¿Quién Vota? Compulsory Voting and the Persistence of Class Bias in Latin America

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Abstract

Universal suffrage does not guarantee universal participation. Scholars diagnose the disparity in turnout between rich and poor as an important democratic deficit and propose compulsory voting as a key institutional remedy. While countries with compulsory have higher turnout rates, it is unclear whether compulsory voting meaningfully alleviates inequality in turnout. The present work examines the extent to which compulsory voting mitigates the class bias common to voter turnout. We draw on evidence from Latin America, a region characterized by widespread compulsory voting laws and high economic inequality. We demonstrate that compulsory voting results in higher turnout only when enforced and that the gains in turnout are primarily among the poor. We also find, however, that unequal turnout persists even under strict compulsory voting systems. We further demonstrate that disadvantaged citizens are less likely to vote in countries with strict enforcement of compulsory voting rules due to structural barriers that disproportionately affect the poor, such as a voter identification requirement, as opposed to political disinterest.

Universal suffrage does not guarantee universal participation. For almost a century, political observers have shown that enfranchised citizens occasionally or even routinely abstain from voting. The earliest explorations of abstention (e.g., Arneson 1925; Merriam & Gosnell 1924) highlight that certain groups of citizens are more likely than others to abstain, thereby rendering election outcomes potentially unrepresentative of the citizenry. More recent research further establishes that the socially and economically disadvantaged of society are especially less likely to vote than those with greater resources (Verba et al. 1978; Wolfinger & Rosenstone 1980). This disparity presents a major challenge to democracy: how can a system be democratic if it so highly favors one class of citizens over another?

In his presidential address to the American Political Science Association, Lijphart (1997) diagnosed the inequality in turnout between the socioeconomically advantaged and disadvantaged as an important democratic deficit. Not only is inequality in voter turnout a troubling form of political exclusion (Lijphart 1997; Jackman 2001), it also has important consequences for electoral outcomes and public policy (Mahler 2008). Lijphart proposed that compulsory voting might be a key reform to ameliorate inequality in voting. Nevertheless, while countries with compulsory voting have long seen greater turnout rates (Tingsten 1937; Jackman 1987), we still know relatively little about *how* compulsory voting enhances turnout (Blais 2006). Recent scholarship establishes that compulsory voting is not a uniform institution and that its effect on turnout depends on the extent to which it includes enforced sanctions against non-voters (Panagopoulos 2008; Singh 2011, 2014). Nevertheless, existing research does not systematically evaluate whether compulsory voting meaningfully alleviates inequality of voter turnout across socioeconomic strata.

The present work seeks to address these remaining questions by measuring the extent to which compulsory voting affects voters across the socioeconomic spectrum and how varying degrees of strictness in compulsory voting laws matter to the rich and poor. We draw on rich survey data from Latin America, a region characterized by widespread compulsory voting laws and high levels of socioeconomic inequality. Pairing individual-level survey data and measures of country-level electoral and institutional factors, we leverage data from recent presidential elections in 18 coun-

tries to explore how variation in compulsory voting regimes affects turnout and how these laws differentially influence the turnout decisions of each country's advantaged and disadvantaged populations. We find that compulsory voting laws result in higher turnout only when they are enforced and that these gains are concentrated among the socioeconomically disadvantaged. Nevertheless, we also find that inequality in voter turnout persists even in countries with strict compulsory voting systems.

Furthermore, in order to understand the persistence of unequal turnout among citizens of different socioeconomic strata, even in contexts where compulsory voting is enforced, we test two mechanisms to explain lower turnout among the poor. We find evidence that the disadvantaged in society are less likely to vote because of structural barriers, specifically a voter identification requirement. On the other hand, we do not find evidence that low-income citizens abstain due to apathy. To the contrary, we demonstrate that more well-off citizens are disproportionately likely to cite lack of interest as their motivation for abstaining.

These findings suggest that while compulsory voting laws that are consistently enforced can achieve considerable gains in reducing the gap in turnout between rich and poor citizens, they are not sufficient to level the playing field completely. Though compulsory voting may raise the cost of abstention, it may not do enough to reduce the costs of voting for the least well-off in society. Additional interventions, such as improving access to identity documents, may be needed to lower remaining barriers to participation by the poor.

Unequal Voting and Compulsory Voting: Robust Findings and Remaining Questions

The role of socioeconomic factors in shaping electoral participation is well established. Nearly a century ago, Arneson (1925) canvassed the citizens of Delaware, Ohio, a "typical town," and observed that better educated people, those with higher-status occupations, and those living in wealthy neighborhoods voted at higher rates than their less advantaged counterparts. Arneson suggests the positive correlation between socioeconmic status and voting exists because "the stan-

dard of citizenship, at least as far as voting is an indication, increases with the standard of living" (819-820).

This early finding about the inequality of voter turnout has been replicated in other U.S. cities, including Chicago (Merriam & Gosnell 1924),[1] and in large scale, U.S.-based and cross-national studies. In the U.S. case, for example, Wolfinger & Rosenstone (1980) show that individual-level education, income, and occupational status are positively correlated with turnout, while Rosenstone (1982) shows that "economic adversity" such as unemployment and poverty suppresses political participation. Verba et al. (1978) provide important comparative evidence about the persistence of the relationship between class and electoral turnout. The authors propose that the more privileged sectors of society are more likely to participate in politics, including voting, because they hold an abundance of the resources requisite for political participation.

While cross-national research on turnout has grown to encompass institutional factors, including registration laws, party systems, and electoral competition (Jackman 1987; Powell 1986), scholarship that simultaneously considers socioeconomic and institutional variables generally find that socioeconomic status has a robust relationship with turnout. Notably, Blais & Dobrzynska (1998) analyze data from 91 countries, including more than 300 elections, and show that higher GNP per capita correlates with higher turnout and that aggregate illiteracy stifles turnout. These findings persist in the presence of controls for electoral institutions and party systems (247-250).

Across time and place, socioeconomic status is strongly and positively correlated with voter turnout. This finding holds across countries and under a range of institutional settings, in individual- and aggregate-level studies. It is precisely this persistent, powerful relationship that fosters concerns about the representativeness of democratic elections. While voter turnout is less unequal than more costly forms of political participation (Verba et al. 1978), we know that the class bias in voting is largest when turnout is lowest (Rosenstone & Hansen 1993).[2] The focus of the present

[1] Merriam & Gosnell (1924) finds that abstention in the 1923 Chicago mayoral election was not randomly distributed among the citizenry, but concentrated among women, African Americans, the poor, and the otherwise underprivileged segments of society.

[2] Kasara & Suryanarayan (2015) introduce an important caveat to this persistent relationship, by demonstrating that under some institutional conditions, the relationship may work in the opposite direction. The authors find that in countries where redistribution and the state's fiscal capacity are low, the rich are actually *less* likely to vote than the

work is to better understand the extent to which compulsory voting can close this turnout gap.

Lijphart's recommendation that compulsory voting be employed to reduce unequal turnout is premised on two expectations: that compulsory voting increases turnout and that it does so among some groups more than others.[3] The first has been amply demonstrated by scholarly research (e.g., Tingsten 1937; Powell 1986; Jackman 1987, 2001; Fornos et al. 2004; Blais 2006). Nevertheless, studies testing the second hypothesis have yielded mixed results. This points to an important deficiency in our understanding of how compulsory voting operates: scholars have repeatedly demonstrated that compulsory voting correlates with higher turnout, but we know relatively little about how or for whom compulsory voting laws matter (Blais 2006).

Recent studies of compulsory voting have tried to understand its mechanisms by focusing primarily on variation in its institutional design. Jackman (2001) argues that compulsory voting laws without enforcement are insufficient to raise turnout. A subsequent study by Blais et al. (2003) of 151 elections in 61 democratic countries supports this assertion, finding that turnout is 13 percentage points higher in countries with compulsory voting and enforced sanctions against non-voters. When sanctions are absent in code or in practice, however, there is no discernible effect of compulsory voting laws.[4] Similarly, a cross-national study by Panagopoulos (2008) demonstrates that the nature of sanctions and the degree of enforcement are strong predictors of compliance with mandatory voting laws.

Single-country studies have shone additional light on how compulsory voting changes the turnout calculus. In a careful analysis of the Brazilian case, Power (2009) exploits subnational variation in mandatory voting and demonstrates that turnout is lower among those for whom vot-

poor. While this recent contribution to the literature challenges conventional wisdom, at least for some parts of the world, it similarly points to an unevenness in political participation that is determined by social class.

[3]Policy makers have also periodically advocated compulsory voting for similar reasons. Keyssar (2009) finds that during the 1920s, American politicians expressed concern about decreasing turnout rates among moderate, middle class citizens (185); however, social science research from the same era demonstrated, that it was not the middle class but rather lower-income and minority citizens that were less likely to vote (e.g., Merriam & Gosnell 1924; Arneson 1925). As a result, calls for compulsory voting in the United States were quickly abandoned (Keyssar 2009). Helmke & Meguid (Helmke & Meguid) similarly find that similar strategic (mis)calculations about which groups of voters were more likely to go to the polls on election day drove political parties' decision to adopt compulsory voting in dozens of countries in Western Europe and Latin America throughout the twentieth century.

[4]It should be noted, however, that this finding is sensitive to calculating turnout as a proportion of registered voters. When taken as a proportion of the voting age population, this finding no longer holds.

ing is voluntary (citizens between sixteen and eighteen years of age, and those older than seventy) and higher among those who are most likely to be subject to enforcement due to greater engagement with the state (formal sector workers). Jaitman (2013) similarly exploits an age cutoff for mandatory voting in Argentina and uses a regression discontinuity design to identify a causal impact of compulsory voting laws, which she finds have a greater impact on those below the age cutoff than those above it.

Collectively, these findings show that compulsory voting laws, when they are enforced, have a positive relationship with voter turnout. Nevertheless, the extent to which making voting mandatory reduces the persistent class bias in electoral participation is still largely unknown. Scholars, dating back to Tingsten (1937)'s "law of dispersion," have asserted that higher levels of participation ought to reduce differences among voters. But despite strong evidence that compulsory voting leads to higher voter turnout, its effect on the class composition of those who vote has yet to be definitively determined.

While research measuring the extent to which compulsory voting differently affects rich and poor has been relatively rare, the few studies that have been conducted reach conflicting conclusions. Singh (2011) integrates institutional and individual-level variables in a single cross-national analysis and argues that factors such as income, age, education, and political efficacy matter for an individual's decision to vote, even under strict compulsory systems. In a subsequent study, however, he argues that "the turnout decision is less dependent on age [and] income... where turnout is mandatory" (Singh 2014, 18). Quintelier et al. (2011) also assess the interaction between compulsory voting and characteristics such as gender, education, and age cross-nationally, finding no significant interaction effect between education and compulsory voting. They conclude that "a system of compulsory voting is not effective in reducing inequality, since it simply raises the turnout level for all groups within society, without leveling any differences there might be between groups" (406). Other studies similarly come to conflicting conclusions, with some finding that individual factors like education continue to matter under compulsory systems (Hooghe & Pelleriaux 1998) and others finding that they do not (Gallego 2010).

Political scientists have thus far been unable to determine the relationship between two of the most robust findings in the turnout literature: that socioeconomic characteristics are important determinants of turnout and that compulsory voting increases turnout. The question as to whether compulsory voting laws are sufficient to eradicate the class bias in voter turnout remains open.

The present work seeks to answer this question with respect to Latin America, a region characterized by widespread use of compulsory voting as well as high levels of inequality, making it a fruitful region in which to assess Lijphart's expectations.

Competing Pressures: Compulsory Voting and Inequality in Latin America

Previous research on Latin America reaches mixed conclusions with regards to compulsory voting and unequal turnout. For example, Power (2009) finds that Brazilian states with lower GDP have lower turnout rates, even in the context of enforced compulsory rules, suggesting a persistence of class bias in voter turnout. Nevertheless, Jaitman's (2013) research on Argentina shows that compulsory voting has a greater effect on unskilled citizens than on skilled citizens, suggesting that compulsory voting lessens the inequality in turnout. Furthermore, cross-national research by Fornos et al. (2004), encompassing 77 elections across 18 Latin American countries shows that after controlling for institutional features, including compulsory voting laws, socioeconomic variables do not have a discernible relationship with turnout.[5]

We argue that in order to understand these seemingly contradictory findings, we must situate voter turnout in the context of the competing pressures exerted by two structural conditions prevalent throughout the region: compulsory voting laws and high levels of poverty and inequality. These two factors are expected to shape poor citizens' propensity to vote in radically different ways.

On the one hand, compulsory voting ought to raise turnout among the poor due to the costs that it imposes for abstention. Many countries with compulsory voting initially apply a fine or

[5]We note, however, that Fornos and colleagues do not use individual-level data, but rely on aggregate socioeconomic indicators such as per capita GDP and literacy rates.

require citizens to justify abstention on election day. In countries that employ sanctions for not voting, such as Argentina and Peru, a citizen's national identity document must be stamped with proof that she voted; lack of proof of electoral participation (without justification) may restrict access to public services and public office. While some of the penalties for not voting are most likely to be borne by well-off citizens, such as Bolivia's penalty of not being able to conduct bank transactions or acquire a passport, the initial fines that are applied to those who abstain without official justification impose a heavier burden on those who are poor. These sanctions ought to encourage turnout among low-income citizens by raising the cost of abstention.

At the same time, however, the extraordinarily high levels of inequality in the region, and its manifestation in a range of political, social, and economic forms of exclusion, mean that compulsory voting laws may not do enough to eliminate inequalities across class groups.

A number of other political and socioeconomic factors in the region may work against the turnout-boosting force of compulsory voting. Given our interest in the relationship between socioeconomic status and voter turnout, it is essential to consider the implications of Latin America's historically high rates of poverty and inequality. As Hoffman & Centeno (2003) put it, "the level of inequality found on the continent defies description and belief" (366). By the late 1990s, the GINI coefficients in Latin American countries ranged from 42 to 60, with the bottom 30% of Latin Americans receiving just 7.5% of their country's national income (Portes & Hoffman 2003). These figures have earned Latin America the dubious distinction of most unequal region in the world.

Moreover, neoliberal reforms led to dramatic transformations in the class structures of most countries, including a decline in wages for most workers and the shrinking of the middle class. By the end of the decade, nearly 46% of Latin America's workers were part of the informal sector (Portes & Hoffman 2003, 358). Poverty rates, meanwhile, ranged from 17% in Chile and 22% in Brazil, to 64% in Colombia and 52% in Ecuador, Honduras, and Venezuela.[6]

These high levels of poverty and inequality have interacted with other political phenomena that may further decrease turnout among the poor. Hagopian (2007) documents decreased responsive-

[6]Poverty is defined as the percentage of the population below the national poverty line. Data correspond to 1998 and 1999 and come from the United Nations Millennium Development Goals Indicators.

ness of institutions and growing citizen discontent and disaffection in many countries, conditions that may have important repercussions for electoral participation. Indeed, Weyland (2004) argues that the restructuring of the state brought about by neoliberal reforms caused extensive frustration among citizens, such that it "contributed to the decline in electoral participation" (144).

Compulsory voting laws in Latin America thus face a far greater challenge in achieving equal turnout than in the other settings where they are common, such as Western Europe. In a context with such pervasive socioeconomic inequality, compulsory voting laws will likely be insufficient to eliminate the class bias in turnout.

We argue this is the case because the region's high levels of poverty and inequality are likely to cause disparities that disproportionately affect the poor, depressing their electoral participation even where such participation is mandated by law. To understand why, we draw on the classic models of the calculus of voting, which see the choice to vote as a function of costs and benefits (e.g., Aldrich 1993; Downs 1957; Riker & Ordeshook 1968). Panagopoulos (2008) helpfully adapts this framework to the compulsory voting context, arguing that in countries where voting is mandated by law, the "C term" must take into account not only the cost of voting but also the cost of abstention (459).

With this adapted framework in mind, we can more clearly understand the competing pressures exerted by compulsory voting laws and the region's high levels of poverty and inequality. While strict enforcement of compulsory voting laws may affect an individual's decision to vote by raising the costs of abstention, such laws are unlikely to lower the cost of voting for the poorest citizens. For many low-income citizens, additional voting requirements including registration processes or voter ID requirements, as well as resource-based constraints such as lack of access to transportation, inability to miss work in order to vote (even when voting takes place on Sunday, as is the case throughout Latin America), may prove to be prohibitive costs. The region's high levels of poverty and inequality may thus contribute to structural barriers that lead to higher rates of abstention among the poor, even under strict compulsory voting rules. We explore this claim below following our main analysis.

Latin America is thus a unique and highly complex region because a variety of compulsory voting laws coexist with high rates of poverty and inequality, presumably exerting opposite pressures on citizens' propensity to vote. Our analysis therefore presents a rich opportunity to test the impact of compulsory voting laws and enforcement in a setting where socioeconomic conditions would appear to be conducive to high disparities in turnout across different class groups. In the next section we outline the hypotheses we seek to test in order to address this important yet unresolved question in the literature.

Observable Implications

The preceding discussion regarding competing pressures on voter turnout in Latin America leads to a number of observable implications. First, in light of recent scholarly work demonstrating that compulsory voting laws are only meaningful when they are enforced, we must disaggregate compulsory voting systems in Latin America. Compulsory voting in the region dates back to the early twentieth century, when it was first adopted in Argentina (Helmke & Meguid Helmke & Meguid), but there is considerable variation in its institutional design across countries (see Table 1 below). This variation allows us to test our expectation that countries that enforce compulsory voting laws should see higher turnout rates than those without such laws or those that do not enforce sanctions.

Second, we seek to determine whether compulsory voting laws are more likely to affect some citizens than others. The study by Jaitman (2013), cited above, provides important evidence that compulsory voting laws may have a greater impact on low-income citizens than on those with higher income. This may be because, as discussed above, compulsory voting laws raise the cost of abstention in ways that may disproportionately affect the poor, such as through fines. Moreover, given the higher rates at which the advantaged of society tend to vote and the much lower rates at which disadvantaged citizens vote, it stands to reason that compulsory voting will bring more disadvantaged citizens to the polls because they have greater room to grow. We therefore expect that compulsory voting laws will most significantly affect the socioeconomically disadvantaged.

Finally, while we expect that *across* countries with different levels of compulsory voting we should see an increase in turnout—particularly among the poor—as sanctions and enforcement become more strict, we further expect that *within* such countries, the class bias in turnout will persist, even where compulsory voting laws are enforced. Given the competing pressures framework we outlined in the preceding section, we propose that compulsory voting is only sufficient to improve but not to eliminate the class bias common to voter turnout due to structural barriers that are likely to disproportionately affect the poor. Following our main analysis, we propose and test possible mechanisms to account for why unequal turnout persists in Latin America, even in countries that employ sanctions against non-voters.

Data and Design

Our analytical approach to understanding the relationship between compulsory voting and socioeconomic class to voter turnout weds individual and institutional data. While much of the literature on cross-national voter turnout relies on aggregate measures (e.g., Fornos et al. 2004), we propose that such measures are inferior because they may mask important variation—especially socioeconomic variation in a region characterized by extreme inequality. As such, we seek to test our hypotheses about socioeconomic status and voter turnout using individual-level data from high-quality survey research. Specifically, we draw on the rich data from the AmericasBarometer survey, administered throughout Latin America by the Latin American Public Opinion Project (LAPOP).[7]

Our dependent variable is self-reported turnout. The AmericasBarometer surveys ask respondents in every sampled country if they voted in the last presidential election. We believe that this prompt about the last presidential election helps respondents to sort out the various contests that they might otherwise confuse as being the *last* election. Furthermore, voters tend to be more interested in presidential elections than lower-ballot contests, so we expect that recalled turnout for

[7]The authors thank the Latin American Public Opinion Project (LAPOP) and its major supporters (the United States Agency for International Development, the Inter-American Development Bank, and Vanderbilt University) for making the data available.

a presidential election will be more accurate. We recognize, of course, that self-reported voter turnout is not a perfect measure—survey respondents tend to over-report voting and this over-reporting is thought to be non-random (e.g., Bernstein et al. 2001; Silver et al. 1986). Nevertheless, we use self-reported turnout, despite its limits, because it is the best available individual-level measure of turnout, thereby allowing us to model turnout as a function of individual-level and institutional factors. Furthermore, in order to balance the amount of bias introduced by potentially faulty voter recall with the desire to include all eighteen Latin American countries in the survey, we establish a two-year cutoff between the date that the survey was conducted and the date of the presidential election referenced in the survey. Data used in the analysis below correspond to presidential elections taking place between 2006 and 2012.[8]

Our independent variables are measured at the individual and country level. We draw on two of the most common indicators of socioeconomic status: education and wealth.[9] Education is measured in a very straightforward way, asking respondents which was their last year of schooling. Values range from zero to eighteen years. The AmericasBarometer surveys include an income question; nevertheless, due to relatively high rates non-response, a lack of validation data, and the difficulty of comparing income categories across countries, the Latin American Public Opinion Project, which administers the AmericasBarometer survey, recommends the use of a relative wealth measure rather than the income variable (Cordova 2008). We follow these guidelines, computing a relative wealth index, which is the principal component derived from several measures of household assets such as televisions, cars, cell phones, and indoor plumbing.[10] We also include from the AmericasBarometer data individual-level controls for age, sex, martial status, and attention to news, which we conceive of as a cross-national measure of political interest.

Given our interest in how these factors relate to turnout in different types of compulsory voting systems, we supplement the LAPOP data with several country-level institutional variables,

[8]The list of presidential elections used for each country can be found in the Appendix. The findings presented below are robust to including or substituting additional elections for each country dating back to 2002.

[9]We would prefer to also include a measure of occupational prestige; however, the AmericasBarometer surveys do not consistently ask the necessary occupation and employment questions.

[10]See the Appendix for a description of all variables, including question wording.

including the type of compulsory voting rules used in each country. Latin American countries vary not only in the existence of compulsory voting laws—fourteen of the eighteen countries practice or have recently practiced some form of compulsory voting—but also in the degree to which such laws are enforced. Those countries where voting is voluntary receive a score of 0 in the scale, while countries that have constitutional provisions making voting mandatory but without sanctions, and those countries with sanctions that are not enforced, receive a score of 1 and 2, respectively. Countries that actually enforce sanctions receive a score of 3. In Table 1 we present the values assigned to each country in our data.[11]

Table 1: Variation in Compulsory Voting across Latin America

CV scale	Description	Countries
0	No CV	Colombia, Guatemala, Nicaragua, and Venezuela
1	CV, no sanctions	Costa Rica, Dominican Republic, El Salvador, Honduras, Mexico, and Panama
2	CV, unenforced sanctions	Argentina and Paraguay
3	CV, enforced sanctions	Bolivia, Brazil, Chile (pre-2012), Ecuador, Peru, and Uruguay

As Blais (2006) has noted, studies of compulsory voting "do not sort out…the specific contribution of sanctions and their degree of enforcement" (113). Our study therefore aims to shed some light on these processes by more carefully considering how socioeconomic status relates to turnout across countries with and without compulsory voting, but also within compulsory voting countries based on the extent to which sanctions against voters are in place and enforced. This scale allows us to differentiate across different types of compulsory systems, and test whether the finding that compulsory voting only boosts turnout when it is enforced (Panagopoulos 2008; Singh 2011) holds for Latin America.

In keeping with the turnout literature, we include a measure for the competitiveness of the presidential election referenced in the survey question. Following the Vanhanen Index of Democ-

[11] Detailed information about how countries were coded can be found in the Appendix.

ratization, we measure competition by subtracting from 100 the percentage of the vote obtained by the largest vote-getter in the presidential election.[12] We also use a modified Freedom House measure to control for the level of democracy in each country.

In order to take advantage of individual- and country-level data, we fit a hierarchical logistic regression model with varying country-intercepts. The dependent variable is respondents' self-reported turnout in the most recent presidential election, which is modeled as a function of education, wealth, and the level of compulsory voting. We include individual-level controls for age, gender, whether the subject lives in a rural area, marital status, and news consumption.

Analysis

In order to understand the potential effect of compulsory voting on electoral participation, we present in Table 2 self-reported turnout rates by level of compulsory voting and enforcement.[13] We present for comparison the official turnout figures.[14] Although we do not control for other factors here, this simple analysis provides initial support for our hypothesis: voter turnout is higher in countries where non-voters face enforced sanctions. Differences in self-reported turnout across the first three groups are small, although statistically significant at the 95% confidence level. Nevertheless, self-reported and official turnout in the most strict compulsory system is much higher than turnout under other compulsory voting regimes.

As Table 2 demonstrates, voter turnout in countries with enforced sanctions is extraordinarily high. Our primary interest, however, is in whether socioeconomic variables make a difference—even in such cases where self-reported turnout exceeds 90%. Before turning to multivariate models,

[12] If a runoff was held, the vote share used corresponds to the first round of voting. A runoff was held in five of the eighteen elections in our analysis.

[13] For Table 2 and subsequent tables, the labels "Not compulsory," "CV, No Sanctions," "CV, Unenforced Sanctions," and "CV, Enforced Sanctions" correspond to scores of 0 through 3 on the compulsory voting scale.

[14] Discrepancies between official turnout rates and self-reported turnout in these surveys vary widely by country. For countries where voting is voluntary and those where compulsory voting laws exist without sanctions, the discrepancy is approximately 10%. Meanwhile, countries where sanctions are in place but are not enforced, and those where sanctions are enforced have a discrepancy between official turnout rates and self-reported turnout of about 7%. For purposes of comparison, in the United States, the discrepancy between official turnout rates and those reported in surveys can be as high as 20% (Berent et al. 2011)

Table 2: Self-reported and official turnout by level of strictness

		Countries with Compulsory Voting		
	No CV	CV, No Sanctions	CV, Unenforced Sanctions	CV, Enforced Sanctions
Self-reported	75%	73%	78%	91%
Official	65%	63%	70%	84%
N (survey respondents)	6,191	9,194	2,991	11,911

Sources: AmericasBarometer; International IDEA

we present basic analysis of voter turnout by level of education and enforcement of compulsory voting (see Figure 1). Panels correspond to levels on our compulsory voting scale, ranging from voluntary voting to compulsory systems with enforced sanctions. Figure 1 reveals two important tendencies. First, voters of all education levels are more likely to vote when sanctions are enforced. The biggest turnout gains, however, are among less educated respondents: individuals with no formal education vote at a rate of about 74% under a system in which voting is completely voluntary and 85% in a system with compulsory voting laws and enforced sanctions. Compulsory voting thus appears to significantly reduce the class bias in voter turnout, largely by raising turnout among the poor.

At the same time, however, we observe a second tendency: in all levels of compulsory voting, voter turnout generally increases with years of schooling. Thus, even at the highest level of compulsory voting, where 91% of survey respondents report having voted in the most recent presidential contest, voter participation does in fact vary with level of education. Turnout rises from 85% to 90% just by shifting from no formal education to some years of primary school. Although middling levels of education seem to do little to increase turnout, there is a jump again in turnout rates among those who have completed college. This analysis suggests that scholars such as Fornos et al. (2004) may have been too quick to dismiss the importance of socioeconomic characteristics to voter turnout.

Regarding our hypothesis about differences in turnout among countries with varying degrees of compulsory voting, one additional observation stands out from both Table 2 and Figure 1. Turnout

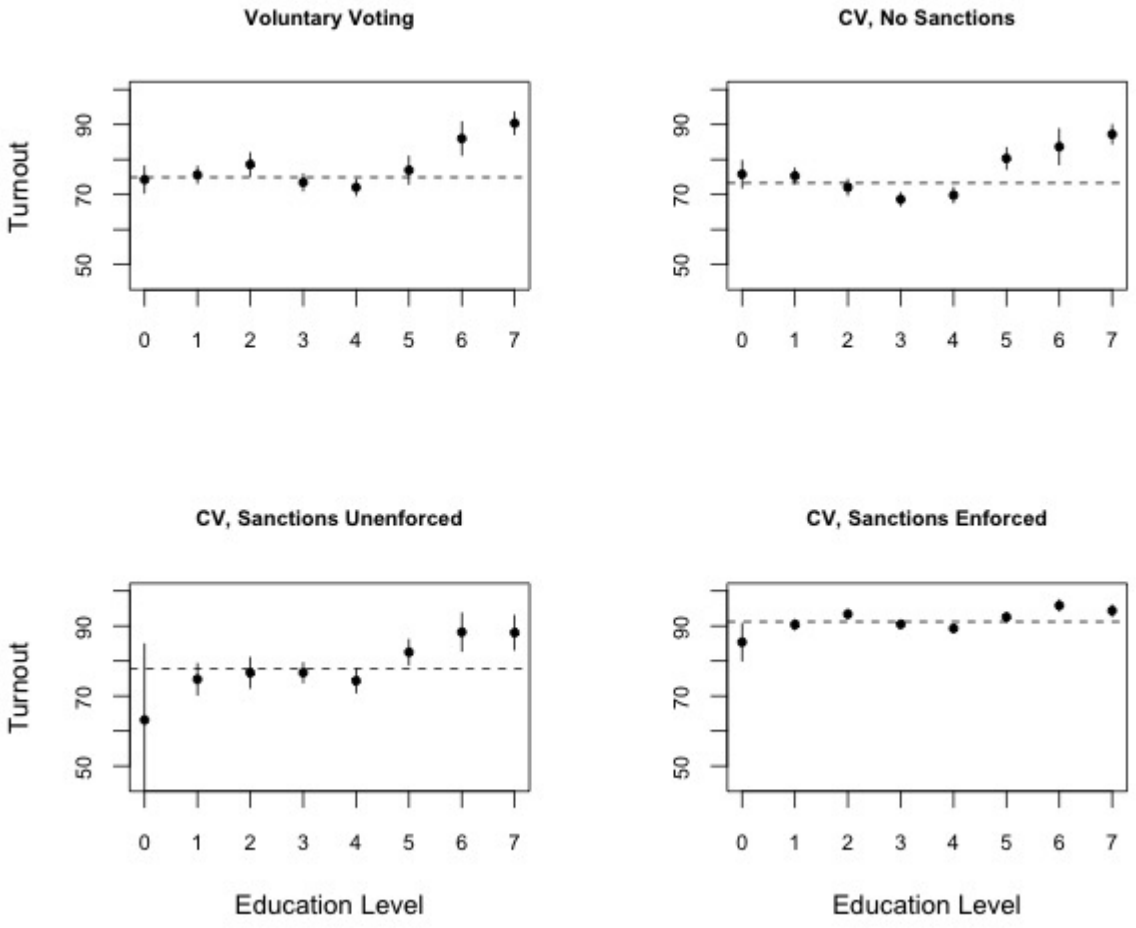

Figure 1: Self-Reported Turnout by Years of Education and Compulsory Voting Regime This figure compares self-reported turnout rates by education levels across countries in each category of our CV scale, with 95% confidence intervals. Dashed lines represent the mean turnout rate for countries in each category of the CV scale. For ease of presentation, we have collapsed levels of education such that education here ranges from no formal schooling (0) to graduate studies (7).

levels are relatively similar in the top two panels and the bottom left panel. In other words, in a naive analysis that does not control for other confounders, there is little difference in turnout rates across countries with no compulsory voting, countries with compulsory voting but no sanctions, and those with sanctions that go unenforced. Though this is intuitive, it suggests that voters appear to be able to discern when sanctions exist but are not enforced. As a result, the biggest increase in turnout appears to come when compulsory voting is actually enforced. This supports the findings of recent studies showing that compulsory voting may only make a difference in raising turnout levels when it is accompanied by enforcement.

We turn to multivariate hierarchical analysis in order to more rigorously test our hypotheses and to determine whether the relationships observed in Table 2 and Figure 1 are robust to the inclusion of standard control variables. Table 3 presents our main results. Models 1 and 2 are nearly identical, incorporating socioeconomic indicators and other individual-level demographics as well as country-level measures of democratic health and electoral competition. The models diverge only in terms of how they conceive of compulsory voting. Model 1 includes a dummy variable that takes a value of 1 if any form of compulsory voting is in place in a given country, but Model 2 further disaggregates countries that have compulsory voting laws without sanctions, compulsory voting laws with sanctions that are not enforced, and compulsory voting laws with enforced sanctions. We use these two conceptualizations of compulsory voting in order to tease out whether compulsory voting works the same way regardless of its application or whether its effects are contingent on enforcement of sanctions.

Model 1 provides an important confirmation of recent findings in the compulsory voting literature. We interpret the coefficient on compulsory voting in Model 1 to suggest that moving from voluntary voting to any form of compulsory voting corresponds with a very modest, 1.7 percentage point increase in the average respondent's likelihood of voting,[15] a difference that is not statistically significant at conventional levels. This suggests that passing a compulsory voting law or mandating voting in the national constitution are unlikely to dramatically influence the turnout calculus of the average citizen once individual-level socioeconomic characteristics are taken into account. On the other hand, the estimates in Model 2 suggest that compulsory voting raises the probability of voting primarily when sanctions are in place and enforced. All else equal, compared to the baseline of no compulsory voting, the average respondent is not reliably more or less likely to vote if a country has compulsory voting laws with no sanctions or compulsory voting laws that are coupled with unenforced sanctions. Nevertheless, if compulsory voting laws include regularly enforced sanctions against non-voters, the predicted probability of voting rises about 9 percentage

[15] All predicted probabilities are computed using Stata 12's `margins` command. For the purposes of computing predicted probabilities in this hierarchical framework, other independent variables are held at their observed values and the varying country-level intercept is set to zero.

Table 3: Individual and Institutional Determinants of Turnout

	Model 1	Model 2
Education	0.17**	0.17**
	(0.01)	(0.01)
Wealth	0.01	0.01
	(0.02)	(0.02)
Age	0.03**	0.03**
	(0.00)	(0.00)
Female	0.00	0.00
	(0.03)	(0.03)
Rural	0.18**	0.18**
	(0.04)	(0.04)
Married	0.50**	0.50**
	(0.04)	(0.04)
News	0.23**	0.23**
	(0.02)	(0.02)
CV-Dummy	0.17	
	(0.49)	
CV-No Sanctions		-0.36
		(0.29)
CV-Unenforced Sanctions		-0.01
		(0.33)
CV-Enforced Sanctions		0.94**
		(0.29)
Competitive Election	-0.00	-0.01
	(0.02)	(0.01)
Freedom House	0.06	0.04
	(0.10)	(0.05)
N	29,899	29,899
Countries	18	18

Standard errors in parentheses
** p<0.01, * p<0.05

points from 81% in the baseline category, where voting is voluntary, to about 90%, a difference that is statistically significant at the 95% confidence level. This confirms the preliminary estimates presented in Table 2 and Figure 1 and supports our hypothesis that turnout is sensitive to varying levels of enforcement. Though lower levels of enforcement yield negligible differences in the

likelihood of voting, the addition of enforced sanctions considerably raises the likelihood of voting.

Turning to individual-level factors, both models provide evidence supportive of our hypothesis regarding the positive relationship between socioeconomic status and turnout. Education has a positive and significant relationship with turnout, such that, on average, each additional level of education raises the probability of voting by more than two percentage points. Furthermore, a shift from the minimum value of education to the maximum value corresponds with an 17 percentage point increase in the likelihood of voting, a difference that is statistically significant at the 99% level. Wealth, on the other hand, has a more modest relationship with turnout. Controlling for education and other factors, a shift from the lowest to highest wealth quintile corresponds to less than a 1-point increase in the likelihood of voting, a difference that fails to attain statistical significance at standard thresholds.[16]

We include in our analysis other individual-level characteristics thought to influence individuals' propensity to vote. The relationships between turnout and the indicator variables for rural residence and marriage, for instance, are consistent with the broader literature: individuals living in rural areas are more likely to vote than those living in cities, while marriage appears to raise the probability of voting by almost 6 percentage points. In addition, individuals who watch or read the news with greater frequency are also more likely to vote; this stands to reason if we interpret news consumption as a proxy for political interest.

We find that regardless of whether compulsory voting is treated naively as an indicator variable, as in Model 1, or as degrees of enforcement, as in Model 2, the estimated coefficients of the individual-level socioeconomic indicators are nearly identical. While Model 2 demonstrates that compulsory voting can successfully increase turnout when sanctions are enforced, it also shows that the positive correlation between socioeconomic status and turnout is robust to variation in compulsory voting laws. We take this as evidence for our hypothesis that socioeconomic status ought to serve as an important predictor of turnout even under strict compulsory voting systems.

[16]When the education variable is excluded from the model, the relationship between turnout and wealth is larger and statistically significant. Additionally, when the wealth variable is instead excluded, the estimated relationship between education and turnout remains relatively unchanged.

Table 4: Socioeconomic Determinants of Turnout by Compulsory Voting Law

	Model 3	Model 4	Model 5	Model 6
		CV, No	CV, Sanctions	CV, Sanctions
	No CV	Sanctions	Unenforced	Enforced
Education	0.22**	0.16**	0.16**	0.14**
	(0.02)	(0.02)	(0.04)	(0.03)
Wealth	-0.02	-0.01	0.04	0.04
	(0.03)	(0.02)	(0.05)	(0.03)
Age	0.04**	0.04**	0.03**	0.02**
	(0.00)	(0.00)	(0.00)	(0.00)
Female	0.02	0.03	-0.27**	0.06
	(0.06)	(0.05)	(0.10)	(0.07)
Rural	0.20**	0.18**	0.16	0.20**
	(0.08)	(0.06)	(0.12)	(0.08)
Married	0.47**	0.33**	0.82**	0.69**
	(0.08)	(0.06)	(0.12)	(0.08)
News	0.27**	0.19**	0.21**	0.25**
	(0.04)	(0.03)	(0.07)	(0.04)
Competitive Election	0.00	-0.01	-0.10**	-0.00
	(0.00)	(0.02)	(0.01)	(0.01)
Freedom House	-0.76**	0.04		0.02
	(0.08)	(0.08)		(0.04)
N	6,051	9,135	2,952	11,761
Countries	4	6	2	6

Standard errors in parentheses
** p<0.05, * p<0.10

In order to more systematically test this relationship between socioeconomic status and turnout across compulsory voting regimes, we disaggregate the countries in our sample by the extent to which voting is compulsory and sanctions levied. The results of these additional models are presented in Table 4.[17] Model 3 contains estimates for only countries with voluntary voting, Model 4 for compulsory voting without sanctions, Model 5 for compulsory voting with unenforced sanctions, and Model 6 for countries that have compulsory voting with sanctions enforced against non-voters.

Our main socioecionomic indicator, education, operates consistently across levels of compul-

[17] In analysis not shown here we trade the hierarchical modeling approach for a fixed-effects modeling approach. Results are nearly identical across these types of models, so we present the hierarchical models for the sake of comparison with the models contained in Table 3.

sory voting, with a strong positive relationship with turnout in all models. Wealth, meanwhile, is not significant in any of the models, as occurred in the analyses shown in in Table 3. However, in models not shown here, wealth remains consistently positive and significant when education is not included.

We look more closely at the role of education in Figure 2. We present the estimated relationship between education and voting across levels of compulsory voting and enforcement. Each panel corresponds to the appropriate model in Table 4 and represents the predicted probability of voting across levels of education. The relationship is obviously most dramatic in the first panel, countries in which voting is purely voluntary: controlling for other individual- and country-level characteristics, the most educated are predicted to vote at a rate that is about 24 percentage points higher than the least educated. In countries with compulsory voting but no sanctions or sanctions that are not enforced, the gap in predicted probability of voting between the most and least educated respondents is approximately 16 percentage points. Finally, in countries that have compulsory voting and sanctions levied against non-voters, the education gap in turnout is smaller, but still robust—approximately 7 percentage points and statistically significant at the 99% level.

These differences in predicted probabilities reveal that there is indeed less socioeconomic bias in compulsory voting systems: the educational advantage is more than three times larger in voluntary voting countries as compared to countries with compulsory voting and enforced sanctions. Nevertheless, the results in Figure 2 and Table 4 provide strong evidence for our hypothesis that the class bias in voter turnout persists in the presence of strict compulsory voting laws. Even in the most stringent compulsory voting regimes, individuals with higher levels of education are considerably more likely to vote than their less educated and unemployed counterparts. While Figure 2 is especially illustrative of how the relationship between education and turnout diminishes somewhat as voting becomes obligatory and enforced, the relationship remains robust across all four classifications of compulsory voting regimes. That is, compulsory voting and its accompanying sanctions serve to reduce considerably but not eliminate the class bias in voting. Across all levels of compulsory voting, the better-off in society remain more likely to vote.

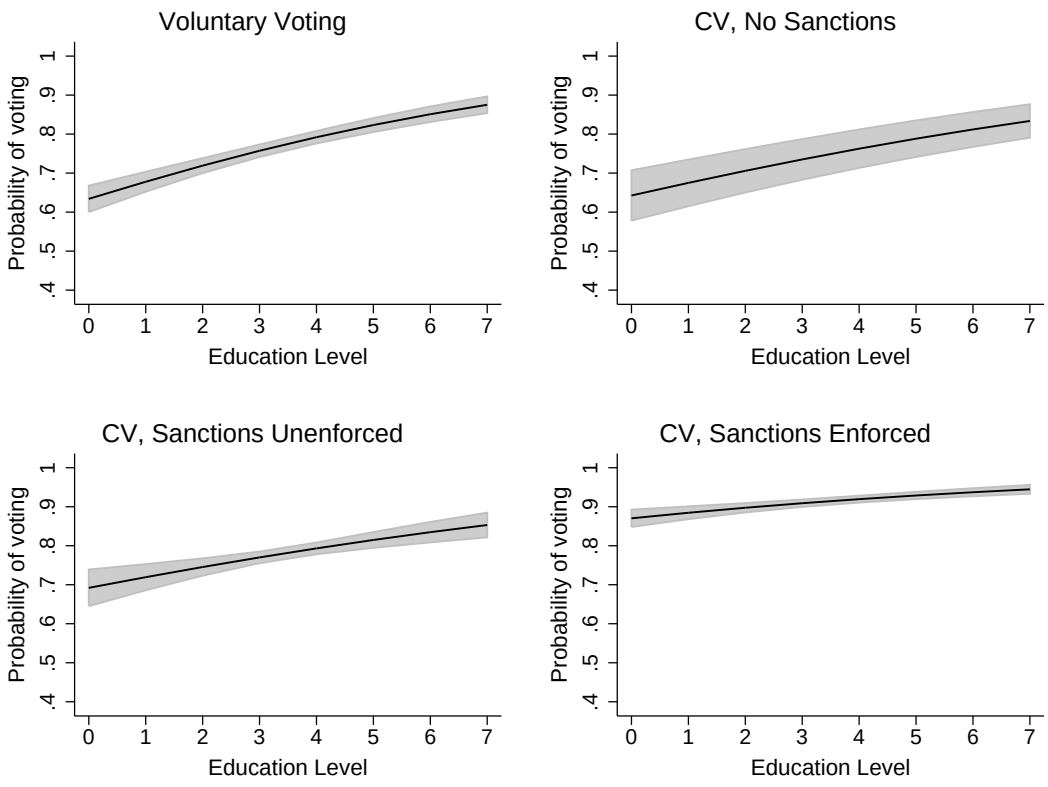

Figure 2: Probability of Voting by Education Level and Compulsory Voting Regime This figure presents the predicted probability of having voted in the last presidential election given level of education across countries in each category of our CV scale. Grayed area represents 95% confidence intervals. Predicted probabilities control for individual demographics and country-level institutional variables.

Potential Mechanisms for the Persistence of Class Bias

Why might it be the case that compulsory voting rules are insufficient to eliminate the class bias in voting? The preceding analysis suggests that part of the story has to do with the enforcement of sanctions—the difference in predicted turnout between the better and less-well off decreases when sanctions are regularly enforced. Still, even in the strictest of compulsory voting regimes, there is an enduring and statistically significant class bias.

In previous sections we suggested that high levels of poverty and inequality in Latin America may act as a competing force in shaping citizens' propensity to vote, even where compulsory voting rules are consistently enforced. The poor in Latin America face a range of forms of social and political exclusion, such that other structural or institutional barriers may act as an impediment

to electoral participation among the most disadvantaged citizens. In this section, we test a specific institutional barrier, the requirement that citizens present an identity document in order to register to vote and to cast a ballot on election day, as a mechanism for the persistence of the class bias in systems where voting is mandatory.

But there may be another reason why compulsory voting may not close the inequality gap in turnout. If compulsory voting operates as Tingsten (1937) conjectures, as an enshrinement of a community norm, it is less clear that the less-advantaged in society would feel especially compelled by compulsory voting laws. Insofar as the disadvantaged in society are less likely to either know the norm or to feel part of the group to which the norm pertains, they may actually feel little constraint. A lack of interest in electoral politics, or the belief that electoral outcomes will have little impact on daily life, may be stronger among the most marginalized sectors of society, leading to higher rates of abstention even when such abstention is costly. We therefore also test an alternative mechanism, that apathy accounts for non-voting among the poor.

We test these hypotheses by drawing on additional data from the AmericasBarometer. In a limited number of early surveys, the AmericasBarometer included a question to non-voters that probed exactly why they abstained. We now draw on the 2004 and 2006 waves, which asked non-voters to select one reason out of the many provided reasons for having abstained.[18] We apply the same cutoff as in the previous analysis, including only data from countries that had a presidential election within two years prior to the survey. Of the 5,447 respondents that answered this question, the two most popular reasons were a general lack of interest (14%) and lacking the necessary identification (19%). Although there were nine additional reasons provided, the other most popular reason was the catch-all category of "some other reason," which attracted 23% of respondents.[19]

The analysis which follows focuses on the two most common reasons for having abstained: apathy and lacking necessary identification. Not only are these the most common reasons for ab-

[18] As with the preceding analysis of turnout, we restrict the following analysis to those respondents who were asked about their abstention within two years of the election from which they report having abstained.

[19] See Appendix for a full list of responses.

staining, but they also map well onto our hypotheses about structural barriers and political apathy. For ease of analysis and interpretation we transform the abstention question into a trichotomy—differentiating between citizens who cite apathy, those who cite a lack of identification, and those who abstained for any other reason.[20] We model respondents' self-reported motivation using a multinomial logistic framework with the catch-all category and other less common reasons as the baseline outcome. As with our models predicting turnout, we account for respondents' education and wealth, as measures of socioeconomic well being, and we additionally control for gender, age, marital status, news consumptions, and whether or not the respondent lives in a rural area. Finally, we control for country-level variables, including electoral competitiveness and the health of the country's democracy.

Table 5 presents the results of the multinomial logit model separately for countries without compulsory voting, those in compulsory voting countries without sanctions, and those in countries with strict compulsory voting.[21] We focus especially on Model 9, the estimates for respondents who abstain despite their country's compulsory voting laws and enforced sanctions, but we include the other models for comparison's sake.

In accordance with our expectations, educational attainment and wealth are negatively related to citing lack of an ID card as a reason for abstaining. That is to say that the poor and less educated are much more likely to abstain due to lacking an ID than are the wealthy and highly educated. The poor and less educated are thus disproportionately affected by this institutional barrier, abstaining even when voting is required by law. Given this strong negative relationship between wealth and education and lacking ID, it appears that the requirement that citizens present an ID may make the costs of voting prohibitive for many disadvantaged citizens.

On the other hand, wealth and education are positively related to citing a lack of interest. That is, the well-off in society are more likely to attribute their abstention to a personal disinterest

[20]For clarity's sake we omit from this analysis those respondents who report being too young to have voted in the election. Results are unchanged if these respondents are included.

[21]The third level in our scale, Compulsory Voting with Unenforced Sanctions, is excluded from the analysis because the two countries in this category, Argentina and Paraguay, were not included in the 2004 wave and did not make the two-year presidential election cutoff in the 2006 wave. Also, because we are interested in the persistence of abstention by the poor in compulsory voting regimes, we exclude from this analysis voters in voluntary voting countries.

Table 5: Motivations for Abstaining by Compulsory Voting Law

	Model 7: No CV		Model 8: CV, No sanct.		Model 9: CV, Enf. sanct.	
	Apathy	No ID card	Apathy	No ID card	Apathy	No ID card
Education	-0.10*	-0.13**	-0.07	0.03	0.26**	-0.35**
	-0.05	-0.05	(0.05)	(0.06)	-0.09	-0.09
Wealth	0.21**	-0.06	0.05	-0.18**	0.05	-0.23**
	-0.07	-0.06	(0.06)	(0.07)	-0.11	-0.11
Age	0.00	-0.04**	0.00	-0.05**	-0.01	-0.01
	-0.01	-0.01	(0.00)	(0.01)	-0.01	-0.01
Female	0.02	0.20	0.08	0.16	0.29	0.22
	-0.15	-0.12	(0.12)	(0.14)	-0.22	-0.23
Rural	-0.19	0.00	0.08	-0.39**	0.88**	0.25
	-0.21	-0.15	(0.14)	(0.17)	-0.33	-0.28
Married	-0.02	-0.38**	-0.00	-0.76**	-0.23	-0.46*
	-0.17	-0.15	(0.14)	(0.23)	-0.27	-0.28
News cons.	0.08	-0.01	-0.05	0.02	-0.12	0.15
	-0.08	-0.06	(0.06)	(0.08)	-0.12	-0.13
Competitive election	0.02*	0.12**	0.06**	0.05**	0.03	0.06**
	-0.01	-0.01	(0.01)	(0.02)	-0.02	-0.01
Freedom House	0.02	0.44**	-0.06	-0.28**	0.54**	-0.18**
	-0.09	-0.09	(0.07)	(0.08)	-0.11	-0.08
N	1,964	1,964	2,011	2,011	902	902

Standard errors in parentheses
** p<0.05, * p<0.10

as opposed to a structural barrier. Figure 3 makes clearer this distinction in the motivations of the advantaged and disadvantaged citizens in a compulsory voting regime where sanctions for abstention are enforced. The likelihood of citing apathy as a reason for not voting increases with education, while those with lower educational attainment are far more likely to face the structural barrier of lacking the necessary documents.

Although preliminary, these findings are consistent with the broader problem of undocumented populations in Latin America. Large proportions of citizens, and eligible voters, lack official documentation such as national ID cards and even birth certificates. A study by the Inter-American Development Bank found that in countries such as Bolivia, Ecuador, and Guatemala, between 10% and 20% of children do not receive birth certificates, with higher rates in rural areas (Harbitz & del Carmen Tamargo 2009, 7). The same study also found that similar proportions of the

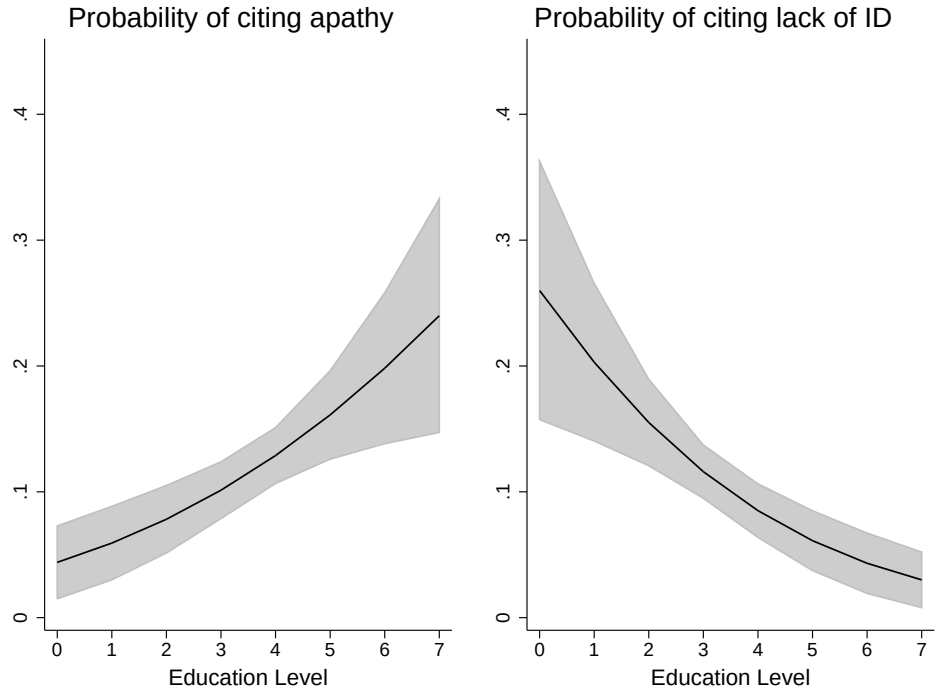

Figure 3: Motivation of Abstention by Education Level

This figure compares the modeled rates of citing apathy or lack identification as motivation for abstaining among respondents in countries with compulsory voting and enforced sanctions against non-voters. The shaded area represents the 95% confidence interval.

adults lack national identity cards, including as many as 30% of Bolivians and 40% of indigenous Guatemalans. As we might expect, the problem of lacking identity documents is not evenly distributed across the population. A report by the Carter Center found that the poor, particularly the rural poor and indigenous communities, were far more likely to be undocumented, and therefore disenfranchised (Wang 2013, 24). Although there is considerable variation across countries,[22] lacking birth certificates or national identity cards are important barriers to the exercise of citizenship that are disproportionately borne by the poor.

Thus, while compulsory voting laws are an important tool for raising voter turnout when they are enforced, they may do little to address broader structural impediments that disproportionately affect the poor. The sanctions levied in strict compulsory voting systems may raise the costs associated with abstention, but these may have little impact on low-income citizens who already

[22]The Carter Center report highlights Panama, Chile, Mexico, and Peru as cases with near universal documentation of their populations or that have made great improvements (Wang 2013, 28).

lack basic identity documents. Meanwhile, compulsory voting laws do little to lower the cost of voting for these citizens.

Conclusion

The analyses presented here represent an effort to reconcile two highly consistent findings in the political science literature: that socioeconomic characteristics are an important determinant of electoral participation, and that compulsory voting raises turnout when it is enforced. Existing studies that have looked jointly at the relationship between these two factors and electoral turnout have yielded mixed results. Our findings support previous studies that compulsory voting laws considerably raise turnout, primarily among the poor. At the same time, however, our analysis also provides some evidence that there are limits to what compulsory voting can achieve.

While compulsory voting laws that are strictly enforced bring more people to the polls, it is still the case that disadvantaged citizens are considerably more likely to abstain. For instance, our models suggest that the education bias is less than half as large in countries with compulsory voting and enforced sanction as it is in countries with purely voluntary voting. Nevertheless, within countries with enforced sanctions against non-voters, citizens with only a primary education are still at least three times more likely to abstain than those with a completed college education.

We further demonstrate that at least one factor underlying the persistence of the class bias in turnout, even in countries with strict compulsory voting laws, is the prevalence of structural barriers that disproportionately affect the poor. As we show in our analysis above, poor people were more likely to cite the lack of an identity document as a reason for not voting, while their more well-off counterparts were more likely to cite a lack of interest.

The persistence of the class bias in voter turnout in Latin America despite widespread use of compulsory voting, and its possible ties to the region's endemic problems that disproportionately affect the poor, raise a number of questions about the electoral participation of the poor and how compulsory voting laws may intervene.

First, we must consider the role of clientelism, a highly prevalent form of party-voter linkage that may serve to *increase* turnout among the poor. As Stokes (2005) demonstrates in an analysis of the infamous Peronist Party machine in Argentina, clientelistic parties are most likely to target poor voters, a finding generally supported by the literature on clientelism (e.g., Kitschelt & Wilkinson 2007). To the extent that "poverty predicts clientelism" (Stokes 2005, 322), this practice could have important implications for turnout among the poor. Indeed, Nichter (2008) introduces the concept of "turnout buying," arguing that parties may in fact be paying their low-income supporters—who would otherwise be inclined to not vote at all—to turn out on election day. Under either conception of clientelism, then, this practice may indeed serve to increase turnout among the poor.

Although our data do not allow us to directly test the impact of clientelism, it is worth considering how it may interact with compulsory voting. If Stokes is correct and parties seek to target poor voters who would be inclined (or obligated) to vote anyway, its prevalence should not vary across different compulsory systems (enforced vs. unenforced). On the other hand, if Nichter's model of clientelism more closely corresponds to the situation in Latin America, we should be less likely to observe clientelism in countries where compulsory voting rules are enforced, since citizens are already legally compelled to turn out to vote. Our finding that structural barriers such as the lack of an identity document keeps many poor people away from the polls on election day further raises the question of why clientelistic politicians in countries with large numbers of undocumented citizens have not sought to boost turnout by facilitating access to identity documents in exchange for electoral support.

In addition to the role of clientelism, we must also consider the potential policy implications of our findings. The classic Meltzer & Richard (1981) model tells us that the level of redistribution in a democracy will depend on whether the income of the median voter is greater or less than the mean income. Mahler (2008), however, correctly points out that the original model assumes that the likelihood of voting is distributed evenly across the electorate. Drawing on evidence from developed democracies in Europe and North America, the author demonstrates that (1) the income distribution of the electorate becomes more skewed as turnout rates decline, and (2) turnout rates

are positively related to the level of government redistribution in developed democracies. The author concludes that "the underlying mechanism linking turnout and redistribution is the income skew of electoral turnout" (178). While we do not have the necessary data to test this relationship in Latin America, our findings indicate that it is an important area for further research. Our analysis demonstrates the persistence of class bias in turnout rates, even in an institutional environment that favors universal turnout. To the extent that individuals who vote may hold different preferences from those who do not vote, this class bias may have important implications for redistributive policies, a question worth further examination in the context of the most unequal region in the world.

Appendix A: Countries and Elections Used in Our Analysis

Country	Survey Wave	Election Year	Election Type
Argentina	2012	2011	Presidential and Legislative
Bolivia	2010	2009	Presidential and Legislative
Brazil	2012	2011	Presidential and Legislative
Chile	2010	2009	Presidential and Legislative
Colombia	2012	2010	Presidential and Legislative
Costa Rica	2012	2010	Presidential and Legislative
Dominican Republic	2010	2008	Presidential
Ecuador	2010	2009	Presidential and Legislative
El Salvador	2010	2009	Presidential and Legislative
Guatemala	2012	2011	Presidential and Legislative
Honduras	2010	2009	Presidential and Legislative
Mexico	2008	2006	Presidential and Legislative
Nicaragua	2012	2011	Presidential and Legislative
Panama	2010	2009	Presidential and Legislative
Paraguay	2010	2008	Presidential and Legislative
Peru	2012	2011	Presidential and Legislative
Uruguay	2010	2009	Presidential and Legislative
Venezuela	2006-2007	2006	Presidential

Appendix B: List of Variables

Individual-level Explanatory and Control Variables

All individual-level data come from the AmericasBarometer survey administered by the Latin American Public Opinion Project.

1. **Education:** Measures years of education achieved by the individual respondent, and takes on values from 0 to 18. *Question wording: What was the last year of schooling that you completed or passed?*

2. **Wealth:** Following Cordova (2008) we use a relative wealth measure rather than the income variable. The relative wealth index is computed as principal component derived from several measures of household assets. These questions asked whether the respondent had each of the following: a television, a refrigerator, a conventional telephone, a cellular telephone, a vehicle, a washing machine, a microwave oven, indoor plumbing, an indoor bathroom, and a computer. The index was computed separately for each year and country and for rural and urban areas.

3. **Rural:** Indicator variable which takes a value of 1 if the respondent lives in a rural area.

4. **Married:** Indicator variable which takes a value of 1 if the respondent reported that he or she was married at the time of the survey. *Question wording: What is your marital status?*

5. **News:** Measures the frequency of news consumption, consisting of a four-point scale ranging from 0 to 3, where 0 indicates "Never" and 3 indicates "Daily." *Question wording: With what frequency do you follow the news, whether it be on television, on the radio, in the newspapers, or online?*

National-level Explanatory and Control Variables

1. **Compulsory voting:** A four-point compulsory voting scale measuring the type of compulsory voting in a given country. The scale ranges from 0 to 3, where 0 indicates that voting is voluntary (i.e., no CV); 1 indicates that the country's constitution or electoral laws make voting mandatory does not include any sanctions for abstention; 2 indicates that the CV law includes sanctions but they are rarely enforced; and 3 indicates that the CV law includes sanctions and they are enforced in practice. See Table 1 for a list of countries corresponding to each level. The compulsory voting scale is based on the classification found in Pintor & Gratschew (2002) and Payne et al. (2006). In cases where there was a discrepancy between these two sources — as occurred with Argentina, Bolivia, Brazil, El Salvador, Guatemala, Honduras, Mexico, and Panama — the authors consulted each country's constitution and electoral law to determine the extent to which voting is mandatory and backed by sanctions for abstention. For countries that have compulsory voting laws that employ sanctions (Argentina, Bolivia, and Brazil), we further consulted scholarly articles and news reports to determine whether such laws are enforced in practice.

2. **Comp-No Enforcement:** Indicator variable which takes a value of 1 if a country scores a 1 on the CV scale.

3. **Comp-Moderate:** Indicator variable which takes a value of 1 if a country scores a 2 on the CV scale.

4. **Comp-Strict:** Indicator variable which takes a value of 1 if a country scores a 3 on the CV scale.

5. **Competitive election:** Measured by subtracting from 100 the percentage of the vote obtained by the largest vote-getter in the presidential election. If a runoff was held, the vote share used corresponds to the first round of voting. A runoff was held in four of the eighteen elections in our analysis. Source: Political Database of the Americas, Georgetown Univer-

sity.

6. **Freedom House:** Modified Freedom House score. Sum of separate scores for Political Rights and Civil Liberties were reversed so that higher values represented higher levels of democracy. The variable takes on values from 0 to 6, where 6 indicates the maximum level of democracy.

Dependent Variables

- **Self-reported Turnout:** A dichotomous variable that takes a value of 1 if the respondent reported having voted in the previous presidential election. *Question wording: Did you vote in the presidential elections of [year of election]?*

- **Reason for Abstention:** A categorical variable created from an item in the 2004 and 2006 waves of the AmericasBarometer survey asking non-voters why they abstained. The variable that takes a value of 2 if the respondent answered that he did not vote due to lacking an identity document, 1 if it was due to a lack of interest, and 0 for all other responses. The other possible reasons provided by the survey question were: no access to transportation, illness, dislike of candidates/parties, lack of belief in the system, did not find one's name in the electoral rolls, underage, arrived too late, had to work, and other. *If you did not vote, why did you not vote in the last presidential elections?*

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