

Politics and Inequality in Latin America and the Caribbean

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This article presents the first pooled time series analysis of the impact that politics and policy have on inequality in Latin America and the Caribbean. The authors build on models consisting of sociological and economic variables, adding the strength of the democratic tradition, long-term legislative partisan political power distribution, and social spending to explain variation in inequality. They analyze an unbalanced pooled time series data set for income distribution in 18 Latin American and Caribbean countries from 1970 to 2000. They show that the political variables add explanatory power. A strong record of democracy and a left-leaning legislative partisan balance are associated with lower levels of inequality, as are social security and welfare spending under democratic regimes. Thus, they replicate some and modify other well-established findings from studies of Organization for Economic Cooperation and Development (OECD) countries in the very different context of Latin America and the Caribbean. They confirm that the partisan composition of government matters, and show that, in contrast to OECD countries, where social security and welfare spending consistently reduce inequality, such spending reduces inequality only in a democratic context in Latin America and the Caribbean.

The region constituted by Latin America and the Caribbean as a whole has the highest level of inequality in the world, and during the last three decades of the 20th century, inequality increased in most countries of the region for which data are available (Morley 2001:24).

There is increasing consensus that this inequality is a serious obstacle to both poverty reduction and economic growth generally (Barro 1997; de Ferranti et al. 2004; Economic Commission on Latin America and the Caribbean [ECLAC] 2004; Inter-American Development Bank [IDB] 1998). Although there is agreement about the common historical roots of inequality in the region, there has been very little theorizing about the causes of differences in inequality among Latin American and Caribbean countries, and even less empirical testing of such theories. For both theoretical and practical reasons, we are specifically interested in whether and how politics matter for differences in inequality among these countries. Theoretically, we seek to contribute to knowledge by exploring how useful an explanatory framework built on the experience of Organization for Economic Cooperation and Development (OECD) countries is for the Latin

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American and Caribbean region. For practical purposes, we hope to highlight how human agency can potentially reduce excessive levels of inequality.

Inequalities in landholding and political power originating in the colonial order are at the center of theoretical explanations for the deep roots of inequality in Latin America and the Caribbean. After Independence, inequality in assets and income was conditioned by and reinforced inequality in political influence, and thus in political institutions and policies, which in turn perpetuated the vicious cycle of inequality. If we accept that the high degree of economic inequality in Latin America and the Caribbean has been reproducing itself historically, at least in part, through political domination by an elite, then we would expect differences among countries in political institutions and political power distributions to make a difference for the degree of economic inequality at the end of the 20th century. Specifically, we would expect that countries with longer records of democracy would have lower degrees of inequality, because democracy over the long term offers the possibility for the underprivileged to organize and make their voices heard. The prime instrument for influencing policy in democracies is the political party. Political parties differ in their worldviews and commitments to redistribution and their corresponding appeals to the electorate. Accordingly, we would expect countries with stronger party blocs committed to redistribution (i.e., stronger party blocs to the left of center) to have less inequality. Finally, the main ways that parties influence the distribution of income is through legislation on public expenditure and on regulation of labor markets. Accordingly, we would expect countries with more redistributive expenditures and stronger pro-labor legislation to have lower degrees of inequality.

There is good theory supported by firm evidence about the interrelationships of politics, welfare states, labor market policy, and inequality in advanced industrial societies. A synthetic theoretical framework building on power resources theory, state-centric approaches, and the logic of industrialism explains the development of generous and redistributive social and labor market policies as conditioned by the strength of social democratic parties and labor movements, women's mobilization, and cen-

tralization of political power (Hicks 1999; Huber and Stephens 2001; Swank 2002). Pooled time series data on income distribution and wage dispersion recently made available, respectively, by the Luxembourg Income Study and OECD have stimulated a number of studies demonstrating that these features of the polity exert a strong influence on inequality, poverty, and wage dispersion in advanced industrial societies (e.g. Bradley et al. 2003; Iversen 2005; Moller et al. 2003; Rueda and Pontusson 2000; Wallerstein 1999).

By contrast, the neglect of politics in the study of inequality in the developing world has been striking. Since the publication of Kuznets' (1955) influential work, the cross-national quantitative and more recently pooled time series analyses of determinants of income inequality have been mostly the work of development sociologists predominantly interested in the relative contribution of variables related to economic development (educational expansion, the changing weight of economic sectors, per capita income), economic dependency and, in some cases, political democracy.¹ Variables related to politics (e.g., political parties, political institutions, public policy) are absent. This is hardly because of the disciplinary neglect of such variables in the theoretical literature in sociology. Most of the articles by sociologists cite the modern classic on inequality, by Lenski (1966), whose explanation for the decline of inequality in the course of industrialization (Kuznet's inverted U-curve) emphasizes power and politics. One reason for this neglect is rather prosaic: international organizations such as the International Monetary Fund (IMF), the World Bank, the International Labor Organization (ILO), and the United Nations (UN) provide

¹ Of the 24 references to journal articles on the determinants of income inequality in cross-national samples appearing in the reference lists of three recent articles on the subject (Alderson and Nielsen 1999; Lee 2005; Rudra 2004), 16 were in sociology journals and 5 were in political science journals. Four of the authors or coauthors of these articles were political scientists. The remainder were sociologists. Other than regime type, the only political variables appearing in these analyses were public expenditure in two very recent articles (Lee 2005; Rudra 2004) and government revenue in an early contribution (Rubinson 1976).

data on income inequality, but rarely for the kinds of variables (e.g., distribution of votes, parliamentary seats, cabinet seats across parties, and institutional forms of government) used in recent studies on the determinants of inequality in advanced industrial societies.

In this article, we analyze pooled time series data on Latin America and the Caribbean from 1970 to 2000 that include political variables collected by our research team. We explore the applicability of politics-oriented models of income inequality that have been developed for OECD countries to the very different context of Latin America and the Caribbean. Our theoretical rationale is that if we can find similar causal dynamics of inequality in the very different historical and structural context of Latin America and the Caribbean on the one hand, and the OECD countries on the other, then we can propose some theoretically powerful cross-regional generalizations and add to the cumulative knowledge about politics and inequality.

Our rationale also is empirical. The Latin American and Caribbean region during the last decades of the 20th century, because of its sociopolitical diversity, is ideally suited for investigating the relationship between inequality and the independent variables hypothesized in the economic and sociological literature on development and dependency as well as in the political science literature on the politics of inequality. Compared with other regions of the developing world, Latin America and the Caribbean exhibit more variation in indicators of development and democracy. For example, of the country-year observations in this analysis, 50 percent classified the political regimes as full democracies, 26 percent as restricted democracies, and the remainder as authoritarian regimes or colonies. There also is significant variation in the vote and seat distribution of the parties in the legislature as well as the political coloring of the chief executive. There is similarly wide variation in development, with the per capita income, for example, ranging from \$1,906 to \$19,103.

The results presented later demonstrate that politics do indeed matter for differences in the degree of inequality. Thus, we replicate an important finding from studies of advanced industrial societies: partisan power distribution and democratic experience are important determinants of income distribution. Note that we

compare the findings from two very different regions. We are NOT generalizing from the region with the highest inequality to other areas of the world. These findings are important for practical political reasons. Policy is to a considerable degree a matter of choice and under the control of human agents, albeit under resource and institutional constraints. Some policies are more effective in reducing inequality than others, and some institutional configurations are more likely than others to produce agents and policies that reduce inequality. The knowledge of which policy and institutional configurations are most equity enhancing can empower actors to work toward strengthening such institutions and supporting such agents and policies.

POLITICS AND INEQUALITY IN LATIN AMERICA

Although we expect political variables such as partisan legislative power, strength of democratic tradition, and the nature of social expenditures to be important in determining inequality levels in Latin America and the Caribbean, we suspect that these variables will have weights different from those in advanced industrial societies and somewhat different effects. The region does have a weaker record of democracy, less consolidated parties, and weaker organizations of the underprivileged, particularly, weaker labor unions and weaker parties of the left. It also has different labor markets, so similar policies may have different effects.

In contrast to Latin America, advanced industrial countries have uninterrupted records of democracy, at least since 1945,² and they all have constructed welfare states that redistribute income. These welfare states redistribute income downward across income groups, not only across generations. The magnitude of redistribution depends on both the overall size of the welfare state and the structure of taxation and expenditures (Bradley et al. 2003). These structures in turn are shaped by power constellations and political institutions (Hicks 1999; Huber and

² The exceptions are Spain, Portugal, and Greece, which are excluded from the vast majority of cross-national statistical analyses of welfare states in advanced industrial democracies.



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Stephens 2001; Swank 2002). Welfare states are most redistributive where left parties have been in power for long periods, and the strength of left parties in turn has been closely related historically to the strength of the labor movement. These forces all have been weaker in Latin America and the Caribbean.

Latin American and Caribbean countries were long dominated by large landholders dependent on a large, cheap labor force. As in all societies, including those outside Latin America, such as Italy, Spain, and Prussia, in which large landholders played an important role in the national economy, they were determined and effective enemies of democracy (Moore, 1966; Rueschemeyer, Stephens, and Stephens 1992). Restrictive labor legislation combined with the comparatively small size of the urban industrial sector hampered the formation of broad-based unions with sufficient independence to challenge existing institutions and acquire economic and political clout. The weakness of democracy obstructed the formation of strong political parties in general, and combined with the weakness of labor, hampered the development of parties to the left of center, in particular. This, in turn, hampered forces that could build the redistributive capacity of the state and shape a model of political economy that would produce growth with equity. The comparatively small proportion of formal sector employment meant that social security schemes modeled after those in advanced industrial countries had very different effects, covering a much smaller proportion of the population, and thus being regressive instead of progressive (Lindert, Skoufias, and Shapiro 2005). The neoliberal economic reforms of the past three decades have had a further regressive impact, largely due to the shrinking of the already small proportion of formal sector employment.

Most analysts of Latin American politics have emphasized the contrast to advanced industrial societies and the pathologies of Latin American states and party politics, such as lower stability in interparty competition, weaker party roots in society, weaker programmatic or ideological linkages between voters and parties, and highly personalistic party-voter linkages (Mainwaring and Torcal 2006). However, scholars also have found very significant differences among countries of Latin America and the Caribbean in terms of these and other dimensions. For instance, some countries, such as

Chile, Uruguay, and Costa Rica, have long been recognized as having more effective states and social policies than other countries. Mainwaring and Scully (1995) clearly show important differences in the institutionalization of party systems. In some countries, such as Brazil, stronger, more programmatic and disciplined parties have emerged more recently (Hagopian 2004). Luna and Zechmeister (2005) demonstrate on the basis of elite and mass survey evidence that the degree of programmatic orientation and coherence of political parties varies greatly between countries and between parties within the same country. Moreover, Colomer and Escatel (2004) show that citizens in Latin America find the left-right dimension meaningful for the structuring of politics. Finally, the party affiliation and orientation of policymakers have been shown to affect policy (Murillo 2001, 2002). Taken together, all this evidence suggests that a theoretical perspective that assigns an important role to regime form and partisan politics in shaping income distribution in Latin America and the Caribbean is worth pursuing.

LITERATURE AND HYPOTHESES

We build on the few studies that use multiple regression analyses of inequality in developing countries. Morley's (2001) study examining the determinants of differences in inequality of income distribution among countries in Latin America combines multiple regression analyses with nine country case studies. His variables include national income, inflation, education, economic reform indices, and land distribution. Studies of inequality in cross-regional mixed samples of developed and developing countries (Alderson and Nielsen 1999; Lee 2005; Reuveny and Li 2003) and in samples of developing countries (Rudra 2004) have paid particular attention to world system or globalization variables, along with demography and economic development. Alderson and Nielsen (1999; see also Nielsen and Alderson 1995) also examine the impact of differential development across sectors, the size of the agricultural labor force, and the spread of education, whereas Reuveny and Li (2003) include democracy, and Rudra (2004) and Lee (2005) include government expenditures and democracy. None of these authors analyze the effects of power distributions among political parties. Our main focus is on the impact of the strength of the

democratic tradition, two categories of social expenditures, and parties' political strength in the legislature. We treat the variables from these other studies as control variables (Table 1).

Table 1. Variable Descriptions, Data Sources, and Hypothesized Effects for the Analyses of Income Inequality

Variable	Description	Hypothesis	Sources
Dependent Variables			
Gini coefficient	The Gini coefficient.		United Nations University World Income Inequality Database, Volume 2.0a (June 2005)
Independent Variables			
Methodological Controls			
Equivalence scale indicator	Coded 1 for Gini observations that are calculated based on non-adjusted income estimates.	–	United Nations University World Income Inequality Database, Volume 2.0a (June 2005)
Gross income indicator	Coded 1 for Gini observations that are calculated using gross income or monetary gross income.	+ or none	United Nations University World Income Inequality Database, Volume 2.0a (June 2005)
Income definition indicator	Coded 1 for Gini observations that are calculated from surveys in which there is no available information about the income concept. ^a	–/+	United Nations University World Income Inequality Database, Volume 2.0a (June 2005)
Debt crisis period indicator	Coded 1 for all observations falling in 1982–1989.	+	Author codings
1990s period indicator	Coded 1 for all observations falling in 1990–2000.	–	Author codings
Economy and Demography			
GDP per capita	Gross domestic product per capita in 1000's of constant purchasing power parity dollars.	– or none	World Bank World Development Indicators CD (2003); Penn World Table Version 6.1
Sector Dualism	The absolute difference between the percent of the labor force in agriculture and agriculture as a share of GDP.	+	World Bank World Development Indicators CD (2003); International Labor Organization's Online Labor Statistics (http://laborsta.ilo.org); ECLAC's Statistical Yearbook on Latin America and the Caribbean (various years); Alderson and Nielson (1999)
Employment in agriculture	Employment in agriculture as a percent of total employment.	+	World Bank World Development Indicators CD (2003); International Labor Organization's Online Labor Statistics (http://laborsta.ilo.org); ECLAC's Statistical Yearbook on Latin America and the Caribbean (various years); Alderson and Nielson (1999)
Inflation	Annual percentage change in consumer prices.	+	IMF's International Financial Statistics CD and Blyde and Fernandez-Arlas (2004)
Youth population	Population aged 0 to 14 as a percentage of total population.	+	World Bank World Development Indicators CD (2003)
Ethnic diversity	Dummy variable coded 1 when at least 20 percent, but not more than 80 percent of the population is ethnically diverse.	+	Coding based on data presented in De Ferranti et al. (2004)

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Table 1. (Continued)

Variable	Description	Hypothesis	Sources
Education			
Net secondary school enrollment ratio	The ratio of the number of children of official secondary school age who are enrolled in school, to the population of the corresponding age.	–	World Bank World Development Indicators CD (2003)
Foreign Direct Investment			
FDI inflows	Net inflows of foreign direct investment as a percent of gross capital formation.	+	World Bank World Development Indicators CD (2003)
Stock of FDI	Inward investment in stock as a percent of GDP.	+	UNCTAD Handbook of Statistics, CD version (2002) and United Nations Centre on Transnational Corporations (1985)
Politics			
Democracy	Regime type: non democracy = 0, restricted democracy = .5, and full democracy = 1, score cumulative from 1945 to date of observation.	–	Rueschemeyer, Huber Stephens, and Stephens (1992)
Repressive authoritarianism	Regime type: repressive authoritarian regimes = 1 and all other = 0, score is cumulated for the fifteen years preceding the year of observation.	+	Author codings
Legislative partisan balance	Left-right balance of seats in the lower house of the legislature. See text for calculation. The variable is cumulated for the fifteen years preceding the year of observation.	–	Adapted and expanded by the authors from Coppedge (1997)
Executive partisanship	Left-right balance of the executive. The variable is cumulated for the fifteen years preceding the year of observation.	–	Adapted and expanded by the authors from Coppedge (1997)
Social Spending			
Health and education (cumulative average)	Cumulative average of government spending on health and education as a percent of GDP. ^j	–	IMF's Government Finance Statistics Yearbook (various years) and IMF's International Financial Statistics CD and Yearbook (various years); Cominetti 1996; Cepal http://www.eclac.cl/badeinso/Badeinso.asp
Social security and welfare	Government spending on social security and welfare as a percent of GDP. ^j	+	IMF's Government Finance Statistics Yearbook (various years) and IMF's International Financial Statistics CD and Yearbook (various years); Cominetti 1996; Cepal http://www.eclac.cl/badeinso/Badeinso.asp

DEMOCRACY

There are strong theoretical reasons to expect that the length of a country's democratic experience is associated with lower inequality (Rueschemeyer et al. 1992:10). Democracy

gives the powerless and underprivileged the chance to organize and use organization as a power base to gain entry into the political decision-making process. The most effective channels for underprivileged groups into the political

decision-making process are political parties, because the poor lack the connections and funds to influence decision makers directly. However, it takes time for parties to gain coherence and establish roots in social bases, for legislatures to pass major pieces of legislation, and for that legislation to be implemented. In particular, it takes time for parties representing the interests of less privileged groups to consolidate and gain representation in competition with parties representing privileged groups and enjoying a financial advantage.

In studies of income distribution in advanced industrial democracies, democracy does not figure as a variable because there are no non-democratic cases outside southern Europe in the post-World War II period. In contrast, Latin America and the Caribbean exhibit great variation in the lengths of time that countries have been democratic. Thus, we expect the countries with the longer democratic traditions to have lower inequality. Other studies have found such an effect (Burkhart 1997; Reuveny and Li 2003; Rudra 2004; but see Bollen and Jackman 1985), but they have measured the immediate presence of democracy in the year the dependent variable was observed or the year before, not the strength of the democratic tradition, which is theoretically more appropriate.

In addition to democracy, we consider the impact of different authoritarian regime types. We do this because not all alternatives to democracy are equal. Indeed some nondemocracies, such as the Peruvian military regime under Velasco in 1968–1975, introduced redistributive reforms and allowed few human rights violations. Under the Velasco regime, popular organizations flourished. Others, such as the bureaucratic authoritarian regimes in Argentina and Chile, redistributed income upward and killed, tortured, and incarcerated thousands of their citizens, particularly targeting leaders of the left, organized labor, and other social movements. In the former case, forces promoting redistribution emerged strengthened from the regime, whereas in the latter case, they emerged greatly weakened. We therefore hypothesize that extended rule by repressive authoritarian regimes increases inequality. Yet, we expect this effect to begin fading after replacement of the repressive regime with a democratic one. In other words, we expect that the effect from 10 years of repressive authoritarian rule in the

1960s on inequality observed in the 1990s will be weaker than the effect from 10 years of repressive authoritarian rule observed in the 1980s.

POLITICAL PARTIES

In democratic settings, the prime carriers of political worldviews and corresponding policy orientations are political parties. We thus would expect the partisan balance of power to shape a variety of policies that affect inequality over the medium and long term. There is solid empirical evidence that the strength of left parties has a significant effect on the extent of redistribution effected through the welfare state in advanced industrial democracies (Bradley et al. 2003). Redistribution depends on both the size of the welfare state and its structure. Both left and Christian democratic parties favor large welfare states, but left parties favor structures of transfers and services that benefit particularly lower income earners to a greater extent than do Christian democratic parties. When in office for protracted periods, these parties indeed structure welfare states in accordance with these preferences (Huber and Stephens 2001).

In advanced industrial societies, the location of parties on the left–right spectrum, defined by the strength of commitments to use state resources to promote the goals of lessening inequality, strengthening social solidarity, and serving the underprivileged versus fostering growth, promoting individualism, and advancing the interests of the privileged, is relatively clear in the minds of voters and political observers. The parties have built reputations during repeated election campaigns, and in most cases, through their actions in the legislature. In most Latin American and Caribbean countries, the shorter periods of democracy have offered fewer opportunities for parties to consolidate as organizations and to implant a clear image of their worldviews and commitments in the minds of voters and observers. Nevertheless, expert surveys (i.e., the same procedure used to locate parties on the left–right spectrum in advanced industrial countries [Castles and Mair 1984]) yield classification of most parties in Latin America into the same left, center-left, center, center-right, or right spectrum, with a residual category of personalist parties and a small num-



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ber of parties that cannot be classified (Coppedge 1997).

The second dimension by which parties generally are classified in both advanced industrial societies and Latin America is the religious–secular dimension. In advanced industrial societies, Christian democratic parties have indeed pursued a distinctive welfare state project. In Latin America, Christian parties are weaker and more heterogeneous, ranging from revolutionary left to conservative right (Mainwaring and Scully 2003). We therefore did not expect, nor did we find, an effect of Christian party strength on social expenditure patterns.

We follow Coppedge (1997) and the convention of conceptualizing the left–right location of parties on the basis of their socioeconomic agenda, as expressed in partisan appeals and policy initiatives, adopting the classifications provided by the expert surveys, except in the case of the Peronists in Argentina (see Data section), rather than the alternative conceptualization based on the original founding constituency of the party, such as organized labor or the oligarchy. This is because the effect of party strength on inequality depends on the policy orientation of the party, and the latter may radically change over time. Cases in point are parties such as the Peronists in Argentina or the Revolutionary Institutional Party (PRI) in Mexico, which are considered left of center—often called populist—because of their historic ties to the labor movement, ties cemented by their founders (Kaufman and Segura-Ubierno 2001). Over time, these parties abandoned their original commitments to redistribution. In the aftermath of the debt crisis, they even became champions of neoliberalism, favoring policies that redistributed income upward and weakened organized labor, their original ally. Conceptualizing such parties as left of center is not theoretically meaningful.

Parties classified as left of center are those that have favored redistributive policies. In contrast, right-of-center parties have favored growth without regard for its distributive consequences. Accordingly, we would expect to see some impact of differences between the strength of left-of-center parties and that of right-of-center parties on the level of public expenditures, and thus indirectly on income distribution. To the extent that we are not able to capture the distributive structure of public programs in our

measures, we also would expect to see a direct effect of relative left party strength on inequality. In addition, we would expect a left-leaning balance of legislative power to have a direct impact, not mediated by social spending, through legislative and administrative measures such as adjustments of the minimum wage, wage setting for public employees, and labor laws.

Center parties in Latin America and the Caribbean are those that base their appeals not primarily on a socioeconomic agenda, but rather on noncontested values such as commitment to the rule of law, honest government, and competent leadership. Accordingly, we would not expect any effects on inequality from a heavily centrist balance of partisan power.

In contrast, right-of-center parties are those that have generally based their appeals on growth, prosperity, and order and have protected the interests of business and of upper income earners. We therefore would expect a right-leaning balance of legislative power to increase inequality.

SOCIAL SPENDING

The prime policy instruments for shaping the distribution of income are taxes and social expenditures. In advanced industrial democracies, the size of the welfare state is strongly associated with reduction in inequality (Bradley et al. 2003). In Latin America and the Caribbean, the evidence for the distributive impact of social spending is more mixed and tends to be different for different kinds of expenditures. Social security spending, particularly the largest share that goes to pensions, is generally regressive (de Ferranti et al. 2004; Lindert et al. 2005). Social security schemes are typically tied to the formal sector and thus exclude the sizable informal sector. Even within the formal labor force, more highly educated and more highly paid employees are the most likely to be covered by social security. Moreover, because benefits are tied to earnings, the systems are highly segmented (IDB 1998:148). Furthermore, social security benefits are very unequally distributed among those covered, not only because they are earnings related, but even more so because different schemes exist for different groups, with particular privileges for some, such as the military, police, upper level civil servants, judges, and the

like. Social security and welfare spending is generally reported in one category by the International Monetary Fund (IMF). Where disaggregated figures are available, they show that more than 80 percent of the expenditures in this category go to social security. Thus, we expect higher social security and welfare spending to increase inequality.

Spending on health and education represents an investment in human capital, and as such, a considerable lag is likely between the moment of expenditure and returns (in the form of decreased inequality levels). Moreover, the distributive effect of health and education expenditure depends on its allocation. For example, spending on primary education is more redistributive than spending on university education. We do not have breakdowns for these different allocations, but evidence from case studies cited by de Ferranti et al. (2004:263–5) and from analyses by the IDB (1998:190–7) and by Lindert et al. (2005) indicates that the bulk of education spending is progressive, and that health spending is slightly progressive or neutral. Thus, we hypothesize an overall negative effect of sustained high levels of expenditures for health and education on inequality.

In a recent pooled time series analysis of income inequality in a worldwide sample, Lee (2005) shows that the impact of government spending on inequality is dependent on regime type. In authoritarian regimes, greater government spending is associated with greater inequality. In democracies, greater government spending is associated with less inequality. This is a very plausible hypothesis for social spending in Latin America, where the main alternative to democracy has been right-wing authoritarianism, not communism. It is likely that the authoritarian elites in these countries often have protected and extended the privileged position of the upper income groups in the social security system mentioned earlier, and have shaped health and education spending such that it benefits upper income groups.

ECONOMIC DEVELOPMENT

Theories linking economic development and inequality have been profoundly shaped by Kuznets' (1955) inverted U conjecture. Most of the Latin American and Caribbean countries are at medium levels of industrialization. Several

are near the peak of the curve, and a few have passed the peak (IDB 1998:89). Thus, for the whole sample, we would expect the relationship between economic development and inequality to be mildly negative or neutral.

Much statistical research has been devoted to establishing and explaining the U-curve relationship between economic development and inequality (e.g. Bollen and Jackman 1985; Crenshaw 1992; Muller 1985, 1988, 1989; Nielsen 1994; Nielsen and Alderson 1995; Simpson 1990). Alderson and Nielsen (1999) emphasize the role of labor force shifts and sectoral dualism, along with demographic transition and the spread of education. Sectoral dualism refers to the coexistence of a low-productivity traditional sector and a high-productivity modern sector, and it is expected to contribute positively to overall inequality in a society (Alderson and Nielsen 1999:610).

Alderson and Nielsen (1999:610), basing their theory on Kuznets (1955), hypothesize that the shift of the labor force out of the agricultural sector is associated with increasing inequality because the degree of inequality within the agricultural sector is assumed to be lower. Thus, size of the agricultural population would be negatively associated with inequality. However, the assumption of lower inequality within the agricultural sector for Latin America is questionable. Indeed, a comparison of Gini indices based on urban and rural surveys contained in the full UNU-Wider (2005) data base (described in the Data section) shows that inequality in the rural samples in Latin America is generally higher than the national level. Therefore, we would expect the opposite relationship to hold in our set of countries: the larger the proportion of the labor force in agriculture, the higher the degree of inequality.

INFLATION

Morley (2001:72) argues that during periods of high inflation, labor markets adjust only with a lag, which leads to a decrease in real wages, and that this decrease is particularly steep for the minimum wage. Thus, high inflation drives up inequality. The IDB (1998:100–2) and World Bank studies (de Ferranti et al. 2004:11, 231–9) agree that macroeconomic shocks, which typically are accompanied by high inflation, have a detrimental impact on inequality.



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DEMOGRAPHY

Previous studies have shown a strong association between population growth and the size of the young population, and a positive impact of population growth on inequality (Bollen and Jackman 1985; Simpson 1990). Alderson and Nielsen (1999) explain this impact as resulting from the oversupply of young unskilled workers, which further depresses lower incomes and increases wage differentials. We therefore expect an increasing percentage of the population younger than 15 years to push up the level of inequality.

ETHNIC COMPOSITION

Official policy in Latin America has emphasized ethnic mixing and amalgamation in the interest of national unity. Scholars agree that indigenous people and people of African descent generally have lower incomes and lower educational attainment. However, studies have shown that national inequality is mostly explained by inequality within racial, ethnic, and gender groups, and not by the differences between demographic groups (de Ferranti et al. 2004:85–96). Nevertheless, we include ethnic diversity among our control variables.

EDUCATION

The spread of education in the population or the improvement of human capital is regarded as a positive factor not only for the promotion of economic development, but also for the reduction of inequality. In most of Latin America and the Caribbean, primary education has been universalized since 1970 for the younger cohorts, but a large proportion of these cohorts drops out at that point. Accordingly, we would expect higher levels of secondary school enrollment to have a depressing effect on inequality in Latin America and the Caribbean.

FOREIGN DIRECT INVESTMENT

Previous studies have found that stock of foreign direct investment has a positive effect on inequality (Bornschier and Chase-Dunn 1985; Evans and Timberlake 1980). Tsai (1995) found that this effect is region specific, and that foreign direct investment has no significant dis-

tributional effect for Latin American countries. Reuveny and Li (2003) found that inflows of foreign direct investment have a positive effect on inequality in a worldwide sample of countries. We also expect that flows and stock of foreign direct investment will have a positive effect on inequality in Latin America and the Caribbean because foreign investment usually brings capital-intensive production that creates comparatively few but well-paying jobs.

INFORMAL SECTOR

The informal sector in Latin America is very heterogeneous, but low-productivity activities dominate. Accordingly, workers employed in small enterprises in the informal sector show poorer earnings than workers in the formal sector, even when control is used for experience and years of schooling. The same is true for self-employed workers, the vast majority of whom are in the informal sector. Moreover, the difference between male and female earnings is larger among workers in the informal than in the formal sector, and among the self-employed than among formal sector workers (IDB 1998:40). Thus, we expect a larger informal sector to be associated with greater overall income inequality.

LAND DISTRIBUTION

Inequality in land distribution has a direct effect on income inequality in the agrarian sector. In addition, it has a long-term indirect effect on income inequality in the urban sector via the great numbers of unskilled migrants swelling the reserve army of the unemployed in the cities and thus depressing wages at the bottom. Latin America has historically had very high inequality in the distribution of land, which accounts for some of the extraordinarily high income inequality in comparison with other regions. However, within Latin America, the variation in landholding structures is not great. Thus, we cannot necessarily expect a statistically significant effect of landholding inequality on income inequality.

DATA

Our dependent variable is the Gini index of income inequality from the United Nations'

University World Income Inequality Database, WIID (UNU-Wider 2005).³ Compiled using several national sources, WIID represents a major improvement in quality over the data of Deininger and Squire (1996a, 1996b), used most frequently in the past, which it subsumes. Each observation in the WIID is coded for its quality, area of coverage, income-sharing unit, unit of analysis, and use of a household size equivalence scale. We selected observations with the highest quality rating, eliminating those with expenditure, consumption, earnings, or market income as the income concept, as well as those without coverage of the entire population. In the case of multiple observations for the same year, we kept observations which have the individual as the unit of analysis and use an equivalence scale adjusted for household size. If multiple observations still existed, we took the average of the Gini values for the year in question. We used indicator variables to control for three remaining hypothesized sources of variation attributable to survey methodology: no adjustment for household size, use of gross versus net income, and absence of information on the use of gross versus net income. In preliminary analyses, we found that only the equivalence scale indicator had a significant impact on inequality, so we kept it in the final analyses and dropped the other two.⁴

The measure of democratic history is derived from Rueschemeyer et al. (1992). Yearly democracy scores are coded: 0 (colony), 1 (authoritarian regime), 2 (bureaucratic authoritarian regime), 3 (restricted democracy), and 4 (full

democracy). These categories are collapsed into 0 (nondemocracy), .5 (restricted democracy), and 1 (full democracy). To measure democratic history, we cumulate the yearly scores beginning in 1945.

Legislative partisan balance is derived from Coppedge (1997), who consulted country experts to classify political parties in 11 countries of Latin America into two primary dimensions and several residual categories. The left–right dimension reflects a political party’s ideology and class appeal as well as its relative prioritization of growth and redistribution. Coppedge’s experts classified parties along this dimension into five categories: left, center-left, center, center-right, and right. For example, parties of the right presented themselves as, or appealed to, heirs of traditional elites, fascists, neofascists, or the military with a conservative message. Experts classified parties as center-right that “targeted middle- or lower-class voters in addition to elite voters, by stressing cooperation with the private sector, public order, clean government, morality, or the priority of growth over distribution.” They classified parties as centrist that “stressed classic political liberalism, the rule of law, human rights, or democracy, without a salient social or economic agenda.” Also included in this category are “governing parties whose policies are so divided between positions both to the left and to the right of center that no orientation that is mostly consistent between elections is discernible.” Experts classified as center-left parties that “stress justice, equality, social mobility, or the complementarity of distribution and accumulation in a way intended not to alienate middle- or upper-class voters.” Finally, they classified as left parties that “employ Marxist ideology or rhetoric and stress the priority of distribution over accumulation and/or the exploitation of the working class by capitalists and imperialists and advocate a strong role for the state to correct social and economic injustices” (see Coppedge 1997 for more details).⁵

³ A more detailed explanation for the measurement of the control variables can be found at the following Web site: <http://www.unc.edu/~jdsteph/index.html>.

⁴ Because household size in Latin America and the Caribbean varies inversely with income, we expected no adjustment for household size to result in lower inequality. By contrast, we did not expect the use of gross (vs net income) to greatly affect the inequality measure in Latin America and the Caribbean, where direct taxes represent a small percentage of GDP (contra Deininger and Squire 1996a). Even in the OECD countries, direct taxes do not affect much redistribution (Mahler and Jesuit 2005). Likewise, we did not expect the absence of information about gross versus net income to make much difference.

⁵ The second primary dimension in Coppedge’s (1997) classification is the religious one, with two categories: Christian and secular. Because we found that the religious dimension made no difference for our dependent variable, we combined the Christian and



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We adopted Coppedge's (1997) classification of parties for the country-years that fall within our sample, with the exception of the Peronists in Argentina,⁶ and used his classification scheme to expand the coverage to the full range of countries and years in our data set, but using primary and reference materials instead of expert surveys. For parties over which there was disagreement, we sought external expert advice, with the entire research team convened finally to make a decision. After classifying each party, we summed the proportion of the seats in the lower house or constituent assembly held by each category of parties for each country-year. This resulted in five annual series (left, center-left, center, center-right, and right) for each country.⁷ For years that were non-democratic, as defined by our democracy variable, all the categories were scored as zero. We then calculated the legislative partisan balance of power (or simply the legislative partisan balance) by weighting the seat share in a given year of each category of parties by -1 for right, -0.5 for center-right, 0 for center, 0.5 for center-left, and 1 for left parties, and cumulating seat shares from 1945 to the year of observation, following Cusack and Fuchs (2002), who term the measure the "ideological center of gravity."⁸

secular categories, which resulted in five categories for the left-right dimension. The three residual categories (personalist, other, and unknown) were coded, but not used in constructing the party balance score.

⁶ Coppedge (1997) classifies the Peronists as "other;" and we classify them as a center-left party in the early decades, as a centrist party in the 1970s and 1980s, and as a center-right party in the 1990s under Menem. Because we have only one observation for Argentina, in 1972 (all later surveys are for urban areas only), our coding of the Peronists from the 1970s onward does not affect our results.

⁷ Our procedure for tallying seat shares differs from that used by Coppedge (1997), who tallied vote shares. We make this choice on the grounds that seat shares are more consequential for policy than vote shares.

⁸ We created a cumulated measure of executive partisan balance in the same way on the basis of which party controlled the executive (presidency or prime minister in the case of the parliamentary systems of the former British colonies). We used legislative partisan balance in the final analyses for reasons discussed in the Results section.

We coded repressive authoritarian regime as a separate category, coded 1 for every year that the country had a repressive authoritarian regime and 0 for every year that it was 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 15 years before the year of observation.⁹ Our sources were country studies.

Measures of social spending as a percentage of gross domestic product (GDP) are derived from several sources. The series for social security and welfare spending comes from the IMF Government Finance Statistics Yearbook (GFS) and the International Financial Statistics Yearbook (see also Kaufman and Segura-Ubiergo 2001). Both spending and GDP are reported in current local currency units. The fact that these figures include only outlays by the central government is not a problem for social security and welfare expenditures because these programs in general are uniform across the nation and centrally financed. This is confirmed by the fact that the data series from the IMF and our other sources (see below) are very highly correlated (.92 to .96). The bulk of spending in this combined category goes to social security. The IMF sources report the two types of expenditures separately for 179 country-years only. In these observations, social security accounts for 83 percent of the spending.

For health and education expenditures, however, the exclusion of state and local spending is a major problem. To deal with this problem, we compared data series from four different sources: ECLAC (<http://www.eclac.cl/badeinsol/SistemasDisponibles.asp>), Cominetti (1996), ECLAC's Social Panorama (2002, various years), and the IMF sources cited earlier. A detailed account of the procedure used to construct the health and education expenditures variable is available from the authors at www.unc.edu/~jdsteph/index.html. As noted,

⁹ For the three political variables, we developed and experimented with measures cumulated over four periods: 1945 to the year of observations and the 15, 10, and 5 years preceding the year of observation. We selected the measure used in the final analyses for both theoretical (democratic history expected to have a longer term effect) and empirical (better performance in regression models) reasons.

successful investment in human capital requires a sustained effort in the form of expenditure on health and education. In addition, improvements in the human capital base have an impact on income inequality only over the medium and longer term. Therefore, we measure health and education spending as the cumulative average from the first data point to the year of observation.

To test Lee's (2005) hypothesis that the effect of social spending depends on the political regime, we created interaction terms between the two social spending variables and the democratic record variable. To reduce collinearity between interactions and main terms, we centered the democracy variable.

To measure the spread of education, we take the net secondary school enrollment ratio from the World Bank's (2003) World Development Indicators. Before 1990, the World Bank reported enrollment data at 5-year intervals. Where the value was missing for a specific year, we interpolate over the 5-year interval. Although we must do this for 86 data points, this is not a problem because enrollment data do not change much from year to year and generally show clear trends.

Reasonably good data on ethnic divisions in Latin America are available only as cross-sectional data for circa 2000 on the percentage of the population that is indigenous and the percentage of the population of African descent (de Ferranti et al. 2004:78). We reasoned that there would be a threshold effect, so we created a dichotomous variable in which the total population of indigenous and African descent less than 20 percent or more than 80 percent (as in the case of some of the English-speaking Caribbean countries) were coded as not diverse, and in which such a population comprising 20 to 80 percent were coded as diverse.¹⁰

Gross Domestic Product in 1996 purchasing power parity dollars is taken from the Penn World Tables supplemented by the World Bank's

(2003) World Development Indicators. Employment in agriculture as a percentage of total employment is compiled from four sources: Alderson and Nielsen (1999), ECLAC (various years), ILO (2003), and the World Bank (2003). Sector dualism measures the absolute difference between employment in agriculture as a percentage of total employment and agriculture as a percentage of GDP (Nielsen 1994). We had to interpolate 85 observations for employment in agriculture and 1 observation for agriculture as a share of GDP from 5-year interval data. This was not a problem for the same reasons as in the case of secondary enrollment.

Foreign direct investment inflows are measured as a percentage of gross capital formation. The data are compiled from the World Bank's (2003) World Development Indicators. The measure of inward investment stock is taken from two sources: United Nations Conference on Trade and Development [UNCTAD] (2002) Handbook of Statistics and the United Nations Centre on Transnational Corporations (1985).

Because of their theoretical importance in the Latin American context, we made great efforts to develop reasonable measures of land distribution and informal sector size from very sketchy data. However, we were unable to find data for 34 data points, and therefore dropped the variables from the analysis.¹¹

ANALYTIC TECHNIQUES

We use an unbalanced panel data set with 135 observations from 18 Latin American and Caribbean countries: Argentina, Bahamas, Barbados, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Jamaica, Mexico, Nicaragua, Panama, Peru, Trinidad and Tobago, and Venezuela. The inequality data were available for varying numbers of time points for the countries. The data span the period 1970 to 2000. A central problem in estimating regression models from panel data is that the assumed independence of errors across observations is

¹⁰ The analyses conducted support the threshold hypothesis: the dichotomous indicator was significant, whereas the percentage of indigenous, the percentage of African descent (entered individually or together as separate variables), and the total percentage of indigenous or African descent were not significant.

¹¹ When land distribution and informal sector were added to the baseline (Model 1 in Table 3), they were insignificant. Including them in the analysis did not affect the main findings, although the significance level of a few independent variables was reduced.



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Table 2. Means of the Dependent Variable and Selected Independent Variables

	Gini Coefficient	Years of Democracy	Ideological Center of Gravity	Repressive Authoritarian Regimes	Social Security & Welfare Expenditure	Health and Education Expenditure	Sector Dualism	Stock of Foreign Direct Investment
Argentina	36.1	9.0	-.1	6.5	3.9	1.3	4.4	6.6
Chile	54.9	18.0	-.3	10.5	8.9	6.4	8.9	23.2
Costa Rica	47.2	39.4	1.2	0	3.6	8.5	9.6	23.5
Mexico	53.0	.4	-.2	0	3.1	4.4	21.6	10.0
Bolivia	59.8	19.0	-3.8	0	5.3	5.0	18.4	45.5
Brazil	59.3	12.9	-.8	9.9	8.0	3.4	20.1	10.0
Colombia	57.1	19.9	-2.4	0	1.2	4.8	5.5	8.3
Peru	54.5	10.8	1.6	0	1.1	4.3	27.6	9.0
Venezuela	47.5	34.7	2.8	0	2.5	5.5	6.7	14.6
Bahamas	46.2	11.3	2.6	0	1.0	7.3	2.3	80.4
Barbados	46.4	12.0	5.8	0	5.0	11.2	1.6	32.6
Jamaica	57.9	33.7	-.4	0	.5	8.5	14.7	29.9
Trinidad & Tobago	43.9	16.5	7.2	0	1.8	4.0	8.8	32.8
Dominican Republic	48.1	12.3	.8	0	.8	3.6	8.4	10.9
El Salvador	51.2	5.4	-6.2	3.3	.7	3.9	13.1	5.3
Guatemala	56.4	7.7	-3.1	8.7	.6	2.5	23.1	17.9
Nicaragua	55.7	4.5	2.0	.5	4.5	7.0	9.3	13.6
Panama	57.0	11.0	-2.9	0	5.2	9.6	12.9	54.0

Notes: These are means for the years of observation we have in our data set only; they can *not* be interpreted as means for the entire period from 1970 to 2000.

unlikely to be satisfied. As a result, OLS produces incorrect standard errors for the regression coefficients (Greene 1993).

There are several strategies for dealing with correlated errors in panel data. One approach 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 (1985) calls temporally dominated time series of cross-sections (i.e., data structures consisting of relatively few units observed over many equally spaced time points) (Beck 2001; Beck and Katz 1995:635–4). Because the average number of time points (7.5) is much smaller than the number of units (18), our data set precludes this approach.

Another approach is to estimate a random effect model (REM) in which the error term contains a unit-specific component that differs across units, but is constant over time for a given unit. Such an error structure would arise if unmeasured unit-specific causes, such as systematic measurement differences or other overlooked aspects of a country's social and cultural makeup, affect the dependent variable in the

same way at each point in time over the period of the data. The stable unit-specific component implies that observations for the same unit at different time points all are correlated by the same amount, ρ . The REM strategy is feasible with our data. One attractive feature of REM is that it allows estimation for the value of ρ . However, REM requires relatively strong assumptions, such as equal correlations among errors within units.

Because it is not substantively essential in this study to measure ρ , we adopt an alternative estimation strategy that addresses the correlation problem while requiring a minimum of assumptions on the behavior of the errors. We combine 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 (i.e., noncluster) Huber-White or "sandwich" robust estimator of the variance matrix of parameter estimates correct standard errors in the presence of any heteroskedasticity (i.e., unequal variances of the error terms) pattern, but not in the presence of correlated errors (i.e., nonzero off-diagonal elements in the covariance matrix of the errors) (Long and Ervin

2000). The robust-cluster variance estimator is a variant of the Huber-White estimator that remains valid (i.e., provides correct coverage) in the presence of any pattern of correlations among errors within units, including serial correlation and correlation attributable to unit-specific components (Rogers 1993; see also Sribney 1998; StataCorp 1999:256–60). Thus the robust-cluster standard errors are unaffected by the presence of unmeasured stable country-specific factors causing correlation among errors of observations of 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 only to correlations of errors within clusters. 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 during the 1980s, could produce such contemporaneous effects. To evaluate the potential impact of such unmeasured period-specific factors, we reestimated the models with indicator variables for the debt crisis (1982–1989) and for the 1990s (1990–2000). The baseline category corresponds to 1970–1981. To check for robustness of the results, the models also were estimated with panel-corrected standard errors, OLS, and REM. The results were substantially the same using these alternative techniques. The robust cluster estimates proved to be the most conservative.

We performed regression diagnostics on the full model (Model 4) to detect possibly influential observations. Two observations (Bahamas 1979 and Argentina 1972) have large residuals. However these observations are not influential, and their exclusion does not affect the results, so they were kept in the analysis. We originally suspected (on substantive grounds) that observations for Costa Rica might be influential, especially in models with a democracy–social security spending interaction term, but regression diagnostics did not reveal any undue influence of these observations.

A final estimation difficulty is the problem of endogeneity given that inequality has been hypothesized to be a cause of democracy (e.g., see Rueschemeyer et al. 1992). This problem is partly addressed by the fact that our cumulative

measure of democracy is a measure of democratic history, and it is not possible for current inequality to cause political history. Nevertheless, because it is likely that current inequality is correlated with past inequality, we cannot reject the proposition that our coefficients may somewhat overestimate the effect of democracy on inequality. However, given that democracy's effect is entirely indirect via its effect on the legislative balance of power (see later), we have support for our theoretical view that democracy reduces inequality over the medium and long term by making the emergence of parties to the left of center possible.

RESULTS

Table 3 displays the results of our analysis. Model 1 summarizes our preliminary analyses of the major developmental and dependency factors emphasized in previous studies of inequality. We estimate this trimmed model as a baseline against which to conservatively assess the impact of the political variables on inequality. Model 1 is mostly, but not entirely, consistent with previous studies. Sector dualism, GDP per capita, inflation, dependency (measured as stock of foreign direct investment [FDI]), and ethnic heterogeneity all contribute significantly to inequality in the expected direction. Secondary school enrollment, which has been negatively associated with inequality in previous studies, is unexpectedly nonsignificant in this data set. Likewise, the effect of the youth population is unexpectedly negative, but significant only in Models 1 and 2.¹²

Model 2, which adds the measure of democratic history to the baseline, represents the most direct test of our overall political hypothesis. The coefficient of democratic history is negative and significant ($p < .01$), indicating that prolonged periods of democratic rule are asso-

¹² Model 1 is derived from a more comprehensive model including all nonpolitical variables and the methodological indicators listed in Table 1. Six insignificant variables were dropped from this original model because of missing data points (inflow of foreign investment), because of excessive collinearity once the political variables (agricultural employment) were added, or because of economy of presentation (the methodological and period indicators).



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Table 3. Determinants of Income Inequality with Robust Cluster Standard Errors

Independent Variables	Model 1	Model 2	Model 3	Model 4
No Adjustment Indicator	-3.891**	-4.043**	-3.001**	-2.981**
GDP Per Capita	-.312**	-.461**	-.321*	-.229*
Net Secondary School Enrollment	.018	.031	.054	.051
Sector Dualism	.405***	.333***	.262**	.212**
Inflation	.001*	.001*	.001*	.001
Youth Population	-.383^	-.423^	-.165	-.045
Stock of FDI	.065***	.058***	.036**	.038**
Ethnic Heterogeneity	4.092**	4.146**	4.353**	4.064***
Democracy		-.105**	-.060	.115
Health and Education			.256	.116
Social Security and Welfare			.174	.276*
Legislative Partisan Balance			-.527*	-.672***
Repressive Authoritarianism			.139	.079
Democracy × Social Security Welfare				-.049**
Constant	60.832***	65.644***	52.000***	45.375***
R ²	.62	.66	.70	.73
N	135	135	135	135

Note: Data shown are ordinary least squares estimates. * $p \leq .05$, ** $p \leq .01$, *** $p \leq .001$, (one-tailed test); ^ $p \leq .05$ (two-tailed test, but sign of coefficient opposite of directional hypothesis).

ciated with lower inequality, when control is used for development and investment dependency. Model 3 adds the variables through which we hypothesized that democracy would affect inequality, namely, the two social expenditures measures: legislative partisan balance and repressive authoritarianism. The significance of democratic history vanishes, but legislative partisan balance has a significant negative effect on inequality ($p < .05$), as expected. Finally, Model 4 adds the interaction of democracy with social security and welfare expenditures. The interaction term has a significant negative effect ($p < .01$). The negative impact of legislative partisan balance becomes highly significant ($p < .001$), and social security and welfare spending assumes a significant positive effect. This model confirms that social security and welfare spending in a strongly democratic context indeed does reduce inequality, whereas it increases inequality in other contexts. The model also confirms that a left-leaning legislative partisan balance has a direct depressing effect on inequality, which is not mediated through spending. The health and education interaction term is not significant and produces severe multicollinearity when added to Model 3 or 4 (not shown).

Thus, our most important finding about social spending is that its effect on inequality is con-

tingent on the political regime: social security and welfare spending under conditions of sustained democracy is likely to be egalitarian, whereas it is anti-egalitarian where the democratic record is weak. Our most important finding about democracy is that it works through political parties. The fact that democratic history falls to insignificance and that legislative partisan balance becomes the significant political variable in Models 3 and 4 indicates that democracy matters for inequality only if it translates into growth in the strength of center left and left parties. Comparison of Models 1 and 4 shows that these political effects are statistically substantial: together our political variables raise the variation explained from 62 to 73 percent. This 11 percent increase is a lower bound estimate, that is, it assigns the overlap in the explained variation entirely to the control variables. An upper bound estimate of the effect of political variables (i.e., one that assigns the overlap in explained variation to the political variables) is that they explain 52 percent of the variation, with legislative partisan balance alone explaining 28 percent of the variation in inequality. We contend that the actual variation explained by the political variables lies somewhere between these lower and upper bound estimates.

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Another way to evaluate the explanatory power of the political variables in Model 4 is to estimate the unit change in the Gini caused by an increase from the 10th to the 90th percentile in an independent variable. A move of this size on the democracy–social security spending interaction term results in a 5.2-unit decrease in the Gini. (Concretely, in the data, this corresponds to a movement from Brazil in 1970 to Venezuela in 1996.) A move from the 10th to the 90th percentile in the legislative partisan balance results in a 4.3-unit decrease in the Gini, and an equivalent difference in social security and welfare spending results in a 2.3-unit increase in the Gini. In comparison, a move from the 10th to the 90th percentile of the most powerful control variable, sector dualism, results in a 4.4-unit increase in the Gini: inward stock of foreign investment in a 1.5-unit increase and GDP per capita in a 1.4-unit decrease.

The most consistently significant control variables are ethnic heterogeneity, foreign direct investment, and sector dualism. The result of sector dualism confirms the findings in other studies that the coexistence of a high-productivity modern and a low-productivity traditional agrarian sector increases inequality (Alderson and Nielsen 1999). As to the impact of accumulated foreign investment, there is a long research tradition, originating with the dependency school, which emphasized the inegalitarian consequences of foreign direct investment. This investment tends to be more capital intensive than domestic investment, and it creates relatively few jobs, all in the formal sector. In addition, foreign investors have leverage concerning demands for tax breaks, which may constrain the government's resource base and thus its ability to pursue redistributive policies.

We also estimated the models of Table 3 using executive partisan balance instead of legislative partisan balance. The results (not shown) are similar to those in Table 3. However, the unit decrease in the Gini caused by an increase from the 10th to the 90th percentile in the executive partisan balance (2.2) is smaller than that caused by a similar increase in the legislative partisan balance (4.3), and the explained variation is smaller (70 vs 73 percent). Thus, contrary to the often heard assertion that the composition of the legislature does not matter much for policy in Latin America because of overpowering executives, we find that it is more important for

policies related to inequality than the political coloring of the executive.

In past presentations of this and related analyses, we often have been asked whether the inclusion of the English-speaking Caribbean (4 countries, 20 observations in this analysis) biases the analysis. Latin America specialists, in particular, often argue that the recent colonial history of the English Caribbean results in very different political dynamics in those countries. Two tests indicate that the inclusion of these countries did not make a difference. A dichotomous indicator for the English Caribbean was not significant when added to the equations, and excluding the 20 English Caribbean observations entirely did not change the results.

DISCUSSION AND CONCLUSIONS

Our analysis strongly supports our theoretical claims regarding the importance of politics in shaping the extent of economic inequality in Latin American and Caribbean countries. We found evidence that the strength of the democratic record, the cumulative record of the strength of left-of-center parties in the legislature, and the interaction of social security spending and democracy all have significant impacts on lowering inequality.

Democracy matters for inequality in at least two ways. It matters over the longer term because it allows those leaders concerned with the welfare of the underprivileged to build organizations in the form of political parties and allows those parties to build a support base, gain influence in the legislature, and use that influence to shape policies in a redistributive direction. It also matters because it induces political leaders in general to be more responsive to the underprivileged. When we control for legislative partisan balance, the interaction effect of spending and democracy remains significant, which indicates that expenditures on social security and welfare programs in countries with strong democratic records have a more redistributive effect than in countries with weak democratic records. This effect is easy to understand if we keep in mind that the alternative to democracy in Latin America in the great majority of cases has been right-wing authoritarianism, not communism or other forms of left-wing authoritarianism. The effect of partisan legislative balance is as strong as that of the strongest control



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variable, sector dualism, and stronger than that of the gross national product (GNP) per capita.

The reason why health and education spending was not significant in our model is perhaps because the bulk of that spending is distributionally neutral, or because the effect is indirect and there is a lag between spending and effect. Recent studies of micro data suggest that even where health and education spending is progressive, it is only mildly so (Lindert et al. 2005). Progressive spending on health and education is an investment in the human capital of those at the lower end of the income distribution, and it takes a generation for current spending to show a return on that investment, and thus an effect on income distribution.

It is worthwhile to compare our results with those of recent pooled time series analyses of income distribution in worldwide sets of countries (Alderson and Nielsen 1999; Lee 2005; Nielsen and Alderson 1995; Reuveny and Li 2003), less developed countries (Rudra 2004), and Latin American and Caribbean countries (Morley 2001). All these studies except that of Nielsen and Alderson (1995) use the Deininger and Squire (1996b) data. Morley adds the Londoño and Székely (1997) data. Nielsen and Alderson, Alderson and Nielsen, and Lee all find that inward stock of foreign capital is positively related to inequality, a conclusion confirmed by our results for Latin America. Lee (2005) finds, as we do, that the impact of aggregate government spending on inequality depends on the political regime: Alderson and Nielsen and Lee find no significant effect of democracy on inequality, whereas Rudra and Reuveny and Li find, as we do, that it has a negative effect. One reason explaining our stronger results for democracy may be the difference in the measures: other studies use a measure for one time point, whereas we operationalize the history of democratic rule. Finally, we find at least some evidence to support Morley's finding that inflation increases inequality in Latin America and the Caribbean.

Our results for Latin America and the Caribbean partly square with, but also differ from, the results for advanced capitalist democracies. Alderson and Nielsen (2002) and Gustafsson and Johannson (1999) find that social spending is very strongly related to income equality in advanced capitalist democracies, and Bradley et al. (2003) show that it is very strongly related to governmental redistribu-

tion. Numerous studies that break down the Luxembourg Income Study micro data for various countries by program show that almost all welfare state transfers, including pensions, have an equalizing effect on income distribution, some more than others.¹³ By contrast, the few studies of micro data investigating income distribution in Latin America show that social security transfers go disproportionately to upper income groups (de Ferranti et al. 2004; IDB 1998; Lindert et al. 2005). In countries with long records of democracy, such as Uruguay and Costa Rica, pension systems tend to be less fragmented, and minimum or noncontributory pensions tend to be better developed than average, which makes them more egalitarian (Huber and Stephens 2005). Moreover, other categories of welfare spending are larger and more redistributive. It is no accident that in these two countries, left-of-center parties also have had strong representation in the legislature over a long period. Thus, the general theoretical argument about the importance of the partisan balance of power in the legislature, rooted in power constellation theory (Huber and Stephens 2001), has explanatory power for Latin America and the Caribbean as well as for advanced industrial countries.

The finding that politics matter for income distribution in advanced industrial countries is well established, despite the recognition that constraints from economic globalization have reduced the policy tools available to governments. The finding that politics also matter in Latin America and the Caribbean is of particular importance because the constraints imposed by powerful actors in the global economy are more severe. Indeed, it is often alleged that they reduce the room for maneuver of governments in the region so much that these governments are unable to construct decent social safety nets and reduce income inequality.

The central implications of our results are that the deep historical structural roots of inequality in Latin America and the Caribbean weigh heavily on income distribution at the beginning of the 21st century, but that they are not

¹³ These are too numerous to cite. A large number of them appear in the Luxembourg Income Study (LIS) working paper series (which can be accessed at <http://www.lisproject.org/publications/wpapers.htm>).

immutable. We have shown that politics do make a difference. Prolonged periods of democratic rule allow for articulation of the interests of the underprivileged. Democracy does not guarantee that these interests will be articulated, much less that they will be protected. However, democracy does increase the probability that this will happen in Latin America. The articulation of interests of the underprivileged through left parties can—if left parties grow sufficiently strong to achieve legislative influence—shape a whole range of policies to reduce inequality, including spending on social security and welfare.

To date, the strength of the democratic record and of left influence in the legislatures has been sufficient to allow for modest departures only in strengthening of the fiscal base of governments and in increasing and restructuring of public expenditures with an emphasis on redistributive transfer programs, primary and secondary education, and preventive and basic health care. Where left-of-center parties have had influence on politics over the medium and long term, they have had some impact on the construction of basic social safety nets in the form of noncontributory, tax-financed transfers to the working-age poor with children and to the elderly poor. However, for newly emerging left-wing parties, generating new resources through tax reform has been as politically difficult, as has restructuring of the old inegalitarian social security systems. Privileged groups have a political advantage not only under authoritarianism, but also under democracy. The difference lies in the opportunity for left-of-center parties to emerge and challenge privilege.

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