

**Public transfers, public provision of social services, and poverty in Latin
America: A cross-national analysis, 1980-2000**

**Luis Maldonado, Doctor of Economics and Social Science
Assistant Professor at the Department of Sociology
Pontificia Universidad Catolica de Chile
Av. Vicuña Mackenna 4860, Macul (Campus San Joaquín)
PO Box 306, Correo 22, Santiago, Chile
Phone (56-2) 3544128
lmaldona@puc.c¹**

Word count: 14,984

Draft November 2012: Please do not quote or cite without permission of the author.

Abstract: This study examines the impact of the redistributive budget allocated to benefits in cash and in kind on poverty levels among 15 Latin American countries in the period 1980–2000. With respect to social services, the findings suggest that investment in human capital does help to reduce poverty, but it is an open question if increasing human capital is associated with the intervention of the welfare state in Latin America. With respect to public transfers, the hypotheses of this study suggest that impact of these benefits depends on the type of welfare state operating in Latin America. The size of government budget allocated to public transfers will decrease poverty levels in pioneer corporatist and universalist welfare states, and the poverty reduction is higher in the latter. By contrast with both clusters, another hypothesis says that the size of government budget allocated to public transfers would be associated with higher poverty levels in residual corporatist, productivist, and mixed Latin American welfare states. The empirical analysis verified these expectations.

¹ I want to thank Hans-Jürgen Andreß, Marco Giesselmann, Achim Goerres, Mario Molina, Jose Ossandon y Viviana Salinas for their helpful comments. I also acknowledge funding from Deutscher Akademischer Austausch Dienst (DAAD) to complete this study.

1.1 Introduction

Existing cross-national studies of poverty in Latin America rely on aggregate social spending as a unique measure for comparing the effectiveness of different types of social policy programs in reducing poverty (Perry, Arias, Lopez, & Maloney, 2006; Ros, 2009). However, these studies are open to question in at least two respects. First, not all public benefits are equivalent. Expenditure aggregation involves bringing together types of government benefits that are not comparable in terms of particular dimensions such as eligibility criteria and generosity. In fact, scholars suggest that the effectiveness for poverty reduction may vary among benefits of particular types, as each category of benefits represent itself a particular combination of both dimensions (Castles, 2009). Secondly, comparative analyses consider Latin America a homogeneous arrangement; nonetheless, the impact of social benefits on poverty is perhaps not the same across different institutional contexts of this region (Huber & Stephens, 2010).

This study's purpose is to build on critical aspects of the aggregate benefit approach and, by disaggregating government benefits into particular types of public programs, present an evaluation of the impact of social policies on poverty in different institutional contexts in Latin America.² Specifically, I differentiate between cash payments or "public transfers" and benefits in kind or "public provision of social services." There are different categories of social services, such as public housing, food programs, and medical services. The present study focuses on public provision of education and health care. Furthermore, as stated above, each one of these benefits differs in terms of particular dimensions. To understand the impact of public transfers and public provision of social services, two dimensions are particularly relevant: *targeting*, which refers to the eligibility criteria by which individuals qualify as beneficiaries, and *generosity*, or the size of the redistributive budget that the state subjects to public transfers and social services.³ In this study, I discuss how both dimensions determine the effectiveness of public transfers and public provision of social services in reducing poverty. Moreover, I derive testable hypotheses for the impact of the size of both instruments of the welfare state that were tested in a sample of Latin American countries. Lack of data precludes an empirical analysis of targeting.

The leading questions are how the size of government budget allocated to public transfers and public provision of social services contribute to poverty reduction and how the institutional context shapes the impact of the public transfer's size on poverty. By providing answers to these inquiries, the contribution of this research to the study of social policy and poverty is twofold. First, I prove that the effects on poverty differ between benefits in kind and cash payments. This suggests that aggregate measures of social policy are not sufficient to analyze the impact of welfare programs on socioeconomic outcomes. Second, I show that the effects of public transfers vary among different institutional contexts in Latin

² I mean "absolute poverty" when I use the term "poverty" in the rest of this paper. If I speak about another type of poverty (e.g., relative deprivation), I will explicitly define the type of poverty to which I refer.

³ In this study, generosity and size are used as synonyms. Both concepts denote the size of government budget assigned to public transfers or social services.

America. Thus, this study moves beyond the aggregate policy analysis by illustrating the fruitfulness of adopting a contextualized, disaggregated approach to analyze the redistributive effectiveness of the welfare state in less developed countries, such as Latin American nations.

A core hypothesis is that the size of government budget allocated to public provision of social services (education and health care) reduces poverty levels because this instrument of the welfare state increases the economic output of the nation, which in turn reduces the level of poverty.⁴ Health and educational services are granted universally as rights of citizens; thus, increasing the size of the redistributive budget allocated by the state to these social services should lead to an increase in investment opportunities of different social classes in both education and health capital, thereby fostering the economic output of a country in the long run. Consequently, by raising demand for workers, increasing the economic output grows the earnings of the poor and lifts households out of poverty.

Furthermore, with respect to public transfers, I argue that the effect of the size of the government budget assigned to public transfers on poverty varies systematically between clusters of Latin American welfare states. On the basis of a classification of welfare states in Latin America proposed by Maldonado (2012), a second hypothesis holds that the size of public transfers should decrease poverty in pioneer corporatist and universalist welfare states, as public support for public transfers might be high in both institutional arrangements. This hypothesis will be further elaborated with the contention that, because of different entitlement criteria, the reduction of poverty associated with the public transfer's generosity should be higher in the universalist welfare states than in pioneer corporatist systems. Finally, a last hypothesis will contend that the size of the government budget allocated to public transfers should increase poverty in residual corporatist, productivist, and mixed welfare states because public support for public transfers in these welfare systems is low, and targeting of public transfers results in benefits that go only to middle- and high-income groups.

I estimated pooled OLS equations with an unbalanced panel of fifteen Latin American countries for the period between 1980 and 2000 to test my hypotheses. To my knowledge, this study is among the first to estimate the impact of social policies on poverty levels across LACs during this period (Pribble, Huber, & Stephens, 2009). Poverty was measured in terms of the headcount index given by the percentage of the population living on less than 2 U.S. dollars per day at 2005 international prices (adjusted at purchasing power parity exchange rates). To capture the size of government budget allocated to public transfers and benefits in kind, I used government spending as a percentage of GDP for both instruments of the welfare state. The findings supporting the evidence for the expectations related to public transfers, indicating that the institutional context matters. In contrast to public transfers, the size of public provision of social services does not have a statistically significant impact on poverty levels in the long run. Although this result falsifies my hypotheses, it does not mean that investment in human capital is an insignificant mechanism to reduce the level of poverty. In fact, the analysis also

⁴ Economic output concerns the average income of a country. As said in Section 1.4, the standard measure of the economic output is per capita gross domestic product.

suggests that an outcome of such investment—years of education—has a robust negative impact on poverty. I will suggest two factors that might explain the findings related with social service spending and years of education. First, a considerable lag exists between public investment in social services and socioeconomic outcomes (e.g. poverty). This means that public investment in education needs time (at least one generation) to produce results. It follows that the measure of benefits in kind used in this study perhaps does not completely capture the lag between the public investment in social services and a change in poverty levels. Second, the negative effect of years of education on poverty indicates that this variable might capture not only public investment but also other factors, such as private investment in education. Overall, the analysis carries implications for what can be expected from a disaggregated policy approach and institutional contexts more generally.

The remainder of this study is organized as follows. The first section discusses the main arguments and gaps in cross-national studies on social policy and poverty in Latin America. The second section provides an explanation for why public transfers and public provision of social services should influence poverty in Latin America. The third section discusses the research design of this paper. The fourth section presents the results; the final section features my conclusions.

1.2 Review of Previous Arguments and Evidence

Perspectives about the poverty effect of transfer payments and benefits in kind among Latin American countries diverge. In short, one can identify three views in the literature. Focusing on social services, proponents of the first perspective, the *human capital view*, argue that social policies focused on services—that is, education and healthcare—do help to reduce poverty in Latin America. According to the human capital position, the public provision of social services works to reduce poverty because increasing the commitment of the state to this instrument of the welfare state will stimulate economic growth over the long run, which is the key to poverty reduction (Battiston, Cruces, Lopez, Lugo, & Santos, 2009; De Janvry & Sadoulet, 2000; Psacharaopoulos, Morley, Fiszbein, Lee, & Wood, 1995). In the human capital view, economic prosperity is expected to benefit all citizens generally.

The human capital perspective was extremely popular in the 1990s and prevalent in the 2000s. However, there is a second view that is skeptical of the impact of social policies on poverty in Latin America. At first glance, the *skeptical view* is an opponent of the human capital view. However, both perspectives consider different instruments of the welfare state. The skeptical position focuses on public transfers, not services. Moreover, following the analysis of the distributive impact of transfers in advanced nations (Aberg, 1989; Palme, 2006), skeptics evaluate the impact of transfer payments on poverty by considering different dimensions of this type of public program. They particularly focus on two dimensions. The first is the size of transfers that the state subjects to redistribution. More specifically, the size regards the portion of the government budget that the state uses to provide benefits in cash or in kind. The second dimension regards the

targeting of the programs. Targeting refers to eligibility criteria used to identify which social group is eligible to receive the benefits of a social policy.

Defenders of the skeptical position use both size and targeting dimensions to examine the poverty effects of two types of benefits in cash. One of these concerns social insurance transfers, which are provided on the basis of contributions and belongingness to specific occupational groups. According to the skeptical position, the most important social insurance programs, such as pensions and unemployment insurance, do not, in fact, reduce poverty because of a targeting that does not entitle poor households. Social insurance transfers are accessible only through employment in the formal labor market, and poor households in Latin America tend to work in the informal labor market (Lindert, Skoufias, & Shapiro, 2006).

The second type of public transfers refers to social assistance transfers. Contrasting with social insurance benefits, the entitlement for social assistance transfers is not based on the payment of contributions, but there may typically be a means test that is used as an eligibility criterion. The means test results in flat rate transfers that benefit mostly low-income groups. Thus, social assistance transfers would reduce poverty. Nonetheless, the proponents of the skeptical view call into question this prognosis. Despite a targeting in favor of low-income segments, skeptics contend that social assistance transfers do not help to reduce poverty because the size of this public benefit is small in Latin American nations. Perry et al. (2006) point out, for example, that the size of social security transfers within the redistributive budget of the welfare state in Peru is about 10 times higher than the size of social assistance benefits. Furthermore, the size of transfers has been procyclical in the region, with the poor hurt during macroeconomic shocks through cuts in spending for targeted social assistance programs (Wodon, 2000).

As the skeptics and proponents of human capital view dominate the discussion of the effects of social policies and poverty in Latin America, in the 2000s, a third view that has been analyzed in depth in industrialized nations appeared in the debate—the *incentive view*. In comparison to the skeptical position, this perspective also focuses on public transfers but introduces an additional element to the discussion. According to the incentive view, scholars evaluate the poverty impact of public transfers by considering government programs in the context of behavioral responses associated with investment and work effort.

Focusing on investment in human capital, the incentive view argues that transfer payments may reduce poverty among Latin American countries because they combine an efficient means-testing with incentives for curbing child labor and fostering the accumulation of human capital. In the 2000s, this last position strongly emerged in the discussion about conditional cash transfer programs in Latin America (for an overview, see Hanlon, Barrientos, & Hulme, 2010). However, with regard to the impact of transfer payments on work effort, the prognosis of the incentive view varies. Scholars argue that public transfers might have the perverse effect of increasing the poverty rate in the long run as they reduce work incentives. In this vein, Perry et al. (2007) contend that the increase of social assistance programs over the last 15 years has led to increasing fragmentation in the social protection systems in Latin America, with the poor receiving similar benefits for free, just as formal sector workers receive by virtue of their payroll contributions.

Such well-intended efforts to make social benefits available to those outside the formal sector might—due to the lack of an incentive compatible with contributory programs—create disincentives to the formalization of the workforce and, in doing so, might increase poverty.

Until now, only a handful of macro-level cross-national studies of Latin American countries examine the hypotheses of different views about the poverty impact of public transfers and social services.⁵ Most studies do not separate analyses of public provision of social services and public transfers; they use aggregate indicators of the budget size. The targeting of benefits is not examined (Perry, Arias, Lopez, & Maloney, 2006; Rudra, 2008). For example, Ros (2009) analyzes a sample of twelve Latin American nations for the period between 1990 and 2006 by using social spending as a measure of welfare generosity, and his findings suggest that social spending as a share of GDP does help reduce poverty.

To overcome some gaps in these last studies, scholars have separately explored the impacts of social services and public transfers on poverty. However, most investigate a large sample of developing countries, including some Latin American nations (Dollar & Kraay, 2002; Lustig & McCleod, 1997). The findings are not robust among these studies. An exception in this panorama is the study by Pribble et al. (2009), who analyze the association of government expenditures and poverty with panel data only for Latin American and Caribbean countries for the period between 1968 and 2001. The findings of this research suggest that public investment in education decrease poverty in the long run. The results also indicate that the effect of public transfers varies among different political arrangements. Public transfers may reduce poverty only in democratic regimes.

To summarize the literature review, there is divergence among perspectives of the effect of public transfers and social services on poverty in Latin America. At first glance, only public provision of social services should decrease poverty levels. Regarding public transfers, scholars derive contradictory hypotheses. Furthermore, existing evidence suggests that the poverty effect of public transfers varies by type of political regime in Latin America. This finding indicates that an important source for cross-national variation in poverty levels is found in the design of institutions. In this vein, studies of advanced nations suggest that poverty levels vary among different models of welfare states. The reduction in inequality and poverty may be higher in a welfare system with a high level of program universalism than in a welfare state that targets benefits to the poor (Bergh, 2005; Korpi & Palme, 1998; Palme, 2006). To date, however, there has been no careful multivariate cross-national analysis of the impact of different types of welfare states on the association between public transfers and poverty in developing countries—particularly in Latin America. Moreover, scarce cross-national studies have intended to estimate the poverty effects of social policy by disaggregating spending into benefits in kind and public transfers. Finally, studies focus on the size dimension but do not examine the targeting of welfare state's instruments. This study attempts to fill in some of these gaps through an analysis of disaggregated

⁵ Past cross-national analyses of social policies and poverty are overwhelmingly limited to a cross-section of Latin American nations at one point in time (e.g. Linder et al., 2006). Microanalyses commonly examine the poverty impact of particular social assistance programs within a small number of countries and over a short period of time. For example, see Raczynski (1995) and ECLAC (2009).

expenditures that measure the size of redistributive budget that is focused on public transfers and public provision of social services and the consideration of the institutional context for the impact of public transfer's size on poverty levels. Due to lack of data, the analysis of the targeting dimension of benefits is left for future research.

1.3 The Argument and Hypotheses

In this section, I identify and explain the effects of the size of government budget allocated to public transfers and public provision of social services on poverty as well as the role of the institutional context in the relationship between the public transfer's size and poverty. Following, I provide precise definitions of the instruments of the welfare states considered by my theory and assumptions that support the argument, and I then develop the argument.

Public transfers include all state payments in cash that aim to improve the standard of living of individuals who have already fallen victim to the full range of social risks, including sickness, maternity, unemployment, retirement, and poverty. As stated above (Section 1.2), there are two types of transfer payments: social insurance and social assistance transfer. In this study, I analyze an aggregate measure of both types of benefits in cash. In contrast with transfers, the public provision of social services pertains to welfare payments made by the government in a form other than cash, such as public housing, education, and medical services. My theory focuses on government investment in education and health care. Furthermore, public transfers and public provision of social services can be characterized by their targeting and the size of the redistributive budget that the state assigns to both welfare state instruments. In the following, I discuss how each dimension should impact poverty levels across Latin American nations, but I formulate testable hypotheses only for the size dimension.

I assume that both social policies affect poverty levels through two different channels (see Figure 1.1). The first channel, the "growth" effect, concerns the contribution of a given social policy to economic output or average income and from average income to poverty. According to standard models of economic development (e.g. Bourguignon, 2003; Moller, Huber, Stephens, Bradley, & Nielsen, 2003), the higher the economic output of a country, the lower the poverty levels because an increase in economic output raises the demand for workers, thereby increasing the earnings of the poor; this results in lower poverty at the macro level. In other words, the poor must be better off when the economic output of a given country increases.

Figure 1.1 about here.

The second channel is called the "distributional" effect and refers to the impact of public programs on inequality of income distribution and from inequality of income distribution to poverty levels. The poverty rate is higher in countries with a

more unequal income distribution, as these nations have larger shares of citizens working in low-paying jobs and higher unemployment rates. Each of these factors can be expected to produce more households with income below the poverty line, resulting in a higher poverty rate (Kenworthy, 1999). By contrast, redistributing income from the rich to the poor can greatly decrease the inequality of the income distribution because this type of redistribution increases the income of the poor and, in doing so, reduces income differences between the income classes. Reductions of the inequality of income distribution, in turn, should result in lower poverty levels. Thus, it is expected that a progressive distributional change is likely to reduce poverty levels (J. H. Lopez, 2009). This association between income distribution and poverty level is direct—that is, it is not mediated by a third variable—as progressive distributional changes entails income's increases of the bottom of distribution, thus lowering poverty (Naschold, 2002).

Finally, the total effect of a social policy on poverty levels is the sum of its growth and distributional effects. My argument will explain the associations between social policies and poverty levels in terms of both effects in two steps. First, I develop theoretical growth and distributional effects of the size of public provision of social services in Latin America. Next, I suggest how the size of public transfers contributes to poverty reduction among countries of this region.

The Social Services Effect

Social services affect the economic output or average income of nations. According to an augmented neoclassical growth model (e.g. Bassanini & Scarpetta, 2001), human capital—that is, education and skills—contributes to productivity in existing tasks. It follows that public interventions aimed at increasing the education of workforce might have a positive effect on income per capita because some part of the earnings of labor are rewards to accumulated human capital. Furthermore, a work force educated at secondary and higher levels instigates economic output through the effect of education on economic output mediated by technology adoption. Education facilitates the rate of technological innovation and absorption of technologies from more advanced foreign countries; the implementation of technology in the production process then impulses the output (Acemoglu, 2009).

Public health care might also contribute to the positive effect of education on a nation's economic wealth. As Barro (1996) points out, an improvement in the health of the population lowers mortality and disease rates, and thereby decreasing the effective rate of depreciation on educational capital. Through this channel, an increase in health raises the demand for educational capital, which has a further indirect—but positive—impact on productivity. Of course, both effects of health care and education on economic output are most discernible over long-run horizons because investments in the health and education of children require that they move through successive tracks of the educational system to impel the productivity of the economy.

The relationship between social services and income inequality can be explained by contradictory effects. One viewpoint holds that public investment in

human capital decreases the inequality of income distribution. As Pribble et al. (2009) point out, health and educational services are granted universally as rights of citizenship; thus human capital programs effectively redistribute resources across the entire income distribution. However, evidence indicates that a relatively equal distribution of social services, especially education, across the population is no guarantee of equal income (Torche, 2005, , 2010). Latin American countries are examples of this pattern. In comparison with other developing regions of the world, Latin America has, on average, low-level education inequality but high-level income inequality (de Ferranti, Perry, Ferreira, & Walton, 2004). For example, Castello and Domenech (2002) examine educational and income data for 108 countries from 1960 to 2000 and find that Latin America presents an educational Gini coefficient of 0.37; this index was estimated by using schooling years of the population ages 15 years and older, which is one of the lowest levels of educational inequality in the sample under analysis. In contrast with this characteristic of LACs, however, these nations exhibit the highest levels of income inequality with an income Gini coefficient of 0.49. This finding suggests that education disparities are not an important reason for high-income inequality in Latin America. It follows that—insofar as public provision of social services contributes to reduce educational inequality—the effect of social services policy on income distribution would be marginal among Latin American countries.

With no significant distributional effects, it is no wonder that the public investment in education and health help reduce poverty levels only through growth effects. Due the citizenship right status of education and health, an increase of budget size allocated to the public provision of social services should universalize access to education and health care and, in doing so, should lead to an increase in the investment opportunities in education and health capital for individuals from different social classes. In turn, this stimulates economic development over the long run. Consecutively, the higher the economic output, the lower the poverty levels. Thus, I expect that:

H1: The size of government budget allocated to public provision of social services has a negative impact on the level of poverty.

The Public Transfer Effect

My theoretical account of the effect of public transfer's size on level of poverty emphasizes the role of the institutional context. I use the term "institutional context" to designate clusters of welfare states in Latin America and to contend the idea that the impact of public transfers on poverty levels varies across different clusters. My prognosis of the association between public transfers and poverty among different institutional context builds on the classification of Latin American welfare states, as elaborated in Maldonado (2012). That means that I identify pioneer corporatist (Argentina, Brazil, Chile and Uruguay), universalist (Costa Rica), productivist (El Salvador, Guatemala and Dominican Republic), residual corporatist (Colombia, Paraguay and Peru), and mixed welfare states (Bolivia, Mexico and Nicaragua) in Latin America. Furthermore, hypotheses about the effect of the size of government budget allocated to public transfer on poverty levels proceed from

the proposition that the time horizon for this effect is short in different institutional contexts. In contrast to social services, the effect of public transfers on citizens' income is immediate because they involve a cash payment.

The implications of different Latin American institutional contexts for the impact of public transfer on the level of poverty depend on a specific explanatory mechanism. This is public support of cross-class political coalitions and interest groups for redistributive policies in general. The redistributive role of this explanatory mechanism has two aspects, which can be derived from a power-resource perspective (Korpi, 1983; Korpi & Palme, 1998).⁶ In respect to the first aspect, according to the power-resource theory, the specific combination of size and targeting that characterizes public transfers in a given country is a result of public support for redistributive policies in general among the citizens. In this way, how do the size and targeting of public transfers contribute to reduce poverty? The power-resource theory suggests that the government's possibilities of providing benefits in cash for the poor reflect the level of public support for redistribution among members of the middle and working classes. It is expected that as more citizens of both social classes speak out in favor of redistributive policies in general, the higher the possibilities of government also allocating resources in the lower-income segments.

To redistribute income, governments do not use only social assistance transfers—which mostly benefit low-income groups—but also social insurance benefits. In the context of high support, the social insurance system might cover not only the needs of wealthier citizens but benefits individuals with very low wages, who are seen to gain from earning-related compensations. Furthermore, as Nelson (2003) points out, earnings-related pensions foster the development of social assistance transfers. A high level of support among citizens for redistributive policies might imply a gain in legitimacy by which a government can increase not only social insurance transfers but also cash benefits outside social insurance programs. In other words, the higher the public support for redistributive policies in general, the higher the budget size that the government assigns to public transfers and, thereby, the larger the number of target income groups that become eligible as beneficiaries.

The second aspect regards the institutional context. The way in which each cluster of welfare states is structured is also relevant to the level of public support for redistributive policies in general. In the power-resource approach, scholars call this aspect of the welfare state “policy feedbacks”; that is, the shape of institutional contexts is affected by the actions of different socioeconomic classes, but we also expect that institutional structures affect the preferences of these groups. Moreover, policy feedbacks differ by institutional contexts, generating differences in the extent to which citizens are likely to support redistributive policies (Korpi & Palme, 2003). To explain these differences, the pivotal theoretical assumption in power-resource theory is that people might be more willing to support increases of redistributive budget's size if they receive something in return. This indicates that the more universal the social insurance system is, the more people are in favor of

⁶ According to the power-resource theory, public support pertains to policies in general in the sense that citizens are in favor of welfare programs that do not benefit particular groups. Because means-tested transfers benefit only low-income groups, this theory suggests that members of the middle class might not support this last type of transfers.

redistributive policies in general. As Korpi (1983) argues, universalist schemes provide the middle class with a vested interest in maintenance of welfare programs and, thus, provide the poor with strong alliance partners in their lobbying for high benefits levels. Hence, universalist programs might reduce differences between rich and poor people by increasing the size of the sum of transfers available for redistribution. This also suggests that the channel by which program universalism might decrease poverty includes reductions of the inequality of income distribution.

Following the power-resource perspective, scholars derive these implications of public support in favor of redistributive policies for the association between public transfers and poverty in advanced Western democracies, especially Scandinavian countries (Esping-Andersen, 1990; Esping-Andersen & Korpi, 1984). I argue that this perspective is also relevant in explaining the connections between redistributive policies and socio-economic outcomes in Latin America. However, it is necessary to make some adjustments to apply a power-resource approach in the Latin American reality. These adaptations pertain to the historical origins and development of the welfare state in this region.

With respect to the historic origins of the welfare state, power-resource scholars argue that political alliances of middle and working classes are a core causal factor of the welfare state. In Scandinavian countries, political alliances involve “positive sum” bargaining situations based on long-term mutual recognition among all organized actors. This presumes a centralized organization of interests as well as institutionalized support by the state (Ebbinghaus, 2006: 70). In Latin America, however, this mode of interest intermediation was not the basis of the emergence and expansion of social insurance systems during the twentieth century. Rather, such social basis is based on a bargaining system characterized by fragmentation of associational life, clientelistic relations, and, most importantly, absence of a long-term “positive sum” conceptions of mutual recognition among collective actors (Kaufman, 1977). In such a context, the introduction of social insurance benefits was the response of political elites to the pressures of the middle class and the urban labor movement for particularistic benefits—but without a political alliance in the sense of a power-resource perspective (Huber, 1996). The support of these interest groups for redistributive policies appeared later, as a result of the provision of social insurance benefits. Once the public support of middle and urban working classes was present, as the power-resource perspective indicates, some Latin American governments used it to expand public transfers systems to other groups (for example, indigents) and, in doing so, increased the size of transfers and provided a more universalist targeting.

In universalist and pioneer corporatist welfare states, the emergency and expansion of public transfers occurred mostly in democracy, which offered electoral incentives for interest groups—principally middle- and high-income groups—that appeal to low-income segments (Collier & Collier, 1979; Segura-Ubiergo, 2007). Social insurance benefits were one of the strategies used to reach this goal. Governments dominated by middle- and high-income segments used this instrument of the welfare state for the incorporation of the urban labor movement into the political and economic systems – not only to control the political radicalization of the working class but also to obtain a new base of support (Collier & Collier, 1991; Pribble, 2008).

From 1900 to 1940, pioneer corporatist and universalist welfare states began increasing the size and expanding the targeting of social insurance benefits in favor of public employees and unions of formal workers. Social insurance programs were then extended to a broad range of occupational segments, reducing the inequality of income distribution in both clusters of welfare states. As a result of this process, in Argentina, Uruguay, Chile, and Costa Rica, pension programs' coverage of the economically active population ranged from 60 percent to more than 80 percent at the onset of the 1980s. Furthermore, as stated above, where coverage was wider—as in Uruguay and Costa Rica—governments used public support for redistributive policies among middle and working classes to establish non-contributory old-age pensions for indigents, one of the first social assistance programs in Latin America (Kaufman & Haggard, 2008).

In the 1970s and the 1980s, military dictatorships in pioneer corporatist welfare states inherited the political legacy of prior social policy commitments, which was established in democracy, and with the exception of Chile,⁷ they did not attempt radical changes of the welfare legacy in pioneer corporatist welfare states. In the 1990s, most democratic governments in pioneer welfare states introduced changes in the pension systems that were conducive to the liberalization of welfare states. However, because pension reforms require at least a generation to see distributional effects, the poverty impact of the liberal reform of pensions system in Latin America needs more time to emerge. Furthermore, there is a significant heterogeneity in the response of pioneer countries to the liberal impulse for reforms.

In addition to historical evidence, survey data of opinions in Latin American nations provide some confirmative evidence for my power-resource argument. Figure 1.2 shows the preference for income equality in several LACs in 1996 and 2006. The data are taken from the World Values Survey, and the universe regards adult persons of both genders who are 18 years or older. Preferences for income equality are measured as the percentage of the respondents that reporting values lower or equal to 4 in a 1-10 agreement scale in which 1 regards the phrase "Incomes should be more equal" and 10 represents the phrase "We need larger income differences as incentives." This measure should be interpreted in the sense that the higher the percentage, the higher the support that income equality receives among citizens.

Figure 1.2 about here.

The results in Figure 1.2 indicate that the preference for income equality varies among institutional contexts. In 1996, public support for income equality is generally greater in countries with pioneer corporatist welfare systems than in countries with residual corporatism (Peru), productivism (El Salvador and Dominican Republic), and a mixed welfare state (Mexico). The only exception is Argentina, which is below Mexico. In 2006, this exception disappears. In spite of

⁷ Chile is an exception because the dictatorship of Pinochet drastically changed the corporatist pension system in 1981 for one inspired on liberal principles (individual contributions and administrations of these private firms). However, pension reform also permitted the possibility of staying in the old corporatist systems for workers already under old programs. This implies that two pension systems have coexisted in practice since 1981 in Chile: One is liberal and the other is corporatist.

the changes of the rank-order within the pioneer corporatist welfare states, ten years after all corporatist welfare states again present the highest support. Although the indicator of redistributive preferences in Figure 1.2 directly does not provide information of public support for redistributive policies, it is likely that such support should be high among countries in which the preference for income equality is high. Thus, the findings in this figure indicate that, as my argument suggest, pioneer corporatist countries might present significant public support for redistributive policies, such as public transfers.

In conclusion, I argue that public support for public transfers might be high in pioneer corporatist and universalist welfare states. This high level of public support could increase the possibilities of governments boosting the size of public budget assigned to public transfers. Furthermore, the high support also might expand the targeting of this policy instrument into lower income groups in the sense that not only social insurance's entitlement principle is fomented by the welfare states but also means-testing. By doing so, higher public transfers should yield lower degrees of inequality of income distribution, which, in turn, is assumed to decrease poverty rates. This leads to Hypothesis 2:

H2: The size of government budget allocated to public transfers has a negative impact on the level of poverty in pioneer corporatist and universalist welfare states.

Pioneer corporatist arrangements do not differ from the universalist variety in their willingness to grant income protection. In both types of welfare states, the provision of income protection to lower-income segments reflects the political support of among citizens—particularly middle and working classes—for redistributive policies. However, the size and the targeting of public transfers differ between pioneer corporatist and universalist models, as these two models bring the citizens into very different contexts. In the corporatist model, the insured are included as several separate occupational categories in social insurance programs with conditions and benefits differing from those of others. Following Korpi and Palme (1998), the corporatist model generates separate organized interest groups that act in their specific interests. This might restrict the possibilities of expanding the size and targeting of public transfers. By contrast, entitlements based on citizenship tend to encourage the formation of collective interest among different socioeconomic interest groups and, thus, stimulate public support for public transfers expansion. With these consequences of the difference between pioneer corporatist and universalist welfare states in mind, I formulate the following expectation that further elaborates the second hypothesis:

H2a: The negative effect of the size of government budget allocated to of public transfers on poverty is larger for the universalist welfare state compared to pioneer corporatist welfare states.

Finally, the implications of residual corporatist and productivist type of welfare states for the association between public transfers and poverty are derived from two characteristics of both institutional contexts. Firstly, residual corporatist and

productivist welfare states present a corporatist targeting of social insurance benefits that entitles specific interest groups; namely high- and middle-income segments. For example, this is the case of a residual corporatist welfare state such as Peru. As Mesa-Lago (1978) documents, until the 1990s, the beneficiaries of the Peruvian social insurance system were the armed forces, political-administrative functionaries that worked in the state, economic elite, and member of unions related to key sectors of the economy (see also Pribble, 2011). We find a similar pattern in productivist welfare states. In El Salvador, for instance, until the liberal reforms in the 1990s, social insurance covered only employees in industry and commerce, excluding a significant segment of the labor force. This kind of targeting does not substantively vary in the rest of member of the residual corporatist and productivist clusters (SSA, 1993).

The social insurance entitlement principle of residual corporatist and productivist welfare states results in a very small portion of the population receiving social insurance transfers. Data of pension coverage confirms this assumption for both clusters. In Maldonado (2012), I show that averaged pension coverage in the 1990s was around 25 percent in both clusters of Latin American countries, with a minimum of 15 percent in Paraguay and a maximum of 32 percent in Colombia. This finding and the type of targeting—which is on the basis of such pension coverage levels—indicate that pension systems in residual corporatist and productivist arrangements might increase the inequality of income distribution as they cover a small segment of population, which represents the wealthier citizens.

Secondly, the focus of public transfers in favor of specific income groups works in the opposite direction of program universalism, decreasing the number of citizens in favor of redistributive policies in general, thus reducing the possibilities of increasing the size of the total sum of cash available for redistribution from the rich to the poor as well as the chance of a transfer's targeting in favor of lower-income segments. Figure 1.2 provides some confirmative evidence for this expectation about public support for redistributive policy. As shown, public support in productivist and residual corporatist welfare states for income equality is at the bottom of the rank-order. The percentage is lower than 30 percent in these countries (Dominican Republic, El Salvador, Guatemala, and Peru) in 1996 and 2006. The mixed welfare state (Mexico) occupies intermediate position.

According to this second characteristic (low public support for redistributive policies in general) and targeting, which results in a pension coverage that results in benefits only for the wealthier income segments, the generosity of public transfers should reproduce the inequality of the income distribution or make it worse among residual corporatist and productivist welfare states. Furthermore, because mixed welfare states are hybrids of both models, I also expect this distributional effect in the mixed cluster. Hence, I state a third hypothesis:

H3: The size of government budget allocated to public transfers has a positive impact on the level of poverty in residual corporatist welfare states, productivist welfare states, and mixed welfare states.

1.4 Research Design

The effect of the size of government budget allocated to public transfers and benefits in kind on poverty levels was estimated with a sample of fifteen Latin American countries, which provide an unbalanced panel. This means that different countries contribute different numbers of observations, ranging from one to seventeen. The countries include Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Mexico, Nicaragua, Paraguay, Peru, Uruguay, and Venezuela. These nations represent each one of the existing clusters of welfare states in Latin America. The panel yielded 67 observations after subtracting missing values in the dependent variable and regressors.

Lack of data availability on poverty and social policy measures meant that I analyzed the time period of 1980 to 2000. In spite of this data limitation, it is important to say that I employ one of the largest periods of existing information of social insurance and human capital expenditures in the developing world (S. Lopez, 2011; Pribble, Huber, & Stephens, 2009). Next, I will first introduce the data, and then I will discuss the estimation problems and the remedies in greater detail. The following sections present the results of the analyses and conclusions.

Measures of Dependent and Independent Variables

The measure of poverty is the headcount index given by the percentage of the population living on less than 2 U.S. dollars per day at 2005 international prices (adjusted at purchasing power parity rates). This measure has been regularly updated by the World Bank. According to Chen and Ravallion (2008), the World Bank's \$2-a-day line is the median of the national poverty line found amongst developing countries as a whole and is relevant in middle-income countries, such as are most Latin American nations.

I use the estimations of the World Bank based on the \$2-a-day line because it permits reliable cross-national comparisons. However, notwithstanding of this advantage, several authors criticize the estimations of poverty from the World Bank. For example, Helwege and Birch (2007) point out that the poverty rates are estimated from indicators of well-being that do not share the same concept or definition. The estimations of poverty are obtained either from consumption or from income. Furthermore, both indicators of well-being consider public transfers and adjustments for household size only in some countries and only in some surveys. Finally, the surveys do not share the same units of analysis: It is either the household or the individual.

Pribble, Huber, and Stephens (2009) contend that, in comparison with the World Bank poverty line, it is more useful to use country-specific poverty lines that respond to common goals. Because of these common ends, estimations based on national poverty lines can be compared across time and space. These scholars suggest that the poverty measurements of the Economic Commission for Latin America and the Caribbean (ECLAC) come closest to this goal because ECLAC uses common standards to form country-specific poverty lines. This measure reports the percentage of households living below the ECLAC-generated country-

specific poverty line. However, it is not clear how these common standards can guarantee reliability of cross-country comparisons without a poverty line with the same real value. Thus, I present the results of analysis using the World Bank's poverty estimations.

My argument suggests that the association between poverty and the size of government budget allocated to public transfers varies among different institutional contexts. Following the standard approach in the OECD (for example, Korpi & Palme, 1998), I measure the size of this type of benefit by using public transfers spending as a percentage of GDP.⁸ This measure captures the size of the redistributive budget, which a state uses to provide public transfers, in relation to the total resources of a country. Furthermore, my theory considers the immediate effect of transfers. I capture this time horizon by using spending figures of public transfers on a yearly basis. However, to estimate short-term dynamics, the data contain a measurement problem that has no methodological solution. For the unbalanced panel on which I rely, the data capture different time intervals. In such a case, data on a yearly basis capture short-term dynamics for countries with scores in several time points but long-term dynamics for countries with time series that have long-term intervals between time points (for example, one score for 1985 and another for 1997). Unfortunately, this problem of unbalanced panels for the estimation of short-term effects cannot be solved by econometric techniques for time series. My solution is to recognize the limits of the data and measure public transfers spending on a yearly basis, ignoring time intervals. This implies that the parameter estimates in the statistical models might not only reflect immediate dynamics but also longer-term horizons.

Figures of public transfers spending are taken from Huber et al (2008), who collected the data from the Government Finance Statistics Yearbook and the International Financial Statistics Yearbook of the International Monetary Fund (IMF). However, the missing values are filled by using data from Cominetti (1996) and ECLAC's Social Panorama (various years). IMF figures include only information about central governments. To estimate the effect of public transfer's size, the exclusion of the local administration is not a problem because the central governments typically finance and administer these cash payments in Latin America.⁹

The measure of public provision's size of social services is spending on health and education as a percentage of GDP. This indicator captures the size of the state's commitment to the provision of both services in relation to the resources of the economy as a whole. To estimate the effect of this indicator of benefits in kind on poverty in the long run, I use cumulative human capital spending from the largest period for which there are high-quality comparative data of spending. This period goes from 1970 to 2000.¹⁰ The cumulative figures estimate the long-term

⁸ I present the measurement of institutional contexts in the discussion about econometric modeling.

⁹ Social security and welfare spending specifically includes retirement pensions, disability and survivor transfers payments, unemployment benefits, family allowances, and social assistance grants. Unfortunately, it is not possible to disaggregate public transfers spending figures in social insurance and social assistance components. Huber et al. (2006) point out that pensions account for 83 percent of transfer spending in IMF sources.

¹⁰ I obtained cumulative values by adding the figures of each particular year. For example, if figures of human capital spending are 1.3 and 0.6 in 1970 and in 1971, respectively, the cumulative values are 0.6 for 1970 and 1.9 (1.3 plus 0.6) for 1971.

effect by capturing not only the state's commitment for a particular year but also the history of welfare generosity. This is a standard procedure in capturing long-term effect in the literature about the welfare state (Huber & Stephens, 2001; Podesta, 2006; Pribble, Huber, & Stephens, 2009).

Similar to the measure of public transfers, the source of the data of human capital spending is Huber et al. (2008). These authors contend that the exclusion of the local government is a major problem in this type of spending because several Latin American states manage human capital programs at sub-national levels. To deal with this problem, the data of human capital spending used in this study cover state and local spending by combining information from four different sources: Cominetti (1996), ECLAC's Social Panorama (various years), ECLAC' Badeinso online dataset, and the IMF sources cited above. ECLAC series cover state and local policy and, thus, the author used this series for the countries in which state and local spending is relevant. For the rest of countries, they also used the ECLAC series and filled the missing data with the others sources.

I have examined the impact of a large number of control variables, which were selected on the basis of the explanatory framework of poverty in Latin America developed by Pribble, Huber, and Stephens (2009). Some of these were excluded from the final model to avoid problems of multicollinearity and enhance the clarity of the presentation. It should be emphasized, however, that none of the controls excluded from the final model changed my substantive results.¹¹

Table 1.1 shows the control variables incorporated into the final specification. My theory assumes that the effect of social policies on poverty is channeled through the economic output and the inequality of the income distribution. A key information in determining the antipoverty effectiveness of economic output is the elasticity of poverty with respect to income per capita of a country (Besley & Burgess, 2003). In fact, GDP per capita is the most-used indicator of a country's economic output in comparative analysis (Kenworthy, 2011). Following this tendency, I control national economic output by using the real GDP per capita in constant dollars in 1996 international prices. This variable is taken from the Penn World Tables (Heston, Summers, & Aten, 2001).

Different causal factors impact poverty through the growth channel. At first glance, there are many determinants of economic growth, but one could say that overall empirical studies emphasize industrialization and productivity of the labor force as two variables that might contribute to poverty reduction through the growth path (Moller, Huber, Stephens, Bradley, & Nielsen, 2003). To control both causal factors, I include a measure of industrialization by using the percentage of the labor force in industry. The source for this variable is the World Development Indicators (2007). Productivity of the labor force is controlled by the average year of total education for the population age 25 and older. The data are taken from Barro and Lee (2000).

¹¹ The excluded control variables are urbanization, inflation, various indicators of globalization (foreign direct investment inflows, and external debt), infant mortality rate, female labor force participation, unemployment, a demographic indicator (percentage of population younger than 15), and cumulative years of democracy from 1945 to the year of observation.

Table 1.1 about here.

Scholars consider years of education as a measure of public provision of social services on the grounds that outcome variables might reflect past policies (Pribble, Huber, & Stephens, 2009). However, a significant portion of human capital expenditure is private in Latin America (Wolf & Gurria, 2005). This suggests that, in addition to government spending, in this region other factors might determine outcomes. Put otherwise, years of education and public education/health expenditures do not capture the same phenomena. Thus, the validity of years of education as an indicator of public investment is suspect.

The second path by which the effect of social policies is channeled involves inequality of income distribution. Following empirical studies of the link between poverty and income distribution (Kalwij & Verschoor, 2007), the measure of this latter concept in this study is the Gini index of income inequality from the United Nation's University World Income Inequality Database (WIID).¹² This database includes several indicators of quality of the Gini's estimations. To select the observations of the WIID, I followed the procedure of Huber et al. (2006). The observations with the highest quality were selected, and then I used estimations that were generated with post-transfer income. In the case of multiple observations per year, the selected observation was one that used an adjustment for household size and the individual as a unit of analysis. In some cases, multiple observations persisted, and then the mean of the observations was used. Following the advice of Huber and collaborators, I added 2.98 to the Gini indexes estimated from surveys without adjusting household size.

The differences in inequality of income distribution among the countries are associated with a set of inequality sources. The cross-national studies suggest that ethnic diversity and the informal sector increase the levels of inequality and, in turn, poverty in Latin America (e.g. Ros, 2009). Measures of these causal factors are included in the statistical multivariate models. To control for ethnic diversity, I included a dichotomous variable in which one indicates ethnic diversity; this is when the percentage of indigenous and descendants of Africans in the population of a country is between 20% and 80%. This measure of ethnic diversity is based on information about the ethnic and racial composition of Latin America nations for around the year 2000, taken from de Ferranti et al. (2004).

The measure of the informal sector considered in the statistical model is the percentage of workers classified as informal from the non-agricultural labor force. The source of this indicator is Huber et al. (2008), who compiled information from several publications of the International Labor Organization (ILO). The ILO sources have a high number of missing values, especially in the 1990s. To overcome this problem, I found two solutions. Firstly, some missing values in the 1990s were filled with data of informal work from Socio-Economic Database for Latin America and the Caribbean (SEDLAC) compiled by the Center for Distributive, Labor and Social Studies of Universidad Nacional de la Plata, Argentina. However, the interpretation of the effect of the informal sector on poverty must be made carefully

¹² Figures were downloaded in August 2010 from http://www.wider.unu.edu/research/Database/en_GB/wiid/

because the concepts of SEDLAC and ILO regarding figures of informal work are not the same.¹³ Secondly, due to the high number of missing values in the series, I used averages for the periods from 1980 to 1989 and from 1990 to 2000.

Finally, the statistical models use an additional control variable. A current discussion in the literature surrounds the impact of globalization on poverty (Nissanke & Thorbecke, 2010). Scholars argue that globalization might indirectly affect poverty through the impact of international factors on state commitment to the provision of social service and public transfers (Rudra, 2008). I test the effect of globalization on poverty by using total exports and imports as a percentage of GDP as a measure of globalization. This variable is taken from Huber et al. (2008).

Estimation Procedure

Mirroring my theoretical expectations, I am particularly interested in the distributional and growth effects of benefits in cash and in kind on poverty levels. The effects were estimated by using pooled OLS regressions, in which the logged version of poverty rates is a function of social policy measures and a set of covariates. Poverty rates appear in the natural logarithm because the original distribution of this variable is highly skewed, with a long tail to the left. More specifically, I employed the following two equations:

$$\begin{aligned} \text{Log(Poverty)}_{it} = & \beta_{10} + \beta_{11}\text{Services}_{it} + \beta_{12}\text{Transfers}_{it} + \beta_{13}\text{Pioneer}_i + \beta_{14}\text{Universalist}_i \quad (1.1) \\ & + \beta_{15}\text{Transfers}_{it} * \text{Pioneer}_i + \beta_{16}\text{Transfers}_{it} * \text{Universalist}_i \\ & + \beta_{17}\text{Log(GDP)}_{it} + \sum_k^p \beta_{1k}X_{it} + \sum_j^q \beta_{1j}Z_i + \varepsilon_{1it} \end{aligned}$$

$$\begin{aligned} \text{Log(Poverty)}_{it} = & \beta_{20} + \beta_{21}\text{Services}_{it} + \beta_{22}\text{Transfers}_{it} + \beta_{23}\text{Pioneer}_i + \beta_{24}\text{Universalist}_i \quad (1.2) \\ & + \beta_{25}\text{Transfers}_{it} * \text{Pioneer}_i + \beta_{26}\text{Transfers}_{it} * \text{Universalist}_i \\ & + \beta_{27}\text{Log(Gini)}_{it} + \sum_k^p \beta_{2k}X_{it} + \sum_j^q \beta_{2j}Z_i + \varepsilon_{2it} \end{aligned}$$

In Equations (1.1) and (1.2), the β s are the parameter estimates and ε is the error term. In each β , the first subscript represents the number of the equation and the second subscript identifies the parameter in the equation. The subscripts i and t represent the country and year of observations, respectively. Finally, X ($k=1\dots p$) represents a set of control variables that change over time, and Z ($j=1\dots q$) refers to a set of control variables, which vary only between countries but not within them.

Basically, the models have two particular specifications. First, my theoretical explanations assume that the size of government budget allocated to benefits in

¹³ SEDLAC figures cover the agricultural labor force. I took these observations in August 2010 from <http://sedlac.econo.unlp.edu.ar>

kind (*services*) and cash payments (*transfers*) impact poverty through either economic output or inequality of income distribution. Following Dollar and Kraay (2002), I identify both channels by using measures of economic wealth and inequality of income distribution as control variables in the econometric models. Equation (1.1) includes the logarithmic transformation of GDP per capita.¹⁴ By doing so, this model eliminates the path that connects social policy variables with the level of poverty through economic output. Thus, Equation (1.1) provides distributional effects for the size of public transfers and the size of public provision of social services. Furthermore, the inclusion of control variables additionally removes the correlations between these variables and the measures of social policies.

The theoretical discussion considers growth effects only for the generosity of public provision of social services but not for public transfers. In respect of total impact, however, growth effects perhaps cancel out distribution effects; in this way, to test the robustness of my prognoses, the modeling strategy also considers the growth path for both measures of social services and public transfers. More specifically, I formulate a second model (Equation (1.2)), which has a similar specification as Equation 1.1, with the exception of the inclusion of the logarithmic transformation of the Gini coefficient. Because of this specification, this model estimates the growth effect since the path from public policies to inequality of income distribution to poverty is ruled out by controlling the measure of income distribution. By estimating growth and distribution effects, the modeling strategy of this study provides a complete picture of the paths, in which the effect of the budget size assigned to public transfers and public provision of social services on poverty is channeled.

The second specification of the modeling strategy in this paper pertains to the role of the institutional context on the association between the size of public transfers and poverty. Equations (1.1) and (1.2) include interaction effects between the public transfer spending and dummy variables for pioneer corporatist (Argentina, Brazil, Chile and Uruguay) and universalist (Costa Rica) welfare states—the rest of the clusters are in the reference category—to evaluate how transfers payments contribute to reducing poverty in different institutional contexts. More specifically, the hypotheses of this study are formalized by using the coefficients of interaction terms and the principal effect of public transfers spending. Moreover, because these hypotheses involve combinations of parameters, I used Wald tests to evaluate the prognoses.

An unbiased and efficient estimation must resolve a set of econometric complications. I will discuss the most important problems in the two pooled OLS models in turn. To start, panel data analyses suffer the problem of serially correlated errors. As a consequence, OLS estimates incorrect standard errors. Broadly speaking, the literature provides two ways to deal with autocorrelation. The first approach models the dynamics of all variables by exploiting the within variance over time. This approach requires that the time series of cross-sections dominate the data; that is, long time-series for a few units observed over many equally

¹⁴ Following standard specifications in developmental economics (e.g., Lopez, 2009), poverty models include the logged transformations of GDP and the Gini index to directly estimate elasticities. Furthermore, the distribution of variables is normalized by using logarithmic transformations and, in doing so, improves the efficiency of OLS models.

spaced time points. However, the data used in this study do not present these characteristics. The panel is unbalanced, and the average number of time points (five) is much smaller than the number of units (fifteen). Therefore, I use a second approach, which treats autocorrelation as a nuisance. The use of the robust-cluster estimator of the standard errors, on which I rely, is one of the most prominent examples of the second group. This estimator provides unbiased standard errors in the presence of any pattern of correlation among the errors within units. It also assumes that the errors are not correlated between the clusters.¹⁵

A second econometric problem involves the presence of unobserved heterogeneity. A fixed-effects model is required if time-constant omitted variables exist that are correlated with at least one explanatory variable. As Beck and Katz (2001) argue, fixed effects might “throw the baby out with the bathwater” because they completely remove the between variance. By doing so, the estimation of the time-constant effect is impossible in fixed effects models, and the estimation of rarely changing variables becomes highly inefficient—so inefficient that fixed effects models can, in fact, produce extremely biased point estimates (Plümper & Troeger, 2007). In this study, this is important because the Gini coefficient must be classified as a rarely changing variable.¹⁶ This suggests that we cannot expect to obtain unbiased estimates of growth effects using a fixed effects approach. In this study, therefore, I follow another approach. In pooled OLS models, unobserved heterogeneity is controlled by conditioning relevant poverty determinants, which the literature suggests. Nevertheless, it is important to say that our pooled OLS estimations do not totally rule out the existence of unobserved variables that are correlated with the error term.

1.5 Empirical Results

Table 1.2 presents estimation results. I report findings from two sets of models that represent the distributional (Models 1 and 2) and growth (Models 3 and 4) impacts of public transfers and public provision of social services on poverty rates. Models 1 and 3 are the baseline estimations that include only social policy variables and measures that identify different paths. In the next two models, the effects of the control variables are also estimated. Finally, for all models, Table 1.2 shows the tests of the hypotheses.

Table 1.2 about here.

Consider first tests of the hypotheses related with social services. We find no robust effect of cumulative health and education spending across the models. Despite the statistical significance, the small sizes of the coefficients in Models 1 and 3 indicate that the substantive effect of this variable is marginal. For Model 1, for example, for a one-unit increase in cumulative human capital spending, we

¹⁵ An international economic shock such as the debt crisis in the 1980s in Latin America perhaps is a cause of cross-sectional correlation in the error term. To control this problem, I included a dummy variable in all models for the period from 1980 to 1989. The coefficient of this variable was not significant and, thus, I did not add this to the final specifications.

¹⁶ Eighty-eight percent of the total variance of Gini coefficient includes differences between the countries. The between and within variances of Gini coefficient are 0.00826 and 0.00112, respectively.

expect to see approximately a 0.3 percent decrease in the poverty rate. Moreover, when control variables are included in Models 2 and 4, the coefficients are insignificant. In other words, human capital spending has no direct effect; the indirect effect, which perhaps is mediated by some control variable, is marginal. This result, however, should not be interpreted in the sense that investment in human capital does not help to reduce poverty. In fact, the growth and distributional effects of years of education are quite large and significant, indicating that human capital contributes to reducing poverty. Rather, the findings suggest that investment in human capital related with reductions of poverty in Latin America may not come from the state. Put otherwise, poverty decreases by improving the human capital of citizens that is not a result of government spending but it reflects other factors that determine years of education.

The findings of public transfer spending are in line with my hypotheses. For Models 1 and 2, public transfer spending has a significant distributional impact on poverty levels in the three groups of welfare states. The signs of the parameter estimates suggest that while the size of public transfers reduces poverty in pioneer corporatist and universalist clusters, the size of this instrument of the welfare state increases poverty levels in residual corporatist, productivist, and mixed welfare arrangements. Furthermore, the difference between the coefficients of pioneer corporatist and universalist arrangements is negative and insignificant in Model 1. However, as the prognosis (Hypothesis 2a) suggests, in model 2, the estimation turns significant and positive when the control variables are entered into the analysis.

Comparing distributional and growth effects, I also find that growth effects do not cancel out distributional impacts. In fact, in Model 4, parameter estimates of public transfer spending reinforce the distribution effects. As stated above (Section 1.4), this finding suggests that pooled OLS regressions capture not only immediate dynamics because the main sources of economic wealth should work in the long run.

In sum, the results for public transfers spending conform to my expectations and have some interesting implications. First, all else being equal, the contribution of public transfer's size to poverty reduction is higher in universalist welfare states than in pioneer corporatist welfare systems. However, public transfers might have the perverse effect of increasing poverty in remaining Latin American welfare states. Second, the great shift of the parameters that the introduction of control variables suggests that these factors are of great importance for the development of poverty rates.

To present quantities of direct substantive interest for public transfer spending, I made a series of counterfactual estimates of poverty rates under different constellations of the public transfer generosity and the clusters of welfare states. This was done by making all the other variables in the regression equations of Table 1.2 equal to their mean levels and then estimating 1,000 simulations of the counterfactual impact on the poverty rates of low and high levels of cumulative public transfer generosity for the clusters of welfare states. The 20th and 80th percentiles represented the low and high levels of public transfers spending,

respectively.¹⁷ The advantage of simulations is that these not only provide the expected poverty rate under the different combinations of public transfer generosity and clusters of welfare states, but also account for the uncertainty of the estimations by providing confidence intervals.

Table 1.3 shows the counterfactual estimates of poverty by channel. The results for both inequality and growth paths can be interpreted in a number of ways. From the standpoint of my argument, the most important information is contained moving from left to right for the distributional path in each cluster. This moving indicates that the counterfactual estimates strongly support my argument about the impact of public transfer's size on poverty. For pioneer corporatist and universalist welfare states, poverty rates were always smaller when the size of redistributive budget assigned to public transfers was "high" (80th percentile) than when it was "low" (20th percentile). More specifically, simulations for the distributional channel reported that, under the constellation of low public transfers spending, the expected poverty rate on average is 32.468 for pioneer nations and 37.065 for universalist welfare states. Under the counterfactual scenario of high public transfers spending, the poverty rates decrease to 14.487 for pioneer welfare nations and 10.043 for the universalist welfare state. Moreover, the reductions of poverty rates resulting from increases in public transfers are higher in universalist welfare states than in pioneer corporatist systems. These reductions are 17.981 (32.668 minus 14.487) percentage points for the latter and 27.022 for universalist welfare states (37.065 minus 10.043). In contrast with these two clusters, as expected, the movement from left to right results in an increase of poverty rates from 23.363 to 47.799 percentage points for residual corporatist, productivist, and mixed welfare states. These findings are exactly as my argument predicts. Finally, estimations for the growth channel follow the same line of the inequality path and, thus, reinforce the inequality effects.

Table 1.3 about here.

Before we explore the robustness of the above findings, I will briefly discuss the estimated effects of the control variables. Firstly, as the literature suggests (Section 1.3), the effects of GDP per capita and Gini index have the expected sign. However, the measure of economic output becomes insignificant when additional control variables are included in Model 2, indicating that the GDP per capita, per se, does not explain poverty. In this way, the results of Models 2 and 4 suggest some mechanisms that contribute to reducing poverty through growth and distributional effects. The coefficient of industrial employment is negative and significant at the 0.01 level in Model 4. As Moller et al. (2003) point out, the manufacturing sector is typically characterized by higher average wages, which in turn might increase the income per capita. Furthermore, trade does help reduce poverty, and this effect operates through mean income and income distribution. As said above, years of education also contribute to poverty reduction.

¹⁷ See King, Tomz, and Wittenberg (2000) for details about the statistical procedure.

1.6 Conclusion

In this study, I have attempted to evaluate the impact of size of redistributive budget allocated to public transfers and social services on poverty in Latin America and the influence of the overall national policy profile (type of welfare state) on the effects of public transfer's size. I started by discussing the arguments and findings in the literature. In the following section, I offered a theoretical discussion of the effects of public transfer generosity and the size of benefits in kind on poverty across Latin American countries. An unbalanced panel of fifteen Latin American countries for the period from 1980 to 2000 was used to test my hypotheses.

Regarding social services, I contended that increasing budget size allocated to social services —particularly, education and healthcare—should lead to a decrease of poverty levels in Latin America. My findings falsify this hypothesis. The statistical analyses have demonstrated that cumulative health and education spending does not have a significant impact on poverty rates over the long run. Contrasting with this result, years of education do clearly help to poverty reduction. Two factors might explain these findings. First, there is a considerable lag between the public investment in social services and the outcomes of this investment—years of education and poverty. In fact, scholars suggest that the return of investment in human capital needs, at least, a generation to see results (Huber, Nielsen, Pribble, & Stephens, 2006). Thus, in spite of the consideration of cumulative scores for the period from 1970 to 2000, the measure of benefits in kind used in this study perhaps does not completely capture this lag. Second, the significant and negative impact of the measure of the productivity of the labor force (years of education) on poverty suggests that, as stated above (Section 3.4), years of education captures not only government effort but other factors. In fact, because of the insignificant effect of health and education spending, I can conclude that others sources of human capital (e.g., private investment) has been more effective than public investment in reducing poverty in Latin America, insofar as these additional sources increase the years of education among citizens. That said, one important avenue for future research is to more clearly identify the effect of these additional sources of human capital on poverty among Latin American welfare states.

The results reported in this study provide supportive evidence for hypotheses about associations between the size of redistributive budget assigned to public transfers and poverty. I argued that the effect of public transfer's size on poverty varies systematically between clusters of Latin American welfare states. In this way, by distinguishing five clusters, my contention was that public transfer generosity should decrease poverty in pioneer corporatist and universalist welfare states in Latin America, with higher poverty reductions in the latter. In contrast to both welfare systems, I also claimed that public transfer's size should increase poverty in residual corporatist, productivist, and mixed welfare states. These contentions are exactly what I find in my estimations of public transfer spending among Latin American countries over the period from 1980 to 2000. In line with the power-resources theory, thus, I conclude that the institutional context matters in understanding the association between the size of public transfers and poverty. In particular, institutional contexts characterized by program universalism shape this

association so that public transfer generosity reduces poverty. This finding corroborates evidence in advanced Western democracies that suggests the importance of universalism in decreasing poverty (Korpi & Palme, 1998). More importantly, my analysis then indicates the patterns of welfare provision that emerged in some advanced democracies can also be extended to some regions of the developing world.

Although my argument focuses on the distributional effect of public transfers, I examined the growth effect to rule out the chance that the latter effect might cancel the impact of public transfers channeled through income distribution. Regression estimates indicate that such is not the case; in fact, growth effects reinforce the distribution effects. This finding suggests that public transfers might affect the economic output and, in doing so, influence the level of poverty within Latin American countries. However, we have to consider this implication of the findings with caution. More particularly, to evaluate the estimated growth effects, two critical points are relevant. First, economic theories of the welfare state suggest feedback effects between public transfers and economic growth (Section 3.3). It follows that the findings perhaps do not reflect a genuine effect of public transfers on economic output. Rather, the growth impact of public transfers might be a result of the effect of economic output on public transfers. The econometric method used in the study does not eliminate this possibility. Second, for pioneer corporatist and universalist welfare states the analysis indicates a negative growth effect. Put otherwise, in both systems public transfers impel economic output that, in turn, reduces poverty. To explain this growth effect, studies suggest that greater equality, which is a result of redistribution, might increase and stabilize consumer demand, in turn, boosting investment (Kenworthy, 2004). However, scholars are skeptical of the validity of such arguments for Latin America. Indeed, an hegemonic position in the continent associates public transfers, particularly for corporatist systems, with strongly negative effects on the productivity of Latin American economies (Barrientos, 1998; Edwards, 2009). Most of these arguments consider dynamics that cannot be tested with the data of this study. Overall, on the grounds of these two critical aspects, further research is necessary to evaluate my findings of the effect of public transfers on poverty that is channeled through economic output. This research must work with rich panel data.

Overall, the findings of this study suggest that to understand the connection between social policy and poverty in Latin American nations (and in other developing countries), one must disaggregate social policy in particular types of benefits and conceptualize the types as multidimensional constructs. Furthermore, it is necessary to analyze welfare benefits in different institutional contexts—not consider a unique homogenous political economy that represents the countries under study. The study of these conclusions of the analysis is an important avenue for future research in developing countries opened by this study. Specifically, it is necessary to produce more research about the mechanism that links institutional contexts with poverty (public support for redistributive policy) and further a disaggregated expenditure approach by distinguishing types of spending that are more particular than the categories of public transfers and benefits in kind (e.g. social insurance and social assistance transfers).

In emphasizing the disaggregation of social policy and the importance of institutional contexts, my study suggests one important policy implication. The transfer programs have to be designed to distinguish between different institutional contexts. On one hand, the policy makers might have to concentrate on the size and targeting of the benefits in small and recent welfare states. On the other hand, the pioneer corporatist and universalist welfare states have reached substantive levels in both dimensions of a given social policy. This suggests that the design of social policy must include other elements to minimize disincentive effects associated with generous welfare programs, such as work requirements and clear time limits on benefits.

References

- Aberg, R. (1989). Distributive Mechanisms of the Welfare State. A Formal Analysis and Empirical Application. *European Sociological Review*, 5(2), 167-182.
- Acemoglu, D. (2009). *Introduction to Modern Economic Growth*. Princeton: Princeton University Press.
- Addition, T., Hulme, D., & Kanbur, R. (Eds.). (2009). *Poverty Dynamics: Interdisciplinary Perspectives*. Oxford; New York: Oxford University Press.
- Bank, W. (2007). *The World Development Indicators*: CD-ROM Version. Washington, DC.
- Barrientos, A. (1998). *Pension Reform in Latin America*. Aldershot: Ashgate.
- Barro, R. (1996). *Health, Human Capital and Economic Growth*. Washington, DC: Pan American Health Organization.
- Barro, R., & Lee, J. (2000). International Data on Educational Attainment: Updates and Implication. *CID Working Paper No. 42*.
- Bassanini, A., & Scarpetta, S. (2001). Does Human Capital Matter for Growth in OECD Countries? *Economics Department Working Paper, No. 282*.
- Battiston, D., Cruces, G., Lopez, L. F., Lugo, M., & Santos, M. (2009). Income and Beyond: Multidimensional Poverty in Six Latin America Countries. *CEDLAS Documentos de Trabajo Nro. 90*.
- Beck, N., & Katz, J. (2001). Throwing Out the Baby with the Bath Water: A Comment on Green, Kim, and Yoon. *International Organization*, 55(2), 487-495.
- Bergh, A. (2005). On the Counterfactual Problem of Welfare State Research: How Can We Measure Redistribution? *European Sociological Review*, 21(4), 345-357.
- Besley, T., & Burgess, R. (2003). Halving Global Poverty. *The Journal of Economic Perspectives*, 17(3), 3-22.
- Bourguignon, F. (2003). *The Poverty-Growth-Inequality Triangle*. Washington, DC: World Bank.
- Castello, A., & Domenech, R. (2002). Human Capital Inequality and Economic Growth: Some New Evidence. *The Economic Journal*, 112, C187-C200.
- Castles, F. G. (2009). What Welfare States Do: A Disaggregated Expenditure Analysis. *Journal of Social Policy*, 38(1), 45-62.

- Collier, D., & Collier, R. B. (1979). Inducement versus Constraints: Disaggregating "Corporatism". *American Political Science Review*, 73(4), 967-986.
- Collier, D., & Collier, R. B. (1991). *Shaping the Political Arena: Critical Junctures, the Labor Movement, and Regime Dynamics in Latin America*. Princeton: Princeton University Press.
- Cominetti, R. (1996). Social Expenditure in Latin America. *Santiago, Chile: CEPAL Technical Department*.
- Chen, S., & Ravallion, M. (2008). The Developing World Is Poorer Than We Thought, But No Less Successful in the Fight against Poverty. *Policy Research Working Paper, World Bank*, 4703.
- de Ferranti, D., Perry, G., Ferreira, F., & Walton, M. (2004). *Inequality in Latin America: Breaking with History?* Washington, DC: The World Bank.
- De Janvry, A., & Sadoulet, E. (2000). Growth, Poverty, and Inequality in Latin America: A Causal Analysis, 1970-94. *Review of Income and Wealth*, 46(3), 267-287.
- Dollar, D., & Kraay, A. (2002). Growth is Good for the Poor. *Journal of Economic Growth*, 7, 195-225.
- Ebbinghaus, B. (2006). *Reforming early Retirement in Europe, Japan and the USA*. Oxford: Oxford University Press.
- Edwards, S. (2009). *Populismo o Mercados. El Dilema de America Latina*. Bogota: Norma.
- Esping-Andersen, G. (1990). *The Three Worlds of Welfare Capitalism*. Cambridge: Princeton University Press.
- Esping-Andersen, G., & Korpi, W. (1984). Social Policy as Class Politics in Post-War Capitalism. Scandinavia, Austria, and Germany. In J. Goldthorpe (Ed.), *Order and Conflict in Contemporary Capitalism* (pp. 179-208). Oxford: The Clarendon Press of Oxford University Press.
- Hanlon, J., Barrientos, A., & Hulme, D. (2010). *Just Give Money to the Poor: The Development Revolution from the Global South*. Sterling: Kumarian Press.
- Helwege, A., & Birch, M. B. L. (2007). Declining Poverty in Latin America? A Critical Analysis of New Estimates by International Institutions. *Global Development and Environmental Institute Working Paper*, , 07/02.
- Heston, A., Summers, R., & Aten, B. (2001). *Penn World Table Version 6.0*. Center for International Comparisons at the University of Pennsylvania (CICUP), December 2001.
- Huber, E. (1996). Options for Social Policy in Latin America: Neoliberal versus Social Democratic Model. In G. Esping-Andersen (Ed.), *Welfare States in Transition: National Adaptations in Global Economics* (pp. 141-191). London: Sage.
- Huber, E., Nielsen, F., Pribble, J., & Stephens, J. D. (2006). Politics and Inequality in Latin America and the Caribbean. *American Sociological Review*, 71(6), 943-963.
- Huber, E., & Stephens, E. (2001). *Development and Crisis of the Welfare State: Parties and Policies in Global Markets*. Chicago: The University of Chicago Press.
- Huber, E., & Stephens, J. D. (2010). Successful Social Policy Regimes? Political Economy, Politics, and the Structure of Social Policy in Argentina, Chile,

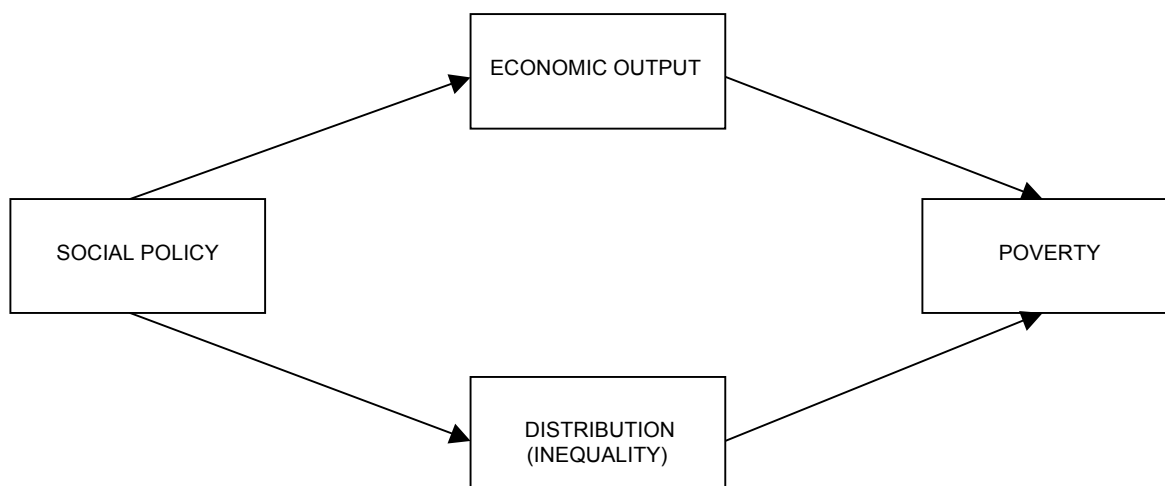
- Uruguay, and Costa Rica. In S. Mainwaring & T. Scully (Eds.), *Successful Democratic Governance* (pp. 159-213). Stanford: Stanford University Press.
- Huber, E., Stephens, J. D., Mustillo, T., & Pribble, J. (2008). Social Policy in Latin America and the Caribbean Dataset, 1960-2006. *University of North Carolina*.
- Kalwij, A., & Verschoor, A. (2007). Globalization and Poverty Trends across Regions: The Role of Variation in the Income and Inequality Elasticities of Poverty. In M. Nissanke & E. Thorbecke (Eds.), *The Impact of Globalization on The World's Poor: Transmission Mechanisms* (pp. 94-117). Basingstoke: Palgrave Macmillan.
- Kaufman, R. (1977). Corporatism, Clientelism, and Partisan Conflict: A Study of Seven Latin American Countries. In J. M. Malloy (Ed.), *Authoritarianism and Corporatism in Latin America* (pp. 109-143). Pittsburgh: University of Pittsburgh Press.
- Kaufman, R., & Haggard, S. (2008). *Development, Democracy, and Welfare States: Latin America, East Asia, and Eastern Europe*. Princeton: Princeton University Press.
- Kenworthy, L. (1999). Do Social-Welfare Policies Reduce Poverty? A Cross-National Assessment. *Social Forces*, 77(3), 1119-1139.
- Kenworthy, L. (2004). *Egalitarian Capitalism: Jobs, Incomes, and Growth in Affluent Countries*. New York: Russell Sage Foundation.
- Kenworthy, L. (2011). *Progress for the Poor*. Oxford: Oxford University Press.
- Korpi, W. (1983). *The Democratic Class Struggle*. London: Routledge.
- Korpi, W., & Palme, J. (1998). The Paradox of Redistribution and Strategies of Equality: Welfare State Institutions, Inequality, and Poverty in the Western Countries. *American Sociological Review*, 63, 661-687.
- Korpi, W., & Palme, J. (2003). New Politics and Class Politics in the Context of Austerity and Globalization: The Welfare State Regress in 18 Countries, 1975-95. *American Political Science Review*, 97(3), 425-446.
- Lindert, K., Skoufias, E., & Shapiro, J. (2006). *Redistribution Income to the Poor and the Rich: Public Transfers in Latin America and the Caribbean*. Discussion Paper 0605, World Bank, Washington DC.
- Lopez, J. H. (2009). Pro-Growth, Pro-Poor: Is There a Trade-Off? In R. J. Brent (Ed.), *Handbook of Research on Cost-Benefit Analysis* (pp. 482-512). Cheltenham: Elgar.
- Lopez, S. (2011). Globalization and the Welfare State: Direct and Mediating Consequences of the Informal Labor Force for Social Spending. *Manuscript*.
- Lustig, N., & McCleod, D. (1997). Minimum Wages and Poverty in Developing Countries: Some Empirical Evidence. In S. Edwards & N. Lustig (Eds.), *Labor Markets in Latin America*. Washington, DC: Brookings Institution Press.
- Mesa-Lago, C. (1978). *Social Security in Latin America: Pressure Groups, Stratification, and Inequality*. Pittsburgh: University of Pittsburgh Press.
- Moller, S., Huber, E., Stephens, J. D., Bradley, D., & Nielsen, F. (2003). Determinants of Relative Poverty in Advanced Capitalist Democracies. *American Sociological Review*, 68(1), 22-51.

- Naschold, F. (2002). Why Inequality Matters for Poverty. *DFID Inequality Briefing Paper 2*.
- Nelson, K. (2003). *Fighting Poverty: Comparative Studies on Social Insurance, Means-tested Benefits and Income Redistribution*: Swedish Institute for Social Research.
- Nissanke, M., & Thorbecke, E. (2010). Globalization, Poverty, and Inequality in Latin America: Findings from Case Studies. *World Development*, 38(6), 797-802.
- Palme, J. (2006). Welfare States and Inequality: Institutional Designs and Distributive Outcome. *Research in Social Stratification and Mobility*, 24, 387-403.
- Perry, G., Arias, O., Lopez, J. H., & Maloney, W. (2006). *Poverty Reduction and Growth: Virtuous and Vicious Circles*. Washington D.C.: The World Bank.
- Perry, G., Arias, O., Maloney, W., Fajnzylber, P., Mason, A. D., & Saavedrea-Chanduvi, J. (2007). *Informality. Exit and Exclusion*. Washington D. C.: The World Bank.
- Plümper, T., & Troeger, V. (2007). Efficient Estimation of Time-Invariant and Rarely Changing Variables in Finite Sample Panel Analyses with Unit Fixed Effects *Political Analysis*, 15(2), 124-139.
- Podesta, F. (2006). Comparing Time Series Cross-Section Model Specifications: The Case of Welfare State Development. *Quality and Quantity*, 40(4), 539-559.
- Pribble, J. (2008). *Protecting the Poor: Welfare Politics in Latin America's Free Market Era*. Doctoral Dissertation, Political Science, University of North Carolina at Chapel Hill, Chapel Hill.
- Pribble, J. (2011). Worlds Apart: Social Policy Regimes in Latin America. *Studies in Comparative International Development*, 46, 191-216.
- Pribble, J., Huber, E., & Stephens, J. D. (2009). Politics, Policies, and Poverty in Latin America. *Comparative Politics*, 41(4), 387-407.
- Psacharopoulos, G., Morley, S., Fiszbein, A., Lee, H., & Wood, W. (1995). Poverty and Income Inequality in Latin America During the 1980s. *Review of Income and Wealth*, 41(3), 245-264.
- Ros, J. (2009). Reducción de la Pobreza en América Latina: Incidencia de los Factores Demográficos, Sociales y Económicos. *Revista Cepal*, 98, 35-45.
- Rudra, N. (2008). *Globalization and the Race to the Bottom in Developing Countries: Who really Gets Hurt?* Cambridge: Cambridge University Press.
- Segura-Ubiergo, A. (2007). *The Political Economy of the Welfare State in Latin America. Globalization, Democracy, and Development*. Cambridge: Cambridge University Press.
- SSA. (1993). *Social Security Programs Throughout the World*. Washington, DC: Social Security Administration.
- Torche, F. (2005). Unequal but Fluid Social Mobility in Chile in Comparative Perspective. *American Sociological Review*, 70(3), 422-450.
- Torche, F. (2010). Economic Crisis and Inequality of Educational Opportunity in Latin America. *Sociology of Education*, 83(2), 85-110.
- Wodon, Q. (2000). Poverty and Policy in Latin America and the Caribbean. *World Bank Technical Paper No. 467*.

Wolf, L., & Gurria, M. (2005). *Money Counts: Projecting Education Expenditures in Latin America and the Caribbean to the Year 2015*. Montreal: UNESCO Institute for Statistics.

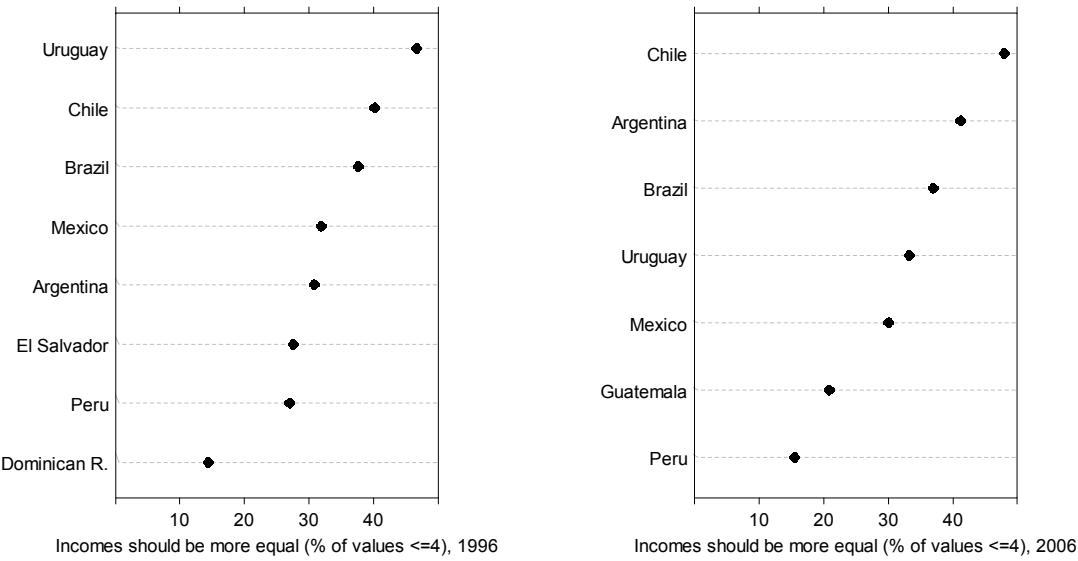
Tables and figures

Figure 1.1 Growth and distributional channels



Source: Own elaboration

Figure 1.2 Preferences for income equality in Latin American welfare states, 1996 and 2006



Source: World Values Survey.

Table 1.1. Summary statistics of the dependent and independent variables. 1980–2000

	Observations	Mean	Standard deviation	Minimum	Maximum
Poverty (\$ 2 a day, logged)	67	2.867	0.717	0.693	4.021
GDP per capita (logged)	67	8.672	0.334	7.553	9.362
Gini coefficient (logged)	67	3.977	0.104	3.726	4.142
Industry employment	67	24.132	3.545	13.200	34.100
Ethnic heterogeneity (dummy)	67	0.463	0.502	0	1
Informal sector	67	47.192	11.054	27.933	69.300
Years of education	67	5.123	1.470	2.390	8.127
Trade	67	48.351	26.823	13.243	130.675
Health & Education spending	67	122.395	55.662	32.300	284.758
Public transfers spending	67	5.495	4.217	0.143	19.156
Pioneer corporatist welfare states (dummy)	67	0.448	0.501	0	1
Pioneer*public transfers spending	67	4.093	5.119	0	19.156
Universalist welfare states (dummy)	67	0.134	0.344	0	1
Universalist*public transfers spending	67	0.537	1.468	0	5.504

Note: Health & Education spending scores are cumulative averages for the period 1970–2000. “*” means interaction terms in regressions.

Source: See section 1.4.

Table 1.2. Determinants of poverty rates. Pooled OLS regressions, 1980–2000

	Distributional Effect		Growth Effect	
	Model 1	Model 2	Model 3	Model 4
GDP per capita (logged)	-0.887** (0.358)	-0.061 (0.356)		
Gini coefficient (logged)			4.718*** (1.178)	2.079*** (0.536)
<i>Control variables</i>				
Industrial employment		-0.067*** (0.020)		-0.055*** (0.013)
Ethnic heterogeneity		0.058 (0.181)		-0.073 (0.082)
Informal sector		0.002 (0.006)		-0.003 (0.601)
Years of Education		-0.239*** (0.066)		-0.189*** (0.041)
Trade		-0.006** (0.002)		-0.007*** (0.002)
<i>Social policy variables</i>				
Pioneer welfare states	1.078** (0.504)	0.718*** (0.213)	-0.154 (0.294)	0.171 (0.223)
Pioneer welfare states*Public transfers spending	-0.196* (0.095)	-0.226*** (0.039)	-0.108 (0.073)	-0.169*** (0.031)
Universalist welfare state	0.535** (0.247)	0.981*** (0.197)	1.095*** (0.209)	1.029*** (0.082)
Universalist welfare state*Public transfers spending	-0.152* (0.083)	-0.312*** (0.049)	-0.113 (0.711)	-0.257*** (0.034)
Constant	10.869*** (3.085)	6.325* (3.143)	-15.236*** (4.673)	-2.452 (2.012)
<i>Test of hypotheses^a</i>				
Health & Education spending (H1)	-0.003* (0.002)	0.001 (0.001)	-0.005** (0.002)	-0.000 (0.001)
Public transfers for pioneer welfare states (H2)	-0.120** (0.054)	-0.117*** (0.014)	-0.041 (0.031)	-0.081*** (0.012)
Public transfers for universalist welfare states (H2)	-0.078** (0.045)	-0.204*** (0.038)	-0.046 (0.052)	-0.169*** (0.031)
Differences between pioneer and universalist (H2a)	-0.043 (0.038)	0.087** (0.039)	0.005 (0.036)	0.089** (0.032)
Effect of public transfers for rest of welfare states (H3) ^b	0.075 (0.086)	0.108*** (0.041)	0.066 (0.068)	0.088*** (0.026)
Adjusted R squared	0.490	0.865	0.705	0.891
N	67	67	67	67

Note: Robust-cluster standard errors in parentheses. (a) Hypothesis testing uses the Wald Method. (b) The category "Rest" includes residual corporatist, productivist, and mixed welfare states. *significant at 10%, **significant at 5%, ***significant at 1%. One-tailed tests of coefficient related with substantive hypotheses, two-tailed test for rest of coefficients.

Source: See section 1.4

Table 1.3. Counterfactual estimates of poverty rates

Type of welfare state	Distributional Path		Growth Path	
	Low public transfers	High public transfers	Low public transfers	High Public transfers
Pioneer corporatist	32.468 (24.699-42.123)	14.487 (12.439-16.930)	21.729 (15.341-30.108)	12.326 (10.526-14.398)
Universalist	37.065 (24.607-54.313)	10.043 (4.346-19.217)	44.523 (30.650-62.610)	15.234 (7.212-27.897)
Resta	23.363 (20.259-26.748)	47.799 (28.877-75.276)	24.437 (21.444-27.516)	43.587 (29.123-65.597)

Note: Estimations based on 1,000 simulations of Models 2 and 4 of Table 1.2 by using the software CLARIFY (King, Tomz, and Wittenberg 2000). Low and high regard the 20th and 80th percentile scores on public transfers measure. Control variables were hold in their mean levels. 95 percent confidence intervals in parentheses. (a) The category “Rest” includes residual corporatist, productivist, and mixed welfare states.

Source: See section 1.4.