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Politics, Policies, and Poverty in Latin America

Jennifer Pribble, Evelyne Huber, and John D. Stephens

Poverty has long been recognized as one of the most serious and lasting problems facing Latin America. Recent data from the United Nations' Economic Commission on Latin America and the Caribbean (ECLAC) show that 41.7 percent of Latin Americans lived in poverty in 2004, while 17.4 percent lived in extreme poverty.¹ Despite this generally high level of poverty, there is significant variation among Latin American states. Indeed, in 2002 the share of individuals living in poverty varied from a low of 15.4 percent in Uruguay to a high of 77.3 percent in Honduras (see Table 1).² These differences are not exclusive to income-based poverty but also exist for indicators of basic-needs poverty. In this vein, ECLAC estimates that about 29 percent of the Nicaraguan population was undernourished in the late 1990s, while only two percent of Argentines suffered from the same nutrition problem.³ In short, variation in the prevalence and intensity of poverty in Latin America is striking and points to an important puzzle: why do countries exhibit such stark differences in their ability to protect citizens from falling into poverty? Put differently, why, despite the similar constraints imposed by globalization, unstable political regimes, and late industrialization, do countries in the region vary in their ability to reduce poverty? This article seeks to find an answer to this question, paying special attention to the issue of how politics shapes a state's ability to reduce poverty.

This focus on the role of politics—political regime type, parties, and state-provided social policy—builds on a growing body of research about the political economy of Latin American poverty. This new line of investigation has begun to move away from the Washington Consensus' nearly exclusive focus on the impact of economic growth on poverty reduction and toward a more nuanced view of the achievement of social welfare. At the height of the neoliberal Washington Consensus, economists and policymakers stressed that Latin America's high poverty levels were largely the result of slow growth.⁴ This explanation gained support in the wake of the 1982 debt crisis and was maintained throughout the 1990s by national and international technocrats, who argued that Latin America's poor economic performance was the result of decades of "inefficient" economic policy in the form of trade barriers, exchange rate controls, and a large public sector. Proponents of the Washington Consensus encouraged governments to liberalize their markets with the aim of boosting economic growth. This growth in GDP was expected to have automatic spill-over effects, such as increased employment and poverty reduction. In essence, technocrats suggested that, with the proper reforms,

Table 1 Poverty Rates in Latin America and the Caribbean 2000 to 2002

| | |
|-----------------------------------|------|
| Argentina | 45.4 |
| Bolivia | 62.4 |
| Brazil | 37.5 |
| Chile | 20.2 |
| Colombia | 54.9 |
| Costa Rica | 20.3 |
| Dominican Republic | 44.9 |
| Ecuador | 49.0 |
| El Salvador | 48.9 |
| Guatemala | 60.2 |
| Honduras | 77.3 |
| Mexico | 39.4 |
| Nicaragua | 69.3 |
| Panama | 34.0 |
| Paraguay | 61.0 |
| Peru | 54.8 |
| Uruguay | 15.4 |
| Venezuela | 48.6 |
| Average 2000–02 | 46.9 |
| Average all country years | 39.2 |
| 10th percentile all country years | 16.6 |
| 90th percentile all country years | 65.0 |

Cell entries are the percentage of individuals who live below the ECLAC-established poverty line, most recent date available.

countries in the region could “grow” themselves out of poverty. In this way, the Washington Consensus painted a picture of Latin American poverty in which politics was of marginal importance, and the policy prescriptions paid little attention to political factors that mediate the effects of growth on poverty.

This view of poverty reduction began to be challenged in the late 1990s, when after several years of steady growth in Latin America many countries continued to lag behind in poverty reduction. The puzzle presented by the coexistence of economic growth and high levels of poverty prompted a revision of the most orthodox versions of the Washington Consensus. Indeed, several new studies stressed the importance of public policy in determining poverty levels. This new policy-oriented approach to poverty reduction was supported by international financial institutions, such as the World Bank, and a new “human capital” approach to poverty reduction began to attract attention.⁵

While this new approach to poverty reduction recognizes the important role of public policy, particularly investment in education and healthcare, it still pays relatively

little attention to domestic political factors such as the nature of parties, regime type, and the institutional structure of the state. This neglect of political differences among countries is shortsighted; differences in political regime type and partisan ideology have an important effect on cross-national variation in Latin American poverty.⁶

This article tests hypotheses about the political determinants of poverty against economic and sociodemographic variables using an unbalanced pooled time series design. The analysis confirms expectations that politics have a significant and sizable effect on poverty levels in the region. In particular, political regime type and the partisan balance of power are both significant predictors of poverty levels. The study also finds strong support for the importance of effective education policy in promoting poverty reduction.

Poverty in Latin America: Previous Findings and Hypotheses

Although the effect of politics on poverty levels in Latin America has not been explored in cross-national statistical research, several small-*n* studies suggest that politics is important in explaining variation in the region. Weyland, for example, finds that fragmentation of the state, weak parties, and problems of bureaucratic politics have slowed attempts to improve social outcomes, such as poverty and inequality in Brazil.⁷ Similarly, Huber finds that the balance of power between supporters and opponents of neoliberal reforms and the degree of power concentration in political institutions explain variation in Latin American states' social policy reform paths in the neoliberal era.⁸ Finally, a recent study about economic and social progress in Latin America finds that the design of political institutions has profound effects on the quality and nature of policy outputs in the region, including policies related to poverty reduction.⁹

Accordingly, there is good reason to hypothesize that politics plays a key role in determining cross-national differences in Latin American poverty levels. A country's political regime type, specifically its historical record with democracy, is of fundamental importance in determining poverty levels. Several studies have found that democracy is good for the poor.¹⁰ Ross, by contrast, argues that democracies do not exhibit less poverty than authoritarian regimes if one considers nonincome poverty and corrects for the sampling bias generated by missing data from authoritarian governments.¹¹ Despite Ross' evidence, it is hypothesized that democracies in the Latin American region offer better protection against poverty than nondemocracies for several reasons. First, democratic leaders are more responsive to the needs of their population because they can be held accountable for their actions. Second, with very few exceptions (Cuba, which is not in the data set used here because of data problems, Nicaragua under the Sandinistas, Peru under Velasco, Panama under Torrijos, and Ecuador under a short-lived military

government), the alternative to democratic regimes in Latin America has been authoritarian regimes of the right, not of the left.

Democracy provides a setting in which underprivileged groups enjoy greater freedoms to organize, mobilize, and demand protection against poverty, but it does not ensure that these citizens will prosper. A key factor that links democracy to improved welfare outcomes is the effective representation of the interests of underprivileged sectors. In Latin America, parties that represent the interests of excluded sectors have been able to consolidate and achieve major legislative representation only under prolonged fully democratic rule. Under authoritarian regimes and semidemocracies alike, parties defending the interests of the privileged suffered less repression or exclusion. Thus, democracy helps the poor by allowing the creation of organizations that represent their interests. The effect, however, will be strongest in situations of sustained democratic rule, and thus this study measures the cumulative value of the variable.

In addition to democracy, the impact of different kinds of authoritarianism on poverty is considered in this article. One basic distinction is between populist and conservative authoritarianism; the other one is between mildly and highly repressive authoritarian regimes. For instance, the Peruvian military regime under Velasco from 1968 to 1975 was somewhat populist and was very mildly repressive. It introduced redistributive reforms, allowed few human rights violations, and let popular organizations flourish. Others, such as the conservative and highly repressive bureaucratic-authoritarian regimes in Argentina and Chile, redistributed income upwards and killed, tortured, and incarcerated thousands of their citizens, particularly targeting leaders of the left, organized labor, and other social movements. It is therefore hypothesized that extended rule by repressive authoritarian regimes increases poverty. Yet this effect is expected to begin to fade after the replacement of the repressive regime with a democratic one. In other words, the effect of ten years of repressive authoritarian rule in the 1960s on poverty in the 1990s will be weaker than the effect of ten years of repressive authoritarian rule in the 1980s.

An additional political factor expected to influence poverty is the distribution of power between different political parties. In Latin America there is evidence to suggest that left-wing parties structure welfare policies, both transfers and services, to benefit lower income groups in particular. This point is important to stress because critics have often accused left parties of defending only the interests of a "labor aristocracy." While several left parties in the region do have ties to labor organizations, they have also favored investment in primary and secondary education and effective access to free healthcare for the lowest income groups. This emphasis among left parties is evident in both the expansionary phase of Latin American welfare policy and during the contemporary neoliberal era.

The policies of Chile's *Unidad Popular* (UP) government between 1970 and 1973 offer an example of how left parties responded to the needs of the poor during the expansion phase of welfare policy. One of the UP's early reforms provided nutrition

services to all pregnant and nursing mothers regardless of their labor market status. The policy was very successful, achieving universal coverage by 1971.¹² Between 1971 and 1973 the UP government further extended the nutrition program to cover all school children between six and fourteen years of age, administering a half liter of milk each day to needy students.¹³ Another example of the pro-poor focus of left parties during the expansionary phase of Latin American social policy development can be observed in the creation of Costa Rica's national healthcare system in the early 1960s. In this instance, the left-leaning *Partido de Liberación Nacional* (PLN) was the crucial actor in generating and approving legislation that universalized access to healthcare.

Examples of the pro-poor focus of left parties in the contemporary era include Chile's center-left *Concertación* governments, which increased social spending particularly for education and health, contributing to a dramatic decrease in poverty levels. More recently, Uruguay's left party, the *Frente Amplio*, created a new social assistance program (*Plan de Atención Nacional de Emergencia Social*), which seeks to expand the coverage of social assistance to sectors of the population that have been left out of other programs. The left-leaning Brazilian Worker's Party has also demonstrated the commitment of the contemporary left to expanding coverage to underprivileged sectors by increasing the funding for social assistance to families that do not have access to employment-based benefits.¹⁴

These examples suggest that, while Latin America's left parties were and continue to be quite different from their European counterparts with regard to the strength of programmatic linkages and the character of their base, they have nonetheless demonstrated an interest in structuring social policy in a way that benefits the poor. In light of this evidence, it is hypothesized that a balance of power that favors the left will have a negative effect on poverty. Since Latin America's presidential democracies grant a great deal of power to the executive in initiating legal proposals and building reform coalitions, the balance of power in both the legislative and the executive branches of government is expected to influence poverty levels.

The partisan balance of power is not the only political factor that may affect poverty. Studies suggest that spending patterns and the design of social welfare programs have an impact on poverty levels in Latin America.¹⁵ Government efforts to reduce poverty generally fall into two categories: services and transfers. Social services, such as education and healthcare, work to reduce poverty and indigence by improving human capital and creating a more equal distribution of skill levels and life chances. Furthermore, such services are often distributed as rights of citizenship and thus provide better coverage for all sectors of society than transfers.¹⁶ For the purpose of this study, this category of spending will be referred to as health and education. Of course, improvement of human capital requires a record of sustained investment in health and education and will be effective in reducing poverty only over the medium and long run. Therefore, the cumulative average of spending on these programs needs to be analyzed, and a negative effect on poverty is expected.

An important critique of social spending in Latin America, of course, has been that it is often inefficient and poorly targeted. Outright corruption or excessive public employment may reduce the impact of spending on desired results. This problem affects both transfers and services. Indeed, the allocation of health and education spending to tertiary schooling and expensive curative medicine will do less for poverty levels than investment in basic education and primary healthcare. Therefore, a more direct measure of the efficiency of education policy, average years of education of the population, is included. This measure is a good proxy of the efficiency of education policy, and it is expected to have a negative effect on poverty.

The use of average years of education as a proxy measure of policy effectiveness requires some explanation. The variable, which reports the average number of years of education for adults aged twenty-five and older, provides insight into how long children stay in school in a given country. School abandonment is a significant problem in Latin America; a 2002 ECLAC study found that in Latin America's urban areas more than half of the number of children who drop out of school without completing the primary cycle belong to the bottom 25 percent of the income distribution.¹⁷ The reasons for school abandonment are manifold, but public policy research reveals that the way in which educational funds are spent influences whether or not children complete their schooling.¹⁸ In particular, ECLAC finds that increasing the provision of preschool education, introducing and/or expanding targeted subsidies to high risk schools, creating conditional cash benefits, and improving the accessibility of schools are all policies that have contributed to a reduction in dropout rates among poor students.¹⁹ Put differently, the ECLAC study reveals that states which direct education funding toward certain types of programs will expand the years of schooling among low income students. Therefore, the variable average years of education of the adult population is a more direct measure of the effectiveness of education spending in a given country.²⁰

One challenge in analyzing the effect of education on poverty outcomes is the issue of endogeneity since high levels of poverty could result in lower education levels because poor families are more likely to pull children out of school early. To address this problem, a measure of education that is operationalized with a sizable time lag is used, thus ensuring that the particular relationship of interest is tested. We use Barro and Lee's measure of average years of education of the population aged twenty-five and older, which assesses how coverage of education in the past affects current poverty levels.²¹ This time lag means that it is logically impossible for reverse causation to exist since current poverty levels cannot predict past education experiences.

A second set of policies that countries employ to address poverty is the provision of subsidies or transfer payments to needy individuals/households. For the most part, these benefits are tied to payroll contributions and thus recipients must participate (or have participated in the past) in the formal labor market. Recent evidence suggests that pension spending and other types of contributory social insurance in Latin

America are regressive because only formal sector workers enjoy access to the benefits and because benefits are earnings-related.²² Many countries in the region also offer some form of noncontributory (targeted) cash transfers. Since roughly half of Latin American workers function in the informal sector, and because wages in the informal sector tend to be lower than those of formal workers, it is likely that noncontributory (targeted) cash transfers are the most important form of income support for families at the very bottom of the income distribution.

Unfortunately, data on social welfare spending in Latin America do not distinguish between contributory and noncontributory benefits and lump all transfer payments into one category: social security and welfare expenditure. Traditionally, the bulk of Latin American transfer spending has been allocated to pensions.²³ Therefore, consideration of the effect of social security and welfare expenditure essentially captures the impact of pension spending on poverty outcomes. In light of the evidence that Latin America's pension systems are highly inequitable, their ability to reduce poverty on average is doubtful. If, however, the size of the informal sector is controlled, higher social security and welfare expenditures may well have a negative effect on poverty. It can be assumed that controlling for the size of the informal sector introduces some rough correction for the share of social security and welfare expenditures that is accounted for by contributory benefits. Moreover, even families with formal sector workers can fall below the poverty line. Indeed, in some countries family allowances tied to formal sector employment help households with several children stay above the poverty line; and noncontributory pensions, although generally lower than the poverty line, contribute to the income of households with elderly members and may raise combined household income above the poverty line. The same is true for noncontributory conditional transfers to families with children. In light of this contradictory evidence, the hypothesis about the effect of social security and welfare spending on poverty levels is nondirectional.

In summary, the political explanation of poverty offered here involves the confluence of three separate factors: regime type, partisan power distribution, and policy design. The theory specifies a chain of events that is expected to result in lower levels of poverty. The ideal-typical sequence involves an extensive experience with democracy, the emergence of a left-of-center party that gains control of the legislative and executive branches, and the subsequent reformulation of social programs in a way that places expenditure emphasis on human capital formation and ensures that transfer payments are delivered to individuals in greatest need of income support. This process constitutes the ideal type of the "politics" of poverty reduction. It does not mean that, if one element in the process is weak or missing, poverty reduction is impossible, but rather that the most successful countries will exhibit all three elements. Table 2 summarizes the variables examined in this analysis and the expectations about their effect on poverty levels.

Table 2 Variable Descriptions, Data Sources and Hypothesized Effects for the Analyses of Poverty Levels in Latin America

| Variable | Description | Hypothesized impact |
|---|---|---------------------|
| Dependent Variable | | |
| Poverty | Percentage of households that live below the ECLAC-established poverty line. ^a | – |
| Independent Variables | | |
| <i>Methodological controls</i> | | |
| Debt crisis | 1982–1989 | – |
| Recovery | 1990–2001 | +/- |
| <i>Economic, Socio-Demographic, and Structural Controls</i> | | |
| GDP (per capita) | Per capita GDP in thousands of 1995 purchasing power parity dollars. ^b | – |
| Inflation | Annual inflation in consumer prices (percent). ^b | + |
| Informal Sector | Percentage of workers classified as informal of non-agricultural labor force. ^d | + |
| Debt | External debt as a percentage of GDP. ^b | + |
| Female Labor Force Participation | Percentage of working-aged women who participate in the formal labor force. ^{a, b} | – |
| Trade | Total exports and imports as a percent of GDP. ^b | +/- |
| Foreign Direct Investment Inflows | Net inflows of foreign direct investment as a percent of gross capital formation. ^b | +/- |
| Industrial Employment | Percentage of the labor force in industry. ^d | – |
| Gini | Estimated Gini index. ^e | + |
| Ethnic Heterogeneity | Dummy variable scored 1 if ethnic and racial diversity is at least 20%, but not more than 80%. ^g | + |
| <i>Politics & Policies</i> | | |
| Years of Education | Average years of total education for the population aged 25 and older. ^c | – |
| Health & Education Spending | Health and education spending as a percent of GDP. Value is the cumulative average of spending on these programs. ^f | – |
| Social Security & Welfare Spending | Social security and welfare spending as a percent of GDP. ^f | +/- |
| Democracy | Cumulative years of democracy from 1945 to the year of the observation. ^f | – |
| Left-Right Ideological Center of Gravity | Cumulative index of ideological center of gravity in the lower house from 1945 to the year of the observation (see text). ^f | – |
| Executive Ideological Center of Gravity | Cumulative index of ideological center of gravity in the executive branch from 1945 to the year of the observation (see text). ^f | – |

Sources: ^aUnited Nations Economic Commission on Latin America and the Caribbean (CEPAL) (various years); ^bWorld Bank (2003); ^cBarro & Lee (2000); ^dInternational Labour Organization (various years); ^eUN Wider Inequality Dataset (2005) [adjustments made by authors]; ^fHuber et al. (2005); ^gDe Ferranti et al. [coding done by authors].

Measures of Independent and Dependent Variables

The dependent variable in this study is the percentage of households living below the ECLAC-generated country-specific poverty line. The data are compiled from ECLAC studies, primarily the annual Social Panorama, and span the time period 1968 through 2001.²⁴ The ECLAC measure was chosen rather than the commonly employed World Bank international poverty line of two-purchasing power parity (PPP) dollars per day. The benefit of using the two PPP dollars-per-day measure is that it permits unbiased cross-national comparisons.²⁵ Several authors, however, criticize the measure, noting that it is too static and does not consider important differences in consumption patterns and prices between countries. Minujin, Vandemoortele, and Delamonica contend that, as per capita income increases, it becomes more costly to purchase goods that are necessary for day-to-day life. The authors argue that “the relevance of a line fixed at US\$1 [PPP] per day is gradually eroded by economic growth and it is not even useful at one point in time to compare (or aggregate) the incidence of poverty across countries.”²⁶ Even scholars who employ the World Bank poverty line note the measure’s weaknesses. Psacharopoulos, Morley, Fiszbein, Lee, and Wood stress: “the simplicity of this reasoning [the standard poverty line] neglects several persistent problems Age, sex, and work environment affect individual nutritional requirements; local customs influence dietary choice; while regional supply and demand patterns determine specific food prices.”²⁷

Reddy and Pogge criticize the World Bank poverty measure and argue that it is more useful to construct unique poverty lines for each country that “possess a common achievement interpretation. Each poverty line would refer to the local cost of requirements of achieving a specific set of ends.”²⁸ The authors note that, if common end goals are specified, then data can be compared across time and space even when the poverty lines are country-specific. We agree with Reddy and Pogge and contend that for the region of Latin America the measure that comes closest to this goal is that provided by ECLAC. ECLAC calculates a poverty line for each country in the region. The line is based on the cost of a basket of food and nonfood items. While the basket of goods meets a minimum nutritional requirement (has common caloric and protein end-goals), it also reflects national consumption patterns, the availability of food items, and relative prices.²⁹ Since common standards are used in the construction of country-specific poverty lines, a cross-national and across time comparison is legitimate.

This study analyzes the impact of policy (measured as social spending and average years of schooling of the adult population) on poverty outcomes. The measures of social spending as a percentage of GDP are compiled from several sources. The series for social security and welfare spending is from the IMF. The construction of the health and education series is explained in the appendix.³⁰

For this article, health and education spending have been operationalized as cumulative averages for the period 1970 to the year of observation, while social security and

welfare spending have been measured year to year. This operationalization provides a better theoretical model of the impact of social spending on poverty because returns on investments in human capital are most discernible over long time horizons. It takes several years for government spending on education and health to have an impact on poverty since the investments require that children move through the system, upgrading skills and enjoying better healthcare. In addition to the long-term nature of the effect, improvement in health and education will be strongest in countries that maintain spending for long periods of time. In other words, a high level of health and education spending in one year will not be as effective at reducing poverty as moderately high spending over a long period of time. In the case of pensions and other transfer programs, however, the effect of spending is immediate because the policies involve a cash payment to individuals, and it therefore makes theoretical sense to analyze the impact of social security and welfare spending on a yearly (and noncumulative) basis. The two spending measures are available for 97 of the 106 country years.

The measure of democracy is taken from Rueschemeyer, Stephens, and Stephens' analysis of Latin American and Caribbean political regimes. With their definitions, colonies and all forms of authoritarian regimes are coded as 0, restricted democracies as .5, and full democracies as 1, and each country's score is cumulated from 1945 to the year of observation.³¹ This cumulative measure is appropriate for testing the theoretical argument that it is the strength of the democratic record that allows parties representing the interests of the underprivileged to emerge, consolidate, gain entry into the legislature, and use their legislative position to shape policy.

Party codings are an extension of Michael Coppedge's project that surveyed country experts to classify all political parties that contested elections for the lower houses or constituent assemblies in eleven Latin American states.³² Coppedge's codings date back to 1912, and the classification scheme contains two primary dimensions and additional subcategories. The first dimension in Coppedge's coding scheme divides parties along the left-right ideological spectrum. The placement of each party on this cleavage is established by considering the social and economic policy positions of the party. Coppedge sought to capture the party's ideology and class appeals through an analysis of issue position and the prioritization of growth and redistribution. He then further divides the left-right spectrum into five subcategories: left, center-left, center, center-right, and right. The second dimension that Coppedge considers in his coding is the religious-secular divide between parties. He also includes three nonclassifiable categories in his coding scheme: personalist, other, and unknown.

For country-years that overlapped with Coppedge's work, his codings are used with one exception. While Coppedge classified the Peronists of Argentina as "other" for all years, they are coded here as secular center-left for the period 1945 to 1973, secular center for the period 1974 to 1989, and secular center-right from 1990 through the present.³³ In addition, Coppedge's work is extended by adoption of the coding scheme to

classify all parties that contested lower house elections for the country-years in the sample.³⁴

After classification of each party in the sample, the proportion of the seats held by each party category for every country-year in the analysis was summed.³⁵ For this analysis, the religious and secular parties occupying the same position on the left-right dimension were combined into five categories: right, center-right, center, center-left, and left.³⁶ For each democratic year, the left-right composition of the lower house was summarized by a scale of the legislative partisan balance of power, calculated according to the following formula.

$$\text{Legislative partisan balance} = 0*r + .5*cr + 1*c + 1.5*cl + 2*l$$

where *r*, *cr*, *c*, *cl*, and *l* are the proportion of seats in the lower house held by right, center-right, center, center-left, and left parties, respectively. For nondemocratic years, all categories are scored as 0 because parties had no influence during periods of authoritarian rule. To model the impact of partisanship on poverty, the lower house legislative partisan balance score was cumulated. This procedure is important because the impact of partisanship on poverty will be strongest in settings where parties enjoyed sustained periods of legislative influence. This fact has been well demonstrated in studies of advanced capitalist welfare states.³⁷ The lower house legislative partisan balance score was cumulated from 1945 to the year of observation for all countries in the sample. A similar cumulative measure for party affiliation of the executive was developed.

The final political variable tested is the presence of highly repressive authoritarian regimes. Repressive authoritarian regimes were coded as a separate category, 1 for every year the country had a repressive authoritarian regime and 0 for every year without such a regime, based on the extent of human rights violations committed or tolerated by the authoritarian government. Yearly scores were cumulated over the fifteen years prior to the year of observation, to capture the fading of the impact of repressive authoritarianism over time.³⁸ The sources were country studies. These models also include various sociostructural and economic variables that have been found to be important predictors of poverty in previous studies.³⁹

Estimation Technique

An unbalanced panel data set was used with 106 observations from eighteen Latin American countries, including Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, and Venezuela. Poverty figures were available only for varying time periods in each country. There are a minimum of two and a maximum of eleven observations per country. The data span the period from 1968 to 2001.

A central problem in estimating regression models from panel data is that the assumption of independence of errors across observations is unlikely to be satisfied. As a result OLS produces incorrect standard errors for the regression coefficients.⁴⁰ One approach to deal with correlated errors in panel data assumes serially correlated errors within each unit (country) obeying a unit specific autoregressive process (which may optionally be constrained to be the same across units). This approach requires what Stimson calls temporally dominated time-series of cross-sections, that is, data structures consisting of relatively few units observed over many equally spaced time points.⁴¹ Since the average number of time points (six) is much smaller than the number of units (eighteen), and the observations are not equally spaced, the data set used here precludes this approach.

An alternative estimation strategy was adopted, combining OLS estimation of the regression coefficients, which provides consistent estimates of the regression coefficients, with the use of a robust-cluster estimator of the standard errors. The standard (noncluster) Huber-White or “sandwich” robust estimator of the variance matrix of parameter estimates provides correct standard errors in the presence of any pattern of heteroskedasticity (unequal variances of the error terms) but not in the presence of correlated errors (nonzero off-diagonal elements in the covariance matrix of the errors).⁴² The robust-cluster variance estimator is a variant of the Huber-White robust estimator that remains valid (provides correct coverage) in the presence of any pattern of correlations among errors within units, including serial correlation and correlation due to unit-specific components.⁴³ Thus, the robust-cluster standard errors are unaffected by the presence of unmeasured stable country-specific factors causing correlation among errors of observations for the same country, or for that matter any other form of within-unit error correlation.

The robust-cluster estimator of the standard errors is impervious to correlations of errors within clusters, but it requires errors to be uncorrelated between clusters. The latter assumption might be violated if unmeasured factors affect the dependent variable in all units at the same point in time. Global economic fluctuations, such as the debt crisis period in Latin America in the 1980s, could produce such contemporaneous effects. To evaluate the potential impact of such unmeasured period specific factors, the models were estimated with indicator variables for the debt crisis (1982–89) and for the 1990s (1990–2000), the period of recovery; the baseline category corresponds to 1968–82. It is hypothesized that poverty will increase in the debt crisis years, and a nondirectional hypothesis is adopted with regard to the differences between the before and after debt crisis years. In order to check for robustness, the models were also estimated with panel corrected standard errors. All of the significant coefficients in the robust cluster estimations were also significant in the panel corrected standard error estimations. The robust-cluster estimates proved to be more conservative.

A final estimation difficulty is the problem of endogeneity given that poverty has been hypothesized to be a cause of weak democracies. This problem is partly addressed

by the cumulative nature of the measure of democracy. It is a measure of democratic history, and current poverty cannot cause past political history. Nevertheless, since it is likely that current poverty is correlated to past poverty, the proposition that the coefficients may somewhat overestimate the effect of democracy on poverty cannot be rejected. However, given the effect of legislative balance of power, there is support for the theoretical view that democracy reduces poverty over the medium and long run by making the emergence of parties to the left of center possible. Strength of democracy and the legislative partisan balance variable were very highly correlated ($r = .93$) and could not be entered into the same regression because of multicollinearity.

Results and Discussion

The results of the analyses are presented in Table 3. Model 1 is the original baseline model and includes all the control variables. Since inclusion of the variable “employment in industry” in the baseline results in the loss of fourteen cases and does not improve the predictive capacity of the model, and since the variable is not significant, it was dropped from the analysis, and Model 2 was used as the baseline.⁴⁴ The subsequent models presented in Table 3 build on the baseline and test a battery of political and policy-related variables. Model 3 adds the policy variables to the baseline model: average years of education, cumulative average spending on health and education, and spending on social security and welfare. Model 4 adds the policy and regime variables, strength of the democratic record and repressive authoritarianism, and model 5 replaces the regime variables with long-term legislative partisan balance. Model 6 considers the effect of the legislative partisan balance without social spending, while model 7 does the same with the executive distribution of partisan power. Finally, model 8 presents the impact of income inequality on cross-national variation in poverty.

The ideal-typical political sequence described earlier is largely confirmed by the results of this analysis. As expected, a strong record of democracy, a long-term left-leaning balance of power in the legislature, and social spending all contribute to cross-national variation in poverty levels. Indeed, in contrast to Ross, this study finds that democracy is clearly good for the poor.⁴⁵ The most likely explanation for this discrepancy between the studies is that Ross’ is a worldwide set of countries whereas this set is confined to Latin America. Additionally, this analysis uses an income measure of poverty, while Ross focuses on infant mortality. The results of this analysis show that in the case of Latin America extended periods of full democracy have been good for the poor. Democracy has helped underprivileged sectors in Latin America by providing a setting within which these groups could organize and mobilize demands for better protection. Moreover, the existence of political competition provides incentives to politicians to be responsive to such demands. A move from the tenth to the ninetieth percentile on the democratic record reduces poverty by 10.4 percentage points.⁴⁶

Table 3 Determinants of Poverty (Coefficients from OLS Regressions with Robust-Cluster Standard Errors)

| Control variables | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 | Model 8 |
|------------------------------|----------|----------|----------|-----------|-----------|-----------|-----------|----------|
| Debt crisis | 10.089** | 7.687** | 8.521** | 8.178** | 8.289** | 10.553*** | 11.097*** | 10.816* |
| Recovery | 10.925** | 7.506* | 5.470 | 7.956** | 6.709* | 11.063** | 11.255** | 7.167 |
| GDP per capita | -.002* | -.003** | -.001 | -.001* | -.001 | -.001 | -.001 | -.002 |
| Inflation | -.001 | -.001 | .001 | -.001 | .000 | -.002 | -.001 | .001 |
| Informal Sector | .330* | .409* | .392** | .321*** | .338*** | .376*** | .391*** | .210* |
| Debt (% GDP) | .045** | .040** | .048** | .033** | .042** | .038** | .040** | .038*** |
| Female LF participation | -1.234** | -.905* | -.334 | -.238 | -.184 | -.542 | -.613* | -.209 |
| Trade | .021 | .022 | .058 | .046 | .055 | .058 | .048 | -.062 |
| FDI inflows | -.155 | -.079 | .063 | .071 | .070 | .064 | .087 | .146 |
| Ethnic Diversity | 15.330** | 13.042** | 10.383** | 9.628* | 10.955** | 12.867** | 13.907** | -2.804 |
| Employment in Industry | -.409 | | | | | | | |
| Politics & Policy | | | | | | | | |
| Years of Education | | | -2.371* | -2.982*** | -2.694** | -3.511*** | -3.766*** | -1.601 |
| Health & Education | | | -1.518 | -.390 | -.783 | | | -1.190 |
| Social Security & Welfare | | | -1.085** | -.701 | -.859 | | | -1.764** |
| Democracy | | | | -.334* | | | | |
| Repressive Authoritarianism | | | | .206 | | | | |
| Legislative Partisan Balance | | | | | -.238 | -.306* | | |
| Executive Partisan Balance | | | | | | | -.270 | |
| Gini | | | | | | | | .973** |
| Constant | 61.896** | 49.171** | 43.08** | 46.328*** | 41.619*** | 45.897** | 48.025** | 9.942 |
| R ² | .80 | .80 | .86 | .89 | .88 | .88 | .87 | .85 |
| N | 92 | 106 | 97 | 97 | 97 | 106 | 106 | 62 |

***p < .001, **p < .01, *p < .05. One-tailed test except recovery, trade, fdi inflows, and social security & welfare.

As pointed out earlier, the dominant alternative to democracy in Latin America since 1970 has been right-wing authoritarianism, not left-wing authoritarianism. Repressive authoritarianism is correctly signed but falls short of significance. When operationalized with alternative time lags, the variable remains insignificant in predicting differences in Latin American poverty levels.

The results presented in models 5 and 6 of Table 3 also confirm the expectation that the strength of parties of the left relative to the center and right in the legislature is a significant and negative predictor of poverty levels in the region. The legislative partisan balance is a significant and negative predictor of poverty levels when social expenditure variables are excluded from the model. If spending variables are included, however, the partisan balance of power loses its significance. This result suggests that the left influences poverty levels by structuring welfare policies to favor the poorest sectors of society.

This result is particularly important in Latin America, where parties are often noted for their weak and personalistic nature.⁴⁷ It is often assumed that the prevalence of clientelistic exchanges between politicians and voters in Latin America has undermined the ability of leaders to engage in programmatic politics. Evidence presented here, however, suggests that there are important differences among Latin American parties of the left, center, and right. The evidence further suggests that, despite pressures to conform to the neoliberal economic model, left parties continue to exhibit differences from their rightist counterparts with regard to the character of social policy formation.

Interestingly, partisanship of the executive falls just short of significance. There are two ways of interpreting this finding. The strong agenda-setting power of Latin American presidents could be at least partially constrained by the legislature, or partisanship in the legislature works differently than on the executive level; representatives and senators are less likely to stake out centrist positions than their executive counterparts.

The final element of the political process of poverty reduction described by this theoretical framework involves the design of social policy. Surprisingly, the most direct measure of human capital investment, public expenditure on health and education, is not a significant predictor of poverty levels in Latin America.⁴⁸ This fact should not be interpreted to mean that investment in human capital is unimportant in reducing poverty levels, but rather that spending levels do not tell much about the effort made by governments to fight poverty directly or indirectly by improving human capital at the bottom of the income distribution. Indeed, the results in Table 3 suggest that the way expenditure is allocated matters more than spending levels.

The results confirm that an effective education policy, defined as programs that increase the average years of schooling of the population, is a significant and negative predictor of poverty levels. Education spending that extends the provision of public preschool, provides subsidies to high risk schools, and invests in training for teachers in low income schools are all expenditure patterns that have been found to increase the

retention of students in Latin American schools. These sorts of education policies are effective because they structure expenditure in such a way as to privilege the risks facing children at the bottom of the income distribution, namely, early school abandonment. The fact that the average number of years of education is a significant and negative predictor of Latin American poverty levels underscores the value of well-designed education policy in reducing poverty. Moreover, the effect of this variable is quite large: a move from the tenth percentile to the ninetieth percentile in the average years of education results in an 11.0 percentage point reduction in poverty.⁴⁹

The results in models 3 and 8 of Table 3 also suggest that income support policies—social security and welfare spending—are important tools in reducing poverty in Latin America. This finding is interesting as it suggests that, despite the well-known structural inequalities built into the region's transfer systems, such spending does provide an important level of protection against poverty. The fact that the amount of social security and welfare spending is not significant when democracy is added to the model (model 4) indicates that the structure of spending is more important than the overall amount of spending. Democracies reduce poverty in part by structuring spending to benefit the lower income groups.

A result that offers additional support to the political theory of poverty reduction advanced in this article is that income inequality, as measured by the Gini index, is a significant and positive predictor of poverty levels. Interestingly, the Gini is significant only when democracy and the partisan balance of power are dropped from the equation. This result suggests that one way in which democratic regimes and left-of-center parties contribute to lower levels of poverty is by shrinking the gap between rich and poor. Indeed, democracy and a left-leaning balance of partisan power have been found to depress inequality in Latin America.⁵⁰ These findings confirm that long periods of democracy provide a setting in which underprivileged sectors can voice demands and left parties can emerge to restructure welfare policies in a way that redistributes rights to the lower sector of the income distribution.

The effects of the control variables included in the models are relatively unsurprising. As anticipated, per capita GDP has a significant and negative impact on poverty levels, but the effect is somewhat smaller than democracy and effective education policy, with a move from the tenth to the ninetieth percentile in per capita GDP resulting in a 8.3 percentage point reduction in poverty. On the other hand, the size of the informal sector has the same magnitude effect but in the opposite direction. Thus, since in Latin America in the last two decades growth in GDP has been accompanied by growth in the informal sector, the prevailing economic development model has been unsuccessful in reducing poverty on its own.

Ethnic diversity has a consistently statistically positive impact on poverty, except when inequality is included in the equation. This result suggests that diversity increases poverty levels through higher levels of inequality. Finally, the debt crisis has a highly significant and consistent impact on poverty levels, and even in the recovery period of

the 1990s poverty levels remained higher than in the 1970s. The disappearance of the significant effect of the 1990s when inequality is in the equation suggests that the inequalitarian consequences of the debt crisis policies account for the persistence of higher poverty levels.

Conclusion

This study sheds new light on the issue of cross-national variation in poverty in Latin America. The findings underscore the significant impact of partisan power and regime type in shaping differences in poverty levels. The importance of the democratic record for poverty levels is one factor contributing to an explanation of the high levels of poverty in Latin America as compared to advanced industrial democracies. The result may also be reason for some optimism. As democracy deepens throughout the region, poverty levels should decline.

The analysis also points to the importance of education in lifting citizens out of poverty. These results have important implications for both politicians and scholars of Latin American political economy. With respect to policymakers, politicians and technocrats must be wary of social policy reforms that might sacrifice citizens' access to education. Indeed, one of the primary means of reducing poverty involves increasing the level of education. Thus, cutbacks in these programs could have disastrous effects for the well-being of the region in the longer run. By contrast, policies that seek to expand children's years of schooling could have an extremely large effect on poverty reduction.

The importance of average years of education in determining cross-national differences in poverty has implications for social policy beyond the education sector. In recent years Latin America has witnessed the expansion of a new breed of social policies, conditional cash transfers, that uses income supplements to generate incentives for families to keep children enrolled in school and to use medical services.⁵¹ Programs such as *Bolsa Escola* (Brazil), *Chile Solidario*, *PANES* (Uruguay), and *Progresas* (Mexico) stipulate school attendance as a prerequisite for the payment of the cash subsidy. In this way, these policies seek to promote poverty reduction by providing income support and boosting the average years of education of the population. These findings suggest that, if these programs are truly effective at increasing school attendance, they could have significant welfare-enhancing effects.

Additionally, the finding about the significant poverty-reducing effect of social security and welfare spending suggests that existing transfer systems are somewhat effective at protecting the poor. Thus, rather than eliminate such programs, policymakers should work to reform systems so that spending is more progressive. The aforementioned conditional transfer programs are one promising way of improving transfer systems.

The results of this analysis also have implications for scholars of Latin American political economy. First and foremost, the analysis underscores the need to bring politics back in to research on the region's poverty problem. Focusing exclusively on economic factors or even on economic and policy factors is insufficient. Rather, a more complete explanation of variation in poverty levels across countries and across time must pay attention to the regime trajectory and the distribution of power between political parties. It is telling that, despite Latin America's generally weak party systems and an abundance of personalistic leaders, these models demonstrate that politics and parties continue to matter a great deal.

This study is not the first research on Latin American political economy to find politics to be important. Others have presented evidence in support of systematic political effects in economic and social policymaking.⁵² So far, parties and mass attitudes towards parties and other political institutions have been studied mostly by scholars and institutions concerned with the survival and quality of democracy as a political system. Scholars and institutions concerned with poverty and inequality need to take parties more seriously, as well.

NOTES

1. Economic Commission on Latin America and the Caribbean (ECLAC), *Social Panorama of Latin America* (Santiago: United Nations Press, 2005), p. 318.
2. *Ibid.*, pp. 317–18.
3. ECLAC, *Social Panorama of Latin America* (Santiago: United Nations Press, 2003), p. 85.
4. Danny Leipziger, "The Unfinished Poverty Agenda: Why Latin America and the Caribbean Lag Behind," *Finance and Development*, 8 (2001), 677–707.
5. See Richard Sandbrook, Marc Edelman, Patrick Heller, and Judith Teichman, *Social Democracy in the Global Periphery* (Cambridge: Cambridge University Press, 2007); David De Ferranti, Guillermo E. Perry, Francisco H. G. Gerreira, and Michael Walton, *Inequality in Latin America: Breaking With History?* (Washington, D.C.: World Bank, 2004); ECLAC, *Social Panorama of Latin America 2001–2002* (Santiago: United Nations Publications, 2002); Samuel Morley, *Poverty and Inequality in Latin America* (Baltimore: The Johns Hopkins University Press, 1995); Ricardo Morán, Tarsicio Castañeda, and Enrique Aldaz-Carroll, "Early Childhood Investment and the Intergenerational Transmission of Poverty," in Ricardo Morán, ed., *Escaping the Poverty Trap* (Washington, D.C.: Inter-American Development Bank, 2003); Quentin Wodon, Rodrigo Castro-Fernández, Kihoon Lee, Gladys López-Acevedo, Corinne Siaens, Carlos Sobrado, and Jean-Philippe Tre, "Poverty in Latin America: Trends (1986–1998) and Determinants," *Cuadernos Económicos*, 38 (August 2001), 127–53; Dagmar Raczynski, "Introduction" and "Programs, Institutions, and Resources: Chile," in Dagmar Raczynski, ed., *Strategies to Combat Poverty in Latin America* (Washington, D.C.: Inter-American Development Bank, 1995).
6. See Morley; Wodon et al.; World Bank, *World Development Report: Poverty* (Washington, D.C.: World Bank Press, 1990); Juan Luis Londoño and Miguel Székely, "Persistent Poverty and Excess Inequality: Latin America, 1970–1995," Working Paper No. 57 (Washington, D.C.: Inter-American Development Bank, 1997); George Psacharopoulos, Samuel Morley, Ariel Eiszbein, Haeduck Lee, and Bill Wood, *Poverty and Income Distribution in Latin America* (Washington, D.C.: World Bank Publications, 1997); Nora Lustig and Darryl McCleod, "Minimum Wages and Poverty in Developing Countries: Some Empirical Evidence," in

Sebastian Edwards and Nora Lustig, eds., *Labor Markets in Latin America* (Washington, D.C.: Brookings Institution Press, 1997).

7. Kurt Weyland, *Democracy without Equity* (Pittsburgh: University of Pittsburgh Press, 1996).
8. Evelyne Huber, "Globalization and Social Policy Developments in Latin America," in Miguel Glatzer and Dietrich Rueschemeyer, eds., *Globalization and the Future of the Welfare State* (Pittsburgh: University of Pittsburgh Press, 2005), pp. 75–105.
9. Ernesto Stein, Mariano Tommasi, Koldo Echebarria, Eduardo Lora, and Mark Payne, eds., *The Politics of Policies* (Washington, D.C.: Inter-American Development Bank, 2005).
10. See Amartya Sen, *Development as Freedom* (New York: Alfred A. Knopf, 1999); Adam Przeworski, Michael E. Alvarez, Jose Antonio Cheibub, and Fernando Limongi, *Democracy and Development: Political Institutions and Well-Being in the World, 1950–1990* (New York: Cambridge University Press, 2000).
11. Michael Ross, "Is Democracy Good for the Poor?," *American Journal of Political Science*, 50 (2006), 860–74.
12. Mariana Schkolnik with Fernando Salamanca, "Reducción de la Pobreza en Chile: El Impacto de las Políticas Públicas," in José Vicente Zevallos, ed., *Estrategias Para Reducir la Pobreza* (Ecuador: United Nations, 1997).
13. Ibid.
14. Lorena Godoy, "Programas de renta mínima vinculada a la educación: Las becas escolares en Brasil," in ECLAC, ed., *Serie de Políticas Sociales* (Santiago: United Nations, 2004), p. 12.
15. See Morán, Castañeda, and Aldaz-Carroll; Raczynski; Morley.
16. Education is the most universally provided social service in Latin America. Health services are less universalistic, but even in systems where private insurance has been introduced, many states administer some form of public healthcare.
17. ECLAC, *Social Panorama of Latin America 2001–2002*, p. 114.
18. See *ibid.*, p. 109; Juan Bogliaccini, "Primary Education: Changing the Mainstay of Uruguay," IPES Working Paper No. 8 (Montevideo: Universidad Católica, 2006).
19. ECLAC, *Social Panorama of Latin America 2001–2002*, p. 109.
20. Since there is no equivalent measure in the social security and healthcare sector, it is not possible to include a proxy for the effectiveness of health and transfer spending.
21. Robert Barro and Jong-Wha Lee, "International Data on Educational Attainment: Updates and Implications," CID Working Paper No. 42 (2001), <http://www.cid.harvard.edu/ciddata/ciddata.html>.
22. See DeFerranti et al.; Kathy Lindert, Emmanuel Skoufias, and Joseph Shapiro, *Redistributing Income to the Poor and the Rich: Public Transfers in Latin America and the Caribbean* (Washington, D.C.: World Bank, 2006).
23. See Carmelo Mesa-Lago and Fabio Bertranou, *Manual de Economía de la Seguridad Social* (Montevideo: Centro Latinoamericano de Economía Humana, 1998).
24. Beginning in 2002, ECLAC changed their reporting system and began to report the share of individuals living in poverty rather than households. We, therefore, analyze data only through 2001.
25. See World Bank, *World Bank Development Report*; Londoño and Székely; Psacharopoulos, Morley, Fiszbein, Lee, and Wood.
26. Alberto Minujin, Jan Vandemoortele, and Enrique Delamonica, "Economic Growth, Poverty and Children," *Environment and Urbanization*, 14 (October 2002), p. 25.
27. Psacharopoulos, Morley, Fiszbein, Lee, and Wood, p. 55.
28. Sanjay G. Reddy and Thomas W. Pogge, "How Not to Count the Poor," paper available at www.columbia.edu/~sr793/count.pdf, 2005, p. 38.
29. ECLAC, "*Cepal Stat Technical Note: Hogares en situación de pobreza e indigencia por área geográfica*," available online at http://website.eclac.cl/sisgen/SisGen_MuestraFicha.asp?indicador=183&id_estudio=7, accessed on July 13, 2007.

30. International Monetary Fund, *Government Finance Statistics Yearbook* (Washington, D.C.: IMF, various years). For the appendix, see the website, <http://blog.richmond.edu/jpribble>.

31. Dietrich Rueschemeyer, Evelyne Huber Stephens, and John D. Stephens, *Capitalist Development and Democracy* (Chicago: University of Chicago Press, 1992). It should be noted that the master data set contains measures of democracy from Mike Alvarez, José Antonio Cheibub, Fernando Limongi, and Adam Przeworski, "Classifying Political Regimes," *Studies in Comparative International Development*, 31 (1996), 3–36; Scott Mainwaring, Daniel Brinks, and Aníbal Pérez-Liñán, "Classifying Political Regimes in Latin America, 1945–1999," *Studies in Comparative International Development*, 36 (2001), 37–65; and Freedom House. All of these are highly correlated, particularly our cumulative versions of the measures. Alvarez, Cheibub, Limongi, and Przeworski ends in 1990, and Freedom House begins in 1972, so these measures do not have sufficient coverage for our purposes. The Mainwaring, Brinks, and Pérez-Liñán and the Rueschemeyer, Stephens, and Stephens annual measures are highly correlated (.85), and the cumulative versions of the measures are very highly correlated (.95).

32. Michael Coppedge, "A Classification of Latin American Political Parties," Working Paper Series No. 244 (Notre Dame: Helen Kellogg Institute for International Studies, University of Notre Dame, 1997).

33. To be certain that this recoding did not drive the results, all of the models were run without Argentina, and the results held.

34. Unlike Coppedge, we did not use expert surveys. Instead, two members of our team independently consulted numerous primary and reference materials in order to code each political party. Then, on parties for which there was a disagreement, we consulted country experts. Finally, the entire research team convened to make a decision. For details of the party codings, see Evelyne Huber, John D. Stephens, Thomas Mustillo, and Jennifer Pribble, "Latin America and the Caribbean Dataset, 1945–2001," Beta Version (Chapel Hill: University of North Carolina, 2008).

35. The procedure of tallying seat shares differs from Coppedge, who tallied vote shares. We make this choice on the grounds that seat shares are more consequential for policy than vote shares.

36. Religious parties are much less frequent and influential in Latin America than in advanced industrial countries. Moreover, they are not as ideologically distinctive as western European Christian democratic parties. Thus, as expected, the results were not significant when the religious dimension was separated out.

37. See Evelyne Huber and John D. Stephens, *Development and Crisis of the Welfare State: Parties and Policies in Global Markets* (Chicago: University of Chicago Press, 2001).

38. Tests were also run using alternative operationalizations of this measure. The score was cumulated during the ten years previous to the observation and during the five years previous to the observation. The tests using these alternative operationalizations are not reported in Table 3 but are referred to in the discussion.

39. A table with the regime codings is available at <http://blog.richmond.edu/jpribble>. A discussion of the data sources and the methodology used to generate some of these variables can be found in the appendix at this website.

40. William H. Greene, *Econometric Analysis*, 2d ed. (Englewood Cliffs: Prentice Hall, 1993).

41. See James A. Stimson, "Regression in Time and Space: A Statistical Essay," *American Journal of Political Science*, 29 (1985), 914–47.

42. See Scott J. Long and Laurie H. Ervin, "Using Heteroskedasticity Consistent Standard Errors in the Linear Regression Model," *The American Statistician*, 54 (2000), 217–24.

43. William H. Rogers, "Regression Standard Errors in Clustered Samples," *Stata Technical Bulletin*, 13 (1993), 19–23, reprinted in *Stata Technical Bulletin Reprints*, 3 (1993), 88–94. See also William Sribney, "Comparison of Standard Errors for Robust, Cluster, and Standard Estimators," retrieved January 21, 2003, Stata FAQ Statistics, Stata Corporation, <http://www.stata.com/support/faqs/stat/cluster.html>; Stata Corp., *Stata Statistical Software: Release 6.0* (College Station: Stata Corporation, 1999), pp. 256–60.

44. The variable "employment in industry" is an extremely rough measure, and based on the authors' own case knowledge several values seemed implausible. Moreover, the series is incomplete and requires a great

deal of interpolation and extrapolation. The insignificant results, therefore, should not be considered definitive. Further tests with better data are warranted to gauge fully the theoretical importance of this variable.

45. We tested for the effect of democracy when cumulated in five, ten, and fifteen year periods, and the variable was consistently a significant and negative predictor of poverty levels.

46. Except for the Gini, these calculations of the size of the effect of the independent variables are based on the coefficients in model 4.

47. This finding also holds if the legislative partisan balance variable is cumulated for shorter periods of time. The variable was consistently significant when cumulated in five, ten, and fifteen year periods.

48. The variable remains insignificant even when average number of years of education is dropped from the model.

49. This calculation is based on the coefficient in model 4.

50. Evelyne Huber, François Nielsen, Jenny Pribble, and John D. Stephens, "Politics and Inequality in Latin America and the Caribbean," *American Sociological Review*, 71 (December 2006), 943–63.

51. Pablo Villatoro, "Conditional Cash Transfer Programmes: Experiences from Latin America," *Cepal Review* (August 2005), 83–96; Sergei Suarez Dillon Soares, Rafael Guerreiro Osório, Fabio Veras Soares, Marcelo Medeiros, and Eduardo Zepeda, "Conditional Cash Transfers in Brazil, Chile and Mexico: Impacts upon Inequality," International Poverty Centre Working Paper No. 35 (April 2007).

52. Weyland; Victoria Murillo, "Political Bias in Policy Convergence: Privatization Choices in Latin America," *World Politics*, 54 (2002), 462–93; Huber, Nielsen, Pribble, and Stephens; Evelyne Huber, Thomas Mustillo, and John D. Stephens, "Politics and Social Spending in Latin America," *Journal of Politics*, 70 (April 2008), 420–36.