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# Economic inequality and its asymmetric effect on civic engagement: evidence from post-communist countries

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The global increase in inequality raises concerns among scholars and policy-makers. However, limited evidence exists to identify how inequality affects citizens' behavior. This study explores the effects of economic inequality on participation in civil society associations by testing hypotheses derived from resource and conflict theories. Using a multilevel Poisson model in 18 post-communist countries, this study finds that inequality has a nonlinear effect on civil society. Economic inequality has a drastically demobilizing effect on associational participation in countries with lower income inequality; meanwhile high inequality has a slightly weak mobilizing effect on associational participation. Further tests show that the effect of inequality varies across different socioeconomic groups, but that the poor are most affected.

**Keywords:** inequality; democracy; political behavior; civil society; post-communism

## Introduction

Over the past three decades, domestic economic inequality has significantly increased in developed and developing countries (Kenworthy and Pontusson, 2005; Milanovic, 2005; Brandolini and Smeeding, 2006). More recently, in a little over a decade, dramatic increases in inequality have been seen in the post-communist world. Transition to a market economy has transformed the region from one of substantial equality to one of high inequality. Income inequality increased on average by 45% from 1990 to 2000, and almost doubled in some countries such as Kyrgyzstan and Ukraine (Milanovic, 1998; Braithwaite *et al.*, 1999).<sup>1</sup>

This rapid increase in inequality in post-communist countries has led to concerns among scholars and policy-makers that inequality may prompt discontent

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<sup>1</sup> However, not all agree that in the last two to three decades income inequality has declined within countries. For the sources of this controversy see Firebaugh (2003) and Milanovic (2005). As for post-communist countries, the discussion focuses more on the amount of increase in inequality rather than if an increase exists (Heyns, 2005).

with governments among citizens. Those groups most adversely affected by a government could mobilize against it and endanger the future of new democracies in the region (Przeworski, 1991; Foley and Edwards, 1996). Some comparative studies suggest that these fears are well-founded (Midlarsky, 1982; Muller and Seligson, 1987; Lichbach, 1990). In Latin America for example, economic problems and increasing inequality are empirically associated with increased mobilization of the working class and other discounted groups; this plays a significant role in the breakdown of authoritarian and democratic governments in the region (Hamby, 1986; Muller *et al.*, 1991; Karl, 2000).

Although these studies contribute to understanding the effect of economic inequality, little is known about the actual impact of rising inequality on citizens. Existing studies mostly consider the effect of inequality on factors of less demanding forms of participation, particularly electoral participation and political interest. They ignore the importance of civic engagement that stimulates all types of political participation and enhances the effectiveness of political institutions (Putnam, 1993; Verba *et al.*, 1995; Stolle and Rochon, 1998; Anderson and Beramendi, 2008; Solt, 2008). This neglect is notable given that many emphasize the importance of a civil society in which societal groups articulate their interests and needs, empower citizens, and contribute to the consolidation of democracy. In particular, organizational participation increases civic competence in citizens, contributing to strengthening the public sphere and exerting pressure on the state to be responsive and accountable to citizen demands. Thus, it is important to understand how rapid change in a socioeconomic context affects civic engagement. Does a rapid increase in inequality galvanize people or are people dissuaded from collective action because of inequality? Does inequality have the same effect across different societal groups?

This study addresses these questions by examining the impact of inequality on citizens' participation in civil society associations using a multilevel model. Studies of political behavior emphasize the importance of social context in political and civil societies (Huckfeldt, 1979; Rotolo, 2000; Curtis *et al.*, 2001; Schofer and Fourcade-Gourinchas, 2001; Bowler *et al.*, 2003; Anderson and Beramendi, 2008; Solt, 2008). Since inequality can affect the context as well as the resources and motives of individuals, employing individual and contextual data using a two-level model enables the researcher to transcend the question of differences in the behavior of rich and poor, and to engage in the study of how inequality at the societal level affects both groups. Using data from a region where the gap between the affluent and the poor has increased very rapidly, this study contributes to a growing body of literature on the implications of income inequality. The statistical analysis combines individual-level data on civic engagement from the World Values Surveys (WVS) and contextual data collected from various sources.

The next section discusses two competing perspectives, the resource school and the conflict school. It tests hypotheses derived from the two schools in the post-communist region, finding that inequality has a drastically demobilizing effect on

associational participation in countries with lower income inequality; meanwhile it has a slightly weak mobilizing effect in countries with higher inequality. Further tests show that the effect of inequality varies across different socioeconomic groups and that the poor are most affected.

### **Inequality and civil society**

The significance of civic engagement has received enormous attention in social science literature, as civic engagement helps the development of social capital, which is crucial for making democracy work (Putnam, 1993).<sup>2</sup> Seeking reasons for diverse socioeconomic development in Italy, Putnam argues that superior institutional performance in Northern Italy can mostly be attributed to a strong civic tradition. This civic tradition, with its horizontal networks of civil associations, contributes to good governance and helps democracy flourish by socializing its participants, producing trust and tolerance, and providing the skills necessary for designing better public policies. Others are skeptical of Putnam's thesis and offer alternative explanations for the wide socioeconomic differences between the two regions, including the role of the state in building social capital, and the role of civic engagement in transitioning to a fascist regime under Mussolini.<sup>3</sup>

Despite this criticism, many agree with the importance of civic engagement in building responsive democratic institutions. In particular, democratization scholars argue that civil society 'increases the political efficacy and skill of democratic citizens'; 'empowers the powerless to advance their interests', and so 'mitigates the principal polarities of political conflict' (Diamond, 1999: 21). In addition, many agree that a weak civil society leads to collective action problems, making compromise among elites difficult. Moreover, a weak civil society cannot pressure political elites to be more accountable to the citizenry in order to increase the quality of democracy (Paxton, 2002).

As scholars draw attention to the utility of civil society with respect to effective institutions and the quality of democracy, the strength and weakness of civic engagement within and across countries have been an important subject of study. Scholars point to factors such as the role of the state, regime legacy, and dissatisfaction with the economic and political performance of new regimes as an explanatory factor that accounts for variance in the strength of civil society (Tarrow, 1996; Putnam, 2000; Mettler, 2002; Howard, 2003). However, these studies ignore the fact that increasing inequality remains one of the most significant factors to explain variance in associational participation across countries. To seek the impact of inequality on civic engagement we can point to two main perspectives, namely the

<sup>2</sup> Studies note that social capital has two main pillars, trust and civic engagement. However, as we discuss later, the relation between trust and civic engagement is still controversial.

<sup>3</sup> For a different point of view on the link between civil society and democracy and a critique of Putnam, see Tarrow (1996), Levi (1996) and Berman (1997).

resource school and the conflict school. Below we present these schools and derive hypotheses from each of them, respectively.

The resource school argues that an increase in inequality implies a widening of the gap in social and economic resources between the haves and the have-nots. Thus, rising inequality in resources such as income, education, and other factors creates citizens with increasingly unequal propensities for civic participation (Almond and Verba, 1965; Verba *et al.*, 1995). Similarly, resource mobilization theory also contends that durable patterns of resource inequality result from differential availability of resources to particular social groups. Middle and upper class groups in particular find themselves in a privileged position, having sufficient resources to form and participate in political and/or nonpolitical organizations. The advantage of these groups over the poor increases as these groups are better equipped with access to many kinds of resources provided by national agencies (Edwards and McCarthy, 2006).

Rather than participating in cohesive social activities that include people with diverse backgrounds, people in an increasingly socioeconomically segregated societies may be divided into groups whose members are alike (Rotolo, 2000). The privileged congregate in social clubs or other associations where they are more likely to meet people with similar status. The less privileged may prefer associations with people like themselves, but more often may choose not to participate at all. As a result, the homogenization of memberships makes associations less likely to cross class lines or increase interaction between the poor and the privileged; this discourages the latter to engage with formal civic and political organizations, since they believe they lack the power to influence the future direction of their countries (Ashwin, 1999). In short, these perceptions of inequality will likely diminish the shared feeling that people are a part of the same invisible community with common grievances and opportunities, and in turn, discourage their involvement in associations (Uslaner, 2002; Uslaner and Brown, 2005).

Empirical evidence supports the resource theory that inequality reduces associational participation. In the United States and cross-national contexts, scholars find less participation in their states and countries of interest as diversity in income makes social interaction and cooperation less likely (Alesina and La Ferrara, 2000; Costa and Kahn, 2003). A recent study on the decline of associational participation finds that the socially and economically marginalized participate in associations less over time, while the middle or upper classes participate at constant or higher rates (Wuthnow, 2004). This study also notes that the less privileged in terms of income, education, and parental socioeconomic factors do not feel comfortable participating in associations with others who have different socioeconomic backgrounds. This is because they 'feel like they "don't" quite fit in' (Wuthnow, 2004: 101). Others demonstrate that social classes in neighborhoods with different socioeconomic contexts have different rates of political activism at subnational levels; examples of such political activism include joining groups working to improve community life, taking an active part in a

political campaign, or joining and supporting a political party (Huckfeldt, 1979; Cohen and Dawson, 1993).

Similarly, in Britain the level of participation in associations among the working class declined from two-thirds of that of the middle class in 1959 to less than half in 1990, as inequality increased over the three decades (Hall, 2004: 53). Studies in Latin America suggest that chronic inequality depresses participation in civil society organizations in which the middle-class occupy active positions, while the lower classes remain dormant (Armony, 2004; Kurtz, 2004).

Therefore, based on theoretical and empirical reasons, we expect that widening the gap in income between the poor and the non-poor has a depressing effect on associational participation. Thus:

HYPOTHESIS 1: Income inequality is likely to reduce participation in civil society associations.

In contrast, the conflict school argues that as inequality increases, the conflict of interest between the haves and the have-nots encourages the latter to organize and mobilize against the policies that favor the former. Here, the view that rising inequality increases discontent and leads organized groups to take part in demonstrations against those deemed to be responsible for adverse socioeconomic conditions holds (Gurr, 1970; Blau and Blau, 1982; Javeline, 2003). Although this school of thought mostly provides evidence for mobilizations such as demonstrations, it implicitly and explicitly attests to increasing organizational strength through associational participation under high inequality.

As the social movement literature suggests, organizations that are a part of loose networks of social movements play a pivotal role in the articulation of group preferences, grievances, interests, and mobilization (della Porta and Diani, 1999). Organizations' 'frames that appeal to resource disparities in defining an alleged injustice should have greater resonance where income inequality is a feature of the structural context' (McVeigh, 2006: 520). In addition, organizations not only emphasize the disparities in resources, opportunities, and public good on the weaker side but also 'the improper behavior of people on the stronger side' (Tilly, 1998: 212). By identifying the responsible political actors in transitioning countries with high inequality, social movement organizations can articulate problems relatively easy. This is the case especially for unjustly treated groups, thereby facilitating the growth of associational participation.<sup>4</sup>

The expectation, based on these studies, is that high inequality increases the likelihood that people with less favorable socioeconomic backgrounds mobilize against institutions or actors considered to be responsible for socioeconomic

<sup>4</sup> Although some empirical studies argue that the findings of the relationship between inequality and political conflict are not conclusive (Lichbach, 1989, 1990), this assessment is mostly based on measurement problems such as whether or not scholars should use objective or subjective measures of inequality or grievances and whether or not they should use macro/micro level data to test hypotheses.

disparities. The greater economic disparity means more incompatibility and more conflicting views of the distribution of resources between the rich and the poor. As rapid increases in inequality shift the previous middle class to the ranks of the new poor, it can have a dramatic effect here too. This is especially true in countries where the transition to a market economy has created a significant number of people facing downward mobility. These are the groups that economic transformation has the most dramatic effect on. These groups are motivated to join organizations that frame and point to the actors responsible, which is made easier by high inequality. These organizations, whether on the left or on the extreme right, can exploit economic dislocations and difficulties and appeal to those among the poor that do not see the fulfillment of their expectations (Chambers and Kopstein, 2001). Simultaneously, we expect that inequality has less effect on the upper classes, as they do not have a similar level of grievances nor do they attribute blame to the distribution of economic resources.

Empirical studies show that citizens of countries with high inequality direct their grievances toward actors they deem responsible. Citizens of countries with high inequality tend to show high distrust in public institutions, because they consider these institutions to be responsible for socioeconomic disparities in society (Anderson and Singer, 2008).<sup>5</sup> Similar findings were confirmed in Latin American countries where several studies find that the majority of people are dissatisfied with the current government and consider the existing socioeconomic system unjust (Kaufman, 2009). Ekiert and Kubik (1998) find high participation in contentious action among public sector workers and farmers in Poland's first 5 years of transition. They suggest that this was conditioned by the relative ease of locating the source of grievances in the state. In particular, the left parties played a significant role in mobilizing the disaffected population through direct appeals or through their un/officially linked associations.

Moreover, a recent study of Latin America shows how rising populist parties were successful in mobilizing low-income groups by transferring their grievances to electoral campaigns (Roberts, 2006). For example, Muller and Seligson (1987) find that high inequality increases the probability that the most disaffected groups will organize in aggressive collective action. These organizations tend to recruit people from 'the more easily mobilized urban areas' and then establish cross-cutting alliances with groups in the countryside' (1987: 427). In their study on protest, Finkel and Muller (1998) suggest that people dissatisfied with the status-quo of collective goods and who believe that groups can be successful through their participation in collective action are likely to join. Their study insinuates that the likelihood that people will join organizations may increase as their political or public good preferences change as a result of escalating inequality.

<sup>5</sup> Using WVS as well as Eurobarometer, this study calculated average political trust in parliament, political parties, and governments and correlated them with gini coefficients for the survey year. The results show that high gini coefficients correlate substantially with lower trust in political institutions. The correlation levels are moderately high, ranging from  $-0.40$  to  $-0.53$ .

There is also evidence that the have-nots are more likely to participate than the haves. Using survey data from African countries with high inequality, Bratton (2008) shows that the poor are about 10% more likely to attend a community meeting. His study also shows that the poor have more informal contact with local and central government officials. Bahry and Lipsmeyer (2001) find that people at the lower end of the economic scale remained active in Russian electoral politics and protests in the 1990s, while the more affluent were less active in electoral politics. Others, such as Krishna (2008), who finds a high rate of participation among the poor in terms of political efficacy in India, agree with this theory.

Overall, the theoretical discussion and empirical evidence presented above suggest the following hypotheses.

HYPOTHESIS 2A: High economic inequality is likely to propel people to participate in civil society associations.

HYPOTHESIS 2B: The poor from countries with higher inequality are more likely to participate in civil society associations than those from countries with low inequality.

### **Inequality and post-communist countries**

Post-communist countries present a unique case to test theories regarding the effect of inequality on civic engagement. These countries were once governed by the same types of regimes, had similar institutions, and had relatively low inequality at the onset of transition. Over time, their levels of inequality began to vary. In this respect, compared with other regions, the post-communist region comes close to providing a quasi-laboratory for researchers, due to the communist legacy. While cross-national studies may illuminate how different levels of inequality affect citizens' behavior, the post-communist region allows us to move beyond the effect of inequality levels to test how citizens with different socioeconomic backgrounds react to rapid changes in inequality. The quasi-laboratory nature of post-communist countries allows us to control for confounding factors, leading us to choose this testing ground region for our study.<sup>6</sup>

<sup>6</sup> A wider cross-national context would not offer a good testing ground for several reasons. Firstly, no other region offers similar possibilities in terms of controlling confounding factors such as the legacy of the previous regime. Secondly, in a cross-national analysis the starting year for transition to market economy varies across countries and there is no consensus on a particular transition year to allow 'change in gini' to be calculated. Lastly, some other countries, for instance in Latin America, have persistently high inequality levels that cause a ceiling effect that underestimates the effect of inequality. Nevertheless, as requested by reviewers, we run all countries available in the WVS 2000 using indicators of inequality (but not change in inequality due to various limitations). The results suggest that all models bar one give identical results. Although the logit models in Tables 1 and 2 and the Poisson model in Table 2 give identical results, the Poisson model in Table 1 has statistically insignificant coefficients for the inequality and inequality squared variables. Despite factors that tend to underestimate the impact of inequality in a large-N setting, the results overwhelmingly support the findings from the post-communist sample.



The gap between the haves and the have-nots in these countries was among the fastest growing in the world between 1990 and 1999. During this era, income inequality increased on average by ~45% (the mean gini coefficient for disposable income among the post-communist countries increased from 23% to 33%); other Third Wave democracies in Europe, such as Spain and Portugal, experienced an increase of only about 10%.<sup>7</sup> It should be noted that the rate of change varied across post-communist countries: while some countries in the region witnessed dramatic increases, others faced smaller changes in levels of inequality. For example, in the 1990s the gini coefficient increased very little in Slovakia and the Czech Republic, but almost doubled in Kyrgyzstan and in Ukraine (Milanovic, 1998; Braithwaite *et al.*, 1999).<sup>8</sup>

Thus, citizens of post-communist countries found themselves moving from societies with a fairly flat income distribution, generous social benefits with job security, full employment, and little extreme poverty to a polar shift of a widening income distribution, loss of job security, and rising poverty and unemployment (Milanovic, 1998). The unemployment rate increased to above 10% in Central European countries, the Baltic countries, and Russia while the number of people living on <\$4 a day in the former communist countries increased from 14 million in 1989 to 147 million in 1996 (Milanovic, 1998).

Post-communist countries should be a particularly good test of the connection between inequality and associational participation. It may be argued that participation is generally so low in post-communist societies that rising inequality would have little effect. In fact, several studies have suggested that civic engagement is uniformly low across the post-communist world and have attributed this weakness to the exodus of civil society leaders into political society as well as the legacy of the communist era (Bernhard, 1996; Howard, 2003; Bernhard and Karakoc, 2007).

Although the legacy argument is important for understanding why civic engagement in post-communist countries is weak compared with other regions, it falls short of explaining the variations among post-communist societies.<sup>9</sup> Recent studies on civil society in post-communist countries suggest that associations ignore mass-based recruitment and function like NGOs instead. They employ middle-class professionals, depending on their fund or grant from private foundations or foreign-funded organizations. As a result, ordinary citizens especially find associations irrelevant to their needs or look to them with hostility (Fagan, 2005), while associations at the two ends of the ideological spectrum are more successful in recruiting the poor by blaming economic problems on post-transition politics and actors (Chambers and Kopstein, 2001).

<sup>7</sup> Between 1990 and 1999, gini scores based on disposable income increased from 32.9 to 36.4 in Portugal and 29.3 to 32.7 in Spain.

<sup>8</sup> The findings of these studies vary depending on whether a disposable income or a consumption-based gini is used. Nevertheless, the studies agree that inequality varied significantly across countries in the aftermath of transition.

<sup>9</sup> The focus and novelty of Howard's work was to show and explain the weakness of post-communist civil society in comparison to other regime types, not to analyze variations in participation.

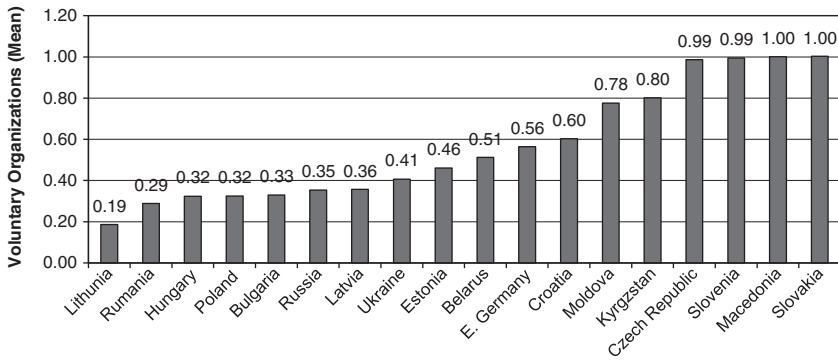


Figure 1 Participation in associations in post-communist countries.

As Figure 1 shows, levels of participation in civil society organizations are far from homogenous across the region. Some post-communist countries such as Slovenia, Slovakia, Macedonia, and the Czech Republic, in fact, exceed some established democracies in terms of their participation rates.<sup>10</sup> On the other hand, participation in associations in Bulgaria and Romania is noticeably lower; participation is much lower than countries with low economic development such as Kyrgyzstan. Countries such as Poland, Hungary, and the Baltic countries, where strong civil society played a key role in overthrowing communist regimes, also have lower levels of participation. As this counter-intuitive observation based on a comparison of average participation rates is beyond the scope and data of this study, we leave it to future studies.

## Data and methods

Individual-level data on participation in organizations, trust, and other variables are taken from the WVS Round 4, fielded from 1999 to 2004. Taking advantage of the multiple waves of the WVS allows us to gain enhanced leverage on causality. Unfortunately, earlier WVS data are unusable for several reasons. First, the Round 2 WVS is limited as the full model covers only nine post-communist countries. Second, since most of the surveys in the region were conducted either during the final years of communist regimes or in the first or second year of transition,<sup>11</sup> income questions in Round 2 do not provide any meaningful variation. The Round 3 WVS set conducted in the mid-1990s uses a different wording (active, passive, and no membership) and the number of cases is insufficient to develop multilevel modeling. As a result,

<sup>10</sup> According to the WVS 2000, the mean number of associational memberships per person (excluding religious organizations) in the United Kingdom, France, and Italy is 0.55, 0.58, and 0.67, respectively.

<sup>11</sup> The Round 2 WVS conducted before the breakup of the Soviet Union covered some post-communist countries, such as Belarus (1990), Latvia (1990), Lithuania (1990), and Russia (1990). In others, the surveys were conducted in the first years of transition, for the Czech Republic (1999), Slovakia (1991), and Hungary (1991). <http://www.worldvaluessurvey.org/>, accessed on 21 January 2010.

the WVS Round 4 (WVS 2000) was the only available survey useful for testing the hypotheses.<sup>12</sup> Ours tests involve 18 post-communist countries: Bulgaria, Belarus, Croatia, the Czech Republic, the former East Germany, Estonia, Hungary, Kyrgyzstan, Macedonia, Latvia, Lithuania, Moldova, Poland, Romania, Russia, Slovakia, Slovenia, and Ukraine. These countries represent variation for factors such as level of democracy and development. Other post-communist countries were excluded either because surveys were not conducted (such as the Central Asian and Caucasian republics other than the Kyrgyz Republic) or inequality data were unavailable for these countries.

The dependent variable for participation in civil society organizations is derived from the WVS question that asks whether or not respondents belonged to any of several types of civil society organizations, including: (1) social welfare service providers, (2) cultural societies, (3) labor unions, (4) national political parties, (5) local political party organizations, (6) human rights groups, (7) organizations devoted to conservation, the environment, ecology, and animal rights, (8) professional associations, (9) youth movements, (10) sports or recreation clubs, (11) women's groups, (12) the peace movement, (13) organizations concerned with health issues, and (14) other. When an individual indicates belonging to any of these organizations, that person receives a '1' on the scale of civil society participation; if the answer indicates non-participation, a '0' is assigned. The scale ranges from 0 to 14, with a '0' indicating no participation in civil society organizations at all, whereas '14' indicates a very high level of participation.<sup>13</sup>

An additional alternative dependent variable for the robustness check tests whether or not the results depend on the codification of civic engagement. The second dependent variable is binomial. If a person joins at least one organization the code becomes 1, otherwise the code is 0. Arguably, inequality may have different implications for participation in labor unions. Therefore, by way of a robustness check alternative analyses of the models exclude labor unions for both dependent variables. The results are similar and available upon request.

### *Independent variables*

The data for inequality are drawn from the newly prepared Standardized World Income Inequality Database (SWID 1.1).<sup>14</sup> The selection of the SWID is based on its

<sup>12</sup> The newly released WVS Round 5 was conducted between 2005 and 2007. However, the World Income Inequality Database 2c (WIID2c) does not cover all our countries for relevant years. [http://www.wider.unu.edu/research/Database/en\\_GB/wiid/](http://www.wider.unu.edu/research/Database/en_GB/wiid/), accessed on 21 January 2010.

<sup>13</sup> Religious associations are excluded from the analysis because participation in them depends on one's religiosity and religious denomination. In response to earlier criticism, we included an analysis covering religious associations. In addition, we excluded (national and local) political associations from the models and ran all models again. We find the results are substantially similar but with stronger significance levels. The results are available upon request.

<sup>14</sup> The Luxembourg Income Studies dataset (LIS) is not useful in our study since it does not cover some of the countries included here, such as Ukraine, Kyrgyzstan, Latvia, and Lithuania. For those countries included, the LIS only has one data point, and this does not allow any testing of the 'change since transition model' <http://www.lisproject.org/techdoc.htm> (accessed on 11 August 2009). In addition,

comprehensive compilation and imputation of gini coefficients for a temporarily and geographically rich sample of countries, including the post-communist countries.<sup>15</sup> In the analysis, the minimum gini score is 22.5 (Slovenia) and the maximum score is 43.6 (Moldova). Note that high scores represent greater economic inequality.<sup>16</sup>

Analyses run using this study's models used two different specifications of income equality: 1) those that gauge level of inequality and 2) those that gauge change since transition. For the latter, at each observation the calculation subtracts the level gini of the survey year from the level in 1989, when transformation started in the region.<sup>17</sup> This variable ranges from  $-1.8$  to  $18.4$ .

Previous studies suggest that democracy and economic development facilitate participation in associations (Norris, 2002; Inglehart and Catterberg, 2003). In the aftermath of transition, some post-communist countries adopted political and economic reforms and were labeled as liberal democracies, whereas some showed less progress on both fronts. Similarly, economic development varies throughout the region. The expectation is that more democratic policy and higher economic development will facilitate participation in associations (Schofer and Fourcade-Gourinchas, 2001).

Anderson and Paskeviciute (2006) emphasize that ethnic diversity encourages citizens to organize for their collective interest (for a different account see Alesina and La Ferrara (2000) and Costa and Kahn (2003). Data on these control variables are drawn from various sources: GDP (gross domestic product) per capita (World Bank Indicators), polity score (Marshall and Jaggers, 2002), and ethnic heterogeneity (Campos and Kuzeyev, 2007).

Since the literature on the individual determinants of civic engagement is extensive, a few citations are sufficient to conserve space. Most studies emphasize the importance of socioeconomic resources such as income<sup>18</sup> and education in accounting for variations in civic activism (Barnes and Kaase, 1979; Verba *et al.*, 1995; Norris, 2002). Other individual-level variables are interpersonal trust, post-materialism, gender, and religiosity.<sup>19</sup> The causality between trust and associational participation is still inconclusive, and the inclusion of trust in the civil society model may be

another robustness check was conducted using the WIID2c. In selecting gini coefficients based on disposable income for the survey year, this study follows the most common criteria such as whole population coverage and the household as the basic unit.

<sup>15</sup> Frederick Solt, 2008–09, 'The Standardized World Income Inequality Database', IQSS Dataverse Network, Harvard University, <http://dvn.iq.harvard.edu/dvn/dv/fsolt/faces/study/StudyPage.xhtml?studyId=36908&rvn=5> (accessed 19 May 2009).

<sup>16</sup> Appendix A in the Supplementary material includes gini coefficients for the survey years for each country.

<sup>17</sup> Taking another year, such as 1988, as the transition year yields substantially similar results.

<sup>18</sup> The original income question ranges from 1 to 10. In order to create five income quintiles, this study recoded income categories into quintiles. We would like to thank Frederick Solt for sharing the do-file from his article (2008) to create quintiles.

<sup>19</sup> Trust is coded either as 1 (high) or 0 (no trust); similarly, gender is coded as 0 or 1 with 1 referring to the male gender. The WVS asks respondents for a level of religiosity, with 3 representing highly religious and 1 representing not religious at all.

tautology. However, this is not a concern for this study because of weak correlations between trust and associational participation (ranging from 0.05 to 0.20 depending on the country) and the theoretical reasoning that the direction is strongest from trusting to joining (Stolle, 1998: 500; Uslaner, 2002: 77). Previous studies argue that these factors have a significant impact on participation in organizations<sup>20</sup> (Guth and Green, 1990; Putnam, 2000; Uslaner, 2002; Howard, 2003; Anderson and Paskeviciute, 2006). Finally, our expectation is that town size also affects participation (Howard, 2003). In addition, age and gender are deemed to be important predictors of political behavior because older people, especially males, are more likely to have the resources that enable a higher degree of civic involvement (Hansen, 1997; Dalton, 2002). The individual-level data come from the WVS 2000.<sup>21</sup> The descriptive statistics can be seen at Appendix A.

### *Methodology*

This study relies on a multilevel model, which allows us to account for the relationship between individual- and country-level factors and simultaneously control for individual- and contextual-level variables (Raudenbush and Bryk, 2002). Using dummy variables in ordinary least squares (OLS) to assess the impact of national-level contextual variables in such hierarchical data would result in the underestimation of the standard errors of the coefficients. OLS assumes that individual-level errors are uncorrelated with others in a given country, which causes a Type I error (Steenbergen and Jones, 2002). We employ the Poisson model for two reasons. First, the dependent variable is the count or the number of associational participations. Second, the data on participation is skewed. Therefore, the Poisson model is preferred because it represents, methodologically, the best approach for this data structure (Rotolo, 2000; Schofer and Fourcade-Gourinchas, 2001). The statistical analyses include individual- and contextual-level data and models. The first model that includes individual-level variables for civic engagement is

$$\begin{aligned} \text{Participation in Civil Society Associations} = & \beta_{0j} + \beta_{1j} \text{Income}_{ij} + \beta_{2j} \text{Trust}_{ij} \\ & + \dots + \beta_{kj} x_{kij} + e_{ij}. \end{aligned}$$

The introduction of the second model and the country-level variables for measuring their independent effects on civic engagement are as follows:

$$\begin{aligned} \beta_{0j} = & \gamma_{00} + \gamma_{01} \text{Inequality}_j + \gamma_{02} \text{Inequality Squared}_j + \gamma_{03} \text{Development}_j \\ & + \gamma_{04} \text{Level of Democracy}_j + \gamma_{05} \text{Ethnic Fractionalization}_j + U_{0j}. \end{aligned}$$

<sup>20</sup> Minorities do differ from titular groups in a variety of political attitudes and behaviors (Dowley and Silver, 2002). However, since not all surveys asked about minority status or fluency in an ethnic language, the models do not include minorities at the individual level.

<sup>21</sup> Appendix B in the Supplementary material includes more detailed information on the wording of individual-level questions.

However, one may argue that the count model implies that the cost of joining each association is equal and that this may give misleading results. In anticipation of objections that this study's findings may be sensitive to the choice of an additive dependent variable, an alternative dependent variable is employed. The dichotomous dependent variable measures whether or not a respondent participates in any association. The second alternative dependent variable arises from the multilevel Logit model. The mathematical equations for the Logit model are not presented here to conserve space.<sup>22</sup>

## Results

The post-communist transition has caused a significant increase in inequality, which should have a significant impact on associational participation. Comparing the participation rate at the onset of transition and around 10 years later would disclose the strength of the correlation between inequality and associational participation. In the absence of panel data, we turn to the second round of the WVS conducted in the 1990s to uncover change in associational participation compared with the fourth round of the WVS. Please note that while both surveys ask almost all associational participation questions, only 11 of 18 countries were included in the WVS 1990. Table 1 presents the mean level of associational participation for both surveys as well as gini coefficients for the survey years. We excluded unions from both surveys given the fact that in the early years of the transition union membership was mandatory for workers in some countries. Comparing 'change in gini' and 'change in associational participation' suggests that a decline in gini coefficients significantly depresses associational participation. High correlations ( $r = 0.76$ ) support the resource school's contention that inequality depresses participation. Although the decline in participation drops as we move to countries with high inequality, an absence of countries with high inequality in this subsample would prevent us from commenting on how associational participation shows a trend in the high inequality countries from Table 1.

To see whether participation varies across levels of inequality, we turn to the WVS 2000 to calculate how associational participation varies across income quintiles. The Czech Republic (gini = 25), Poland (gini = 31), and Moldova (gini = 38) represent, in order, low inequality to high inequality. While the participation rate in terms of at least one associational membership for the lowest quintile for the Czech Republic is 0.51, it is 0.14 for Poland but 0.27 for Moldova, which suggests the mobilization effect of inequality. The same calculations were conducted for people within the highest quintile, with the results suggesting that high inequality also mobilizes the rich. The mean participation score for the Czech Republic is 0.63, followed by Moldova at 0.50 and by Poland at 0.30.

<sup>22</sup> One may argue that the direction may flow from civic engagement to inequality. However, endogeneity is not a major problem in our study given the weakness of post-communist civil society and the reported weak effect of civil society on policy-making processes in the literature.

Table 1. Comparison of the WVS 1990 and WVS 2000 in change in participation (country means)

Country	WVS 1990		WVS 2000		Change in gini	Change in participation
	Gini	Participation	Gini	Participation		
Bulgaria	21.97	0.42	29.50	0.25	7.53	-0.17
Czech Republic	21.83	0.65	25.25	0.88	3.42	0.23
Estonia	21.11	0.56	35.10	0.41	13.99	-0.15
Hungary	28.30	0.27	30.98	0.25	2.68	-0.02
Latvia	21.39	0.59	31.85	0.24	10.46	-0.35
Lithuania	22.36	0.40	33.20	0.17	10.84	-0.23
Poland	24.09	0.29	31.30	0.22	7.21	-0.07
Romania	24.50	0.16	27.75	0.18	3.25	0.02
Russia	25.14	0.38	44.23	0.12	19.09	-0.26
Slovakia	18.69	0.54	23.41	0.83	4.72	0.30
Slovenia	24.22	0.36	24.85	0.78	0.63	0.42

WVS = World Values Surveys.

Note: Unions are excluded from both surveys to make comparison more meaningful. The correlation between change in gini and change in participation is 0.76.

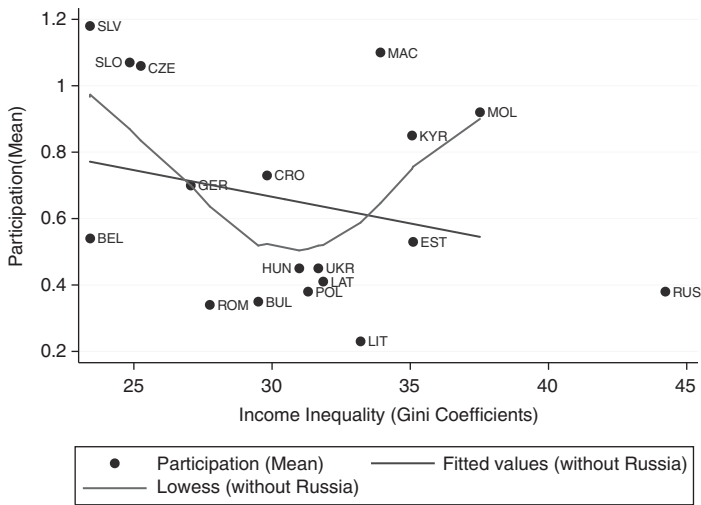


Figure 2 Inequality and associational participation in post-communist countries.

Using the WVS 2000, Figure 2 shows change in the mean associational level and gini scores for 18 post-communist countries. It provides preliminary evidence for both schools of thought and suggests a curvilinear relationship between the two. Inequality significantly decreases average participation in civil society organizations up to the point where inequality revolves around gini coefficients in

the mid-30s, but civic engagement has an increasing trend thereafter. High average participation in countries with low inequality such as the Czech Republic, Slovakia, and Slovenia support the resource mobilization school's theory. On the other hand, countries with high inequality such as Kyrgyzstan, Moldova, and Estonia have high participation and provide evidence for the conflict school. In other words, these descriptive statistics give mixed signals. A multivariate analysis can reveal which school has greater accuracy for explaining civic engagement in the region more clearly.<sup>23</sup> Before discussing the findings of the multivariate analysis regarding inequality and civic engagement, a necessary initial discussion concerns the findings on the individual and national context variables suggested in the literature.

Table 2 presents the results yielded after new variables have been added to the models. Model 1 includes the results on the impact of individual- and national-level control variables.<sup>24</sup> The findings on individual-level variables coincide with most of the findings of past research on civic engagement. High levels of trust, education, and post-materialism have a positive and statistically significant effect on associational participation. In addition, young people and males are more likely to participate in associations. As for the substantial effect of the variables, hierarchical Poisson coefficients can be interpreted by exponentiation, which indicates a multiplier for the rate of associational participation (Raudenbush and Bryk, 2002). Holding all other variables constant, one unit increase in post-materialism is associated with a 14% increase in the expected number of associational participations ( $\exp(0.1317) = 1.1407$ ). The increase is in the expected number of males participating, where education and income is 16, 15, and 9%, respectively. As for the size of the town and religiosity, no statistically significant impacts on civic engagement were found.

Economic development and ethnic fractionalization are associated with higher associational participation, while democracy does not have a statistically significant impact. The positive value of ethnic fractionalization does mean that ethnic contexts lead, on average, to more associational participation. The Poisson coefficient for GDP per capita indicates that a one-point increase (1000\$) is associated with an 8% increase in the expected number of participations, holding other variables constant. As for ethnicity, there is a significant impact on the dependent variables. Moving from an ethnically homogenous society (index = 0)

<sup>23</sup> On the other hand, average participation in Russia is significantly low despite the fact that its inequality level is the highest. Note that this graph is for illustrative purposes and the exclusion of Russia from the analysis does not change the robustness of the findings.

<sup>24</sup> Diagnostic testing determines whether or not some multicollinearity exists, since previous research shows that democratization score and GDP per capita may be highly correlated. Therefore, running correlation tests to determine whether or not this is the case shows that democratization and GDP per capita correlate with 0.38, which is an acceptable rate. However, the GDP per capita and inequality measures moderately correlate,  $r = 0.43$ . The robustness of the results was determined with a series of diagnostic tests, such as Variance Inflation Factor and applying the models with GDP per capita and inequality one-at-a-time. In addition, diagnostic tests on individual-level variables show that this is not a major concern and that the results are robust.



Table 2. Multilevel Poisson and Logit models for civic engagement

	Poisson			Logit		
	Level	Change		Level	Changes	
Contextual variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Inequality	–	–0.2808*	–0.0753	–	–0.5990***	–0.0501
		<i>0.1431</i>	<i>0.0595</i>		<i>0.1473</i>	<i>0.0718</i>
Inequality squared	–	0.0037*	0.0016	–	0.0082***	0.0003
		<i>0.0021</i>	<i>0.0026</i>		<i>0.0021</i>	<i>0.0033</i>
Individual-level variables						
Trust	0.1514***	0.1512***	0.1515***	0.1980***	0.1972***	0.1982***
	<i>0.0379</i>	<i>0.0379</i>	<i>0.0379</i>	<i>0.0433</i>	<i>0.0436</i>	<i>0.0434</i>
Post-materialism	0.1317***	0.1318***	0.1316***	0.1385***	0.1391***	0.1383***
	<i>0.0333</i>	<i>0.0333</i>	<i>0.0333</i>	<i>0.0343</i>	<i>0.0343</i>	<i>0.0343</i>
Religiosity	0.0173	0.0170	0.0175	0.0287	0.0272	0.0289
	<i>0.0172</i>	<i>0.0172</i>	<i>0.0172</i>	<i>0.0269</i>	<i>0.0270</i>	<i>0.0268</i>
Education	0.1422***	0.1423***	0.1423***	0.1966***	0.1966***	0.1967***
	<i>0.0158</i>	<i>0.0158</i>	<i>0.0158</i>	<i>0.0172</i>	<i>0.0172</i>	<i>0.0172</i>
Age	–0.0377**	–0.0378**	–0.0377**	–0.0749***	–0.0751***	–0.0749***
	<i>0.0164</i>	<i>0.0164</i>	<i>0.0164</i>	<i>0.0254</i>	<i>0.0254</i>	<i>0.0254</i>
Male	0.1522***	0.1522***	0.1522***	0.2641***	0.2643***	0.2641***
	<i>0.0451</i>	<i>0.0451</i>	<i>0.0451</i>	<i>0.0801</i>	<i>0.0802</i>	<i>0.0801</i>
Town	–0.0116	–0.0116	–0.0116	0.0025	0.0025	0.0025
	<i>0.0075</i>	<i>0.0075</i>	<i>0.0075</i>	<i>0.0136</i>	<i>0.0136</i>	<i>0.0136</i>
Income	0.0897***	0.0896***	0.0896***	0.1158***	0.1158***	0.1157***
	<i>0.0133</i>	<i>0.0133</i>	<i>0.0133</i>	<i>0.0218</i>	<i>0.0218</i>	<i>0.0218</i>
National-level control variables						
Polity	–0.0141	–0.0024	0.0117	–0.0242	–0.0011	–0.0043
	<i>0.0142</i>	<i>0.0177</i>	<i>0.0220</i>	<i>0.0214</i>	<i>0.0174</i>	<i>0.0261</i>
GDP per capita	0.0780**	0.0520**	0.0350	0.1120***	0.0640**	0.0760†
	<i>0.0270</i>	<i>0.0220</i>	<i>0.0390</i>	<i>0.0360</i>	<i>0.0270</i>	<i>0.0470</i>
Ethnic fractionalization	1.2081*	1.7354**	1.7728**	1.1065†	2.0479**	1.6067**
	<i>0.6375</i>	<i>0.7212</i>	<i>0.7275</i>	<i>0.6825</i>	<i>0.7051</i>	<i>0.7422</i>
Random effect						
Variance component						
Constant	0.2607	0.2396	0.2693	0.4251	0.2565	0.4648
2-Log-likelihood (×10)	–2.95E + 04	–2.94E + 04	–2.91E + 04	–2.33E + 04	–2.35E + 04	–2.34E + 04

GDP = gross domestic product; HLM = hierarchical linear and nonlinear modeling.

Note: Dependent model for the Poisson model is the count variable, the number of participations in associations. For the Logit model, the dependent variable is whether or not one participates in at least one association. Entries are reduced maximum likelihood coefficients with robust standard errors (italics) estimated with HLM 6.00; N: 16,726. † $P < 0.15$ , \* $P < 0.1$ , \*\* $P < 0.05$ , \*\*\* $P < 0.01$ .

to a society with an ethnic fractionalization index of 0.1 increases the expected number of associational participations by 23%, holding all other variables constant. The insignificant result for the level of democracy is surprising, but this may also be due to the fact that the sample includes a relatively small number of countries with little variation in democracy scores.

*Resource vs. conflict school*

The resource and conflict schools propose two opposing views. The former suggests that those who live in countries with low inequality are more likely to participate in civil society organizations. The latter suggests that people in countries with high inequality are more likely to participate somewhat more intensely than citizens living in countries with low inequality. Adding both inequality and inequality squared to the model tests these two opposing hypotheses.

Model 2 of Table 2 adds these two variables to test the hypotheses. The result shows that citizens in countries with greater inequality are less likely to participate in associations. The result is statistically significant and negative. The coefficient of income inequality, which captures nonlinear changes in income inequality, is also statistically significant and indicates that associational participation decreases with a decelerating rate. However, the substantial size of the effect of inequality is unknown; perhaps its substantial effect is infinitesimal, as subsequent investigation may show, after applying the change model.

Unlike previous studies, this research is able to test whether or not a relatively sudden change in economic inequality in a country affects the organizational behavior of citizens and is attributable to the unique characteristics of post-communist countries. Table 2 also includes this study's change model, which tests the effect of change in inequality on civic engagement. Models 3 and 6 in Table 2 indicate that 'change in gini' has no nonlinear effect on civic engagement. Poisson and Logit models based on 'change in gini' give the same results, that is, that the coefficients of income inequality and its square are statistically insignificant. This leads to the dismissal of any nonlinear relationship for the change model.

In order to provide meaningful and an easier interpretation of the independent variables for 'the level model', the calculation reflects the expected counts for a male with a secondary school diploma in a country with a GDP per capita of \$6000. Figure 3 shows the predicted number of associational memberships. The figure

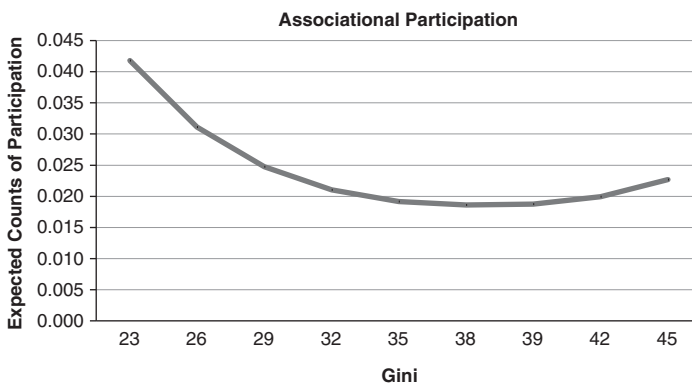


Figure 3 Curvilinear relationship between inequality and associational participation.

suggests that inequality significantly decreases civic engagement up to the point where inequality reaches gini coefficients of 39, then shows an increasing trend thereafter. Nevertheless, the increase after a gini of 39 remains very small and the expected counts for associational participation end at  $\sim 0.23$ , when the gini score reaches 45.

These findings suggest the presence of a dynamic relationship between inequality and civic engagement. Inequality both depresses and mobilizes civic participation. However, while inequality has some mobilizing effect, the level of mobilization among the poor remains substantially small.

For the robustness check, Models 3–5 in Table 1 use a binominal model, which confirms the previous findings.<sup>25</sup> The findings on inequality and inequality squares for the level model are similar. As for other national-level variables, they are statistically significant as well. For example, Model 5 suggests that a \$1000 increase in GDP per capita increases the predicted probability of participation in associations by 6.6%. The change model (Model 6) suggests that it increases the predicted probability by 7.6%. It also suggests that an increase from 0 to 0.10 in an ethnic fractionalization index increases the predicted probability of participation in associations by 42.5%.

In order to test the third hypothesis we introduce an interaction term for the level inequality model using inequality, inequality square, and income variables (income quintiles). Regarding the ‘change model since transition’, Table 2 suggests the absence of a quadratic relationship between inequality and civic engagement in the ‘change in inequality’ model. Therefore, for the ‘change in gini’ model, we only combine income quintiles with income inequality variables to test whether inequality has differential effects in income groups.

Using Poisson and Logit techniques, Models 1 and 2 in Table 3 present these interaction models. The positive result of the interaction between inequality and income supports the resource school’s notion that a decline in civic engagement arises in lower income inequality countries. The negative result of the interaction between the inequality square and income, on the other hand, seems to support the conflict school’s notion that an increase in civic engagement comes with being poor. This may be because social movement organizations find it easier to mobilize people by showing great disparities and injustices in society where a country faces a high inequality. However, what remains unconfirmed is whether or not the size of this effect is substantial. For illustrative purposes, Table 4 shows the expected counts for males with secondary school diplomas in a country with a GDP per capita of \$6000. Table 3 shows the percentage increase in the expected counts of participation in order to reveal the sources of the largest increase or decrease.

Table 4 shows that the expected counts of participation are already low for this group. The expected counts decrease at a diminishing rate when encountering

<sup>25</sup> By way of a robustness check, we also used a widely used poverty/basic needs satisfaction measure, the mean daily calorie consumption, using data collected by FAOSTAT (The Food and Agriculture Organization Statistical Database). The results remained substantively the same, and the coefficient for poverty is not statistically significant.

Table 3. Interaction model of civic engagement

	Level		Change	
	Poisson	Logit	Poisson	Logit
Contextual variables	Model 1	Model 2	Model 3	Model 4
Inequality	-0.3576*** <i>0.0883</i>	-0.6116*** <i>0.1431</i>	-0.0420* <i>0.0211</i>	-0.0475† <i>0.0289</i>
Inequality × income	0.0530*** <i>0.0144</i>	0.0466** <i>0.0196</i>	0.0046* <i>0.0026</i>	0.0063* <i>0.0031</i>
Inequality squared	0.0050*** <i>0.0013</i>	0.0084*** <i>0.0021</i>	– –	– –
Inequality squared × income	-0.0007*** <i>0.0002</i>	-0.0006** <i>0.0003</i>	– –	– –
Individual-level variables				
Trust	0.1008*** <i>0.0266</i>	0.2000*** <i>0.0434</i>	0.1531*** <i>0.0378</i>	0.2006*** <i>0.0433</i>
Post-materialism	0.0741*** <i>0.0204</i>	0.1401*** <i>0.0337</i>	0.1333*** <i>0.0330</i>	0.1391*** <i>0.0337</i>
Religiosity	0.0162 <i>0.0130</i>	0.0298 <i>0.0263</i>	0.0178 <i>0.0173</i>	0.0313 <i>0.0262</i>
Education	0.1121*** <i>0.0137</i>	0.1960*** <i>0.0170</i>	0.1420*** <i>0.0159</i>	0.1961*** <i>0.0170</i>
Age	-0.0501*** <i>0.0148</i>	-0.0783*** <i>0.0250</i>	0.0403*** <i>0.0158</i>	-0.0778 <i>0.0248</i>
Male	0.1512*** <i>0.0406</i>	0.2649*** <i>0.0811</i>	0.1524*** <i>0.0454</i>	0.2645*** <i>0.0809</i>
Town	0.0012*** <i>0.0078</i>	0.0017*** <i>0.0138</i>	-0.0123† <i>0.0076</i>	0.0016 <i>0.0138</i>
Income	0.00891*** <i>0.0132</i>	0.1262*** <i>0.0201</i>	0.1132*** <i>0.0144</i>	0.1262*** <i>0.0204</i>
National-level control variables				
Polity	0.0059 <i>0.0070</i>	0.0092 <i>0.0169</i>	0.0096 <i>0.0169</i>	0.0085 <i>0.0199</i>
GDP per capita	0.0380** <i>0.0150</i>	0.0770*** <i>0.0210</i>	0.0640*** <i>0.0210</i>	0.0950*** <i>0.0300</i>
Ethnic fractionalization	1.0389*** <i>0.2372</i>	2.1922*** <i>0.5394</i>	1.7716** <i>0.7023</i>	1.9186*** <i>0.5709</i>
Random effect				
Variance component constant	0.0977	0.2569	0.2515	0.4154
Income (U1)	0.0028	0.0043	0.0038	0.0045
2-Log-likelihood (×10)	-2.05E + 04	-2.34E + 04	-2.94E + 04	-2.33E + 04

GDP = gross domestic product; HLM = hierarchical linear and nonlinear modeling.

Note: Dependent model for the Poisson model is the count variable, the number of participations in associations. For the Logit model, the dependent variable is whether or not one participates in at least one association. Entries are reduced maximum likelihood coefficients with robust standard errors (italics) estimated with HLM 6.00; N: 16,726.

† $P < 0.15$ , \* $P < 0.1$ , \*\* $P < 0.05$ , \*\*\* $P < 0.01$ .

Table 4. The expected counts and percentage change of participation by quintiles

Gini coefficients	First quintile	Second quintile	Third quintile	Fourth quintile	Fifth quintile
23	0.072 (-)	0.161 (-)	0.357 (-)	0.794 (-)	1.764 (-)
26	0.056 (-22%)	0.131 (-19%)	0.303 (-15%)	0.703 (-11%)	1.630 (-8%)
29	0.047 (-17%)	0.115 (-12%)	0.267 (-12%)	0.640 (-9%)	1.532 (-6%)
32	0.041 (-12%)	0.100 (-13%)	0.245 (-8%)	0.598 (-6%)	1.463 (-4%)
35	0.038 (-7%)	0.094 (-6%)	0.233 (-5%)	0.576 (-4%)	1.423 (-3%)
38	0.038 (-1%)	0.093 (-1%)	0.230 (-1%)	0.569 (-1%)	1.407 (-1%)
39	0.038 (1%)	0.094 (1%)	0.232 (0%)	0.571 (0%)	1.407 (0%)
40	0.039 (2%)	0.095 (1%)	0.234 (1%)	0.574 (1%)	1.410 (0%)
42	0.041 (6%)	0.099 (4%)	0.241 (3%)	0.586 (2%)	1.423 (1%)
45	0.047 (14%)	0.110 (11%)	0.262 (9%)	0.618 (6%)	1.464 (3%)

GDP = gross domestic product.

*Note:* This table presents expected association counts for those with secondary school diplomas in a country with a GDP\$ 6000. Percentages in parentheses refer to the percentage change of particular income quintiles compared with previous inequality level.

higher ginis. The decline in expected counts stops at a gini of around 39. Although it increases after that, the expected counts become very small, reaching 0.047 and 45 at the highest gini in the sample. On the other hand, people with the highest income quintile start with a participation score of 1.76 in a country with a gini of 23. Considering countries with higher inequality levels, the expected counts decrease as well. Nevertheless they remain very high, above 1.46 at the highest gini score.

Calculating the percentages of changes in the expected count of participation by income quintiles reveals that the greatest decline occurs for the disadvantaged. For example, when moving from a gini of 26 to 29, participation declines by 17% for the lowest (first) quintile but only by 6% for the highest (fifth) quintile or the rich. On the other hand, moving the gini from 42 to 45 increases the expected counts by 14% for the lowest quintile while change increases by 3% for the fifth quintile. Solt (2008) argues that moving from lowest inequality to highest inequality reduces the probability of an increase in interest in politics by 13.2%. This study suggests a more dramatic effect on civil society and a more demanding form of participation than political engagement, such as an interest in politics. The first quintile's expected count declines by 51%, while the rich's quintile declines by 17%. This result confirms the resource school's contention that inequality has more effect on the poor, but also notes that the marginal effect on the rich is not negligible. However, the substantial effect of high inequality on the poor remains small. For example, as discussed earlier, while at a gini of 45 the expected count of participation in the lowest quintile is 0.047, the expected count is 1.464 for the highest quintile.

The change in inequality models, Models 3 and 4 in Table 3, indicate that as the decline in inequality increases it has its most depressing effect on the poor. These models also suggest that inequality does not have a mobilizing effect. To test

whether a significant decline in inequality has a depressing impact on associational participation as well as its impact on income groups, we introduced an interaction term between the 'change in inequality' variable and income quintiles. We then calculated the expected counts of participation. The result indicates that as the decline in inequality increases, participation declines significantly in the model (results not shown here but available upon request) and the effect of such change is higher for the disadvantaged segment of society. Substantively speaking, with a decline of 8 in the gini scores, the first quintile faces a 14% decline in civic engagement while this is only for 9 and 7% for the fourth and fifth quintiles, respectively. Overall, when we move from a country with no change in inequality to a country with the highest increase in inequality, from 0 to 19, the poor face a 50% decline whereas the rich face around 30%.

## Conclusion

Although inequality has received much attention in political science, the focus has mostly been on political violence, insurgency, and revolution, with less attention paid to the effect of inequality on citizens' behavior. Civic engagement is important because it contributes to strengthening civic and public societies, which put pressure on state institutions to be more responsible and accountable to citizens. Understanding the implications of inequality on civic engagement is essential for creating more responsive public policies that meet citizens' expectations and enhance the quality of democracy in post-communist countries.

The findings of this study are worrisome. The greater the inequality, the lower the level of civic engagement in countries, even when controlling for the effects of individual-level income and education. This is a potential problem since participation in voluntary associations has been found to stimulate other types of political participation and to increase the effectiveness of political institutions (Putnam, 1993; Verba *et al.*, 1995, but see Bowler *et al.* (2003), Seligson, (1999), and Stolle and Rochon, (1998) for associational differences on political behavior and social capital). The haves can join associations and put pressure on political actors as a result of their relatively high participation in socioeconomic and political associations as well as in elections; the have-nots tend to withdraw from formal participation and turn toward street or neighborhood-based organizations such as citizens' committees or informal groups, including networks of close friends and relatives (della Porta and Andretta, 2002). On the other hand, the current study's findings suggest that the effect of inequality is not always negative for civic engagement, but curvilinear, since high inequality has a statistically significant but almost substantively small mobilizing effect on civic engagement.

The findings convey some important messages to policy-makers as they design public policies. They should expect stronger feedback and pressure about the policies they design from the haves, who are more organized. The silence of the have-nots does not mean that they support current policies, but that they do not

have intermediary organizations to represent their will and interests. Therefore, public policies should be designed to encourage participation among the have-nots in associations and support existing grassroots organizations that take part in solving the needs of communities.

These findings contribute to three main contemporary discussions in the political science literature.<sup>26</sup> First, scholars argue that post-communist civil society is weak and speculate about whether or not this is the destiny of the region (Bernhard, 1996; Howard, 2003). This study adds to Howard's, (2003) findings that a widening gap in resources across a society has differential consequences on people at different levels of income inequality. In particular, the poor have a low level of civic engagement and inequality depresses their civic engagement more strikingly than that of the rich.

Second, this study contributes to a growing literature that discusses the effect of socioeconomic context on political behavior, adding to studies by scholars such as Solt (2008), Anderson and Beramendi (2008), and Curtis *et al.* (1992). This literature also discusses whether or not inequality depresses electoral participation and suggests that the effect of inequality is not limited to voting, and is both more widespread and more dramatic for civic engagement. Although previous studies focus on the effect of low and high levels of inequality, this study moves beyond that level of argument and shows how citizens react to fast changes in inequality as related to civic engagement. Inequality can discourage the poor more than the rich from participating in associations (Anderson and Beramendi, 2008; Solt, 2008). The current study differs from previous studies in several aspects. In earlier research on political participation, Solt (2008) reports no effect on the rich and Anderson and Beramendi (2008) find a linear effect of inequality on lesser demanding forms of participation, such as an interest in politics and voting. In contrast, the current research suggests that inequalities have differential, nonlinear effects on civic society. Importantly, a perspective which differs from the conclusions of Krishna (2008), Solt (2008) and Anderson and Beramendi (2008) arises, in that high inequality has a mobilizing effect. However, even though decreasing civic participation stops in countries with high inequality, the difference between the poor and the rich is still substantially and statistically significant.

Finally, recent research (Boix, 2003; Acemoglu and Robinson, 2006) emphasizes that inequality can influence prospects for democracy; in the aftermath of the transition to democracy a highly unequal distribution of income leads the poor to demand substantial redistribution. Although high inequality mobilizes the poor, the size of its effect remains small. Thus, inequality may have countervailing

<sup>26</sup> This study does have some limitations. First, the data sources do not consider some important informal associations, such as neighborhood and other types of community organizations. The exclusion of such organizations may cause the WVS to underestimate civic engagement among the poor (Bratton, 2008; Krishna, 2008).

effects. On the one hand, promoting the desire for redistribution, while on the other discouraging participation among those with the most to gain from it. Unless necessary measures are taken to reduce inequality, especially within the social and public policy realm, the gap between the haves and the have-nots will be perpetuated.

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## Supplementary materials

For supplementary material referred to in this article, please visit <http://dx.doi.org/doi:10.1017/S1755773912000100>

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## Appendix A. Descriptive statistics

Variables	Mean	Std. dev.	Min	Max
Number of associational participation	0.58	1.05	0	14
Organizational participation (0–1)	0.36	0.48	0	1
Trust	0.22	0.42	0	1
Post-materialism	1.66	0.59	1	3
Religiousity	1.37	0.58	1	3
Education	4.80	2.06	1	8
Income quintiles	3.02	1.42	1	5
Age	3.54	1.64	1	6
Male	0.45	0.50	0	1
Town	4.37	2.62	1	8
Polity	6.00	5.37	–7	10
GDP per capita (thousands)	3.44	3.18	0.30	12.78
Ethnic fractionalization	0.32	0.16	0.01	0.58
Gini	30.88	5.32	23.41	44.23
Change in gini	7.63	4.92	–1.78	18.36
Gini squared	980.49	347.71	548.07	1956.56
Change in gini squared	81.12	86.35	0.89	337.20