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Voting in Latin America: Understanding Turnout Decisions

by

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Elections form the very foundation of democracy. Who turns out to vote, why they vote, and the consequences of each election are just a few of the reasons studying elections and voter turnout is essential to political science research. Scholars who study democracy often view voter turnout as a measure of the “state of democracy in the country concerned,” (Franklin, 2004: 6). Low voter turnout, therefore, can be viewed as a disenfranchisement with democracy, discontent among the electorate, or general instability (Teixeira, 1992; Wattenberg, 2002). The degree to which all of this is true depends on the specifics of the elections, but the ideas illustrate the importance of voter turnout studies. In newer, less stable democracies, for example, a low percentage of people showing up to vote can have more serious implications than in a country with well-established democratic traditions. Then, there are those scholars who study voter turnout within the realm of political behavior and are interested in what drives voters to the polls on Election Day. The determinants of individuals’ turnout are inherently linked to the state of democracy surrounding the elections, and this is of specific interest to those studying voter turnout trends on a cross-national scale.

The maturity differences that exist among democracies illustrate the necessity of including younger states in the analysis of voter turnout. Until recently, the majority of research has been focused on the industrial democracies of the West. Anthony Downs’s important work on rational choice theory and Riker and Ordershook’s subsequent “reinterpretation of the voting calculus” jumpstarted the importance of voter turnout as a topic in academic research (Downs, 1957, Riker and Ordershook, 1968). More seminal studies followed these initial works, like those of Wolfinger and Rosenstone (1980), Rosenstone and Hansen (1993), and Blais (2000). Shortly thereafter, comparative studies began to come to fruition and went on to broaden the scope of voter turnout analysis (Powell, 1986; Jackman, 1987; Radcliff, 1992, 1995; Fornos, Power and Garand, 2004). Despite the extensive research there is that relates to voter turnout, the less-developed areas of the world still have largely been left to the wayside.

With that being said, I am interested in contributing to the closure of that knowledge gap – especially as it relates to Latin America. Others have already begun this task. Fornos, Power and Garand (2004) offer an extremely important aggregate analysis of Latin American turnout, but in the past decade or so wide-scale, dependable survey data has become more available. There are, therefore several important pieces that relate specifically to Latin American voter turnout at the individual level (Altman, 2009; Carreras and Castaneda-Angartia, 2013). In my view, however, the topic still requires more study. Beyond the fact that Latin America is full of relatively young democracies, the region offers a unique set of attributes that can be used to study voter turnout. Specifically, the countries of the region vary in their use and implementation of compulsory voting laws, which offers an important lens through which we can study voter turnout.

In this paper, I develop a model to analyze the determinants of voter turnout in Latin America. Building on the theory found in previous voter turnout research, the model includes several clusters of variables including individuals’ economic perceptions and positions, their informational environments, evaluations of democracy, ideology, country-level contextual variables, demographics, and compulsory voting laws. I am specifically interested in the effects different levels of compulsory voting laws have on

individuals' decision to turnout on Election Day and whether or not compulsory voting mitigates the effects of other variables found to influence turnout elsewhere. I test the different variations of this model by using 2008 survey data from the Latin American Public Opinion Project's *Americas Barometer*, which was conducted in 18 Latin American countries.

PREVIOUS RESEARCH

Since voter turnout has been the topic of political science research for decades, there is a fair amount of research to look to in order to form a foundation for analysis. Most of the work on comparative voter turnout stems from Powell (1986) and Jackman (1987). These works, therefore, are the ones I begin with in order to form my analytical base. First, Powell looks at the role institutions have on turnout. In comparison to the other countries included in Powell's study, the United States' voter turnout suffers from the party system, the political institutions, and voter registration laws. On the other hand, he finds that positive attitudes towards democracy are positively related to voter turnout in the United States as compared to the other countries in the study. Similar to Powell, Jackman (1987) also looks to extend the aggregate-level analysis of voter turnout and finds similar effects. Ultimately, Powell and Jackman look to institutional characteristics and other country-level factors as determinants of voter turnout.

It is essential to recognize that the inclusion of aggregate-level covariates is necessary to understand the entire picture of cross-national voter turnout. After all, individuals live within countries and their respective institutions. Looking at both country-level and individual-level analysis is what brings us closer to understanding the complete picture that is voter turnout. There are a number of important pieces that consider individual-level analysis in both country specific and cross-national contexts (Wolfinger and Rosenstone, 1980; Rosenstone and Hansen, 1993; Blais, 2006). Blais, in fact, argues that the discipline had placed too much emphasis on institutions' role in shaping voter turnout (2006: 116). He suggests that our understanding of the relationship between voter turnout and institutions takes place only at the surface, and that there is a "call for a multilevel analysis linking institutional variables with individual voter characteristics," (Blais, 2006: 123).

When we look for studies that specifically examine or include Latin American countries, the pool of research available shrinks. Fornos, Power, and Garand (2004) offer one of the most extensive investigations of voter turnout in Latin America. They investigate the effects of institutional differences, socioeconomic statuses, and the different political processes of countries to explain voter turnout. It is an aggregate-level study, but it offers some important findings that help me build my own model. Fornos et al. attribute higher voter turnout in the region to compulsory voting, concurrent elections, and single-house legislatures. Further, they find that socioeconomics do not have a significant effect on voter turnout. For the purpose of this study, however, I am most interested in the results that are associated with compulsory voting. They find that the effects of compulsory voting are the most dramatic in countries where individuals are subject to sanctions that are enforced if they fail to vote.

As Blais (2006) suggested, others have elected to consider Latin American individuals within their given country. Altman (2009) offers one such example. The individual level factors he uses include

age, education, personal socioeconomic status, and attitudes towards democracy. Then, in order to address the differences among countries, Altman looks to compulsory voting laws, voter registration methods, and the economic status of the countries - all of which he finds are related to shaping individuals' decisions to turnout. Carreras and Castaneda-Angarita (2013) also look to bridge the knowledge gap that exists in explaining voter turnout in Latin America by using a multi-level analysis. Their theory is based on the idea that three factors determine individuals' voter turnout – voters' resources, motivation, and "the context in which citizens are immersed," (Carreras and Castaneda-Angarita, 2013: 6). They find that education and age are the two individual-level factors that increase the probability of voting most, followed by variables that measure attitudes and evaluations of democracy. They also find that in countries where compulsory voting has sanctions that are enforced individuals are much more likely to turnout to vote. More importantly, however, their findings suggest that institutional variables do not carry the same substantive effect in Latin America that scholars have found elsewhere (Carreras and Castaneda-Angarita, 2013: 21).

From the work discussed in the previous paragraphs, I have a strong base of research from which I can call upon to create my own model of voter turnout. Furthermore, it is also evident that the strong foundation of research lacks some more specific, thematic investigation. For this reason, this paper looks to identify and explain the determinants of individuals' decision to turnout to vote while accounting for the context of country-level differences. I am especially interested in the role compulsory voting laws play in not only increasing voter turnout (as shown in earlier studies), but its role in off-setting some of the other variables historically linked to voter turnout.

THEORETICAL ARGUMENT – MODELING VOTER TURNOUT IN LATIN AMERICA

I previously mentioned that the model I use to explain voter turnout in Latin America draws heavily on the theoretical framework laid out in earlier works. More specifically, the model includes several clusters of theoretically relevant variables which others have found to be related to voter turnout. These clusters of variables include (1) economic evaluations, of both personal and national situations, (2) the information environment, such as education and news consumption (3) attitudes towards and evaluations of democracy as a form of government, (4) ideological preferences, (5) compulsory voting laws, (6) country-level contextual variables, and (7) individuals' demographic characteristics.

This paper uses survey data from the 2008 Latin American Public Opinion Project (LAPOP) *Americas Barometer*. In 2008, 18 Latin American countries were surveyed, and presidential elections had occurred in each country within the past 4 years. In the following sections, the variables included in the model and the hypotheses associated with each are described. A more extensive summary of how each variable is measure can be found in Table A1 in the appendix.

Dependent Variable: Voter Turnout

Naturally, the dependent variable in this model is voter turnout. It is dichotomous measure that is coded 1 for individuals who self-reported voting in the last presidential elections and 0 for abstaining. Again, just to reiterate, this self-reported measure of turnout can be skewed as it is well documented

that individuals tend to exaggerate their voting behavior. Table A2 in the appendix provides the percentage of respondents who reported having participated in the last presidential elections. For the purposes of comparison, Table A2 gives the percentage of voters that voted in the presidential election during or before 2008, as compiled by the International Institute for Democracy and Electoral Processes.

Economic Evaluations

Economic attributes have historically been included in models of voter turnout, both at the aggregate and individual level, and for good reason. There is an ample amount of literature that illustrates the effect personal and national economic situations have on voter turnout (Wolfinger and Rosenstone, 1980; Radcliff, 1992; Leighley and Nagler, 1992; Altman, 2009). Higher socioeconomic positions have routinely been associated with higher rates of turnout both in the United States and in comparative cross-national studies (Wolfinger and Rosenstone, 1980; Blais, 2006; Altman, 2009). This is usually attributed to the idea that higher income individuals are better equipped to go through the process of voting. The 2008 LAPOP survey includes three measures of individuals' evaluations of the economic environment that I include in the model. First, there is a measure in which respondents place themselves in an income range of 0 to 10. The range of each decile listed in the questionnaire varies with the various currencies and income distribution of the country, so the variable accounts for the economic situation that the individual experiences. In addition to this measure of economic well-being, I also include a variable that measures individuals' subjective income, or the degree to which families can live off of their respective salaries. This variable ranges from 0 (difficult to make ends meet) to 3 (situation is good and can save). I hypothesize that each of these variables will be positively related to voter turnout such that as income or economic position improves, the probability of turning out to vote increases.

I also include an evaluation of the national economy because there is evidence that it affects voter turnout, albeit in various ways (Rosenstone, 1982; Powell, 1982; Fornos et al. 2004). LAPOP has respondents evaluate the current national economic situation on a scale from 0 to 4. The low end of the scale represents very poor evaluations of the national economy, and a 4 represents very positive assessments. Since there is some variation between economic performance and voter turnout, I do not hypothesize a specific direction for this relationship.

Information Environment

More informed citizens have regularly been cited as being more likely to turnout on Election Day (Wolfinger and Rosenstone, 1980; Leighley and Nagler, 1992; Carreras and Castaneda-Angarita, 2013). This makes sense. Those who have been educated about the workings of democracy and are more in tune with electoral happenings are more prepared to go to the voting booth. In order to see whether or not this relationship holds true in Latin America, I have included several variables that measure the information environment of each individual. The first of these variables measures the number of years of education completed. Naturally, I expect this variable to be positively related to voter turnout.

I also include variables that ask respondents about the frequency of their news exposure and consumption. Four variables measure news consumption from four different outlets— television,

newspaper, radio, and the Internet. Individuals self-report news consumption on a four-point scale that ranges from 0 (never receive news from the specific outlet) to 3 (receive news from the outlet every day). Similar to education, I expect an increase in each of these variables to be associated with an increase in the likelihood of turning out to vote.

Lastly, I include two variables that quantify the political information and interest of individuals. Political interest has been shown by several to produce a positive coefficient when acting as a covariate in a voter turnout model (Verba, Burns, and Scholzman, 1997; Corey and Garand, 2002). The variable that measures political interest ranges from 0 (not at all interested) to 3 (very interested). Additionally, I have included a covariate that accounts for individuals' level of political discussion. This variable varies from 0 to 4 – from never discussing politics with others to discussing politics daily. I hypothesize that each of these two political information variables will produce positive coefficients, such that an increase in interest or frequency of political discussion will produce higher predicted probabilities of voter turnout.

Attitudes towards Democracy

It is logical to think that peoples' perceptions of democracy are related to their decision to participate in such a fundamental aspect of the regime. It is even more logical to include attitudes towards and evaluations of democracy in the model since earlier studies have found a relationship (Verba, Scholzman, and Brady, 1995; Rosenstone and Hansen, 1993; Carlin, 2009). Those with positive attitudes towards democracy are more likely to vote because they believe in democratic institutions, while those who find it difficult to support a democratic regime would be less likely to participate in elections.

My model includes two independent variables that gauge individuals' feelings towards democracy. The first variable looks at individuals' satisfaction with democracy in their country. The possible responses range from 0 (very unsatisfied with democracy's function in country) to 3 (very satisfied with how democracy works in the country). The second variable measures respondents' belief as to whether the country's problems would be better resolved by a government with an "iron fist" (coded 0) or the country would be better off if everyone participated (coded 1). I hypothesize that both of these variables will produce positive coefficients, or that a more favorable evaluation or attitude towards democracy will increase the likelihood of voting.

Ideology

Ideology is often discussed in political science research as an attribute that contributes to individuals' voter turnout. Specifically, I posit that individuals with strong ideological preferences are more likely to turnout to vote. I believe that these individuals will see themselves as having more at stake in the elections, and will therefore be more likely to participate. For this reason, I include a variable that measures the ideological intensity by collapsing a traditional 10-point scale of left-right ideology into a five-point scale. The five-point scale ranges from 0 (ideologically moderate) to 4 (strong ideologues on either the left or right). I suspect that this variable will be positively related to voter turnout.

Contextual Variables

To follow the advice of Andre Blais (2006), I include several country-level contextual variables in my model to account for the differentiation among the various countries in Latin America. I want to see how individuals' decision to vote is affected by the context within which they live. I therefore include four contextual variables: (1) per capita GDP, (2) percentage change in per capita GDP, (3) the gini coefficient of income inequality, and (4) the Freedom House score of each country. The gini coefficient ranges from perfect equality, a score of 0, to perfect inequality, a score of 100. For the countries included in the model, the Freedom House scores have been transformed to range from 0 (Venezuela being partly free) to 3 (Chile, Costa Rica, and Uruguay being free), with increments of 0.5. Lastly, I note that since elections took place in various years leading up to 2008, each country's contextual variables are of the year in which the elections took place. So for example, since elections took place in 2006 in Brazil – the gini coefficient is taken for that year.

As far as hypotheses go, I have mixed predictions. First, I predict that the higher the per capita GDP is in a country, the more likely that those citizens are to vote. I am less sure about my hypothesis regarding the percentage change in per capita GDP as there are some mixed findings and different theories regarding this variable (Radcliff 1992; Caldeira, Patterson, and Markko, 1985). People may become too preoccupied with their own personal finances to worry about voting, or they might see participating in elections as a way to voice their discontent. Radcliff (1992) also makes an important theoretical argument in that individuals living in developed countries may react to economic downturns differently than those living in developing countries. The welfare state, for example, could soften the blow of a recession. Welfare states are generally more established in older democracies, suggesting that individuals in Latin America may not have the same access to social security benefits and may suffer more. So, for this reason, I can only predict that there is a relationship between the changes in per capita GDP and voter turnout without any specific direction in mind. As far as the gini coefficient is concerned, I expect to find a negative relationship between high levels of income inequality and voter turnout. Lastly, I believe that individuals living in freer countries will be more likely to vote. There is evidence to suggest that "electoral confidence fosters turnout," (Birch, 2010: 1605). While the Freedom House score does not directly measure election confidence, I believe the measures will move in similar directions. I hypothesize that the Freedom House score will produce a positive coefficient such that more freedom is associated with higher probabilities of turning out to vote.

Demographic Attributes

Beyond the clusters of variables that are mentioned earlier, I want to be sure I am capturing inherent differences among individuals by including several covariates that account for different demographic attributes. Age, for example, has long been shown to positively influence voter turnout, but at a slower rate as age increases. For this reason, I include a measure of age in years and age², and I predict that the former will produce a positive coefficient and the latter a negative coefficient. Secondly, I also include a measure of gender, since there are studies that show that women are less likely to

turnout to vote (Timpone, 1998; Blais, 2000). Keeping this in mind, I suspect that the coefficient for gender will be negative. I also look to account for how urbanization influences voter turnout. I suspect that voting is easier in more urban areas because mobilization is a more concerted effort and transportation facilitates easier access to the polls. I plan to find a positive coefficient for this independent variable. I also include a measure of whether or not individuals are married. I suspect that this variable will produce a positive coefficient. And finally, I include a series of dichotomous variables that measure the individuals' races. The races that are included in the model are black, indigenous, mestizo, Moreno, mulatto, and they are compared individuals that identify as white. I do not have directional hypotheses for these dichotomous independent variables.

Compulsory Voting Laws

Compulsory voting laws are really at the heart of my interest in voter turnout in Latin America. There have been numerous studies that explore the effects of compulsory voting in various regions of the world, and the implications associated with effective compulsory voting laws are far-reaching (Fornos et al., 2004; Blais, 2006; Panagopoulos, 2008; Carreras and Castaneda-Angarita, 2013). Arend Lijphart's important *American Political Science Review* piece looks at how compulsory voting could resolve the problem of unequal participation. It is through this lens that I intend to examine the effects of compulsory voting. Lijphart asserts that compulsory voting acts as a neutralizer of voter turnout bias; it helps facilitate an even playing field. Does this really happen? Do compulsory voting laws diminish the factors regularly shown to affect voter turnout? How strong do the laws have to be in order for this to be happen? Latin America offers the entire gamut of compulsory voting laws, so it is an ideal region to investigate the nuances of compulsory voting.

In order to test Lijphart theory, I rely on the data collected by Payne, Zovatto G., and Diaz (2007). They have compiled data on the nature of compulsory voting laws in each of the 18 Latin American countries. Like the scale used in Fornos et al., I classify the data found by Payne et al., into a four-point scale: (0) no compulsory voting or voluntary voting, (1) compulsory voting with no sanctions, (2) compulsory voting with sanctions but no enforcement, and (4) compulsory voting with both sanctions and enforcement. Table A3 shows under which classification each of the Latin American countries fall. For the purpose of extrapolating the effects of each step in the compulsory voting scale, in Model 2 I include 3 separate dichotomous group variables for each category of compulsory voting, with voluntary voting being the comparison group. Naturally, I expect these variables to produce positive coefficients with the strongest compulsory voting category producing the largest substantive effect. This is because there is evidence to support that the strongest forms of compulsory voting laws are the only laws that actually increase voter turnout (Fornos et al., 2004; Blais, 2006).

Then, to reiterate, I am interested in looking at how compulsory voting changes the decision calculus for voters. Lijphart would argue that compulsory voting eliminates class and social bias because compulsory voting changes the game. Under mandatory voting, lower income individuals are now more incentivized to show up to the polls. Less educated individuals are now encouraged to cast a ballot. I therefore expand my analysis to incorporate a model that looks at countries with the highest level of compulsory voting and then looks at the remaining other countries in separate logistic regression. In the

model that looks at the countries with enforcements and sanctions, I would expect to see the effects of the other independent variables to be mitigated. This would indicate a change in the decision calculus under compulsory voting laws in line with Lijphart's theory. I plan to test all of my contentions about the effects of compulsory voting with a series of models that are described in the following section.

Model Estimation

Due to the fact the dependent variable in all of my models is a dichotomous measure of voter turnout, I estimate my model using logit analyses. Furthermore, in order to account for the inclusion of country-level variables in the models I adjust the standard errors to be clustered by country. This takes care of the possibility that the error terms are not independent (Primo, Jacobsmeier, and Milyo, 2007).

EMPIRICAL RESULTS

Table A2, found in the appendix, shows the percentage of respondents in each country sample who reported turning out to vote in the last presidential elections. A little more than 75% of all of the respondents who answered this question reported having voted in the most recent presidential elections, which is a high percentage relative to countries in other regions. Reported turnout ranges from 64.2% (Honduras) to 88.5% (Peru). It is important to remember, however, that survey respondents often over report their participation in elections for one reason or another. Table A3 therefore shows the true voter turnout percentages and the turnout percentages of the voting-age populations, as collected by the International Institute for Democracy and Electoral Assistance. There are some obvious discrepancies between the reported percentages and the actual percentages, so the model's reflection of real-life may be a bit skewed. Nonetheless, this measure is frequently used in models of voter turnout, and I still believe it does a good job of explaining voter turnout in Latin America.

So what does influence voter turnout in Latin America? Earlier I proposed two sets of models, the first of which looks at whether voter turnout is influenced by individuals' economic perceptions, their information environment, attitudes towards and evaluations of democracy, ideological preferences, compulsory voting laws, the context of their countries, and demographic attributes. Table 1 reports the results for this first set of models. Both Model 1 and Model 2 explore how the various clusters of variables are related to turnout, but they differ in how they measure the relationship between compulsory voting and voter turnout. Model 1 uses the four-point scale to measure the degree of compulsory voting laws, and Model 2 uses the series of dichotomous variables that represent three of the four categories included in the four-point scale. The subsequent sections review the results of Model 1 and Model 2 shown in Table 1. Table 3 presents the predicted probability changes for each model.

Economic Variables

According to the results shown in Table 1, individuals' economic situation and their perceptions of the economic situation do not appear to have a strong effect on shaping voter turnout in Latin America. The socioeconomic status (SES) model theorizes that there is a positive relationship between economic position and voter turnout. Neither of the models shown in Table 1 really support this theory. As individuals' monthly incomes increase from one decile to the next, for example, a statistically

significant decrease in the in the likelihood of turning out to vote occurs ($b=-0.555$, $z = -2.16$ and $b=-0.056$ and $z = -2.03$, respectively). In fact, moving from the lowest decile of no income to the highest decile (which varies from country to country) decreases the predicted probability of turning out to vote by approximately 8% in both models. These effects are shown in Figure 1. The variable that measures individuals' subjective incomes does not produce a statistically significant coefficient, nor does the variable for perceptions of the national economy. Overall, the economic cluster of variables does not offer a very good explanation of voter turnout in Latin America.

Information Environment

While the economic theme of the SES model does not appear to function in Latin America, a second theme of the model may still hold true in the region. The second theme of the socioeconomic status model of voter turnout has to do with education and information (Leighley and Nagler, 1992). Generally speaking, those who are better off economically are more educated, which is why the SES model encompasses both themes. What is interesting though is that the information environment variables have a much stronger influence on voter turnout than the economic aspects of the SES model. Model 1 and 2 both produce results that indicate education, political engagement, and consumption of news are positively related to voter turnout, with only a few exceptions. First, as expected, higher levels of education produce higher predicted probabilities of voting on Election Day. This increase in predicted probability is both substantively and statistically significant. The coefficients in Model 1 and Model 2 ($b = 0.066$, $z = 7.20$ and $b = 0.118$, $z = 5.28$ respectively) produce an approximate 20% increase in the likelihood of voting when moving from the lowest education level to the highest. These relationships are shown in Figure 2.

The variables that measure political engagement, which act as a proxy for political information, are also linked to changes in predicted probabilities of turning out to vote. The first variable included in the model gauges individuals' interest in politics on a four-point scale, ranging from not interested at all to very interested. I find that an increase in political interest generates a statistically significant increase in voter turnout ($b=0.158$, $z=5.27$ and $b=0.157$, $z=5.19$). Beyond generating a significant coefficient in statistics terms, however, the level of political interest also generates a substantive increase of approximately 6% in both models. I have also included a variable that accounts for individuals' levels of political discussion. As expected, higher levels of political discussion are related to higher likelihoods of voting. In both Model 1 and Model 2, the coefficients are statistically significant and produce an approximate increase of 8% in turnout probability.

Finally, Model 1 and Model 2 include a series of variables that measure individuals' news consumption. In line with the SES model and my other hypotheses regarding the information environment, I had expected the coefficients of the news variables to be significant and in the positive direction. In general this is true, but at varying degrees. Increases in consumption of television news, newspaper news, and radio news all have positive effects on voter turnout, albeit not by an impressive amount. Moving from no consumption to high levels of consumption only increases the predicted probability of turning out to vote by 2-4% in both models. Internet news, on the other hand, appears to depress turnout if having any effect at all. In Model 1 the coefficient for internet news consumption is

negative but insignificantly so, yet in Model 2 the coefficient achieves statistical significance. Again, the substantive change in news consumption does not merit a lot of attention, but it is an interesting finding. It could suggest, for example, that internet news does not produce as politically engaged citizens as other mediums. Perhaps it represents an age gap. Either way, it is a point that merits future research.

Overall, the cluster of variables that represent the information environment, or the second theme of the SES model, appears to influence individuals' decision to turnout to vote. While education is the driving force in this cluster of variables, more engaged and informed individuals in general are more predisposed to the phenomena of voting than their counterparts.

Attitudes towards democracy

How individuals perceive and evaluate democracy as a form of government does in fact influence the individuals' decision to participate in elections, but this influence is not particularly strong. Both of the variables that measure attitudes towards democracy included in the model indicate that there is a positive relationship between this cluster of variables and voter turnout. First, the level of satisfaction with democracy as a form of government, which is measured on a four-point scale, produces a statistically significant coefficient of 0.103 for Model 1 and 0.107 for Model 2. Further, this coefficient is associated with an approximate 4% percent increase in the predicted probability of turning out to vote. Then, the dichotomous variable asking individuals whether or not they believe the country would be better off under a government with an "iron fist" or a government where everyone participated also produces a statistically significant coefficient. Those who are proponents of a participatory regime, however, are only 1% more likely to vote over those who would prefer to see the country ruled by an iron fist. It is difficult to argue that individuals' attitudes towards and evaluations democracy are influential determinants of voter turnout.

Ideology

Ideology and ideological intensity present some mildly noteworthy discoveries in regard to Latin American voters. First, whether or not individuals consider themselves on the political left or the political right does not have an impact on shaping their decision to vote. This is further confirmed by the fact that the coefficients change signs from Model 1 to Model 2, and neither coefficient is statistically significant ($b = 0.010$ $z = 1.46$ and $b = 0.010$, $z = 1.49$). The strength of ideology, in contrast, does have a positive influence on shaping voter turnout. People who report being strongly on the left or strongly on the right are statistically more likely to vote, but not a substantively higher rate ($b = 0.050$, $z = 2.32$ and $b = 0.050$, $z = 2.39$). The folded left-right variable only produces an increase of 3% in the predicted probability of turning out to vote. I did not necessarily expect to find a difference between people on the left and people on the right, but I did expect ideologues to have a higher propensity of voting than moderates than the results show in Table 1.

Contextual Variables

The country-level contextual variables offer some interesting and mixed results. It appears that some country-level aspects influence turnout in unexpected directions, while others have no effect.

Earlier, I hypothesized that individuals living in countries with higher per capita incomes would be more inclined to vote than individuals living in countries with low levels of per capita income. According to the results shown in Table 1, this is not the case. Individuals living in Bolivia, which has a per capita GDP of \$1,105 dollars, are no more or less likely to vote than individuals living in Mexico which has a per capita income nine times greater than that of Bolivia. Individuals' incomes as compared to the incomes of their fellow countrymen produces a significant relationship, but the country's income per person as compared to other countries does not have an effect. Moreover, an improvement or decline in the per capita GDP does not influence individuals' decision to turnout.

The degree to which income inequality is present in countries does have an impressive effect on voter turnout. I did not have a directional hypothesis for this variable, but it does produce coefficients that meet the 95% level of confidence ($b = -0.047$, $z = -2.38$ and $b = -0.047$, $z = -2.48$). While the statistical significance alone is worth mentioning, it is the substantive change that makes the gini coefficient an important factor in explaining voter turnout. In countries with the highest levels of income inequality (Honduras, Colombia, and Bolivia), individuals' likelihood of voting is decreased by 12% as compared to people living in countries with fairer income distributions (Nicaragua, Venezuela, and Uruguay). Are individuals living in unequal countries aware of the disparity around them, and are therefore disengaged from political processes? Or does the relationship between the gini coefficient and voter turnout capture some inherent difference between unequal and equal democracies in Latin America? Perhaps in future studies, researchers could study whether individuals recognize the level of inequality that surrounds them and compare it to actual levels of income inequality.

Lastly, freedom has only a mild to null effect on voter turnout. In Model 1, the coefficient associated with the Freedom House score is significant and in the opposite direction as expected ($b = -0.241$, $z = -1.81$). I had expected that individuals living in freer circumstances would be more likely to vote, but the opposite is true. Instead, individuals living in the least free country (Venezuela) are more likely to turnout than those living in the freest countries (Chile, Costa Rica, and Uruguay). Not only are Chileans, Costa Ricans, and Uruguayans less likely to vote than Venezuelans, but their likelihood of voting is decreased by roughly 10% in Model 1. Model 2, on the other hand, does not produce a coefficient that is statistically significant at the 0.05 level ($b = -0.211$, $z = -1.26$). Model 2 generates almost a 9-point decrease in the likelihood of voting, but I cannot reject the null hypothesis that the level of freedom in a country has no effect on voter turnout.

Demographic Attributes

The results in Table 1 indicate that only a few of the demographic variables included in the model are determinants of voter turnout. Age, for example, is a strong indicator of whether or not an individual will show up to vote. In both models, the coefficients for the age variable are highly significant and in the positive direction ($b = 0.213$, $z = 10.35$ and $b = 0.213$, $z = 10.40$). Additionally, the age² coefficient is highly significant and in the negative direction ($b = -0.002$, $z = -8.82$ and $b = -0.003$, $z = -8.82$). The combination of these two variables denote an increase in the likelihood of voting as a person ages, but the rate at which this occurs slows down with age as well. This finding is in line with my hypotheses about age and with the previous literature mentioned earlier.

The only other obviously significant demographic attribute related to voter turnout is whether or not individuals are married. This variable is a dichotomous variable in which a 1 denotes the respondent is married, and a 0 denotes the respondent is single, divorced, separated, widowed, or in a common law marriage. As compared to otherwise, being married is positively related to voter turnout. In fact, the variable produces significant and mildly substantive coefficients ($b = 0.421$, $z = 5.78$ and $b = 0.421$, $z = 5.85$). These coefficients generate an increase in the predicted probability of turning out to vote by approximately 6%. These findings suggest that perhaps there is a mild accountability effect at play. Married couples are likely to discuss politics with one another, and hence are likely to remind or encourage the spouse to vote. Being a part of a family could be seen as a certain form of political socialization that leads to a higher level of political engagement.

The other variables have little to no effect on voter turnout. The size of the city the individuals reside in only has a mild effect, and this effect is only found when accounting for the various levels of compulsory voting in Model 2. I therefore believe that individuals residing in metropolises are no more likely to turnout to vote than those living in the rural countryside. This is particularly surprising, since studies conducted in the United States find the opposite. Moving to gender - men and women have the same propensity to vote, as do people of all the different races. So, beyond age and being married, this cluster of variables does not act a strong determinant of voter turnout.

Compulsory Voting – Direct Effects

I mentioned earlier that I am interested in how the decision calculus of voting in countries with sanctioned and enforced compulsory voting laws changes in comparison to countries with low or weak compulsory voting laws. These results will come in the following section. I first want to look at how compulsory voting influences individuals' decision to turnout when controlling for the other variables in the model.

I begin with Model 1 shown in Table 1. In this model, compulsory voting is measured on a 4-point scale ranging from voluntary voting to compulsory voting laws that are enforced and sanctioned. Moving from voluntary voting to very weak compulsory voting (no sanctions or enforcements) results in 0.288 increase in the log-odds ratio of voter turnout. This coefficient generates a z-statistic of 2.74, making it statistically significant at the 0.01 level. Individuals living in countries with strong compulsory voting laws have a predicted probability of turning out to vote that is 13% higher than individuals in voluntary voting systems, when controlling for the effects of the other independent variables.

Model 2 takes the findings of Model 1 a step further by including a series of variables that measure the various levels of compulsory voting found in Latin America. In countries with the weakest level of compulsory voting (no sanctions or enforcement), the effect on turnout is not significant ($b = 0.199$, $z = 0.87$). This suggests that in order for compulsory voting laws to be effecting in increasing turnout, they have to at least mention a penalty for not voting (Fornos et al., 2004). Following this idea, individuals living in countries with compulsory voting laws that have sanctions attached to them are more likely to vote, and at a rate that is statistically and substantively significant. With a coefficient of 0.585 and z-score of 2.39, individuals living in these countries are about 7.5% more likely to vote. Lastly,

voters in countries with compulsory voting that is sanctioned and enforced have an even higher probability of turning out to vote. The 5 countries with the highest level of compulsory voting laws (Bolivia, Chile, Ecuador, Peru, and Uruguay) have individuals that are 10% more likely to vote than the other 13 countries in Latin America.

These findings have interesting implications. If compulsory voting has the ability to increase turnout by 10%, which individuals are being encouraged to vote by the implementation and enforcement of voter turnout laws? And which individuals would continue to vote anyways? The next section strives to begin answering these questions.

Compulsory Voting – Moderating Effect?

Compulsory voting does matter. It is a determinant of voter turnout. How, though, does it calculate into changing the decision calculus of voting? Individuals vote in voluntary systems, systems with weak compulsory voting laws, and countries with compulsory voting that is sanctioned and enforced. So what role do mandatory voting laws play in the countries where they are effective? Lijphart argues that “the most important argument in favor of compulsory voting is its contribution to high and relatively equal voter turnout,” (1997: 10). He cites how mandatory voting laws would mitigate if not eliminate the role of economics in voter turnout. Essentially, he argues that compulsory voting acts a great equalizer in political participation. The results in Table 2 challenge this notion, at least as far as Latin America is concerned.

Table 2 presents the results for two models: one that examines the various clusters of variables for the 13 countries with no or weak compulsory voting laws and one that reports results for the five countries that have sanctioned and enforced compulsory voting. The results are particularly interesting. First, the economic variables now have mixed effects. In both systems, individuals whose incomes fall in higher deciles are less likely to vote than those in the lower deciles ($b = 0.05$, $z = -1.77$ and $b = -0.054$, $z = -2.11$). What is even more interesting is how this translates into likelihood of voting. Higher income individuals living in non-compulsory voting countries are 9% less likely to vote than low-income individuals. In the five compulsory voting countries though, high income individuals are only 4.8% less likely to vote than those in the lowest decile. These effects are also depicted in Figure 1. The graph suggests that perhaps compulsory voting has the opposite effect Lijphart wanted and believed to be true. It is important to recognize that this finding should be taken with a grain of salt because the variable measuring subjective income indicates a different relationship. People living in the weak or non-compulsory voting countries that report having enough money to be comfortable and have the ability to save are more likely to vote than those who report struggling to make ends meet ($b = 0.080$, $z = 2.18$). Moving from the lowest subjective income to the highest subjective income in these countries, results in a 4% increase in turnout probability. This is not a huge movement, but when compared to the effects found in the compulsory voting countries – it has some interesting implications. Under stricter compulsory voting laws, individuals on the high end of the subjective income scale are less likely to vote ($b = -0.081$, $z = -1.83$). They are only 2.1% less likely to vote though compared to the low income individuals. With one variable producing the opposite effect and one variable reporting a very mild

substantive effect, these findings present serious challenges to Lijphart's assertion that compulsory voting laws moderate the turnout gap due to economic differences.

Compulsory voting laws also have an interesting effect on the information environment variables. Education continues to be the driving force in this cluster of variables with statistically and substantively significant coefficients for both types of countries ($b = 0.066$, $z = 7.20$ and $b = 0.118$, $z = 5.28$). In countries with weak or no compulsory voting, moving from the lowest to highest levels of education generates a 19.7% increase in the likelihood of voting. In the strong compulsory voting countries the predicted probability of voting increases by 21.6%. This difference is by no means incredible large, but the fact that the higher educated are more likely to vote in the strong compulsory voting countries is what merits some attention. These findings, which are odds with what Lijphart had imagined, are shown in Figure 2. The variables that measure political interest and political discussion, on the other hand, behave in a manner that Lijphart would be pleased to see. The increase in the likelihood of voting in weak or non-compulsory voting countries due to increased political interest (8.5%) and political discussion (10.7%) drops to 2.3% and 3.9%, respectively. This is in line with the moderation thesis because political engaged individuals only vote at a slightly higher frequency under strict compulsory voting systems. And lastly, the news consumption variables generate results that do not present convincing evidence for one theory or the other. Consuming television news does not influence the decision to turnout in either type of country ($b = 0.017$, $z = 0.56$ and $b = 0.81$, $z = 1.09$). Reading the newspaper results in a more statistically significant coefficient in the compulsory voting countries than the 13 other countries, but this translates into less than a 0.5% change in the predicted probability of voting. Radio news is statistically a stronger determinant of voter turnout in compulsory voting countries, but high levels of listening only produces a 2% increase in the probability of voting over not listening at all. In weak or non-compulsory countries the percentage change is almost 4%. This falls more in line with Lijphart's predictions, but the moderating effect is very small. The variable that measures internet news consumption produces a more statistically significant coefficient, and a stronger substantive effect. The difference between the substantive effects, however, is minor. It therefore appears that there is not strong evidence for or against the theory that compulsory voting moderates the effects of the SES model, as neither the economic cluster nor the information cluster's influenced is truly reduced by the introduction of compulsory voting.

The effects of individuals' attitudes towards democracy are not influenced by compulsory voting laws either. The coefficients reach higher levels of statistical significance, but the change in the predicted probability decreases in magnitude. For countries that do not have strong compulsory voting requirements, the likelihood of turning out to vote based on satisfaction with democracy and being in favor of high participation is increased by 3.1% and 1.8% respectively. These effects have are slightly higher than those produced in the five countries that have high levels of compulsory voting, which are 1.4% and 1.7%. These are in the opposite direction hypothesized by Lijphart, but I do not believe the difference is strong enough to merit a rejection of the theory all together.

Perhaps the most intriguing effects associated with the introduction of compulsory voting laws are those attached to the country-level contextual variables. When controlling for all other variables, not a single contextual variable comes close to reaching statistical significance in the 13 countries that

have weak or no compulsory voting laws. In contrast, all four of the contextual variables reach statistical significance, and two have important substantive implications in the remaining five countries. It is important to note that the five countries that make up the model on the right side of Table 2 vary widely in the four variables included in the model. Turnout is decreased by almost 30% in countries that suffer from high levels of income inequality, as shown in Figure 3. The countries that have higher Freedom House scores and also have compulsory voting laws see a decrease in the likelihood of turning out to vote by 28%. I recognize that these findings have little to do with the equalizer theory of compulsory voting because they come from aggregate data and not individual-level data. I do find it curious, however, that compulsory voting countries are still affected by these variables.

Lastly, there are the demographic attributes. This cluster of variables also fails to provide adequate evidence in favor or against the notion that compulsory voting neutralizes inherent difference among voters. In all 18 countries, age continues to be an important determinant of who shows up to the polls on Election Day. Being married continues to slightly improve the likelihood of voting in both types of countries (6.8% in weak or non-compulsory voting countries and 3.6% in the remaining 5 countries). Not one of the dichotomous variables that capture the effects of race has an effect on turnout in either category of country. Town size becomes significant in countries with compulsory voting, but individuals living in large cities within those five countries are only 1.5% less likely to vote than those living in small towns or rural areas. These results allude to the idea that the implementation and enforcement of mandatory voting laws do not have any effect on moderating the effects of demographics. I should also point out, though, that this particular cluster of variables did not have a strong impact on voter turnout initially.

CONCLUSIONS

The purpose of this paper was to contribute to the general understanding of voter turnout in Latin America. Using a model that looks at turnout as a function of several clusters of theoretically relevant variables, the presented analysis makes some interesting suggestions about what determines voter turnout at the individual level. The most influential clusters are those that measure individuals' economic situation, the information consumed, and certain variables included in the demographic cluster. The models presented in Table 1 show that the majority of the variables behaved either in the expected direction or were found to be irrelevant in modeling voter turnout. Income, consumption of web news, and Freedom House scores serve as the exceptions to this generalization. High income individuals in Latin America are less likely to vote than low income individuals, which is at odds with the previous literature. The reason behind this relationship warrants future exploration. Those who get their news from the internet are less likely to vote, which is a finding that should be explored by future political communication research. And lastly, individuals living in freer countries are found to have lower probabilities of voting. I suspect that this might have something to do with people being content with the situation of the country and therefore decide not to actively participate in the election process.

While the effects of the various clusters of variables produce interesting results and conclusions, I am more struck by the role compulsory voting laws play in individuals' turnout decision making process. Others have previously found that in order for compulsory voting to be effective in increasing

the turnout rate, the laws have to include sanctions that are the enforced (Fornos et al., 2004; Blais, 2006; Carreras and Castaneda-Angarita, 2013). My findings are in line with these earlier works and confirm that compulsory voting laws do have a positive effect voter turnout (as shown in Model 1). The results also confirm that the effects of the mandatory voting laws are strongest if the laws have sanctions attached that are subsequently enforced (as shown in Model 2).

But beyond further confirming that implementing compulsory voting laws lead to higher levels of voter turnout, I think this paper really contributes to what we know about how compulsory voting affects the decision calculus that individuals employ leading up to and on Election Day. If one subscribes to the theory described in Arend Lijphart's 1997 American Political Science Review article, one would suspect that when separate models for the strong compulsory voting countries and for the weak or non-compulsory voting countries are run separately, the effects found in the latter would disappear in the former. The evidence displayed in Table 2 demonstrates that this is not generally the case. Income, education, political engagement, and age all continue to be factors in shaping individuals' voter turnout decision regardless of the implementation of strong compulsory voting laws. There is very little evidence that supports Lijphart's hypothesis, and in fact, there is more evidence to support that just the opposite is true. Looking at voter turnout through this lens offers a new way to evaluate the effectiveness of compulsory voting and a new way with which to explain voter turnout in Latin America.

Table 1. Logit estimates for models of voter turnout in 18 Latin American countries

Variable	Model 1		Model 2	
	b	Z	b	Z
Intercept	-2.963	-2.94**	-2.953	-3.05*
Economic variables				
Income Decile [+]	-0.055	-2.16*	-0.056	-2.03*
Subjective income [+]	0.006	0.11	0.006	0.11
Perception of national economy [+/-]	0.058	1.82	0.058	1.69
Information Environment				
Education [+]	0.078	7.68***	0.079	8.33***
Political interest [+]	0.158	5.27***	0.157	5.19***
Political discussion	0.149	5.37***	0.148	5.24***
Television news [+]	0.061	1.75*	0.060	1.79*
Newspaper news [+]	0.091	2.99**	0.098	2.90**
Radio news [+]	0.078	2.56**	0.075	3.06**
Web news	-0.072	-1.53	-0.075	-1.79*
Attitudes toward democracy				
Satisfaction with democracy [+]	0.103	2.73**	0.107	2.58**
All should participate [+]	0.098	2.05*	0.096	2.14*
Ideology				
Left-right scale [+/-]	0.010	1.46	0.010	1.49
Folded Left-right scale [+]	0.050	2.32**	0.050	2.39**
Contextual variables-				
Per capita income [+]	-0.000	-0.23	-0.000	-0.37
Percentage change of per capita income	0.013	0.25	0.012	0.22
Gini coefficient [-]	-0.047	-2.38*	-0.047	-2.48**
Freedom House score	-0.241	-1.81*	-0.211	-1.26

Table 1 (continued)

Variable	Model 1		Model 2	
	b	Z	b	Z
Compulsory voting laws				
Compulsory voting [+]	0.288	2.74**	----	----
Compulsory voting 1 [+]	----	----	0.199	0.87
Compulsory voting 2 [+]	----	----	0.585	2.39**
Compulsory voting 3 [+]	----	----	0.807	2.57**
Demographic attributes				
Age [+]	0.213	10.35***	0.213	10.40***
Age ² [-]	-0.002	-8.82***	-0.002	-8.80***
Gender [-]	-0.002	-0.04	-0.001	-0.01
Town size [+]	-0.042	-1.62	-0.043	-1.66*
Married	0.421	5.78***	0.421	5.85***
Black	0.040	0.24	0.054	0.33
Indigenous	-0.024	-0.14	0.008	0.06
Mestizo	-0.097	-0.90	-0.083	-0.84
Moreno	-0.063	-0.19	-0.019	-0.05
Mulatto	-0.110	-0.69	-0.090	-0.62
Other race	0.010	0.07	0.017	0.11
N	17542		17542	
Pseudo R ²	0.1746		0.1747	

Note: Z statistics are based on standard errors estimated with clustering by country.

***prob < 0.001 ** prob < 0.01 * prob < 0.05

Table 2. Logit estimates for models of voter turnout in 18 Latin American countries, estimated separately for countries with compulsory voting with sanctions and enforcement and all other countries

Variable	No compulsory voting/ compulsory voting with sanctions <i>or</i> enforcement		Compulsory voting with sanctions <i>and</i> enforcement	
	b	Z	b	Z
Intercept	-4.095	-3.11**	12.550	16.37***
Economic variables				
Income Decile [+]	-0.053	-1.77*	-0.054	-2.11*
Subjective income [+]	0.080	2.18*	-0.081	-1.83*
Perception of national economy [+/-]	0.057	1.34	-0.039	-1.14
Information Environment				
Education [+]	0.066	7.20***	0.118	5.28***
Political interest [+]	0.176	4.68***	0.094	2.66**
Political discussion	0.170	5.23***	0.123	3.36***
Television news [+]	0.017	0.56	0.081	1.09
Newspaper news [+]	0.064	1.73*	0.132	3.16**
Radio news [+]	0.078	2.43**	0.090	5.47***
Web news [+]	-0.037	-0.66	-0.117	-4.00***
Attitudes toward democracy				
Satisfaction with democracy [+]	0.062	1.88*	0.054	2.21*
All should participate [+]	0.110	2.02*	0.200	2.88**
Ideology				
Left-right scale [+/-]	0.010	0.99	-0.012	-1.44
Folded Left-right scale [+]	0.059	2.85**	0.050	0.49

Table 2 (continued)

Variable	b	Z	b	Z
Contextual variables				
Per capita income [+]	0.000	0.67	-0.000	-2.10*
Percentage change of per capita income	-0.031	-0.60	-0.097	-10.10***
Gini coefficient [-]	-0.014	-0.67	-0.306	-15.35***
Freedom House score	-0.036	-0.48	-1.178	-11.84***
Demographic attributes				
Age [+]	0.198	7.84***	0.276	6.56***
Age ² [-]	-0.002	-6.87***	-0.002	-5.34***
Gender [-]	0.021	0.36	-0.031	-0.53
Town size [+]	-0.036	-1.06	-0.045	-2.62**
Married	0.388	4.02***	0.402	4.00***
Black	-0.171	-1.06	0.407	0.97
Indigenous	0.118	0.63	0.133	1.88
Mestizo	-0.128	-1.17	-0.087	-0.89
Moreno	0.240	1.04	----	----
Mulatto	-0.110	-1.63	-0.312	-0.62
Other race	-0.069	-0.38	0.418	1.53
<hr/>				
N	11152		6390	
Pseudo R ²	0.1451		0.2785	

Note: Z statistics are based on standard errors estimated with clustering by country.

***prob < 0.001 ** prob < 0.01 * prob < 0.05

Table 3. Predicted probabilities for lowest and highest values of independent variables, all 4 models

Variable	Change in Predicted probabilities (Y = 1), moving from low to high values on independent variables			
	Model 1	Model 2	Weak or Non-Compulsory	Strong Compulsory
Income Decile	-0.082	-0.084	-0.091	-0.048
Subjective income	0.002	0.003	0.040	-0.021
Perception of national economy	0.033	0.034	0.038	-0.013
Education	0.206	0.208	0.197	0.216
Political interest	0.065	0.064	0.085	0.230
Political discussion	0.080	0.080	0.107	0.040
Television news	0.027	0.027	0.009	0.022
Newspaper news	0.039	0.042	0.032	0.032
Radio news	0.034	0.033	0.040	0.023
Web news	-0.033	-0.034	-0.019	-0.033
Satisfaction with democracy	0.044	0.046	0.031	0.014
All should participate	0.014	0.014	0.019	0.017
Ideological intensity	0.028	0.028	0.039	-0.005
Left-right scale	0.013	0.013	0.016	-0.009
Per capita income	-0.015	-0.026	0.037	-0.016
Percent change in per capita income	0.016	0.014	-0.045	-0.029
Gini coefficient	-0.121	-0.121	-0.043	-0.295
Freedom House score	-0.103	-0.090	-0.018	-0.281
Compulsory voting	0.131	---	---	---
Compulsory voting	---	0.028	---	---
Compulsory voting	---	0.075	---	---
Compulsory voting	---	0.108	---	---
Age	0.963	0.963	0.956	0.974
Age ²	---	---	---	---
Gender	-0.000	-0.000	0.004	-0.003
Town size	-0.024	-0.025	-0.024	-0.015
Married	0.063	0.063	0.068	0.036
Black	0.006	0.008	-0.030	0.029
Indigenous	-0.004	0.001	0.019	0.011
Mestizo	-0.014	-0.012	-0.021	-0.007
Moreno	-0.009	-0.003	0.038	----
Mulatto	-0.016	-0.013	-0.050	-0.030
Other race	0.002	0.002	-0.012	0.030

*When running the separate model for the 5 countries with strong compulsory voting, the variable that accounts for the citizen being Moreno was omitted from the model due to collinearity. It therefore does not have a predicted probability associated with it.

Figure 1. Relationship between individuals' income decile and predicted probability of voting derived from 4 models shown in Table 1 and Table 2.

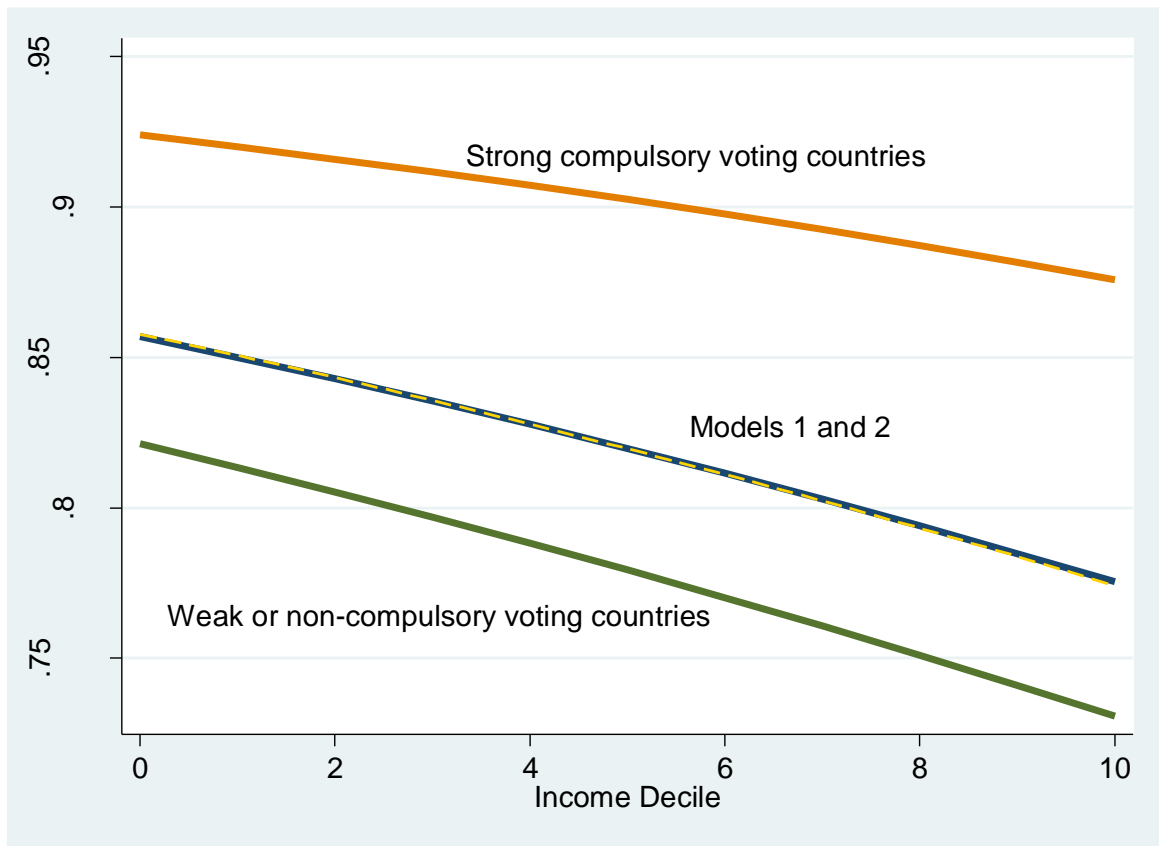


Figure 2. Relationship between education and predicted probability of voting derived from 4 models shown in Table 1 and Table 2.

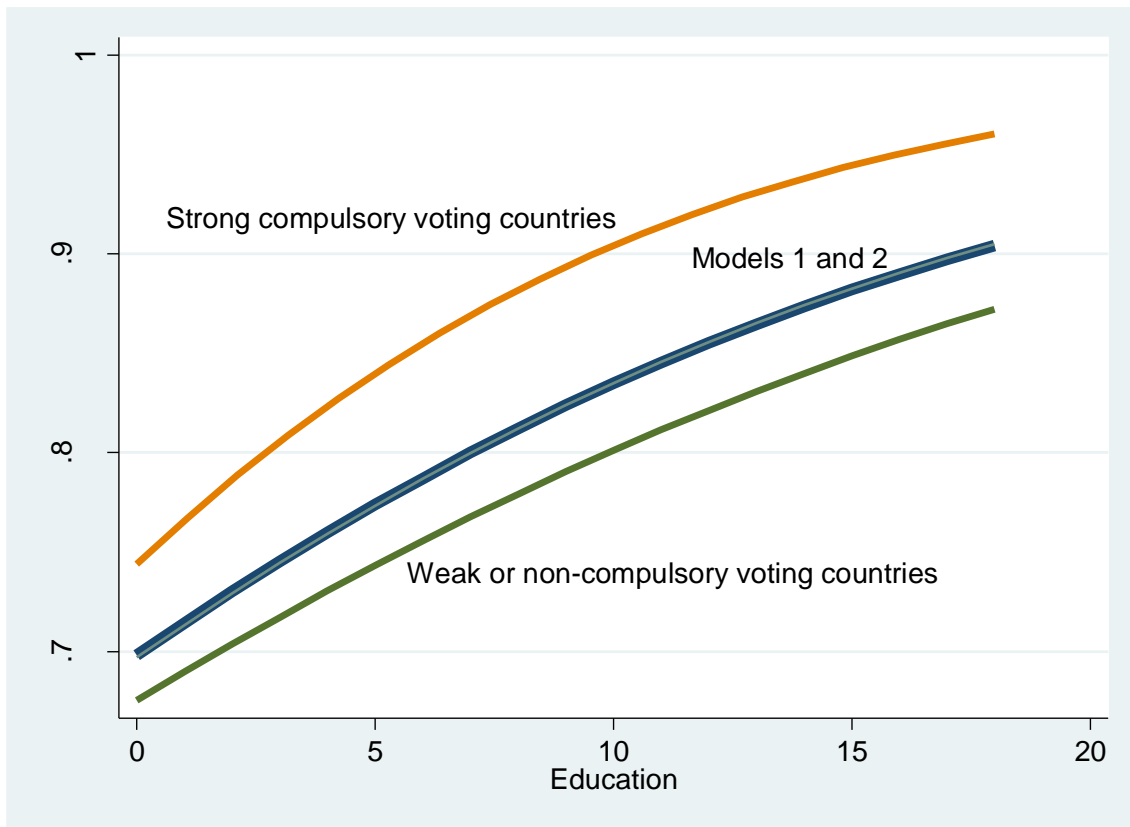
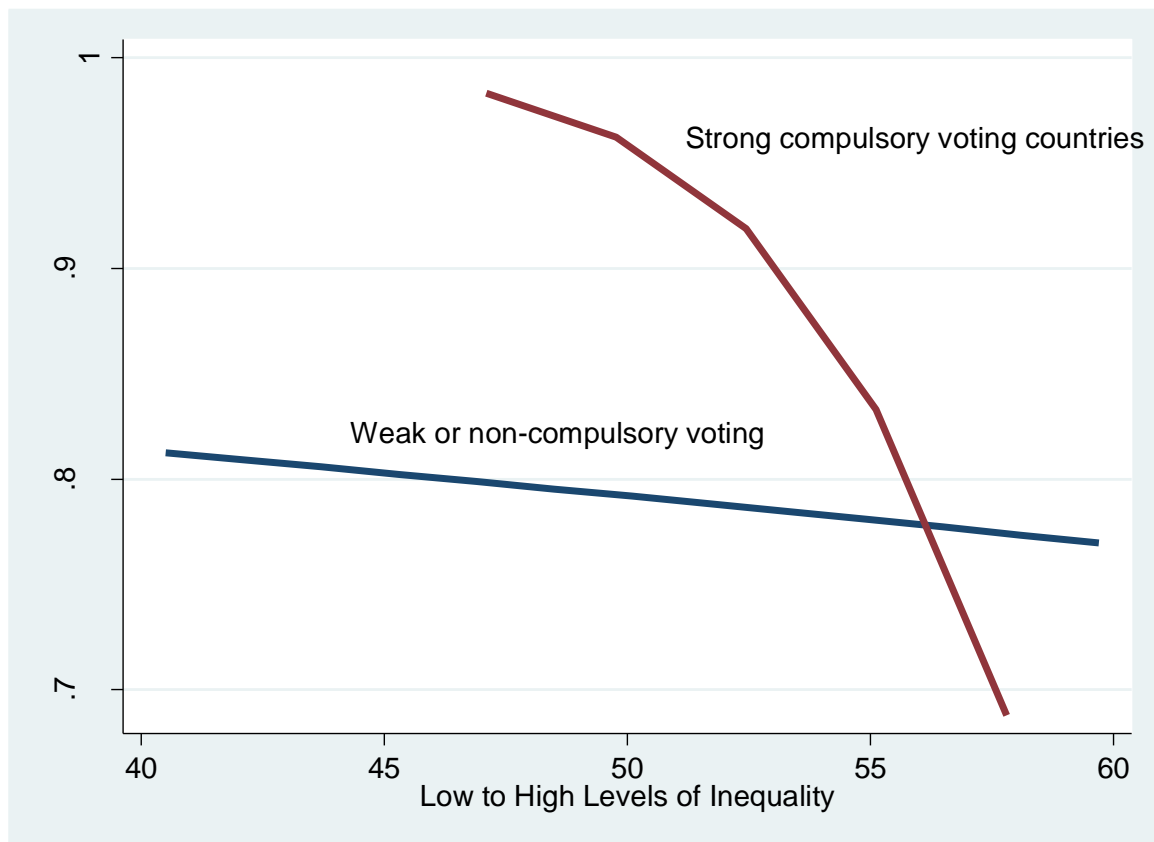


Figure 3. Relationship between country levels of inequality and predicted probability of voting derived from Model 3 and 4, shown in Table 2.



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Appendices

Table A1. Description of Variables

Variable	Description
Income Decile	Scale of respondents' household monthly income, including remittances (the bottom and top value of each bracket vary with each country): 10 = monthly income falls within highest 10%; ...; 0 = no monthly income
Subjective Income	Scale of respondents' perceptions of whether or not they have adequate income to meet daily needs: 3 = respondent has sufficient income for savings and spending; ...; 0 = respondent has insufficient funds and major problems.
Perception of national economy	Scale of respondents' perception of their home country's national economy: 4 = national economy is doing very well; ... ; 0 = national economy is doing very poorly
Education	Respondents' years of education, ranging from 0 to 18.
Political Interest	Respondents' interest in politics: 3 = very interested; ... ; 0 = not interested at all
Political Discussion	Scale of frequency that respondents report discussing politics: 4 = discuss politics daily with others; ... ; 0 = never
TV News	Frequency respondents' consume news from watching the television: 3 = daily; ... ; 0 = never
Newspaper News	Frequency respondents' consume news from reading the newspaper: 3 = daily; ... ; 0 = never
Radio News	Frequency respondents' consume news from listening to the newspaper: 3 = daily; ... ; 0 = never
Web News	Frequency respondents' consume news from the internet: 3 = daily; ... ; 0 = never
Satisfaction with Democracy	Scale of respondents' satisfaction with democracy: 3 = very satisfied; ... ; 0 = not at all satisfied
All Should Participate	Dichotomous variable in which respondents report having preferred regime for solving countries' problems: 1 = problems can be solved with everyone's participation; 0 = a government with an "iron fist" would be better

Left-right scale	Eleven-point scale that measures respondents' points on the left-right ideological scale: 10 = far right; ... ; 0 = far left
Folded left-right scale	Folded five-point scale that measures respondents' strength of ideological beliefs: 4 = very ideological; ... ; 0 = moderate
Per capita income	The income per person in each country in the year of most recent presidential election. Source: World Bank
Percentage change in per capita income	The change in income per person from the year before the election to the year of the election – measured in percentage change. Source: World Bank.
Gini Coefficient	The gini coefficient measures the level of income distribution in each country. The higher the gini coefficient the greater the inequality; the lower the gini coefficient the smaller the level of inequality.
Freedom House Score	Scale that measures the degree of freedom present in each country. Original scores are inverted to measure from 0 (partly free) to 3 (free), and increase by increments of 0.5.
Compulsory Voting	Four-point scale that measures the country's compulsory voting laws. 3 = Compulsory voting laws with sanctions and enforcement; 2 = compulsory voting laws with sanctions but weak or no enforcement; 1 = compulsory voting laws but without sanctions and enforcement; 0 = no compulsory voting laws.
Age	Respondents' ages in years, ranging from 16-99.
Age ²	Respondents' ages squared.
Gender	1 = female respondents; 0 = male respondents.
Town size	Eight-point scale of size of town of residence. 4 = national capital or metro area; 0 = rural area.
Married	1 = Respondent is married; 0 = otherwise.
Black	1 = Black respondent; 0 = all other respondents.
Indigenous	1 = Indigenous respondent; 0 = all other respondents.
Mestizo	1 = Mestizo respondent; 0 = all other respondents.
Moreno	1 = Moreno respondent; 0 = all other respondents.
Mulatto	1 = Mulatto respondent; 0 = all other respondents.
Other race	1 = Respondent is of race not included; 0 = all other respondents.

**Table A2. Rates of reported turnout in the most recent presidential election for 18 Latin American countries, 2008
LAPOP Americas Barometer.**

Country	Turnout	N
Argentina	78.5%	1464
Bolivia	73.4%	2968
Brazil	85.0%	1489
Colombia	65.4%	1496
Costa Rica	67.2%	1483
Chile	68.6%	1506
Dominican Republic	77.3%	1355
Ecuador	89.7%	2989
El Salvador	68.5%	1546
Guatemala	73.3%	1519
Honduras	64.2%	1513
Mexico	75.4%	1547
Nicaragua	71.8%	1539
Panama	71.3%	1531
Paraguay	71.9%	975
Peru	88.5%	1499
Uruguay	88.2%	1490
Venezuela	81.8%	1475
All countries combined	76.2%	29,384

Table A3. Actual rates of voter turnout as reported by the International Institute for Democracy and Electoral Assistance

Country	Voter Turnout	Voting-Age Population Turnout
Argentina	71.8%	77.4%
Bolivia	84.5%	63.4%
Brazil	83.3%	83.6%
Colombia	45.1%	44.2%
Costa Rica	65.2%	67.0%
Chile	87.1%	63.3%
Dominican Republic	72.8%	69.5%
Ecuador	76.0%	84.1%
El Salvador	66.2%	63.1%
Guatemala	48.2%	45.5%
Honduras	55.1%	60.6%
Mexico	58.6%	63.3%
Nicaragua	61.2%	74.2%
Panama	76.9%	80.3%
Paraguay	64.2%	47.6%
Peru	87.7%	86.2%
Uruguay	88.3%	91.8%
Venezuela	74.7%	76.4%

Table A3. Compulsory Voting Law Classifications by Country

Voluntary Voting	Compulsory voting-- no sanctions	Compulsory voting-- no sanctions or enforcements	Compulsory voting-- sanctions and enforcements
Colombia	Costa Rica	Argentina*	Bolivia
Nicaragua	Dominican Republic	Brazil	Chile
Venezuela	El Salvador	Honduras	Ecuador
	Guatemala	Mexico	Peru
	Panama	Paraguay	Uruguay

* Fornos et al. (2004) and the Institute for Democracy and Electoral Assistance (IDEA) place Argentina under the classification of compulsory voting with sanctions and enforcements, but Payne et al. make an argument against including Argentina in this category. In Argentina, it has become customary not to enforce compulsory voting laws, which then makes it appropriate to drop the country to the third category.