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ABSTRACT

Is There Such Thing as Middle Class Values? Class Differences, Values and Political Orientations in Latin America[*]

Middle class values have long been perceived as drivers of social cohesion and growth. In this paper we investigate the relation between class (measured by the position in the income distribution), values, and political orientations using comparable values surveys for six Latin American countries. We find that both a continuous measure of income and categorical measures of income-based class are robustly associated with values. Both income and class tend to display a similar association to values and political orientations as education, although differences persist in some important dimensions. Overall, we do not find strong evidence of any "middle class particularism": values appear to gradually shift with income, and middle class values lay between the ones of poorer and richer classes. If any, the only peculiarity of middle class values is moderation. We also find changes in values across countries to be of much larger magnitude than the ones dictated by income, education and individual characteristics, suggesting that individual values vary primarily within bounds dictated by each society.

JEL Classification: D3, D7, O1, Z1

Keywords: middle class, income, values, political orientations

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1. Introduction

The middle class has been described as "the backbone of both the market economy and of democracy in most advanced societies" (Birdsall et al. 2000). A large and stable middle class is claimed to induce economic growth (Easterly 2001), consumer demand (Murphy *et. al.* 1989), entrepreneurial development, and long-term investments (Doepke and Zilibotti 2007, Acemoglu and Zilibotti 1997). The middle class has also been associated with political stability and social cohesion (Barro 1999). In a tradition epitomized by Lipset (1959: 78), the segment neither affected by deprivation nor benefiting from wealth "plays a mitigating role in moderating conflict since it is able to reward moderate and democratic parties and penalize extremist groups."

Implicit in these assertions is the idea that the middle class holds a particular set of values and orientations that distinguish it from both its poorer and wealthier counterparts. A perspective that dates back to Weber (2003 [1905]) suggests that the middle class is the source of economic values that emphasize savings and accumulation of human capital, thus promoting economic growth. Also, given that the wellbeing of the middle class depends on specialized skills, this class is proclaimed to value long-term investments, in sharp contrast with the upper class, whose welfare relies, it is claimed, on capital and rental income (Doepke and Zilibotti 2007). The view of the middle class as a source of democratic development and stability also assumes that this group holds a specific set of political orientations. These values include a preference for moderation and stability over revolutionary change. Furthermore, given its relatively high levels of economic wellbeing, the middle class is purportedly more optimistic and confident regarding the future than the lower class, which would result in stronger support for the political institutions in place.

Understanding these values has gained policy and academic relevance thanks to declines in poverty in emerging countries, including Latin America, that have led to strong growth of the middle class (World Bank 2011, Lopez-Calva and Lustig 2010). Middle class values are not necessarily obvious. On the one hand, with higher wealth and changing occupations may come new values. On the other, the middle class remains characterized by some degree of economic vulnerability, which may lead to tenuous differences in the values of the middle class and the poor in spite of differences in income levels (Torche and Lopez Calva 2010).

Yet, despite the relevance of the phenomenon, its sociopolitical implications remain to be understood. Theories of "middle class orientations" contrast with the scarcity of empirical research

on the association of relative and absolute income positions with individuals' values, attitudes and behavior. Most empirical studies of middle class values in emerging countries classify people in the middle class based on self perception of either status or position in the income distribution (PRC, 2008; Amoranto, Chun and Deolalikar, 2010; OECD, 2011), but self-reported status is a very poor predictor of someone's income, education or occupation. And attempts to use income measures (Cárdenas, Kharas and Henao, 2011) are limited by the lack of accurate information about income in values surveys, which is either absent or classified in broad categories. Most studies also fail to compare income effects with relevant individual characteristics that could affect values (such as education or occupation), and that could be in part captured by income. In sum, despite the interest in the topic, there are few rigorous statistical analyses attempting to determine whether income-based measures of middle class status (as opposed to self-reported status) relate to specific values.

In this paper we complement existing empirical efforts along several dimensions. First, we attempt to address the generalized lack in values surveys of accurate information on income by constructing measures of permanent income based on asset ownership (see below, Section 3 for details). Second, we merge two strands of literature by looking at the association of values with both people's relative position in the income distribution, and absolute income levels that are comparable across countries. We also explore the possibility of nonlinearities in the relation between income and values. Finally, we consider other predictors of values, such as origin, education and occupation, which in the sociological literature are also linked to middle class status (Goldthorpe 2000), and assess whether they relate more to people's values than income itself.

The paper addresses the following questions: How do political and social values vary across income and class? To what extent does class, as opposed to education and social origins, have a net association with values? And does the Latin American middle class hold specific values that distinguish it from both upper and lower classes, or the relationship between social classes and values is a monotonic one? It is important to state at the outset that our analysis will not claim to assert causality in the relationship between class and values. If the middle class is found to hold a particular set of values, we cannot establish that the level or sources of economic wellbeing that characterizes this class *is* the cause of observed values, as implicitly suggested by theories on the role of the middle class in economic development or political stability. Endogeneity due to omitted variable bias or to reverse causality prevents such causal interpretation. But, given the current status of research and the relevance of the question, documenting systematic variations in values and orientations across education, income and occupation levels in emerging countries represents a first,

necessary step in understanding how the emergence of new middle classes will affect future growth and development prospects.

2. Literature

Many analyses of middle class values remain descriptive in nature. The Pew Research Center (PRC), among others, recently carried out two insightful studies analyzing the attitudes of the middle class. PRC (2009) defines the middle class in absolute monetary terms, and explores the hypothesis that the values of the middle classes in emerging countries tends to reflect similar opinions to those of industrialized ones on democracy and social issues, once a certain level of wealth is reached. Compared with the lower classes, the report shows that the middle class assigns a higher importance to democratic institutions and individual liberties, considers religion less central to their lives, and holds more liberal social values. The report fails however in looking at "middle class particularisms," as it does not report if the observed differences are statistically significant, and does not consider whether middle class values differ with the one of the upper classes. In PRC (2008), a public opinion survey was conducted among a nationally representative sample of US adults, to collect information on which social group people perceive themselves to be a part of (lower, middle or upper class) and their views on different values and perceptions about the future. The results show that 53% of adults in the US state that they are middle class, but roughly 80% indicate that it has become harder to sustain their current lifestyle, which suggests that, while wealthier than the poor, the middle class remains vulnerable to shocks.

The OECD's Latin America Economic Outlook (2011) makes a relevant effort to analyze the attitudes of the Latin American middle class towards democracy, fiscal policy, and redistribution. It shows that the Latin American middle class supports democracy – yet remains dissatisfied with how democracy actually functions. Regarding taxation and public services, it finds that the Latin American middle class is more likely than other groups to consider that citizens should pay their taxes, and less likely to consider that taxes are too high or justify tax evasion. The middle class is also less satisfied with the provision of public services, compared to the more affluent. The analysis, however, is based on households' self perceived position in the income distribution, which can differ substantially from their actual position (see below).

Using data from the World Values Survey for 80 countries, Amoranto, Chun and Deolalikar (2010) examine how perceived class status relates to values that may be associated with higher economic

growth and greater accountability in public services. They find that people who perceive themselves as middle class are found to have values that are more likely to contribute to economic growth than the lower class for six indices, but generally have less liberal values and attitudes than the upper class in terms of market competition, gender equality, upward mobility, and trust. As in OECD (2011), however, they base the analysis on self perceived status.

Fischer and Torgler (2007) use data for 26 countries from the 1998 International Social Survey Programme to examine the association between relative income position and several measures of social capital, such as generalized trust, confidence in institutions, compliance with social norms, and civic engagement. Relative position is measured as the difference between an individual's income and the reference group income at the aggregate level (national or regional). They find that relative income matters for most measures of social capital, such that social capital rises with an improved relative income position and declines with a disadvantage in the relative income position. The strongest effect is observable for happiness, compliance with social norms, and generalized trust.

Cárdenas, Kharas and Henao (2011) are among the few studies looking at how absolute income levels relate to values. They define the middle class as people with per capita daily income falling between $10 and $100 in PPP terms, and analyze the middle class' attitudes and values using the World Values Survey data for Peru. Contrary to previous findings, the authors suggest that the middle class in that country sees taxes as a redistributive transfer from them to the poor and are not inclined to support them. Furthermore, the middle class was found to have a high preference for free markets and support for private industry and competition. Their results also show a relative decline in the support for state-owned enterprises and the government as the owner of business, and a primacy of growth policies, which suggests that the middle class may be optimistic about their own potential but skeptical of the role of the state. The income variable is however characterized by strong measurement errors as it is based on large income bands. Moreover, only one percent of the Peruvian population earns above U$100 a day, which questions the representativity of the population sample they use to estimate the values of the upper class.

Tóth and Keller (2011) analyze how the redistributive preferences of middle classes relate to actual income and to its distribution, in contexts with different levels of income inequality. Using principal component analysis, they construct a composite index of redistribution preference based on the desirability of redistribution and state involvement in providing jobs, education and social expenditures. The analysis suggests that redistributive preferences of those in the middle are higher if they live in a society where many people feel poor and only a few feel rich. In a related paper, in

line with individuals' attitudes towards redistribution, Reed-Arthurs and Sherin (2010) employ data on taxation and fairness to find that Americans' demand for redistribution to the poor is influenced by many factors (altruism, political ideology and values), while demand for redistribution to the middle class appears to be driven by self-interest and knowledge of the tax system.

Although the middle class is not at the core of their analysis, a recent study by Cruces, Pérez Truglia and Tetaz (2011) provides relevant evidence on how individuals form perceptions with strong biases to the evaluation of their own relative position in the distribution. Using data for the Greater Buenos Aires, they assess the relevance of such biases by examining their impact on attitudes towards redistributive policies. An important characteristic of the survey lies in its experimental design, as the interviewer informs a randomly selected group of respondents whether their subjective income position coincides with the objective figures. They find that respondents who were relatively poorer than they had thought became more supportive of redistribution to the poor when informed of their true income rank, while for those with negative biases (i.e. who were relatively wealthier than they had thought), there are no significant results.

Our analysis adds to these studies by looking at the extent to which income-based measures of middle class status are associated with values (as opposed to self reported status), and by making an attempt to derive more accurate measures of income than what is currently reported in values surveys.

3. Data and methodology

Our analysis draws on the 2007 *Ecosocial* values surveys. These values surveys were implemented by CIEPLAN, a Latin American Think Tank, in seven Latin American countries – Argentina, Brazil, Chile, Colombia, Guatemala, Mexico and Peru. The surveys are representative of the adult population (18 years or more) living in larger urban centers in each country. The sampling design is probabilistic and multistage, and the questionnaire was applied through face-to-face interviews in the respondents' household. We choose to use the *Ecosocial* surveys because of their rigorous sampling methodology, the information they collect on a variety of values, and because they collect information about households' assets, which will allow us to construct a measure of households' permanent income (see below). We exclude from the analysis Argentina because we were not able to match assets with other surveys and build an income measure. The analysis is therefore based on a

pooled dataset combining six countries that was created from the national datasets, with a total sample size of 12,297 observations.

The outcomes of interest, our dependent variables, are the values and attitudes regarding political, economic, and social issues. Because of the large number of questions asked in the surveys, and likely similarity of answers within themes, we group questions using principal component analysis (PCA), and create thematic "values indexes." Principal component analysis reduces the dimensionality of a data set with a large number of interrelated variables, while retaining as much variation as possible, by mapping old variables into a new set of variables, the principal components, ordered so that the first few retain most of the variation present in all of the original variables (Joliffe, 2004; Stevens, 2002). The technique used is robust to different formulations of the variables that are used, accommodating continuous, dichotomous, and ordinal variables.

We create the "values indexes" as follows. We select first a series of survey questions capturing orientations that are plausibly related with each other. We then extract the weights of each variable in the first principal component (the linear combination that accounts for the largest proportion of the variance across all items), and compute predicted values of the principal component for each observation in the dataset. These new, summary variables constitute the dependent variables of our analysis. For example, the value index "trust in institutions" in our analysis is based on five items, ascertaining trust in the following institutions: the national government, congress, political parties, the mayor, and the police. In building the principal component, we discard variables presenting a high uniqueness (the proportion of the variance that is not accounted for by the principal component). We use a conventional uniqueness cutoff of 0.90, which signals that the value item in question is very weakly correlated with the common variation across all items, and therefore adds unrelated information. This technique allows substantive decision making in terms of the items selected to identify each value index, while at the same time preventing arbitrary combination of items that are only weakly correlated. Observe, also, that by extracting the first principal component we retain the variance that is shared across all items, such that the idiosyncratic determinants of each individual item (for example, misunderstanding of a particular survey question) are ruled out.

In addition to creating several "values indices," we include single indicators that provide important information in and of themselves – for example, whether respondents voted in presidential elections. Together, the indices and single indicators comprise our 11 dependent variables, namely: *trust in institutions; political alienation; perception of mobility and opportunity; support for individual rights;*

legitimization of political violence; voting; social tolerance; nationalism; political ideology; interpersonal trust; and, interpersonal alienation. For a complete list of the indicators and questions included in each dimension see the Annex.

Our main independent variable refers to the class position of the respondent, based on the per capita income level of his/her household. In order for the household income to accurately represent the respondents' class, selection was limited to respondents 25 years old and older. The main challenge in determining household income is the absence of an accurate variable capturing income in most values surveys. Income is in fact unavailable in the *Ecosocial* survey, which contains however information on a series of household goods and assets. We use therefore information of households' assets to construct a measure of households' permanent income – the long-term level of economic wellbeing, purged from short-term volatility and measurement error (Torche 2009).

To do so, we match assets in *Ecosocial* with assets from an "external" household survey in each country that contains information on both assets and households' income.[2] Using these external surveys, we run a regression model predicting logged per capita household income by means of the set of household goods and assets, controlling for the household head's education, and the log of household size. The coefficients obtained for the household goods and assets are then used in *Ecosocial* to predict, using the same set of assets and household characteristics, (logged) per capita income for each household. This technique closely resembles the two-sample instrumental variable approach used to examine intergenerational income elasticity, when information on parental income is unavailable in the focal survey (Arellano and Meghir 1992, Angrist and Krueger 1992). To achieve comparability across countries, we convert each income variable in 2005 USD PPP terms.

For our purposes, the derived measure has a double advantage. First, and most importantly, it solves the lack of accurate information on income in values surveys. Second, being based on assets, it summarizes households' wealth (and thus a longer-term average of households' income), which is more likely to be associated with values than current, transitory income.

Next, we use the permanent household income as a regressor in our models. We construct two alternative measures of social class from the values of predicted household income that we call *absolute* and *relative* measures of class. Absolute class is based on fixed monetary thresholds, and distinguishes four classes: lower class (households with a monthly per capita income below $4 in

[2] The selected surveys are: *Pesquisa Nacional de Amostragem Domiciliarios* (PNAD) 2009 for Brazil, *Encuesta de Caracterizacion Socioeconomica* (CASEN) 2009 for Chile, *Gran Encuesta Integrada de Hogares* (GEIH) 2006 for Colombia, *Encuesta Nacional de Condiciones de Vida* (ENCOVI) 2006 for Guatemala, *Encuesta Nacional de Ingreso y Gasto de los Hogares* (ENIGH) 2008 for Mexico, and *Encuesta Nacional de Hogares* (ENAHO) 2009 for Peru.

PPP terms), lower-middle class (households with an income between $4 and $10), middle class (households with an income between $10-$20), and upper-middle class (households with an income above $20). We refrain from introducing an upper class with income above $50 or $100 because of very few households earning these incomes in Latin America (typically, around two percent of the sample), which would question the representativity of our results. In using 10 dollars a day as our middle class threshold, we follow analyses that have looked at vulnerability to poverty as a prerequisite to middle class status. These analyses find that if the middle class threshold is set excessively close to the poverty threshold, people remain excessively vulnerable to shocks that would bring them back into poverty, and may not behave differently than the poor (see Goldthorpe and McKnight, 2004; and Lopez-Calva and Ortiz-Juarez, 2011).

Relative social class is based on the polarization index developed by Duclos, Esteban and Ray (Duclos, Esteban and Ray 2004; Esteban, Gradin and Ray 2007). Following their approach, we distinguish three income groups such that income inequality within each group (the "identification") is minimized, while income inequality across groups is maximized. We call these groups lower, middle, and upper class. Observe that, while the absolute definition of class is constant across countries, the relative class position is nation-specific and depends on the patterns of income distribution in each country. Observe, also, that even if the thresholds we use in computing classes tend to follow the literature (see Cruces, López-Calva and Battiston 2011), a certain degree of arbitrariness remain. We complement therefore absolute and relative class thresholds with a simpler measure of log per capita household income. Because of the multiplicative properties of the logarithm, and the use of country fixed effects, this measure captures how far, in relative terms, an individual remains from mean log income.

In addition to income, we also include control variables capturing exogenous characteristics of individuals: age and age squared, sex, race/ethnicity, and mother's and father's education. To these variables, we add the respondents' education. In a robustness exercise, we also add occupation. Race/ethnicity distinguishes the following categories: white, black, indigenous, and mixed. For education, we harmonize information across countries and generate a homogeneous variable with 10 categories.[3] While, to ease the presentation of the results, we present regression results treating education as a continuous variable with 10 values, all results hold thru considering an (imperfect)

[3] These are: No education or incomplete elementary, completed elementary, lower secondary incomplete, lower secondary completed, upper secondary incomplete, upper secondary completed, post-secondary technical incomplete, post-secondary technical completed, college incomplete, college graduate or more.

measure of years of education constructed out of these categories. All regressions include country effects to capture baseline differences in values and attitudes across countries.

Table 1 presents descriptive statistics for the independent and dependent variables. Table 2 presents the social class distribution based on *Ecosocial*, and the dollar thresholds that define relative social classes in each country. Under a relative definition, the middle class accounts for about one-third of the households. In absolute terms, about 40% of households in the countries included in the analysis have a per-capita income between $4-$10, and another 27% of households have a per-capita income between $10 and $20 per month.

The absolute and relative class definitions, while correlated because of the similarity in income levels across the countries we investigate, capture different concepts. The absolute definition of class is expected to capture differences in absolute levels of economic wellbeing. Under an "absolute" perspective, the middle class is plausibly a source of growth and entrepreneurship as it emphasizes values such as savings and education. In contrast, the country-specific relative middle class is the group placed in the middle of the income distribution in each country, and therefore, likely to provide a moderating political force and to promote socio-political stability by creating a bridge between the poor and the rich. Both classifications, through the use of dummy variables, are designed to capture non-linearities in the association between income and values.

Table 3 offers the pair-wise correlations across all outcome variables – value indices and indicators. Correlations are generally low, suggesting that these measures capture different types of values and orientations. The comparison suggests that trust in institutions is related with attachment to the political system (in its negative form, as political alienation), and, to a lesser degree, with interpersonal trust and interpersonal alienation. Perceived equality of opportunity is also higher among those who trust and are more engaged with the political system. In a different cluster, interpersonal alienation is related to the legitimization of violence and with nationalistic orientations. Interestingly, institutional and interpersonal trust does not translate into higher levels of tolerance. In fact, social tolerance is positively (albeit weakly) correlated with political alienation and nationalism. Finally, support for individual rights, vote, and left-right ideology are relatively orthogonal to other dimensions.

The estimations are based OLS regression with robust standard errors, to account for the built-in heteroskedasticity in linear probability models. We discuss five specifications for each dependent variable. In the first specification, we include only exogenous variables – i.e. sex, age, race, father's and mother's education, and country effects. We add next the respondent's education. We then

control for the logarithm of per capita household income. Finally, we replace log income with absolute and relative class positions.

4. Results

Tables 4a-4c present the estimates of the regressions. To give a sense of the magnitude of each association, we also show in Figures 1 and 2 the values of the estimates multiplied by the standard deviation of each variable. Table 4a displays the results for *trust in institutions, political alienation,* and *perception of opportunity/mobility*. These outcomes capture engagement with and support for the political and economic system in place. As shown, both education and class position correlate positively with *trust in institutions*. Income and class position displays a net positive association, rather than simply mediating the effect of education. The association is non-linear however – only the upper class (both relative and absolute) has significantly higher levels of trust in the institutional system.

A similar pattern emerges for *political alienation*. The relationship with income appears negative and significant (so that higher levels of income predict lower levels of alienation), but, when disaggregating income in classes, only the upper class has significantly lower levels of alienation, with no significant differences between lower and middle classes. Findings are consistent across absolute and relative measures of class.

In contrast, *perception of economic opportunity* shows a different pattern of association with class position. We still see a monotonic but non-linear increase across income levels. However, a sharp difference emerges in this case between the lower class (which perceives much less opportunity) and everyone else. The middle class shares similar levels of perceived opportunity with the upper class. Interestingly, education and income have opposite relationships with perceived opportunity. Higher schooling is related with lower perceived opportunity, while, net of educational attainment, a higher class position predicts higher perceived opportunity.

In sum, the analysis of the first three political orientations presented in table 4a provides no indication of a "middle class particularism," but rather a monotonic relationship between income and values. If anything, it suggests that the upper class is qualitatively different from the rest of society. Observe, also, that in all three cases the association between class and values appears to be weaker than the country effects.

Table 4b presents the analysis capturing support and engagement in the democratic system for three outcomes: *support of individual rights*, *legitimization of political violence*, and *voting*. As detailed in the Annex, support for individual rights emerges from asking respondents whether these should be respected under any circumstance or whether criminals not be allowed the same rights as "honest people." The variable should capture a preference for order and stability at the expense of the individual rights of transgressors. Education displays a positive association with the support of individual rights while, net of education, income has a negative influence. Examining the variation across social class, an indication of "middle class exceptionalism" emerges. Under the absolute classes, middle class individuals are less likely than the poor and the wealthy to support individual rights in extreme circumstances, leading to a U-shaped relationship between social class and this orientation.

The *legitimization of political violence* captures respondents' agreement with the use of force to attain social or political ends. Interestingly, exogenous variables display strong associations with this orientation. Men are more likely to legitimize political violence, while the tolerance for the use of violence declines with age, and with the mother's and own education. Those self-identified as indigenous are also significantly more likely to legitimize political violence. Note that one of the variables included in the index refers to the use of violence when indigenous minorities claim their ancestral lands. However, the principal component analysis (on which the legitimization of political violence index is based on) captures only the variation shared with other indicators, so the index denotes support for political violence in general, rather than specifically on indigenous concerns. Net of exogenous characteristics and education, class position has a significant association with legitimization of violence, where higher social class is associated with less support. The trend is monotonic but there is a larger gap between lower class and all other classes, and an insignificant difference between middle and upper classes.

In terms of *voting* in presidential elections, both education and social class are related with a higher likelihood of voting. As in the previous case, this association is nonlinear, with, under absolute classes, a much lower probability of voting among the lower class and all other classes, and minor differences between middle and upper classes. Observe that, for these three variables as well, the strength of the association between income and values tends to lie below the country average effects.

Table 4c presents the results for broader social and ideological orientations. These include *social tolerance*, *nationalism* and *left-right political ideology*. *Social tolerance* captures the respondents' willingness to

interact with people of a lower socioeconomic position than themselves, or who are gay, immigrants or atheists. Ethnic and racial minorities and racially mixed individuals state higher levels of tolerance than whites. Education does not display a significant association with tolerance, and log income fails to capture a monotonic relation between income and values. This variable offers the second instance of "middle class particularism." As in the case for *support for individual rights,* the middle class appears to differ from both the lower and upper classes, displaying the highest levels of tolerance.

The fact that education does not show a significant association with tolerance – if something, mother's education has a small negative correlation – is noteworthy, as education is traditionally related to growing tolerance, openness to diversity and cosmopolitanism in advanced industrial countries. The notion that class but not education relates to tolerance suggests that it is the specific socioeconomic position of middle class individuals (and location in the social structure – neighborhoods, workplaces, etc.), rather than the increased openness resulting from schooling that may drive this effect. This source of "middle class particularism" emerges for both absolute and relative definitions of the middle class.

In terms of *nationalism*, higher levels of schooling result in a weaker orientation. Net of education, class affects nationalism only for the absolute upper-middle class. Regarding *left-right political orientation*, as standard in Latin America, a substantial proportion of the population (11% in this case) does not identify with this ideological scale. Income (in logged formulation) increases the chances of identifying with a more right-wing position. However, when social classes are distinguished, only the upper class appears to be closer to the right, and this association fails to reach significance if an absolute formulation of class is used. In contrast, ethnicity seems to affect significantly political ideology, with ethnic minorities being on average more leftists.

Table 4d complements the analysis looking at trust in and engagement with institutions, by highlighting the interpersonal component of social relations. *Interpersonal trust* is low in Latin America. According to *Ecosocial*, only 12% of respondents agree that people can be trusted. Substantial variation exists in association with age (older are more trusting), sex (males are more trusting), ethnicity (indigenous and mixed-race individuals are more trusting), mother's and own education (more educated individuals are more trusting). Net of these factors, variation across class is minor. Only the upper class has higher levels of trust (for both the absolute and relative definitions), without significant differences between lower and middle classes. Finally, a monotonic decline is found in *interpersonal alienation* across social class with a wide gap between the lower class

and their middle and upper counterparts, both under the absolute and relative definitions. Here as well, the magnitude of the country effects is much wider than the one of class.

Observe that part of the association between income and values could be through occupational status (Goldthorpe, 2000). In a robustness exercise (not presented here because of space constraints), we include therefore occupational status in addition to income. We classify occupational status into self-employed, skilled manual, low and high clerical, independent professionals, managers and executives, house workers, students and people out of the labor force. The inclusion of occupational status alters in very few instances the sign and significance of the relationship between income and values. Moreover, while income and classes are significantly related to all but one value (nationalism), the relation between occupational values is much less robust: the status that relates most to values is managers and executives, a status closely associated with income, but all other relate in a statistically significant manner with at most seven values (independent professionals) or less (all others) out of the eleven values we consider.

Observe, also, that the R squared in all regression tends to remain fairly low (a feature that does not change when adding occupational status). This suggests that other, unobserved characteristics may play an equal or even more important role than income, occupational status or countrywide effects in driving values. Unfortunately, it is not possible to capture these characteristics with the information currently available in values surveys.

5. Conclusions

Income is an important correlate of political values and orientations, even when variables capturing social background (parents' education, age, sex, ethnicity), education and occupation have been accounted for. While the relation does not necessarily imply a causal impact of income on values, the findings suggest that income is a relevant predictor of political and social orientations.

While income matters, we do not find strong evidence of a middle class particularism. The relationship between income and political orientations remains, for the most part, monotonic. As people grow richer they gradually change values. Accordingly, the middle class, measured either in relative or absolute terms, has values that lie between the ones of the rich and the ones of the poor. Because of the nature of the monotonic relation, they have therefore moderate values. But we find

little evidence of specific middle class values that mediate between the more extreme values of the lower and upper classes.

The relationship with income appears however to be non monotonic in some instances. When this is the case, the upper classes have often distinct values than the other classes, while values of the middle class tend to remain statistically indistinguishable from the ones of lower classes.

While income tends to display a similar association to orientations as education (which is to be expected to the extent that both are measures of socioeconomic advantage), in a few instances the relationship holds the opposite sign. This is the case for perception of opportunity (positive association with income, negative association with education), support of individual rights under any circumstance (negative association with income, positive association with education), and political ideology (higher education relates to a more left-wing ideology, higher income relates to a more right-wing ideology). These discrepancies highlight the particularities of income as a measure of social class. As opposed to schooling, higher levels of income appear to correlate with more conservative and less progressive orientations, as well as with higher perception of equality of opportunity.

Overall, the association of education, income and individual characteristics with values remains however much lower than the association captured by the country effects. The country dummies do capture, to a certain extent, the effects of average income and education levels in each country. But they also capture societal values that can differ strongly across countries, and this research suggests that individual values move primarily within bounds dictated by each society. Moreover, the regressions (even when we include country dummies and occupational categories) only capture a fraction of the overall variance in values (as indicated by the relatively low R squared), which suggest that other, unobserved characteristics may play an important role.

These findings suggest that too much emphasis may be placed on middle class values as an engine of social change. This however does not necessarily imply that middle classes do not bring change. They may still push for reforms that are beneficial for their own welfare and economic activities. The results also suggest that much more investigation is needed on drivers of values. We conceive this study as an initial step in the understanding of the relationship between economic position and political orientations. We hope that more comparative work will add to this area of inquiry.

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Description of values indicators

1. **Trust in institutions**: Index based on how much individuals trust (a) the government, (b) congress, (c) political parties, (d) the mayor and (e) the police.

2. **Political alienation**: Index based on respondents' agreement with the following statements: (a) people who are in charge do not care about people like me, (b) the authorities would not do anything if there was a serious problem in my neighborhood, and (c) most people in power only try to take advantage of people like me.

3. **Perception of mobility and opportunity:** Index based on the following indicators:
   (a) How likely is for average youth to graduate high school?
   (b) How likely is for a poor person to overcome poverty?
   (c) How likely is for a person to start their own business?
   (d) How likely is that a smart youth without economic resources to enter college?
   (e) How likely is that a woman attains a good job?
   (f) How likely is that any worker becomes a homeowner in a reasonable time?
   (g) In this country, anyone who works hard can get ahead…

4. **Support for individual rights**: Indicator based on the survey question "Which one of these statements do you agree with the most: Individual rights should be respected under any circumstances (coded 1), or criminals should not have the same rights as honest people (coded 0)".

5. **Legitimization of political violence:** Index based on the following items: Do you think the use violence is justified in the following cases?
   (a) When indigenous minorities claim their ancestral land
   (b) When revolutionary social change is attempted
   (c) When the environment is being protected
   (d) When the poor claim better living conditions
   (e) When people oppose a dictatorship

6. **Vote:** Indicator based on the survey question: Do you vote in presidential elections, recoded so that 1=always vote, 0=sometimes or never vote.

7. **Social tolerance:** Index based on the following indicators: How uncomfortable would you be in the following situations?
   (a) If your child married someone of a class lower than yours
   (b) If your neighbor was a different race
   (c) If your child had a homosexual friend
   (d) If your neighbor was an immigrant worker
   (e) If your neighbor was of a class lower than yours

(f) If your child married an atheist.

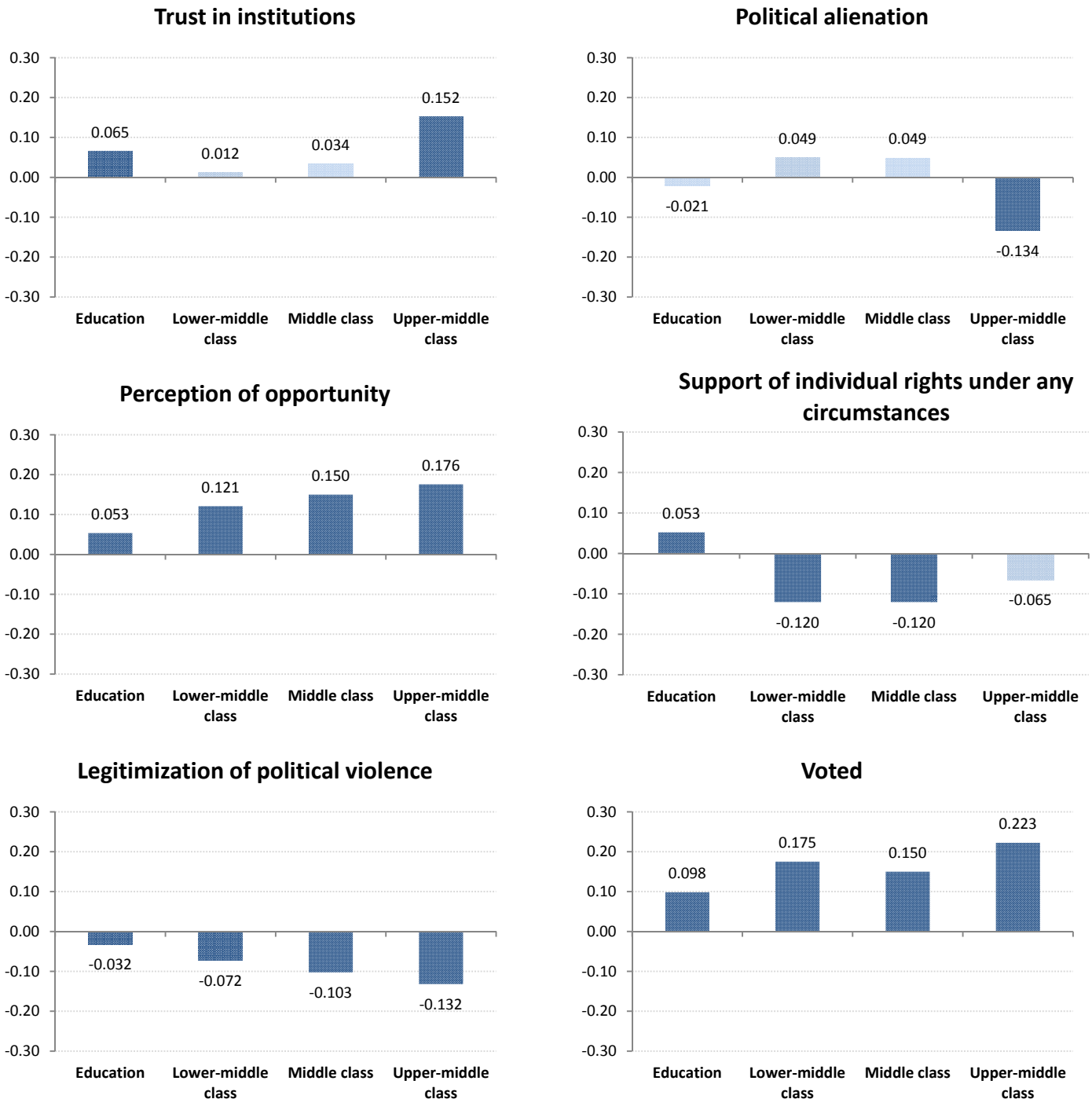
8. **Nationalism:** Index based on the following indicators:
   (a) Considering the good and the bad, I am proud of being (nationality)
   (b) (Country) should defend our national interests, even if that creates conflicts with other countries
   (c) (Country) should limit imports of foreign product to protect the national economy
   (d) TV in (country) should favor national shows and films

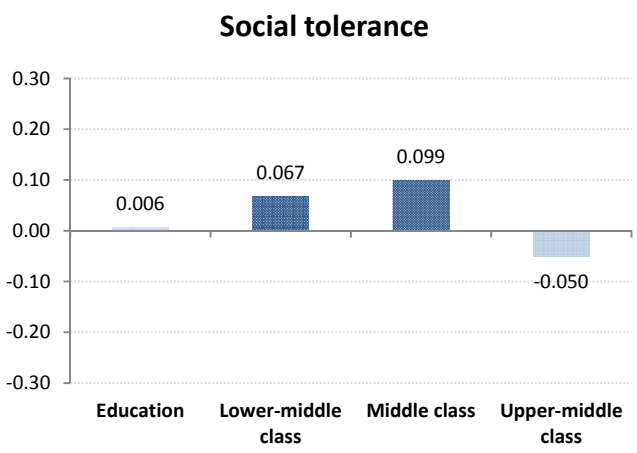
9. **Political ideology:** Indicator based on the survey question "Using a scale in which 1 means a left-wing position and 10 means a right-wing position, where would you place yourself?"

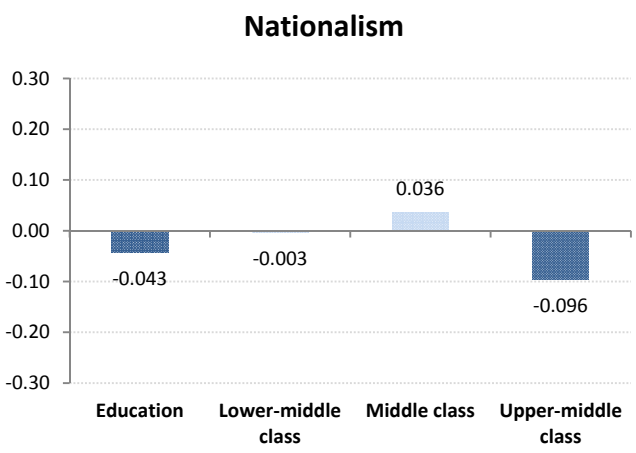
10. **Interpersonal trust:** Indicator based on the survey question "Speaking in general, do you think most people can be trusted (coded 1) or you can never be too careful (coded 0)?"

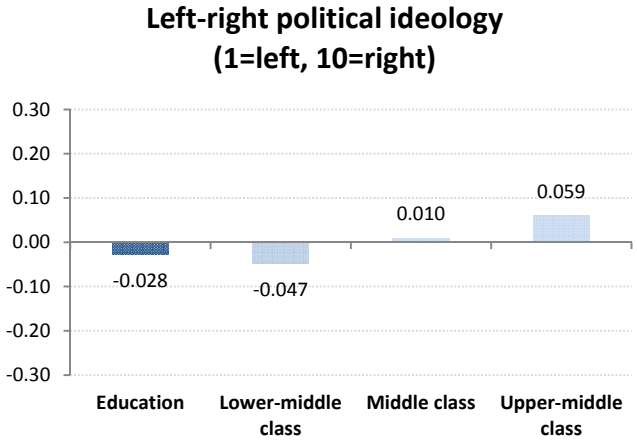
11. **Interpersonal alienation:** Index based on the following indicators:
   (a) In general, what I think does not count very much
   (b) I am always left out of things going on around me
   (c) People around me would not do much if something happened to me
   (d) Most people try to take advantage of me.

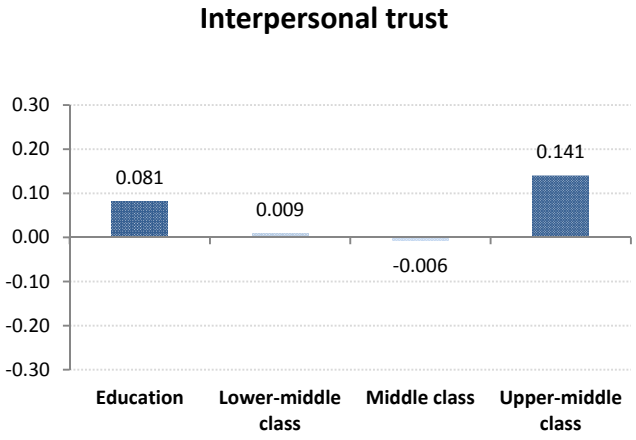
Figure 1. Associations with values (absolute classes).

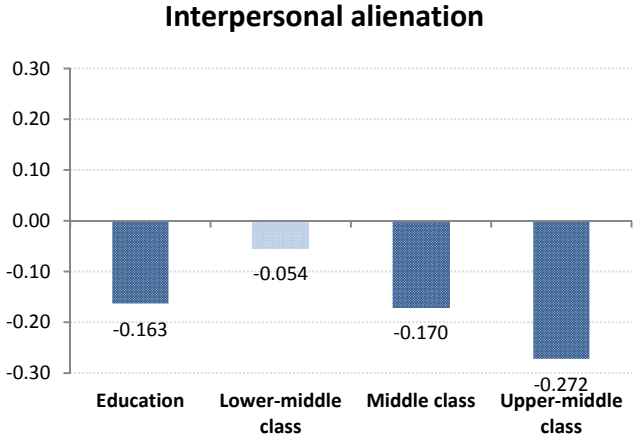






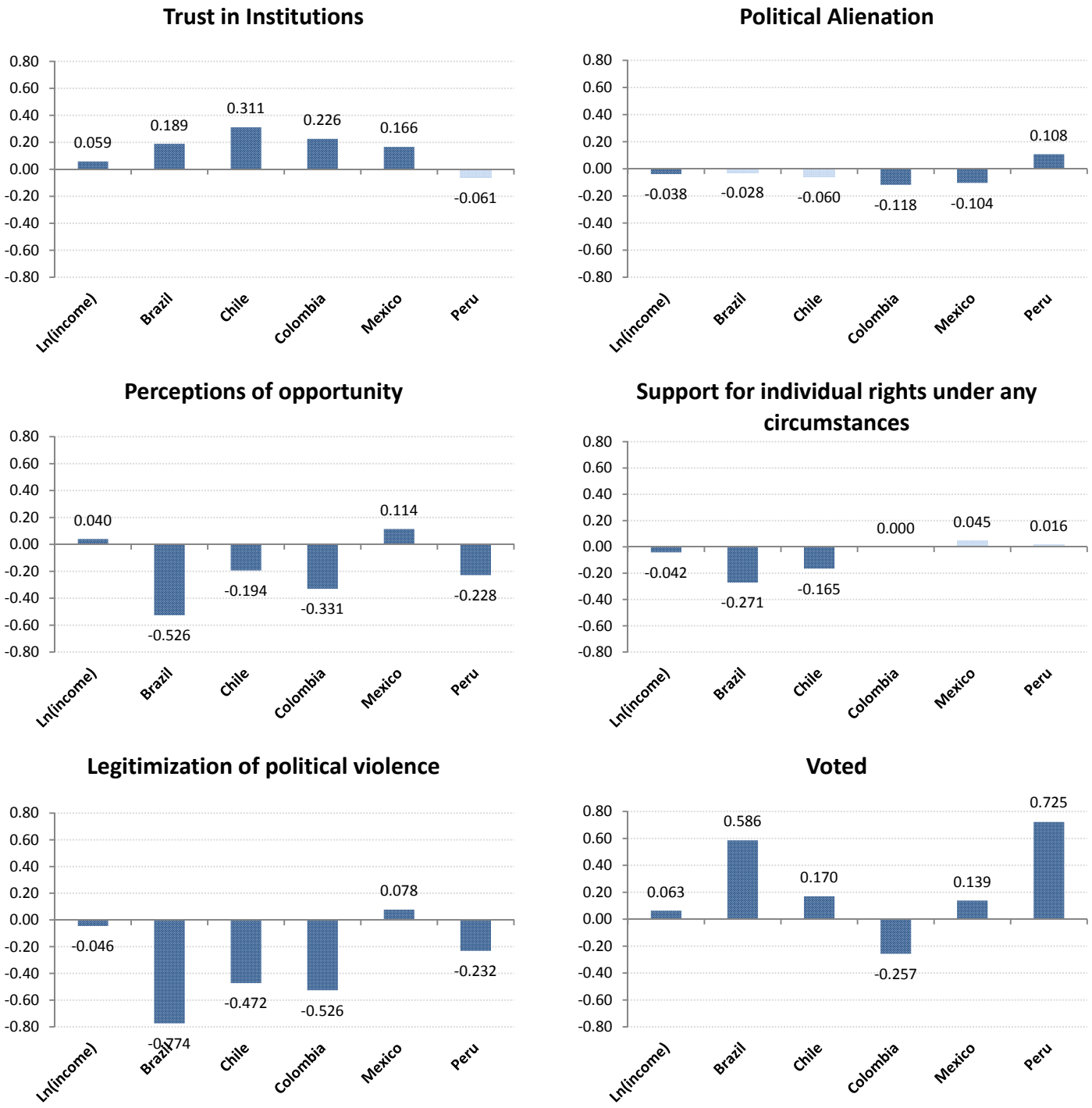


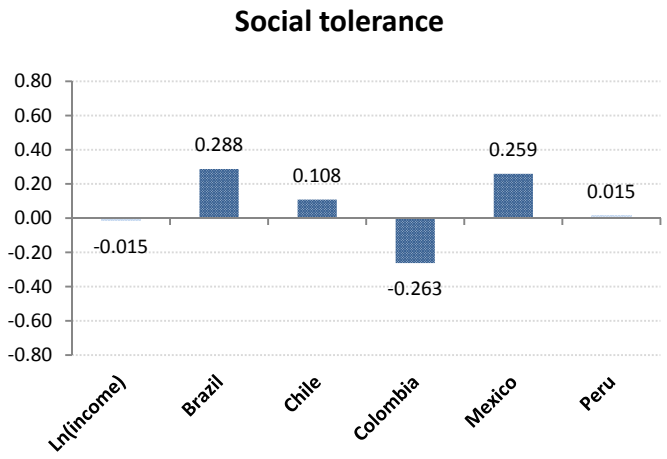


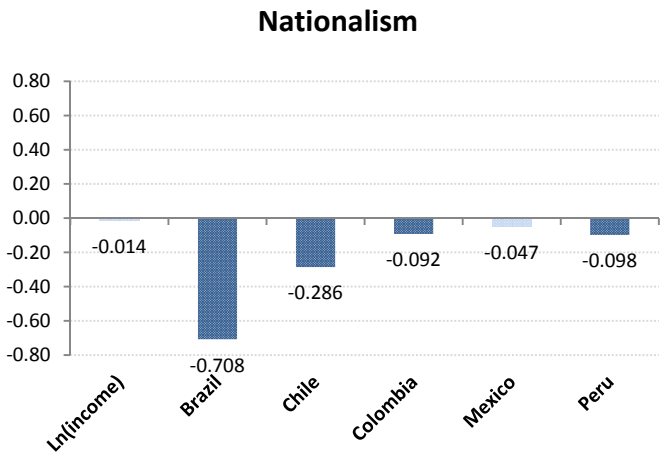


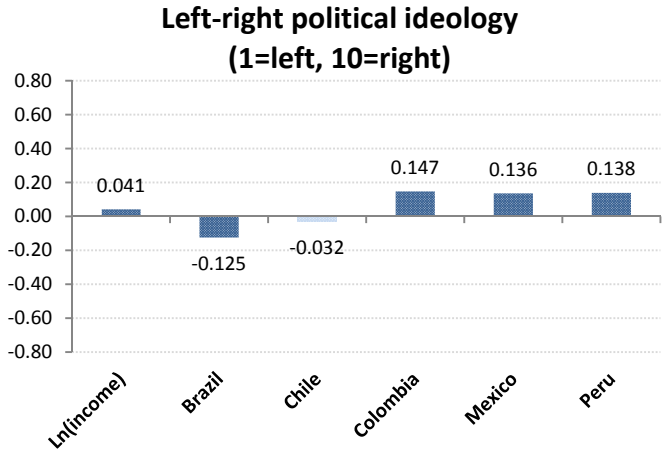
Note: Light blue columns are statistically insignificant at the 10% level. Effects are all expressed in terms of the values' standard deviation. Education is multiplied by its standard deviation. Class dummies refer to the difference from the poor (0-4$ a day). Lower-middle class: 4-10$ a day; Middle class: 10-20$ a day; Upper-middle class: 20-50$ a day.

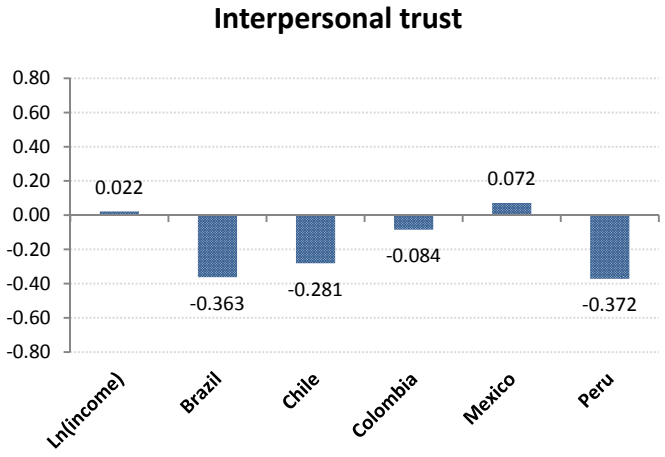
Figure 2. Associations with values (country effects).

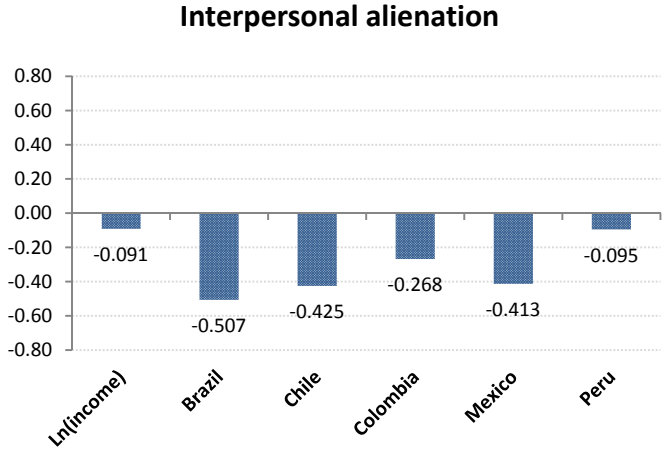












Note: Light blue columns are statistically insignificant at the 10% level. Effects are all expressed in terms of the values' standard deviation. Country dummies refer to the difference with respect to Guatemala. Income is multiplied by its standard deviation.

Table 1. Descriptive statistics.

Variable	Mean	sd	min	max	N
Male	0.47	0.50	0	1	12297
Age	44.33	14.01	25	97	12285
Age squared	2168.57	1400.31	625	9801	12297
Race/ethnicity:	3.01	1.34	1	4	12104
White	28.7%				
Black	3.2%				
Indigenous	6.4%				
Mixed	61.8%				
Mother's education	2.99	2.41	1	10	10611
Father's education	3.40	2.78	1	10	9979
R's education	5.01	2.88	1	10	12289
Trust in institutions	0.02	1.95	-3.76	7.69	10766
Political alientation	0.00	1.38	-3.65	2.59	12165
Perception opportunity	0.01	1.73	-4.81	5.39	10766
Respect rights	0.58	0.49	0	1	12144
Legitimization violence	-0.02	1.89	-2.68	5.53	10766
Voted	0.74	0.44	0	1	12274
Social tolerance	-0.01	1.55	-8.44	1.97	10766
Nationalism	0.00	1.33	-6.06	2.33	12086
Political ideology (1=left, 10=right)	5.16	2.19	1	10	10904
Trust, interpersonal	0.12	0.32	0	1	12238
Alienation, interpersonal	0.00	1.36	-2.96	3.64	11796

Table 2a. Social class distribution, absolute and relative measures ECOSOCIAL 2007.

	Absolute	Relative
Lower class	13.6%	45.8%
Lower-middle class	43.9%	
Middle Class	27.3%	35.1%
Upper class	15.2%	19.1%
Total	*100%*	*100%*

Note: Relative measure of middle class is country-specific. Absolute measure of class distinguishes Lower class =Per capita income less than $4- month, Lower-middle=$4-$10-month, Middle=$10-$20-month, Upper-middle=More than $20-month.
* The lower-middle class category applies only to the absolute definition

Table 2b. Relative middle class definition: Dollar thresholds by country

	Lower threshold	Upper threshold
Brazil	9.0	17.5
Chile	11.9	22.3
Colombia	7.5	16.8
Guatemala	7.0	17.6
Mexico	7.4	15.8
Peru	6.2	12.6

Table 3. Correlation between dimensions of political orientations, ECOSOCIAL dataset.

	Trustinst	Polalien	Peroppor	Suppright	Legitviol	Vote	Tolerance	Nation	Polideol	Trustind	Iterpalien
Trust institutions	1										
Political alienation	-0.45*	1									
Perceived opportunity	0.18*	-0.19*	1								
Support rights	0.07*	-0.02	0.07*	1							
Legitim. Violence	-0.08*	0.12*	0.04*	0.04*	1						
Vote	0.10*	-0.04*	0.01	-0.00	-0.07*	1					
Social tolerance	-0.13*	0.14*	0.01	0.03*	0.03*	0.01	1				
Nationalism	0.03*	0.07*	0.14*	-0.00	0.24*	-0.00	0.13*	1			
Pol. Ideology	0.08*	-0.03*	0.04*	-0.01	-0.03*	0.02	-0.11*	0.00	1		
Trust individuals	0.14*	-0.10*	0.08*	0.06*	-0.03*	-0.02	0.00	-0.05*	0.04*	1	
Interpers. Alienation	-0.20*	0.27*	-0.03*	0.00	0.15*	-0.09*	-0.02	0.16*	-0.03*	-0.15*	1

Table 4a. Regression models predicting trust in institutions, political alienation, and perception of opportunity.

	Trust in institutions					Political alienation					Perception of opportunity				
	M1	M2	M3	M4	M5	M1	M2	M3	M4	M5	M1	M2	M3	M4	M5
Male	0.055	0.033	-0.013	-0.013	-0.012	0.001	0.010	0.007	0.006	0.007	0.012	0.020	0.005	0.002	0.005
	(0.041)	(0.041)	(0.042)	(0.042)	(0.042)	(0.028)	(0.028)	(0.029)	(0.029)	(0.029)	(0.037)	(0.037)	(0.038)	(0.038)	(0.038)
Age	0.015	0.011	0.012	0.012	0.012	-0.014**	-0.012*	-0.011*	-0.011	-0.010	-0.040***	-0.039***	-0.037***	-0.037***	-0.037***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.006)	(0.006)	(0.007)	(0.007)	(0.007)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)
Age2	-0.000	0.000	-0.000	-0.000	-0.000	0.000*	0.000	0.000	0.000	0.000	0.000***	0.000***	0.000***	0.000***	0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Father's ed.	0.014	-0.008	-0.008	-0.007	-0.008	-0.018**	-0.009	-0.011	-0.011	-0.010	-0.004	0.004	0.012	0.013	0.013
	(0.012)	(0.013)	(0.013)	(0.013)	(0.013)	(0.008)	(0.009)	(0.009)	(0.009)	(0.009)	(0.011)	(0.011)	(0.012)	(0.012)	(0.012)
Mother' ed	0.079***	0.060***	0.062***	0.059***	0.061***	-0.026***	-0.019*	-0.014	-0.011	-0.012	0.006	0.013	0.005	0.005	0.005
	(0.014)	(0.014)	(0.015)	(0.015)	(0.015)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.013)	(0.013)	(0.014)	(0.014)	(0.014)
White (omitted)															
Black	-0.132	-0.119	-0.093	-0.091	-0.094	0.127	0.123	0.110	0.106	0.105	-0.002	-0.006	-0.016	-0.012	-0.015
	(0.140)	(0.140)	(0.141)	(0.142)	(0.142)	(0.097)	(0.097)	(0.098)	(0.098)	(0.098)	(0.126)	(0.126)	(0.128)	(0.128)	(0.128)
Indigenous	-0.101	-0.051	-0.008	-0.019	-0.024	0.057	0.038	0.021	0.028	0.023	-0.075	-0.093	-0.067	-0.060	-0.075
	(0.089)	(0.089)	(0.090)	(0.090)	(0.090)	(0.061)	(0.061)	(0.062)	(0.062)	(0.062)	(0.080)	(0.080)	(0.081)	(0.081)	(0.081)
Mixed	-0.132***	-0.131***	-0.103**	-0.103**	-0.107**	0.028	0.029	0.027	0.021	0.024	-0.092**	-0.093**	-0.083*	-0.084*	-0.086*
	(0.051)	(0.051)	(0.052)	(0.052)	(0.052)	(0.035)	(0.035)	(0.036)	(0.036)	(0.036)	(0.045)	(0.045)	(0.047)	(0.047)	(0.047)
R's education		0.066***	0.041***	0.044***	0.046***		-0.026***	-0.012	-0.010	-0.007		-0.024***	-0.032***	-0.032***	-0.030***
		(0.009)	(0.011)	(0.011)	(0.011)		(0.006)	(0.007)	(0.008)	(0.008)		(0.008)	(0.010)	(0.010)	(0.010)
Ln(income)			0.144***					-0.067***					0.088***		
			(0.034)					(0.023)					(0.031)		
Lower class abs. (omitted)															
Lower-middle class				0.023					0.068					0.209***	
				(0.069)					(0.047)					(0.062)	
Middle class				0.067					0.067					0.259***	
				(0.080)					(0.054)					(0.072)	
Upper-middle class				0.297***					-0.185***					0.304***	
				(0.097)					(0.067)					(0.088)	
Lower class rel. (omitted)															
Middle class rel.					0.077					-0.040					0.137***
					(0.050)					(0.034)					(0.045)
Upper class rel.					0.219***					-0.208***					0.131**
					(0.070)					(0.048)					(0.063)
Guatemala (omitted)															
Brazil	0.421***	0.354***	0.368***	0.390***	0.386***	-0.047	-0.020	-0.039	-0.068	-0.062	-0.925***	-0.902***	-0.910***	-0.913***	-0.902***
	(0.087)	(0.087)	(0.087)	(0.088)	(0.088)	(0.060)	(0.060)	(0.060)	(0.061)	(0.061)	(0.078)	(0.078)	(0.079)	(0.079)	(0.079)
Chile	0.712***	0.611***	0.606***	0.632***	0.662***	-0.105**	-0.064	-0.083	-0.113**	-0.132**	-0.339***	-0.303***	-0.335***	-0.343***	-0.301***
	(0.074)	(0.075)	(0.076)	(0.076)	(0.077)	(0.051)	(0.052)	(0.052)	(0.052)	(0.053)	(0.067)	(0.068)	(0.068)	(0.069)	(0.070)
Colombia	0.568***	0.470***	0.441***	0.453***	0.445***	-0.217***	-0.179***	-0.163***	-0.185***	-0.176***	-0.678***	-0.643***	-0.572***	-0.577***	-0.575***
	(0.075)	(0.076)	(0.080)	(0.080)	(0.080)	(0.051)	(0.052)	(0.054)	(0.054)	(0.054)	(0.067)	(0.068)	(0.072)	(0.072)	(0.072)
Mexico	0.376***	0.325***	0.323***	0.338***	0.325***	-0.138***	-0.119**	-0.144***	-0.165***	-0.151***	0.191***	0.209***	0.198***	0.195***	0.199***
	(0.070)	(0.070)	(0.070)	(0.071)	(0.071)	(0.048)	(0.049)	(0.049)	(0.049)	(0.049)	(0.063)	(0.063)	(0.064)	(0.064)	(0.064)
Peru	-0.081	-0.202***	-0.119	-0.116	-0.152*	0.173***	0.218***	0.149***	0.121**	0.142***	-0.455***	-0.410***	-0.394***	-0.397***	-0.415***
	(0.076)	(0.078)	(0.080)	(0.081)	(0.080)	(0.051)	(0.052)	(0.054)	(0.055)	(0.054)	(0.068)	(0.070)	(0.073)	(0.073)	(0.072)
Constant	-1.043***	-1.133***	-1.357***	-1.137***	-1.139***	0.484***	0.524***	0.595***	0.413**	0.461***	1.308***	1.340***	1.159***	1.145***	1.258***
	(0.231)	(0.231)	(0.238)	(0.240)	(0.236)	(0.157)	(0.157)	(0.162)	(0.163)	(0.161)	(0.208)	(0.208)	(0.215)	(0.216)	(0.213)
R^2	0.044	0.050	0.050	0.050	0.049	0.014	0.016	0.014	0.016	0.015	0.046	0.047	0.045	0.045	0.045
Observations	8,524	8,520	8,178	8,178	8,178	9,459	9,455	9,084	9,084	9,084	8,524	8,520	8,178	8,178	8,178

Table 4b. Regression models predicting support for individual rights under any circumstance, legitimization of political violence, and voting behavior.

	Support individual rights under any circumstance					Legitimization political violence					Voted				
	M1	M2	M3	M4	M5	M1	M2	M3	M4	N5	M1	M2	M3	M4	M5
Male	-0.006	-0.009	-0.009	-0.009	-0.010	0.386***	0.399***	0.402***	0.403***	0.400***	0.041***	0.035***	0.032***	0.032***	0.033***
	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)	(0.039)	(0.039)	(0.040)	(0.040)	(0.040)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)
Age	0.002	0.002	0.002	0.001	0.001	-0.040***	-0.037***	-0.038***	-0.038***	-0.038***	0.024***	0.023***	0.023***	0.024***	0.023***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.009)	(0.009)	(0.009)	(0.009)	(0.009)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Age2	-0.000	-0.000	-0.000	-0.000	-0.000	0.000***	0.000***	0.000***	0.000***	0.000***	-0.000***	-0.000***	-0.000***	-0.000***	-0.000***
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Father's ed.	-0.005	-0.007**	-0.010***	-0.011***	-0.010***	-0.016	-0.002	0.003	0.002	0.002	0.008***	0.001	0.001	0.002	0.002
	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)	(0.002)	(0.003)	(0.003)	(0.003)	(0.003)
Mother' ed	0.001	-0.002	0.000	-0.001	-0.000	-0.062***	-0.050***	-0.059***	-0.058***	-0.059***	0.005*	-0.000	-0.003	-0.003	-0.003
	(0.003)	(0.003)	(0.004)	(0.004)	(0.004)	(0.013)	(0.014)	(0.014)	(0.014)	(0.014)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)
White (omitted)															
Black	0.048	0.048	0.036	0.038	0.039	-0.056	-0.064	-0.088	-0.088	-0.086	-0.043	-0.041	-0.038	-0.037	-0.040
	(0.035)	(0.035)	(0.035)	(0.035)	(0.035)	(0.133)	(0.133)	(0.136)	(0.136)	(0.136)	(0.029)	(0.029)	(0.029)	(0.029)	(0.029)
Indigenous	0.011	0.018	0.009	0.012	0.015	0.505***	0.475***	0.437***	0.440***	0.451***	-0.014	-0.001	0.007	0.006	0.001
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.085)	(0.085)	(0.087)	(0.087)	(0.086)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Mixed	-0.010	-0.011	-0.014	-0.011	-0.012	0.024	0.023	-0.009	-0.006	-0.003	-0.018*	-0.018*	-0.014	-0.015	-0.016
	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)	(0.048)	(0.048)	(0.050)	(0.050)	(0.050)	(0.010)	(0.010)	(0.010)	(0.010)	(0.010)
R's ed		0.008***	0.012***	0.009***	0.009***		-0.040***	-0.017	-0.021*	-0.023**		0.019***	0.013***	0.015***	0.015***
		(0.002)	(0.003)	(0.003)	(0.003)		(0.009)	(0.010)	(0.011)	(0.011)		(0.002)	(0.002)	(0.002)	(0.002)
Ln(income)			-0.026***					-0.109***					0.035***		
			(0.008)					(0.033)					(0.007)		
Lower class abs. (omitted)															
Lower-middle class				-0.059***					-0.137**					0.077***	
				(0.017)					(0.067)					(0.014)	
Middle class				-0.059***					-0.194**					0.066***	
				(0.020)					(0.076)					(0.016)	
Upper-middle class				-0.032					-0.249***					0.098***	
				(0.024)					(0.094)					(0.020)	
Lower class rel. (omitted)															
Middle class rel.					-0.008					-0.121**					0.007
					(0.012)					(0.048)					(0.010)
Upper class rel.					-0.003					-0.118*					0.043***
					(0.017)					(0.067)					(0.014)
Guatemala (omitted)															
Brazil	-0.122***	-0.129***	-0.133***	-0.126***	-0.131***	-1.486***	-1.444***	-1.463***	-1.462***	-1.467***	0.275***	0.256***	0.258***	0.257***	0.261***
	(0.022)	(0.022)	(0.022)	(0.022)	(0.022)	(0.082)	(0.083)	(0.084)	(0.084)	(0.084)	(0.018)	(0.018)	(0.018)	(0.018)	(0.018)
Chile	-0.071***	-0.084***	-0.081***	-0.075***	-0.083***	-0.955***	-0.894***	-0.893***	-0.892***	-0.926***	0.105***	0.075***	0.075***	0.075***	0.087***
	(0.018)	(0.019)	(0.019)	(0.019)	(0.019)	(0.071)	(0.072)	(0.073)	(0.073)	(0.074)	(0.015)	(0.015)	(0.015)	(0.015)	(0.016)
Colombia	0.019	0.007	0.000	0.008	0.003	-1.070***	-1.011***	-0.994***	-0.991***	-0.989***	-0.075***	-0.103***	-0.113***	-0.117***	-0.112***
	(0.018)	(0.019)	(0.020)	(0.020)	(0.020)	(0.071)	(0.073)	(0.077)	(0.077)	(0.077)	(0.015)	(0.015)	(0.016)	(0.016)	(0.016)
Mexico	0.030*	0.023	0.022	0.028	0.023	0.116*	0.146**	0.148**	0.149**	0.149**	0.074***	0.060***	0.061***	0.058***	0.061***
	(0.017)	(0.017)	(0.018)	(0.018)	(0.018)	(0.067)	(0.067)	(0.068)	(0.068)	(0.068)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)
Peru	0.037**	0.021	0.008	0.025	0.022	-0.452***	-0.378***	-0.438***	-0.423***	-0.402***	0.332***	0.298***	0.319***	0.311***	0.309***
	(0.018)	(0.019)	(0.020)	(0.020)	(0.019)	(0.072)	(0.074)	(0.077)	(0.078)	(0.077)	(0.015)	(0.016)	(0.016)	(0.016)	(0.016)
Constant	0.568***	0.554***	0.610***	0.624***	0.581***	1.565***	1.618***	1.774***	1.712***	1.649***	-0.037	-0.067	-0.105**	-0.110**	-0.054
	(0.056)	(0.056)	(0.058)	(0.059)	(0.058)	(0.220)	(0.220)	(0.228)	(0.230)	(0.226)	(0.047)	(0.047)	(0.048)	(0.048)	(0.047)
R^2	0.012	0.014	0.015	0.016	0.014	0.126	0.128	0.126	0.126	0.126	0.135	0.144	0.151	0.152	0.150
Observations	9,459	9,456	9,082	9,082	9,082	8,524	8,520	8,178	8,178	8,178	9,541	9,538	9,164	9,164	9,164

Table 4c. Regression models predicting social tolerance, nationalism and left-right political ideology.

	Social tolerance					Nationalism					Left-right political ideology (1=left, 10=right)				
	M1	M2	M3	M4	M5	M1	M2	M3	M4	M5	M1	M2	M3	M4	M5
Male	-0.001	0.002	0.008	0.007	0.010	-0.087***	-0.076***	-0.086***	-0.085***	-0.086***	-0.083*	-0.083*	-0.092*	-0.090*	-0.091*
	(0.033)	(0.033)	(0.034)	(0.034)	(0.034)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)	(0.047)	(0.047)	(0.048)	(0.048)	(0.048)
Age	-0.002	-0.001	0.001	0.002	0.003	0.005	0.007	0.008	0.008	0.008	-0.014	-0.014	-0.009	-0.010	-0.010
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)
Age2	-0.000	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000	0.000**	0.000**	0.000*	0.000*	0.000*
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Father's ed.	-0.000	0.001	-0.001	-0.001	0.000	-0.024***	-0.012	-0.010	-0.010	-0.010	0.016	0.016	0.014	0.014	0.014
	(0.010)	(0.010)	(0.011)	(0.011)	(0.011)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)	(0.014)	(0.014)	(0.015)	(0.015)	(0.015)
Mother' ed	-0.022**	-0.022*	-0.033***	-0.030**	-0.030**	-0.028***	-0.018*	-0.020**	-0.018*	-0.019**	0.016	0.016	0.020	0.019	0.018
	(0.011)	(0.011)	(0.012)	(0.012)	(0.012)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)	(0.016)	(0.016)	(0.017)	(0.017)	(0.017)
White (omitted)															
Black	0.222**	0.220**	0.169	0.165	0.165	0.119	0.115	0.119	0.114	0.120	-0.765***	-0.765***	-0.726***	-0.734***	-0.729***
	(0.111)	(0.111)	(0.113)	(0.113)	(0.113)	(0.092)	(0.092)	(0.093)	(0.093)	(0.093)	(0.159)	(0.159)	(0.160)	(0.160)	(0.160)
Indigenous	0.223***	0.222***	0.171**	0.178**	0.170**	-0.046	-0.072	-0.061	-0.061	-0.058	-0.562***	-0.563***	-0.521***	-0.539***	-0.535***
	(0.071)	(0.071)	(0.072)	(0.072)	(0.072)	(0.058)	(0.058)	(0.059)	(0.059)	(0.059)	(0.102)	(0.102)	(0.103)	(0.103)	(0.103)
Mixed	0.202***	0.203***	0.159***	0.154***	0.155***	-0.093***	-0.093***	-0.084**	-0.089***	-0.084**	-0.419***	-0.420***	-0.383***	-0.385***	-0.385***
	(0.040)	(0.040)	(0.041)	(0.041)	(0.041)	(0.033)	(0.033)	(0.034)	(0.034)	(0.034)	(0.057)	(0.057)	(0.059)	(0.059)	(0.059)
R's ed		-0.002	0.001	0.003	0.006		-0.035***	-0.023***	-0.020***	-0.023***		-0.021*	-0.018	-0.021*	-0.016
		(0.007)	(0.009)	(0.009)	(0.009)		(0.006)	(0.007)	(0.007)	(0.007)		(0.010)	(0.012)	(0.013)	(0.013)
Ln(income)			-0.030					-0.023					0.114***		
			(0.027)					(0.022)					(0.038)		
Lower class abs. (omitted)															
Lower-middle class				0.104*					-0.004					-0.104	
				(0.055)					(0.045)					(0.079)	
Middle class				0.153**					0.048					0.021	
				(0.064)					(0.052)					(0.090)	
Upper-middle class				-0.077					-0.128**					0.130	
				(0.078)					(0.063)					(0.110)	
Lower class rel. (omitted)															
Middle class rel.					0.086**					0.009					-0.012
					(0.040)					(0.033)					(0.057)
Upper class rel.					-0.147***					-0.047					0.230***
					(0.056)					(0.045)					(0.079)
Guatemala (omitted)															
Brazil	0.431***	0.437***	0.446***	0.418***	0.425***	-0.970***	-0.938***	-0.941***	-0.959***	-0.946***	-0.270***	-0.270***	-0.274***	-0.258**	-0.248**
	(0.069)	(0.069)	(0.070)	(0.070)	(0.070)	(0.057)	(0.057)	(0.057)	(0.058)	(0.058)	(0.098)	(0.099)	(0.100)	(0.100)	(0.100)
Chile	0.138**	0.142**	0.168***	0.136**	0.136**	-0.422***	-0.368***	-0.380***	-0.398***	-0.392***	-0.058	-0.056	-0.070	-0.050	-0.013
	(0.059)	(0.060)	(0.061)	(0.061)	(0.062)	(0.049)	(0.049)	(0.050)	(0.050)	(0.051)	(0.085)	(0.087)	(0.088)	(0.088)	(0.090)
Colombia	-0.340***	-0.337***	-0.407***	-0.424***	-0.423***	-0.240***	-0.189***	-0.123**	-0.134**	-0.126**	0.334***	0.336***	0.321***	0.339***	0.335***
	(0.060)	(0.061)	(0.064)	(0.064)	(0.064)	(0.049)	(0.050)	(0.052)	(0.052)	(0.052)	(0.084)	(0.086)	(0.090)	(0.091)	(0.091)
Mexico	0.382***	0.384***	0.402***	0.384***	0.396***	-0.086*	-0.060	-0.063	-0.073	-0.064	0.300***	0.301***	0.298***	0.314***	0.305***
	(0.056)	(0.056)	(0.056)	(0.056)	(0.056)	(0.046)	(0.046)	(0.046)	(0.046)	(0.046)	(0.078)	(0.079)	(0.079)	(0.080)	(0.080)
Peru	0.001	0.003	0.023	-0.002	0.007	-0.161***	-0.100**	-0.130**	-0.149***	-0.127**	0.245***	0.246***	0.303***	0.307***	0.292***
	(0.060)	(0.062)	(0.064)	(0.065)	(0.064)	(0.049)	(0.050)	(0.052)	(0.052)	(0.051)	(0.085)	(0.088)	(0.092)	(0.093)	(0.091)
Constant	0.062	0.063	0.099	-0.054	-0.020	0.289*	0.343**	0.317**	0.258*	0.271*	5.419***	5.422***	5.139***	5.389***	5.350***
	(0.184)	(0.184)	(0.190)	(0.192)	(0.188)	(0.150)	(0.150)	(0.154)	(0.155)	(0.153)	(0.259)	(0.259)	(0.269)	(0.271)	(0.267)
R^2	0.040	0.040	0.042	0.044	0.044	0.057	0.060	0.060	0.061	0.060	0.021	0.021	0.022	0.022	0.022
Observations	8,524	8,520	8,178	8,178	8,178	9,425	9,421	9,053	9,053	9,053	8,607	8,604	8,257	8,257	8,257

Table 4d. Regression models predicting interpersonal trust, interpersonal alienation, and number of friends.

	Interpersonal trust					Interpersonal alienation				
	M1	M2	M3	M4	M5	M1	M2	M3	M4	M5
Male	0.019***	0.014**	0.014**	0.014**	0.014**	0.052*	0.088***	0.088***	0.089***	0.087***
	(0.007)	(0.007)	(0.007)	(0.007)	(0.007)	(0.027)	(0.027)	(0.027)	(0.027)	(0.027)
Age	0.004**	0.003**	0.002	0.002	0.002	-0.003	0.002	0.005	0.006	0.006
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)
Age2	-0.000*	-0.000	-0.000	-0.000	-0.000	0.000	-0.000	-0.000	-0.000	-0.000
	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
Father's ed.	0.007***	0.003	0.004*	0.004*	0.004*	-0.037***	-0.000	0.001	0.000	0.002
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.008)	(0.008)	(0.009)	(0.009)	(0.009)
Mother' ed	0.012***	0.008***	0.007***	0.006***	0.006***	-0.063***	-0.032***	-0.029***	-0.028***	-0.029***
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.009)	(0.009)	(0.010)	(0.010)	(0.010)
White (omitted)										
Black	0.009	0.011	0.018	0.020	0.019	0.197**	0.188**	0.165*	0.162*	0.156*
	(0.023)	(0.023)	(0.022)	(0.022)	(0.022)	(0.093)	(0.091)	(0.092)	(0.092)	(0.092)
Indigenous	0.057***	0.068***	0.066***	0.067***	0.066***	0.131**	0.058	0.018	0.024	0.026
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.059)	(0.059)	(0.059)	(0.059)	(0.059)
Mixed	0.023***	0.023***	0.021**	0.022***	0.021***	0.063*	0.066**	0.049	0.048	0.049
	(0.008)	(0.008)	(0.008)	(0.008)	(0.008)	(0.033)	(0.033)	(0.034)	(0.034)	(0.033)
R's ed		0.014***	0.010***	0.009***	0.010***		-0.106***	-0.078***	-0.077***	-0.074***
		(0.001)	(0.002)	(0.002)	(0.002)		(0.006)	(0.007)	(0.007)	(0.007)
Ln(income)			0.009*					-0.156***		
			(0.005)					(0.022)		
Lower class abs. (omitted)										
Lower-middle class				0.003					-0.073	
				(0.011)					(0.045)	
Middle class				-0.002					-0.231***	
				(0.012)					(0.051)	
Upper-middle class				0.045***					-0.370***	
				(0.015)					(0.063)	
Lower class rel. (omitted)										
Middle class rel.					-0.004					-0.216***
					(0.008)					(0.032)
Upper class rel.					0.031***					-0.350***
					(0.011)					(0.045)
Guatemala (omitted)										
Brazil	-0.103***	-0.116***	-0.116***	-0.111***	-0.112***	-0.781***	-0.676***	-0.689***	-0.701***	-0.721***
	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.057)	(0.057)	(0.057)	(0.057)	(0.057)
Chile	-0.071***	-0.094***	-0.090***	-0.086***	-0.083***	-0.743***	-0.578***	-0.578***	-0.587***	-0.664***
	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.049)	(0.049)	(0.049)	(0.049)	(0.050)
Colombia	0.011	-0.010	-0.027**	-0.024*	-0.025**	-0.532***	-0.379***	-0.364***	-0.375***	-0.375***
	(0.012)	(0.012)	(0.013)	(0.013)	(0.013)	(0.049)	(0.049)	(0.051)	(0.052)	(0.051)
Mexico	0.032***	0.022*	0.023**	0.026**	0.024**	-0.634***	-0.553***	-0.561***	-0.572***	-0.569***
	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.047)	(0.046)	(0.046)	(0.046)	(0.046)
Peru	-0.103***	-0.129***	-0.119***	-0.112***	-0.117***	-0.219***	-0.030	-0.129**	-0.140***	-0.118**
	(0.012)	(0.012)	(0.012)	(0.013)	(0.012)	(0.050)	(0.050)	(0.052)	(0.052)	(0.051)
Constant	-0.034	-0.057	-0.037	-0.017	-0.014	0.647***	0.813***	0.951***	0.753***	0.724***
	(0.037)	(0.037)	(0.037)	(0.038)	(0.037)	(0.152)	(0.150)	(0.153)	(0.155)	(0.152)
R^2	0.039	0.048	0.042	0.044	0.043	0.090	0.119	0.120	0.120	0.122
Observations	9,516	9,513	9,139	9,139	9,139	9,200	9,196	8,831	8,831	8,831