008a). Whilst education and gender have attracted reasonable scholarly interest, age has so far been usually included in empirical analysis only as a control variable. This is surprising considering the fact that age, along with education, is the central determinant of political (non-)participation.

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2 Nevertheless, small differences in the access to active suffrage can still be found among democracies (Paxton et al. 2003; Blais et al. 2001).
(Blais 2007; Wolfinger/Rosenstone 1980; Blais 2000). To some extent this is possibly due to the fact that political participation is expected to gradually increase as citizens move forward in the life cycle (Verba/Nie 1972).

However, treating age as a straightforward explanation of political participation fails to take several factors into account. First, as argued by Franklin (2004) and Blais (2007), most of the decline in voter turnout can be attributed to the steady and still ongoing decrease in political participation among young citizens. Recent cohorts of young citizens participate to a lower extent than previous young cohorts, leading to a larger age gap in electoral participation (Wattenberg 2006). Second, research has shown that voting is to a great extent a matter of habit (Plutzer 2002). This means that by not establishing the habitus of voting in the early years after enfranchisement, young citizens may fail to participate also in later life-cycle stages (Miller/Shanks 1996; Lyons/Alexander 2000). Third, political inequality is more or less pronounced depending on the country considered. Hence, the extent to which a particular source of inequality affects participation in elections may be contingent upon the context in which it takes place (Gallego 2010: 239). Contextual effects have been found for education (Gallego 2010) and initial empirical evidence suggests that the same mechanism could be at work for age (Dalton 2008: 61-63).

**Contextual determinants of electoral participation of young citizens**

Several explanatory models for political participation have been proposed. Each of them tries to give an answer to the simple, yet complex, question as to why some citizens decide to be politically active, whereas others decide to abstain. In trying to answer this question, Verba et al. (1995b: 271) have suggested that citizens do not take part in elections because “they can’t, because they don’t want to, or because nobody asked”. Following the argument by Verba et al. (1995b), resources play a major role in explaining who appears at the polling station. Accordingly, citizens who have a larger monetary budget, more time and higher civic skills at their disposal are the ones with the highest probability of voting. Resources are also related to the model proposed by Downs (1957), which was later elaborated by Riker and Ordeshook (1968). According to the rational choice model, the decision to participate in an election is dependent upon the weighting of costs and the broadly defined benefits as well as the feeling of duty associated with the act of voting (Blais 2000: 1-2). As politically relevant resources are not equally distributed along socioeconomic and demographic lines (Verba et al. 1995b), the costs of voting are exacerbated for socially disadvantaged citizens (Gallego 2010: 241). The weighing of resources and costs is of particular relevance for young citizens’ electoral participation for two reasons. First, young citizens dispose of fewer resources due to their life-cycle position, and may encounter higher information and opportunity costs as they are new to the functioning of the political system (Franklin 2004; Plutzer 2002). Second, changes in the economic and social conditions have affected both their entry into the labour market as well as their transition into adulthood. This in turn, affects the resources available to today’s youth, leaving them less empowered than previous cohorts of young citizens (Spannring 2008: 34-35).

Further, as argued above, the effect of age is not a straightforward one. Initial evidence suggests that the impact of age on political participation differs according to the context in which the election takes place. For instance, in a cross-country comparison analysing the effect of age in the United States, Germany, France and the United Kingdom, Dalton (2008: 61) found very different voter turnouts for the youngest cohorts. While in Germany about 73% of the citizens between 18 and 24 declared to have voted in the last national election, only 63% say so in France. Even lower participation rates were found in the United States and in the United Kingdom (48% and 46% respectively). The same pattern can be discerned by investigating the predictors of turnout. While in the United States and in the United Kingdom
the effect of age is statistically significant, it is not the case in Germany and only to a lower extent in France (Dalton 2008: 63). Milner (2010), in analysing reported turnout in Europe in the early 2000s, found that young citizens’ participation ranged from 18% in Switzerland to 81% in Sweden. Accordingly, the costs of political participation for young citizens may not only be located at the individual level but also be affected by the context in which elections take place. Indeed, macro-level explanations of turnout have identified several institutions affecting costs and turnout (Jackman 1987; Blais 2006). Both the micro- and the macro-level explanations of turnout feature the cost factor in their explanation of political participation. The two strands of research, however, often fail to acknowledge each other, and are oblivious to the fact that citizens are embedded in the particular political context, and are thereby affected by it (Dalton/Anderson 2011: 3-4).

In order to shed some light on these cross-country differences, the analysis will focus on two types of contextual factors possibly affecting the participation of young voters in elections: electoral institutions, and the welfare and labour market context.

**Electoral institutions**

According to the legal-institutional theory, the voting behaviour of citizens is influenced by the legal and institutional characteristics of the specific system, e.g. the electoral system (Rusk 1974: 1044). The costs of voting for underprivileged and less endowed citizens vary in dependence of the institutional setting. Two types of costs are distinguished in the literature: homogenously and heterogeneously distributed costs. The former, e.g. physical and opportunity costs are evenly distributed among the population and their impact and relevance for turnout inequality is disputed (Gallego 2008b: 85). The latter, exemplified by the cognitive costs, are not homogenously distributed but related to the resources available to the single individual. Cognitive costs can be further distinguished in costs arising before (electoral system) and during (voting procedure) the election act (Gallego 2008b: 82). Yet another type of costs arises when voting is compulsory (Gallego 2008b: 87). In such countries, failing to vote becomes increasingly costly due to the sanctions imposed.

The analysis will focus on three types of electoral institutions affecting participation costs. These cover the electoral engineering factors identified by Norris (2004: 153): political institutions, the legal system, and the administrative procedures of the election.

**Political institution**

Two factors of the political system are expected to affect the costs of voting for young citizens. First, to the extent that the electoral formula is characterized by rules burdening cognitive costs, the difficulty of voting increases. Proportional systems are expected to foster political participation (Norris 2004: 161; Jackman 1987; Jackman/Miller 1995), because they entail a (rather) straightforward transformation from individual votes to party representation. On the other hand, majoritarian and, to a larger extent, mixed-member electoral systems involve more cumbersome and complex rules (Gallego 2008b: 84).

Another factor discussed in the literature is the number of political parties. Although an effect is expected, little agreement exists on its direction. On the one hand, a large number of parties may positively affect participation as it becomes more likely for a citizen to find a party matching his/her preferences (Blais 2000, Blais 2006). On the other hand, increasing evidence shows a detrimental effect of having a great amount of parties (Jackman 1987; Blais/Dobrzynska 1998); particularly so for voters with low endowments (Jusko/Shively 2005). This because as the number of parties increases, so do the information costs (Brockington 2004; Kittilson/Anderson 2011: 37). Information costs are quite relevant for young citizens since they are new to the political system (Franklin 2004). Hence, a higher
number of parties is expected to depress young citizens’ electoral participation. Accordingly, the following hypotheses are formulated:

H1: Young citizens are more likely to vote under proportional electoral formula.

H2: Young citizens are less likely to vote when the number of parties competing in the election is high.

Legal system

Young voters, and particularly first time voters, are confronted with high information and learning costs (Plutzer 2002). Young citizens are further confronted with a wide range of problems related to the transition to adulthood (Franklin 2004), which compete for attention with political participation. Similarly, Chan and Clayton (2006) contend that young adults are not “mature” enough to become politically active. Indeed, a decrease in voter turnout was apparent when the voting age was lowered from 21 to 18 (Franklin 2004). In a similar way, scholars contend that lowering the voting age to 16 would have a detrimental effect on electoral participation. This because, during teenage, individuals lack of central characteristics like resources and motivation to become politically active (Aarts/Wessels 2005). Thus, the following hypothesis is formulated:

H3: Young citizens are less likely to when the legal voting age is low (16 years).

Rosenstone and Hansen (1993) pointed out that political participation decreases in the absence of viable candidates. Systemic barriers and psychological costs of electoral participation arise from the group’s chances to be represented (Atkeson 2003: 1041). If no representatives of the group are standing for the election, the group’s members will be unlikely to vote. A particular feature of the legal system may systematically hinder the chances to be elected and thus create a disincentive to participate into election: the passive voting age. For instance, if the legal voting age differs from the eligibility age the chances of finding a candidate that suits young citizens’ needs and preferences are significantly reduced. Accordingly, young citizens are expected to be more likely to participate in elections when the age requirement for active and passive suffrage is the same:

H4: Young citizens are more likely to vote when voting and eligibility age coincide.

Another often discussed institutional feature is compulsory voting. Compulsory voting is expected to boost turnout (Lijphart 1997: 8-10), particularly so for underprivileged citizens (Wattenberg 2006; Hill 2006). The existence of compulsory voting, in particular in combination with enforced sanctions, modifies the costs and incentives to go to the polling station (Panagopoulos 2008). Evidence shows that compulsory voting can reduce the participation bias in the case of education (Gallego 2007). While critical evidence exists (Quintelier et al. 2008); young citizens are expected to be more likely to vote under compulsory voting rule:

H5: Young citizens are more likely to vote under compulsory voting rule.

Electoral administrative procedures

Administrative procedures may affect the hurdles faced by disadvantaged citizens because they affect the costs of participating in elections (Southwell 2004; Rallings and Thraser 2007). Two procedures potentially facilitating the participation of young citizens are investigated. First, postal voting has been generally considered to foster participation. Evidence from Anglophone countries shows a significant increase in election turnout after the introduction of postal voting (Rallings et al. 2010: 225). An investigation of the effectiveness of postal voting in Oregon also finds a positive effect on electoral participation. Further, the study suggests that postal voting is particularly efficient in bringing young people to the polls (Southwell
Another study in the United Kingdom shows that the participation of young citizens was positively affected by the use of postal voting. However, the same study finds postal voting to be more commonly used among older citizens (Rallings et al. 2010: 228).

H6: Young citizens are more likely to vote when postal voting is allowed.

Another feature related to the costs of participation and the mobility of today’s young citizens is the accessibility or rather the flexibility of polling stations. An increasing amount of literature links the distance to the ballot box to citizens' likelihood to participate in an election. Getting to the polling station implies costs in terms of time, travel (Gimpel/Schuknecht 2003: 473–474) and opportunities (Stein/Vonnahme 2008: 488). Previous studies, carried out in various electoral districts in the United States, consistently find a detrimental effect of distance on political participation (Gimpel/Schuknecht 2003; Stein/Vonnahme 2008; Dyck/Gimpel 2005 and Haspel/Knotts 2005). The same logic applies in relation to the flexibility of the polling station. For instance, in countries where voting is not tied to a specific and assigned polling station (citizens can vote also in other parts of the country) lower transport and opportunity costs arise. This may be particularly true for young citizens. First, travelling costs are comparatively high for young citizens due to a lack in resources. Second, compared to previous cohorts, today's cohorts of young citizens experience a higher mobility both in the labour market and in the education field. Accordingly, the following hypothesis is formulated:

H7: Young citizens are less likely to vote when citizens are assigned to specific polling stations.

**Welfare and labour market context**

The literature strand investigated so far concentrated on particular features of the political system, namely electoral institutions. Another strand of literature deals with macro-level variables also affecting individuals’ resources: welfare policies and labour market regimes. Welfare systems redistribute resources to needing citizens (Rector/Lauber 1995). Building on the assumption that voting propensity is dependent on the resources (time, money, and information) available to individuals, two similarly underprivileged citizens living in two different countries will differ in their voting probabilities according to the generosity of welfare policies and the regulation of the labour market in the country of reference. Studies show that the generosity of the welfare system positively affects voter turnout. For instance, Radcliff (1992) finds that economic recession affects the aggregate voter turnout to a lower extent when the social protection by the state is high. Similarly, Lee (2010), investigating state level turnout in the United States, shows that higher levels of spending increase voter turnout. Further, the effect is particularly pronounced for groups of lowly endowed persons, as compared to high-income groups.

Similarly, the probability to participate is expected to vary with different degrees of labour market regulation (Makszin/Schneider 2010: 7). Labour market regulation is particularly important for underprivileged citizens because it affects the availability of resources and the motivation to participate. Schneider and Makszin (2011: 8-9) argue that resources will be distributed more equally among social groups in highly regulated rather than in lowly regulated and uncoordinated labour markets. Further, incentives to participate in the electoral process increase when citizens acknowledge that active participation may affect the benefits they (potentially) perceive (Lee 2010: 4). Labour market regulation has been found to positively affect the political participation of females (Schneider/Makszin 2011) and citizens with low educational attainment levels (Makszin/Schneider 2010).

Young citizens, especially in more recent decades, may be particularly sensible towards the features of the welfare system and the labour market. On the one hand, they dispose of
fewer resources. On the other hand, economic and social changes have affected young citizens’ changes to enter and to stay in the labour market (Spannring 2008: 34-35). Hence, the effect of welfare generosity and labour market regulations on young citizens will be investigated:

H8: Young citizens are more likely to vote the more generous the welfare system is.

H9: Young citizens are more likely to vote the more regulated and coordinated the labour market is.

**Data and Research Design**

**Dependent variable – Voting**
Political participation in elections is crucial for the functioning of the political system. As argued above, the paper aims at investigating the voting behaviour of young citizens. Hence, voting is the dependent variable in the analysis. Information about vote participation is measured by means of a dummy variable, which takes the value 1 if a person states to have voted during the last national election, 0 otherwise (abstention). Information on voter participation stems from the Comparative Study of Electoral Systems (CSES) module II (CSES 2007) and the European Social Survey's (ESS) second round (ESS 2004).  

**Independent variable – Age**
The age related bias in political participation is at the centre of this paper, what makes this demographic characteristic the central independent variable in the analysis. Age is introduced in the analysis as a continuous variable and is based on the information given by respondents in the CSES (2007) and ESS (2004) surveys. Since, only individuals entitled to vote were considered in the analysis, the minimum age varies between countries according to the voting age established by law. Thus, as reported in Tab. A.1 in the Appendix, the age of the respondents varies between 16 (legal voting age in Brazil) and 100. Additionally, in order to take the curvilinear relationship between age and political participation into account, a squared age term is also introduced in the analysis.

**Moderating variables - Electoral institutions and the welfare and labour context**
The micro-macro effects between the selected context factors and the participation of young citizens will be assessed by means of interaction terms between the context determinants and the age of the respondent.

The theoretical discussion identified seven electoral institutions possibly moderating the effect of age on electoral participation. First, among the selected political institutions, the electoral formula is operationalized as a dummy variable assessing the presence of a proportional electoral system. The variable is based on information from the IPU\(^3\) Parline database (IPU 2012). Second, the number of political parties is operationalized following the measurement proposed by Laakso and Taagepera (1979), which renders the effective number of electoral parties (\(ENEP\))\(^6\). Calculations are based on votes' distribution data collected by the Social Science Research Center Berlin (WZB) and made available by the Democracy Barometer (2012) project. The \(ENEP\) varies between 2.1 and 9, as reported in Tab. A.1 in the Appendix. Third, low legal voting age is expected to depress voter turnout (Franklin 2004, Aarts/Wessels 2005). The legally required voting age is captured by a dummy variable for voting age 16 and is based on the information from the IPU Parline database (IPU 2012).

\(^3\) Descriptive statistics are presented in Table A.1 in the Appendix.
\(^4\) For detailed information about the selected countries, please consult the research design section.
\(^5\) IPU: Inter-Parliamentary Union.
\(^6\) \(ENEP = 1/(\sum_{i=1}^{n}p_i^2)\), where \(p_i\) is the squared proportion of votes for each party (Laasko/Taagepera 1979).
Fourth, a dummy variable is used to capture the difference between the age requirements for active and passive suffrage. For instance, the dummy takes up the value 1 when the two age requirements diverge (active suffrage lower than passive suffrage) and 0 otherwise (active and passive voting age requirements are the same). Again, information is collected from the IPU Parline database (2012). Fifth, the flexibility and accessibility of polling stations is operationalized by means of a dummy taking the value 1 when citizens are required to vote at a specific polling station and 0 when it is possible to vote at any polling station in the same district or everywhere in the country. The variable is constructed upon information provided by the ACE Project (ACE 2012). Further, the same data source was used to construct the dummy variable assessing whether a country allows its citizens to use postal voting (coding 1) or not. Finally, the presence of a compulsory voting rule is operationalized by means of a dummy variable. Values of 1 indicate the presence of compulsory voting, whereas a value of 0 denotes countries where voting is voluntary. The coding is based on information from the IPU database (IPU 2012) and Panagopoulos (2008).

The second set of context factor analyses the effect of the welfare system and the labour market regime on young citizens’ political participation.

The generosity of the welfare system is measured by means of the country's social protection expenditures as a percentage of the GDP\(^7\). The information on social spending is based on data compiled by the OECD\(^8\) (2012a) and EUROSTAT\(^9\) (2012) and refers to the year in which the elections took place.

Labour market regulation is operationalized by means of six concepts covering central characteristics of the labour market (Schneider/Makszin 2010). First, the employment protection legislation informs on the extent to which regularly employed personnel and temporary workers are protected. The OECD indicator, examining the regulations on dismissal of individual regular employees, collective dismissal and temporary jobs, informs on the strictness of employment protection (OECD 2004: 64-65). Different levels of employment protection imply different hiring and firing costs for employers, and therefore affect individuals’ labour market entry, stay and work type (regular or temporary) (OECD 2004: 63). The information on employment protection legislation is collected from the OECD (2012b), and Eamets and Masso’s (2004) enquiry for Eastern Europe. Further, wage coordination informs on the extent to which and the level (industry, national economy wide agreements) at which wages are coordinated. Wage coordination varies between 1 (fragmented, company level) and 5 (economy-wide coordination) (Visser 2011). Further, government intervention in wage coordination is also introduced. Government intervention is measured on a five category scale, where higher values represent a higher degree of government intervention\(^10\). Data on both wage coordination and government intervention stem from Visser’s (2011) ICTWSS\(^11\) database. Furthermore, a variable measuring the density of union membership is used. Data on union density stems from the Democracy Barometer (2012) project and Visser’s (2011) ICTWSS database. A second aspect of labour market regulation is represented by the individuals’ protection once they are no longer employed. Schneider and Makszin (2010) suggest two measures: unemployment benefit duration and the generosity of unemployment benefits. The former informs on the maximum amount of time (in months) for which recently unemployed individuals perceive unemployment benefits. The former informs on the maximum amount of time (in months) for which recently unemployed individuals perceive unemployment benefits. Data on the maximal duration of unemployment have been collected by the OECD (2012c), and were complemented by information from Social Security Online (2012) and the ISSA\(^12\)

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\(^7\) GDP: Gross Domestic Product.
\(^8\) OECD: Organisation for Economic Co-operation and Development.
\(^9\) EUROSTAT: Statistical Office of the European Communities.
\(^10\) For the exact coding, please consult Visser (2011).
\(^11\) ICTWSS: Institutional Characteristics of Trade unions, Wage setting, State intervention and Social pacts.
\(^12\) ISSA: International Social Security Association.
The latter measurement proposed informs on the generosity of unemployment benefits. It compares the perceived unemployment benefit to the income an individual would have perceived were he/she not unemployed. Information stems from the database compiled by Van Vliet and Caminada (2012) on the basis of the OECD framework (OECD 2012d) and has been complemented by OECD data (2012d). The data expresses benefits as a percentage of the average wage (AW) for a single individual with no children, during the initial phase of unemployment (Van Vliet/Caminada 2012). The six aspects have been reduced to a single factor (see Table A.2 in the Appendix) informing on the degree of regulation of the labour market. The variable ranges between -1.7 and 1. Accordingly, low values represent largely unregulated, whereas high values refer to highly regulated and coordinated labour markets.

Control variables

Scholars have identified several individual determinants which, along with age, influence citizens’ political participation. This set of determinants will be introduced in the analysis as control variables. Information for these variables is based on respondents' answers in the CSES (2007) and ESS (2004) surveys. First, gender differences in political participation have been found; for instance, men are expected to participate to a higher extent than women (Norris 2002, Dalton 2008, Schneider/Makszin 2011). Accordingly, a dummy variable for female respondents was introduced in the analysis. Second, educational attainment has been found to positively affect political participation (Dalton 2008, Gallego 2008b, Blais 2006). Based on survey information, respondents' highest educational level achieved was recoded into the five categories scale\textsuperscript{13} proposed by the ISCED\textsuperscript{14} 1997 classification\textsuperscript{15} (UIS\textsuperscript{16} 2012). Third, electoral participation was also found to be reliant upon the (monetary) resources (income) available to the single citizen. For instance more resourceful individuals are more likely to vote (Verba et al. 1995b). Ideally, information about the income would be collected for every single respondent. However, due to the sensible nature of such information and respondents’ reluctance to volunteer it, the data was collected at the household level. The surveys contained respondents’ placement of one's household on a quintile income scale\textsuperscript{17} (from lowest to highest income quintile). Fourth, it has also been suggested that respondents' ideological position might affect their electoral participation (Dalton 2008: 59). Respondents’ ideological position is operationalized by means of respondents’ left-right self-placement on the ideological scale, where 0 represents a leftist and 10 a rightist political position. Fifth, political interest and mobilization are also expected to positively influence political participation (Rosenstone/Hansen 1993). This aspect is operationalized by means of a dummy variable controlling for closeness to a political party\textsuperscript{18}. Accordingly, respondents’ who feel close to a political party are expected to be more likely to vote. Similarly, citizens who are easy to mobilize are more likely to take part in the election. Hence, a dummy variable controlling for union membership, and a dummy for the marital status of the respondent (1 indicating married individuals) will be entered in the regression.

\textsuperscript{13} The five categories were chosen to maximize compatibility between the CSES and the ESS surveys.
\textsuperscript{14} ISCED: International Standard Classification of Education.
\textsuperscript{15} The ISCED 1997 categories are: “less than lower secondary”, “lower secondary”, “secondary”, “post-secondary, not tertiary” and “tertiary or higher” (UIS 2012).
\textsuperscript{16} UIS: UNESCO Institute for Statistics.
\textsuperscript{17} In order to optimize compatibility ESS household data were recoded from a 12- to a 5-category household income scale.
\textsuperscript{18} Closeness to a political party was chosen due to the lack of comparable measures for political interest and knowledge in the two survey used.
**Research Design**

The case selection includes all electoral democracies which held elections in the period between 2001 and 2006\(^{19}\) and were included in the second round (module II) of the Comparative Study of Electoral Systems (CSES) surveys (CSES 2007) or in the second round (ESS 2) of the European Social Survey (ESS 2004), carried out in 2004. A specific country is considered to be an electoral democracy if it scored a value of 3 or lower in the combined Freedom House (Freedom House 2012) rating and a value of 7 or higher on the Polity IV index (Marshall et al. 2012) in the election year. 38\(^{20}\) countries fulfil these requirements. However, due to missing data at the country level for Peru, the Philippines and Taiwan, the analysis focuses only on 36\(^{21}\) countries. For six\(^{22}\) out of these 36 counties the individual level data stems from the 2004 ESS (ESS 2) surveys.

**Methodology**

As highlighted in the theoretical discussion, the analysis is interested in the influence of the political and socioeconomic context on the participation of young citizens. The dependent variable "voting" and the key explanatory variable "age" are individual level variables. On the other hand, the moderating factors – electoral institutions, welfare and labour market context – are country level characteristics. Hence, citizens are nested within countries. Rabe-Hesketh and Skrondal (2008: 51) argue that in analysing nested data it is crucial to take the dependency among units within the same cluster into account. In other words, hierarchical data violate the OLS assumption of independence of observations (Hox 2010: 4). In order to take the hierarchical data structure into account, a multilevel analysis needs to be applied (Bickel 2007: 1). According to Hox (2010: 11), hierarchical models can be understood as “hierarchical system of regression equations”. At the individual level, as depicted in equation (1), voting can be expressed as a function of several other individual level factors \(X_i\), e.g. age:

\[
Y_{ij} = \beta_{0j} + \beta_{1j}Age_{ij} + \beta_{2j}X_{2ij} + \ldots + e_{ij}
\]  

(1)

The peculiarity of multilevel analysis is that it allows the intercept coefficient \(\beta_{0j}\) (random intercept model) or both the intercept and the slopes coefficients (\(\beta_{1j}, \beta_{2j}\)) (random coefficients model) to vary between countries, and to be expressed as a function of country level determinants (\(Z\)) (Hox 2010: 11-12):

\[
\begin{align*}
\beta_{0j} &= \gamma_{00} + \gamma_{01}Z_j + u_{0j} \\
\beta_{1j} &= \gamma_{10} + \gamma_{11}Z_j + u_{1j}
\end{align*}
\]  

(2)

As it assumed that the effect of age varies between countries a multilevel model with a random slope for age will be estimated (equation 3). Cross-level interactions between the selected country-level determinants and age (\(\gamma_{11}Age_{ij}Z_j\)) will be individually introduced in the model, in order to assess their moderating effect on age's effect on political participation:

\[
Y_{ij} = \gamma_{00} + \gamma_{10}Age_{ij} + \gamma_{01}Z_j + \gamma_{11}Age_{ij}Z_j + \beta_{2j}X_{2ij} + Age_{ij}u_{ij} + e_{ij} + u_{0j}
\]  

(3)

---

\(^{19}\) In case of multiple elections during said time period, the more recent election was included.

\(^{20}\) Taiwan fulfils the requirements but was not included in the analysis due to its disputed international recognition.


Empirical results

The task tackled in the paper was to analyse how the political and socioeconomic context affects the political participation of young citizens.

Specifically, the analysis focused on the effect of selected electoral institutions, the welfare system generosity and the regulation of the labour market on young citizens’ electoral participation. In order to assess such an effect, interactions between the selected context variables and age were subsequently entered in the regression.

The analysis of (young) citizens’ voting behaviour is based on the information available for 38368 individuals from 36 countries, entitled to vote. The analysis of the partition of variance, as reported in Tab. 1, Model 1, suggests that 10.59% of the variance in voting is located at the country level, thereby providing strong support for the use of a multilevel model.

A preliminary analysis of voter turnout among younger and older cohorts (see Fig. 1) shows that here too, differences between countries are at work. Fig. 1 presents the differences in voter turnout between young (aged 25 or less) and older citizens (aged 26 or more) in absolute terms. As the graph shows, there are differences between countries in the voting behaviour between the two age categories. In the overwhelming majority of the countries under study, the exceptions being Italy and Luxembourg, young citizens’ turnout is lower as compared to their older counterparts. In accordance with the theoretical expectations, the difference in turnout between age cohorts is more or less pronounced depending on the country under observation.

Fig. 1: Differences in voter turnout between old and young citizens

For instance, the age gap is more pronounced in the United Kingdom, in Ireland and in Japan, whereas it is less prominent in Sweden, Belgium, Germany, Australia, Iceland and the Netherlands. Interestingly, in two countries (Belgium and Australia) where the age gap is less marked, voting is compulsory. Further, in Luxembourg and Italy, the effect is reversed: young citizens participate to a larger extent in elections than older ones.

Models 2 to 4 in Tab. 1 present the regression results for the individual level determinants. In line with previous findings, Model 2 shows that age exerts a positive effect on political participation; meaning that as citizens get older they are more likely to vote. Conversely, young citizens’ likelihood to actively take part in elections is lower. However, the
negative coefficient for the squared age term also indicates that the positive effect of age diminishes the older citizens get. That is, age's effect on electoral participation follows an inverted u function. In Model 3 a random slope for age is introduced. Indeed, the statistically significant variance term for age supports the theoretical expectations: the effect of age on electoral participation varies between countries.

The effect of age on political participation persists when the control variables are added to the analysis (Model 4 in Tab. 1). Consistent with previous findings, individuals with more resources (higher educational attainment and income level) are more likely to go to the poll. Similarly, politically more interested citizens and individuals highly embedded in social networks (union members, married individuals and persons feeling close to a political party) are more inclined to take part in elections.

Tab. 1: Individual level determinants of voter turnout

<table>
<thead>
<tr>
<th>DV: Voting</th>
<th>Fixed effects</th>
<th>Random effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 1 b/(se)</td>
<td>Model 2 b/(se)</td>
</tr>
<tr>
<td>Constant</td>
<td>1.80*** (0.105)</td>
<td>3.87*** (0.162)</td>
</tr>
<tr>
<td>Age†</td>
<td>0.10*** (0.005)</td>
<td>0.10*** (0.005)</td>
</tr>
<tr>
<td>Age squared</td>
<td>-0.001*** (0.000)</td>
<td>-0.001*** (0.000)</td>
</tr>
<tr>
<td>Female</td>
<td>0.02 (0.030)</td>
<td></td>
</tr>
<tr>
<td>Income†</td>
<td>0.10*** (0.013)</td>
<td></td>
</tr>
<tr>
<td>Education†</td>
<td>0.16*** (0.013)</td>
<td></td>
</tr>
<tr>
<td>Unemployed</td>
<td>-0.17 (0.061)</td>
<td></td>
</tr>
<tr>
<td>Married</td>
<td>0.20*** (0.035)</td>
<td></td>
</tr>
<tr>
<td>Close to party</td>
<td>0.87*** (0.033)</td>
<td></td>
</tr>
<tr>
<td>Left-right self plac. †</td>
<td>0.02 (0.007)</td>
<td></td>
</tr>
<tr>
<td>Union member</td>
<td>0.21*** (0.041)</td>
<td></td>
</tr>
</tbody>
</table>

**Random effects**

| σ²u₀(level 2) | 0.39*** (0.094) | 0.42*** (0.100) | 0.40*** (0.097) | 0.37*** (0.090) |
|              | (0.094)         | (0.100)         | (0.097)         | (0.090)         |
| σ²u₁(age)    | 0.001*** (0.000) |        |        |        |
|              | (0.000)         |        |        |        |

Chi² | 291.63 | 782.25 | 388.39 | 1474.39 |
Prob>chi² | 0.000 | 0.000 | 0.000 | 0.000 |
N  | 38368 | 38368 | 38368 | 38368 |
N countries | 36 | 36 | 36 | 36 |

**Notes**

Individual level variance (σ²eᵢ) per design fixed at 3.29.
Statistical significance: *** 1%-level, ** 5%-level, * 10%-level
† centered
Further, citizens who place themselves more to the right of the political spectrum appear to participate to a higher extent in elections. In contrast to previous findings, female and male citizens do not differ in their electoral participation in a statistically significant way. The theoretical framework identified a total of nine country level factors (seven electoral institutions and two welfare related variables) which are expected to interact with and thereby moderate the effect of age on electoral participation.

More specifically, the country level factors are expected to foster the electoral participation of young citizens by affecting the impact of age-related resources and thereby the costs of political participation. As mentioned in the methodological part, the micro-macro cross-level interactions were introduced singularly into the model, for a total of nine models (reported in Tab. 2).

Two institutions appear to moderate the effect of age on electoral participation: the existence of a proportional electoral system and of compulsory voting rules. Both interaction terms indicate that the beneficial effect of the institutions on electoral participation decreases among older citizens. However, the interaction terms in Tab. 2 only inform on the marginal effect of a particular institution or welfare variable when age is equal to zero (Brambor et al. 2006a: 73). Since age is centred on the mean the interaction terms (as reported in Tab. 2) inform on the marginal effect of a specific country level factor for a citizen aged 47.1 years, all else being kept equal. In order to evaluate the effect for young citizens, the marginal effects and standard errors were re-estimated and graphically represented in Fig. 2, Fig. 3, and Fig. 4.

---

23 Electoral institutions: proportional electoral system, compulsory voting, voting age 16, voting-eligibility age difference, number of political parties, postal voting, specific polling stations.

24 Welfare context: social protection expenditures (% GDP), labour market regulation.

25 Re-estimation and graphical presentation follow the code provided by Brambor et al. (2006b) and were estimated using Stata’s runmlwin command proposed by Leckie and Charlton (2011).
## Tab. 2: Young citizens’ participation in elections - The interplay between age and the political and socioeconomic context

<table>
<thead>
<tr>
<th>DV: Voting Z:</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
<th>Model 8</th>
<th>Model 9</th>
<th>Model 10</th>
<th>Model 11</th>
<th>Model 12</th>
<th>Model 13</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proportional system b/(se)</td>
<td>2.64***</td>
<td>2.59***</td>
<td>2.68***</td>
<td>2.69***</td>
<td>2.93***</td>
<td>2.67***</td>
<td>2.59***</td>
<td>2.40***</td>
<td>2.72***</td>
</tr>
<tr>
<td>Compulsory voting b/(se)</td>
<td>(0.214)</td>
<td>(0.187)</td>
<td>(0.329)</td>
<td>(0.181)</td>
<td>(0.207)</td>
<td>(0.201)</td>
<td>(0.218)</td>
<td>(0.416)</td>
<td>(0.178)</td>
</tr>
<tr>
<td>ENEP b/(se)</td>
<td>0.09</td>
<td>0.73</td>
<td>0.00</td>
<td>0.20</td>
<td>-0.40</td>
<td>0.07</td>
<td>0.19</td>
<td>0.02</td>
<td>0.20</td>
</tr>
<tr>
<td>Voting age 16 b/(se)</td>
<td>(0.210)</td>
<td>(0.258)</td>
<td>(0.061)</td>
<td>(0.631)</td>
<td>(0.198)</td>
<td>(0.212)</td>
<td>(0.211)</td>
<td>(0.019)</td>
<td>(0.117)</td>
</tr>
<tr>
<td>Voting-Eligibility difference b/(se)</td>
<td>0.08***</td>
<td>0.08***</td>
<td>0.08***</td>
<td>0.07***</td>
<td>0.07***</td>
<td>0.07***</td>
<td>0.07***</td>
<td>0.08***</td>
<td>0.07***</td>
</tr>
<tr>
<td>Postal voting b/(se)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.008)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.006)</td>
<td>(0.010)</td>
<td>(0.006)</td>
</tr>
<tr>
<td>Specific polling station b/(se)</td>
<td>-0.01†</td>
<td>-0.01†</td>
<td>-0.002</td>
<td>-0.02</td>
<td>0.001</td>
<td>0.01</td>
<td>-0.0002</td>
<td>-0.0006</td>
<td>-0.00</td>
</tr>
<tr>
<td>Social system b/(se)</td>
<td>(0.004)</td>
<td>(0.006)</td>
<td>(0.001)</td>
<td>(0.012)</td>
<td>(0.004)</td>
<td>(0.004)</td>
<td>(0.005)</td>
<td>(0.000)</td>
<td>(0.003)</td>
</tr>
<tr>
<td>n</td>
<td>38368</td>
<td>38368</td>
<td>38368</td>
<td>38368</td>
<td>38368</td>
<td>38368</td>
<td>38368</td>
<td>38368</td>
<td>38368</td>
</tr>
</tbody>
</table>

**Notes**
- Individual level variance ($\sigma^2_{u_0}$) per design fixed at 3.29.
- Statistical significance: *** 1%-level, ** 5%-level, * 10%-level
- † centered
Fig. 2 shows the marginal effects of four electoral institutions: proportional electoral system, compulsory voting, number of political parties, and voting age 16. Graph (a) in Fig. 2 suggests that young citizens living in a country with a proportional electoral system are more likely to participate in an election. Conversely, older citizens' participation appears to be lower in a proportional electoral system. The effect, however, is not statistically significant. Similarly, the graphs for the number of parties (graph c) and voting age 16 (graph d) suggest that these electoral institutions do not significantly interact with age. However, as far as the last institution – voting age 16 – is concerned, two considerations have to be made. On the one hand, the (missing) interaction with age puts the discussion about the detrimental effect of lowering the legal voting age into perspective. Contrarily to what was found for the lowering of the voting age from 21/20 to 18 years (Franklin 2004), allowing very young citizens to vote does not negatively affect their electoral participation. On the other hand, it has to be considered that in the current analysis, only one country provides the right to active suffrage to citizens younger than 18, namely Brazil.

26 All effects were also tested using a dummy for citizens younger than 25; the results were consistent between the models.

27 Effective number of parties (ENEP)
Compulsory voting appears to interact and moderate the effect of age on electoral participation. The negative interaction term suggests that the positive effect of compulsory voting on the likelihood of electoral participation decreases as age increases. Indeed graph (b) (Fig. 2) shows that the effect of compulsory voting is larger and statistically significant only for young citizens. Older citizens do not appear to be affected by the presence of a compulsory voting rule.

**Fig. 3: Marginal effects of electoral institutions as age on electoral participation changes (II)**

Considering the remaining three electoral institutions, young citizens’ participation in elections appears not to be sensible to the presence or absence of specific administrative procedure rules. First, young citizens are not affected by the possibility to express their electoral preference by postal voting (graph b, Fig. 4). Second, being required to vote at specific polling stations does not affect young citizens’ participation. This suggests that the (allegedly) higher costs associated with the specific polling station requirement do not further discourage young citizens from participating in the electoral decision.

Third, young citizens’ participation is moderated by the divergence between the age requirement for active and passive suffrage rights (Fig. 4, graph a). More concretely, young citizens are particularly reluctant to participate in elections when the age requirement qualifying citizens to stand for election is higher than the one which allows them to vote. This result has two main implications. First, generally speaking, who can stand for election matters for young citizens’ participation. The additional chance of getting elected and/or having young
representatives increases young citizens’ stakes in an election. This in turn affects their incentive to get involved. Second, it shifts the attention towards the supply side of elections. The results indicate support for the thesis that descriptive representation (Rosenstone/Hansen 1993, Atkeson 2003) as well as the electoral supply (Brockington 2004; Kittilson/Anderson 2011) matter for young citizens’ electoral participation.

**Fig. 4: Marginal effects of social protection expenditures (% GDP) and labour market regulations on electoral participation as age changes**

The second set of context factors focused on characteristics of the welfare context and the labour market. The results are presented in Model 12 and 13 in Tab.2 and the marginal effects are graphically presented in Fig. 4.

In contrast to the theoretical expectations, these factors seem not to moderate age’s impact on political participation. For instance, while the marginal effect of increasing public expenditure on social protection (Fig. 4, graph a) appears to vary over age – it is larger and positive for young citizens – and it does not reach statistical significance.

A similar logic applies when considering the effect of the labour market regulation on young citizens’ electoral participation. Graph (b) in Fig. 4 suggests that increasing the regulation of labour markets affects citizens to a different extent, depending on their age. The effect is particularly large for young and very young citizens, while it decreases for older citizens. However, the effect fails to be statistically significant. Again the analysis focuses on
preliminary and general information about the regulation of the labour market. Implications of the results and possible alternative explanations will be critically discussed in the concluding section.

**Discussion and concluding remarks**

In the attempt to link micro and macro explanations of political participation, the paper analysed the effect of electoral institutions and the welfare context on the electoral participation of young citizens. The focus on young citizens was informed by the steady declining participation of young citizens in elections, and the implications of this phenomenon for political equality and the functioning of the political system as a whole. The theoretical framework suggested the costs political participation and, hence, the relevance of resources, might be positively or negatively affected by specific electoral institutions (Blais 2007, Norris 2004) and characteristics of the welfare system (Schneider/Makszin 2011). This in turn may affect young citizens' electoral participation. Following the theoretical discussion, seven electoral institutions, the generosity of the welfare system, and the regulation of the labour market were selected, and their effect on young citizens' political participation was assessed by means of interaction terms.

The empirical results, based on a multilevel analysis for 36 countries and 38,368 individuals, revealed mixed results with respect to the influence of macro-level determinants of young citizens' electoral participation.

On one hand, two electoral institutions - compulsory voting and the difference between the legal voting and eligibility age - were found to moderate the impact of age on electoral participation. Young citizens, unlike their older counterpart, were more likely to vote under compulsory voting. While the effect may appear straightforward, it stands in contrast with previous studies. Quintelier et al. (2008), for instance, argue that the effect of compulsory voting is essentially restricted to older citizens. Further, the results for compulsory voting in this paper are particularly interesting when political participation is understood as a habitus that needs to be learned (Plutzer 2002; Franklin 2004). Indeed, if voting is a habitus that needs to learned in the first three elections after enfranchisement (Franklin 2004), compulsory voting appears to be an interesting way to promote electoral participation.

While compulsory voting is found to foster young citizens' participation, the opposite is true for the divergence between the age requirements for active and passive suffrage. Here, young citizens participate to a lower extent when the age requirement for eligibility is higher than the one for voting. This result supports the idea that young citizens are sensible to systemic and psychological barriers by the institutional setting, as suggested by Atkeson (2003) for women's participation. Further, question of eligibility shifts the attention towards the supply side part of elections (Kittilson/Anderson 2011) and suggests that who stands for election does matter for electoral participation.

On the other hand, the characteristics of the welfare context - social protection expenditures (% GDP) and labour market regulation - do not appear to moderate the extent to which age affects electoral turnout. Three attempts to explain the missing link are proposed. First, the analysis is based on overall measures of social spending. By relying on overall measures of social protection expenditures differences between investments in different sectors of social protection are levelled. For instance, young citizens may be more or less sensible to targeted social spending. This applies to some extent also to the regulation of the labour market, as the measure proposed by the OECD (2004) covers three types of employment areas: individual regular employees, temporary workers, and collective dismissals. Second, from the background of a delayed transition to adulthood and the difficulty to enter the labour market (Spannring 2008), it is to some extent questionable whether young citizens are actually and directly affected by these policies. For instance, young adults might be overwhelmingly
employed as temporary workers or still be students. Third, different types of young citizens might be affected by welfare system characteristics and labour market regulations depending on their socioeconomic status, demographic and political characteristics, such as gender and political orientation (Blais 2007).

Summing up, the empirical results support the theoretical expectation of cross-country variance in the effect of age on political participation. Young citizens are less likely to participate in elections than older citizens; the difference in participation is, however, more or less prominent depending on the country under study. While the welfare context does not appear to explain these cross-country differences, two electoral institutions - compulsory voting, difference in voting-eligibility age requirements - emerged as relevant moderators. The analysis supports the idea that the determinants of the decline in political participation among young citizens are not only located within the individual himself (resources, missing political interest, laziness) but are also located within the institutional setting.
References


(http://www.oecd.org/document/29/0,3746,en_2649_33933_48891357_1_1_1_1,00.html [15.04.2012]).

(http://www.oecd.org/document/3/0,3746,en_2649_33729_39617987_1_1_1_1,00.html#Tax-Benefit Indicators [15.04.2012]).


### Appendix

#### Tab. A.1: Descriptive statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>St. Dev.</th>
<th>Min</th>
<th>Max</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Individual level</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voted</td>
<td>0.86</td>
<td>0.34</td>
<td>0</td>
<td>1</td>
<td>38368</td>
</tr>
<tr>
<td>Age</td>
<td>47.10</td>
<td>16.71</td>
<td>16</td>
<td>100</td>
<td>38368</td>
</tr>
<tr>
<td>Age squared</td>
<td>2497.93</td>
<td>1662.91</td>
<td>256.0</td>
<td>10000</td>
<td>38368</td>
</tr>
<tr>
<td>Female</td>
<td>0.50</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>38368</td>
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<tr>
<td>Income</td>
<td>2.91</td>
<td>1.35</td>
<td>1</td>
<td>5</td>
<td>38368</td>
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<tr>
<td>Education</td>
<td>3.06</td>
<td>1.40</td>
<td>1</td>
<td>5</td>
<td>38368</td>
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<tr>
<td>Unemployed</td>
<td>0.05</td>
<td>0.23</td>
<td>0</td>
<td>1</td>
<td>38368</td>
</tr>
<tr>
<td>Married</td>
<td>0.63</td>
<td>0.48</td>
<td>0</td>
<td>1</td>
<td>38368</td>
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<tr>
<td>Close to party</td>
<td>0.51</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>38368</td>
</tr>
<tr>
<td>Left-right self placement</td>
<td>5.08</td>
<td>2.47</td>
<td>0</td>
<td>10</td>
<td>38368</td>
</tr>
<tr>
<td>Union member</td>
<td>0.28</td>
<td>0.45</td>
<td>0</td>
<td>1</td>
<td>38368</td>
</tr>
<tr>
<td><strong>Country level</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Proportional system</td>
<td>0.55</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>Compulsory voting</td>
<td>0.20</td>
<td>0.40</td>
<td>0</td>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>Number of parties</td>
<td>4.53</td>
<td>1.78</td>
<td>2.1</td>
<td>9</td>
<td>36</td>
</tr>
<tr>
<td>Voting age 16</td>
<td>0.04</td>
<td>0.20</td>
<td>0</td>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>Voting-eligibility age difference</td>
<td>0.47</td>
<td>0.50</td>
<td>0</td>
<td>1</td>
<td>36</td>
</tr>
<tr>
<td>Postal voting</td>
<td>0.44</td>
<td>0.50</td>
<td>0</td>
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<tr>
<td>Specific polling station</td>
<td>0.58</td>
<td>0.49</td>
<td>0</td>
<td>1</td>
<td>36</td>
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<tr>
<td>Social expenditures (%GDP)</td>
<td>20.48</td>
<td>5.53</td>
<td>6.0</td>
<td>29</td>
<td>36</td>
</tr>
<tr>
<td>Labour market reg.</td>
<td>0.05</td>
<td>0.81</td>
<td>-1.7</td>
<td>1</td>
<td>36</td>
</tr>
</tbody>
</table>

#### Tab. A.2: Varimax rotated factor loadings from factor analysis:

**Labour market regulation**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Loading</th>
<th>Uniqueness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employment protection legislation</td>
<td>0.6926</td>
<td>0.5204</td>
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<tr>
<td>Maximum duration unemployment benefits</td>
<td>0.1847</td>
<td>0.9659</td>
</tr>
<tr>
<td>Degree of wage coordination</td>
<td>0.5811</td>
<td>0.6624</td>
</tr>
<tr>
<td>Degree of government intervention in wage coordination</td>
<td>0.6331</td>
<td>0.5991</td>
</tr>
<tr>
<td>Union density</td>
<td>0.1862</td>
<td>0.9653</td>
</tr>
<tr>
<td>Net replacement rate unemployment benefits</td>
<td>0.5298</td>
<td>0.7193</td>
</tr>
</tbody>
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