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Education and Participatory Inequalities in Real Existing Democracies: Probing the Effect of Labor Markets on the Qualities of Democracies

Kristin Makszin
Carsten Q. Schneider

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Kristin Makszin is a Doctoral Candidate in the Department of International Relations and European Studies at Central European University in Budapest, and a member of the Center for the Study of Imperfections in Democracies (DISC). She can be reached at: nickel_kristin@ceu-budapest.edu.

Carsten Q. Schneider is Associate Professor in the Department of Political Science at the Central European University in Budapest, and Director of the Center for the Study of Imperfections in Democracies (DISC). He can be reached at: schneiderc@ceu.hu.

ABSTRACT

Does the type of capitalist system affect the qualities of democratic systems? We approach this big question by narrowing down the definition of the qualities of democracies (QoD) to political equality and by operationalizing the latter in terms of equal participation of politically relevant groups in elections. The concept of market economies we narrow down to labor markets and we rank countries on a scale that reflects the degree of regulation and protection of their labor markets. Using rare event logistic regression on micro-level data for 16 countries from multiple waves of the International Social Survey Programme (ISSP), we show that more strongly regulated and protected labor markets do reduce the distorting effect of education on political participation: lower educated citizens in regulated market economies turn out more than the same type of citizen in less regulated market economies; and, at the same time, the over-representation among the politically active citizens of highly educated citizens is less pronounced in regulated than in not regulated labor markets. We interpret these findings such that the type of market economy does matter for QoD and that, more specifically, more regulated labor markets help mitigate the effect of one important source of political inequality.

Education and Participatory Inequalities in Real Existing Democracies: Probing the Effect of Labor Markets on the Qualities of Democracies

I. Introduction

The underlying goal of this paper is to link two prominent strands within the comparative social science literature that, so far, are kept surprisingly apart: the study of types of market economies, on the one hand, and the different qualities of contemporary capitalist democracies, on the other.

It is, by now, a commonly acknowledged fact that subgroups of the population that are socially disadvantaged also suffer from political disadvantages in the form of lower political participation and representation (Barnes & Kasse 1979; Verba et al. 1995; Beramendi & Anderson 2008). The poor**,** low educated, or unemployed do tend to engage less in politics. Space limits force us to focus on voting and postpone the analysis of other forms of participation (including party membership, contacting politicians, participating in political gatherings, and others) to a later stage. Our cases are countries that have a sufficiently long experience with democracy and a capitalist economic system, including countries from Europe, North America, and the Pacific.

The inspiration for our paper is based on our initial empirical finding that the nature of the relationship between an individual's education and the propensity to vote varies across countries in a way that suggests that there are macro-level factors that determine different patterns of participatory inequality. We argue that this cross-country variation is driven to a large extent by characteristics of the economic system in which individuals act. In other words, the patterns of participatory inequality are conditioned on features such as the labor market and the structure of the welfare state (Esping-Andersen 1990; Iversen 2005; Hall and Soskice 2001; Hancké, Rhodes, and Thatcher 2007; Amable 2003).

In order to probe this claim, we focus on one social factor that is frequently found salient in both the political economy and the democratic quality literature: education. It seems to be beyond doubt that education matters in the economic sphere: less educated people are usually economically more vulnerable and disadvantaged compared to more educated people, everything else being equal. It is also commonly assumed (though less frequently empirically shown) that education facilitates the (meaningful) participation of citizens in the democratic process. In principle, then, the effect of an individual's level of education and her propensity to participate in politics should be constant across countries. In practice, however, we have evidence that this effect is not constant. Instead, there is cross-country variation in the impact of education on participation.

We believe that these cross-country patterns are due to differences in the type of market economies in place. More specifically, we focus on differences in labor market structures. Labor markets are a core feature for distinguishing between different types of capitalist economies. In addition, labor markets are the feature of capitalism to which individuals are most directly and most immediately exposed. This is important, for at the core of our claim that types of capitalism and the qualities of democracy are causally linked lies the belief that an individual's life chances are affected by the economy and that this should shape her resources, motivations, and stakes to engage in politics. This paper argues that the type and degree of participatory distortions covaries with the type of labor market and that this provides initial evidence that the form of capitalist system shapes the qualities of democracies.

The paper is structured as follows. We first argue that there is a general virtue in keeping the complexity of the concept of the qualities of de-

mocracies (QoD) at bay and focus on what is arguably the most uncontested component of this concept: political equality. In order to make the notion of political equality amenable to comparative empirical research, we hold that at the core of political equality is the notion of participatory equality. In this paper, we further narrow this down to equality in participation in (national) elections across politically relevant social groups. Then we summarize theories of voter turnout and participatory equality and outline our theoretical framework in section two, including our operationalization of labor markets. The third section presents the data and our measures of participatory inequality. Section four presents the empirical findings. Section five concludes.

II. Concepts and Measures of Qualities of Democracy (QoD)

Defining QoD

Over the last three decades, the initial focus of the large and still growing body of regime transition literature was on the *transition from authoritarian rule* (O'Donnell et al. 1986), turning next to the future of these young political regimes, commonly discussed under the label of *consolidation of democracy* (CoD, Linz & Stepan 1996; Schneider 2008), and ~~is~~ now shifting to concerns about the *quality of democracy* (QoD; O'Donnell et al. 2004; Diamond & Morlino 2005; Bühlmann et al. 2007; Roberts 2009). More and more scholars and citizens of young democracies alike worry about the fact that 'real existing democracies' (Schmitter 2007) do not function the way they were - and still are - expected to . Thus, learning more about QoD is not only of academic but also practical importance for, by now, several hundred million citizens who are living in consolidated democracies which are of (increasingly) low democratic quality, with an increasing number of those located in the North-Western hemisphere.

Common larger N measures of democracy (for a critical assessment, see e.g. Munck & Verkuilen 2002) are not suitable for revealing analytically meaningful distinction in terms of QoD between real existing democracies (Bühlmann et al. 2007). Lately, several attempts at conceptualizing and measuring QoD in a comparative manner have been undertaken (Baker & Koesel 2001; Altman & Pérez-Linán 2002; Berg-Schlosser 2004; Morlino 2004; O'Donnell et al. 2004; Diamond & Morlino 2005; Bertelsmann Stiftung 2006; Bühlmann et al. 2007).

Among the different attempts at conceptualizing and measuring QoD, we side with those who argue that QoD should refer to purely political-procedural aspects of democracy rather than (also) to the substantive results, such as high standards of living or social peace, which some democracies manage to produce while others do not. Charging QoD with too many normatively desirable goals produces the double analytic pitfall of arbitrarily including some but not all relevant non-political aspects of society into the definition of QoD (Mazzucca 2004) and of drastically reducing any possibility for empirically investigating potential causal links between the concept of QoD and other phenomena, such as different forms of market economies (Coppedge 2004; Munck 2004).

Beyond this focus of QoD on procedural aspects of the democratic polity –something we share with many (but not all) of the most prominent QoD measurement attempts - we depart radically from the existing measures when it comes to the dimensionality of the QoD concept. Current leading figures in conceptualizing and measuring QoD, such as Morlino 2004 and Bühlmann et al. 2007**.** all define QoD as a phenomenon composed of several dimensions which, in turn, are further divided into sub-dimensions and to be measured with dozens, if not hundreds, of indicators. For instance, Bühlmann et al. 2007 identify five partial regimes, each divided into at least three components, which, in turn are further sub-divided into 2-5 sub-components, most of them measured with multiple indica-

tors.

Striving for this degree of detail comes with several costs attached to it, though. First, in a paradoxical twist, these all-encompassing concepts run the risk of being theoretically under-specified. Important questions such as normative trade-offs between different components or their relative importance in the overall assessment of QoD tend to be tackled on an ad-hoc and inductive basis, a procedure ill-suited for a rigorous comparative assessment. Kaina (2008) raises this point in a critical appraisal of the work of Bühlmann et al. (Bühlmann et al. 2007) when she argues that any QoD concept creates unsolvable problems if it consists of several dimensions, which are simultaneously of equal importance and in conflict with each other. Fuchs and Roller (2008) diagnose a similar shortcoming in Morlino's (2004) QoD concept when they argue that the relative importance of his different QoD components for assessing the overall degree of QoD is theoretically underspecified (Fuchs & Roller 2008, pp.87-90). Second, the more complex a concept, the more pitfalls lie ahead when using it in empirical research. Again in the discussion of Morlino's (2004) QoD conceptualization, Fuchs and Roller (2008) diagnose problems that seem symptomatic, if not unavoidable, when complex concepts of QoD are employed in comparative research. For instance, they show that Morlino's concept falls victim to the problems of redundancy and conflation (Munck & Verkuilen 2002), that is, the overlapping meanings and measures of Morlino's QoD dimensions "procedure", "result", and "content of democracy." Last but not least, even if the above-mentioned intrinsic theoretical difficulties of complex QoD concepts could be overcome, a more mundane practical consideration remains: when it comes to being employed in comparative social analysis, the chances of gathering reliable and valid data asymptotically approach zero with each additional indicator added to the list. In short, in the light of these theoretical and empirical-practical hurdles - especially in larger-N comparative research projects - we believe that the net gain in analytic power is substantial if less complex QoD concepts are employed and we thus think that a potentially fruitful way ahead in the study of QoD is to employ a radically simpler concept.

We argue that the notion of *political equality* can be seen as the uncontested core characteristic of democracy that sets this form of political regime apart from any other regime type (Beitz 1990; Dahl 2007). Just like so many social science concepts, ~~also~~ the exact meaning of political equality is also contested. Its core, though, can be safely defined as the extent to which all citizens' preferences find equal consideration in the process of making collectively binding decisions (Verba 2001). No democracy can fail to adhere to this normative principle, for it would imply the claim of supremacy of one or a group of individuals. As a matter of fact, this presumption of political inequality is a defining feature of all types of non-democratic political regimes. Hence, political equality is a necessary (but most likely not a sufficient) component for a democracy to be of high quality.

Political equality is controversially discussed in the literature (e.g. Beitz 1990; Dahl 2007; Rueschemeyer 2004; Verba 2003; Ware 1981). Several arguments on the desirability of political equality can be made: it is a value in and of itself; it contributes to community building; it raises legitimacy of the political system; it educates citizens; and it is the least flawed way of protecting the interests of each social group. Most of the counter-arguments sound familiar and plausible, too, though: achieving perfect political equality is impossible; citizens simply differ in their capacity and interest in participating in politics; the preferences of those who are currently politically inactive can be represented by some more enlightened care-takers (see Verba 2001, pp.1-6). Despite this almost balanced list of pros and cons, we find it plausible to maintain that the extent to which the principle of political equality is satisfied is a good indicator for the quality of democracies.

Given the centrality of political equality to democratic theory, it thus comes as no surprise that the most prominent QoD concepts make frequent reference to this principle. Bühlmann et al. (2007), for instance, write that "[E]quality - particularly understood as political equality - is one of the most important themes in the development of democratic government" (p. 7). Morlino (2004) also refers to (not just, but also political) equality including it as one component of one of the three attributes of QoD. Also Rueschemeyer (2004) attributes a crucial role to political equality when discussing various forms of inequalities in present day democracies.

What sets our suggestion for a QoD concept apart from existing attempts is that we argue that political equality is the single most important feature of QoD rather than one among equally important dimensions. That is, we believe that without achieving political equality, any other potential dimension of QoD becomes meaningless. Achieving political equality, thus, is necessary but not sufficient for high QoD.

Meanings of participatory inequality

The analytic virtues of defining QoD in terms of political equality become clear once we further define what we understand by this concept. Democracies provide several means for the realization of the normative goal of political equality. Apart from the equality before the law and equal political rights and civil liberties, the most crucial one is the *de jure* principle of 'one man, one vote.' Nowadays, no political regime can be classified as a democracy if it violates this principle. While de jure equality in voting rights cannot discriminate between today's real existing democracies, *de facto* use of this right in terms of political participation can. None of today's democratic systems fully achieves *de facto* equality in political participation. In all of them, one or more political group is underrepresented (usually different categories of socially disadvantaged) while others are over-represented.

Arguably, among all those political activities, participation in general elections is the place to start when investigating political inequalities as the indicator for QoD.[1] First of all, elections are the most fundamental expression of political participation. Second, since this is the least costly form of engaging in politics, inequalities are likely to be even greater in other, more time-consuming and/or expensive and selective forms of political participation than inequalities in any forms of electoral turnout. Third, there is an established literature on detecting and explaining voter turnout differentials - both between countries (Franklin 2004; O'Donnell 2007) and within countries between different social groups (Wolfinger & Rosenstone 1980; Rosenstone & Hansen 1993; Gallego 2007a; Gallego 2007b; Gallego 2008; Gallego 2009). This literature has so far not been sufficiently linked to the issue of QoD or the literature on forms of market economies (see below).[2]

In sum, the definition of QoD in terms of political equality, which, in turn, is understood as equal participation in politics of different politically relevant groups has several virtues. First, it provides a clear absolute standard for what a high quality democracy looks like: it is a democratic regime in which no social group is over- or underrepresented in the electorate. Second, despite this absolute stan-

1 Beyond participation in elections, the list of political activities usually comprises membership in some civic association, participation in manifestations, and/or contacting political representatives, to name just a few (Teorell et al. 2007).

2 Differentials between different social groups in the propensity to participate in elections is, indeed, also included in Bühlmann et al.'s (2007) QoD measurement device. In their perception, however, it is just one among several dozens of indicators while for us it is the sole indicator based on which countries' degree and type of QoD can be assessed. Also, as we will show, the operationalization of this concept is far from straightforward and needs to be explicitly spelled out.

dard, this QoD concept still allows for different types of imperfect QoD: two different democracies might come short of the absolute QoD standard of full political equality, but they might do so in different ways. For instance, in one democracy poor citizens might be underrepresented while in the other it might be less educated who significantly turn out less in elections. Third, the availability, validity, and reliability of data for measuring this concept of QoD is incomparably better than for other, more complex QoD concepts. This, in turn, opens the possibility to engage in QoD studies with a more encompassing geographic scope. As a caveat, we repeat that political equality understood as equal participation in elections should be seen as a necessary but not sufficient condition for QoD. Democracies striving for high quality cannot do without it, but achieving high participatory equality in and of itself does not assure high QoD. Things can go wrong in different places. Not giving the issue of participatory equality a higher conceptual status over other issues related to QoD, or even leaving it out of the concept, is a mistake, which we aim at rectifying with this paper.[3]

III. Theories of participatory equality in Elections – Forms of Capitalism and Education

Voter turnout and the citizens' decisions whether to cast their votes or not has been subject to numerous studies in political science and political sociology. In this section, we do not even attempt at providing a comprehensive overview (for a comprehensive review, see Schlozman 2002). Instead, we first briefly highlight the most important macro- and micro-determinants discussed in the literature. Then we introduce types of market economies as our primary macro-level variable. Finally, we spell out some hunches on the propensity to vote of the same type of low (or high) educated citizens in different market economies.

Micro- and macro theories of turnout

Concerns about and the study of low and/or declining turnout in established Western democracies are a long running issue in political science (for a critical appraisal, see Lijphart 1997). Often times the picture painted is bleak and on a regular basis democracy is diagnosed to be in crisis because, so it appears, across the Western hemisphere, less and less citizens bother to go to vote. Low and/or declining turnout are interpreted both as a cause and consequence of democratic crises. A long list of macro-level characteristics has been investigated as potential causes for these turnout differentials. From weekend voting to the type of electoral system and compulsory voting to more idiosyncratic features as the weather on voting day have been tested and all of these factors have been found guilty of contributing to lower overall turnout by at least some scholars. For example, Radcliff (1992) argues that overall macroeconomic conditions influence overall electoral turnout (not only electoral outcomes as suggested by the economic voting literature) and Franklin (2004) argues that the structure of the electoral system and surrounding institutions influence the level of turnout in a country.

These macro-level explanations abound, but are only of limited use for the purpose of explaining *cross-country* variation of *within-country* inequality patterns. Macro-level determinants of turnout are pretty weak in capturing the within-country variation. The claim that, say, weekend voting can explain why turnout is lower than in countries without weekend voting rests on the assumption that this (and any other potential macro-level) determinant of voter turnout has the same effect on all citizens. We deem it more plausible to start from the assumption that macro-level factors affect indi-

3 This assumes that elections are truly fair and free (i.e. without forms of electoral fraud), which we consider as a requirement in the definition of democracy. In this paper, we only consider countries that meet this requirement.

viduals differently. For instance, weekend voting affects people with different lifestyles differently; elderly or unemployed find it easier to vote on a weekday than full-time employed people do.

The task of explaining within-country turnout differentials is usually tackled by employing individual level characteristics. Here, the literature has consistently shown that socially under-privileged are less likely to participate in elections, though the relative importance of income, education, or other dimensions of 'life chances' varies (Wolfinger & Rosenstone 1980; Verba et al. 1995; Gallego 2007b). Several causal mechanisms are offered as explanations why people with low income, low education, and/or in unstable job situations vote less (see e.g Anderson & Beramendi 2005). Adapting the frameworks in the literature (mostly relying on Verba et al. 1995), we focus on three main mechanisms that link an individuals' position and their propensity to participate.

First, socially disadvantaged have less cognitive and material *resources* to use for political participation. Individuals may vote or abstain because they have more or less resources to expend on the cost of voting (i.e. time, knowledge, and need for information). Second, individuals who have high *stakes* in the outcome of the election are more likely to vote. Individuals may have less incentives for participating in politics for two, non-mutually exclusive reasons: either because no political party represents their interests and preferences and/or due to low utility obtained from casting a vote, which implies that the voter does not feel that his or her interests will be better represented by voting. Third, the *engagement* dimension suggests that individuals who are more integrated into society have a higher propensity to vote; while those who are socially excluded and disconnected from social groups are less engaged politically. Often socially disadvantaged citizens are not part of those networks of recruitment and political engagement in which socially more advantaged citizens tend to participate. We will focus on these three mechanisms (resources, stakes, and engagement) for influencing individual propensity to vote as we continue to outline our explanatory framework.

An individual's education clearly affects some of the three causal mechanisms. The higher the level of education, the higher the cognitive resources. And the higher the education, the more likely the involvement in networks that stimulate involvement in politics. Whether stakes vary with educational levels can be put in doubt. Below we show that the strength of this generally positive correlation between education and participation does vary depending on the context in which an individual is situated.

Macro-level variables have an influence on overall turnout differentials between countries while micro-level characteristics can explain within-country variation in participation. Since in our project we are interested in explaining cross-country variation of within-country inequality patterns, we need to interact macro-level and micro-level determinants of voter participation. Such interactions have been attempted but still remain surprisingly rare (Anduiza Perea 2002; Gallego 2007a; Gallego 2007b; Gallego 2008). In our approach, we also investigate how the propensity to vote (or abstain) varies for individuals in different social subgroups. Furthermore, rather than focusing on the usual macro-level suspects, we propose a so-far surprisingly neglected country characteristic as the driving force behind the cross-country variation of within-country participatory inequality: the type of market economy, labor market, and welfare state. We investigate how the individual incentives to vote or abstain vary for specific subgroups in different labor markets, as labor market structures are a core distinguishing feature of different capitalist systems.

To summarize, the general essence of our argument is that the same type of individual in different types of labor markets have different propensities to vote. This propensity is affected by the *interaction*

of their individual characteristics and the macro-level context in which these individuals exist. We therefore expect to observe different participatory distortions (meaning patterns of under- and over-representation) in different types of labor markets for the same social group. Figure 1 shows a graphical representation of our argument.

Forms of capitalism – a typology of labor market regimes[4]

In this section, we summarize the relevant macro-level dimensions of labor market regimes for our analysis and outline those differences between labor market structures that can be expected to play a crucial role in understanding different voter turnout patterns across types of market economies.

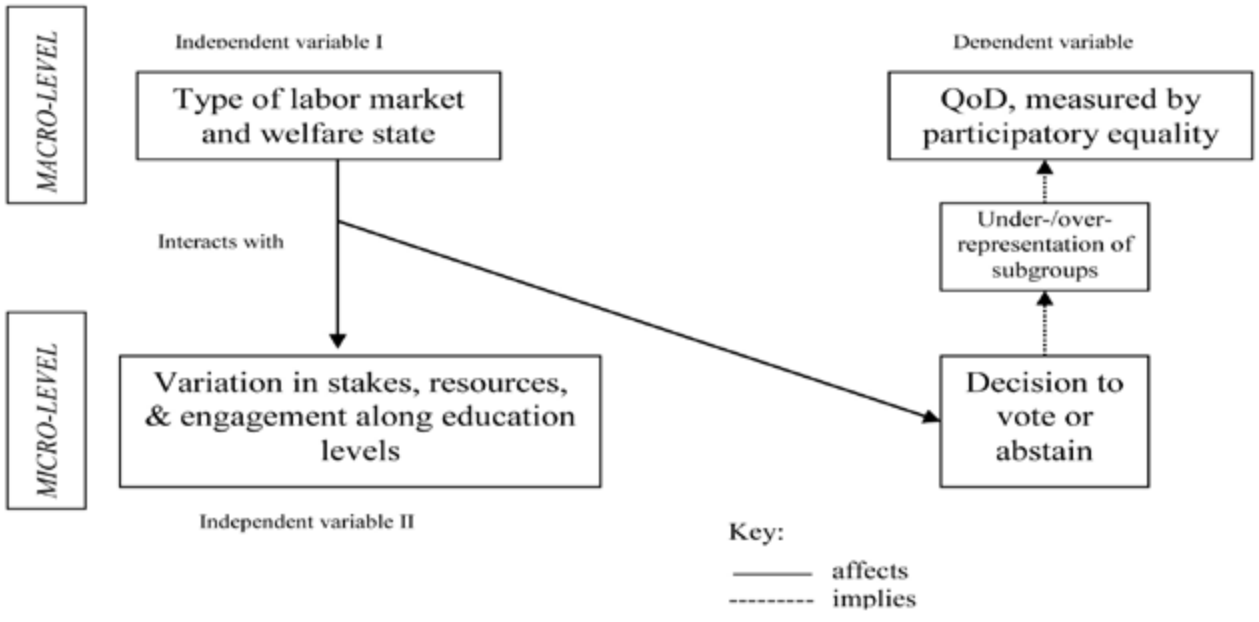
The discussion of different models of economic organization among consolidated capitalist democracies has become prominent in comparative political economy since the mid-1990s. This includes the highly influential conceptual framework known as the 'Varieties of Capitalism' approach (VoC) by Hall & Soskice (2001), the 'regulation' school (Amable 2003), and an influential second-generation VoC literature that links political preferences (particularly in the areas of social policy and redistribution) to labor market positions (Iversen 2005). These approaches, while giving a macroscopic overview of how capitalist economies differ, are in fact built on solid micro-foundations – in such areas as ownership arrangements, inter-firm relations and, important for us here, labor markets. In addition to those, we also draw on approaches that focus more specifically on comparisons across labor markets (Ebbinghaus & Visser 2000).

To understand the diversity of labor market regimes, we also incorporate ideas from the literature on diverse models of welfare capitalism, which outlines the different logics and influences of welfare state**s** by looking at the degree of 'decommodification' of labor (Esping-Andersen 1990). We maintain that the differences across types of market economies in terms of the incentives to participate in the labor market, degree of decommodification of labor, and the degree of flexibility and security[5]

4 This section has heavily benefited from Bob Hancke's contribution to an earlier paper with a very similar topic.

5 Given that there is increasing evidence in the literature that labor market flexibility and security are not mutually exclusive concepts (for example, Visser & Hemerijck 1997), we do not *a*

Figure 1: The link between types of market economies and QoD



in the labor market will cause the same individual to have different incentives and motivation for political participation.

Types of capitalist systems can be, and in fact have been, defined along many dimensions. We focus on those features of a market economy that are related to the labor market because we think that these structures have the most direct effect on individuals in a society and on their propensity to vote.[6] To capture characteristics of the labor market, industrial relations system and the welfare state, we collected data on the following dimensions:

- Degree of wage coordination (Visser 2009)
- Degree of government intervention in wage coordination (Visser 2009)
- Union density (Visser 2009)
- Employment protection legislation index (OECD 2008)
- Unemployment insurance net replacement rate (OECD, as presented in Brandt et al. 2005), and
- Unemployment insurance duration of benefit (OECD, as presented in Brandt et al. 2005).

This data is gathered and analyzed for twenty-seven capitalist democracies, which includes all OECD countries[7] except Korea, Mexico, and Luxembourg (due to lack of availability of data). Given that we will analyze data for our dependent variable from two waves of data collected in 1996 and 2006, data on the labor markets comes from two periods: (1) from 1986-1995 and (2) 1996-2005. All data, except that about unemployment benefits, are an average over the ten year periods. The data on unemployment benefits was gathered in 1995 for the first phase and in 2002 for the second phase. This approach allows us to understand the diversity of the labor market types and check the (in)stability of labor market arrangements over time.

Using the above indicators, we apply factor analysis to create indices to measure the characteristics of labor market structures. Our analysis reveals that there is one dominant dimension underlying our labor market characteristics (see appendix), which suggests that in a cross national comparison the degree of protection, flexibility and security are highly correlated.[8] The labor market factor can therefore be interpreted as the degree of protection and coordination of the various labor markets. Cases on the higher end have regulated, managed, or coordinated labor market economies while those at the lower end have flexible labor markets with lower degrees of protection.[9] This finding of one-dimensionality is consistent over the two time periods.[10] Figure 2 shows the scores for each of the countries on the factors from the first phase (1986-1995, x-axis) and the second phase (1996-2005, y-axis). The degree of labor market regulation across countries varies from low levels (in both phases)

priori assume that there must be a tradeoff between flexibility and security.

6 We suspect that other important dimensions of the capitalist systems that do not have clearly differentiated effects on different groups of individuals (such as types of product markets or corporate governance structures) would not have a direct influence on different propensities to vote within a country.

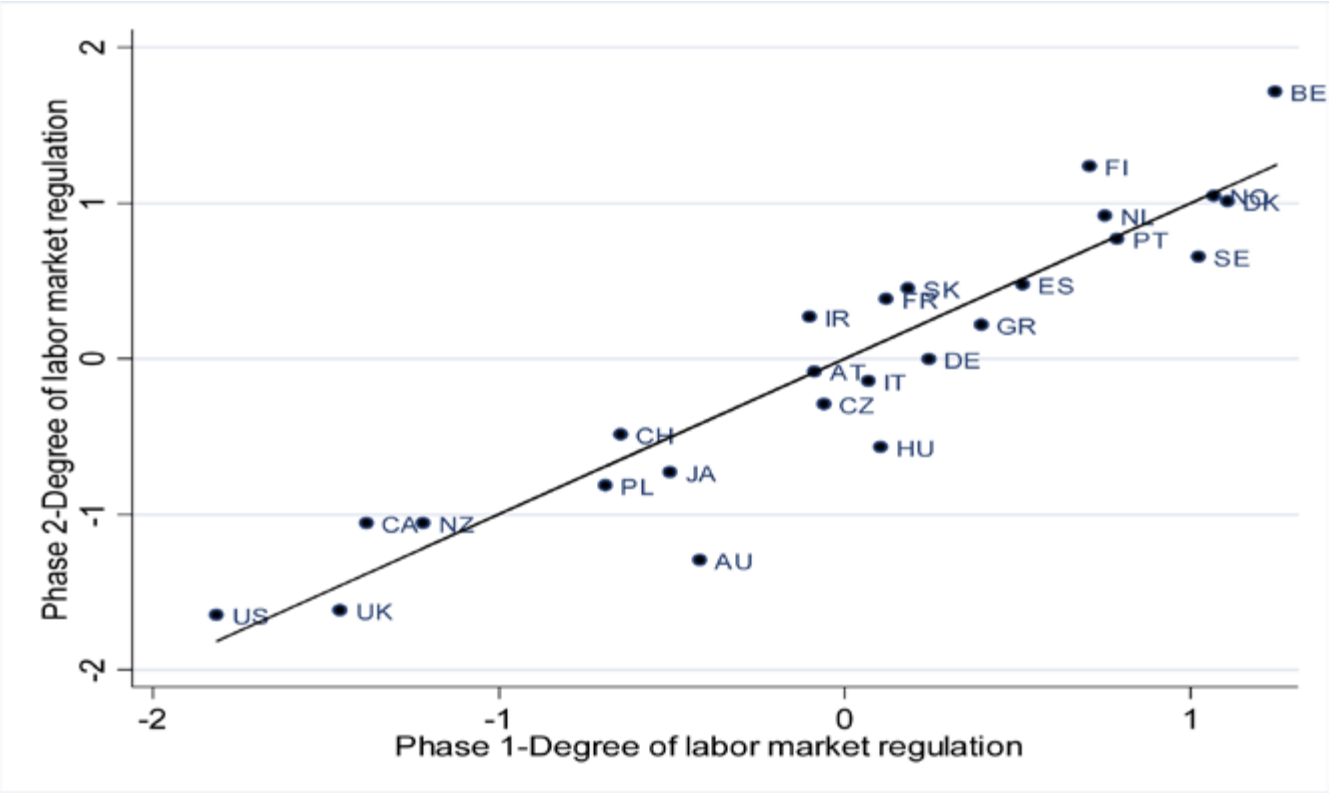
7 This refers to those countries that were OECD members in 2004 when the data that we used was collected.

8 Although studies suggest that flexibility and security do co-exist in some countries (for example, Visser & Hemerijck 1997), in a broad cross national comparison there still tends to be a tradeoff between these two concepts.

9 In the following, we will use those adjectives interchangeably.

10 Varimax rotation was used in each analysis. For the first phase (1986-1995), the eigenvalues for the first and second factors were 1.50 and 0.19, respectively. For the second phase (1996-2005), the eigenvalue for the first factor was 2.02; whereas the second factor had an eigenvalue of 0.60. See appendix for factor loadings.

Figure 2: Scatterplot of labor market characteristics, Phase 1: 1986-1995 and Phase 2: 1996-2005



for countries in the lower left corner to high (for both phases) for countries in the upper right corner. The figure includes a 45 degree line to allow for comparison over time. If the point falls on the 45 degree line, then there was no change in the degree of labor market regulation with our measure. Countries below the line experienced a decrease in labor market regulation; while countries above the line experienced an increase in labor market regulation.

Most cases clearly cluster around the 45 degree line. This indicates the relative stability of our labor market classification over the period of almost two decades. While labor market structures certainly do change to some degree over time, no country radically changed its position relative to the other countries. This suggests that, if our hypotheses are correct, we should see similar patterns of over- and under-representation at different points in time.

While countries are stable over time, they do differ at any given point in time. The large cross-country variation with countries spread along our labor market regulation dimension is akin to existing classifications of (labor) market economies (Hall and Soskice 2001; Amable 2003). Using our measure of the degree of regulation of labor markets, we can clearly identify groups of cases at the two extreme ends. Countries at the low end belong to the group of *flexible labor markets.* It is comprised of the USA, UK, New Zealand, Canada, Australia, Japan, Switzerland, and Poland. Countries at the high end, in turn constitute the group of countries with *highly-regulated labor markets*. Belgium, Denmark, Norway, Finland, Sweden, Netherlands, Spain, Germany, France, Italy, and Austria belong to this group. Other countries are not clearly in one category or the other. Therefore, rather than relying on pre-existing classifications of labor markets, we use the labor market factor as a *scalar* variable representing the degree of labor market regulation for the following analysis.

Hunches about the effect of educational levels on propensity to vote in different forms of market economies

The life chances of individuals with different educational backgrounds vary substantially across these different labor market types. If, indeed, labor markets are organized differently in different capitalist systems, with different effects on 'life chances' of individuals and families, and if specifically the labor market situation of individuals with different educational backgrounds varies as well along these lines, then we would expect the political behavior of individuals with the *same* education to vary across *different* capitalist systems. If true, that is, if the type of labor market shapes the propensity to vote of specific groups of citizens, then the type of capitalism has an effect on political equality (i.e. the qualities of democracies). This section further specifies these ideas.

As outlined, education in general is seen as a strong predictor for whether or not a person participates in politics by casting her vote (Gallego 2009). We aim at introducing two inter-related twists to this. One, as already mentioned, is that the relationship between education and vote propensity differs from one market economy type to another. The second is that education levels should at best be seen as an ordinal level variable (not scalar in years). Hunches should be formed about the different cross-market-economy effects of the specific education level categories and tested by treating education as a categorical variable. We form hypotheses for two categories: low education and high education, which includes those with vocational education and specific skills.

Table 1 summarizes our expectations on the interactive effect of labor market structure and an individual's level of education on the propensity to vote by specifying both the mechanisms and the aggregate effects. According to our theoretical model, the propensity to vote is shaped by the degree of resources, stakes, and engagement.[11] The level of these three elements for an individual depends on her level of education and in which type of labor market she is living. Hence, we contrast both low educated individuals in highly-regulated labor market with those in a labor market with low regulation and high educated citizens living in these two types of market economies. The effects of each of the three mechanism are then aggregated. Jointly they represent the hypothesized effect of labor market type on propensity to vote for low educated individuals, on the one hand, and for citizens with high education, on the other (the last row of Table 1).

Let us first consider members of the labor force with *low education* and their incentives to vote in different market economies. We think that the relative level of *resources* that are required for voting differs among low educated citizens in regulated labor market economies as opposed to less regulated labor markets (C > F). In general, regulated labor markets, with a more extended coverage of collective wage bargaining, are characterized by a more compressed income distribution and higher wages at the lower end of the income scale. This is why the low educated can be expected to possess more financial (often also time) resources in regulated labor markets than individuals with low education in less regulated market economies. In addition, more regulated labor markets are also characterized by more generous social protection, which implies greater resources for those with low education who are often on the lower end of the income scale.

Regarding *stakes* we also think that low educated citizens are in different positions in these two types of labor markets. One feature of regulated labor markets is that the benefits of safer and more regulated jobs are unevenly distributed. People in some sectors of the economy are highly protected

11 As outlined above, roughly speaking resources refer to time, money, and cognitive skills; stakes to how much the outcome of elections matters for an individual; and engagement to how much this individual is encouraged to participate by collective actors or networks.

from the danger of being unemployed while others are not. One consequence of this is that once unemployed it is very difficult to get back into the job market, creating a two-tiered labor market such as that described in the literature on labor market dualism (for example, Goldthorpe 1984; Saint-Paul 2002; Lindbeck & Snower 2001; Seeleib-Kaiser 2002). In less regulated labor markets, such phenomena do occur but to a much lesser degree. In general, and in a somewhat ironical twist, in regulated market economies low educated workers are more affected by the danger of being shut out of the labor market than they are in deregulated labor markets. Hence, in regulated labor markets members of the lower educated workforce are likely to face longer stretches of unemployment and to have less employment opportunities than in a country with a more flexible labor market where hiring is less costly and short-term work opportunities are more viable.[12] Also, in a country that ranks high on our regulation dimension of the labor market, the lower educated workforce has a greater dependence upon a generous welfare state. Their life chances are more directly subject to political decisions, for it is the government that determines the degree of protection of labor from fluctuations in the economy that allows the lower educated work force to withstand periods of unemployment. This is radically different from the situation in labor markets that score low on the labor market regulation dimension where the degree of social protection is generally lower and where labor market regulations are much less subject to political debate.[13] This suggests that lower educated workers, the most vulnerable in the economy, have higher stakes in political outcomes in economies with regulated labor markets (C > F).[14]

We also think that regulated labor markets increase the *engagement* of people with low education relative to the same type of citizens in scarcely regulated labor markets. Regulated labor markets, by definition, have more active and stronger unions than non-regulated labor markets have. Those unions can, and most likely do, serve as a network for politically mobilizing citizens with low education. In market based labor markets with weak unions, those citizens usually lack such a political network that draws them into politics (C > F).

Taking the expected directions of the three causal mechanisms together, and assigning the social exclusion argument (which is more pronounced in coordinated than in market-based labor market economies) a higher weight, we expect the following pattern in the data for low educated citizens (see Table 1):

H1: Citizens with low education in regulated labor market economies participate relatively[15] *more in politics than the same type of citizen in less regulated labor market economies.*

12 There is, of course, variation in the degree of labor market dualism within the group of regulated market economies, but this intra-group variation does not exceed the inter-group variation between regulated and non-regulated markets.

13 Even in the most classical cases of deregulated markets, labor market regulations and the protection of the poor become salient issues from time to time as the New Deal Reforms in the US or the fierce resistance to Thatcher's heavy-handed crackdown on unions in the UK demonstrate. However, these examples also show that the politicization of the rules of the labor market and welfare state game are rather rare events of historic dimensions. In typical cases of regulated markets, instead, the dispute over welfare state regulations and labor market rules belongs to the day-to-day business of parties and features prominently in virtually all electoral campaigns.

14 As a caveat, we add that in order for this causal mechanism to be at work, one needs to assume that: (a) workers are aware of the fact that their life chances depend on politics; (b) it is possible for them to know whether any party acts on their behalf and, if so, which party this is; and (c) voters are rational.

15 Relative means in relation to the overall turnout in the respective country; see below for a detailed explanation of our measure of participatory inequality.

Table 1: *Relative propensity to vote* of education groups, low vs. highly regulated labor markets

Mechanism	***Low educated citizens***	***High educated citizens***
Resources	C > F	C < F
Stakes	C > F	C < F
Engagement	C > F	C = F
Propensity to vote	C > F	C < F

C = Labor markets with high coordination and protection
F = Labor markets with low coordination and protection
> = higher propensity to vote

Turning now to the highly educated, we argue that in less regulated labor markets the highly educated are endowed with more *resources* relative to the same type of citizens in regulated labor markets (C < F). The reason for this is that in the former type of labor markets the income dispersion is much wider, especially in the upper income groups. The financial return from high education is therefore higher in deregulated than in regulated labor markets.

This is also the reason why there is more at *stake* for highly educated citizens in deregulated labor markets than in regulated ones (C < F). Their motivation for participation in the political decision making process is to make sure that the level of deregulation of labor markets stays the way it is. Finally, in terms of *engagement*, we expect no differences between highly educated in regulated relative to deregulated labor markets (C = F).

In sum, for citizens with high education, the type of labor market shapes their stakes and engagement such that the propensity to vote of this type of citizens should show the following pattern.

H2: Citizens with high education in regulated labor market economies participate relatively less in politics than the same type of citizen in less regulated labor market economies.

Taking our two hypotheses together, we expect less participatory distortion (i.e. over- and under-representation) in highly regulated labor markets than in less regulated labor markets.

IV. Empirical Results on the Probabilities of Non-voting

Much existing literature that investigates the effect of education on political participation generally finds a positive effect of education on participation. Some even define it as the most important determinant for turnout (Verba et al. 1995; Gallego 2007b). While recent studies do use logistic regression to predict the likelihood of voting (Anduiza Perea, 2002, Gallego, 2007a and Gallego, 2008), we will approach the analysis from a different angle in two important ways. First, we treat education as a categorical rather than scalar variable (measured in years), as there are marked qualitative difference at different levels of education. Second, we use Rare Events Logistic Regression (Imai, King, et al. 2007) because despite declining turnout, still most individuals do participate in elections. With such a skewed dependent variable standard logistic regression often produces results that predict 100 percent turnout when actual turnout was, in fact, much lower, thus under-emphasizing the influence of non-voters on the model.

The focus of our models is to understand the effect of education in a more nuanced way by in-

teracting different levels of education with the country-level degree of labor market regulation. To accomplish this, we run simulations based on this model and calculate the probability of voting for specific types of individuals, distinguishing between labor markets with high and low regulation.

Data[16]

The data is compiled from three waves of the International Social Survey Programme (ISSP): 1990, 1996, and 2006, which we found to most adequately represent non-voters and includes a range of countries with variation in the type of labor market. Our analysis includes all available countries in the ISSP datasets that (1) have information about political participation, (2) are uncontested democracies and capitalist economic systems, and (3) have the available labor market data[17]. The availability of country specific education variables enables an appropriate country-specific re-coding of education into three groups: low (less than secondary), medium (secondary school complete, no unidata and introduce country year dummies to control for country-year effects.

Model

The model predicts the probability of *not voting* (the rare event in this case) using the "relogit" command in R according to the following independent variables:

- individual factors: gender, age, unemployment, low education, high education (all as binary variables with the exception of age),
- country level factors: the degree of labor market regulation (lmf), the overall level of turnout for the country, and a binary control for compulsory voting,
- interactions between education binary variables and the degree of labor market regulation (lmf), and
- control variables for country-year.

The model is as specified in the following formula:

$$Pr(non-vote=1) = \alpha + \beta_1 female + \beta_2 age + \beta_3 unemp + \beta_4 lowedu + \beta_5 highedu + \beta_6 lmf + \beta_7 loweduc{*}lmf + \beta_8 higheduc{*}lmf + \beta 9 turnout[country] + \beta 10 compulsoryvote + ... + \epsilon$$

Results

Table 2 summarizes our findings. Our variables of interest are highlighted in bold. Both high education and low education and their interactions with our labor market regulation variable are statistically significant at the 1 percent level and in the expected directions. Since our model predicts non-vote, a positive sign for the coefficient of 'low education' indicates that low educated citizens are more likely

16 The authors would like to thank Daniela Sirinic for her excellent research assistance.

17 The country (and waves) included in the analysis are: Australia (1990, 1996, 2006), Canada (1996, 2006), Czech Republic (1996, 2006), France (1996, 2006), Germany (1990, 1996, 2006), Hungary (1990, 1996, 2006), Ireland (1990, 1996, 2006), Italy (1990, 1996), Japan (1990, 1996), New Zealand (1996, 2006), Norway (1990, 1996, 2006), Poland (1996, 2006), Spain (1996, 2006), Sweden (1996, 2006), Switzerland (1996, 2006), UK (1990, 1996, 2006), USA (1990, 1996, 2006).

18 This category is used as the base group in our analysis.

Table 2: Coefficients for Rare Events Logistic Regression with dependent variable of non-voting

	Beta estimates	Standard deviation
Intercept	3.35*	0.38
Female	0.08*	0.02
Age	-0.49*	0.01
Unemployed	0.29*	0.05
Low education	**0.58***	**0.03**
High education	**-0.41***	**0.04**
Degree of labor market regulation (lmf)	-0.44*	0.13
Low education*lmf	**-0.20***	**0.04**
High education*lmf	**0.20***	**0.05**
Compulsory voting	-0.02	0.31
Country level voter turnout	-0.06*	0.00

*Significant at 0.001
Controlled for country year effects; coefficients not reported.
Rare events bias correction performed.

to not vote. Along the same lines, the negative sign for 'high education' indicates that highly educated citizens are less likely to abstain. Both findings are fully in line with the existing literature.

The crucial test for our hypothesis that the type of labor market shapes the type of participatory inequality patterns is in the interaction terms between education levels and the degree of labor market regulation. The sign for the interaction between low education and labor market regulation is negative. This means that the positive effect of low education on the propensity to abstain is mitigated if such individuals live in a country with highly regulated labor markets. The second interaction term – between high education and labor market regulation – has a positive sign. This implies that the negative effect of high education on the propensity to abstain is mitigated for such individuals living in highly regulated labor markets. This means overall that a higher the degree of labor market regulation is associated with a weaker link between an individual's level of education and her propensity to vote or abstain. This, in turn, is in line with our theoretical expectations.

Despite their almost universal use, tables with regression coefficients, especially when they come from logistic regressions, are not particularly well suited to communicate the quantities of interest. It is difficult, if not impossible, to make substantive interpretations based on the numbers reported in Table 2. We therefore present the implications of our model by calculating the expected value of voting for different groups of individuals.[19]

We run 1000 simulations based on the relogit model and calculate expected values with 95 percent confidence intervals. In order to contrast labor markets with high and low degrees of regulation, we calculate expected probabilities for labor markets that score 1 and -1, respectively, on our scale that runs from -1.5 to 1.5.[20] For the simulations, all other variables in the model are set to their mean.

Figure 3 displays the probability to vote for individuals at three different levels of education: low, medium, and high[21] in regulated and non-regulated labor markets. The dots represent the point esti-

19 To allow more intuitive interpretation, for the rest of the paper the quantities of interest are calculated for voting (rather than non-voting)

20 -1 and 1 represent an 'average' highly regulated and less regulated labor market, respectively.

21 Low means less than secondary education, medium means completed secondary education, and high means at least some university education.

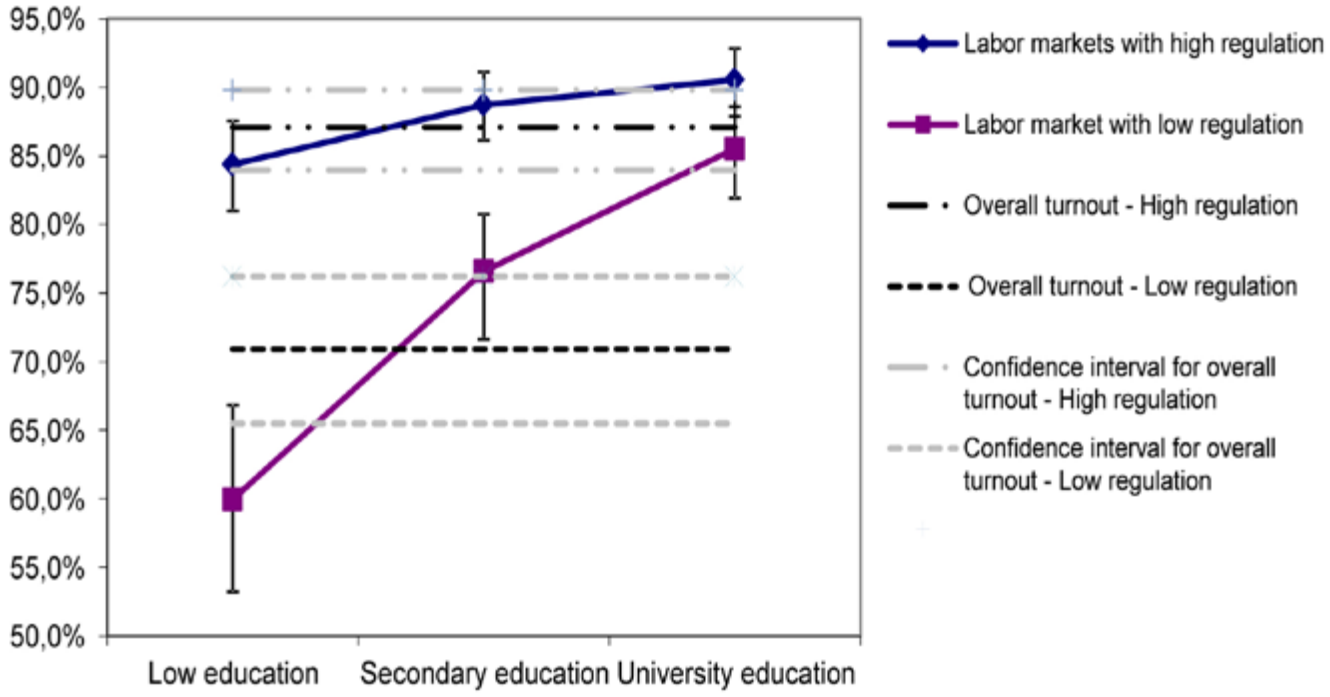
mate. The horizontal lines represents the overall expected turnout rates in countries with regulated and non-regulated labor markets. If the predicted probability for a specific type of individual falls above the line**,** it means that this social group is over-represented in the voting population; if the predicted probability falls below that line the respective group is 'under-represented'. For each predicted probability, a point estimate, we display the 95 percent confidence interval in order to determine if predicted probabilities are significantly different from the probabilities for different groups.

In one sense, our analysis shows what is known from the literature already: increased education has an overall positive effect on the propensity to vote. This is reflected by the fact that both lines show an upward trend as we move from lower to higher education. To this we add, however, that this relationship is notably stronger in countries that have labor markets characterized by low regulation. In fact, we detect a quite weak effect of education on propensity to vote in highly regulated labor markets: only the highest educated are statistically different from the overall population by turning out more than the average citizen does.[22]

The picture is strikingly different in less regulated market economies. Here, low educated citizens turn out significantly less than the rest of the population, whereas citizens with secondary education and, even much more pronounced, those with university education turn out much more than their fellow citizens. The low turnout of lower educated citizens is particularly striking because with about 60 percent it is far below an already low average turnout rate in these countries (approximately 72 percent). For a comparison, in more regulated market economies, average turnout is at about 87 percent and lower educated citizens turn out at a rate of ca. 84 percent, a rough 24 percentage points higher than in unregulated markets. The difference in turnout among the highest educated citizens across the

22 Notice also that since the predicted probabilities in Figure 3 are averages over all countries in the group of regulated market economies, there are cases of regulated market economies that do not have any education induced participatory distortion at all. France is such a case, as shown in Appendix 2.

Figure 3: Expected value for voting by education group and labor market type with 95 percent confidence interval



two labor market groups is much closer (85 percent in the less regulated labor market and 90 percent in labor markets with high regulation).

The results from our model allow for even more detailed and substantively interesting information. Table 3 contains the expected probabilities of specific types of individuals that are characterized not only by their level of education but also their employment status and gender. The probability of voting (columns labeled A) and whether this probability indicates over- or under-representation (columns labeled B) are displayed for all logically possible combinations of the binary variables low educated, unemployed, and female. Each row represents a specific type of individual defined by the presence (Yes) or absence (No) of each of these three characteristics. We, again, separate the findings for regulated and non-regulated labor markets.

The aim here is to identify which specific social subgroups are under- and over-represented in the countries with different types of labor market. Negative values in columns B indicate under-representation, positive values over-representation.

Observing the probabilities for individuals with low education (rows 1-4), the degree of under-representation is clearly much higher in labor markets with low regulation. This means, it does not matter much if low educated are male or female, unemployed or employed. Across the board, they are much more strongly under-represented in deregulated labor markets than in regulated labor markets. In labor markets with high regulation, individuals with low education are most strongly under-represented when they are also unemployed**,** regardless of whether they are male or female (rows 1 and 2). But even for those types of socially underprivileged, the negative effect on the propensity to

Table 3: Comparison of probability of voting in social subgroups between labor markets with high and low regulation

	Characteristics of individual			Labor market with high regulation		Labor market with low regulation	
	Low educated	Unemployed	Female	(A) Probability of voting (95% confidence interval)	(B) Probability of voting relative to overall participation (Pr_{indiv}-$Pr_{overall}$)	(A) Probability of voting (95% confidence interval)	(B) Probability of voting relative to overall participation (Pr_{indiv}-$Pr_{overall}$)
(1)	Yes	Yes	Yes	79.7% (74.6-83.8)	**-7.4%**	52.3% (44.6-59.6)	**-18.6%**
(2)	Yes	Yes	No	80.9% (76.5-84.5)	**-6.2%**	54.0% (47.1-60.9)	**-16.9%**
(3)	Yes	No	Yes	84.2% (80.4-87.6)	**-2.9%**	59.4% (53.0-65.9)	**-11.5%**
(4)	Yes	No	No	85.0% (81.7-87.9)	**-2.1%**	61.1% (54.6-67.2)	**-9.8%**
(5)	No	Yes	Yes	85.1% (81.8-88.3)	**-2.0%**	70.3% (64.3-75.5)	**-0.6%**
(6)	No	Yes	No	86.4% (83.1-89.4)	**-0.7%**	73.6% (68.0-78.9)	**2.7%**
(7)	No	No	Yes	88.7% (86.1-91.0)	**1.6%**	77.6% (73.1-81.8)	**6.7%**
(8)	No	No	No	89.5% (87.2-91.8)	**2.4%**	78.9% (74.8-82.9)	**8.0%**

vote is much smaller than it is for comparable individuals in deregulated labor markets.

In sum, the empirical findings of the model confirm our two hypotheses: low educated individuals participate relatively more in highly regulated labor market economies than in less regulated labor markets; and highly educated individuals are overrepresented less in regulated than in deregulated labor markets. Overall, the analysis shows that the type of labor market is an important intervening variable in the relationship between education and political participation. Specifically, we observe less participatory distortion due to education differentials in highly regulated labor market economies. This suggests that there is greater political equality in countries with more regulated labor markets.

V. Conclusion

We argued that political equality should be seen as the necessary ingredient of QoD, that labor markets are the one feature of market economies to which ordinary citizens are most directly exposed (i.e. the area in which differences between forms of capitalist systems are most evident for citizens), and that those differences trigger differences in the propensity to participate in politics of the same category of citizens living in different labor market economies. More specifically, we hypothesized that citizens with low education should turn out more in regulated labor market economies than in less regulated labor market economies and that for highly educated citizens the inverse should be true. Our empirical evidence, indeed, points in this direction, especially regarding individuals with low education where the greatest distinction exists.

One interpretation of these findings is that the type of market economy does affect the qualities of democracies understood in terms of political equality. A more regulated a labor market implies a less pronounced distorting effect of education on political participation.

Several cautionary notes should be made. Political equality in terms of participatory equality is, at best, a necessary ingredient for high quality democracies. Other features, such as the integrity of the election process, the transparency of the decision making process or corruption can and perhaps should be added. Equal participation across different groups of citizens does not help much if the way the votes are counted is fraudulent or if the representatives, once elected, disregard the democratic rules of the game. By selecting only countries in our study that fulfill a minimum standard of democracy, the danger of this has been minimized as much as possible. Furthermore, we deem it plausible to expect that high levels of participatory equality enhance, rather than undermine, the performance of political regimes on other democratic standards, such as the lack of corruption, clientelism, or hollowing out the power of formal political institutions, such as the parliament.

What in our view should not be integrated into the concept of QoD are desirable social outcomes, such as 'good' public policies (however defined). Those are not unique to democracy and it might well be that in certain instances higher QoD (as defined in this paper) produces less of other desired goals. Even if one sticks to participatory inequalities, several extensions are appropriate. First, social groups other than those defined by education should be analyzed. Second, other forms of participation, both old and new (or institutionalized and non-institutionalized), should be included and potential participatory inequalities along educational or other lines should be investigated.

Also, our operationalization of types of market economies in terms of labor market regulations could be broadened by including features that are not necessarily related to the labor market but are usually subsumed under the label of welfare state arrangements.

When modeling participation, future analyses will have to include more variables, both on the micro- and the macro-level. Some of those variables

might be perceived of as steps in the causal chain linking the interaction between the type of labor market and education on propensity to participate. For instance, rather than assuming that coordinated labor markets display a more compressed income structure, this could be directly measured. Also, rather than assuming that low educated individuals in regulated labor markets perceive their situation as riskier and thus are more motivated to engage in politics than the same type of citizen in non-regulated labor markets, one could include adequate attitudinal variables into the model.

Additionally, in order to test the importance of labor market regulation relative to other country-level characteristics, such as electoral system, institutional and bureaucratic influences on participation, and others, we should employ multi-level modeling techniques, but will need to do so in a way that accounts for the highly skewed dependent variable. We plan to employ matching techniques to do this in future research.

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Appendices

Appendix 1: Method for Determining Type of Labor Market

The sources of the macro level data used to measure labor market types are summarized in Table 4.

Table 4: Labor market variables used in analysis

Label	Variable	Source	Website
Wcoord	Wage coordination	ICTWSS, Jelle Visser	http://www.uva-aias.net/207
Govint	Government intervention in wage bargaining	ICTWSS, Jelle Visser	http://www.uva-aias.net/208
UD	Union density	ICTWSS, Jelle Visser	http://www.uva-aias.net/209
EPL	Employment protection legislation	OECD	OECD, LFS - Employment protection legislation
unemp_rr	Unemployment benefit replacement rate	OECD	http://www.oecd.org/dataoecd/28/9/36965805.pdf
unemp_db	Unemployment benefit duration	OECD	http://www.oecd.org/dataoecd/28/9/36965805.pdf

After collecting this data, we preformed a varimax factor analysis to determine the most significant dimension of the labor market data. The analysis results in one main factor with eigenvalue greater than 1. The rotated factor loadings that maximize variance are presented in the table below.

Table 5: Varimax rotated factor loadings from factor analysis

Rotated Factor Loadings - Phase 1: 1986-1995

Variable	Loading	Uniqueness
Wage coordination	0.55630	0.69054
Degree of government intervention in wage coordination	0.58216	0.66109
Union Density	0.34051	0.88405
Employment protection legislation	0.67942	0.53839
Unemployment benefit replacement rate	0.38781	0.84960
Unemployment benefit duration of benefit	0.52754	0.72170

Rotated Factor Loadings - Phase II: 1996-2005

Variable	Loading	Uniqueness
Wage coordination	0.64159	0.58836
Degree of government intervention in wage coordination	0.74257	0.44858
Union Density	0.50956	0.74035
Employment protection legislation	0.62771	0.60598
Unemployment benefit replacement rate	0.53307	0.71584
Unemployment benefit duration of benefit	0.65467	0.57141

Appendix 2: Relative participation rates for education groups in selected countries

The figure below shows the relative participation rates for various countries, calculated using the logged representation scale (Verba et al. 1995). This estimates the under- or overrepresentation of education groups in countries before any controls were introduced. This figure clearly shows that there are different patterns of

under- and over-representation of different education groups in different countries. This served as preliminary justification for further research.