Political and Economic Determinants of Government Spending on Social Protection Programs

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I guess you're right on the economics, but those taxes were never a problem of economics. They are politics all the way through. We put those payroll contributions there so as to give the contributors a legal, moral, and political right to collect their pensions and their unemployment benefits. With those taxes in there, no damn politician can ever scrap my social security program.
Franklin Delano Roosevelt[1]

1. Introduction

Most Latin American and Caribbean countries tend to face greater macro-economic risk than countries at similar levels of development in most other regions of the world. Per-capita income, unemployment, and inflation fluctuate dramatically (*e.g.*, Hausmann and Gavin, 1996; Inter-American Development Bank, 1997). Most LAC countries also seem to face greater political instability than most other countries at similar levels of development. They are more prone to switch between democratic and non-democratic rule.[2] Many are characterized by highly personalistic political parties that tend to be short-lived and factionalized, and/or coalition governments with frequent turnover (*e.g.*, Huntington, 1968; McDonald, 1971; Ames, 1987; Kaufman and Stallings, 1991; Coppedge, 1994; Mainwaring and Scully, 1995). In such circumstances, parties may have little incentive or ability to build long-term reputations or establish continuity in their policy programs.

It would not be surprising if this economic and political instability also led LAC countries to exhibit greater instability in government budgets and policies (Sloan, 1984). Spending on social protection programs may be especially volatile. For example, such programs may face especially large budget cuts as a government tightens its belt during a recession. Or, after a change in government control, the new regime may slash spending on existing social protection programs that do not benefit its main supporters.

[1] Cited in Arthur M. Schlesinger, Jr., *The Coming of the New Deal*, Boston: Houghton Mifflin Company, 1958.

Social protection programs with highly variable benefit levels or eligibility requirements may do little to help buffer the poor from large or moderate economic shocks. They may even compound the amount of risk, by adding "policy risk" to the underlying economic risk. This is especially true if the programs are highly pro-cyclic. If we prefer social protection programs that provide a steady, reliable stream of benefits, or that help protect the poor against the full effects of adverse economic shocks, then we would like to know what can be done to design programs that are more insulated from economic and political shocks.

This paper therefore addresses the following question: What factors or political circumstances make different types of social protection programs more or less vulnerable to being dismantled, gutted, or slashed during economic crises or changes in the political regime or climate? Can we identify any characteristics that appear to make programs less vulnerable when recessions or other economic crises occur? Can we identify any characteristics that appear to make programs less vulnerable to shifting political circumstances – *e.g.*, when more conservative governments take power, or the political winds shift to the right?

The paper is organized in three parts. First, we present several of the main arguments the previous theoretical and empirical literature has offered that bear on our question. Second, we conduct a detailed analysis of spending patterns in the U.S. over the post-war period. Third, we conduct parallel analyses of spending patterns in a broad set of LAC countries and in two specific countries, Brazil and Colombia.

Although our focus is on Latin America and the Caribbean, the U.S. analysis is useful because the U.S. data is much more extensive and detailed, covering a longer time period, many more spending programs, and a larger set of variables. It therefore provides a more powerful

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[2] Thus, many empirical analyses relating economic outcomes and political instability include a Latin American dummy variable. See, for example, Londregan and Poole (1990) and Alesina and Perotti (1993).

laboratory in which to try to identify which of the many theoretical possibilities receive the strongest empirical support. The findings can then be used to focus the analysis conducted on the more limited LAC data. Of course, we must use caution in drawing lessons from the U.S. analysis, given the profound differences in economic, political, and social structures.

Our main findings are as follows. First, U.S. social protection spending is counter-cyclic overall.[3] Unemployment insurance is by far the most counter-cyclic program. This is not surprising, since it should be counter-cyclic by design, but it is reassuring. Other counter-cyclic programs are Food Stamps and various retirement pensions. Second, programs that are narrowly targeted at the poor do not appear to be systematically less (or more) counter-cyclic than more universal programs. The same is true for programs that are fairly targeted geographically. Third, programs that are narrowly targeted at the poor face greater "political risk" from changes in party control of congress than more universal programs. Finally, there is some evidence that spending is more counter-cyclic when congress is under Democratic control.

In contrast to the U.S., overall social spending in LAC countries is pro-cyclic. The elasticity of per-capita spending with respect to income shocks is positive, but less than one. Spending on education and health is particularly pro-cyclic, especially compared to social security spending. Overall, however, we find little systematic difference between programs that are relatively well targeted at the poor and programs that are targeted more at the middle and upper classes. We also find no evidence of an asymmetry in the effects of macroeconomic shocks – negative shocks causing a large drop in spending, but positive shocks causing only small increases – that some other studies have found. In terms of the political factors, social spending grows faster in democratic regimes. Yet, within democratic regimes the leftist or populist tendencies of the government seem to have no systematic effect on per-capita social spending.

The case of Brazil supports the main conclusions of the broader LAC study. Per-capita social spending is lower during recession years on most programs relative to average spending in years where per-capita income increases. Interestingly, the case of Colombia shows a different pattern with counter-cyclic per-capita social spending. These effects might be the result of Colombia's relative macroeconomic stability and more adept handling of the debt crisis.

2. Previous Literature

2.1. Theory

There is no general agreement about the most useful framework for analyzing the politics of social protection programs. As a result, the existing literature is diverse. Here, we briefly discuss a limited number of works. We include some of these because they define the basic outlines within which more specific models are constructed. Others are included because they provide more specific hypothesis that help guide our empirical analysis.

There are three main actors to consider: voters, politicians, and bureaucrats. In addition, many of these actors work together in organizations such as political parties and interest groups, and it is sometimes useful to treat the organizations themselves as strategic actors.

Most models fall into a one of two broad classes: spatial voting models and interest group models. Most spatial voting models assume that voters behave independently, and politicians compete for office by offering policies or ideologies that are public goods. Politicians do not, for example, compete by buying voters' support with private patronage or services. Interest group models assume that voters are organized as groups defined by common interests or characteristics. These groups provide support to politicians in exchange for publicly provided benefits. Some of these models focus on votes, in particular each group's ability to deliver the votes of its members in

[3] We are not the first to find this. See, for example, Browning (1985).

exchange for benefits. Other models assume that groups that can deliver other resources in exchange for benefits. These approaches often lead to different predictions about the likely outcomes of social protection politics.

Within each approach, researchers make different assumptions about the motives and preferences of the relevant actors. Voters, whether acting independently or in groups, can be either self-centered or altruistic. Self-centered voters are motivated by personal gain. Their vote is either based solely on their preferences for private consumption net of tax and transfer, or based on their share of potential benefits derived from the provision of social protection expenditures, such as crime avoidance. Voters who possess altruistic motives may vote at least in part according to a social welfare function. Politicians either care about maximizing their chances of being elected, or they may possess an ideology that affects the policy positions they take. Bureaucrats are often motivated by a particular social welfare function, but can also be less altruistic to the extent that they maximize their own budgets and influence. While voters, politicians and bureaucrats can all play a pivotal role in the politics of social spending, we focus on the electoral and legislative aspects, leaving bureaucrats to the side except to the extent that they can be treated simply as another interest group.

Much of the early political economy literature on social spending employed spatial voting models and the median voter theorem to analyze simple tax and transfer schemes (*e.g.*, Romer, 1975). The common assumption in these models is that voters are independent and self-centered actors, while politicians are single-minded vote maximizers. Since politicians only care about votes, the level of spending on social protection programs depends on the voters' self-centered preferences over the size and role of government. Meltzer and Richard (1981) argue that in a democracy the size of government is determined by the unequal income distribution created by the

market economy which gives politicians an incentive to offer voters with incomes below the median transfers from voters whose incomes are above the median. Persson and Tabellini (1994) study this idea in an endogenous growth model and reach similar conclusions.

A second type of model stresses the fact that publicly provided social protection programs can provide insurance against economic shocks such as recessions. Thus, at any point in time in a country there will be "insiders" – those currently employed – and "outsiders" – those currently unemployed and receiving benefits from social protection programs. Wright (1985), Saint-Paul (1993), Moene and Wallerstein (2000), and other others study models with this feature. Wright (1985) points out that since the number of employed voters is always much larger than the number of unemployed voters, and since those who are currently employed discount the future state when they might become unemployed but do not discount the currently taxes they pay to finance unemployment insurance in a pay-as-you-go system, unemployment insurance systems will tend to be *smaller* than is optimal. In addition, the demand for social insurance against poverty will decrease as the gap between the income at the median and the income of the poor decreases.

Moene and Wallerstein (2000) explore the notion that if social insurance is a normal good, then the median voter will demand less of it as he or she becomes poorer, holding fixed the level of uncertainty about unemployment. This provides one plausible explanation for the recent decline in social spending that has occurred in many developed countries even as "pre-fisc" income inequality has been growing.

In the models above the competing politicians offer the *same* policies in equilibrium – the classic median-voter convergence result. Other models assume that politicians also have policy or ideological preferences, and are willing to trade-off between a these preferences and their electoral motives (*e.g.*, Wittman, 1977, 1983; Calvert, 1985; and Alesina, 1987, 1988). These models

generally predict that the competing politicians will offer *different* policies. Many scholars think these models are most applicable to systems with strong, programmatic political parties.

One result from the formal literature seems especially relevant to our analysis. Policy divergence is *sub-optimal* from the point of view of risk-averse voters. Rather than seeing policy switch back and forth depending on which party wins a majority each election, they would rather have a constant policy set at the average value. Risk-averse party leaders and members would also prefer a steadier policy outcome. Long-lived parties may be able to achieve this, by agreeing to a compromise with their opponents – each party will agree to moderate its policies when in power as long as the other parties do the same (*e.g.*, Alesina, 1988; Dixit, Grossman and Gul, 1998). Short-lived parties will not be able to strike such a bargain, however. So, in systems with short-lived parties or parties that are too weak to make commitments about their future behavior, we expect to see larger policy fluctuations over time. This scenario may apply in many LAC countries.

Interest group models of politics assume that most voters come to the political arena organized as groups. These groups, and not the individual voter, then become the key strategic actors in the politics of social protection programs.

One way to analyze the politics of social protection programs in a world with interest groups in to use a divide-the-dollar model of politics. All voters belong to at least one group and each interest group tries to maximize its own share of public benefits; the poor are no exception. However, the large number of possible interest groups as political actors and the lack of a specified institutional structure, limits the usefulness of this approach for predicting outcomes in the debate over social protection programs.

Coughlin and Nitzan (1981), Coughlin (1992), and others overcome this problem by assuming that voters or groups of voters vote probabilistically (at least from a candidate's point of

view). Equilibria exist in these models, in which all competing parties offer the same set of policies. In addition, the equilibrium policies maximize a particular type of social welfare function.

Another approach, introduced by Lindbeck and Weibull (1987) and used by Dixit and Londregan (1995, 1996), is to assume the existence of a social or ideological issue that exogenously divides the electorate – religious or ethnic cleavages, or attitudes on social policies such as abortion, are possibilities. While these researchers are not primarily interested in the issue of social spending *per se*, their approach offers useful insights.

One implication of these models is that the introduction of a competing social issue diminishes the salience of redistribution in the political debate. When a second social issue enters the political debate, it weakens the incentive to redistribute because it redefines the relevant cleavages.[4] If both parties maximize the number of votes, then an equilibrium solution to the redistribution problem exists. Both parties will in fact propose identical redistribution policies.

The Lindbeck and Weibull framework also suggests that an adverse economic shock will lead to an increase in social spending. This occurs because an adverse economic shock increases the marginal utility of private consumption, but probably does not directly affect preferences on the social/ideological issue. Voting decisions are therefore closer to what they would be if the social/ideological issue did not exist.

A third perspective based on interest groups theories of politics assumes that politicians care not only about winning office, but they also have personal ideologies regarding social spending and the distribution of income. In addition, citizens may be altruistic, caring both about their own consumption and about the level of social spending. Dixit and Londregan (1996) show that, in

[4] In related work, Roemer (1998) argues that emerging concern over the introduction of a second social issue can single-handedly obscure the importance of redistribution and cause the tax rate to fall substantially.

equilibrium, parties will implement a proportional tax rate based on ideology and the desire to win elections, and will use transfers to appease voting groups with more political clout.

The nature of the social spending that takes place depends on which groups have more political clout and what their ideological preferences over redistribution are. Importantly, when preferences over social spending are part of political parties' social ideology, the model predicts that different parties will enact different social spending policies. The result is a non-convergence in social spending strategies by the political parties. Contrary to the earlier literature on interest groups, we would expect to find a partisan effect on social spending.

Whether one prefers a median-voter or interest-group approach in thinking about the politics of social protection and social insurance, it is clear that in most countries the political resources of the poor are severely limited. Many scholars view interest group politics as the more pessimistic scenario for the poor, because "the pressure system has an upper-class bias" (Schattschneider, 1960, page 32). Key (1949), Schattschneider, and others argue that inter-party political competition, *per se*, offers at least some hope for the lower classes – or, in any case, the *lack* of such competition makes the situation fairly hopeless. In describing the importance of the post-1896 alignment in the U.S., Schattschneider writes: "Both sections became extremely conservative because one-party politics tends strongly to vest political power in the hands of people who already have economic power." (Schattschneider, 1956, page 202).

Almost by definition, authoritarian regimes in LAC countries are non-competitive. The lack of electoral accountability in these systems institutionalizes an upper-class bias in the least populist of these regimes. O'Donnell and Schmitter (1986) argue that the role of élites within authoritarian regimes in Latin America is fundamental in determining a regime's duration. Transitions to democracy are commonly the result of a pact among élites, as is the case of

Colombia and Venezuela (O'Donnell and Schmitter, 1986; Karl, 1986). Authoritarian regimes that wish to maintain power therefore have an incentive to design social expenditure budgets with an upper-class bias.

Finally, because of the political weakness of the poor, many scholars argue that policymakers interested in helping the poor should promote *universal* programs that also help the poor, rather than programs that are highly targeted (*e.g.*, Wilson, 1987, Skocpol, 1991). Highly targeted programs are too vulnerable and subject to "welfare backlash." This backlash might come during an economic crisis, or after a sustained period of economic stagnation, or as the result of a change in political control brought about by non-economic issues.

2.2. Empirical Research on the U.S. and Other Countries

The empirical evidence on the median-voter type models is mixed. Contrary to one of the main predictions, government spending on income redistribution and other social programs is, if anything, *negatively* related to the degree of income inequality (*e.g.*, Perotti, 1996; Moene and Wallerstein, 2000). Lindert (1994, 1996) conducts regression analyses of two panels of OECD countries, and finds that other characteristics of the shape of income distribution – in particular, the disparity in income between the poor and middle sectors – have important positive effects on the aggregate level of social spending. Lindert also finds that shifting demographics – especially an aging population – are strongly and positively associated with social spending. One robust finding consistent with the median-voter type models is that expanding the franchise – which reduces the income of the median *voter* even if it does not affect median income – has a strong and positive affect on social and social protection spending (Lindert, 1994, 1996; Husted and Kenny, 1997).

The empirical literature on political parties emphasizes the importance of political parties in translating the preferences of voters into public policy, and typically finds evidence of noticeable policy differences between parties (Hibbs 1977, 1987; Alt, 1985; Garrett and Lange 1986; Kiewiet and McCubbins, 1991; Alesina, Londregan and Rosenthal, 1993; Alt and Lowry, 1999). Most of this work focuses on aggregate economic performance – income growth, inflation and unemployment – or aggregate fiscal policy, rather than social spending. Some exceptions are Castles (1982), and Hicks and Swank (1984, 1992), who find important partisan effects on the composition of public expenditures in developed countries – as expected, greater control by left-leaning parties leads to greater social spending. Browning (1985) finds that the number of non-southern Democrats in Congress has a positive effect on U.S. social welfare expenditures. There is a large number of studies that explore the cross-sectional variation in U.S. states, but these studies typically find only small or indeterminate partisan effects (*e.g.*, Dye, 1966; Fry and Winters, 1970; Plotnick and Winters, 1985; Winters, 1986; Erikson, Wright and McIver, 1989). A few time series analyses show some effects of partisan effects on welfare spending, but only in some states (Jennings, 1979; Dye, 1984; Garand, 1985).

There is mixed evidence that political competition, *per se*, produces public policy aimed at helping the poor. Lindert (1994) finds that competition as measured by "executive turnover" had a significant, positive effect on social spending over the period 1880-1930. However, Lindert (1996) finds no effect of executive turnover on social spending for the period 1962-1981. Some studies of U.S. states find that the degree of inter-party competition affects the level of social spending, but others find little effect. Pulsipher and Weatherby (1968), for example, find that an increase in party competition has a large, positive effect on education and welfare spending, but no effect on public health spending and a negative effect on housing and urban development spending. On the other

hand, Dawson and Robinson (1963) and Dye (1966) find no significant effects of party competition on welfare spending after controlling for various socioeconomic and demographic factors. Cnudde and McCrone (1969) find evidence that party competition plays a role as an intervening variable.

Finally, while the theoretical claim about the vulnerability of targeted programs is straightforward and plausible, the evidence is less clear. Wilson (1987) and Skocpol (1991) find some support for the argument for the U.S., and Korpi (1980) and Rosenberry (1982) find some limited support in comparative studies. Greenstein (1991), however, raises strong doubts. Several targeted programs – the Earned Income Tax Credit (EITC), Food Stamps, Women, Infants and Children supplemental food and health program (WIC), and Medicaid – expanded sharply even during the conservative Reagan administrations. In fact, "except for AFDC, the low-income entitlements largely bounced back from the cuts of 1981; the picture that is now emerging is one of the enduring political strength of these programs" (Greenstein, 1991, p. 443). He argues that several other variables – such as whether the "working poor" are eligible, and whether the programs are entitlements – may matter even more than the degree of targeting. Even he agrees, however, that programs that are "narrowly targeted on the poorest elements of society" are politically vulnerable.

There seem to be multiple claims associated with the view that highly targeted programs are politically vulnerable. One is that that such programs will be under constant pressure and will therefore be constantly under-funded. It is difficult to know how to assess this claim, however, since it is a claim about *levels*. Ideally, we would collect spending data on a variety of different programs, some targeted and some not, and we would compare the actual spending levels to some benchmarks – the benchmarks being how much "should" be spent on the programs. We would then compare the extent to which the targeted and non-targeted programs exceeded or fell short of

their benchmarks. The problem is: How do we estimate benchmarks? We must be able to answer questions such as: How big "should" AFDC be, if it was not so politically vulnerable? This is probably an impossible task.

Another claim seems to be that programs with benefits that are highly targeted at the poor are politically volatile. This claim is easier to evaluate, since it is about *changes*. We can study how spending on different programs fluctuates over time as a function of variables such as economic conditions and political control, and then ask questions such as: Are targeted programs more pro-cyclic? Do their funding levels fluctuate more wildly depending on political circumstances? Such comparisons between the targeted and non-targeted programs are more meaningful, because the "benchmarks" are all approximately zero.

2.3. Empirical Research on Latin America and the Caribbean

The empirical literature on social protection programs in LAC countries can be divided into two broad groups: (i) research on the economic consequences of social spending patterns, and (ii) research on the political variables that drive social policy. Most studies fall into the first group, and tend to examine either the short-run effects of social spending on macroeconomic variables such as inflation and unemployment levels, or the long-run consequences of expansive fiscal policy on poverty, income distribution and growth. We are more interested in the second group of studies, however, and will focus our discussion on these.

The studies in group (ii) emphasize three main political factors: regime type, political party systems and bureaucratic institutions. Studies of regime types and political party systems share a common assumption that political coalitions affect how politicians respond to voter demands for

social protection programs. Studies of bureaucratic institutions tend to emphasize how perverse incentives and corruption diminish the effectiveness of redistributive social policies.

One set of studies focuses on regime type, or on transitions from one regime type to another. A few early studies found mixed support for this hypothesis that democratic regimes will devote more resources to social programs than authoritarian regimes. Baloyra (1974) studied expenditure patterns in Venezuela over the period 1949-1968, comparing the Pérez-Jiménez dictatorship with the years of Acción Democrática rule, and found that the budget shares allocated to education, welfare, and health programs were slightly higher under democratic rule (the differences were substantively but not statistically significant). Baloyra (1977) studied expenditures in Cuba from 1944-1958, and found that the budget share for education was slightly higher under the Batista dictatorship than under the democratic Prio regime, while the budget share for health programs was lower under Batista.

More recently, Kaufman and Stallings (1991) argue that following a transition to democracy there is a greater political payoff to meeting constituent demands for redistribution, because institutional uncertainty and short time horizons give politicians an incentive to heavily discount the potential political risks of future inflation and balance of payments adjustments. Conversely, authoritarian regimes face no such calculus and are more likely to reduce social expenditure. Kaufman and Stallings (1989) find some empirical support for their argument. Based on a sample of nine Latin American countries during the 1980s, they report a positive correlation between regime type and choice of economic policies. In particular, they find that transitional democracies, such as Argentina, Brazil, and Peru, are most likely to pursue populist economic policies.

Avelino (2000) argues that transitions to democracy give more political clout to the poor as a group, because of their voting power. The reduction in political inequality that accompanies a

democratic transition makes democratic governments more likely to expand or protect social expenditure programs compared to other budget items. From this, he concludes that transitions to democracy lead to changes in the composition of social expenditure as well, even though these changes might be unsustainable. He conducts a cross-section, time-series analysis of seventeen Latin American countries between 1980 and 1994, and finds a strong correlation between democracy and increased levels of social expenditures as a share of government expenditures.

Other studies of particular cases show a similar pattern. Pães de Barros, Mendonça and Rocha (1995) find evidence of increased social spending in Brazil following the transition to democracy in 1985. Raczynski and Romaguera (1995) find that social spending fell in Chile following Pinochet's rise to power in 1973. Epstein (1989) studies Argentina from 1970 to 1985 and finds that the ratio of social spending to defense spending was higher during civilian regimes than under military rule.

While these studies demonstrate a positive association between democratic rule and aggregate measures of social spending, they do not show that democracy leads to an increase in spending on programs specifically targeted at the poor. In any social spending package there is embedded a mix of social protection programs, some of which are means-tested or in various ways highly targeted at the poor, and others which are not. Thus, finding empirical evidence of higher levels of social expenditure in democracies stops short of answering a key question: do democracies deliver for the poor?

Another set of studies addresses the peculiar impact of populist regimes on macroeconomic policy and performance. Dornbusch and Edwards (1991) suggest that populist regimes have historically dealt with inequality by using expansive macroeconomic policies. Perversely, in practice these expansive fiscal policies tend to do a disproportionate amount of harm to the poorest

sectors of society. Populism not only creates incentives to implement such policies, but it also deters politicians from making necessary balance of payments adjustments when the need arises. Cardoso and Helwege (1991) argue that the lack of social cohesion and strong political parties that characterizes a populist regime, forces populist politicians to hesitate when it is time to distribute the political costs of adjustment among political actors. Thus populism creates a unique set of incentives for sustaining high levels of social expenditures, even when these levels are unsustainable or when the expenditures are distributed among programs in an inefficient manner. Cardoso and Helwege cite Latin American reformism in the 1960s as a case where urban labor and the middle classes were often favored, at the expense of the rural population and the urban poor.

Another approach to the politics of social protection in LAC countries suggests that the answer might lie in the study of political parties and political party systems. Kaufman and Stallings (1991) argue that the political party system, as a reflection of underlying social and political cleavages, is the single most important factor explaining the diverging policies of populist regimes. In particular, they argue that in countries where popular sectors have systematic and long-standing political ties with political parties traditionally excluded from the political system, such as Argentina, Chile, Brazil and Peru, there is a stronger tendency to pursue populist policies which take the form of expansionary fiscal policy and redistributive social spending. Their empirical evidence is weak, however – for example, they offer no concrete examples of spending programs. In addition, they do not state clearly whether party systems are endogenous or exogenous variables in their framework, so it is unclear what differentiates public policy choices and the incentives that lead to them (Alesina, 1991).

The distribution of power among parties in Congress might also have a large role to play. Beccaria and Carciofi (1995) argue that one explanation for democratic governments favoring

higher levels of social expenditure in Argentina might be due to the role and strength of the opposition in Congress. Unfortunately, they do not flesh out the argument fully, nor do they offer much empirical evidence.

A small subset of the literature focuses on the impact of macroeconomic shocks on the overall level of social expenditures. Ravallion (2000) examines Argentina and finds that the poor generally lose more from macroeconomic shocks than the non-poor do. Fiscal contractions in Argentina tended to cause both the level and share of social spending to fall. However, Ravallion finds little evidence that programs targeted at the poor were *more* susceptible to budget cuts than their universal counterparts. Hicks and Wodon (2000) study the efficiency and effectiveness of social protection programs, focusing on the experiences of Mexico and Argentina during the 1980s and 1990s. They find that social spending per poor person declined substantially in the year following a strong macroeconomic shock. Moreover, in Mexico spending on programs targeted at the poor appears even more pro-cyclic than overall social spending. They argue that no single social spending program in place at the time could efficiently and effectively shield the poor from macroeconomic shocks and that fiscal constraints during macroeconomic shocks drive social spending to be pro-cyclical. They suggest prioritizing social spending, so that highly targeted programs receive the highest priority and are cut last.

3. The Dynamics of Postwar Social Spending the U.S.

We conduct the analysis at three levels. First, we study the movements of aggregate expenditures on broad, functional budget categories. This establishes some basic patterns, and in particular it identifies some of the differences and similarities between social protection programs and other types of programs.

The second analysis focuses more narrowly on social protection programs, and at a much more disaggregated level. In order to exploit the long time series produced by the U.S. Office of Management and Budget, however, we must treat many programs in groups. Thus, for example, we do not break the data out separately for each individual education program, but study five more aggregate "program-groups": aid to primary and secondary schools, assistance to post-secondary students, vocational and adult education programs, veterans education programs, and Native American education. We conduct a large cross-section, time-series analysis on 45 program-groups, which covers the period 1948-1998. The analysis allows us to bring a large amount of data to bear on several questions, such as the importance of program targeting and partisan control.

The third analysis focuses explicitly on what happens during recessions and changes in party control, at the individual program level. We contrast the spending levels just prior to recessions with the levels during recessions, and the spending levels just prior to and just after switches in control. The analysis covers two episodes: 1972-76 and 1978-83.

3.1. Model Specification

There are at least two reasonable models of the social spending decision process. One is zero-based budgeting, in which each year's budget is assumed to be made essentially from scratch and spending levels are chosen as close as possible to the levels that are optimal from the point of view of the current decision makers. This model predicts that changes in spending should be related to *changes* in political circumstances. For example, if the Republicans are in power in year $t-1$ and the Democrats take over in year t, then we expect social spending levels to rise between years $t-1$ and t. On the other hand, if the Democrats are in power both in year $t-1$ and year t, then we expect little or no change – in year $t-1$ the Democrats would already have set spending levels at

the levels they most prefer, and would have no reason to change them further in year t (except, perhaps, in response to changing circumstances such as economic shocks).

The other model is that of incremental budgeting (Wildavsky, 1964), in which only small deviations from the prior year's spending levels are considered. Thus, unless one party is in power continuously for a long time, spending levels will not be at either party's optimal levels, but will instead be somewhere in between. This model predicts that changes in spending will be related to *levels* of control. If the Democrats control the government in year t, then we expect social spending levels to rise between years $t-1$ and t. This is true even if the Democrats were also in control in year $t-1$. In year $t-1$ they would have moved spending levels in the direction they prefer, but would only part of the way towards their most-preferred levels.

We cannot do very much to distinguish between these models with the data we have, nor is that our goal. Moreover, our basic findings hold whether we specify the partisan control variables in levels or changes. Therefore, to keep the analysis simple we focus on a specification that is more consistent with the incremental budgeting model, and use levels.[5] As in Alt and Lowry (1999), we also allow for the magnitude of spending changes to depend on how long a party has been in control – a newly elected majority will want to make large spending changes on many items, but one that has been in power for some time will already have made many of the changes it prefers.[6]

Let G_{it} be real per-capita spending on program i in year t, and let $\Delta G_{it} = G_{it}/G_{i,t-1} - 1$ be the percentage change in spending from year $t-1$ to year t. Similarly, let $\Delta I_t = I_t/I_{t-1} - 1$ be the

[5] Davis, Dempster, and Wildavsky (1966), Padgett (1980), White (1995) and others claim to find strong evidence in support of the incremental budgeting model, but other scholars disagree. See Meyers (1994) for a summary of the critiques.

[6] There have been frequent changes in the configuration of partisan control over the postwar years. The longest periods were eight years long: 1961-1968 (Democratic congress and Democratic president) and 1969-1976 (Democratic congress, Republican president). Three other periods were six years long: 1955-1960 (Democratic congress, Republican president), 1981-1986 (divided congress, Republican president) and 1987-1992 (Democratic congress, Republican president).

percentage change in real per-capita income from year $t\text{-}1$ to year t, and $\Delta U_t = U_t/U_{t-1} - 1$ be the percentage change in unemployment from year $t\text{-}1$ to year t. Finally, let $\{X_{ijt}\}$ be a set of political and program-specific variables.

The specifications are straightforward, and take one of the following forms:

$$\Delta G_{it} = \beta_0 + \beta_1 \Delta I_t + \beta_2 \Delta I_{t-1} + \Sigma_j \gamma_j X_{ijt} + \varepsilon_{it}$$

or

$$\Delta G_{it} = \beta_0 + \beta_1 \Delta U_t + \beta_2 \Delta U_{t-1} + \Sigma_j \gamma_j X_{ijt} + \varepsilon_{it}$$

Collinearity prevents us from including changes in income and changes in unemployment together as independent variables. The correlation between ΔI_t and ΔU_t is -.87, and an auxiliary regression of ΔI_t on ΔU_t, ΔU_{t-1} and ΔI_{t-1} produces a multiple correlation coefficient of .90.

Even in the increment budgeting model, it is more sensible to include the economic variables in percentage changes rather than levels, First, in a steadily growing economy such that in the U.S., the growth rate of per-capita GDP *is*, in a sense, a "level" variable – we normally expect to see a growth rate of around 2-3% per year, and we measure economic booms and downturns as deviations from that expectation. Second, outlays on many social programs should automatically respond to *changes* in economic conditions, unless program eligibility or benefit levels are changed. For example, an increase in unemployment should automatically lead to an increase in expenditures on programs available to the unemployed, such as unemployment insurance and food stamps. It is arguable that the (lagged) unemployment rate should also be included in level form. Doing so does not affect our basic conclusions.

Among the political and program variables used are: (1) Democratic Congress, equal to 1 if Democrats control a majority of the seats in both chambers of congress in year $t\text{-}1$, and 0 otherwise; (2) New Democratic Congress, equal to 1 if Democrats control a majority of the seats in both chambers of congress in year $t\text{-}1$ but did not control in year $t\text{-}2$, and 0 otherwise; (3) Old

Democratic Congress, equal to 1 if Democrats control a majority of the seats in both chambers of congress in year *t-1* and in year *t-2*, and 0 otherwise; (4) New Non-Democratic Congress, equal to 1 if Democrats do not control a majority of the seats in both chambers of congress in year *t-1* but did control both chambers in year *t-2*, and 0 otherwise; (5) Democratic President, equal to 1 if Democrats control the presidency in year *t-1*, and 0 otherwise; (6) Program is Young, equal to 1 if program *i* is in its first 3 years of funding in year *t*; and (7) interactions of the congressional control variables and the economic change variables. The political control variables are lagged because almost all of the budget decisions for fiscal year *t* are made in calendar year *t-1* (or even earlier). We estimate these equations for a variety of different programs and groups of programs. We also estimate a variety of models with different subsets of these included as regressors.

We also compare groups of programs with different features: those with benefits that are highly targeted at the poor vs. those that are more universal; those with geographically concentrated distributions of benefits; those with benefits that go disproportionately to areas where one of the parties is politically strong; and those that are financed out of earmarked taxes with trust funds.

Appendix Table A.1 describes the data sources for all of the variables.

3.2. Analysis by Functional Categories

Table 1 presents results at the broadest level, functional categories. The functions are arranged in three groups. The first is a group of social protection and social investment programs (functions 450, 500, 550, and 600). The second is a group of social protection programs mainly for the elderly (650, 570, and 700). The third is a group of other domestic functions that serves as a kind of "control" group.[7]

[7] In Tables 1, 2 and 4, we use the Prais-Winston transformed regression estimator to correct for first-order serial-correlation in the residuals, and the Huber-White robust estimator to calculate standard errors.

The analysis covers the period 1962-1998 because that is the period covered by the U.S. Budget *Historical Tables*, and we doubt our ability to construct expenditures by function for earlier years. Three findings standout. First, the *only* function that shows a clearly counter-cyclical pattern of spending is the Income Security function (600). Most of the other social protection functions exhibit no clear pattern. Two of the functions show evidence of a somewhat *pro*-cyclic pattern when the income variables are used as the economic regressors (top panel), but not when the unemployment variables are used. Similarly, the "other" functions are neither strongly pro-cyclic nor anti-cyclic.

Second, Democratic control of congress appears to affect spending on certain functions. Democratic control matters especially for the social protection programs, and also for environmental and energy programs.[8]

3.3. Analysis by Program-Groups

In this section we present the results of our cross-section, time-series analysis of social protection programs and program-groups.

Appendix Table A.2 lists the major programs and program-groups used in the analysis, and provides information about the degree to which program benefits are targeted at the poor. The included programs and program-groups are those for which the Targeted column is not missing.

Table 2 presents the basic results.[9] Column 1 shows that overall, spending on social protection program-groups appears quite counter-cyclical, consistent with the aggregate results from section 3.2. The most counter-cyclical program, by far, is unemployment insurance (column

[8] Including a dummy variable for the party of the president, either contemporaneous or lagged, has no effect on the conclusions – the estimated presidential effect is always statistically insignificant, and the estimates for the other variables do not change much.

2). This is not surprising – as unemployment rises during a recession, unemployment insurance expenditures should naturally rise as well. It is possible, however, for the government to cut benefits and/or limit eligibility during the fiscally constrained atmosphere of a recession constrained in order not to "bust the budget." Evidently, this does not occur in the U.S. Instead, a 1% increase in current unemployment leads to a little more than a 1% increase in unemployment spending (see the bottom panel). As shown below, this is *not* true for certain LAC countries.

We divide the remaining programs and program-groups into three sets: those with benefits that are highly Targeted at the Poor, those with benefits that are Targeted at Places, and those that are more universal.[10] Results for these subsets are shown in columns 3-5.

Interestingly, both targeted and non-targeted programs appear to be counter-cyclical, and roughly equally so. The programs that are Targeted at Places (such as Appalachian development programs, Indian health and education programs, and rural development grants) seem much less counter-cyclic than the programs that not so geographically targeted. However, they are not particularly pro-cyclic, either.

Another finding is that programs seem to grow quickly in the first few years they are in place. This growth is especially robust (statistically) for programs and program-groups targeted at the poor. Such programs may be passing through "trial periods."

Finally, party control of congress clearly matters.[11] All types of programs grow more rapidly when congress is under Democratic control.[12]

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[9] We also estimated specifications that include program-specific fixed effects. The results are very similar to those reported in Table 2.
[10] We leave unemployment insurance aside. If included, it would be a Non-Targeted program.
[11] We also estimated specifications that included presidential control variables, but found little evidence that the party of the president matters for social protection spending.
[12] Including the average percentage of Democrats in each chamber – either as a more continuous measure of congressional "preferences" or to capture the idea that a party's "power" is a relatively smooth and monotonic function of its seat-share – has no noticeable effect on the results. This variable is almost always

Examining the party coefficients more closely reveals an important difference between programs that are targeted at the poor and those that are not: spending on programs that are targeted at the poor is much more sensitive to party control in congress than spending on non-targeted programs. If Democrats control congress during the year appropriations are made, then targeted social programs can expect to grow by 5% more than if congress is under divided or Republican control. These programs exhibit especially large growth rates, of 10%, in the first year of Democratic control. In contrast, in the first year when congress is either divided or under Republican control, spending on targeted programs falls by an average of 10% or more. These are large differences, given that the average absolute change in spending on targeted programs is less than 13%. Changes in party control have a much smaller impact on spending patterns for non-targeted programs.

Table 3 makes the same point a different way. It shows how changes in congressional control affects the growth rate of spending for targeted and non-targeted program-groups. For programs targeted at the poor, changes in control have a large impact – a switch from solid Democratic control to Republican or divided control appears to cause spending on targeted programs to fall by 8%, while a switch from Republican or divided control to Democratic control is accompanied by an increase in spending of 9%. The "swings" that are possible from alternations in power – overall spending changes of 17% in just a few years – are dramatic. In contrast, spending on non-targeted programs and program-groups appears much less affected by partisan politics.[13]

statistically insignificant, and the effect of the party dummy remains strong and significant (despite the fact that the two variables are fairly highly correlated). This is similar to the null findings by Kiewiet and McCubbins (1991) and others. It suggests that majority control is what mainly matters.

[13] In contrast with Tables 1 and 2, this brief analysis is more in the spirit of the zero-based-budgeting view of decision making than the increment-budgeting view. It illustrates the point so cleanly, however, that it seems worth presenting. Also, it shows that our conclusions about partisan effects are not driven by the increment-budgeting perspective.

Thus, although targeted and non-targeted programs appear to have similar levels of "policy risk" caused by economic fluctuations, they have noticeably different degrees of "policy risk" caused by changing party tides.

Partisan differences are explored further in Table 4. The specification includes interactions between the contemporaneous and lagged congressional control variables and the contemporaneous and lagged changes in economic conditions. The results suggest an interesting difference between solidly Democratic congresses and congresses that are either solidly Republican or divided. When Democrats control congress, spending on social protection programs appears strongly counter-cyclic. Under a divided or Republican congress, however, spending is not counter-cyclic and by some measures is perhaps even slightly pro-cyclic.

We must mention one large caveat before proceeding: our analysis only deals with ongoing programs, and says nothing about the factors that influence the initiation of new programs or the termination of existing programs. Browning (1986) calculates that there were 177 new social welfare programs begun between 1947 and 1982. Of these, 116 (66%) were initiated during periods of solid Democratic control, and 57 (32%) were initiated during periods where Democrats controlled congress (also, of these 57 programs, 72% were initiated by congress rather than the president). Thus, in terms of partisan effects, including program initiation would almost surely reinforce the conclusions in our analysis. We know less about the effects of economic circumstances. A cursory analysis indicates that more new programs are initiated when economic times are good than when they are bad (although the differences are not large or statistically significant). This suggests that while existing most social protection programs are either counter-cyclic or non-cyclic, when program initiation and termination decisions are taken into account social protection spending may have a somewhat more pro-cyclic flavor.

3.4. Analysis of Individual Programs During Recessions

Table 5 presents data on about 60 programs during two different periods, 1972-1975 and 1978-1983. The first two years of each period are "good" years, with solid economic growth and relatively low unemployment. The others are "bad" years, with negative economic growth, high unemployment, or both. We divide the 1980-1983 period into two "bad" sub-periods. The 1980-1981 budgets were enacted under solid Democratic control of congress and the presidency (Carter), and the 1982-1983 budgets were made under divided control of congress and a Republican president (Reagan). For each of the two "episodes", the first column gives the average per-capita spending on each program during the two good years. The second column gives the average per-capita spending in the subsequent bad years relative to that in the good years.

The table reveals a number of interesting patterns. First, education programs generally fared poorly during bad years – with few exceptions, spending on these programs declined in all three "bad" periods. This is true even for 1980-81, although the cuts were not as deep. Second, employment and job training programs were often cut during bad years, despite the fact that more workers are unemployed and perhaps in need of these programs. All of the major programs were cut sharply in 1982-83 under Reagan. The large job training programs grew during the 1974-75 and 1980-81 periods, but the large public service employment program suffered huge cuts. Overall spending on the employment and manpower programs was lower in all of the bad periods.

Finally it is interesting to compare specific programs. The contrast between Food Stamps and Aid to Families with Dependent Children (AFDC) is especially revealing. Spending on Food Stamps was higher in all of the bad periods. This is due to the fact that many unemployed workers and the working poor are eligible for food stamps, and the bureaucratic costs of obtaining them are

not too high. On the other hand, spending on AFDC was lower in all of the bad periods. The contrast is interesting because both programs are highly targeted at the poor (see Table A.2). Both have also long been attacked as programs plagued with fraud and exploited by "welfare cheats." Despite these similarities, the programs have had very different histories over the past thirty years. Food Stamps grew steadily – real per-capita spending grew 20 times between 1969 and 1995. AFDC shrank – real per-capita spending on AFDC was *lower* in 1995 than in 1969 – and in 1996 it was replaced by Temporary Assistance for Needy Families (TANF). It is doubtful that many observers in 1969 would have predicted these divergent trajectories. "Political vulnerability" is not easy to predict.

4. The Dynamics of Social Spending Latin America and the Caribbean

We conduct the analysis of Latin America and the Caribbean at two levels. The first corresponds to something in between the first and second levels of the U.S. analysis above. The second is the individual program level.

4.1. Analysis by Broad Spending Categories

The first level consists of eight aggregate categories of social expenditure – total social spending, primary education, secondary education, higher education, total education, public health, social security and welfare, and housing. These are the categories for which we can obtain relatively long and comparable time-series data for most LAC countries.

We use this data to conduct several cross-section, time-series (panel) analyses of 19 countries over the period 1970-1996. The specification is similar to that in section 3.3 above:

$$\Delta G_{it} = \beta_{0i} + \beta_1 \Delta I_t + \Sigma_j \gamma_j X_{ijt} + \varepsilon_{it}$$

where ΔG_{it} is the percentage change in per-capita spending on a given item in country i from year t-1 to year t, ΔI_t is the percentage change in real per-capita income from year t-1 to year t, and $\{X_{ijt}\}$ is a set of country-specific political variables and program-specific variables.[14]

The political and program variables used are: (1) Democratic Regime, equal to 1 if country i is under democratic rule in year t, and 0 if the country is under authoritarian rule; (2) New Democratic Regime, equal to 1 if the country i is under democratic rule in year t but was under authoritarian rule in year t-1, t-2, or t-3, and 0 otherwise; (3) Old Democratic Regime, equal to 1 if country i is under democratic rule in year t and also in years t-1, t-2, and t-3, and 0 otherwise; (4) Left/Populist Regime, equal to 1 if country i is under democratic rule and has a left, center-left, or populist government in year t; and (5) interactions of the regime variables and the economic change variables. Unlike in the U.S. analysis, the regime-type and government control variables are *not* lagged. This reflects the less cumbersome budgetary process that is typical in LAC countries, where power is concentrated in the presidency and bureaucracy (Mainwaring and Scully, 1995). For a similar reason, we focus on the executive branch rather than the legislature in defining regime type and left vs. right control.[15] Appendix Table A.1 gives the data sources for all variables.

Table 6 presents the basic results for overall social spending and for each of the broad categories. Education and health are pooled, since the estimates for these categories are remarkably similar to each other when they are treated separately. Several patterns are evident. First, the elasticity of overall per-capita social spending with respect to per-capita GDP is clearly positive, but less than 1 (column 1). Thus, in contrast to the U.S., social spending in LAC countries is strongly *pro*-cyclic rather than counter-cyclic. This is not a new finding, having been shown for

[14] We also estimated models with the lag of the percentage change in real per-capita income, ΔI_{t-1}, as a regressor. This variable was almost never significant, and including it had little affect on the estimates of the other coefficients, so we do not include it in the specifications presented in the tables.

Argentina and Mexico by Ravallion (1999), Wodon and Hicks (1999), and Hicks and Wodon (2000), but it indicates that the phenomenon is common throughout Latin America and the Caribbean. Also, while social spending appears to be a "normal" good, it does not appear to be a "luxury" good.

Second, spending on education and health is quite pro-cyclic, with an income elasticity of about 1 (column 2). The income elasticity for housing is even larger, about 2, but is somewhat imprecisely estimated (column 4).[16] Social security and welfare is the *least* pro-cyclic type of spending, and its estimated income elasticity is not statistically different from zero at the conventional .05 level (column 3). In many Latin American and Caribbean countries social security tends to be *less* targeted than education and public health care, since social security only covers workers in the formal sector, and the "welfare" component of this category tends to be quite small (*e.g.*, Sloan, 1984; Inter-American Development Bank, 1991; Maddison and Associates, 1992; Raczynski and Romaguera, 1995; Ravallion, 1999).

Third, social spending grows more under democratic rule – especially during the first few years of democratic rule – than under authoritarian rule.[17] This is consistent with the findings of Avelino (1999) and others. Interestingly, the effect is driven largely by spending on education and public health programs. For these categories, annual spending increases are 8 percentage points higher under new democratic regimes than under authoritarian regimes. Changes in social security spending seem to be independent of regime type (and the housing coefficient, while large, is not statistically significant).

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[15] A few of the Caribbean countries have parliamentary systems (*e.g.*, Belize and Jamaica). In these, the executive is virtually always dominated by the largest party in the legislature.

[16] According to the data, housing expenditures are especially volatile. It is not clear how much of this is real, due to such factors as the "lumpiness" of construction projects and their investment nature, and how much is measurement error. In most countries housing is much smaller than the other categories, and even rounding error may have a noticeable impact.

Finally, we find no evidence that left-wing, left-leaning, or populist governments are more prone to increase social spending than other governments (column 5). This is true even when we limit the sample to democratic governments. Much more work needs to be on this issue, however, before drawing any firm conclusions. First, we would prefer to have coding of party "ideologies" based exclusively on criteria such as party manifestos, policy statements, or disaggregated election results that indicate the relative socioeconomic composition of each party's electoral base.[18] Second, we have focused exclusively on executive, and ignored the countries' legislatures. More detailed data and analysis is needed in order to properly incorporate the legislatures, to determine not only their relative left-right positions but also how powerful they are vis-à-vis the executive (while they are all weak relative to the U.S. Congress, there is considerable variation). This strikes us as an important project for future work.

Averaging over countries, the estimates in Table 6 imply that the expected change in real per-capita social spending in a country is only strongly positive when the economy is relatively healthy *and* the country is under democratic rule. Table 7 shows this even more simply, giving the change in spending on health and education, broken down by regime type and economic circumstances. The average change in spending is large and positive only when (i) there is a "new" democratic regime and the change in per-capita GDP is either around zero or positive, or (ii) there is either a "new" or "old" democratic regime and the change in per-capita GDP is positive.

Table 8 explores the differences between democratic and authoritarian regimes in more detail. Both types of regimes cut social spending sharply during economic downturns, and by

[17] We also included a variable for New Authoritarian Regime variable, but it is never significant.
[18] As noted in Table A.1, we mainly rely on the *Database of Political Institutions* of Beck *et al.* (1999) to define party positions. While this data set is impressive both in its scope and detail, the criteria for coding parties as left, center, or right are not ideal. As Beck *et al.* note, "Our sources had little detail on party platforms and agendas with respect to economic policy. Therefore, to identify party orientation with respect to economic policy, we used the following criteria…" What follows is a long list of different criteria.

roughly similar amounts. If anything, spending seems to be more pro-cyclic under democratic rule than under authoritarian rule, although none of the differences is significant at the .05 level.

Table 8 also compares the effects of positive and negative economic shocks. Ravallion (1999) found a large asymmetry in his study of Argentina – while negative economic shocks caused large decreases in the share of government spending devoted to social protection programs, positive economics caused only small increases in this share. Averaging over all of the LAC countries in our sample, we find no evidence that such an asymmetry exists with respect to per-capita spending. Only for social security spending is there a statistically significant difference between positive and negative shocks. Moreover, what we find is that an increase in per-capita leads to an increase in per-capita social security spending, but a drop in income does *not* lead to a drop in spending (nor, perhaps unfortunately, to an increase).

Table 9 examines education spending in slightly more detail, dividing it into primary and secondary education (as one category) and higher education. Primary and secondary education is generally much more targeted towards the poor than higher education spending, and in many LAC countries higher education spending is actually targeted more at the upper and middle classes.[19] Interestingly, spending on primary and secondary education appears to be somewhat *less* pro-cyclic than higher education spending. The estimated income elasticity for primary and secondary education is about .5, while the elasticity for higher education is around 1.[20] Thus, we have an important case where the programs that are more pro-poor are less pro-cyclic.

[19] See, for example, Hausmann and Rigobon (1993) and Grosh (1994). In most of the countries studied the distribution of primary education spending is quite progressive, secondary education spending is slightly progressive or neutral, and higher education spending is quite regressive. Primary education constitutes the bulk of the primary and secondary category.

[20] The difference is statistically significant at the .05 level using the UNESCO data, but not using the IADB data. Also, we find no significant differences in how democratic and authoritarian regimes treat the two education levels. The UNESCO data also allows us to analyze primary and secondary spending separately; doing so we find no significant differences between the two levels.

Overall, then, the effect of program targeting seems ambiguous. On the one hand, in the two cases just analyzed the more progressive category appears to be less pro-cyclic. Spending on housing is also quite pro-cyclic, and in many LAC countries these expenditures are regressive, with the bulk of the benefits going to the middle class (*e.g.*, Maddison and Associates, 1992; World Bank, 1994; Veganzones, 1997). On the other hand, the social security and welfare category is one of the least targeted, since it tends to cover only workers in the more highly paid formal sector, and it is the least pro-cyclic of the major items. It is also not very affected by regime type.

4.2. Analysis of Individual Programs During Recessions, Brazil 1977-1984

In this section we analyze spending on individual programs and sub-functions for Brazil during the period 1977-1984. There are 14 programs and sub-functions, including housing, social assistance, social security, rural development, urbanization, health care, public health and hygiene, public safety and 4 education programs (these are aggregated from 18 smaller programs). Appropriations for these programs and sub-functions were consistently available in the appropriations bills passed by the Brazilian legislature in each of these years.

Table 10 presents the basic results of comparisons between average per capita expenditures immediately in good and bad economic times. We define "good" years as those in which per-capita GDP did not fall, in this case the years 1977-1980 and 1984. Conversely, the recession year 1981-1983 are "bad." The first column in the table shows average per-capita spending on each budget item during the good years, and the second column gives average per-capita spending in the bad years relative to the good years.

The table shows that for most programs, per-capita spending is the same or *lower* in bad years. This is true even for unemployment insurance, despite the fact that unemployment was 50%

higher during the bad years. On the other hand, spending was higher for three of the largest programs – social security and the two major education programs. There are no clear differences between programs more or less progressive distributions of benefits.

4.3. Analysis of Individual Programs During Recessions, Colombia 1979-1986

In this section we analyze eleven social protection program sub-functions in Colombia: primary, secondary and tertiary education, food and nutrition services, health care, sanitation, social security, and culture and physical education (these are aggregated from 30 smaller programs). Table 11 presents the results, using the same format as Table 10 above. The "good" years are 1979-81 and 1984-86, and the "bad" years are 1982-83. Four patterns are noteworthy.

First, unlike the broad findings from the aggregate analysis, social spending in Colombia appears somewhat *counter*-cyclic. Spending on almost all items is higher in the bad years.

Second, spending on education is counter-cyclic across all three educational levels. Primary education expenditures are the most counter-cyclic, followed by secondary education and then tertiary education. Primary and secondary education subsidies are targeted toward the poor (although the evidence is mixed if one consider per capita subsidies only); and as in other LAC countries higher education expenditures in Colombia are highly regressive (World Bank, 1994).

Third, health care spending is also slightly counter-cyclic, but the more regressive programs show the largest increases in bad years. Per-capita expenditures by the Public Health Service (PHS) were 3% higher in bad years relative to good years. Per-capita health expenditures by the Institute for Social Security (ISS) were 6% higher in bad years. While PHS spending is progressive, ISS health care spending is regressive – for example, in 1992 the two bottom quintiles received only 25% of benefits (World Bank, 1994).

Finally, spending on rural programs is also higher in the bad years. This is important because over 70% of Colombians living in extreme poverty reside in rural areas. Since the mid-1970s, Colombia has operated several rural development programs, including DRI, INCORA and PNR. INCORA is quite progressive but DRI and PNR are not (World Bank, 1994).

Tables 10 and 11 reveal striking differences in how Brazilian and Colombian social spending responds to adverse macroeconomic shocks. Expenditures on most programs in Brazil appear pro-cyclic, while in Colombia they appear counter-cyclic. What explains the difference? While the scope of our analysis leaves many factors unexplored, one likely explanation attributes the variation across cases to the magnitude of the shock. Among LAC countries, Colombia experienced relatively small income shocks following the debt crisis and maintained relatively low levels of unemployment during 1982 and 1983[21]. In contrast, real GDP per-capita in Brazil declined by 6.7% in 1981 alone. Thus, it is less surprising that Brazil was forced to cut spending virtually across the board in response to worsening economic conditions, whereas Colombia was better positioned to increase social spending and to some extent counter the effects of declining real GDP per capita.

5. Conclusion

Perhaps the main lesson to draw from this paper is that there are significant and interesting differences between different types of social spending and social protection programs. In the U.S., spending on "income security" seems uniquely counter-cyclic, while spending on education and job training might even be pro-cyclic. Also, programs targeted at the poor seem to be "partisan footballs" more often than non-targeted programs. In LAC countries, expenditures on education

and health care follow similar paths to one another, but this path looks quite different from that followed by social security and housing. Spending on education and health care spending is especially pro-cyclic, and also fluctuates more widely as a function of the type of political regime.

This suggests that disaggregating the broad category "social spending" is likely to prove fruitful in future research.[22] Our own top priority is to collect more data at the program or sub-function level for a larger set of LAC countries and over longer periods of time. We will then continue to explore the importance of changes in political control on changes in policy.

The apparent unimportance of "ideology" is especially puzzling. It is possible that this is right. Many scholars of Latin American politics argue that most parties in Latin America are not very ideological, particularly those parties that have actually held power. On the other hand, we may simply have mismeasured the true ideological or policy orientation of the government in a large number of cases. We may also have aggregated across too many countries. Or, we may have looked at the wrong categories of spending. This issue deserves closer attention.

Another possibility is that while ideology does not matter, change *per se* does. Do changes in who controls the government lead to large changes in public policy, but without a clear direction? Some argue that this is the case: "Presidents, ministers, and governors like to link their administrations with a distinctive social and economic program. Consequently, the policies of one administration are rarely pursued by the next. With the lack of social mobilization in Latin America, programs do not build up clienteles as they do in the United States, which helps account for zig-zag patterns in the former and greater policy continuity in the latter" (Sloan, 1984, pp. 151-152). Systematic empirical evidence on this point is scarce, however. Several scholars have found

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[21] Real GDP per capita fell by 1.1% in 1982 and by only 0.48% in 1983. Unemployment rose to 9.1% in 1982 and to 11.1% in 1983. It remained above 13% for at least the next three years, but real GDP per capita recovered more quickly.

large changes in the pattern of public expenditures associated with changes between democratic and authoritarian regimes, and we do as well. Are there also large changes *within* regime type, simply as a function of executive (or even legislative) turnover?

[22] Distinguishing between capital expenditures and current expenditures may also be important, and we have not dealt with this at all in the current paper. Are capital expenditures noticeably more pro-cyclic?

References

Alesina, Alberto. 1987. "Macroeconomic Policy in a Two-Party System as a Repeated Game." *Quarterly Journal of Economics* 651-678.

Alesina, Alberto. 1988. "Credibility and Convergence in a Two-Party System with Rational Voters." *American Economic Review* 78: 796-805.

Alesina, Alberto. 1991. "Comment on 'The Political Economy of Latin American Populism'." In *The Macroeconomics of Populism in Latin America*, edited by Rudiger Dornbusch and Sebastian Edwards. Chicago: Chicago University Press.

Alesina, Alberto, John Londregan, and Howard Rosenthal. 1993. "A Model of the Political Economy of the United States." ." *American Political Science Review* 87: 12-33.

Alesina, Alberto, and Roberto Perotti. 1993. "Income Distribution, Political Instability, and Investment. Unpublished manuscript, Harvard University.

Alt, James E. 1985. "Political Parties, World Demand, and Unemployment: Domestic and International Sources of Economic Activity." *American Political Science Review* 79: 1016-1040.

Alt, James E., and Robert C. Lowry. 1999. "A Dynamic Model of State Budget Outcomes under Divided Partisan Government." Unpublished manuscript, Harvard University.

Ames, Barry. 1987. *Political Survival: Politicians and public policy in Latin America*. Berkeley: University of California Press.

Avelino, George. 2000. "Economic Reforms, Social Spending, and Democratization." Unpublished Ph.D. dissertation, Stanford University.

Baloyra, Enrique. 1974. "Oil Policies and Budgets in Venezuela, 1938-1968." *Latin American Research Review* 9: 28-72.

Baloyra, Enrique. 1977. "Money and Politics in Latin America." *Statistical Abstract of Latin America. Supplement Series: 7.* Los Angeles: UCLA Latin American Center Publications, University of California, Los Angeles.

Beccaria, Luis and Ricardo Carciofi. 1995. "Argentina: Social Policy and Adjustment during the 1980s." In *Coping with Austerity*, edited by Nora Lustig. Washington, DC: Brookings Institution.

Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh. 1999. "New Tools and Tests in Comparative Political Economy: The Database of Political Institutions." Working paper, The World Bank Development Research Group.

Browning, Robert X. 1985. "Presidents, Congress, and Policy Outcomes: U.S. Social Welfare Expenditures, 1949-1977." *American Journal of Political Science* 29: 197-215.

Browning, Robert X. 1986. *Politics and Social Welfare Policy in the United States*. Knoxville, TN: University of Tennessee Press.

Calvert, Randall L., 1985. "Robustness of the Multidimensional Voting Model: Candidate Motivations, Uncertainty, and Convergence." *American Journal of Political Science*, 29: 69-95.

Cardoso, Eliana, and Anne Helwege. 1991. "Populism, Profligacy, and Redistribution." In *The Macroeconomics of Populism in Latin America*, edited by Rudiger Dornbusch and Sebastian Edwards. Chicago: Chicago University Press.

Castles, Francis G. 1982. "Politics and Public Policy." In *The Impact of Parties on Public Expenditures*, edited by Francis G. Castles. Beverly Hills: Sage.

Cnudde, Charles F., and Donald J. McCrone. 1969. "Party Competition and Welfare Policies in the American States." *American Political Science Review* 63: 858-866.

Collier, Ruth Berins, and David Collier. 1991. *Shaping the Political Arena: Critical Junctures, the Labor Movement, and Regime Dynamics in Latin America*. Princeton, NJ: Princeton University Press.

Coppedge, Micheal. 1994. *Strong Parties and Lame Ducks: Presidential Polyarchy and Factionalism in Venezuela*. Stanford, CA: Stanford University Press.

Coughlin, Peter J., and Nitzan. 1981. "Electoral Outcomes with Probabilistic Voting and Nash Social Welfare Maxima." *Journal of Public Economics* 15: 113-122.

Coughlin, Peter J. 1992. *Probabalistic Voting Theory*. New York: Cambridge University Press.

Davis, Otto A., M.A.H. Dempster, and Aaron Wildavsky. 1966. "Towards a Predictive Theory of Government Expenditure: U.S. Domestic Appropriations." *British Journal of Political Science* 4: 419-452.

Dawson, Richard E., and James A. Robinson. 1963. "Inter-Party Competition, Economic Variables, and Welfare Policies in the American States." *Journal of Politics* 25: 265-288.

Dixit, Avinash, Gene M. Grossman, and Faruk Gul. 1998. "A Theory of Political Compromise." Unpublished manuscript, Princeton University.

Dixit, Avinash, and John Londregan. 1995. "Redistributive Politics and Economic Efficiency." ." *American Political Science Review* 89: 856-866.

Dixit, Avinash, and John Londregan. 1996. "Ideology, Tactics, and Efficiency in Redistributive Politics. Unpublished manuscript, Princeton University.

Dornbusch, Rudiger, and Sebastian Edwards. 1991. "The Macroeconomics of Populism." In *The Macroeconomics of Populism in Latin America*, edited by Rudiger Dornbusch and Sebastian Edwards. Chicago: Chicago University Press.

Dye, Thomas R. 1966. *Politics, Economics, and the Public: Political Outcomes in the American States*. Chicago: Rand McNally.

Dye, Thomas R. 1984. "Party and Policy in the States." *Journal of Politics* 46: 1097-1116.

Epstein, Edward C. 1989. "What Difference Does Regime Type Make? Economic Austerity Programs in Argentina." In *Paying the Costs of Austerity in Latin America*, edited by Howard Handelman and Werner Baer. Boulder, CO: Westview Press.

Erikson, Robert S., Gerald C. Wright, and John P. McIver. 1989. "Political Parties, Public Opinion, and State policy in the United States." *American Political Science Review* 83: 729-749.

Fry, Brian R., and Richard F. Winters. 1970. "The Politics of Redistribution." *American Political Science Review* 64: 508-522.

Garand, James C. 1985. "Partisan Change and Shifting Expenditure Priorities in the American States, 1945-1978." *American Politics Quarterly* 13: 355-391.

Garrett, Geoffrey, and Peter Lange. 1986. "Political Responsed to Interdependence: What's 'Left' for the Left?" *International Organization* 45: 539-564.

Greenstein, Robert. 1991. "Universal and Targeted Approaches to Relieving Poverty: An Alternative View." In *The Urban Underclass*, edited by Christopher Jencks and Paul Peterson. Washington, DC: Brookings Institution.

Grosh, Margaret E. 1994. *Administering Targeted Social Programs in Latin America*. Washington, DC: World Bank.

Hausmann, Ricardo, and Michael Gavin. 1996. "Securing Stability and Growth in a Shock-Prone Region: The Policy Challenge for Latin America." *Securing Stability and Growth in Latin America*, edited by Ricardo Hausmann and Helmut Reisen. Paris: OECD.

Hausmann, Ricardo, and Roberto Rigobon. 1993. *Government Spending and Income Distribution in Latin America*. Washington, DC: Inter-American Development Bank (distributed by Johns Hopkins University Press).
Hibbs, Douglas A. 1977. "Political Parties and Macroeconomic Policy." *American Political Science Review* 71: 1467-1487.
Hibbs, Douglas A. 1987. *The American Political Economy: Macroeconomic Politics in the Unites States*. Cambridge: Harvard University Press.
Hicks, Alexander, and Duane Swank. 1984. "On the Political Economy of Welfare Expansion." *Comparative Political Studies* 17: 81-119.
Hicks, Alexander, and Duane Swank. 1992. "Politics, Institutions, and Welfare Spending in Industrialized Democracies, 1960-82." *American Political Science Review* 86: 658-674.
Hicks, Norman, and Quentin Wodon. 2000. "Economic Shocks, Safety Nets, and Fiscal Constraints: Social Protection for the Poor in Latin America." Unpublished manuscript, World Bank.
Huntington, Samuel P. 1968. *Political Order in Changing Societies.* New Haven: Yale University Press.
Husted, Thomas A., and Lawrence W. Kenny. 1997. "The Effect of the Expansion of the Voting Franchise on the Size of Government." *Journal of Political Economy* 105: 54-82.
Inter-American Development Bank. 1991. *Economic and Social Progress in Latin America*. Washington, DC: Inter-American Development Bank (distributed by Johns Hopkins University Press).
Inter-American Development Bank. 1997. *Latin America After a Decade of Reforms.* Washington, DC: Inter-American Development Bank (distributed by Johns Hopkins University Press).
Jennings, Edwards. 1979. "Competition, Constituencies, and Welfare Policies in the American States." *American Political Science Review* 73: 414-429.
Kaufman, Robert R., and Barbara Stallings 1989. *Debt and Democracy in Latin America*. Boulder: Westview Press.
Kaufman, Robert R., and Barbara Stallings. 1991. "The Political Economy of Latin American Populism." In *The Macroeconomics of Populism in Latin America*, edited by Rudiger Dornbusch and Sebastian Edwards. Chicago: Chicago University Press.
Key, V.O. 1949. *Southern Politics in State and Nation.* New York: A.A. Knopf.
Kiewiet, D. Roderick, and Mathew D. McCubbins. 1991. *The Logic of Delegation*. Chicago: University of Chicago Press.
Korpi, Walter. 1980. "Social Policy and Distributional Conflict in the Capitalist Democracies: A Preliminary Framework." *Western European Politics* 3: 296-316.
Lindbeck, Assar, and Jorgen W. Weibull. 1987. "Balanced-Budget Redistribution as the Outcome of Political Competition." *Public Choice* 52: 273-297.
Lindert, Peter H. 1994. "The Rise of Social Spending." *Explorations in Economic History* 31: 1-37.
Lindert, Peter H. 1996. "What Limits Social Spending?" *Explorations in Economic History* 33: 1-34.
Lipset, Seymour Martin. 1959. *Political Man: The Social Bases of Politics*. Baltimore: Johns Hopkins University Press.
Londregan, John B., and Keith T. Poole. 1990. "Poverty, the Coup Trap, and the Seizure of Executive Power." *World Politics* 17: 151-183.
Maddison, Angus, and Associates. 1992. *The Political Economy of Poverty, Equity, and Growth.* New York: Oxford University Press.

Mainwaring, Scott, and Timothy R. Scully. 1995. *Building Democratic Institutions in Latin America*. Stanford, CA: Stanford University Press.
McDonald, Ronald H. 1971. *Party Systems and Elections in Latin America.* Chicago: Markham Publishing Company.
Meltzer, Allan H., and Scott F. Richard. 1981. "A Rational Theory of the Size of Government." *Journal of Political Economy* 89: 914-927.
Meyers, Roy T. 1994. *Strategic Budgeting*. Ann Arbor: University of Michigan Press.
Moene, Karl O., and Michael Wallerstein. 2000. "Inequality, Social Insurance, and Redistribution." Unpublished manuscript, University of Oslo.
Padgett, John F. 1980. "Bounded Rationality in Budgetary Research." *American Political Science Review* 74: 354-372.
Pães de Barros, Ricardo, Rosane Mendonça, and Sonia Rocha. 1995. "Brazil: Welfare, Inequality, Poverty, Social Indicators, and Social Programs in the 1980s." In *Coping with Austerity*, edited by Nora Lustig. Washington, DC: Brookings Institution.
Perotti, Roberto. 1996. "Growth, Income, and Democracy: What the Data Say"" *Journal of Economic Growth* 1: 149-188.
Persson, Torsten, and Guido Tabellini. 1994. "Is Inequality Harmful for Growth?" *American Economic Review* 84: 600-621.
Plotnick, Robert D., and Richard F. Winters. 1985. "A Politico-economic Theory of Income Redistribution." *American Political Science Review* 79: 458-473.
Pulsipher, Allan G., and James L. Weatherby. 1968. "Malapportionment, Party Competition, and the Functional Distribution of Governmental Expenditures." *American Political Science Review* 62: 1207-1219.
Raczynski, Dagmar, and Pilar Romaguera. 1995. "Chile: Poverty, Adjustment, and Social Policies in the 1980s." In *Coping with Austerity*, edited by Nora Lustig. Washington, DC: Brookings Institution.
Ravallion, Martin. 2000. "The Incidence of Fiscal Contractions: Theory and Evidence for Argentina." Unpublished manuscript, World Bank and Universite des Sciences Sociales, Toulouse.
Roemer, John E. 1998. "Why the Poor Do Not Expropriate the Rich: An Old Argument in New Garb." *Journal of Public Economics* 70: 399-424.
Romer, Thomas. 1975. "Individual Welfare, Majority Voting, and the Properties of a Linear Income Tax." *Journal of Public Economics* 7: 163-185.
Rosenberry, Sara A. 1982. "Social Insurance, Distributive Criteria and the Welfare Backlash: A Comparative Analysis." *British Journal of Political Science* 12: 421-447.
Saint-Paul, Gilles. 1993. "On the Political Economy of Labor Market Flexibility." *NBER Macroeconomics Annual*.
Schattshneider, E.E. 1956. "United States: The Functional Approach to Party Government." In *Modern Political Parties: Approaches to Comparative Politics*, edited by S. Neumann. Chicago: Chicago University Press.
Schattshneider, E.E. 1960. *The Semisovereign People.* Hinsdale, IL: Dryden Press.
Schlesinger, Arthur M., Jr. 1958. *The Coming of the New Deal*. Boston: Houghton Mifflin.
Skocpol, Theda. 1991. "Targeting within Universalism: Politically Viable Policies to Combat Poverty in the United States." In *The Urban Underclass*, edited by Christopher Jencks and Paul Peterson. Washington, DC: Brookings Institution.
Sloan, John W. 1984. *Public Policy in Latin America*. Pittsburgh: University of Pittsburgh Press.

Veganzones, Marie-Ange. 1997. *Argentina in the 20th Century: An Account of Long-Awaited Growth.* Paris: OECD Publications Service.

White, Joseph. 1995. "Almost Nothing New Under the Sun: Why the Work of Budgeting Remains Incremental." *In Budgeting, Policy, Politics: An Appreciation of Aaron Wildavsky*, edited by Naomi Caiden and Joseph White. New Brunswick, NJ: Transaction Publishers.

Wildavsky, Aaron. 1964. *The Politics of the Budgetary Process*. Boston: Little, Brown.

Wilson, William Julius. 1987. *The Truly Disadvantaged: The Inner City, the Underclass, and Public Policy*. Chicago: University of Chicago Press.

Winters, Richard F. 1976. "Partisan Control and Policy Change." *American Journal of Political Science* 20: 587-636.

Wittman, Donald. 1977. "Candidates with Policy Preferences: A Dynamic Model." *Journal of Economic Theory* 15: 86-103.

Wittman, Donald. 1983. "Candidate Motivation: A Synthesis of Alternatives." *American Political Science Review* 77: 142-157.

Wodon, Quentin, and Norman Hicks. "Protecting the Poor During Crises Through Public Spending? Framework and Application to Argentina and Mexico." Unpublished manuscript, World Bank.

World Bank. 1994. *Poverty in Colombia*. Washington, DC: World Bank.

Wright, Randall. 1985. "The Redistributive Roles of Unemployment Insurance and the Dynamics of Voting." *Journal of Public Economics* 31: 377-399.

Table 1
Changes in U.S. Federal Spending by Function, 1962-1998

Dependent Variable = Percent Change in Per-Capita Spending

	%Δ in Per-Capita GDP		Lagged %Δ in Per-Capita GDP		Democratic Congress		R^2
450 Community & Regional Develop	3.77**	(1.32)	.25	(1.04)	.23**	(.04)	.42
500 Educ, Training, Employ, Soc Service	2.23**	(1.05)	.74	(1.09)	.14**	(.04)	.26
550 Health	.50	(.57)	-.32	(.57)	.07**	(.02)	.15
600 Income Security	**-1.55****	**(.44)**	**-2.33****	**(.77)**	**.05**	**(.03)**	**.47**
650 Social Security	.39	(.27)	-.22	(.24)	.03**	(.01)	.17
570 Medicare	.25	(.69)	-.51	(.45)	.04	(.03)	.11
700 Veterans Benefits & Services	-.27	(.30)	-.51	(.34)	.02	(.02)	.11
250 Science, Space & Technology	.48	(.53)	.24	(.54)	.04	(.04)	.05
270 Energy	.31	(1.93)	-3.00*	(1.74)	.43**	(.08)	.46
300 Natural Resources & Environment	-.17	(.29)	-.17	(.61)	.06**	(.02)	.14
350 Agriculture	.97	(3.33)	-1.44	(2.82)	-.13	(.14)	.04
400 Transportation	1.13**	(.53)	-.87**	(.43)	.05*	(.03)	.32
750 Administration of Justice	.23	(.47)	-.57	(.44)	.01	(.03)	.06
	%Δ *in Unemployment		**Lagged %Δ in Unemployment**		**Democratic Congress**		**R^2**
450 Community & Regional Develop	-.37	(.27)	.09	(.16)	.24**	(.05)	.30
500 Educ, Training, Employ, Soc Service	-.16	(.17)	.01	(.12)	.15**	(.05)	.15
550 Health	-.04	(.07)	.08	(.07)	.07**	(.03)	.15
600 Income Security	**.35****	**(.07)**	**.25****	**(.07)**	**.04****	**(.02)**	**.71**
650 Social Security	-.02	(.03)	.07**	(.03)	.03**	(.01)	.21
570 Medicare	-.00	(.10)	.05	(.07)	.04	(.03)	.10
700 Veterans Benefits & Services	.08	(.05)	.06	(.04)	.02	(.02)	.15
250 Science, Space & Technology	-.07	(.07)	.01	(.08)	.04	(.05)	.05
270 Energy	.12	(.35)	.51**	(.22)	.41**	(.07)	.52
300 Natural Resources & Environment	.11**	(.05)	.02	(.10)	.06**	(.02)	.20
350 Agriculture	.07	(.41)	.28	(.37)	-.14	(.13)	.05
400 Transportation	-.07	(.09)	.14**	(.06)	.05	(.04)	.23
750 Administration of Justice	.02	(.07)	.09	(.07)	.01	(.03)	.05

Standard Errors in parentheses.
** = significant at the .05 level; * = significant at the .10 level

Table 2
Changes in U.S. Federal Social Protection Spending, 1948-1998
Sets of Programs with Different Characteristics

Dependent Variable = Percent Change in Per-Capita Spending

	All Programs	Unemploy Insurance	Other Non-Targeted	Targeted at Poor	Targeted At Places
%Δ in Per-Capita GDP	-.22	-7.57***	.17	-.26	.66
	(.25)	(1.25)	(.33)	(.37)	(.81)
Lagged %Δ in Per-Capita GDP	.91***	-6.77***	-.78**	-.86***	.26
	(.23)	(1.33)	(.34)	(.31)	(.74)
New Democratic Congress	.03	-.01	-.04	.10***	.08
	(.03)	(.19)	(.04)	(.02)	(.06)
Old Democratic Congress	.06***	.01	.05***	.06***	.13***
	(.015)	(.05)	(.02)	(.02)	(.04)
New Non-Democratic Congress	-.05**	-.12	-.03	-.10***	.15*
	(.02)	(.15)	(.02)	(.03)	(.09)
Program is Young	.10***	--	.12*	.11***	.02
	(.03)		(.07)	(.04)	(.08)
Constant	.01	.29	.01	.02	-.09
	(.01)	(.05)	(.02)	(.02)	(.05)
R^2	.05	.62	.04	.08	.06
# of observations	1635	51	730	695	159
%Δ in Unemployment	.13***	1.27***	.04	.16***	-.04
	(.03)	(.11)	(.04)	(.05)	(.10)
Lagged %Δ in Unemployment	.11***	.53***	.12***	.08***	.02
	(.03)	(.11)	(.05)	(.04)	(.11)
New Democratic Congress	.04	.03	-.04	.11***	.07
	(.03)	(.10)	(.04)	(.04)	(.06)
Old Democratic Congress	.05***	-.00	.04***	.05***	.12***
	(.01)	(.04)	(.015)	(.02)	(.04)
New Non-Democratic Congress	-.07***	-.014	-.03	-.13***	.14
	(.02)	(.12)	(.03)	.(03)	(.10)
Program is Young	.10***	--	.12	.10***	.02
	(.03)		(.07)	(.04)	(.08)
Constant	.00	.01	.00	.00	-.07
	(.01)	(.04)	(.01)	(.02)	(.04)
R^2	.07	.84	.05	.10	.06
# of observations	1621	50	722	691	158

Standard Errors in parentheses.
*** = significant at the .01 level; ** = significant at the .05 level; * = significant at the .10 level

Table 3
Changes in U.S. Federal
Social Protection Spending, 1948-1998

Targeted vs. Non-Targeted Program-Groups
Cell Entries = % Change in Per-Capita Spending

Lagged Change in Congressional Control	Targeted At Poor	Non-Targeted
Democ to Repub or Divided	-.08 (56)	-.01 (59)
No Change	.05 (693)	.03 (713)
Repub or Divided to Democ	.09 (35)	-.03 (39)

Number of observations in parentheses.

Table 4
Changes in U.S. Federal Social Protection Spending, 1948-1998
Democratic vs. Republican Responses to Economic Conditions

Dependent Variable = Percent Change in Per-Capita Spending

	All Programs		Non-Targeted		Targeted at Poor	
	Dem Cong	Other	Dem Cong	Other	Dem Cong	Other
% Δ in GNP	-.25	.35*	.16	.39	-.50	1.00
	(.30)	(.45)	(.43)	(.48)	(.45)	(.65)
Lagged % Δ in GDP	-0.96***	-.36	-.80*	-.43	-.83**	-.39
	(.29)	(.33)	(.42)	(.50)	(.41)	(.46)
New Democratic Congress	.05		-.03		.14***	
	(.03)		(.05)		(.05)	
Old Democratic Congress	.09***		.06**		.11***	
	(.02)		(.025)		(.03)	
New Non-Democ Congress	-.03		-.02		-.06*	
	(.02)		(.03)		(.03)	
Program is Young	.11***		.14**		.12***	
	(.03)		(.07)		(.03)	
Constant	-.01		-.00		-.03	
	(.02)		(.02)		(.03)	
R^2	.05		.05		.09	
# of observations	1635		730		695	
% Δ in Unemployment	.15***	.06	.06	-.00	.21***	-.00
	(.04)	(.06)	(.06)	(.06)	(.06)	(.10)
Lagged % Δ in Unemp	.10***	.11*	.10**	.14	.05	.07
	(.04)	(.06)	(.05)	(.09)	(.05)	(.07)
New Democratic Congress	.04		-.03		.11***	
	(.03)		(.04)		(.04)	
Old Democratic Congress	.05**		.05***		.06***	
	(.01)		(.01)		(.02)	
New Non-Democ Congress	-.05**		-.02		-.10***	
	(.02)		(.03)		(.03)	
Program is Young	.11***		.14**		.11***	
	(.03)		(.07)		(.03)	
Constant	-.00		-.00		-.00	
	(.01)		(.01)		(.01)	
R^2	.07		.06		.11	
# of observations	1621		722		691	

Standard errors in parentheses.
*** = significant at the .01 level; ** = significant at the .05 level; * = significant at the .10 level

Table 5
U.S. Federal Social Protection Spending
1972-1975 and 1978-1983

Program	Episode I, 1972-1975		Episode II, 1978-1983		
	Per-Capita Spending 1972-73	Relative Spending 1974-75	Per-Capita Spending 1978-79	Relative Spending 1980-81	Relative Spending 1982-83
Cash Payments					
Unemployment assistance	90.30	1.30	98.78	1.40	1.78
Social Security disability	72.26	1.25	122.75	1.01	.97
Social Security retirement	606.94	1.12	802.5	1.08	1.21
Railroad retirement	23.23	1.50	24.15	1.12	1.07
Public employee retirement	64.32	1.28	110.16	1.14	1.23
Coal miners & black lung	10.53	1.22	12.27	1.14	.95
Supplemental security income	--	--	48.34	.98	1.03
Earned income tax credit	--	--	7.89	1.29	1.03
Family assistance (AFDC)	97.31	.71	60.64	.94	.86
Nutrition					
Food stamps	30.50	1.50	54.96	1.37	1.31
School lunch	12.58	1.23	17.99	1.01	.86
School breakfast	0.46	2.04	1.95	1.24	1.15
Summer food service	0.38	1.44	0.99	.85	.61
Special milk program	1.41	.78	1.28	.76	--
Child care food program	0.28	1.84	1.62	1.38	1.42
Women, infants & children (food)	--	--	4.27	1.46	1.64
Commodity supplemental food	0.20	1.03	0.17	1.15	1.41
Commodity program for elderly	--	--	0.45	1.46	1.66
Health Care					
Medicare hospital insurance	99.17	1.19	176.92	1.16	1.38
Medicare supplemental insurance	36.13	1.19	71.57	1.23	1.52
Medicaid	71.62	1.15	109.41	1.10	1.12
Community health centers	1.85	1.16	2.11	1.10	1.02
Maternal & child health	1.91	1.31	3.46	.87	.83
Substance abuse & mental health	3.91	1.47	5.70	.92	.69
Housing					
Public housing	13.67	1.15	10.64	1.04	1.03
Low income housing assistance	--	--	10.43	1.94	2.93
Low income interest sub. – rental	2.00	2.18	5.96	.87	.74
Low income interest sub. – owner	3.98	1.05	0.98	1.22	1.86
Rent supplement	1.44	1.46	2.46	.87	.64
Rural rental assistance					
Rural housing loans					
Low income energy assistance	--	--	1.80	7.26	6.88
Social Services					
Social services grants	24.95	.92	27.45	.82	.62
Child welfare services	7.54	1.21	11.01	1.35	1.41
Legal services	--	--	1.93	1.30	.86

Table 5, Continued					
	Episode I, 1972-1975		Episode II, 1978-1983		
Program	Per-Capita Spending 1972-73	Relative Spending 1974-75	Per-Capita Spending 1978-79	Relative Spending 1980-81	Relative Spending 1982-83
Education					
Head start	5.85	.92	6.19	.98	1.00
Education for deprived children	26.47	.88	26.68	.84	.67
Vocational education	6.36	.86	5.97	.93	.57
Adult education	0.98	.85	0.69	1.43	.77
Bilingual & immigrant education	0.56	1.51	1.35	.94	.74
Basic educ. opportunity grants	--	--	17.00	1.04	.99
Suppl. educ. opportunity grants	3.37	.89	2.90	1.00	.82
Work study	5.48	.69	4.91	.91	.76
Disadvantaged student programs	0.95	.96	1.20	.99	.86
Employment & Manpower					
Job training (CETA, JTPA)	24.51	1.12	51.63	1.06	.42
Public service employment	12.20	.53	38.63	.27	.01
Trade adjustment assistance	0.29	.76	2.54	4.87	.18
Employment service	6.17	.97	6.32	.97	.66
Job training & basic skills (WIN)	3.49	1.22	3.56	.86	.50
Rehab. services & disab. research	8.88	1.07	8.61	.88	.64
Senior community service employ	--	--	1.61	1.21	1.14
Community & Regional Devel.					
Community development grants	22.42	1.38	26.65	.81	.67
Appalachian regional develop.	3.85	1.00	2.63	.99	.73
Native Americans					
Health service	2.86	1.13	4.84	1.06	.94
Education	0.37	1.47	0.59	1.03	.85
Veterans					
Service-connected disabil. comp.	56.90	.99	61.23	1.01	1.05
Non-service-connected pensions	39.66	.87	32.09	.89	.82
Hospital & health care	38.44	1.09	49.71	1.02	1.04
Education programs	36.84	1.38	29.54	.64	.45
Insurance & burial benefits	1.40	1.30	1.67	.91	.53

Per-capita spending in 1998 dollars.

Table 6
Changes in LAC Social Protection Spending, 1970-1997
Broad Spending Categories

Dependent Variable = Percent Change in Per-Capita Spending

	Total Soc. Spending	Social Security	Education & Health	Housing	Education & Health
% Δ in GDP	.80***	.38*	1.00***	2.3***	1.00***
	(.13)	(.23)	(.11)	(.70)	(.11)
Lagged Deficit	-.79***	-.67*	-.93***	-1.08	-.91***
	(.21)	(.37)	(.17)	(1.08)	(.17)
New Democratic Regime	.05**	-.02	.08***	.10	.09***
	(.02)	(.04)	(.02)	(.14)	(.02)
Old Democratic Regime	.04*	.02	.025	.01	.03*
	(.02)	(.03)	(.02)	(.10)	(.02)
New Left/Populist Regime	--	--	--	--	-.03
					(.02)
Old Left/Populist Regime	--	--	--	--	-.01
					(.02)
R^2 within	.17	.02	.18	.05	.18
R^2 between	.18	.20	.14	.02	.14
R^2 overall	.15	.03	.17	.04	.18
# of observations	388	401	841	349	835

Category × Country fixed-effects included in all specifications.
Standard Errors in parentheses.
*** = significant at the .01 level; ** = significant at the .05 level; * = significant at the .10 level

Table 7
Changes in LAC Social Protection Spending Education and Health Spending, 1970-1997

Cell Entries = % Change in Per-Capita Spending

	% Δ in GDP		
Regime Type	< -.01	[-.01,.02]	> .02
New Democratic Regime	-.03 (20)	.09 (30)	.13 (28)
Old Democratic Regime	-.09 (125)	.03 (176)	.07 (225)
Authoritarian Regime	-.10 (66)	.02 (59)	.03 (112)

Number of observations in parentheses.

Table 8
Changes in LAC Social Protection Spending, 1970-1997
Democratic vs. Authoritarian Responses to Economic Conditions
and Differences in Responses to Positive and Negative Shocks

Dependent Variable = Percent Change in Per-Capita Spending

	Total Soc. Spending	Social Security	Education & Health	Total Soc. Spending	Social Security	Education & Health
%Δ in GDP × Dem. Regime	.95***	.52*	1.13***	--	--	--
	(.16)	(.28)	(.13)			
%Δ in GDP × Auth. Regime	.51**	.11	.74***	--	--	--
	(.22)	(.39)	(.18)			
%Δ in GDP × [ΔGDP > 0]	--	--	--	.77***	1.18**	.74***
				(.26)	(.46)	(.21)
%Δ in GDP × [ΔGDP < 0]	--	--	--	.82***	-.19	1.20***
				(.21)	(.37)	(.17)
Lagged Deficit	-.81***	-.69*	-.93***	-.79***	-.61*	-.95***
	(.21)	(.37)	(.17)	(.21)	(.37)	(.17)
New Democratic Regime	.04*	-.03	.08***	.05**	-.02	.08***
	(.02)	(.04)	(.02)	(.02)	(.04)	(.02)
Old Democratic Regime	.03	.01	.02	.04*	.02	.02
	(.02)	(.03)	(.02)	(.02)	(.03)	(.02)
R^2 within	.17	.03	.18	.17	.03	.18
R^2 between	.18	.20	.14	.18	.22	.14
R^2 overall	.16	.03	.18	.15	.04	.18
# of observations	388	401	841	388	401	841

Category × Country fixed-effects included in all specifications.
Standard Errors in parentheses.
*** = significant at the .01 level; ** = significant at the .05 level; * = significant at the .10 level

Table 9
Changes in LAC Social Protection Spending, 1970-1997
Education Spending by Level
(Primary & Secondary vs. Higher Education)

Dependent Variable = Percent Change in Per-Capita Spending

	IADB Data		UNESCO Data	
	Total Educ. Spending	2 Educ. Levels	Total Educ. Spending	2 Educ. Levels
%Δ in GDP	.94***	--	.76***	--
	(.13)		(.18)	
%Δ in GDP $\times$ [Primary, Secondary]	--	.43	--	.56**
		(.32)		(.24)
%Δ in GDP $\times$ Higher Education	--	.87***	--	1.29***
		(.30)		(.24)
Lagged Deficit	-.98***	-.95***	-.92***	-.92***
	(.20)	(.37)	(.30)	(.28)
New Democratic Regime	.08***	.12***	.02	.01
	(.02)	(.04)	(.03)	(.03)
Old Democratic Regime	.03	.03	-.00	.01
	(.02)	(.04)	(.03)	(.03)
R^2 within	.23	.08	.15	.12
R^2 between	.19	.07	.26	.06
R^2 overall	.22	.08	.15	.10
# of observations	426	422	231	461

Level $\times$ Country fixed-effects included in all specifications.
Standard Errors in parentheses.
*** = significant at the .01 level; ** = significant at the .05 level; * = significant at the .10 level

Table 10
Federal Spending by Program or Sub-Function
Brazil, 1977-1984

Program	Per-Capita Spending 1977-80 & 1984	Relative Spending 1981-83
Primary and Secondary Education	7.777	1.27
Tertiary Education	7.490	1.09
Scholarships for Underprivileged	0.997	0.28
Vocational Education	0.660	0.41
Health Care	5.172	0.68
Sanitation	1.109	0.92
Public Safety	0.856	0.85
Public Housing	0.520	0.74
Rural Development	2.450	0.91
Urbanization	1.469	0.43
Social Security	21.170	1.06
Social Assist./Unemployment Insurance	1.387	0.24
Physical Education and Sports	0.211	0.83
Culture	0.382	0.90

Per-capita spending in 1984 Cruzeiros.

Table 11
Federal Spending by Program or Sub-Function
Colombia, 1979-1986

Program	Per-Capita Spending 1979-81 & 1984-86	Relative Spending 1982-83
Primary Education	1743.0	1.38
Secondary Education	1144.7	1.18
Tertiary Education	1056.7	1.12
Public Health Service (PHS)	4787.4	1.03
PHS-ICBF	1729.1	1.02
PHS, Other	2370.9	1.00
Environmental Hygiene/Epidemiology	139.4	0.87
Social Security	6434.1	1.05
Social Security, Health	2416.4	1.06
Social Security, Other	3987.1	1.03
ICBF (child & family welfare services)	675.4	0.94
Rural Programs (DRI, INCORA, PNR)	964.9	1.08
Public Housing	1431.2	1.08
Food & Nutrition Programs	84.3	0.48
Culture & Physical Education	123.4	0.69

Per-capita spending in 1986 pesos.

Table A.1
Sources for Variables

U.S. Analysis	
Real GDP	U.S. Bureau of Economic Analysis, *NIPA Tables*
Population	U.S. Census Bureau, *Historical National Population Estimates*
Unemployment rate	U.S. Bureau of Labor Statistics (Series ID = LFS21000000)
Spending by Function	U.S. Office of Management and Budget, *Historical Tables*
Spending on programs & program groups	U.S. Office of Management and Budget, *Historical Tables*, and *Appendix* (various years)
Age of programs & program groups	Browning (1986), and xxx, *Catalogue of Federal Domestic Assistance*
Targeting of programs & program groups	Various sources – see table A.2
Political control variables	Congressional Quarterly, *Guide to U.S. Elections*
Latin American & Caribbean Analysis	
Nominal GDP	International Monetary Fund, *International Financial Statistics*
Real GDP	World Bank, *World Development Indicators*
Population	United Nations, *United Nations Population Statistics*
Government deficit	International Monetary Fund, *Government Finance Statistics Yearbook* (various years)
Spending on broad social categories	International Monetary Fund, *Government Finance Statistics Yearbook* (various years); and Inter-American Development Bank, *Economic and Social Indicators Database* (updated table received directly from Inter-American Development Bank)
Spending on education, by level	International Monetary Fund, *Government Finance Statistics Yearbook* (various years); and UNESCO, *Statistical Yearbook*, Table II.19 (updated table received directly from UNESCO)
Political control variables (regime type, left/right)	Beck *et al.* (1999), *Database of Political Institutions*; augmented using McDonald (1971), Collier and Collier (1991), Dornbusch and Edwards (1991), and Mainwaring and Scully (1995)
Spending on individual programs, Brazil	Brasil. Secretaria de Orçamentos y Finanças. *Orçamentos da União.* Brasília: Departamento de Imprensa Nacional (various years).
Spending on individual programs, Colombia	Colombia. Ministerio de Hacienda y Crédito Público, Dirección General de Presupuesto. *Ley de Presupuesto Nacional* (various years); and World Bank (1994)

Table A.2
U.S. Federal Social Protection Programs, Past & Present

Program or Function	T/N	Notes on Targeting
Cash Payments		
Unemployment assistance*	N	24% to pre-transfer (PT) poor in 1965[1], 20% in 1966[2], 17% in 1968[1], 21% in 1972[1]
Social Security retirement*	N	62% to PT poor in 1965[1], 65% in 1966[2], 58% in 1968[1], 58% in 1972[1] 52% of recipients were PT poor in 1992[3]
Social Security disability*	N	(see social security retirement)
Railroad retirement*	N	(see social security retirement)
Public employee retirement*	N	52% to PT poor in 1965[1]m 47% in 1966[2], 42% in 1968[1], 38% in 1972[1]
Coal miners & black lung*	N	33% to PT poor in 1972[1]
Supplemental security income	T	84% to PT poor in1965[1], 72% in 1968[1], 76% in 1972[1]
Earned income tax credit	T	87% to poor & near-poor in 1983[5]
Family assistance (AFDC & TANF)	T	97% to PT poor in 1965[1], 88% in 1966[2], 94% in 1968[1], 93% in 1972[1]
Nutrition		
Food stamps	T	95% to PT poor in 1965[1] , 92% in 1968[1], 85% in 1972[1]; 90% of recipients were poor in 1996[4]
Child nutrition & special milk	N	12% to PT poor in 1965[1], 15% in 1968[1], 46% in 1972[1]
School lunch		11% to PT poor in 1965[1], 13% in 1968[1], 26% in 1972[1] 45% from poor or near-poor families in 1983[5]
School breakfast		54% to PT poor in 1968[1], 56% in 1972[1]; 86 % from poor or near-poor families in 1983[5]
Summer food service		
Special milk program		20% to PT poor in 1965[1], 17% in 1968[1], 18% in 1972[1]
Supplemental food	T	
Women, infants & children		income <185% of poverty level & "nutritionally at risk"[13]
Commodity supplemental food		
Surplus commodity donations	T	90% to PT poor in 1965[1], 90% in 1968[1], 94% in 1972[1]
Health Care		
Medicare hospital insurance*	N	47% to PT poor in 1968[1]; 48% in 1972[1]; 36% of recipients were poor or near-poor in 1996[4]
Medicare supplemental insurance*	N	(see Medicare hospital insurance)
Medicaid	T	77% to PT poor in 1968[1]; 76% in 1972[1]; 67% to poor in 1980[11]; 90% to poor in 1992[4]
Community health care centers		
Comprehensive health services	T	69% to PT poor in 1968[1], 68% in 1972[1]; 69% to poor in 1992[4]
Maternal & child health	T	87% to PT poor in 1965[1], 90% in 1968[1], 90% in 1972[1]
Substance abuse & mental health	T	66% to PT poor in 1968[1], 65% in 1972[1]
Family planning services		73% to PT poor in 1972[1]
Disease prevention & control	N	
Migrant health		100% to PT poor in 1965 & 1968[1], 75% in 1972[1]

Table A.2, Continued		
Program	T/N	Notes on Targeting
Housing		
Public housing	T	51% to PT poor in 1965, 71% in 1968, 74% in 1972[1]
Low-income rental assist (sec. 8)	T	about 90% to very-low-income households[6]
Rent supplement		69% to PT poor in 1968, 75% in 1972[1]
Homeowner interest (sec. 235)		24% to PT poor in 1972
Rental interest subsidy (sec. 236)		(see homeowner interest subsidy)
Low-income rental tax credit		
Rural rental assistance (sec. 515)		75% to PT poor in 1965, 98% in 1968, 26% in 1972[1]
Rural housing loans (sec. 502)		(see rural rental assistance)
Low-income energy assistance	T	income <125% of poverty level[12]
Social Services		
Social services grants	T	89% to PT poor in 1965; 91% in 1968, 86% in 1972[1]
Child welfare services	T	94% to PT poor in 1965; 88% in 1968, 81% in 1972[1]
Community services program	T	95% to PT poor in 1968, 95% in 1972[1]
Special programs for the aging		
Legal services	T	95% to PT poor in 1968, 96% in 1972[1]
Education		
Head start	T	97% to PT poor in 1965, 97% in 1968, 90% in 1972[1]; 65% to poor in 1972[7]; 86% to poor in 1980[8]
Educ. of deprived children (Title I)	?	48% to PT poor in 1968, 52% in 1972[1]; 52% to poor in 1972[7]; 51% to poor in 1980[8]
Special education	N	24% to PT poor in 1968, 1972[1]; 20% to poor in 1980[8]
Vocational education	N	21% to PT poor in 1965, 20% in 1968, 28% in 1972[1]; 32% to poor in 1972[7]; 13% to poor in 1980[8]
Adult education	T	63% to PT poor in 1965, 62% in 1968, 62% in 1972[1]; 40% to poor in 1972[7]; 63% to poor in 1980[8]
Bilingual & immigrant education	T	66% to PT poor in 1972[1]
Student financial assistance	N	38% to poor in 1972[7]; 18% to students with family income under $11,000 in 1986[9]
Education opportunity grants		40% in PT poor in 1968, 54% in 1972[1]; 37% to poor in 1980[8]
Work-study		48% to PT poor in 1965, 39% in 1968, 50% in 1972[1]; 33% to poor in 1980[8]
Guaranteed loans		19% to PT poor in 1968, 1972[1]; 20% to poor in 1980[8]
Direct loans		
Disadvantaged programs (TRIO)		96% to PT poor in 1968, 90% in 1972[1]; 81% to poor in 1980[8]
Employment & Manpower		
Training & employment services	T	72% to PT poor in 1965, 89% in 1968, 86% in 1972[1]; 71% of participants from poor families in 1979[11]
Employment services		40% to PT poor in 1965, 41% in 1968, 46% in 1972[1]

Table A.2, Continued		
Program	T/N	Notes on Targeting
Manpower develop. & training act		
Institutional		61% to PT poor in 1965, 68% in 1968, 68% in 1972[1]
On-the-job training		61% to PT poor in 1965, 54% in 1968, 67% in 1972[1]
Comprehensive employ. & training		
Job training partnership act		92% of enrollees were econ. disadvantaged in 1985[10]
Disadvantaged youth employment		100% to PT poor in 1965, 1968, & 1972[1]
Public service employment		80% of job recipients were poor in 1979[11]
Temporary employment assistance		
Work experience		94% to PT poor in 1965, 93% in 1968[1]
Job training & basic skills (WIN)	T	93% to PT poor in 1972[1]
Rehab. services & disability research	T	69% to PT poor in 1065, 69% in 1968, 67% in 1972[1]
Community service empl. for elderly		
Community & regional develop.		
Community develop. block grants	N	
Model cities		39% to PT poor in 1968, 42% in 1972[1]
Neighborhood facilities		46% to PT poor in 1968, 48% in 1972[1]
Urban renewal		
Urban development action grants		
Appalachian regional development	?	
Economic development assistance	?	
Regional development programs	?	
Rural develop. & business assistance	N	
Native Americans		
Regional development		
Health service	T	85% to PT poor in 1965, 80% in 1968, 75% in 1972[1]
Education	T	85% to PT poor in 1965, 80% in 1968, 75% in 1972[1]; 95% to poor in 1972[7]; 43% to poor in 1980[8]
Employment & training		100% to PT poor in 1965, 1968, & 1972[1]
Social services		100% to PT poor in 1965, 1968, & 1972[1]
Veterans		
Cash payments		52% to PT poor in 1965, 47% in 1968, 43% in 1972[1]
Service-connected disability comp.	N	not means-tested
Non-service-connected pensions	T	means-tested
Hospital & medical care	N	20% to PT poor in 1965, 20% in 1968, 22% in 1972[1]
Education programs	N	50% to PT poor in 1965, 27% in 1968, 33% in 1972[1]
Special disabled housing		69% to PT poor in 1965, 69% in 1968, 67% in 1972[1]

Notes to Table A.2:

T/N = T means program or program-group is classified as "Targeted at the Poor."
T/N = N means program or program-group is classified as "Not Targeted at the Poor.
T/N = ? means program or program-group is not classified. We ran the analyses shown in Tables 2-4 three ways: dropping these items, including them in the targeted group, and including them in the not-targeted group. The results were similar in all cases.
* = Program with Trust Fund.
PT poor = pre-transfer poor.

[1]Tables A.1, A.2, and A.3 in Robert D. Plotnick and Felicity Skidmore, *Progress Against Poverty: A Review of the 1964-1974 Decade*, New York: Academic Press, 1975.

[2]Calculated from Table 6.11 in Robert J. Lampman, *Ends and Means of Reducing Poverty*, Chicago: Markham Publishing Co., 1971.

[3]Office of Research and Statistics, Social Security Administration, *Income of the Aged Chartbook*, Washington, DC: Government Printing Office, 1992.

[4]Sar A. Levitan, Garth L. Mangum, and Stephen L. Mangum, *Programs in Aid of the Poor*, 7th edition, Baltimore: Johns Hopkins University Press, 1998.

[5]Congressional Budget Office, *Reducing Poverty Among Children*, 1986.

[6]Congressional Budget Office, *Current Housing Problems and Possible Federal Responses*, 1988.

[7]U.S. Senate Committee on Finance, *Information on Federal Programs to Aid the Poor*, Washington, DC: Government Printing Office, 1972.

[8]Office of Management and Budget, *Budget of the United States*, 1981.

[9]Congressional Budget Office, *Student Aid and the Cost of Postsecondary Education*, 1991.

[10]National Commission for Employment Policy, *The Job Training Partnership Act*, 1987.

[11]Sar A. Levitan, *Programs in Aid of the Poor for the 1980s*, 4th edition, Baltimore: Johns Hopkins University Press, 1980.

[12]Congressional Budget Office, *Low-Income Energy Assistance: Issues and Options*, 1981.

[13]Congressional Budget Office, *Reducing Poverty Among Children*, 1985.

Table A.3
Latin American and Caribbean Countries Included in Analysis of Broad Spending Categories

Country	Years included for various categories of spending
Argentina	Total, Education, Health, Social Security, Housing: 1973-95; Education by level: 1973-90
Bahamas	Total, Educ, Health, Housing: 1974-93; Social Security: 1976-93; Educ by level: 1974-93
Barbados	Total: 1973-93; Education: 1976-89; Health: 1974-93, Social Security, Housing: 1973-89; Education by level: 1976-89
Belize	Total, Education, Health, Social Security, Housing, Education by level: 1978-97
Bolivia	Total, 1973-97; Education, 1973-97; Health 1973-97, Social Security, 1973-97; Housing: 1973-97; Education by level, 1972-96
Brazil	Total, Education, Health, Social Security, Housing: 1971-94; Education by level: 1977-85
Chile	Total, Education, Health, Social Security, Housing: 1973-97; Education by level: 1975-87
Colombia	Total, Education, Housing: 1979-96; Health: 1973-97; Social Security: 1974-97; Education by level: 1979-96
Costa Rica	Total, Education, Health, Social Security, Housing: 1973-96; Education by level: 1976-96
Dominican Republic	Total, Education, Health, Social Security, Housing: 1974-96; Education by level: 1977-96
Ecuador	Total, Educ, Health, Social Security: 1981-95; Housing: 1987-90; Educ by level: 1985-96
El Salvador	Total, Education, Health, Social Security, Housing: 1971-97; Education by level: 1976-81
Guatemala	Total, Education, Health, Social Security, 1973-94; Housing: 1973-88; Education by level: 1973-94
Haiti	Total, Education, Health, Social Security, Housing, Education by level: 1971-90
Honduras	Total, Education, Health, Social Security, Housing, Education by level: 1979-95
Jamaica	Total, Education: 1971-96; Health: 1971-94; Education by level: 1971-96
Mexico	Total, Education, Health, Social Security, Housing, Education by level: 1973-97
Nicaragua	Total, Educ, Health, Social Security: 1971-96; Housing: 1971-94; Educ by level: 1971-96
Panama	Total, Education, Health, Social Security, Housing: 1974-96; Education by level: 1971-96
Paraguay	Total, Education, Health, Social Security, Housing, Education by level: 1973-93
Peru	Total, Education, Health: 1973-91; Social Security: 1973-86; Housing: 1973-82; Education by level: 1975-85
Trinidad & Tobago	Total, Education, Health, Social Security, Housing, Education by level: 1977-81
Uruguay	Total, Education, Health, Social Security, Housing: 1973-97; Education by level: 1980-96
Venezuela	Total, Education, Health, Social Security, Housing, Education by level: 1972-86