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Redistributing Income to the Poor and the Rich: Public Transfers in Latin America and the Caribbean

Kathy Lindert
Emmanuel Skoufias
Joseph Shapiro

August 2006

Social Safety Nets Primer Series

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Abstract

This study measures the extent to which publicly-subsidized transfers in Latin America and the Caribbean (LAC) redistribute income. The redistributive power of 56 transfers in eight countries is measured by their coverage, size, absolute incidence, simulated impacts on poverty and inequality, and by their distributional characteristic, a statistic derived from taxation literature.

Our findings suggest that public transfers can be effective instruments to redistribute income to the poor. Yet frequently they have not managed to do so. Indeed, Robin Hood works in both directions in LAC, with public transfers redistributing income to both the rich and the poor. The redistributive impacts from social insurance are limited – and even regressive in some countries. This regressivity derives from two main design factors: a truncation in coverage due to requirements of membership in formal labor markets which exclude the majority of the poor, and highly generous unit benefits for those in the upper quintiles. Moreover, this regressivity applies to *net* social insurance transfers, which are subsidized by government budgets at the expense of all taxpayers. The more recent emergence of social assistance only partially offsets this historical “truncation” of public transfers in LAC. Despite coverage and distributional patterns that favor the poor, small unit subsidies limit the redistributive, poverty and inequality impacts of even the most targeted social assistance programs. We also find considerable variation among social assistance programs, with many food-based programs and scholarships being regressive. Governments should reconsider these programs – or at least strengthen their design. They could look to the targeting mechanisms used by conditional cash transfers – with impressive rewards for progressivity.

JEL Classifications: D31, H55, I31, I38

Key words: transfers, social protection, social insurance, social assistance, conditional cash transfers, redistribution, targeting, poverty, inequality, welfare, Latin America, Argentina, Brazil, Chile, Colombia, Dominican Republic, Guatemala, Mexico, Peru

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US\$1 = R\$2.15 (March 2006)

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ACRONYMS AND ABBREVIATIONS

AFORES	<i>Administradoras de Fondos para el Retiro</i>
AG	<i>Auxílio Gás</i>
ANPEC	<i>Associação Nacional dos Centros de Pós-Graduação em Economia</i>
ANSeS	<i>Administración Nacional de la Seguridad Social</i>
BA	<i>Bolsa Alimentação</i>
BE	<i>Bolsa Escola</i>
BF	<i>Bolsa Família</i>
BPC	<i>Benefício de Prestação Continuada</i>
BPC-LOAS	<i>Benefício Assistencial de Prestação Continuada</i>
CAPREDENA	<i>National Defense Social Security Fund (Caja de Previsión de la Defensa Nacional)</i>
CASEN	<i>Caracterización Socioeconómica Nacional</i>
CCT	<i>Conditional Cash Transfers</i>
CGH	<i>Coady-Grosh-Hoddinott Index of Targeting Accuracy</i>
CONAFE	<i>Consejo Nacional de Fomento Educativo</i>
DCI	<i>Distributional Characteristic Index</i>
DIF/FAM	<i>Desarrollo Integral de la Familia / Foro de Apoyo Mutuo</i>
DIPRECA	<i>General Department of Social Security for the Police Force (Direccion de Prevision de Carabineros de Chile)</i>
ECV	<i>Survey of Living Conditions (Encuesta de Condiciones de Vida)</i>
ENAHO	<i>Encuesta Nacional de Hogares</i>
ENCASEH	<i>Encuesta de Características Socioeconómicas de los Hogares</i>
ENCOVI	<i>Encuesta sobre las Condiciones de Vida</i>
ENIGH	<i>Encuesta de Ingresos y Gastos de los Hogares</i>
ENNVIH	<i>Encuesta Nacional sobre Niveles de Vida de los Hogares</i>
FAMI	<i>Family, Women and Children's Homes (Familia, Mujer e Infancia)</i>
FGTS	<i>Fundo de Garantia de Tempo de Serviço</i>
FJPEP	<i>Fundo de Jubilaciones y Pensiones de los Empleados Publicos</i>
FOVISSSTE	<i>Fondo de la Vivienda del ISSSTE</i>
HCB	<i>Hogar Comunitário de Bienestar</i>
IBGE	<i>Instituto Brasileiro de Geografia e Estatística</i>
ICBF	<i>Colombian Institute for Family Welfare (Instituto Colombiano de Bienestar Familiar)</i>
IDH	<i>Indice de Desarrollo Humano</i>
IGSS	<i>Instituto Guatemalteco de Seguridad Social</i>
ILAE	<i>Incentivo a la Asistencia Escolar</i>
IMSS	<i>Instituto Mexicano del Seguro Social</i>
INE	<i>National Institute of Statistics</i>
INEP	<i>Instituto Nacional de Estudos e Pesquisas Educacionais</i>
INESPRE	<i>Instituto de Estabilización de Precios</i>
INP	<i>Institute of Social Security Normalization (Instituto de Normalização Previsional)</i>
INSS	<i>National Social Security Institute (Instituto Nacional de Seguridad Social)</i>
ISS	<i>Social Security Institute (Instituto de Seguridad Social)</i>
ISSFAPOL	<i>Instituto de Seguridad Social de las Fuerzas Armadas y la Policía Nacional</i>
ISSTE	<i>Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado</i>

JJH	<i>Jefes y Jefas de Hogar</i>
MDS	Ministry of Social Development (<i>Ministério de Desenvolvimento Social</i>)
MPS	<i>Ministério de Previdência Social</i>
ONP	<i>Oficina Nacional de Normalización Previsional</i>
PAA	<i>Programa de Apoyo Alimentario</i>
PACFO	Supplementary Food Program for Groups at Risk of Malnutrition
PAE	<i>Programa de Alimentación Escolar</i>
PANFAR	Food and Nutrition Program for Families at Risk of Malnutrition
PANTBC	Food and Nutrition Program for TBC Patients and their Families
PAR	<i>Programa de Abasto Rural</i>
PASIS	Assistential Pension for Disabled (<i>Pensión Asistencial de Invalidez</i>)
PAYGO	Pay-As-You-Go
PET	<i>Programa de Empleo Temporal</i>
PETI	Eradication of Child Labor (<i>Programa de Erradicación del Trabajo Infantil</i>)
PIS/PASEP	<i>Programa de Integração Social / Programa de Formação do Patrimônio do Servidor Público</i>
PNAD	<i>Pesquisa Nacional Por Amostra de Domicílios</i>
POF	Household Budget Survey (<i>Pesquisa de Orçamentos Familiares</i>)
PPP	Purchasing Price Parity
PROGRESA	Program for Education, Health and Food (<i>Programa de Educación, Salud y Alimentación</i>)
PROMARN	<i>Programa de Alimentación y Nutrición del Menor en Estado de Abandono y en Riesgo Nutricional</i>
PROMESE	<i>Programa de Medicamentos Esenciales</i>
PRONAA	National Food Assistance Program (<i>Programa Nacional de Asistencia Alimentaria</i>)
PRONAMACHCS	<i>Programa Nacional de Manejo de Cuencas Hidrográficas y Conservación de Suelos</i>
RAS	<i>Red de Acción Social</i>
RGPS	<i>Regime Geral de Previdência Social</i>
RJU	Civil Servant Pensions (<i>Regime Jurídico Único</i>)
SA	Social Assistance
SEDESOL	<i>Secretaria de Desarrollo Social</i>
SHIR	Subsidized Health Insurance Regime
SI	Social Insurance
SIEFORES	<i>Sociedades de Inversión Especializadas en Fondos para el Retiro</i>
SIJP	<i>Sistema Integrado de Jubilaciones y Pensiones</i>
SNP	National Pensions System (<i>Sistema Nacional de Pensiones</i>)
SP	Social Protection
SUF	<i>Subsidio único familiar</i>
TAE	<i>Tarjeta de Asistencia Escolar</i>
TANF	Temporary Assistance for Needy Families Program
VIVAH	<i>Programa de Aborro y Subsidio para la Vivienda Progresiva</i>
WFP	World Food Program

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Chapter 1:

Overview and Introduction

Social policy has several roles, including, *inter alia*: (a) promoting the accumulation of human capital; (b) ensuring adequate protection against risks; and (c) redistributing incomes to promote a more equitable society. This report focuses only on the redistributive role of social policy for a sub-set of social policy instruments: public transfers (and, specifically, those that were included in household surveys).

This narrow angle has two obvious limitations for policy implications. First, public transfers are not the only redistributive instruments, with equitable gains in human capital also promoting redistribution in the long run. Second, public transfers have, in many instances, goals other than mere redistribution of income, in some instances supporting the accumulation of human capital (e.g., via conditional cash transfers) or consumption smoothing and risk pooling (e.g., in the case of pensions and social insurance). These themes, however, are beyond the scope of this report, which modestly asks: “how redistributive are public transfers in Latin America and the Caribbean (LAC)?”

Four factors motivate our interest in this topic:

- **Poverty** is high in LAC, even in many middle income countries. While LAC countries are not the world’s poorest, poverty affects over one-fifth of the population in most LAC countries, and over half of the population lives in poverty in several countries in the region. Income poverty average 24.6% of the population in Latin America, based on a poverty line of US\$2 per day in purchasing power parity and weighted by the population (Figure 1).¹ It is somewhat higher in Central America and Mexico (30%) and the Andean Community (31%) and lower in the countries of the Southern Cone (around 19%), which nonetheless have a larger number of poor due to their larger populations. In addition to being a concern in its own right, recent evidence suggests that poverty may also be an impediment to higher growth rates in LAC, such that reinforcing vicious circles keep families, regions, and countries poor and unable to contribute to national growth.² A lack of adequate resources impairs families’ abilities to invest in productive activities, health, and education, which can result in the perpetuation of poverty across generations. In this context, we seek to quantify the potential of public transfers to alleviate current income poverty through income redistribution.
- **Inequality** in LAC is extremely high and resilient.³ Latin American countries are among the world’s most unequal (Figure 2). Brazil⁴ and Guatemala have Gini coefficients of 0.59 and 0.60 respectively - far higher than the levels of 0.25 to 0.40 for most other countries of the world. The Latin American country with the least inequality still has greater inequality than any country in Eastern Europe or the Organization for Economic Cooperation and Development (OECD).⁵ In LAC, the richest 10% of individuals receive 40-47% of total income, as compared with the poorest 20% who only receive 2-4% of total income. This is far more unequal than in OECD countries. For example, in the U.S., the richest 10% of individuals receive 31% of total income; in Italy, they receive 27%. Severe inequality also imposes major costs. Indeed, international

¹ Perry et. al. (2006).

² Perry et. al. (2006).

³ de Ferranti et. al. (2004) and World Bank (2005).

⁴ Recent evidence suggests that Brazil’s inequality has just fallen significantly (from a Gini of 0.59 in 2003 to 0.574 in 2004) – and that social assistance transfers have likely played an important role in this reduction. Paes de Barros, et. al. (2005) and Ferreira et. al. (February 2006).

⁵ Excluding Mexico, Latin America’s only OECD member.

evidence suggests that (a) inequality slows the pace of poverty reduction given a country's growth rate; and (b) inequality combined with weak institutions undermines the development process and slows economic growth.⁶ We thus seek to measure the extent to which public transfers either help reduce – or exacerbate – economic inequality in LAC.

- **Perceptions.** Poverty and inequality are highly disliked in LAC. A large majority of LAC's citizens judge current levels of poverty and inequality to be unacceptable. According to public opinion surveys from Latinobarómetro in 2001, about 85% of citizens consider prevailing levels of income inequality to be unfair or very unfair (Table 1). Over half also judge the issues of poverty, income and unemployment collectively to be the most important problems in their country (Table 2). Moreover, public perceptions surveys suggest views of equity and justice among LAC's citizens similar to those widely held in Europe, in contrast with prevailing opinions in the United States (Table 3). Specifically, according to the World Values Surveys (1995-97), 66% of citizens in LAC countries surveyed believe that the poor are poor because of unjust treatment by society, as opposed to only 28% who attribute poverty to laziness. About 63% of Europeans believe that the poor are poor due to injustice in society – whereas 61% of Americans attribute poverty to laziness. Likewise, in both LAC and Europe, there is a prevailing sense that the poor are trapped in poverty (over 60% support this view), as compared with the United States (only 30% share this belief). Finally, about two-thirds of citizens of LAC and Europe share the common belief that the Government's response to poverty is inadequate, as compared with only 42% in the United States. We thus seek to explore the how public transfers help remedy this sense of inequity and injustice, serving a possible “Robin Hood” function of taking from the rich to give to the poor. (Preview: in fact, we find the opposite for a large share of public transfers).
- **Spending and resources.** Although spending on public transfers varies significantly across the region, it is growing over time and many Latin American countries do allocate significant shares of GDP to public transfers (discussed in more detail below). It thus behooves us to examine the redistributive power of these resources. How effective are they?

While there are few doubts about the importance of growth for poverty reduction, growth in LAC has been slow over the past decade, and, barring a few exceptions, existing growth has benefited the poor less than proportionally.⁷ Growth associated with progressive distributional changes will have a greater impact in reducing poverty than without such changes. Moreover, recent evidence suggests that poverty itself may be impeding higher growth rates in LAC. While investments in access to productive assets – such as education, land, property rights and infrastructure – can reduce poverty and inequality in the long run, asset-based strategies take time to implement and improve welfare.⁸

What about the role of public transfers? Can they promote equity faster and in an efficient manner? How much redistribution can they achieve? How well do they perform? Do they reduce LAC's high inequality – or exacerbate it? How much do poor people benefit from these transfers? This study analyzes precisely these questions.

Overall, public spending on transfers represents about 5.7% of GDP in LAC. About three quarters of this spending (4.3% of GDP) finances public insurance benefits, with the remainder (1.4%) allocated to social assistance transfers. Although some would object to the treatment of social insurance (e.g.,

⁶ de Ferranti et. al. (2004).

⁷ Perry, et. al. (2005).

⁸ De Ferranti et. al. (2004).

pensions, unemployment insurance) as “transfers” because they are (partially) financed by direct earmarked contributions, most social insurance programs in LAC incur significant deficits which are financed from general revenues. As such, our study “nets out” average payroll contributions, so as to allow us to assess the redistributive impact of the “pure” public transfer from social insurance (the part financed by general revenues not direct contributions; see **Chapter 2**).

Within the region, there is considerable variation in overall spending and the composition of transfer instruments (**Chapter 3**). Some “higher spenders” – such as Argentina, Brazil, Chile and Colombia – devote significant resources (averaging 11.5% of GDP) to social protection transfers. The bulk of this spending is allocated to social insurance, though these countries also operate fairly sophisticated cash-based social assistance transfer schemes. At the other end of the spectrum, most Central American and Caribbean countries allocate relatively little to social protection transfers (averaging 1.9% of GDP), most of which goes mainly to in-kind social assistance transfers.

How effectively do public transfers redistribute income in LAC? While this is the focus of our study, it is important to keep in mind that social policy has other important objectives besides redistribution, including: (a) helping families smooth income over the life cycle in relation to people’s needs; (b) promoting the accumulation of human capital; and (c) ensuring adequate protection against events such as sickness, disability, unemployment, or loss of income. Although these additional objectives are not considered in detail here, they must be taken into consideration when assessing the overall efficiency of public transfers.⁹

With these caveats in mind, we use household survey data from eight countries (Argentina, Brazil, Chile, Colombia, the Dominican Republic, Guatemala, Mexico and Peru), and we adopt several indicators to measure redistribution of 56 public transfer interventions (**Chapter 4**).

- **Basic Inputs for Redistribution: Coverage + Generosity.** We first look at the basic measures of coverage (what portion of the population and of each quintile receives the transfer?) and unit transfers adjusted for purchasing power parity (how much income do beneficiaries receive from the transfer?). Coverage indicators can be misleading due to significant differences in the unit value of benefits, both across transfers and across quintiles for the same transfer -- “not all transfers are created equally.” As such, we combine these two basic inputs to redistribution and plot the average per capita resource flows to each quintile. Two patterns emerge: (a) a group of countries with insignificant or “missing welfare states” – for which coverage and unit subsidies are too low to result in any significant redistributive effects; and (b) a group of countries in which social assistance only partially compensates for the significant “truncation” of relatively generous (net) social insurance benefits.
- **The Absolute Incidence of Public Transfers: Who Gets More of the Pie?** We then examine the distribution of transfers (absolute incidence) and compare our results to international evidence. The findings are significant, if unsurprising. Social insurance transfers are universally regressive. Even netting out differences in contributions rates across quintiles, the net effect of pension transfers is highly regressive. Other labor-related social insurance transfers (such as unemployment insurance) also disfavor the poor. Social assistance benefits, which generally do not tie eligibility to formal labor-market participation, tend to be more progressive. But not always. Indeed, there is considerable variation in the targeting accuracy of social assistance programs. Regressive programs include scholarships and many food-based

⁹ Transfers that are not reaching the poor segments of the population and thus appear to do a bad job from a redistributive perspective, may perform well when examined in terms of the other objectives of social policy.

assistance schemes. Conditional cash transfers (CCTs), on the other hand, are highly progressive, with most ranking in the top 10-20 programs for targeting outcomes analyzed in a broader global study.¹⁰ The relatively high progressivity of CCTs is likely to be driven by the objective definition of the poor as the target group and the explicit use of targeting mechanisms to determine eligibility – and not their conditionalities *per se*. As such, these targeting mechanisms could be built into other social assistance programs to strengthen their progressivity (e.g, for needs-based scholarships).

- **Inequality Impacts.** We analyze the impacts of transfers on inequality by simulating inequality measures with and without the transfers and calculating concentration coefficients. We find that social assistance overall is progressive, reducing inequality (though not for all programs, some specific programs are regressive). We also find that social insurance transfers decrease overall inequality in some countries (Argentina, Brazil and Chile), whereas in all other countries they tend to either increase or have no effect on overall inequality. The decrease in overall inequality in Argentina, Brazil and Chile can be explained by the fact that social insurance is less unequally distributed than income from other sources.
- **Poverty Impacts.** We also examine the impact of transfers on poverty and incomes. We find that poverty impacts of social assistance are somewhat muted due to relatively low unit transfers. In a few “high-spending countries,” some social insurance transfers manage to have an important poverty impact due to relatively high unit subsidies (i.e., the small share of transfers that do reach poorer households represents a significant share of their incomes).
- **Social Welfare Impacts.** Finally, we measure social welfare impacts of transfers using a measure known as the distributional characteristic index (DCI). This measure has the advantages of allowing for an analysis of the redistributive impact of transfers that (a) takes into account the full spectrum of households (not just certain quintiles); and (b) is independent of the different sizes of their budgets. Several notable patterns emerge, including: (a) social assistance programs are unsurprisingly far more effective than social insurance programs at redistributing income and contributing to social welfare, per unit of currency transferred; (b) conditional cash transfers generate the highest social welfare – as compared with all other types of transfers; (c) the main social welfare gains from public transfers arise from “targeting efficiency” (making an effort to channel benefits to the poor) rather than progressively differentiated “sizing” of unit transfers (making benefits larger for poorer households); and (d) within specific countries, significant welfare gains could be realized by reallocating to more effective programs.

We also examine efficiency (**Chapter 5**). Specifically, we find that the overall administrative costs of conditional cash transfers are relatively low. We also find little empirical evidence of labor disincentives from public transfers in LAC (particularly social assistance transfers) – though this topic merits further research.

Overall our findings suggest that public transfers *can* be effective instruments to redistribute income to the poor. But they have not often done so. Indeed, Robin Hood works in both directions in LAC, with public transfers redistributing income to both the rich and the poor.

¹⁰ Coady et. al. (2004).

Chapter 2:

Public Transfers and Redistribution: Definitions and Concepts

This chapter provides a needed conceptual and operational definition of public transfers, and distinguishes between social insurance and social assistance transfers. It also discusses the question of whether social insurance payments really constitute public transfers. The conclusion is “yes,” particularly since almost all social insurance regimes in LAC run significant deficits, with general tax revenues financing a considerable share of benefits. Finally, this chapter clarifies what we mean by “redistribution” and “progressivity.”

2.1 Defining Public Transfers

The focus of this report is on public transfers as potential redistributive instruments. Two dimensions of public transfers merit clarification at the outset: (a) the notion of “public” as opposed to “private” transfers; and (b) the distinction between “social insurance” and “social assistance” as two classes of public transfers.

Public Versus Private Transfers. We define *publicly-subsidized (“public”) transfers* as payments in cash or kind from a government to a community, household or individual. In particular, a transfer must distribute government-collected revenue to beneficiaries in order to be classified as public. We classify *private transfers* as payments in cash or in kind between households or individuals, or from a private entity (foundation or insurance agency) to households or individuals. While private transfers are not the focus of our study (nor included in our aggregates of public transfers), we do present evidence from household surveys regarding the redistributive impact of private transfers.

It is important to note that this distinction between public and private transfers does not imply that only public transfers (defined as transfers by the government out of general taxation) are relevant to policy. Many “non-public” transfers or related instruments do indeed have important policy and regulatory aspects. For example, a defined-contribution pension system or an inter-temporally balanced pay-as-you-go pension system do not involve public transfers as defined in this study, but they constitute important subjects of public policy. Moreover, regulations, such as mandated employer-paid benefits or the minimum wage, may redistribute income or wealth but do not constitute public transfers in our classification, and thus are not analyzed in this report. Similarly, while taxation redistributes income, taxation involves the collection of revenue rather than the payment (distribution) of it, so we do not directly analyze taxation (though we do present evidence of the redistributive impact of taxation from other studies, in Box 1 below).

Social Insurance vs. Social Assistance Transfers. The literature on social protection generally distinguishes between two categories of public transfers: social insurance and social assistance. This distinction often builds on the social risk management concept in which social insurance helps people mitigate the impact of risks, while social assistance helps households cope with risks. In addition to risk coping, many social assistance programs focus largely on helping raise the consumption levels of the chronic poor. Another common distinction involves sources of funding, with social insurance largely drawing on contributions and social assistance being non-contributory.

We sympathize with these conceptual definitions. However, we have found that, in practice, there is a bit of a “slippery slope” in trying to distinguish between social assistance and social insurance using any

single dimension. For example, with respect to contributions, many social insurance programs run significant deficits in terms of total benefits exceeding contributions. Likewise, we have found that some social assistance programs do require contributions, in cash or in kind, from beneficiaries (e.g., Peru’s food assistance programs).

Nonetheless, social insurance and social assistance do seem to be distinct transfer instruments when we examine a *collection* of characteristics – as well as their redistributive outcomes (as the evidence in this report demonstrates). Specifically, when taken *in combination*, we find that three main characteristics distinguish between social assistance and social insurance transfers (see Box 8 below and Annex 2 for details on classification for specific case-study countries analyzed in this report):

- **Objectives.** Social assistance transfers commonly have the explicit objectives of reducing poverty and inequality. In contrast, the core objectives of social security and other social insurance systems are to prevent poverty among the elderly and smooth consumption profiles over a person’s lifetime (combining elements of inter-temporal individual savings and risk pooling).¹¹ Nonetheless, many recognize that social security systems also play an important role in society’s income redistribution policies (equity aspects), particularly with pay-as-you-go or multi-pillar systems. As such, we consider social assistance and (net) social insurance programs side-by-side as explicit redistributive tools. Our justifications for doing so are explained in the next section.
- **Eligibility Requirements.** A defining characteristic of social insurance programs in LAC is that they are typically tie eligibility to membership in the formal labor market. Since much of the labor force, and particularly the poor, do not work in the formal sector, they are largely missed by these transfer schemes (Box 1). In contrast, social assistance transfers rarely base eligibility on formal employment. Rather, social assistance programs generally use the individual or household (not the formal worker) as the assistance unit, provided that they fit certain income or poverty targeting criteria.
- **Financing.** Another distinguishing feature is that social insurance programs usually involve transfers for which beneficiaries make at least partial contributions that involve risk pooling. Put another way, beneficiaries of social insurance transfers know they will receive some benefit back from their contributions into the pooled fund, but the benefit is not necessarily directly proportional to their contributions (and in fact, many public insurance schemes run considerable deficits, as discussed below). Social assistance programs generally do not require any direct “risk-pooling” contributions from their beneficiaries. Some assistance programs can involve contributions (for example, a partial payment for a subsidized food), but these contributions involve no pooling of risk (and tend to be minimal).

¹¹ Rofman (2005). “Social Security Coverage in Latin America.” World Bank Pension Primer Series.

Box 1 – Classifying Public Transfers According to Several Distinguishing Characteristics: (see also Annex 2 for details of classification by country)		
	• Social Insurance	• Social Assistance
Objectives	<ul style="list-style-type: none"> • Smooth consumption of members in situations of old age, unemployment, disability, other shocks • Risk pooling 	<ul style="list-style-type: none"> • Common explicit focus on reducing poverty, inequality
Design Feature: Requirement of Membership in formal labor markets	<ul style="list-style-type: none"> • SI programs generally tie eligibility to membership in formal labor market. • Often stratified by occupational sector • Historic “truncation of welfare state” due to high degree of informality in LAC, particularly among the poor 	<ul style="list-style-type: none"> • Not usually linked to formal labor markets • Eligibility usually adopts the individual or household as the assistance unit, not the “formal worker”
Financing	<ul style="list-style-type: none"> • Usually involve some degree of risk pooling in form of (generally partial) contributions • Also commonly financed by general taxation due to significant deficits of benefits > contributions 	<ul style="list-style-type: none"> • Public transfers with no risk-pooling or related contributions
Examples	<ul style="list-style-type: none"> • Social security (pensions) • Unemployment insurance • Disability insurance 	<ul style="list-style-type: none"> • Conditional Cash Transfers • School Feeding • Disability/elderly assistance • Subsidies

2.2 Are Social Insurance Payments *Really* Public Transfers? Net vs. Gross Transfers

Social Insurance as Public Transfers: Basic Premise. Given that social insurance is financed by contributions, some object to the treatment of social insurance payments as “transfers.” The basic premise for classifying these benefits as public transfers is that many social security systems in LAC are unfunded, public-defined benefit schemes that incur significant tax-financed deficits. Despite formal membership contributions, most public social security regimes in LAC run significant deficits due to higher benefits pay-out than collection of contributions. Like social assistance programs, these pension deficits are financed by general tax revenues and thus constitute “public transfers” or subsidies from the Government (taxpayers) to beneficiary households.¹² As such, they clearly have important redistributive impacts that merit investigation.

Indeed, pension deficits in LAC are significant. In Brazil, for example, pension deficits represented 3.7% of GDP in 2003 for the two main pension schemes at the federal level alone – or 40% of total

¹² A related argument objects specifically to the classification of civil servant pensions as public transfers. The argument usually runs along the lines of “the general tax revenues used to pay civil servant pensions are the employer contributions, and in this case, the employer is the Government.” This argument has a point, but the question is an issue of magnitude – civil servant pensions tend to be very large – and also the fact that even with mandated contributions, these schemes run significant deficits. Brazil’s federal civil servant pension scheme, for example, ran a deficit of about 1.7% of GDP – almost the same deficit as the publicly-managed pension scheme for a much larger number of private sector workers. Moreover, civil servants tend to be at the higher end of the income spectrum, so these large tax-financed deficits are going largely to the rich, as our paper demonstrates below.

benefits paid out.¹³ Add in pension deficit from schemes operated by sub-national governments, and the total pensions deficit climbs to 5.6% of GDP. Similarly, in Argentina pension deficits averaged 3.6% of GDP, or 56% of total benefits paid out, from 1999-2004.¹⁴ (Annex 3 includes details on pension deficits for all eight countries included in this analysis).

It is important to note that in many instances, these deficits reflect (a) poor design or failure of governments to update the parameters of social security systems to keep them in balance, or (b) transitional costs produced by the reforms enacted in the 1980s and 1990s. Clearly, there are many other aspects of the design and performance of pensions systems – such as their affect on national savings, the accumulation of capital, the labor market or the fiscal situation – that can have an indirect impact on equity outcomes. This report assesses social insurance transfers in terms of their incidence on poverty and their current redistributive impact – and does not address longer-term macro-economic issues (solvency) nor their indirect impact on equity.

Calculation of Net Subsidies. This study analyzes “**net transfers**” from pensions, defined as the benefits received minus total contributions (i.e., the portion of benefits that is financed by general tax revenues due to deficits in the pension system), rather than gross benefits (defined as full benefits received, as reported in the household survey). Again, the basic premise for this is that “net pension subsidies” (net of contributions) compete for tax-financed resources with social assistance and other forms of spending, with very different redistributive patterns.

Ideally, the “net pension subsidy” for each individual should be based on the net present value of the pension income received by a pensioner over his whole life, minus the value of his/her contributions to the pension plan over his/her working life.¹⁵ The main shortcoming of this approach is the absence of data on an individual’s (historical) pension contributions. In the absence of such data, we adopt an alternative, albeit imperfect, approach.

For all countries, we use public accounts data (see Annexes 2 and 3) and estimate the “**average net subsidy coefficient**” which equals: (total benefits paid out minus total contributions received) / (total benefits paid out). The pension received by an individual (as reported in the household survey) is then multiplied by this average net subsidy coefficient. While this approach attempts to allow for the fact that pensions are partially contributory, it involves a number of implicit assumptions. For example, the calculation of the average net transfer coefficient assumes implicitly that the current contributions to the pension system represent the history of contributions of the current beneficiaries. This assumption ignores the substantial heterogeneity that may exist among the earlier contributions of the current participants in the pension system. Some of the current participants, for example, may have contributed nothing while others may have contributed more than they receive (in net present value terms). Moreover, this heterogeneity may not be neutral across the income distribution.

For Brazil, the only country in which the household survey questionnaire collected specific information on both the amount contributed to, and received from, public pension schemes, we also calculate the “net subsidy” by *quintile* of the income distribution. This allows us to take into account variations in the contribution rates across the income spectrum. Both of these adjustments fall short of a full analysis of the pension benefits and contributions of representative groups of individuals over their life-time, which is beyond the limitations of the household survey and administration data available to us at this

¹³ Sources: Palocci et. al. (2005) and World Bank.

¹⁴ Source: Dirección de Análisis de Gasto Público y Programas Sociales.

¹⁵ Afonso and Fernandes (2006) estimate expected contributions and benefit flows for a representative group of households over the period from 1976 to 1999 for Brazil, using data from the national household survey (PNAD).

time. Annex 3 provides a more detailed description of the “net subsidy” adjustments used in this paper. Unless otherwise noted, this study presents results for “net” social insurance transfers, netting out average contributions.¹⁶

Net Pensions: Conceptual and Methodological Caveats. There are several conceptual and methodological caveats regarding the use of net (instead of gross) pension benefits that should be highlighted explicitly at the outset. **First**, our methodology (summarized above and described in detail in Annex 3) for calculating net pensions adopts a “cash-flow balance” of the system, which although simple and transparent, does not take into account differences in benefits and contributions over time. Specifically, we are assuming that current contributors represent the history of current beneficiaries, which is not the case. In fact, the systems likely involve significant redistributive impacts across time and generations – and these impacts are not likely neutral across welfare quintiles. Moreover, this cash-flow analysis may mask deep-seated actuarial imbalances (especially in PAYGO systems or funded schemes in transition) which may have yet to be seen due to the demographic transitions in these systems. **Second**, using net transfers ignores the effect of pension reforms and associated transitions costs. **Third**, with the focus on net transfers associated with *public* pensions systems, the paper does not take into account funded private pension accounts, which would be more related to the social policy goals of risk pooling and redistribution across different “states” rather than redistribution of income via public resources.

2.3 Defining Redistribution

Governments transfer income with varied goals, but often seek to redistribute income to poor people.¹⁷ Redistribution is easy to identify – most famously, a Robin Hood who takes from the rich and gives to the poor – but more difficult to define. This section discusses some of the conceptual issues involved in defining redistribution. Chapter 4 below discusses more methodological issues involved in measuring redistribution.

Types of Redistribution: Focus on Current Redistribution Across Individuals. There are many types of inequality – and corresponding concepts of redistribution: across households or individuals, between geographic areas (urban/rural, regional), across ethnicities or races, across genders, across generations and across time. This paper focuses on changes in a country’s distribution of income across the spectrum of individuals at a single point in time (synchronic redistribution across income groups). The study will not, for example, analyze in detail the issue of redistribution across generations (diachronic redistribution across generations), which is certainly a relevant angle for certain transfers such as old-age pensions. Nor will it examine the potential of transfers to redistribute or “smooth” consumption across time (e.g., in the event of shocks), which is being analyzed by another on-going World Bank study.¹⁸

Judging Redistributive Outcomes. This paper adopts an explicit value judgment (social welfare function) that judges more progressive programs more favorably. This reflects the admittedly narrow focus of this paper on redistribution – and ignores other valid roles of social policy, such as promoting

¹⁶ For the Dominican Republic, social insurance only includes SS Health and not pensions since available evidence suggests full contributions for that scheme, and hence a zero net subsidy.

¹⁷ Another motive concentrates on social insurance and takes its grounding in the persistence of asymmetric information. Feldstein (2005) codifies this argument in two cases. In one, asymmetric information can obstruct the provision of private insurance. If a person and her prospective insurer have different beliefs about the person’s life expectancy, an efficient life insurance transaction may not result. In another a government cannot distinguish whether a person faces difficult circumstances – unemployment during adulthood or poverty in old age – due to bad luck, in which a transfer may be appropriate, or due to a person’s intentional behavior, in which case a transfer could create perverse incentives. As such, governments use public transfer (insurance) schemes to redistribute income in the face of risks.

¹⁸ Baldacci, Emmanuele (2005 draft).

the accumulation of human capital or consumption smoothing and risk pooling. It also requires a clear definition of what is meant by “progressive” and “regressive.” Specifically, this paper adopts the following definitions of progressivity and regressivity:

- **Absolute Progressivity.** This paper classifies a program as “progressive” (“regressive”) in absolute terms if it confers an absolutely larger (smaller) benefit to those with lower incomes. Specifically, a program is considered progressive (regressive) if those in the poorest quintiles receive a higher (lower) total share of the program’s transfers than their population share. In other words, a transfer is considered progressive (regressive) if the Coady-Grosh-Hoddinott Index of Targeting Accuracy (CGH index, discussed in Chapter 4) is greater than 1 (less than 1) such that the bottom 40% of the population receives more than (less than) 40% of total program benefits conferred.
- **Relative Progressivity.** We classify a program as “progressive in relative terms” if the average transfer represents a higher proportion of income (consumption) for those at the poorer end of the spectrum. In other words, a program is progressive (regressive) in relative terms if it confers a decreasing (increasing) proportion of income as income rises. A program may simultaneously be regressive in absolute terms (conferring a smaller absolute value to the poor) but progressive in relative terms (with this transfer representing a relatively larger share of the average incomes of the poor than of the rich).
- **Comparison to the Distribution of Income.** Related to the above concepts, a program may be regressive in absolute terms, but less absolutely regressive than the distribution of income or consumption (and hence progressive in relative terms). As such, despite absolute regressivity, the transfer may nonetheless contribute to reducing the inequality of overall post-transfer income (consumption). This is not inconsistent. Perhaps best seen in graphs comparing concentration coefficients (see Chapter 4), both a program and aggregate income (consumption) may be regressive in absolute terms, but if the program is less absolutely regressive than (post-transfer) income (consumption), it could still contribute to a reduction in overall income inequality.

Furthermore, it is important to note that this paper examines the **average incidence** of transfer expenditures. In other words, we examine the average progressivity or regressivity of current spending on public transfers (existing “stock”). We do not, however, examine the “flow” or the **marginal incidence** of an expansion in coverage of these programs (the progressivity of an additional dollar spent on a program).

Chapter 3:

Evolution of Public Transfers and the Welfare State in LAC

This chapter examines the historical evolution of public transfers within the context of the overall “welfare state” in LAC. It begins with a brief overview of the historical evolution of public transfers in LAC – which first materialized as social insurance. Because social insurance benefits (and employment protection) are tied to participation in the formal labor market, transfers in LAC have been “historically truncated,” failing to reach the poor. The chapter then describes the more recent emergence of social assistance as a parallel transfer regime that attempts to bridge the gap in coverage of the poor. Finally, the chapter presents a “snapshot” of public spending on transfers, noting several prominent patterns among the countries in the region with respect to the composition and level of such spending.

3.1 Public Transfers and the Historical “Truncation of the Welfare State”

Until recently, public transfers in LAC were mainly limited to **social insurance benefits**. Social assistance transfers received little attention until the two decades following the debt crisis of the 1980s.¹⁹ Social insurance regimes developed unevenly both across the region and within countries. From a regional perspective, three country sub-groups can be distinguished:²⁰ (a) a group of “pioneer countries,” such as Argentina, Brazil, Chile, Cuba, and Uruguay, which developed occupationally-stratified social insurance funds in the 1920s; (b) “intermediate countries,” such as Colombia, Costa Rica, Mexico, Paraguay, Peru and Venezuela, which introduced social insurance schemes after the 1940s, commonly by establishing a central social insurance agency from the outset to reduce stratification; and (c) “latecomers” in Central America, which developed social insurance institutions in the 1950s and 1960s, and the Caribbean (except Cuba), which developed contributory social insurance schemes following independence in the 1960s and 1970s.

Social insurance schemes in LAC have followed a similar trajectory in terms of expanding contingencies and coverage. The originally narrow benefits packages (covering mainly survivor and funeral contingencies) expanded over time to cover old-age pensions, sickness and disability, maternity and family benefits, unemployment insurance (in some countries), and housing loans.²¹ With initial schemes directed towards public sector workers (civil servants, the military and the judiciary), coverage was gradually extended – often through separate funds or schemes -- for more organized or strategic sectors, such as teachers, bankers, journalists, railroad and port workers, and the merchant marine, and only later for larger sectors of workers in public services, mining and manufacturing.²² Some countries then pursued voluntary or compulsory extension to self-employed and rural workers. However, the high degree of informality in LAC’s labor markets has meant that a significant share of workers has remained either formally excluded from social insurance – or has opted out (self-exclusion) by evading contributions (Box 2).²³

This piecemeal development has meant considerable **fragmentation** in LAC’s social insurance schemes, with significant diversity in governance, contributions and benefits across social insurance funds even within countries. This fragmentation has reinforced existing social and economic

¹⁹ Barrientos (2004); Fiszbein (2004).

²⁰ Mesa-Lago (1991); Huber (1996); and Barrientos (2004).

²¹ Barrientos (2004).

²² Huber (1996); Barrientos (2004).

²³ Huber (1996).

inequalities – both across beneficiaries of the different schemes (public-sector benefits were usually the most generous) and, even more strikingly, between formal sector workers (with *any* benefits) and the large and increasing mass of workers in the informal sector (Box 2).

Extensive **employment-protection legislation** complements these social insurance benefits, again, virtually exclusively for formal-sector workers. Employment protection is government-mandated but employer-provided. It generally includes a range of measures to restrict dismissals and non-standard contracts, mandate severance payments, and extend maternity leave and benefits. Some LAC country governments also mandate employer-paid family wage supplements.

As noted above, the restriction of social insurance and mandated protection for formal-sector workers has led to the characterization of LAC’s social protection systems as “**truncated welfare states.**”²⁴ Since a large share of workers in LAC is engaged in the informal sector (Box 2), the majority of the population does not receive these benefits. Moreover, since an even higher share of the poor work in the informal sector, formal social insurance transfers largely miss low-income groups. This “truncation” is directly associated with the form taken by most social insurance arrangements in LAC: one that ties benefits to membership in the formal sector. Indeed, our survey analysis results confirm this “truncation” of social insurance transfers (as shown below).

Box 2 – Informality in LAC

Definitions and Estimates of Informality. Definitions and estimates vary with respect to the extent of the informal sector. Informality is defined differently across countries: some definitions relate to firm size; others relate to formal worker registration (e.g., a labor card); still others aggregate the categories of self-employed, unpaid and “informal wage” workers into a catch-all category called informality. Without a common definition, strict comparability across countries is difficult. Nonetheless, available estimates do suggest that over half of the workforce is engaged in the informal sector in LAC.²⁵

Informality Higher Among the Poor. Informality is even more prevalent among the poor. In Brazil, for example, survey estimates put informal workers at 42% (defined as “without a labor card”) to 59% (defined as “without a labor card and/or self-employed) of the workforce. These estimates are even higher for the poor, ranging from 76% to 86% in the poorest quintile. In Colombia, available estimates put overall informality at about 61% of the workforce, but this estimate rises to 91% of the poor.²⁶ In Argentina, while overall informality is lower (about 36%, urban only), two thirds of the urban workforce is engaged in the informal sector (likely higher if rural areas were included).²⁷

Causality? The Chicken or the Egg? While there is a strong correlation between informality and truncation of formal social insurance benefits, the direction of causality is unclear. Many regard informal employment as jobs of lower quality, lower pay, and higher instability – with no benefits as the result of an exclusionary process associated with this “truncation of the welfare state” (de Ferranti et al., 2004). Others view participation in the informal sector as an optimal response of the poor given their relatively lower levels of skills and education (Maloney, 1998; Maloney and Cunningham, 2001; Maloney 2003). Auerbach et. al. (April 2005) find that informality results both from labor market exclusion, whereby some workers are rationed out of social security involuntarily, and from worker self-exclusion, whereby many workers voluntary opt out of participation in public pension schemes in LAC by evading contributions. The issue of whether the payroll taxes and contributions involved in social insurance programs lead to informality – or whether informality leads to low coverage of social insurance programs – is a bit like asking whether the chicken comes before the egg. The correlation is strong, and there are certainly feedback loops between the two.

²⁴ See, for example, de Ferranti et. al. (2004) and Fiszbein (2004).

²⁵ The ILO presents estimates of informality using the definition of “self-employed workers” (excluding professionals and technicians), family workers that receive no income, workers of companies with less than five person, and domestic employees. With this definition, the ILO presents estimates for the following countries: 42.1% in Costa Rica (2001), 57.6% for El Salvador (2000), 59.7% for Guatemala (2000), 65.3% for Nicaragua (2003), 56.2% for Panama (2003), and 53% for the Dominican Republic.

²⁶ Source for Colombia: DNP, Impacto Social de la Crisis, SISD 31. Definition similar to that of the ILO.

²⁷ Source for Argentina: World Bank (2003). “Argentina: Crisis and Poverty 2003.” Report No. 26127-AR.

Moreover, a significant (and in many cases increasing) share of these benefits are funded by **general tax revenues**, since payroll contributions have increasingly fallen short, with these “truncated welfare regimes” incurring significant deficits. While many social insurance funds were originally partially funded through payroll contributions, the gradual expansion of mandated benefits meant increasing public involvement in both the operation and financing of social insurance funds. Rising fiscal imbalances increasingly plagued social insurance schemes, particularly with the economic crisis of the 1980s. As discussed above, in many instances, these deficits reflect poor design, failure of governments to update the parameters of social security systems to keep them in balance, and/or transitional costs produced by the reforms enacted in the 1980s and 1990s. Regardless of the cause, these tax-financed deficits are significant (ranging from 25% of total pension benefits in Guatemala to 89% in Peru, see above and Annex 3).²⁸

Available evidence suggests that LAC’s **tax systems are only slightly progressive at best**. Some studies even suggest slight regressivity due to the large share of indirect taxation (Box 3). Thus, the regressivity of formal social insurance transfers has not been helped by any significant degree of progressivity in tax financing. Rather, these deficit-ridden and largely truncated social insurance schemes seem to have created a “**Reverse Robin Hood**”²⁹ phenomenon of taking from the poor and redistributing to the rich – and exacerbating LAC’s high social and economic inequalities. Evidence suggests that this situation arose from LAC’s historical concentration of power, education and resources among the elite.³⁰

This rather pervasive “Reverse Robin Hood” phenomenon contrasts with popular perceptions of the injustice of poverty and inequality (discussed above). These perceptions echo those widely held in Continental Europe, where universal benefits – including basic safety net transfers, as well as social insurance and services – are more common. This paper argues that, despite common desires for equity and social justice, the welfare states in LAC and Europe contrast sharply, with truncation of the poor in LAC as compared with more universality in Europe due to a fundamental difference: the participation of the majority of workers (poor and overall) in the informal sector in LAC.

More in line with popular perceptions of justice and equality, LAC has attempted to provide universal **health and education services** – which constitute another important dimension of the “welfare state.” Indeed, access to basic education and health care are considered inherent “rights” that are commonly even protected in national constitutions. The public sector is formally responsible for securing these universal entitlements. While progress has been made to extend access to basic health and education – particularly over the past fifteen years – significant gaps in access and quality remain, particularly for the poor. As Barrientos (2004) asserts, the common aspiration among LAC countries for universal health and education remains just that: an aspiration. A significant share of the poor lacks access to adequate quality education and health services, thereby reinforcing the “truncated welfare state” regime that has historically exacerbated social and economic inequalities in LAC. In fact, studies of inequality have shown that the main underlying factors that explain LAC’s high degree of inequality include inequities in education and regressive public social insurance transfers.³¹

²⁸ For the Dominican Republic only, we assume a net pension subsidy of zero because available evidence suggests full contributions for this relatively young pension scheme.

²⁹ Lindert, Peter (2005).

³⁰ de Ferranti, et. al. (2004).

³¹ World Bank (October 2003); de Ferranti et. al. (2004).

Box 3 -- Financing Public Transfers in LAC: Payroll Contributions and General Taxation

The flipside to the topic of redistributive impacts of public transfers is the question “who pays for them?” Public transfers in LAC are primarily financed by (a) general taxation revenues (both social assistance and net social insurance transfers); and (b) direct payroll contributions (for social insurance programs, as discussed elsewhere in this paper).

Overall Revenue Sources in LAC. Income taxation is generally viewed as the better instrument for addressing both efficiency and equity concerns of policy-makers.³² However, income taxes are less effective when a large share of the population is employed in the informal sector, as is the case in LAC (see Box 2). Indeed, income taxes constitute a relatively small share of total tax revenue³³ collected in LAC (21%) as compared with developed countries (34%).³⁴ Instead, most governments in LAC raise a significant share of revenues from consumption taxes (46%). Direct payroll contributions for social security represent about 18% of total tax revenue sources in LAC, as compared with 27% in developed countries. Property taxes represent less than 2% of overall tax revenues, on average in LAC.

Who pays the taxes? Accurate answers to the question of who pays taxes are surprisingly elusive, despite much literature on the subject. This is essentially because (a) there is a significant difference between the intended design and actual implementation of tax systems; and (b) the true costs of taxation are not necessarily borne by those who actually file their payments (for example, businesses generally pass on at least some share of the burden of sales taxes to consumers via higher prices). Tax incidence studies are thus based on significant assumptions rather than direct empirical observation. Indeed, de Ferranti et. al. (2004) explicitly question whether the “evidence” provided even by careful incidence studies “is of much value.”

Given the low importance of personal income taxes and property taxes in LAC, the direct redistributive leverage of the tax system in most countries should be expected to be very small or even negative (slightly regressive). Indeed, most studies find little evidence of much fiscal redistribution through taxes in LAC, with tax systems in the region ranging from slightly progressive to slightly regressive (sometimes even for the same country, with different studies and methodologies used).³⁵ One of the more careful studies of tax incidence, conducted by Engel, Galetovic and Raddatz, finds Chile’s taxes to be slightly regressive, despite the fact that Chile’s tax system is one of the most effective in LAC. Their simulations suggest that even if taxes were made much more progressive through specific reforms, the impact on Chile’s inequality (Gini) would be rather small. They conclude that the most important factor affecting the distributional impact of the tax system is how much revenue it generates – and how well these revenues are used as redistribution instruments by the public sector.

3.2 Untruncating the Welfare State? Emergence of the Dual Regime of Social Assistance

Perhaps reflecting popular desires for increased equity and social justice, most LAC countries have developed and expanded social assistance programs over the past two decades. Social assistance was seriously under-developed until twenty years ago, when the debt crisis caught most LAC countries unprepared in terms of “safety nets.” Since then, practically every country in the region has moved in the direction of developing social assistance instruments and increasing resources devoted to these programs (Box 4).³⁶

Early social assistance interventions took fairly rudimentary forms, such as price subsidies on basic commodities (food, energy) and/or direct feeding programs. Many countries also launched social funds as a way to channel resources, investments and services to poor communities. In some cases, workfare programs were introduced (e.g., Chile in the 1980s, Argentina in the 1990s, Colombia in 2001). Workfare programs (many of which are not covered in the present analysis due to data limitations) have been shown to have important redistributive impacts.³⁷

³² Zee (1995) and Grosh et. al. (Draft June 2005).

³³ Including social security payroll taxes.

³⁴ Source: Stotsky and WoldeMariam (2002) and Government Finance Statistics Database, as cited in de Ferranti et. al. (2004). Figures for the period from 1995-99 for LAC, from 1991-2000 for developed countries.

³⁵ de Ferranti et. al. (2004) drawing on the following sources: Chu et. al., (2000), Gemmel and Morrissey (2002), Engel et. al. (1998), and others.

³⁶ Fiszbein (2004).

³⁷ For example, Argentina’s former *Trabajador* program was one of the best targeted programs among a large international sample, with a highly progressive absolute incidence (CGH index = 4.0). Source: Coady, Grosh and Hoddinott (2004).

Box 4 – Weaving Social Safety Nets with a Mix of Instruments

Safety nets are usually comprised of a number of programs, reflecting the multiple objectives of social policy and the multitude of vulnerable groups typically present in today's societies. In principle, the mix of programs should (a) be judicious, covering the main vulnerable groups in a balanced fashion (the chronic poor, the transient poor, and special vulnerable groups); and (b) be balanced with measures that will build assets of the poor in the long run and lead to their employment or reduce the volatility of their incomes.

The need for multiple instruments does not obviate the need for coordination. Although the safety net may include a variety of programs, possibly even run by different agencies, it should not result in fragmentation or duplication to such a degree that it lowers economies of scale or produces excessive transactions costs.

The mix of safety net instruments in LAC is specific to each country, though there are some notable patterns. Higher spending countries, such as Chile and Brazil, generally operate a range of programs, including: (a) cash-based transfer programs, with the largest generally being cash transfers for the poor elderly and disabled, such as Chile's PASIS and Brazil's BPC-LOAS, followed by conditional cash transfers, such as Chile Solidario/Puente and Brazil's *Bolsa Familia* Program; (b) school feeding; and (d) a range of smaller specific cash- and in-kind programs tailored to specific vulnerabilities or vulnerable groups. These are typically complemented by large social insurance programs for the elderly (pensions) and unemployed. On the opposite end of the spectrum, lower spending countries, such as Guatemala and Peru, operate fewer and smaller programs, most of which involve food distribution.

In the mid-1990s, a new type of social assistance instrument was introduced³⁸ in the form of “conditional cash transfers” (CCTs), which provide direct cash assistance to eligible (usually poor) households provided that members of beneficiary families meet certain requirements for school attendance and health care use. CCTs have proven to be extremely effective instruments for reducing current income poverty and inequality (via the direct cash transfers) and for reducing long-term poverty via incentives for investments in human capital (See Box 5). CCTs should not be viewed as a “magic bullet,” however as they need to be complemented by investments in quality education and health services, as well as other basic infrastructure. Nor should they be viewed as sufficing as a single instrument for the safety net: indeed, most well-functioning safety nets are usually comprised of a number of programs (Box 4).

To complement these broader interventions, several countries have also developed assistance programs tailored to the specific needs of vulnerable groups, such as Chile's PASIS benefits for the poor elderly, disabled, widows and orphans. A few countries have also attempted to create subsidized “insurance-type” mechanisms targeted to the poor. Brazil's subsidized rural pensions are one example, though these coexist with constitutionally-guaranteed old-age social assistance transfers (BPC-LOAS). Another example is the subsidized health insurance program (SHIR) in Colombia.

While the size, composition, sophistication and effectiveness of social assistance programs vary between countries (see Box 4), these safety nets have emerged as a “dual system” in parallel with the more traditional social insurance regimes. The historically “truncated welfare state” has thus evolved in the direction of dual social protection systems: (a) largely generous formal social insurance schemes that often involve significant public subsidies from general taxation and that tie benefits to formal-sector employment and hence favor the middle- and upper-classes; and (b) smaller social assistance benefits that are not linked to formal employment and are usually (ostensibly) targeted to the poor.³⁹

³⁸ In some cases, these CCTs emerged as replacements for less effective price subsidies or in-kind transfers, reflecting an important “evolution” of safety net instruments in LAC.

³⁹ Fiszbein (2004).

Box 5 – Conditional Cash Transfers

Common Objectives. Over the past decade, numerous countries in LAC have introduced “conditional cash transfers” (CCTs), which have the dual objectives of (a) reducing current poverty and inequality through the provision of cash transfers to poor families (redistributive effect); and (b) reducing the inter-generational transmission of poverty by conditioning these transfers on beneficiary compliance with key human capital investments (structural effect).

International Experience. Initiated in Brazil at the municipal level in the mid-1990s, Mexico developed the first large-scale CCT program in the LAC region, originally called *Progresas*, now *Oportunidades*. Brazil then expanded its municipal programs to the national level, first as *Bolsa Escola*, which focused on school attendance, then with *Bolsa Alimentação*, which introduced health-related conditionalities, then with the *Bolsa Família* Program in 2003, which integrated predecessor CCTs. CCTs have spread to other countries in LAC, including: Argentina,⁴⁰ Colombia, Chile, Dominican Republic, Ecuador, Honduras, and Jamaica. Interest extends beyond the region, with similar schemes emerging in countries such as Turkey, the West Bank and Gaza, Pakistan, Bangladesh, Cambodia, Burkina Faso, Ethiopia, and Lesotho.

Eligibility and Conditionalities. Eligibility rules vary, but most programs seek to channel CCT benefits to poor families, with significant efforts to develop strong targeting mechanisms, usually combining geographic targeting with some sort of household assessment mechanisms, such as proxy means testing (using multi-dimensional indicators that are correlated with poverty as a way to screen for eligibility). Conditionalities vary, but usually include minimum daily school attendance, vaccines, prenatal care, and growth monitoring of young children. Mexico’s *Oportunidades* has also added bonuses for school graduation and participation in health-awareness seminars.

Beneficiaries. The programs range in size. Brazil’s Bolsa Família is now the largest in the LAC region, covering 8.7 million families (35 million people, or close to a fifth of its population), followed by Mexico’s *Oportunidades* (5 million families). Others are smaller, such as Chile’s Solidario Program, which covers over 200,000 families, and Colombia’s Familias en Acción program, which covers about 400,000 families.

Resource Use. All are fairly lean, in terms of resource use. CCTs in both Mexico and Brazil represent about 0.37% of GDP. With higher unit transfers, Argentina’s Jefes claims a slightly larger share of GDP (0.85%), though still less than one percent. Programs in Chile (0.08% of GDP) and Colombia (0.1%) claim an even smaller share. As discussed below, administrative costs of these programs are fairly low, averaging about 5% of total program outlays (for mature programs; start-up costs are higher), as compared, say, with an average of 36% for food-based programs.

Results. Despite their relative economies, CCTs are showing impressive impacts. As demonstrated below, efforts to target CCTs to the poor have been fairly successful, with the majority of CCT benefits actually reaching the poor (no small feat in LAC). Moreover, their structural impact on breaking the inter-generational transmission of poverty is impressive. Experimental and quasi-experimental evaluations suggest important impacts, well beyond the redistributive impacts discussed in this paper:⁴¹

- **On health and nutrition:** (a) increased total and food expenditures (Brazil BA, Mexico, Honduras, Nicaragua); (b) increased calorie intake and improved dietary diversity (Brazil BA, Mexico, Nicaragua); (c) improved child growth (Mexico, Nicaragua, Brazil BA); (d) increase in use of prenatal care and reduced maternal mortality (Mexico); (e) reduced incidence of smoking and alcohol consumption (Mexico); and (f) improved treatment of diabetes (Mexico).
- **On education:** (a) improved primary enrolment among the poor who were not previously enrolled (Nicaragua, Honduras, Brazil); (b) increased secondary enrolment (Mexico, Colombia); (c) reduced drop-out rates and repetition (Mexico, Nicaragua, Honduras); and (d) reduced child labor (Mexico-boys, Nicaragua, Honduras-boys, Colombia, Brazil). Interestingly – an unexpectedly – evaluations show little impact on test scores or learning (Mexico), which reinforces the point that CCTs need to be combined with investments to improve the quality on the supply side.

The emergence of social assistance has made some progress in “untruncating” the welfare state in LAC – as shown in our household survey analysis of eight countries below. Nonetheless, our analysis also shows that the benefits differential between unit transfer values received by the poor and the non-poor

⁴⁰ Argentina’s *Jefes de Hogares* program is a bit different in that the “conditionalities” involve work-related and labor training actions on behalf of beneficiaries rather than school attendance and health care. Argentina also operates a smaller CCT, called the Income for Human Development Program (IDH), which conditions cash transfers on schooling and health care.

⁴¹ See: Maluccio (2004), Olinto (2004), Rawlings and Rubio (2004) and Rawlings (2004) for summaries of the impacts of CCTs.

is very large. As such, broad coverage of social assistance has not fully compensated for significant biases in the far more generous (net) social insurance subsidies to the rich. Moreover, the characterization of a dual system of parallel social insurance and social assistance transfers remains valid. No country in LAC has been able to effectively and convincingly integrate social insurance and social assistance as part of a coherent system of social protection.⁴² The duality of these social insurance and social assistance systems creates a patchwork of inefficiencies arising from a lack of policy consistency and coordination, including: gaps and duplications in coverage, increased administrative costs from multiple registry and governance systems, incentives distortions, etc. Many countries have undertaken reforms to improve these systems, but such reforms generally follow parallel tracks.

3.3 Current Snapshot: the Scope and Composition of Public Transfers in LAC

Overall, public spending on transfers represents about 5.7% of GDP in LAC.⁴³ Public spending on transfers in OECD countries is close to three times that average. Adding in other public social spending categories (education, health, other) and LAC spends an average of 13.4% of GDP on the social sectors (Figure 5). Again, this is low relative to OECD countries, which spend about twice that amount.

Despite these averages, there is considerable variation in the share of GDP devoted to public transfers and overall social spending in LAC, reflecting both differences in economic development and the historical evolution of the welfare state among countries in the region. The composition of public spending on transfers also varies significantly among LAC countries. Given variations in the composition of public transfers and the level of public spending on these benefits, LAC countries can be classified into three broad groups, as a simplistic typology (Box 6 and Figure 4):

- **Group 1: “Higher SP Spenders,” Mostly SI and Cash Transfers.** At the top of LAC’s spectrum, countries such as Argentina, Brazil, Chile, Colombia and Uruguay spend a significant share of GDP on transfers (averaging 11.5% of GDP), higher than such spending in the U.S. (8.3%), but not quite at the levels of spending in Continental Europe (16.3%). The bulk of spending on transfers in these countries goes to social insurance, commonly covering a broad range of benefits, such as pensions (social security), disability insurance, and unemployment insurance. This dominance of social insurance reflects the expansion and growth in spending on such schemes over a relatively longer historical period than other countries in LAC (as discussed above). Even netting out pension contributions, public spending on net social insurance transfers constitutes a large share of GDP (about 5% on average) in these countries (Figure 6). In fact, the tax-financed net pension subsidies are over three times higher than spending on social assistance in Argentina, Brazil and Colombia, and over two times higher for Chile. Although total social assistance spending is lower (1.8% of GDP on average) than social insurance among these countries, it is still higher than the share of GDP allocated to social assistance in the Low and Middle SP Groups. Moreover, social assistance in this “High Spending” group mainly involves cash transfers (particularly CCTs),⁴⁴ covering a broader range of beneficiaries (poor families, disabled, elderly).

⁴² Fiszbein (2004).

⁴³ See Annex 2 for a detailed accounting of public spending data for the eight case-study countries in this report. Data on public spending for the other non-case study countries come from published World Bank country studies. OECD spending data from the OECD, 2001.

⁴⁴ Food programs, such as school feeding, are still prevalent, but cash transfers take a more prominent role (and share of the budget) in these “Higher SP Spending” countries.

- **Group 2: “Moderate SP Spenders:” More SI.** In the middle of the continuum, countries such as Mexico, Venezuela, Paraguay, Peru and Costa Rica, allocate a more moderate share of GDP to total public transfers (averaging 3.7% of GDP). Much of this spending goes to social insurance (mainly pensions). Even netting out contributions, public spending on net social insurance transfers constitutes an important share of GDP in these countries (Figure 6). Overall, this group spends the least on social assistance transfers (0.8% of GDP, even less than countries in Group 3). Social assistance programs in this group include a mix of in-kind transfers (Peru) and cash transfer programs (Mexico).
- **Group 3: “Lower SP Spenders:” Mostly SA.** At the bottom end of the spectrum, countries such as Nicaragua, Honduras, the Dominican Republic, Guatemala, and El Salvador spend an average of just 1.9% of GDP on social protection transfers. The bulk of this spending goes to basic social assistance, most of which consists of in-kind transfers, such as school feeding and other food programs, though some countries in this group are experimenting with conditional cash transfers (CCTs).

Simple correlations of overall social protection spending levels with country-level indicators reveal unsurprising results. Overall, richer countries with older populations spend more on public transfers. Countries with better government, less corruption, and more accountability spend more on public transfers. The small sample size, however, makes it difficult to control for these factors simultaneously in multi-variate regressions.

Interestingly, the patterns across countries differ for social insurance and social assistance. For **social insurance**, the ratio of social insurance transfers to GDP is not only large across countries, but it also rises monotonically with income. In contrast, the ratio of **social assistance** transfers to GDP is not only small but seems completely uncorrelated with per capita income. In effect, the ratio of social assistance transfers to GDP is somewhat bimodal in our sample: while capped at less than 2% in any country, spending is higher in both the richer and the poorer countries in the sample, with a dip in the middle.

Although it is beyond the scope of this paper to explore the underlying forces – political, economic and demographic – for these spending patterns, there is clearly some barrier to lowering social insurance transfers (even where they are highly inequitable) and raising social assistance transfers (even where they are progressive). Economic and demographic factors may come into play – as evidenced by the rise in social insurance transfers as a share of GDP with per capita incomes (greater scope for risk pooling with higher incomes) and aging populations – patterns that are not mirrored for social assistance. Some barriers likely arise from the different political constituencies served by these two classes of transfers, and the vested interests of more organized formal sector workers.

Another possible factor is the possible perceived “legitimacy” conferred on social insurance programs by the fact that they link benefits to contributions (even if only partially).⁴⁵ Even though they are highly regressive (as shown below) and financed to a large part by general revenues, social insurance schemes may claim more legitimacy because societies perceive them as “rightfully earned” through contributions. This could also explain – at least in part -- the emerging popularity of conditional cash transfers, whereby societies perceive that the fact that beneficiaries have to comply with a set of “co-responsibilities” (conditionalities) bestows a greater degree of legitimacy on these transfers than pure cash or in-kind handouts.

⁴⁵ The authors would like to thank Augusto de la Torre for his thoughtful suggestions on this point.

1. Box 6 –Typology of LAC Countries According to Level and Mix of SP Spending

	<i>Countries</i>	<i>Spending Averages and Mix</i>		
		<i>Overall SP</i>	<i>Social Insurance</i>	<i>Social Assistance</i>
Group 1: Higher SP Spenders	Colombia, Chile, Argentina Brazil, Uruguay	Avg: 11.5% of GDP Mostly SI	Avg: 9.8% of GDP Old age, disability, unemployment insurance	Avg: 1.8% of GDP Mostly cash transfers
Group 2: Middle SP Spenders	Venezuela, Paraguay, Peru, Mexico , Costa Rica	Avg: 3.7% of GDP More SI	Avg: 2.9% of GDP Mainly pensions	Avg: 0.8% of GDP Mix of in-kind and cash transfers
Group 3: Lower SP Spenders	Nicaragua, Honduras, Dominican Republic, Guatemala, El Salvador	Avg: 1.9% of GDP Mostly SA	Avg: 0.3% of GDP Mainly pensions	Avg: 1.6% of GDP Mostly in-kind transfers Some piloting of CCT's

Authors' analysis using spending data and country information. SI spending includes gross value of pension benefits. **Bold** countries are case study countries for this study.

Chapter 4:

How Effectively do Public Transfers Redistribute Income in LAC?

Building on the above historical context and current snapshot of public spending on transfers in LAC, this chapter presents the results of our analysis of the redistributive impact of these transfers. After an initial discussion of data sources and measures of redistribution, this chapter presents redistributive outcomes from household surveys in terms of coverage, unit values, absolute incidence, inequality, poverty, and overall social welfare impacts. The section also compares absolute incidence of public transfers to other types of social spending (subsidies, education, health) as well as private transfers and health insurance.⁴⁶

4.1 Measuring Redistribution

Data Sources: Household Surveys. Large household surveys offer the most direct way to empirically measure the outcomes of transfers. This paper presents redistributive outcomes from household surveys for 56 public transfer interventions in eight LAC countries: Argentina, Brazil, Chile, Colombia, the Dominican Republic, Guatemala, Mexico and Peru. Several reasons motivated the selection of these eight countries. First, each offers a recent and large household survey with information on specific public transfers.⁴⁷ Second, these countries represent a range of social protection systems. As discussed above, LAC countries can be divided into a stylized typology of three types of countries according to their level and mix of spending on social protection transfers. The countries selected for case studies in this paper represent a mix of countries from each of these three stylized groups.

Capturing Public Transfer Programs in Household Surveys. The inclusion of questions on specific transfers in household survey questionnaires drives the extent to which we can measure the redistributive effectiveness of these transfers. Box 7 lists the social assistance and social insurance transfers, as well as other “non-public” transfers, that were included in household surveys – and hence in our analysis of the redistributive impacts of transfers in our eight case-study countries. It also indicates what share of total public social assistance and social insurance spending were “captured” by the transfers included in the household survey questionnaires (see Annex 2 for details).

The household surveys capture most (gross) pension spending for the countries in our sample. Nonetheless, the share of spending on social assistance captured in household surveys varies significantly, ranging from 23% of social assistance spending in Brazil to 92% for Guatemala. This raises some important caveats with respect to the inclusion of social assistance programs in our analysis. Notably, due to data limitations (and the fact that the analysis is “hostage” to the specific programs captured in single year cross-section surveys), some important social assistance programs were inevitably left out. Broadly speaking, several notable workfare programs, such as Argentina’s former *Trabajar* program,⁴⁸ and Colombia’s *Empleo en Acción*, were excluded from the analysis because they were not included in the household surveys in question. Some early-childhood development or nutrition

⁴⁶ When possible analysis is restricted to public health insurance, but as Box 6 indicates, some household surveys include both public and private health insurance.

⁴⁷ A longer list of countries was initially considered. Some, such as Costa Rica, Jamaica, and Uruguay, were excluded (despite significant spending on public transfers and/or existence of programs of interest) because the household surveys available at the time the analysis was conducted did not include sufficient detail on receipt of specific programs. Others, such as El Salvador and Paraguay were excluded because of limited existence of public transfer programs (and low spending), and consequently, low coverage of such programs in household surveys.

⁴⁸ In fact, other program-specific analyses show that Argentina’s former *Trabajar* public works program was quite progressive (well-targeted), with a Coady-Grosh-Hoddinott Index of 4.00 (higher than programs included in our sample). The program, however, was phased out and replaced by the Household Heads program analyzed in this paper.

programs were included in household surveys and hence our analysis (if they involved a significant cash or in-kind transfer component), but the social service aspects of many ECD and related programs were under-represented in the surveys. Social funds were also left out since they involve transfers to communities and not households, and as such were not captured in the household surveys. In some instances, specific notable programs – such as Brazil’s BPC-LOAS disability and elderly assistance and Colombia’s *Familias en Acción* were not included in the household survey questionnaires.

Measures of Redistribution. Using household survey data from these eight countries, we adopt several indicators to measure redistribution of each transfer.

- We first look at the basic measures of **coverage** (what portion of the population and of each quintile receives the transfer?) and **unit transfers adjusted for purchasing power parity** (how much income do beneficiaries receive from the transfer?). Coverage indicators can be misleading due to significant differences in the unit value of benefits, both across transfers and across quintiles for the same transfer -- “not all transfers are created equally.”
- We then consider the **absolute incidence of public transfers** and compare our results to international evidence. Absolute incidence reflects the portion of a transfer’s budget that goes to each income quintile of the population. Absolute incidence identifies a transfer as progressive if more than 20% of the transfer’s budget goes to those in the country’s poorest quintile (see definitions of “progressivity” in Chapter 2).
- We also analyze the **impacts of transfers on inequality** by estimating inequality measures with and without the transfers and calculating concentration coefficients for each transfer. We discuss several inequality measures and graph the concentration coefficient, which is effectively a Gini coefficient calculated for the transfer’s distribution of benefits. The concentration coefficient and inequality measures define a transfer’s progressivity relative to the country’s existing distribution of income (see definitions of “progressivity” in Chapter 2).
- Similarly, we consider **poverty impacts** as the change in poverty headcount that arises from subtracting transfer income from the household’s reported income or consumption.
- Finally, we measure social welfare impacts of transfers using the **distributional characteristic index (DCI)**. The DCI is a cost-benefit statistic which reports the change in social welfare generated for each dollar of transfer budget distributed. To calculate the DCI, one assigns a welfare weight to each household in a population, with poorer households having greater weight than wealthier households and with the weight depending on the degree of aversion to inequality. The total social welfare benefit of the transfer is then estimated according to the number of dollars each household receives from the transfer. Dividing that total welfare benefit by the transfer’s budget produces the DCI. This measure has the advantages of allowing for an analysis of the redistributive impact of transfers that (a) takes into account the full spectrum of households (not just certain quintiles); and (b) is independent of the different sizes of transfers’ budgets.

Summary indicators are listed in Tables 4A-4C, with key patterns highlighted in the graphs in Annex 1. Annex 4 provides a methodological derivation of these measures, and Annex 5 includes notes on the application of these measures to household survey data in the eight study countries.

**Box 7 – Classification of Public Transfers from Household Surveys: 8 Country Case Studies in LAC
With % of SA and Gross SI Spending that is Covered by the Programs Listed in Household Survey Questionnaires**

<i>Country/Survey</i>	<i>Public Social Assistance (SA)</i>	<i>Public Social Insurance (SI)</i>	<i>Other Non-Public Transfers</i>
Argentina EPHC 2003	66% of SA Spending* Heads of Household Program (Jefes)	89% of Gross SI Spending*⁴⁹ Pension (social security)**	Private Transfers
Brazil POF 2002-03	23% of SA Spending*⁵⁰ Auxilio Gas (AG) Bolsa Escola (BE) Minimum Income (Renda Mínima) Chile labor eradication (PETI)	100% of Gross SI Spending* Salary allowance (PIS/PASEP) Public pension receipts ⁵¹ Public leave benefits Unemployment Insurance	Private Transfers Private pension receipts Severance Payments (FGTS) Private Health Insurance
Chile CASEN 2003	85% of SA Spending* Chile Solidarity Unified family subsidies (SUF) Family allowance, Scholarships Potable water subsidy PASIS-Old Age assistance pension PASIS-Disability assistance pension	100% of Gross SI Spending* Old-age pension Disability pension Widow pension Orphan pension Unemployment Insurance	Private Transfers Public/Pvt Health Insurance
Colombia ECV 2003	79% of SA Spending* Preschool lunch & pre-school snack School snack or lunch, school restaurants School scholarships Hogar comunitario, guarderia o jardin Family, women, and infants (FAMI)	100% of Gross SI Spending* Retirement pension**	Private Transfers Private Health Insurance
Dominican Republic ENCOVI 2004	68% of SA Spending* School assistance card (TAE) School feeding program (PAE) Essential drugs program (PROMESE) National price stabilization (INESPRE) Gas subsidy	100% of Gross SI Spending* (3% of Net SI Spending)*** Social security – health	Private Transfers (international and domestic)
Guatemala ENCOVI 2000	92% of SA Spending* School snack, School breakfast Milk: powdered, glass; Glass of corn mush (<i>atoll</i>) School transport subsidy + scholarships; School materials packet; Nutrition pension	100% of Gross SI Spending* Pensions** (retirement, survivorship)	Private Transfers Private Health Insurance
Mexico ⁵² ENNVIIH 2002	83% of SA Spending* Oportunidades, PROCAMPO, Scholarships Other government transfers ⁵³	100% of Gross SI Spending* Retirement pensions** Other transfers (indemnizations)	Private Transfers Health Insurance
Peru ENAH0 2003-04	77% of SA Spending* Glass of Milk, Comedor popular, infantil School breakfast, school lunch	100% of Gross SI Spending* Retirement pension**	Private Transfers Health Insurance

* % of total public spending in each category (SA and SI) that was captured by the programs included in the household survey (see Annex 2). For SI, percentages indicated here refer to gross pension benefits. As discussed in Annex 3, we make a further adjustment to net out contributions (net pension subsidies). ** Household survey does not distinguish between private and public pensions (social security). *** Pension information is available for the Dominican Republic but we assume a net subsidy of zero since it is apparently fully funded by contributions (see Annex 3). Analysis uses net subsidies for pensions for all other countries.

Methodological Caveats. All of our empirical measures of the redistributive power of public transfer programs are based on some implicit assumptions that might have an effect on the conclusions that are drawn from these measures. It is thus necessary to state these implicit assumptions up front. Our preferred measure of welfare is household consumption per capita inclusive of all the public and private

⁴⁹ Unemployment insurance was included in the survey, but was excluded from our analysis due to insufficient numbers of observations.

⁵⁰ Several important social assistance programs were not included in the POF survey, including the Bolsa Familia Program, the BPC-LOAS cash transfers for the poor elderly and disabled, and school feeding. The Bolsa Familia Program was launched after the POF 2002-03 survey was conducted. The POF 2002-03 did include questions on receipt of Bolsa Escola (BE) and Auxilio Gas (AG), which are two of the four pre-reform programs that were merged to create Bolsa Familia.

⁵¹ Public pensions in the POF questionnaire refer to pensions paid by the public “previdencia” agency. These could include pensions to civil servants (RJu) or to private sector workers (RGPS).

⁵² For Mexico, we used the ENNVIIH 2002 survey, which yields significantly different results for redistributive outcomes than other surveys, such as the ENIGH surveys. Should the data from the ENIGH 2004 become available soon, we intend to redo the analysis using this new survey.

⁵³ Includes the programs VIVAH, Credito a Palabra, PET, Alianza para el Campo, Fund for micro, small, and medium enterprises, and “All other transfers.”

received (see Annex 5 for a more detailed discussion of estimating redistribution in practice).⁵⁴ In three of the countries (Argentina, Chile and Dominican Republic) where a consumption measure is either not available or problematic, we use household income inclusive of all public and private transfers received. The sensitivity tests that we conducted suggest that these assumptions have relatively little influence on the resulting estimates of the redistributive impact of transfers (see Annex A.5.4) In addition, in the calculations of the impact of the public transfers on poverty, inequality, and welfare, it is assumed that the removal (or receipt) of the public transfer does not have any significant effects on household labor supply behavior. Although the sensitivity of our findings to this latter assumption was not investigated, the limited evidence that is available on this issue suggests that this may not be a serious cause of concern (see also the discussion in Chapter 5).

4.2 Redistributive Outcomes of Public Transfers in LAC

4.2.1 Coverage: Who Receives Public Transfers?

The graphs in Figure 7 present patterns of coverage of public transfers, as revealed by household survey data. Briefly, these graphs show the following patterns:

- **Overall Patterns of Coverage: Far from Universal.** Overall, about half of the population in LAC is *not* covered by *any* public transfer. Within the region, however, there is significant variation in coverage, with only 23% of Peruvian citizens not receiving any public transfer as compared with 73% of Mexicans without benefits.
- **Truncation of Social Insurance Coverage.** Overall, coverage of social insurance in LAC is very low⁵⁵ – though far higher for richer quintiles and urban residents than for poor or rural residents. These results seem to confirm the notion of the “truncation of the welfare state” in LAC – at least for social insurance. Low coverage of the poor is not surprising given that participation in most social insurance schemes in LAC is tied to formal employment. As discussed above, most LAC economies are highly informal, with an even higher share of poor workers in the informal sector. Hence, by virtue of design features that require formal-sector employment for eligibility, most social insurance schemes are indeed truncated with respect to their coverage of the poor. The exceptions are (a) health insurance in Colombia, which provides subsidies for the poor, yielding significant coverage of all quintiles; and (b) Brazil’s pension system, which manages to extend coverage to a considerable share of the poor, likely reflecting (a) its mandate for participation in public pension schemes for both civil servants and private workers, including the self-employed; and (b) explicit attempts to extend coverage of public pensions to the rural poor.⁵⁶
- **Filling the Gap? Coverage of Social Assistance.** Our survey analysis does reveal that coverage of social assistance is higher overall, and relatively higher for the poor as compared with those in richer quintiles (Figure 7).

Nonetheless, due to significant differences in unit subsidies (both in favor of social insurance and in favor of those in higher income quintiles), the conclusion that social assistance in general – or targeted

⁵⁴ Note that, unless otherwise specified, all results are on a per capita basis using quintiles ranking individuals on post-transfer incomes or consumption.

⁵⁵ These coverage figures, which present coverage in terms of shares of all residents, appear lower than traditional measures, which present coverage in terms of shares of the elderly population.

⁵⁶ Medici (September 2004).

rural pensions in Brazil in particular -- has overcome the “truncation of the welfare state” in social insurance would be premature, as discussed below.⁵⁷

Moreover, household survey data on coverage should be considered with caution in light of several caveats. **First**, these data come from household surveys that are designed to represent features of a country’s population with precision. None of these surveys, however, use the stratification or sample size that would allow similar precision in estimates of beneficiaries of a particular public transfer. Coverage data from household surveys thus usually differ somewhat from administrative data on program participation. **Second**, coverage rates reflect the time at which the data were collected. Guatemala’s ENCOVI was conducted in 2000 and the other surveys were conducted in 2002 or 2003. Some programs have expanded rapidly since the surveys used in this study were carried out. For example, Mexico’s Oportunidades, and Brazil’s Bolsa Familia program (which has since integrated the Bolsa Escola and Auxilio Gas programs with two other programs) have both expanded rapidly since 2002-03. **Third**, as discussed above, the analysis is “hostage” to the specific programs captured in single year cross-section surveys (Box 7). Although most large programs with national coverage were included in the surveys, some notable programs were inevitably left out (see discussion of Box 7 above, and Annex 2). In a few instances, programs were recorded in household surveys but with too few observations to permit analysis (e.g., Brazil’s BPC-LOAS disability and elderly assistance and Argentina’s unemployment insurance), and this study arbitrarily included only transfer programs that registered more than 200 households in the survey sample. **Fourth**, coverage indicators are presented as (the number of individuals in the group who live in a household where at least one member receives the transfer) / (the number of individuals in the group).⁵⁸ While this facilitates comparability across public transfers in this study, it does not take into account demographic aspects of program coverage, such as the fact that elderly pensions would not apply to all residents but to the elderly demographic group, or that school feeding programs would apply only to public school children. As a result, our coverage figures tend to appear lower than traditional measures (e.g., of pension coverage which would typically be presented as the percent of elderly covered).

For these reasons, and vastly differing unit subsidy values (discussed below), we believe that interpretation of coverage data by itself can be somewhat misleading.

4.2.2 Unit Subsidy Values (Per Beneficiary): “Not all Transfers are Created Equally”

An analysis of reported unit values adjusted for purchasing power parity differences highlights one key message of this report: “not all transfers are created equally.”⁵⁹ Indeed, average unit transfer values vary significantly by transfer type, country, and recipient group (summary Tables 4A-4C). Predictably, average per-beneficiary unit transfer values are higher for “Group 1 SP Countries” – such as Argentina, Brazil, and Chile, which spend a higher share of GDP on public transfers – and lower for “Group 3 SP Countries,” such as Guatemala and the Dominican Republic.

Unit transfers are *far* more generous for social insurance than for social assistance – even when insurance contributions are netted out (only considering the “net” pension subsidies). In Peru, for example, the net unit value of social insurance transfers (pensions net of contributions) is over 62 times

⁵⁷ The apparent “universal” coverage of the gas subsidy in the Dominican Republic is a prime example of how coverage data can be misleading: in fact, the distribution of the subsidy is highly regressive in absolute terms, as discussed below.

⁵⁸ As Rofman (2005) points out, in principle, coverage by a social insurance program has two phases: phase one, during which workers contribute to the system, measured by the ratio of the number of participants/contributors and the economically active population, and phase two, related to the receipt of monetary benefits upon reaching a certain age, measured by the coverage of the elderly population

⁵⁹ Unit values are calculated as the mean monthly per capita amounts received by a beneficiary household (as reported in the household surveys), measured in US\$ that have been adjusted for purchasing power parity differences.

higher than the average value of Peru’s social assistance programs (food-based). In Brazil, net public pension benefits (net of contributions) average US\$66 per beneficiary household, as compared with less than US\$7 for social assistance (i.e., close to 10 times greater for net pension subsidies). The insurance-assistance gap is smaller in Argentina, where fairly generous pensions (US\$106 in net subsidies, excluding contributions) are only three times higher than the unit transfers for the Household Heads Program, *Jefes*, (US\$36), which is the most generous social assistance program in our sample. Only in Colombia are the unit subsidies for social assistance higher than the net subsidies for social insurance (pensions, net of contributions).

Even within specific programs, unit subsidies tend to favor those in the highest quintiles, particularly for social insurance (Tables 4A-4C). For example, net pension subsidies are 12 times higher for beneficiaries in the richest quintile than for those in the poorest quintile (even net of contributions). Unit transfers are more uniform across the income spectrum for social assistance benefits, particularly in countries like Peru and Colombia, in which food-based transfers are common.

4.2.3 Average Resource Flows: Truncation in Coverage + Biases in Generosity

The discussion of per *beneficiary* unit subsidies above highlights important differences in the relative “generosity” of different types of public transfers. These differences suggest that simply comparing “coverage rates” across transfers can be quite misleading. Plotting average *per capita* benefits allows us to examine the issue of whether or not the emergence of social assistance, which generally has higher coverage among the poor, has been able to compensate for the historical and persisting “truncation” of social insurance, which is undoubtedly more generous (even with net subsidies). Indeed, these *per capita* benefits, which take into account both coverage rates and *per beneficiary* unit subsidies, allow us to track average resource flows to each quintile.⁶⁰ The results are presented in Figure 8 (with summary indicators of unit subsidies and coverage in Tables 4A-4C). Two important patterns emerge from this picture of average resource flows, and the interaction of unit subsidies and coverage:

- **Missing “Welfare States.”** In many countries, the actual flow of public transfer resources overall (all transfers to *any* quintile) is quite low in terms of the average size of per capita benefits transferred. This is evident for Colombia, Guatemala, Mexico and Peru. The interaction of coverage and unit benefits materializes differently across the countries:
 - **Colombia.** Coverage of social assistance favors the poor, with relatively moderate benefits. Coverage of social insurance favors the top quintile, but average per capita benefits are not much more generous than those for social assistance. As such, the actual flow of public transfer resources is fairly flat across quintiles – but at a fairly low level.
 - **Guatemala.** Coverage of social assistance greatly favors the poor, but unit benefits are quite low. Coverage and unit transfers for social insurance are low overall, with biases to the top quintile. As such, the combined effect is fairly flat and low public resource flows across quintiles.
 - **Mexico.** Coverage of social assistance favors the poor, but unit benefits are quite low.⁶¹ Coverage of social insurance is very low overall, benefiting only a few in the top

⁶⁰ Per *beneficiary* unit subsidies exclude the “zeros” and are averages across beneficiary households only. Per *capita* benefits (resource flows) include the “zeros” and are averages across the total population in each quintile.

⁶¹ This could arise from measurement issues in the ENNVIH 2002 survey which uses a one-year recall period for transfer benefits. Should the data from the ENIGH 2004 become available soon, we intend to redo the analysis using this new survey.

quintiles with unit benefits that are far more generous than social assistance, but only moderately generous on the international spectrum.

- **Peru.** Peru is a classic case of “giving peanuts to the masses.” Social assistance coverage is very high, but the unit values of the food-based transfers are insignificant. The resulting negligible volume of resources for social assistance is dwarfed in comparison with highly generous net pension benefits offered to a select few among the top quintile (overall low coverage).
- **Truncation of Social Insurance, Only Partially Offset by Social Assistance.** The story is rather different in Argentina, Brazil and Chile, where public transfers result in a more significant resource flow in terms of per capita benefits overall. In these countries, the “truncation” in coverage and the bias in generosity of (net) social insurance benefits is only partially offset by more pro-poor coverage of social assistance. The interaction of coverage and unit benefits materializes differently across the countries:
 - In **Argentina**, differences in (net) unit subsidies across quintiles within social insurance result in significant biases in overall per capita resource flows.
 - In **Brazil**, several interesting factors come into play in determining the overall resource flows of public transfers. **First**, compared with other countries, social insurance coverage of the poor is relatively high due to Brazil’s push to extend coverage of rural pensions. **Second**, this higher coverage is somewhat offset, however, by significant differences in net unit social insurance subsidies across quintiles. **Third**, relatively pro-poor coverage of social assistance is offset by very low unit subsidies. However, it is important to note that Brazil’s household survey (the POF 2002-03) did not capture a large share of social assistance transfers (see Box 7). Moreover, unit transfers for its CCT program (now Bolsa Familia) have since been significantly increased since the time of the survey.
 - In **Chile**, impressively high coverage of the poor by social assistance is partially offset by (a) a significant difference in average unit subsidies between social assistance and social insurance; as well as (b) higher net unit social insurance subsidies for those in the richer quintiles.

4.2.4 Absolute Incidence: Who Gets More of the Pie?

Household surveys also allow us to examine the “targeting accuracy” of transfers, which indicates “who gets what share of the pie?” As discussed above, this can be measured as the absolute incidence of transfers, looking, for example, at the distribution of total transfer outlays across quintiles.

As discussed in Chapter 2, this paper adopts an explicit value judgment that assesses more progressive programs (with a higher share of transfers to poorer quintiles) more favorably. A program is classified as progressive” (“regressive”) in absolute terms if it confers an absolutely larger (smaller) benefit to those with lower incomes.

For international comparisons, the analysis also uses a related measure – the Coady-Grosh-Hoddinott Index of Targeting Accuracy (CGH Index) – which is constructed based on a comparison of actual performance to a common reference outcome, namely, the outcome that would result from neutral (as

opposed to progressive or regressive) targeting.⁶² The derivation of this measure is discussed in Annex 4; we focus here on guiding interpretation. A neutral targeting outcome means that each quintile receives 20% of the transfer budget or accounts for 20% of program beneficiaries. Such neutral outcomes can arise from either the random allocation of benefits across the population (an even “helicopter drop”) or a universal intervention in which all individuals received identical benefits. The CGH indicator is constructed by dividing the actual outcome by the appropriate neutral outcome. For example, if the poorest 20% of the population received 30% of the benefits, then the CGH indicator of performance is calculated as $(30/20) = 1.5$, which means that targeting has led to the target group (in this case, those in the poorest quintile) receiving 50% more than they would have received under a universal intervention or a random “helicopter drop” allocation. A value greater than one indicates progressive targeting (the higher the score the more accurate); and a value less than one indicates a regressive outcome, with unity denoting neutral targeting.

With these measures, the household surveys suggest fairly predictable patterns in the targeting accuracy of public transfers in Latin America (Tables 4A-4C and Figures 9-13). Despite average progressivity for social assistance, social insurance disproportionately favors the top quintiles in all countries, which drives regressivity of social protection spending overall. The only exception is Colombia, which records slightly progressive overall SP spending, due to relatively higher coverage of SA as compared with SI (which is still regressive) and a smaller gap between the size of transfer values for SI and SA.

Absolute Regressivity of Social Insurance. All 16 social insurance programs in our sample are regressive (Table 4B), with a median CGH Index of 0.25 – far less than the “1” that a universal or neutral program would achieve. Within social insurance, **net pension benefits** are extremely regressive in absolute terms for all countries in the sample (Figure 10). On average, the top quintile receives 61% of net pension subsidies, whereas the poorest quintile only receives 3%.⁶³

As discussed in Chapter 2 and in Annex 3, Brazil is the only country in which the household survey collected specific information about the value of individual contributions to public pensions. We thus use Brazil as a “test case” to examine the redistributive impact of both the pension benefits and the (partial) contributions collected to finance them. Brazil’s survey results show that a larger share of total **pension contributions** is collected from the top quintile than is transferred back in gross or average net or gross subsidies (Figure 10), likely reflecting Brazil’s attempts to “cross-subsidize” poorer pension affiliates, particularly in rural areas. As such, the distribution of **“quintile-adjusted” net pension subsidies** is *less regressive* in absolute terms than our average net subsidy calculations (Figure 10). Nonetheless, even with these adjustments for differing contribution rates across quintiles, net pension subsidies remain regressive, since the top quintile still receives over 40% of quintile-adjusted net pension subsidies.

In terms of other public social insurance programs, **labor-related benefits** (unemployment insurance, severance pay, salary bonuses) are also regressive in absolute terms (Figure 10). Chile’s unemployment insurance scheme is less regressive than the others: though the program favors the upper quintile over the middle quintiles, the poorest two quintiles receive a share of the “pie” almost proportionate to their share in the population (see Figure 10). Coverage of this program is low, however (less than 1% of the overall population).

⁶² Coady, Grosh and Hoddinott (2004).

⁶³ In this case, we are using average net pension contributions coefficients (from public accounts) to obtain net pension receipts from reported gross benefits (in the household surveys). As such, absolute incidence patterns for net and gross pension receipts are virtually the same.

Mixed Performance for Social Assistance. In contrast, the distribution of social assistance transfers is more progressive in absolute terms, with a median value of 1.38 for the CGH targeting accuracy index, meaning that the “typical” social assistance program in LAC transfers 38% more to the bottom quintile than would be the case with a universal, neutral or random allocation. Target accuracy among social assistance programs varies significantly, however, with CGH values ranging from an extremely regressive 0.06 for nutrition pensions in Guatemala to 3.3 for Brazil’s cash transfer program to reduce child labor (Figure 11). The wide range of performance of social assistance programs corroborates earlier evidence suggesting that design and implementation details for targeting benefits matter.⁶⁴ While 24 of the 40 social assistance programs in our eight-country sample are progressive in absolute terms, 14 (35%) are regressive, with a CGH performance index less than one (some far below).⁶⁵ In these cases, the poor would actually benefit more from a random selection of beneficiaries. As discussed below, most of these regressive assistance programs are food- or school-based (or both). By type of program, some notable patterns emerge:

- **Conditional cash transfers** boast the most progressive redistributive results (Figure 11 and Table 4C). We do not believe that this results from the application of conditionalities *per se*,⁶⁶ though this is an empirical question that merits further investigation. Rather, our hypothesis is that these progressive redistributive results arise from explicit attempts to target these programs to poor families, usually through a combination of geographic prioritization and household assessment mechanisms. Chile’s Solidario program even makes explicit attempts to focus exclusively on the *extreme* poor through proxy means tests.⁶⁷ As such, the high progressivity of Chile’s unified family subsidy (SUF) and Solidario programs is not surprising, with about 58% of all benefits going to household in the poorest quintile. The targeting accuracy of Brazil’s “pre-Bolsa Familia” programs (Bolsa Escola and Auxilio Gas)⁶⁸ was also fairly impressive at the time of the household survey (2002-03).⁶⁹ Mexico’s Oportunidades is also fairly well targeted, with the poorest quintile receiving close to nine times more benefits than the richest (Table 4C).⁷⁰ Finally, about a third of all transfers also go to the poorest quintile under Argentina’s Household Heads Program (Table 4C), with the second poorest quintile getting the highest share of benefits (Figure 11). In fact, data from Argentina’s Continuous Permanent Household Survey (EPHC 2003) show that there is a significant clustering of beneficiaries from the Household Heads program near the threshold for the bottom quintile.

⁶⁴ This was also a significant finding of the international study of targeting outcomes by Coady, Grosh and Hoddinott (2004) and of a six-country study on designing and implementing household targeting systems by Castañeda and Lindert (2005).

⁶⁵ Two programs (Peru’s comedor popular and Guatemala’s milk programs) are essentially neutral.

⁶⁶ A possible exception to this hypothesis is Argentina’s Household Heads (*Jefes*) program which uses a work requirement (community service, labor activities) as its conditionality and also as a self-targeting mechanism.

⁶⁷ Eligibility for these programs is determined using proxy-means testing via Chile’s long-standing *Ficha CAS* system. Castañeda and Lindert, (2005).

⁶⁸ These programs, which have since been merged along with two other programs to form Brazil’s flagship “Bolsa Familia” (family grants) program, were targeted geographically (both nationally, with preference to the poorer Northeast region, and within municipalities), and via unverified means testing. Castañeda and Lindert (2005).

⁶⁹ Brazil’s child labor eradication program (PETI), which is targeted geographically, and via means testing and child labor criteria, is also highly progressive, though the program is quite small in coverage.

⁷⁰ Mexico’s Oportunidades (formerly PROGRESA) is targeted both geographically and via proxy-means testing (Castañeda and Lindert, 2005). Coady (March 2004) found stronger targeting results than we present here, with some 58% of total transfer benefits going to the bottom quintile (compared with our 34%). At least two factors could cause this difference. First, the program has expanded significantly from 300,000 families in 1997 to 2.6 million families in 2000 to 5 million families by the end of 2004. Since 2002, the program has expanded to cover not only the initial marginal rural areas, but also more heterogeneous rural and urban areas. In other words, the program has become less geographically targeted, with the proxy-means testing playing a more important targeting role. The second set of factors include methodology and data sources. Coady (March 2004) – and previous work by Skoufias et al. (2001) on which Coady’s work builds – combines data from the 1996 national income and expenditure survey (ENIGH) – which at the time did not include direct questions on PROGRESA – with baseline household census surveys (ENCASEH) collected in the early years of the program. Targeting outcomes are then simulated using administrative information on geographic and individual eligibility. In contrast, our analysis uses direct questions on receipt of Oportunidades/ProgresA benefits from the 2002 National Survey of Living Conditions (ENNVIIH). Such differences in data, methodology and timing likely explain these sizeable difference in targeting outcomes.

Box 8 – How Far Can Targeting Go? Outcomes in Theory (Design) and Practice (Implementation)

Official eligibility rules do not necessarily translate into precise targeting in practice. Many other factors come into play, including: data collection strategies and registration processes, the actual application of eligibility criteria, database management, and so forth (Castañeda et. al., 2005). As such, targeting outcomes in practice (implementation) can differ significantly from theoretical plans (design).

To measure these differences, we simulated the distributional incidence of Brazil's Bolsa Escola program if targeting rules had been applied precisely according to official guidelines. We then compare these to actual incidence of the program – which involved decentralized implementation by thousands of municipal actors.

The results are quite interesting. It is important to note that Brazil's Bolsa Escola program was already fairly well targeted in practice, with 40% of all benefits going to the bottom quintile and 66% going to the poorest two quintiles. This placed Bolsa Escola among the top performers in our sample – as well as the international sample by Coady et. al. (2004). Nonetheless, simulations of the official design criteria reveal that there is room for strengthening targeting in practice. Specifically, our simulations suggest that were official income and demographic criteria for the program implemented “to the letter,” those in the bottom (consumption) quintile would have received 74% of total benefits, while those in the poorest two quintiles would have received 94% of benefits.

Nonetheless, it is important to remember that in all programs, some leakages are inevitable. In fact, some argue that, as long as they occur due to “benign” (not deliberate) measurement error, some degree of leakages can even be desirable to the extent that (a) they broaden political support for the program among the “lower middle classes;” and (b) they help prevent the near poor from falling into poverty or adopting adverse risk-coping mechanisms in the face of shocks. Pritchett (2005) goes a step further, advocating explicit designs that are purposely meant to include the non-poor to broaden political support.

- **Other cash transfers** show mixed results, with many showing only slightly progressive distributional patterns (Figure 11). Chile's family allowances primarily benefit those in the middle quintiles, which is not surprising given that eligibility for these allowances depends on formal-sector employment. The ENNVIIH 2002 Survey suggests that Mexico's PROCAMPO program is actually regressive, with 43% of total benefits going to those in the top quintile, as compared with only 12% for those in the bottom quintile.⁷¹ These other cash transfers tend to have more heterogeneous target groups (e.g., poor farmers, poor disabled, poor elderly) than conditional cash transfers, which tend to explicitly target resources to poor families. On a related note, an interesting contrast emerges between the absolute incidence Chile's contributory (SI) and non-contributory (SA) old-age and disability programs (Figure 10). The non-contributory PASIS old age and disability benefits (social assistance) are much more progressive in absolute terms than their social insurance counterparts, which rely on formal-sector employment and contributions for eligibility. This pattern is symptomatic of Chile's attempts to offer a fully-subsidized set of benefits to the elderly and disabled poor (PASIS could be considered part of Chile's first pillar of such benefits) and a less subsidized package to the better-off elderly and disabled, where the net subsidy averages 56% (net of contributions). As one would expect with such a “multi-pillar” scheme, the unit values for these differentiated benefits are quite different, however, with the contributory social insurance pensions for the elderly and disabled offering far higher net monthly benefits (even net of contributions) than the assistance-based PASIS benefits.
- **School feeding programs** – which are normally made available either to all public school students or targeted all those in certain prioritized geographic areas – favor the poor in most countries (particularly in Peru, Figure 11). The school feeding program in Guatemala favors the middle classes: the poorest children don't attend school and wealthier children attend private

⁷¹ Our analysis is based on the 2002 ENNVIIH survey. Past analyses using ENIGH surveys have suggested progressive outcomes for PROCAMPO.

school; hence they don't receive the subsidized breakfast and snacks.⁷² **Other food-based programs** show mixed results (Figure 11), and many are regressive (Table 4C).

- **Scholarships** are quite regressive (Figure 11), with 37% of benefits going to the richest quintile (on average for the countries in our sample), as compared with only 8% for those in the poorest quintile.

Comparing Public Transfers with Public Subsidies and Private Transfers. Evidence available from existing literature, combined with our analysis of household surveys, allows us to compare the absolute incidence of public transfers with other types of public subsidies, as well as with private transfers.

- **Utility Subsidies.** Governments also redistribute income through utility and infrastructure subsidies. Often, the explicit objectives of these subsidies are to improve productivity, ensure access to basic infrastructure services, and to improve outcomes in related areas like education and health. Some subsidies are quantity-specific, others unlimited, and still others graduated according to quantities consumed. Governments generally institute two types of consumer subsidies: (a) consumption subsidies decrease the pecuniary cost of services for utility customers on an on-going “use-basis;” (b) connections subsidies can help households to connect to utilities networks to improve their access to these services. The actual incidence of price subsidies, however, can be “split” between producers and consumers.⁷³ Evidence from Komives et. al. (2005), supplemented by our own analysis of some subsidies in our eight-country sample (Figure 12), suggests slightly progressive patterns in the distribution of water subsidies across quintiles (with the poorest quintile receiving about a quarter of the benefits of these subsidies, as compared with about 13% for the richest quintile). Electricity subsidies exhibit the opposite pattern with slight regressivity. Nonetheless, within both classes of subsidies, there is significant variation in redistribution patterns (Figure 12). Komives et. al. (2005) finds that a combination of design factors (subsidy instruments) and, even more important, targeting mechanisms explain these differences in redistributive performance. Overall, water subsidies perform on par with our analysis of overall public social assistance transfers in LAC, which in turn outperform electricity subsidies in terms of their redistributive impact. As suggested in Komives et. al. (2005), several options could be considered for improving the equity of utility subsidies, including (a) strengthening their targeting (building on successful targeting experiences of select social assistance programs); and (b) the design of utility subsidies could be modified to better favor the poor (e.g., shifting to connections subsidies, rather than use-based subsidies, which would help the poor overcome an important obstacle in securing access to basic utilities). Some countries have also used conditional cash transfers to compensate the poor for reduced utility subsidies (e.g., Brazil's replacement of gas subsidies first with an unconditional transfer, Auxilio Gas, which was then rolled into the Bolsa Família Program).
- **Private transfers** – from other households, family members living outside the household (including abroad), and non-government entities, such as religious and other non-profit organizations – can be an important source of income for households in LAC. Providers of these private transfers may know more about a household's income level and living situation than a government does, and hence they may have greater capacity to ensure that their benefits

⁷² World Bank (2004).

⁷³ Indeed, one review of water utilities in 132 major cities around the world found that 69% of subsidies included subsidies that covered operating, maintenance and capital costs of producers.

reach the poorest people. At the same time, providers of private transfers may have different objectives than governments—typically, providers of private transfers may want to fund members of their family or social networks (those who are “like” them) and not an unknown group of poor households (those who are “unlike” them). Theory, in short, provides limited guidance as to the possible progressivity or regressivity of private relative to public transfers. In practice, household survey data in our eight country sample suggest that the absolute incidence of private transfers is highly regressive (Figure 12).⁷⁴ On average, those in the top quintile receive some 54% of all private transfers in our sample (unweighted average). Such biases are particularly high for Colombia (71%) and the Dominican Republic (75%). The distribution of private transfers is spread a bit more equally among the top three quintiles in Mexico.

Comparing Public Transfers with the Absolute Incidence of Public Education Spending.

Although redistribution of income is not generally the direct goal of spending on education, such spending does have an immediate (short-run) redistributive effect to the extent that it replaces private household spending on schooling. Moreover, differences in educational attainment explain a large share of LAC’s inequality – and education investments are clearly important for improving equity in the long run. While it is beyond the scope of our study to undertake a full analysis of the redistributive effects of all categories of public spending, available evidence from existing literature does allow for a comparison of our results for public transfers with those for public spending on education (and health, discussed below). The results yield a number of interesting patterns and comparisons (Figure 13):

- **Within education.** Public spending on primary education is somewhat progressive in LAC, largely due to the fact that richer families opt to send their children to higher-quality private schools.⁷⁵ Public spending on secondary schooling benefits primarily the middle quintiles, with the poor largely uncovered (dropping out before or at the start of secondary) and the rich mainly sending their children to private schools. Public spending on tertiary education is highly regressive in all LAC countries in terms of its direct absolute incidence. Clearly, education spending has other long-term benefits in terms of leveling the playing field for more equal opportunities. Education (even higher education) also supports the provision of human capital for other services, such as the formation of doctors, nurses, teachers, engineers, and so forth, which can have benefits for the poor. The redistributive issue for higher education is whether or not public tax resources should be used to finance it, given the high degree of regressivity (as well as the inefficiencies surrounding publicly-financed and protected higher education systems, which would be the topic of another paper).
- **Education-Related Social Assistance Transfers.** Overall, primary education spending is slightly more progressive than overall social assistance transfers. Many social assistance transfers are also linked to education: (a) scholarships, which are shown to be highly regressive; (b) school feeding, which are shown to be more progressive and somewhat self-targeted by the fact that they are delivered via public schools; and (c) conditional cash transfers, which are well targeted and promote human capital accumulation via school attendance conditionalities. Some countries (e.g., Nepal) are experimenting with the use of proxy-means tests to improve the

⁷⁴ This observation is based on the assumption that the relevant measure of household welfare is household consumption or income inclusive of public and private transfers. It is possible that private transfers are sufficiently large to move otherwise poor households up the income distribution. In this case the apparent regressivity of the private transfers may be due to the fact that private transfers are large, and not because they go to the otherwise rich. Given the focus of our study on public rather than private transfers, we determined not to explore this issue further.

⁷⁵ In the case of basic education and basic health care, universality of coverage should be the goal, since these services are “merit” goods with some public externalities (unlike transfers which are consumed as “private goods”). Progressivity of basic health and education can show that governments are making an effort to reach those who need public services most. However, progressivity can also indicate sub-standard quality for basic health and education services, particularly if the rich opt for higher quality private services.

targeting of scholarships. Others are adopting geographic targeting methods to strengthen the targeting of school feeding programs (e.g., Peru).

Comparing Public Transfers with Health Insurance and Public Spending on Health.

Household survey data on health insurance participation and available literature on public health spending allow us to compare the absolute incidence of these instruments with public transfers. Again, although redistribution of income is not generally the direct goal of public health spending, such spending does have an immediate (short-run) redistributive effect to the extent that it replaces private household spending on health care. Health insurance is also of interest, not because it necessarily involves public transfers or spending (though some schemes do, as in Colombia's cross-subsidized health insurance program), but because it can be viewed as a complement or substitute for low-cost public care. Health insurance also serves as a social protection mechanism for mitigating and coping with health shocks – and hence has natural conceptual ties to other forms of public social insurance. The comparison of absolute incidence for health and public transfers reveals some interesting patterns (Figure 14):

- **Health insurance** is highly regressive, mirroring public social insurance patterns in its distributional incidence.⁷⁶ Most health insurance beneficiaries are in the top quintiles of the population. The exception is Colombia, which operates a cross-subsidized public health insurance program that assures high coverage across the board.
- **Public spending on health care** overall is somewhat progressive, with about a quarter of all benefits going to those in the poorest quintile, as compared with only 13% for those in the top quintile (who tend to seek higher-quality private care – some with health insurance financing, as noted above). The distributional incidence of public spending on health care is very similar to that for overall social assistance transfers.

How do Programs in LAC Compare Internationally? The CGH index also allows us to compare targeting outcomes for the 56 programs and eight countries in our sample to an international database covering 85 interventions from 48 developing countries.⁷⁷ Overall, the median value of social assistance programs in LAC performs somewhat better than the median for the international study (Table 5), with a median of 1.38 for the programs in our sample compared with a median of 1.25 for the international sample. The range of performance is wider for the countries and programs in our LAC sample, however. Social insurance programs in LAC are more regressive than the assistance programs in either our LAC sample or in the international sample.

4.2.5 Public Transfers and Inequality

This section examines the impact of public transfers on inequality in two ways: (a) via concentration coefficients; and (b) via simulated impacts on inequality (Ginis) with and without the transfers.⁷⁸ The derivation of the indicators used in this section is described in Annex 4. We also compare the progressivity or regressivity of transfers to pre-transfer income inequality. A program could be regressive in its own right (with a “positive” value for the concentration coefficient), but less regressive than the pre-transfer distribution of income (Gini). In this case, although regressive, the program could actually result in reducing overall income inequality.

⁷⁶ Not all survey questionnaires in our eight country sample allow for the distinction between public and private health insurance.

⁷⁷ Coady et al. (2004).

⁷⁸ This approach ignores possible behavioral responses (e.g., with households adapting their labor market participation in either scenario).

Concentration Coefficients. Figure 15 shows the concentration indices for social assistance and social insurance transfers in seven countries in our country sample.⁷⁹ As discussed above, we judge programs to be progressive or regressive in their own right.

In all countries in the sample, the concentration index for **social insurance** is positive. This means that social insurance is strongly pro-rich (regressive). Nonetheless, in most countries, overall pre-transfer income inequality (Gini) is *more* regressive (unequal) even than these regressive transfers.⁸⁰ As such, while the distribution of social insurance transfers is highly unequal (regressive), these transfers could have a small impact on reducing overall inequality of pre-transfer incomes (as discussed below). The exceptions are Colombia and Guatemala where net pension subsidies are even *more* unequal (regressive) than overall pre-transfer income inequality (Gini). As such, these transfers exacerbate pre-existing inequalities.

In contrast, the concentration index for overall **social assistance** is negative in all countries except Mexico (where it is slightly positive, or regressive). This means that overall, social assistance is pro-poor (progressive). Among social assistance programs, conditional cash transfers have the most progressive (negative) concentration indices (including the Oportunidades Program in Mexico). These patterns are quite consistent with the portrait of progressivity for absolute incidence, discussed above.

Simulated Impacts of Public Transfers on Inequality. The impacts of existing public transfers on inequality in LAC are fairly muted (Figure 16). Not surprisingly, given the results presented above, social assistance has a stronger impact in reducing inequality than social insurance. Interestingly, social assistance does reduce inequality by more than a “Gini” point in several countries, despite relatively small unit transfers. The impact is largest for Argentina’s social assistance (*Jefes* program), due to higher unit subsidies associated with a fairly well targeted program. Inequality impacts of social assistance transfers in Brazil appear to be lower, though these impacts could be under-estimated due to the fact that the household survey (POF 2002-03) missed capturing several large social assistance programs (notably: BPC-LOAS for the poor elderly and disabled, and the integrated and expanded Bolsa Família program). In fact, evidence from a new household survey (PNAD2004) suggests that these very social assistance transfers may have played an important role in the notable recent fall in inequality in Brazil.⁸¹

The impacts of social insurance on inequality are fairly small – and in some cases these schemes actually increase inequality (Guatemala, Peru). In contrast, social insurance schemes in Argentina, Brazil and Chile tend to decrease inequality, despite their absolute regressivity. The concentration indices in Figure 15 can help explain why. In each of these countries, although their social insurance schemes are regressive in their own right (i.e., have a positive concentration coefficient) they tend to be less unequally distributed than income from other sources, summarized in Figure 16 by the overall Gini coefficient for pre-transfer income. Consequently, the Gini for pre-transfer inequality (without the social insurance transfers) is higher (more unequal) than the concentration coefficient for the specific social insurance transfers.

4.2.6 Public Transfers, Incomes and Poverty

This section examines the impact of public transfers on incomes and poverty. Household surveys allow for the measurement of the relative importance of transfers as a share of each quintile’s (post transfer)

⁷⁹ The IDB analysis of the Dominican Republic ENCOVI 2004 did not include concentration coefficients.

⁸⁰ Strictly speaking, Figure 16 of the concentration coefficients should also contain the Gini coefficients for income excluding each type of transfer. Since the Gini coefficients excluding each type of transfer were practically identical, we decided to put in the graphs the Gini of income/consumption including all transfers.

⁸¹ Paes de Barros et.al. (December 2006); Ferreira et. al. (2006).

incomes (consumption). While the derivation of relative incidence measures is discussed in Annex 4, it is important to highlight that these relative magnitudes are driven by several factors: (a) the unit value of transfers received; (b) the coverage of the transfer; and (c) the levels of post-transfer incomes for each quintile. Similarly, household surveys allow us to estimate poverty indices before and after transfers, though these estimates do not take into account possible behavioral responses to either scenario (e.g., possible reduced work effort due to the transfers, which is discussed below).⁸²

Relative Impact: How Important are Public Transfers? Overall, social assistance and social insurance (net subsidies) represent about 1.4% and 3.1% of household incomes respectively. Interestingly, these estimates from household survey data correspond very closely to public accounts data, which indicate that, on average in LAC, social assistance and social insurance represent 1.5% and 4.1% of GDP respectively. The slight difference between the 3.1% of household incomes and the 4.1% of GDP for social insurance accurately reflects our “netting out” of contributions for net pension subsidies in the household survey analysis, whereas the GDP shares include the “gross” value of pensions (including contributions), as discussed in Annex 3. Not surprisingly, public transfers represent a higher share of household incomes in the higher-spending “Group 1 SP Countries,” such as Argentina, Brazil and Chile.

Overall, social assistance transfers are “progressive in relative terms,” representing a higher share of incomes of the poorest quintiles than the richest (Figure 17). The relative importance of social assistance transfers to the poor ranges from 1.9% of total consumption for the poorest quintile in Peru to 36% of total incomes of the poorest citizens of Argentina. This makes sense since Peru’s food-based programs are intrinsically limited in their unit values (limited to the value of the food transferred), whereas Argentina’s Household Heads Program (*Jefes*) delivers high-value cash transfers. Although progressive, the contribution of Brazil’s social assistance transfers appears to be fairly small, even for the poor (representing 2.5% of total consumption of the poorest quintile). This relatively small contribution arises for two reasons: (a) the unit values on Bolsa Escola, Auxílio Gas, the child labor program, and minimum income (*renda mínima*) programs, were quite small; and (b) the household survey (POF 2002-03) did not capture either the larger assistance programs for poor elderly and disabled residents (BPC-LOAS) or the more recent Bolsa Família Program, which has increased the unit transfers over those under the pre-reform programs. In fact, evidence from a new household survey (PNAD2004) suggests that these very social assistance transfers may have played an important role in the recent and sharp decline in poverty in Brazil.⁸³

Overall, social insurance transfers are regressive *even* in relative terms in LAC, transferring an average of 2.1% of total incomes (consumption) of those in the poorest quintile, as compared with 3.2% for those in the richest quintile. Relative incidence patterns vary across countries, however (Figure 17). Pensions (net subsidies) are highly regressive – *even* in relative terms -- in Peru (and in fact, exacerbate overall inequality, as discussed above). Social insurance schemes represent a higher share of incomes of those in the middle quintiles in Chile, and for those in the fourth quintile in Argentina. Despite absolute regressivity (transferring an absolute higher value to the rich), Brazil’s pensions are slightly progressive in relative terms, meaning that they represent a higher share of total consumption for the poor than the rich.

Simulated Poverty Impacts. Poverty impacts of public transfers vary significantly across countries in LAC (Figure 16). These impacts depend on a number of factors, including (a) the size of unit transfers

⁸² Since results are based on subtraction of transfer income from household survey income aggregates rather than from experimental or nonexperimental estimates of poverty and inequality impact, we refer to reported results as simulated poverty and inequality impacts.

⁸³ Paes de Barros et al. (December 2006); Ferreira et al. (2006).

(which reflects overall spending effort); and (b) targeting and coverage of the poor and near poor (which reflect the extent to which transfers actually reach lower-income households). As such, in some countries and for some transfers, these factors converge to make a relatively strong impact. Argentina's social assistance (*Jefes* program) is one such example, combining fairly strong targeting, coverage and high unit transfers.⁸⁴ A contrasting example is Brazil's social assistance (mainly the pre-reform CCTs included in the POF 2002-03 survey): despite strong targeting and coverage of the poor, their poverty impact is muted by very low unit transfers.

With social insurance, some countries – such as Colombia, the Dominican Republic, Guatemala and Mexico – record negligible poverty impacts, due to a combination of relatively low (net) unit subsidies and very weak targeting and coverage of the poor and near poor. In contrast, despite weak targeting and overall regressivity, social insurance schemes in the higher-spending “Group 1 SP Countries” still do manage to have an important poverty impact due to very high unit subsidies (i.e., the small share of social insurance transfers that do reach poorer households represents a significant share of their incomes).

4.2.7 Impacts of Public Transfers on Social Welfare: The Distributional Characteristic

While the preceding indicators all emphasize different aspects of transfers, on their own, they are of limited use in simultaneously addressing the issues of magnitude (size) and redistribution (targeting). Most social assistance programs, for example, have coverage and absolute incidence that generally favor those at the poorer end of the spectrum, but their unit values are typically small, hence dampening their impact on poverty and inequality. In contrast, although the (net) unit values of social insurance programs are far more generous, the coverage and distribution of these benefits are highly biased in favor of the rich, hence weakening their potential poverty and inequality impacts.

As discussed in Annex 4, the Distributional Characteristic Index (DCI) is a useful summary indicator because it allows for the quantitative comparison of the redistribution and social welfare impacts of programs relative to each other independently of the (different) sizes of their budgets. In other words, for programs with the same budget, a program with a larger distributional characteristic is a program with a greater effect on social welfare, taking into account all households in the economy (not just those in certain quintiles). The DCI thus measures the change in social welfare (marginal benefit) achieved by transferring a standardized budget (say US\$1) through the program. The DCI can also be “decomposed” so as to identify the relative contribution to social welfare of two key factors in program design: (a) “targeting efficiency,” which measures the contribution to social welfare associated with the determination of “who receives” the transfers; and (b) “sizing efficiency” component, which measures the progressivity of different unit transfer values across households.

Standardizing budgets and taking into account the full spectrum of households in this way, the DCI offers several notable conclusions in terms of the redistributive power and social welfare impacts of public transfers in LAC. Countries and programs are ranked by the DCI in summary Tables 4A-4C. Graphs with notable patterns are presented in Figures 18-20.

First, social assistance programs are far more effective than social insurance programs at redistributing income and contributing to social welfare, per unit of currency transferred (Figure 18). This is not unexpected, particularly given that the primary aim of most social assistance programs is to reduce poverty and since social assistance programs are not generally linked to formal labor market

⁸⁴ Admittedly, these simulations do not take into account possible behavioral responses, such as work effort, which could be higher with higher unit transfers, as discussed for Argentina below.

participation (unlike social insurance). Yet the range of this difference is astonishing. For all countries in our sample, the per-dollar social welfare contributions of social assistance (DCI) exceed those for social insurance regardless of the degree of “concern for inequality” (all values of epsilon; Figure 18).

Second, the main social welfare gains arise from “targeting efficiency” rather than progressively differentiated “sizing” of unit transfers. This result holds across countries and types of transfers in our sample. In fact, the “sizing” component is negative (regressive) in many instances (Figures 20-21). As such, most public transfer programs redistribute income through targeting (i.e., making an effort to channel benefits to the poor). Few programs differentiate the size of benefits (unit values) as a way to further redistribute income (e.g., by making larger benefits for poorer or larger households). In fact, as discussed above, most programs have higher unit benefits for relatively richer households – which has a regressive “sizing” effect on social welfare (Figures 20-21). Exceptions to this are Chile’s family allowances and SUF (unified family subsidy) benefits, which assign larger unit transfers to poorer and larger families (Figure 20).

Third, within social assistance, conditional cash transfers result in higher social welfare (DCIs) than other types of cash or food-based transfers (Figure 20). On average, the net DCI (combined targeting and sizing components) for CCTs is 2.1, as compared with 1.4 for school feeding programs, 0.9 for both other feeding and other cash transfers, and 0.4 for scholarships. These results hold for various degrees of “concern for inequality” (various values of epsilon).

Fourth, within specific countries, the distributional characteristic varies considerably across programs. Some examples:

- **Argentina.** The distributional characteristic of net pension subsidies in Argentina is about 0.08 as compared with 1.76 for the Household Heads (*Jefes de Hogares*) program. Thus US\$1 distributed through the Jefes program results in an increase social welfare that is 23 times greater than the change in social welfare achieved through public spending on pensions (net of contributions). Clearly pensions have objectives other than redistribution to the poor (i.e., protecting people in their old age). And clearly contribution-financed pensions are important instruments for this objective. But the use of general tax revenues to plug the large deficits in these pensions – which are highly regressive – begs the question of whether or not these public resources could be used more effectively elsewhere (e.g., a well-targeted first-pillar minimum pension for the poor).
- **Brazil.** A similar comparison could be made for Brazil’s Bolsa Escola (one of the pre-Bolsa Familia programs) and publicly-financed net pension subsidies in Brazil. The DCI for net pension subsidies is 0.2 as compared with 1.5 for Bolsa Escola. Thus US\$1 distributed through Bolsa Escola (now Bolsa Familia) results in an increase in social welfare that is over six times greater than the associated change in social welfare achieved through tax-financed net pension subsidies. Taking a more comparable set of programs, unemployment insurance -- though regressive overall -- is more effective than the FGTS mandatory-savings and severance payment scheme. Specifically, US\$1 distributed through unemployment insurance (DCI = 0.35) would deliver an increase in social welfare over three times greater than the change in welfare achieved through FGTS severance payments (DCI = 0.11).
- **Chile.** Like for Brazil and Argentina, Chile could gain in social welfare – or save incur fiscal savings – by reallocating tax revenues from social insurance schemes (net subsidies) to social assistance programs (Table 4A). Interestingly, there could also be gains from reallocating

among social assistance programs. Specifically, Chile could gain in social welfare by reallocating from family allowances to the unified family subsidy (SUF). One dollar distributed through SUF (DCI = 2.31) would deliver an increase in social welfare that is close to three times greater than the change in social welfare associated with family allowances (DCI = 0.79).

- **Colombia.** As with all other countries, Colombia could gain in social welfare – or incur fiscal savings – by reallocating tax revenues towards social assistance programs (Table 4A). Even the targeting of social assistance programs, however, could be improved, particularly for scholarships, which are regressive. (This study does not include the conditional cash transfer, *Familias en Acción*, because it was not included in the survey).
- **Dominican Republic.** Several social assistance programs in the survey for the Dominican Republic ranked fairly high in terms of their social welfare impact per dollar spent (e.g., the school-based transfer, TAE, and school feeding, PAE), as shown in Table 4C. These programs are quite small in terms of budgetary spending and unit subsidy values. Others, such as the gas subsidy (DCI = 0.92), did not have such strong social welfare impacts. Since the ENCOVI 2004 survey was carried out, the government has initiated two conditional cash transfer programs (*Comer es Primero* and ILAE) to replace the TAE program, and proposed changes in the gas subsidy. Simulations conducted by the IDB suggest that these reforms could result in significantly higher social welfare impacts, if properly targeted.
- **Guatemala.** None of Guatemala’s social insurance or social assistance programs have very strong impacts on social welfare, with the DCI ranging from a low of 0.08 for net pension subsidies to 0.64 for the powdered milk/glass of milk programs (Table 4C). Targeting and program design overall needs to be improved in Guatemala, which is also one of the lowest SP spenders in our sample.
- **Mexico.** Of all of Mexico’s public transfer programs, only one – the conditional cash transfer, Oportunidades – has significant social welfare impacts (DCI column in Tables 4A-4C). Unsurprisingly, tax funding of net pension subsidies has a fairly small impact on social welfare (DCI = 0.15). Yet even many social assistance programs – most of which were regressive (see concentration coefficients in Figure 15) – have relatively low social welfare impacts. The social welfare contribution of Oportunidades (DCI = 1.67), which includes transfers tied to school attendance, is far higher than the social welfare impacts of scholarships (DCI = 0.35). Moreover, although the farmer-support program “PROCAMPO” has different objectives than Oportunidades, social welfare impacts are over three times greater under Oportunidades than under PROCAMPO (DCI = 0.53).
- **Peru.** As with all other countries in our sample, the tax financing of pension deficits (net subsidies) generates relatively low social welfare in Peru, as compared with its social assistance programs. However, even within social assistance, welfare gains could be incurred by reallocating public expenditures or strengthening targeting. For example, Peru could gain in social welfare by reallocating resources from the Glass of Milk program (DCI = 0.93) to the school feeding programs, such as school breakfasts (DCI = 1.32), or by improving the targeting of the Glass of Milk program. Yet none of these food-based programs generates the high social welfare gains observed for the conditional cash transfer programs (such as SUF/Solidario, Bolsa Escola, Oportunidades) in other countries.

Chapter 5:

How Efficient are Public Transfers in LAC?

To supplement our analysis of redistributive outcomes, this chapter briefly reviews evidence pertaining to the efficiency of public transfers from two perspectives: (a) administrative cost efficiency; and (b) potential economic inefficiency associated with potential adverse labor incentives associated with transfers. The aim is not to treat these topics exhaustively (which would be the subject of separate papers), but to review available evidence as a complementary aspect of assessing the redistributive effectiveness of public transfers.

5.1 Administrative Efficiency: Costs of Implementing Social Assistance Programs

This section reviews recent evidence on the costs of administering select social assistance programs in LAC.⁸⁵ Several points should be noted in the discussion of administrative costs. First, a certain level of administrative costs is required for program quality (overall management, strength of information systems, oversight, monitoring and evaluation, etc.). Such costs are inevitably higher (as a share of total outlays) at the start of the program due to the investments needed to “start up” the program. Second, administrative cost estimates, the functions they cover, and the accounting systems used to record them vary significantly by program type and specific program (all with significantly varying institutional arrangements). With those caveats, this section presents available data on select administrative costs of two classes of social assistance programs: conditional cash transfers and food-based programs. Administrative costs of social insurance programs (which are likely to be more homogeneous) were not available.

Conditional Cash Transfer Programs. The main functions covered by administrative costs under conditional cash transfers include: general administration, planning and design; registration and eligibility; payments; monitoring of conditionalities; overall program monitoring; and evaluation. Table 6 presents the overall cost breakdown for four conditional cash transfer programs in LAC: Argentina’s Household Heads Program (Jefes de Hogares); Brazil’s pre-reform programs (Bolsa Escola/Auxilio Gas) and the integrated Bolsa Familia Program; Colombia’s Familia en Acción Program; and Mexico’s Progres/Oportunidades Program. The following patterns can be noted (Table 6):

- **Averages – but With Caution.** The unweighted average of these administrative costs is 5.2%. Nonetheless, administrative costs vary significantly by program, ranging from 1.6% of total outlays for Argentina’s Jefes program to 10.5% for Colombia’s Familias En Acción program, which also includes supply-side actions (latest years). Moreover, these estimates only cover central government costs of administering the programs. However, in many cases (e.g., Argentina, Brazil, Colombia) significant administrative responsibilities are devolved to local governments in a decentralized or federal context, as discussed in more detail below. As such, these figures tend to underestimate total administrative costs of operating these programs.
- **Trends over Time.** Administrative costs also vary significantly across time, with higher initial start-up costs. Both Mexico and Brazil have managed to significantly reduce (federal) administrative costs over time: from 52% of total outlays in 1997 to 6% in 2003 for Mexico’s

⁸⁵ This section is intended to complement and build on the earlier seminal work by Margaret Grosh (1994) on administering targeted social programs in LAC, while recognizing that it is beyond the scope of this paper to fully update it.

Progresa/Oportunidades program, and from about 14.7% to 5.3% for Brazil's pre-reform CCT programs. Interestingly, Brazil managed to further reduce federal administrative costs by merging the multiple pre-reform programs into a single program (Bolsa Família), with costs falling from 3.1% in 2003 (the programs were merged in October of that year) to 2.6% by 2005.

- **Administrative and Non-Transfer Costs in Decentralized Context.** Not all administrative costs are borne by the federal government. Brazil's Bolsa Família (and predecessor programs) are implemented in a decentralized context with a division of responsibilities between (a) the federal government, which is responsible for general management and oversight, beneficiary selection, management of the registry database, payments, and monitoring and evaluation; and (b) the 5,564 municipalities, which are responsible for registration of potential beneficiaries, conditionalities monitoring, social controls, accompanying social worker services, and the costs of bridging BFP beneficiaries to other complementary services. Municipalities vary significantly in accounting practices and their capacity to carry out such services and in the degree to which they offer beneficiaries the accompanying social work and complementary services, which are services that add value above and beyond the transfer benefits (and hence should be considered non-transfer non-administrative costs). This can be seen in the wide range of municipal-level costs of administering these services for the federal CCT programs in a non-representative sample of four urban municipalities in Table 7. The weighted average of the administrative cost shares for our four non-representative municipalities was 9.7% for the period from 2002-03. When adding these municipal costs to the federal costs, we find a total "non-transfer and administrative cost" share of 13.9% for the period from 2002-03 (or an estimated 12% for 2005 with the lower federal administrative costs of the consolidated Bolsa Família Program).
- **Non-Comparability of Administrative Costs by Function.** Both the institutional arrangements and the systems for recording administrative costs vary widely, complicating cross-program comparisons of disaggregated administrative costs (Table 8). A detailed study⁸⁶ of administrative costs and functions in Mexico's Progresá program found that registration, eligibility and payments fees represented about 66% of total administrative costs for that program. This compares with 98% for similar services for Brazil's Bolsa Família program (95% of federal administrative costs for the payments agent, which also compiled and operates the registry database with data from 5,561 municipalities, plus about 3% for eligibility determination and registry oversight by the federal line ministry, MDS). Similar functions apparently only cost 47% in Colombia – yet certain costs of these functions could also be classified under two other categories (general administration, 26%, and "program infrastructure," 27%).

Food Programs. Depending on institutional arrangements and program content, the non-transfer costs of food programs generally cover: overall administration, planning and design; registration and eligibility (geographic or individual); food costs (procurement); storage, transport, distribution and preparation of food; site and facility operation (where relevant); etc. Table 9 presents a compilation of non-transfer costs for select food-based programs in LAC. Notable patterns include:

- The unweighted non-transfer costs of these food-based programs is 35.8% of total program outlays. Nonetheless, these non-transfer costs range from 3% for school feeding in Guatemala to 85% for popular restaurants in Peru (Table 9).

⁸⁶ Caldés et. al. (2004).

- These non-transfer costs tend to be higher for food-based programs than for cash transfers, due to the added costs associated with procuring, storing, transporting, distributing and preparing food (Table 9 compared with Table 6).

5.2 Efficiency and Labor Disincentives of Public Transfers?

One concern commonly applied to public transfers is that they could create inefficient behavioral responses, such as reduced work effort and dependency. Specifically, there is concern that people could (a) adjust their behavior – say, reducing work efforts – in order to qualify for the transfer, if eligibility is closely tied to unemployment or earned incomes and if unit benefits are generous enough to justify such actions; and/or (b) modify their behavior once they receive the transfers (reduced work efforts associated with dependency). Both the argument and the evidence differ substantially across groups of countries and classes of programs. Design features can also be used to minimize these effects.

Experience and Evidence in Industrialized Countries. Research from industrialized countries has produced some evidence of reduced work efforts associated with certain types of public transfers. Specifically, there has been some evidence of labor disincentives for (a) unemployment insurance transfers;⁸⁷ and (b) generous social assistance transfers with fine-tuned eligibility based on verified means testing (e.g., the United States under the pre-1996 welfare reforms).⁸⁸ In the case of means-tested transfers, this evidence has brought about a consensus that program design should explicitly consider such effects.⁸⁹ Some design features that have since been introduced to reduce these disincentives include graduated benefit reductions with earned incomes (to reduce the implicit “tax” on earned incomes), formal work requirements as “conditions” of cash transfers, active assistance to link beneficiaries to job services and training, complementary supports to remove barriers to work (e.g., child care and transport assistance) and time limits.

Experience and Evidence in Developing Countries. There is relatively less empirical research on potential labor-market disincentives in developing countries in general, or in LAC in particular. As it is beyond the scope of this study to conduct such empirical investigation, we simply report on what has been observed (mainly for conditional cash transfers) – and recommend this as an area ripe for further research.

First, as a **matter of design**, several features of CCTs in LAC suggest that impacts on adult work efforts would be muted, including:

- **Relatively small unit transfers** for CCTs, which make it less likely that able-bodied adults would forgo earnings opportunities for the sake of receiving the transfers. The exception is Argentina’s Jefes program, which also differs from the others in two key respects: (a) the program’s target group is those who had become unemployed due to the crisis – and not necessarily the poor as under the other CCTs; and (b) its conditionalities involve work and training requirements rather than education and health actions;
- **Indirect connection between eligibility criteria and actual incomes.** Whereas some transfer programs in industrialized countries invest significant resources to fine-tune verified income testing (e.g., the cash transfer program “TANF” in the United States), this type of

⁸⁷ Lindert, P. (2004); Vodopivec (2004); Vodopivec and Whitehead (April 2004) provide overviews of a vast literature on the topic.

⁸⁸ Gueron (1991), Moffitt (1992), Hoynes (1996), Keane and Moffitt (1998), and Lindert, P. (2004).

⁸⁹ Blundell and MaCurdy (1999).

precision in eligibility decisions is unfeasible in developing countries, in particular given the widespread nature of informality among the poor. Rather, most countries in LAC combine “proxy means testing” with geographic prioritization to target CCTs to the poor. These proxy-means tests are usually based on a multi-dimensional collection of indicators that are associated with chronic poverty, such as low adult education (but not children’s education, which would create perverse incentives), low quality housing, lack of public services, etc. Proxy means tests generally have less direct links to earned incomes. These weaker links mean lower direct “penalties” for earned incomes. As such, these programs are unlikely to generate significant disincentives for work. Even under Brazil’s Bolsa Familia program, eligibility decisions are based on self-reported incomes without taking into account transfer incomes (and Brazil is increasingly using multi-dimensional variables to “validate” self-reported income). It is important to note, however, that this imprecision in the links between earnings and eligibility decisions do not result in lower targeting accuracy. As shown above, CCTs have among the best targeting results of virtually all classes of social spending in LAC. Moreover, these approximate those attained by the cash transfer program (TANF) in the United States.⁹⁰ As such, while CCTs do perform well in terms of channeling resources to the poor, the indirect links to earned incomes reduce the likelihood of their having significant labor disincentives.

- **Infrequency of updates for re-certification.** In most LAC CCTs, re-certification of eligibility is conducted every 2-3 years, reflecting the emphasis of these programs on reducing chronic poverty – and the recognition that this takes time (as well, perhaps, as limited administrative and financial capacity to conduct more frequent recertification).⁹¹ Infrequent recertification reduces disincentives for adult work effort by reducing the extent of the connection between earned incomes and eligibility for transfers.
- **Exit policies and strategies.** A current topic on the policy agenda for most CCTs is to further develop incentives and support policies to help families “graduate” from cash assistance. Generally grouped into the topic of “getting beyond cash,” (also called “portas de saída,” “emancipation” or “bridging” strategies), these efforts include: (a) recertification and time limits policies, with time limits varying from two years in Chile to up to seven and nine years for the urban and rural poor in Mexico, for example; (b) bonuses to promote school graduation (not just daily attendance); (c) social worker accompaniment of beneficiary families; and (d) linking beneficiaries to complementary services. Most CCTs in LAC are grappling with ways to implement such strategies in the context of varying institutional arrangements.
- **Focus on “Positive Incentives.”** Finally, the fact that CCTs seek to promote positive incentives for enhancing equity of opportunities in education and health should be noted as important design features of these instruments.

Second, although further **empirical research** is needed on the potential impact of LAC’s public transfers in general, and CCTs more specifically on adult and child work effort, a few studies have investigated such potential effects and suggest limited labor disincentive impacts:

- In **Mexico**, evidence from three studies suggests insignificant labor disincentives for the Oportunidades Program. First, empirical evaluations show that the conditional transfers from Oportunidades (formerly PROGRESA) did have a significant impact in reducing child labor,

⁹⁰ Lindert (2003).

⁹¹ Castañeda et al. (2005).

but had no measurable impact on the work effort of adults. Specifically, Parker and Skoufias (2000) estimate that PROGRESA increased average beneficiary family income by 22%, and decreased boys' labor force participation by 15-25%, with similar significant impacts for girls. They found no evidence of reduction in labor force participation rates or work effort of adults. Second, Skoufias and di Maro (2005) also find that the presence of the PROGRESA program did not affect the work incentives of adults from non-eligible households in the villages covered by the program. Finally, Freije et. al. (October 2005) simulate behavioral response models and find that adult labor supply does not seem to be affected by the Oportunidades program. In fact, their simulations show that such transfers would have to be *far higher* (more than double) before any labor disincentive effects would emerge.

- In **Brazil**, simulations of Bolsa Escola (Bourguignon, Ferreira, Leite, 2003) suggest an impact of the program on reducing child labor (and increasing school enrolment). Using similar methodologies, Leite (2006), simulated the potential impact of Bolsa Familia using the PNAD 2002 and found that the transfer amounts would have very little impact on adult work effort of the target group. Moreover, Leite (2006) found that even a tenfold increase in the size of unit transfers under Bolsa Família would result in negligible impacts on adult work effort.
- **Argentina's** Jefes de Hogares Program has higher unit transfers, but with a work requirement. The program is not officially targeted to the poor, but rather to those that would have become unemployed due to the crisis. An analysis by Galasso and Ravallion (2004) shows that about ½ of its beneficiaries would have been otherwise unemployed (without the program). Nonetheless, about ½ would have been otherwise employed in non-Jefes jobs in the informal sector (so, some limited work impact).

Chapter 6: Concluding Remarks and Policy Implications

This report is specifically concerned with the redistributive impacts of social policy, focusing only on a subset of social policy instruments: public transfers (and, specifically, those that were included in household surveys). It is essential, however, to keep in mind that social policy has other important objectives besides redistribution, including (a) smoothing of income over the life cycle in relation to people's needs; (b) promoting the accumulation of human capital; and (c) ensuring adequate protection against events such as sickness, disability, unemployment, or loss of income. Although these additional objectives are not considered in detail here, they must be taken into consideration when assessing the overall efficiency of public transfers.⁹²

With these caveats in mind, our findings suggest that public transfers *can* be effective instruments to redistribute income to the poor. But they have not often done so. Indeed, Robin Hood works in both directions in LAC, with public transfers redistributing income to both the rich and the poor. Specifically, the redistributive performance of social insurance and social assistance transfers can be summarized as follows.

The redistributive impacts of social insurance transfers are limited – and even regressive in most instances. Our findings quantify the degree to which Latin America's "elite" captures public subsidies to existing social insurance schemes. Specifically, those in the top quintile of the population receive about 60% of net social insurance transfers. This regressivity derives from two main "design" factors: a truncation in coverage and relatively generous unit benefits for those in the top quintile. The persistence of a historical "truncation" thwarts coverage of the poor by design. Specifically, a defining characteristic of social insurance programs in LAC is that they tie eligibility to membership in the formal labor market – which hampers coverage of the poor, who are largely employed in the informal sector. Our analysis confirms this truncation in practice. Moreover, social insurance transfers are typically far more generous (a) for recipients in the upper quintiles; and (b) than social assistance programs – even when contributions have been netted out. As a result of this truncation in coverage and these biases in the generosity of benefits, social insurance transfers are regressive in all countries in our sample – and in some cases, so regressive that they exacerbate inequality.

Regressivity applies to *net* social insurance transfers, which are subsidized by government budgets at the expense of all taxpayers. Our analysis focuses on the incidence of *net* transfers for pensions – subtracting the share of benefits financed by direct contributions. The basic premise for this is that these "net pension subsidies" compete for tax-financed resources with social assistance and other forms of social spending, with very different redistributive patterns. Moreover, the regressivity of net social insurance transfers has not been helped by any significant degree of progressivity in tax financing. Rather, these deficit-ridden and largely truncated social insurance schemes seem to have created a "Reverse Robin Hood" situation of taking from the poor and redistributing to the rich, thereby exacerbating LAC's high inequalities. The magnitude of these tax-financed social insurance benefits is huge. Net pension subsidies absorb about 5% of GDP in the higher spending countries, far higher than spending on social assistance, and higher than average public spending on education and

⁹² Transfers that are not reaching the poor segments of the population and thus appear to perform poorly from a redistributive perspective, may perform well when examined in terms of the other objectives of social policy.

health in these countries. Important opportunity costs indeed. The concern, then, is one of equity, efficiency and fiscal sustainability.

The more recent emergence of social assistance only partially offsets this truncation of the welfare state in LAC. True: coverage of the poor can be impressive in some instances. True: absolute incidence is progressive overall, and highly progressive for certain types of social assistance programs. However, overall spending is low in many countries and unit subsidies are very small, thus muting the redistributive, poverty and inequality impacts of even the most targeted programs.⁹³ As such, broad coverage of social assistance has not fully compensated for significant biases in the far more generous (net) social insurance subsidies to the rich.

There is considerable variation in redistributive impacts within the class of social assistance transfers. Too many are regressive. These include scholarships and many food-based programs. Governments should reconsider these programs – or at least strengthen their design. They could look to the targeting mechanisms used by conditional cash transfers (CCTs) – with impressive rewards. The relatively high progressivity of CCTs is likely driven by a clear definition of the poor as the target group and the explicit use of targeting mechanisms to determine eligibility, and not on their conditionalities *per se*. Such design mechanisms could be built into other social assistance programs, for example using a combination of geographic targeting and individual assessment mechanisms to target needs-based scholarships.

“Quo Vadis Latin America?”⁹⁴ Given these findings – and recent trends in LAC – what is the future trajectory for LAC? Importantly, how will LAC’s democracies reconcile the competing forces of: (a) widespread perceptions of dissatisfaction with the social injustice of LAC’s high poverty and inequality (similar to those in Europe) – which, as our paper shows, is often exacerbated by the regressivity of many public transfers (each with their own vested interests); (b) high and growing fiscal pressures, exacerbated by high pensions deficits; and (c) a persistently informal labor market (to a degree far higher than in Europe)?

Barrientos (2004) suggests that one trajectory for LAC is in the direction of more “liberal welfare regimes” (like the United States), with increasing reliance on market welfare production combined with finely-targeted social assistance. On the other hand, there has been considerable debate in several countries (Argentina, Brazil, Uruguay) about an alternative path, towards “minimum universal income” schemes – more along the lines of those in Europe.⁹⁵ Given the need for large fiscal resources to assure such universal minimums, such a scheme would require an overhaul of the welfare state and significant reallocations – perhaps from the existing grossly inefficient and regressive social insurance schemes.

Recognizing that redistribution is only one of many roles for social policy, the findings of this report reinforce the recommendations commonly made in the literature on social protection in LAC – arming them with additional evidence on redistributive impacts, namely:

- Reducing pension deficits – and rethinking some highly-regressive social insurance programs – must be a top priority on the policy agendas in LAC. These findings are consistent with recommendations for social insurance from other World Bank publications,⁹⁶ emphasizing:

⁹³ The exception is Argentina’s Household Heads Program, which combines good coverage of the poor with progressive targeting and relatively high unit transfers. As a result, Argentina’s program does yield important impacts on poverty reduction and inequality.

⁹⁴ Fiszbein (2004).

⁹⁵ See, for example, Suplicy (2002).

⁹⁶ Gill et. al. (2005) and Holzmann and Palmer (eds, 2006).

(a) the need to reduce regressive net subsidies for pensions by promoting fully-funded pension plans for those who can afford it (pillar 2 reforms) and (b) reserving subsidized pensions for the poor (better targeting of pillar 1) and moving away from the restriction of such benefits tied to formal sector employment.

- Improving the targeting of social assistance transfers is also a priority in many cases – at least as a short-term measure, short of a more sweeping overhaul of social policy. As noted above, many social assistance transfers are regressive, despite explicit objectives to assist the poor. Yet this study – and others⁹⁷ – clearly shows that better targeting is feasible. The targeting mechanisms used by conditional cash transfers, for example, could be adopted by other social assistance programs.
- In cases where social assistance programs are well-targeted and otherwise effective, countries might also consider the possibility of increasing unit subsidies for better redistributive and poverty impacts – perhaps with eventual savings from further reforms to reduce pension deficits. Yet this raises the issue of potential adverse incentive effects. Although evidence of strong labor disincentives is absent for these programs in LAC, and certain design features would plausibly discourage such effects, policy makers in LAC should more explicitly incorporate design features to reduce potential work disincentives – and researchers should further investigate this potential. Moreover, any potential increase in unit transfers should be weighed against other development priorities.
- But targeting and design improvements to individual social assistance programs are not enough. An adequate mix of instruments is needed to weave a social safety net that (a) promotes other roles of social policy (promotion of human capital, smoothing consumption, and ensuring adequate protection against shocks, in addition to redistribution); and (b) covers a variety of circumstances, including programs tailored to the needs of specific vulnerable groups.

However, while simple arithmetic suggests that lower spending on social insurance leaves more room in the government budget for spending on better targeted social assistance programs, serious consideration needs to be given to the political feasibility and sustainability of such reallocations. Although it is beyond the scope of this paper to explore the underlying forces – political, economic and demographic – behind the existing spending biases, there is clearly some barrier to lowering social insurance transfers (even where they are highly inequitable) and raising social assistance transfers (even where they are progressive) in many countries in LAC. Economic and demographic factors may come into play – as evidenced by the rise in social insurance transfers as a share of GDP with per capita incomes (greater scope for risk pooling with higher incomes) and aging populations – a pattern that is not mirrored for social assistance. Some barriers likely arise from the different political constituencies served by these two classes of transfers, and the vested interests of more organized formal sector workers.

Another possible factor is the possible perceived “legitimacy” conferred on social insurance programs by the fact that they link benefits to contributions (even if only partially).⁹⁸ Even though they are highly regressive and financed to a large part by general tax revenues, social insurance schemes may claim more legitimacy because societies perceive them as “rightfully earned” through contributions.

⁹⁷ See, for example, Coady et. al. (2004).

⁹⁸ The authors would like to thank Augusto de la Torre for his thoughtful suggestions on this point.

Perceptions of “legitimacy” could also explain – at least in part -- the emerging popularity of conditional cash transfers, whereby societies perceive that the fact that beneficiaries have to comply with a set of “co-responsibilities” (human capital conditionalities) bestows a greater degree of legitimacy on these transfers than pure cash or in-kind handouts. Indeed, conditional cash transfers are promising not only for their redistributive impacts, but also for their demonstrated impacts on human capital and their ability to break the inter-generational transmission of poverty.

Yet these “islands of success” should not remain islands – part of a dual system of social assistance, along side an inefficient and regressive social insurance system as if it were “the elephant in the room” that is not being effectively addressed. No country in LAC has (yet) been able to effectively and convincingly integrate social insurance and social assistance as part of a coherent system of social protection.⁹⁹ The duality of these social insurance and social assistance systems creates a patchwork of inefficiencies arising from a lack of policy consistency and coordination, including: gaps and duplications in coverage, increased administrative costs from multiple registry and governance systems, incentives distortions, etc. Many countries have undertaken reforms to improve these systems, but such reforms generally follow parallel tracks. A more integrated approach could bring about the reallocations and efficiency gains necessary for more progressive and inclusive outcomes – as well as possible fiscal savings that could be used for other development priorities, such as investments in improving the quality of education which is crucial for equalizing “opportunities” for redistribution in the long-run.¹⁰⁰

As Fiszbein (2004) so eloquently remarks, *“the status quo is clearly unsatisfactory – and citizens of Latin America are saying so quite openly. The potential answers are not simple to design or implement, as they will require solving both technical and political difficulties. In the end, the Latin American experience suggests that it is politically easier to ‘target’ one percent of GDP for social assistance within a regressive tax and social protection system than to make benefits much more inclusive within a more progressive system. The debate is in process, but the end result is still unclear. Quo vadis Latin America?”*

⁹⁹ Fiszbein (2004).

¹⁰⁰ World Bank (2005).

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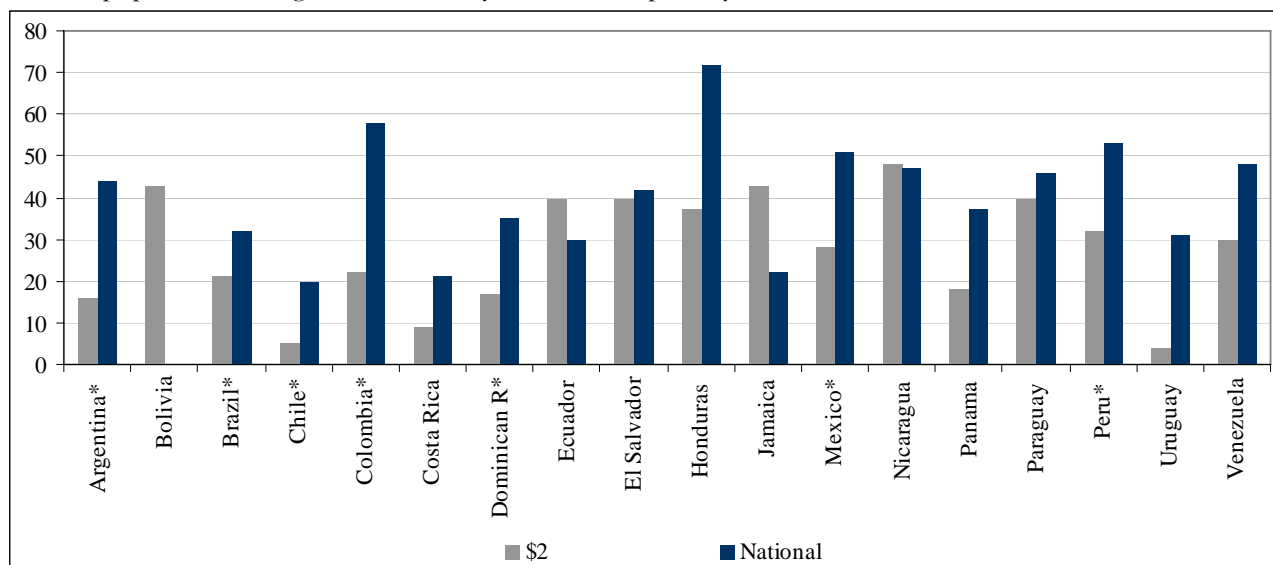
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Annex 1:

Results: Figures and Tables

2. Figure 1 – Poverty Rates in LAC

Share of populations living under US\$2 day and national poverty lines



Source: Perry et. al. (2006). * = countries included as case studies in this present analysis.

3. Figure 2 – Inequality in LAC and the World

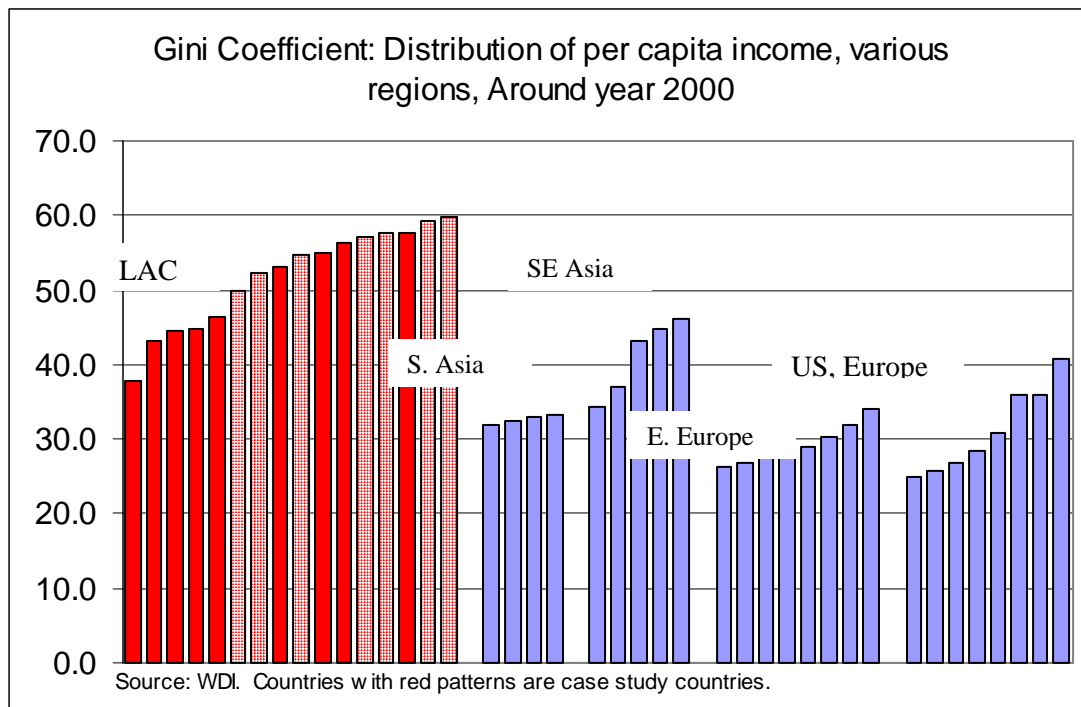


Table 1 - How Fair is the Income Distribution in Your Country?

	Very Good	Unfair/ Very Unfair	Don't know
Argentina	3.0	94.1	2.9
Bolivia	8.5	89.9	1.7
Brasil	12.9	81.8	5.3
Colombia	4.1	93.1	2.9
Costa rica	14.6	79.7	5.7
Chile	9.6	88.3	2.1
Ecuador	9.7	87.2	3.1
El salvador	14.8	75.4	9.9
Guatemala	14.0	79.4	6.6
Honduras	7.9	88.0	4.1
México	17.2	82.0	0.8
Nicaragua	14.8	81.4	3.8
Panamá	4.6	85.0	10.4
Paraguay	5.4	92.2	2.4
Perú	5.2	91.3	3.5
Uruguay	7.7	87.4	4.8
Venezuela	26.5	68.9	4.6
LAC	10.8	84.9	4.3

Source: Authors' analysis of data from Latinobarometro 2001

Table 2 – LAC: Perceptions of Most Important Problems in Country

	Poverty	Income	Unemploy- ment	Violence /Drugs/ Corruption	Education/health	Don't know	Other
Argentina	6.75	16.26	32.31	30.72	7.41	3.06	3.48
Bolivia	8.71	19.90	19.80	6.67	3.83	9.98	31.10
Brazil	10.30	9.05	37.71	18.11	12.04	8.14	4.65
Colombia	5.80	4.73	34.37	45.96	2.39	5.60	1.16
Costa rica	15.90	16.70	22.40	32.00	1.40	8.60	3.00
Chile	10.69	2.43	29.90	26.16	9.87	3.65	17.29
Ecuador	5.71	21.62	22.23	24.28	0.88	5.15	20.12
El salvador	18.37	12.58	32.76	23.30	1.78	8.12	3.09
Guatemala	19.49	17.88	15.18	34.03	3.08	6.51	3.83
Honduras	17.01	25.02	19.26	24.57	5.56	5.55	3.03
México	12.69	21.33	17.75	29.41	8.21	2.18	8.42
Nicaragua	24.80	7.36	37.51	18.08	2.10	7.90	2.24
Panamá	10.10	10.00	54.80	16.50	1.90	3.70	3.00
Paraguay	3.73	0.72	49.44	23.59	6.72	4.50	11.30
Perú	7.42	22.01	41.15	6.24	3.25	6.54	13.39
Uruguay	9.55	16.81	50.42	3.55	2.55	3.92	13.19
Venezuela	3.90	11.64	27.70	16.23	3.08	3.47	33.97
Dominican Rep	5.23	51.68	3.70	7.30	3.70	6.23	22.15
LAC	10.76	16.16	30.16	21.37	4.48	5.68	11.39

Source: Authors' analysis of data from Latinobarometro 2004

Table 3 – Perceptions of Poverty

	The poor are poor because:		PERCEPTIONS: % who believe that:	
	"Society is Unjust"	"They are Lazy"	The poor have very little chance to escape from poverty	Government's response to poverty is inadequate
LAC - Average	65.8	28.3	62.0	67.7
Mexico	65.8	24.6	56.9	71.1
Argentina	74.0	26.0	74.5	81.7
Brazil	75.7	20.5	70.5	n.a.
Chile	55.6	36.9	58.5	58.7
Peru	56.5	34.2	47.1	44.8
Venezuela	52.9	47.1	59.6	79.9
Uruguay	77.2	12.4	73.5	80.8
Dom. Republic	68.6	24.5	61.2	89.0
Colombia	n.a.	n.a.	55.8	n.a.
Continental Europe	63.3	17.1	60.2	64.5
United States	38.8	61.2	29.5	41.8

Source: Author's analysis of data from World Values Survey (1995-97)

Figure 3 – Public Transfers in the Context of Overall Social Spending: LAC, OECD

% of GDP on public spending (with gross value of pension transfers)

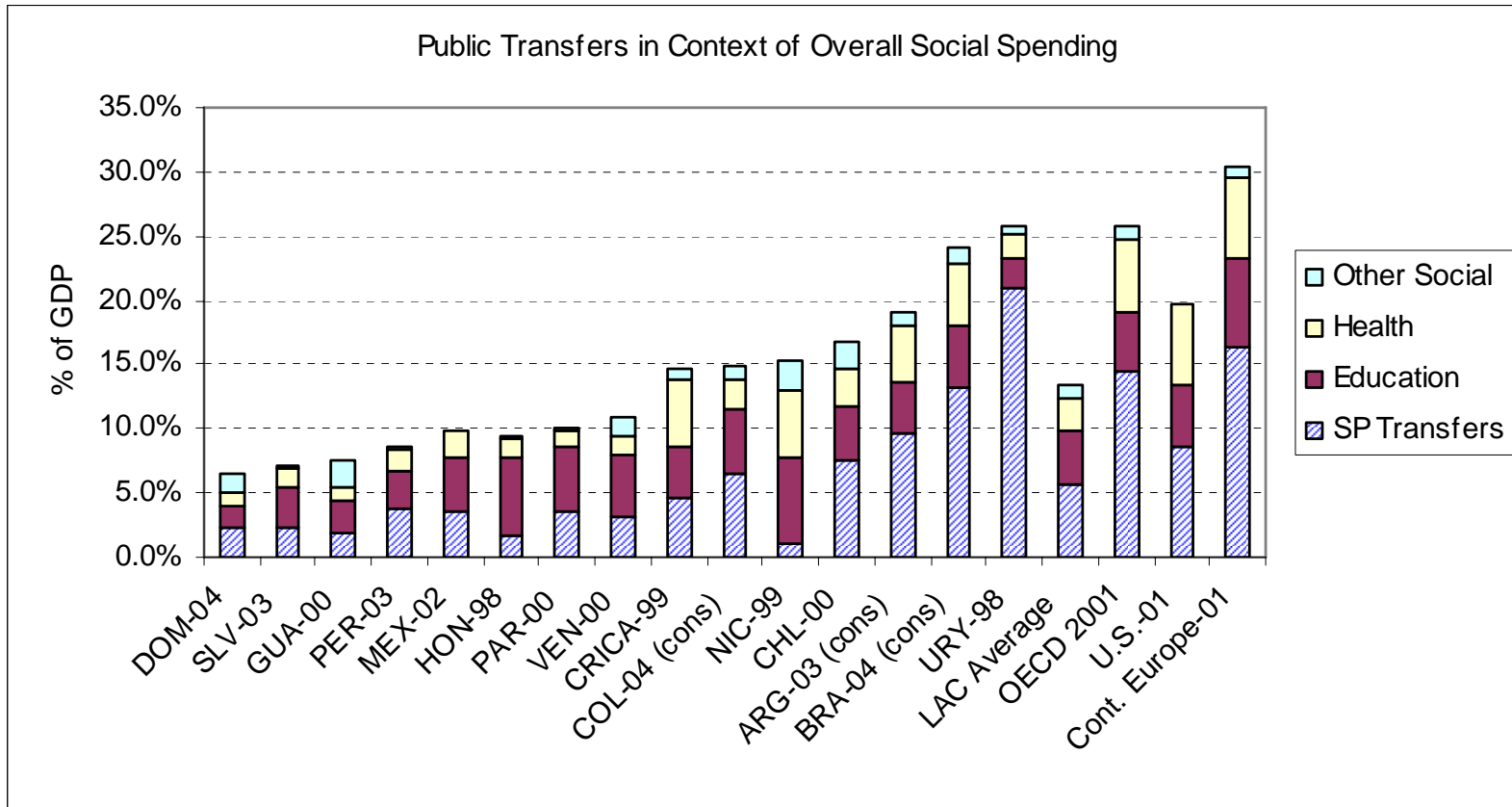
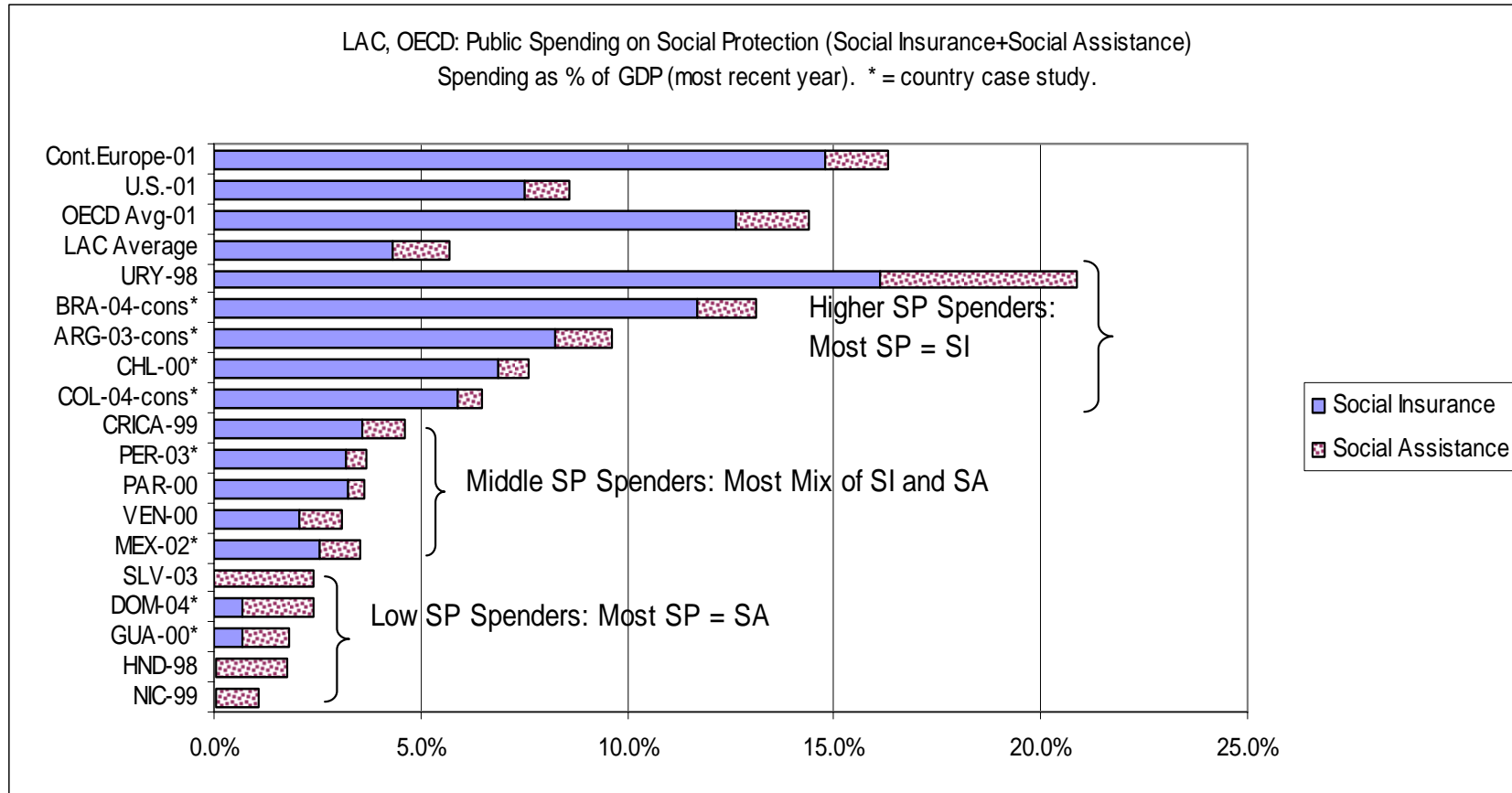


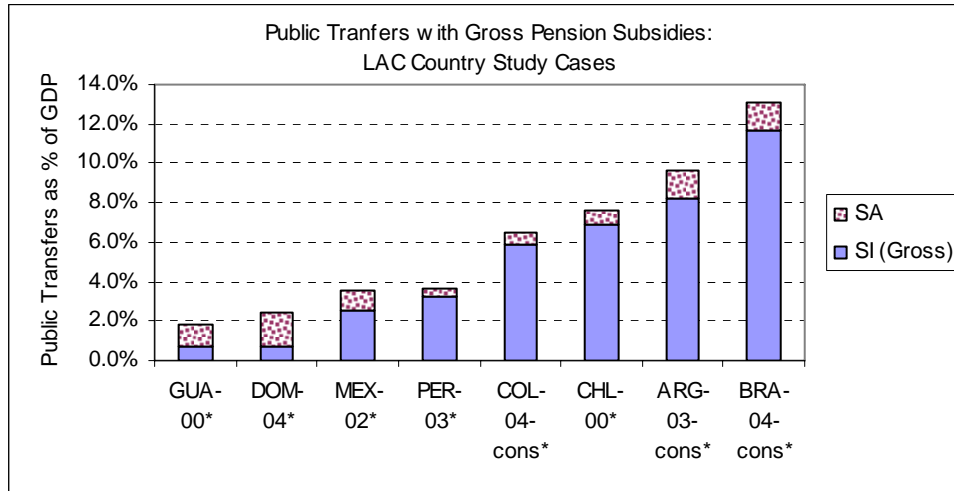
Figure 4 – Public Transfers by Social Assistance and Social Insurance (gross): LAC, OECD

% of GDP on public spending



**Figure 5 – Public Spending on Transfers in LAC Country Study Cases:
With “Gross” Pension Benefit Values**

(Total benefits, including the part financed by contributions)



**Figure 6 – Public Spending on Transfers in LAC Country Study Cases:
With “Net” Pension Benefit Values**

(Only the share of benefits financed by general revenues -- netting out contribution shares)

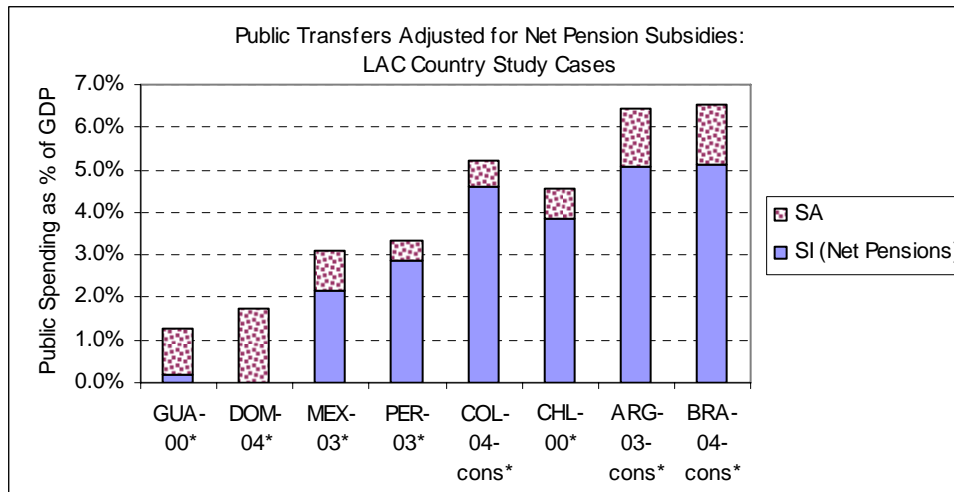


Table 4A – Summary Indicators by Class of Public Transfers: SP, SI, SA

			Average Unit Value, US\$PPP		Coverage		Abs. Inc		Rel. Inc		CGH	CGH	DCI
			All Benef.	Benef. Q5/Q1	Q1	Q5	Q1	Q5	Q1	Q5	For Q1	For Q1+Q2	Epsilon=2
TOTAL SOCIAL PROTECTION													
COL	SPT	All social protection	19.3	1.9	45%	26%	24%	25%	8.0%	0.8%	1.18	1.02	0.79
MEX	SPT	All social protection	21.1	9.6	40%	22%	10%	51%	4.1%	0.6%	0.48	0.58	0.47
GUA	SPT	All social protection	10.1	4.1	64%	39%	12%	29%	8.0%	2.2%	0.59	0.75	0.43
ARG	SPT	All social protection	79.6	6.9	34%	30%	7%	44%	39.3%	9.1%	0.36	0.49	0.43
CHL	SPT	All social protection	41.0	7.1	74%	41%	10%	38%	13.0%	4.3%	0.48	0.57	0.41
BRA	SPT	All social protection	43.3	9.3	54%	43%	7%	52%	9.4%	4.4%	0.34	0.42	0.29
PER	SPT	All social protection	17.6	46.2	72%	31%	3%	63%	2.6%	6.7%	0.16	0.20	0.17
TOTAL SOCIAL INSURANCE (NET BENEFITS)													
BRA	SIT	All social insurance	52.9	6.9	28%	42%	5%	54%	6.9%	4.3%	0.27	0.35	0.23
CHL	SIT	All social insurance	80.9	6.0	14%	27%	4%	46%	4.2%	4.0%	0.20	0.32	0.22
MEX	SIT	All social insurance	65.6	4.2	2%	10%	3%	63%	0.8%	0.4%	0.15	0.36	0.16
PER	SIT	All social insurance	100.1	3.6	1%	20%	1%	68%	0.7%	6.6%	0.05	0.10	0.11
COL	SIT	All social insurance	23.7	5.6	1%	17%	1%	66%	0.1%	0.6%	0.05	0.12	0.09
GUA	SIT	All social insurance	20.7	10.1	1%	9%	1%	81%	0.1%	0.7%	0.06	0.09	0.08
ARG	SIT	All social insurance	106.1	12.0	5%	29%	1%	56%	3.4%	9.0%	0.04	0.14	0.08
DOM	SIT	All Social Insurance (SS health)	46.1	N.A.	2%	3%	7%	30%	0.3%	0.1%	0.37	0.55	N.A.
TOTAL SOCIAL ASSISTANCE													
ARG	SAT	All social assistance	35.9	1.7	30%	1%	32%	1%	35.9%	0.1%	1.60	1.80	1.76
BRA	SAT	All social assistance	6.7	4.1	34%	3%	38%	12%	2.4%	0.0%	1.89	1.65	1.40
DOM	SAT	All Social Assistance	N.A.	N.A.	94%	96%	14%	28%	7.1%	0.9%	0.70	0.77	1.3
COL	SAT	All social assistance	17.0	1.0	45%	9%	33%	6%	7.9%	0.1%	1.67	1.42	1.09
CHL	SAT	All social assistance	11.9	1.2	69%	19%	28%	10%	8.8%	0.3%	1.40	1.37	1.03
MEX	SAT	All social assistance	9.6	4.0	38%	15%	20%	31%	3.3%	0.1%	0.99	0.94	0.97
PER	SAT	All social assistance	1.6	1.2	72%	12%	30%	6%	1.9%	0.1%	1.51	1.36	0.94
GUA	SAT	All social assistance	9.3	3.4	64%	32%	13%	22%	7.9%	1.5%	0.66	0.83	0.48

Authors' estimations using household surveys. Dominican Republic: IDB estimates from ENCOVI 2004.

Table 4B – Summary Indicators by Class of Public Transfers: Social Insurance Transfers

			Average Unit Value, US\$PPP		Coverage		Abs. Inc		Rel. Inc		CGH	CGH	DCI
			All Benef.	Benef. Q5/Q1	Q1	Q5	Q1	Q5	Q1	Q5	For Q1	For Q1+Q2	Epsilon=2
CHL	SIP	Unemployment	21.6	5.8	1%	0%	18%	35%	0.1%	0.0%	0.92	0.90	0.83
CHL	SIP	Disability pension	50.0	2.9	2%	1%	9%	23%	0.5%	0.1%	0.45	0.67	0.41
BRA	SIP	Seguro desemprego	18.6	2.6	2%	2%	8%	26%	0.2%	0.0%	0.39	0.65	0.35
DOM	SIP	SS-Health	46.1	N.A.	2%	3%	7%	30%	0.3%	0.1%	0.37	0.55	N.A.
CHL	SIP	Orphan pension	29.4	3.9	0%	1%	5%	39%	0.0%	0.0%	0.25	0.48	0.35
CHL	SIP	Widow pension	59.3	4.7	4%	6%	6%	43%	1.1%	0.6%	0.30	0.42	0.28
BRA	SIP	Abono salarial PIS/PASEP	2.0	1.6	3%	11%	6%	31%	0.1%	0.0%	0.29	0.46	0.28
BRA	SIP	Public Leave Benefits	32.8	3.9	1%	1%	5%	28%	0.1%	0.1%	0.24	0.48	0.24
BRA	SIP	Public Pension receipts	66.3	8.1	24%	31%	5%	55%	6.5%	4.2%	0.26	0.34	0.23
MEX	SIP	Indemnizations	24.5	11.6	1%	1%	3%	32%	0.1%	0.0%	0.14	0.35	0.22
CHL	SIP	Old-age pension	88.3	6.0	8%	21%	3%	49%	2.5%	3.2%	0.16	0.27	0.19
MEX	SIP	Retirement Pensions	75.7	3.3	1%	9%	3%	66%	0.8%	0.4%	0.16	0.36	0.15
PER	SIP	Pensions	100.1	3.6	1%	20%	1%	68%	0.7%	6.6%	0.05	0.10	0.11
COL	SIP	Retirement pension	23.7	5.6	1%	17%	1%	66%	0.1%	0.6%	0.05	0.12	0.09
GUA	SIP	Retirement pension and survivorship pe	20.7	10.1	1%	9%	1%	81%	0.1%	0.7%	0.06	0.09	0.08
ARG	SIP	Pensions	106.1	12.0	5%	29%	1%	56%	3.4%	9.0%	0.04	0.14	0.08

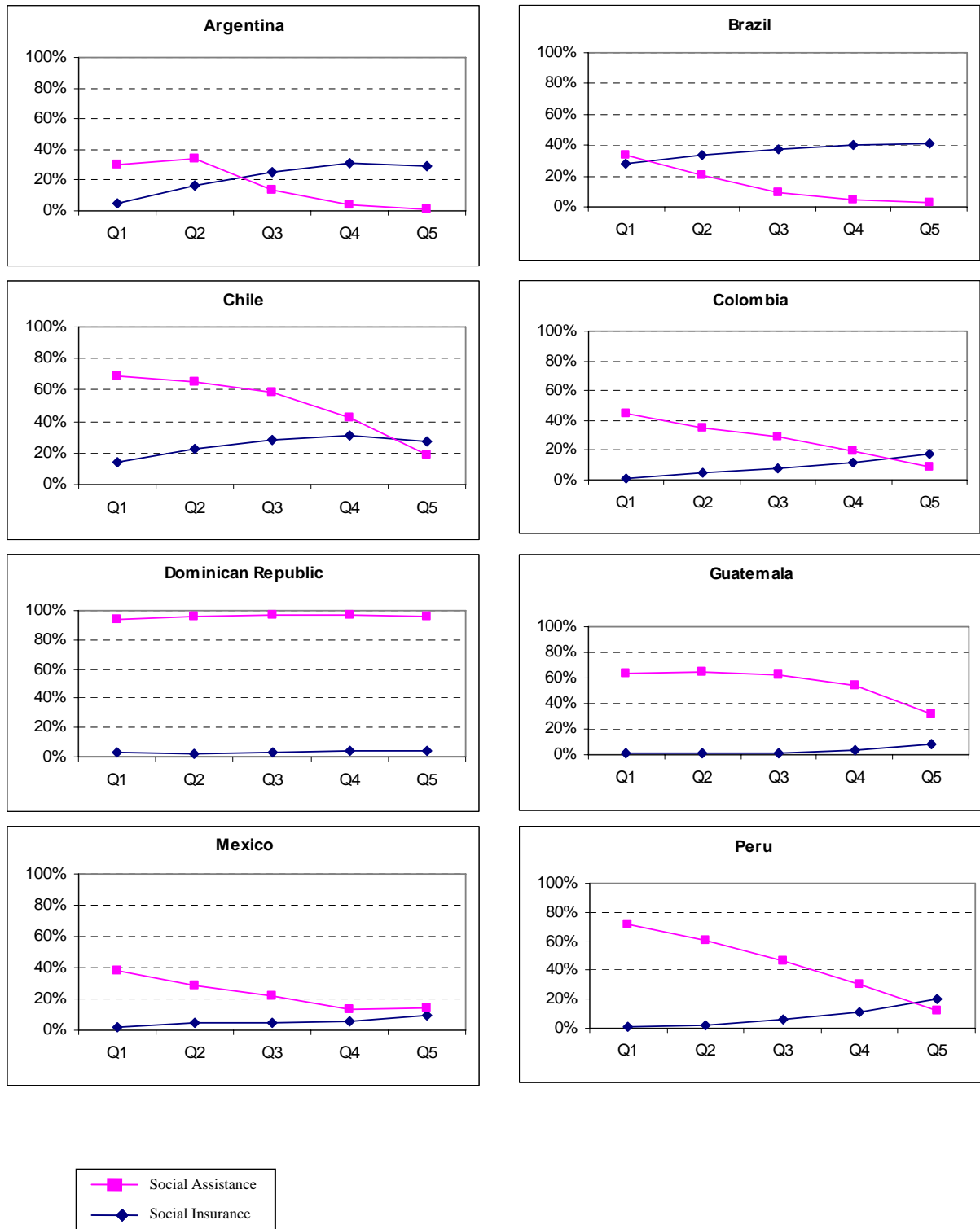
Authors' estimations using household surveys. Dominican Republic: IDB estimates from ENCOVI 2004.

Table 4C – Summary Indicators by Class of Public Transfers: Social Assistance Transfers

	Average Unit Value, US\$PPP		Coverage		Abs. Inc		Rel. Inc		CGH	CGH	DCI
	All Benef.	Benef. Q5/Q1	Q1	Q5	Q1	Q5	Q1	Q5	For Q1	For Q1+Q2	Epsilon=2
TAE-School Assist. Card	10.8	N.A.	8%	1%	35%	7%	0.4%	0.0%	1.75	1.48	3.3
PAE-School Feeding	9.1	N.A.	50%	11%	32%	7%	2.6%	0.0%	1.60	1.46	2.9
SUF	5.5	0.8	31%	1%	60%	1%	1.9%	0.0%	2.98	2.10	2.31
PETI	5.5	0.7	2%	0%	66%	0%	0.1%	0.0%	3.30	2.24	2.26
Solidario	6.2	1.2	3%	0%	56%	2%	0.2%	0.0%	2.81	2.02	2.10
Auxilio Gas	1.5	3.7	16%	0%	48%	2%	0.3%	0.0%	2.39	2.01	1.87
Head of household program	35.9	1.7	30%	1%	32%	1%	35.9%	0.1%	1.60	1.80	1.76
Oportunidades (PROGRESA)	6.8	1.7	32%	2%	35%	4%	2.5%	0.0%	1.73	1.58	1.67
PROMESE-medicines	0.5	N.A.	54%	39%	17%	20%	0.1%	0.0%	0.85	0.90	1.6
INESPRE/ Popular markets	2.1	N.A.	39%	31%	17%	21%	0.4%	0.0%	0.83	0.89	1.5
Bolsa Escola	5.5	5.7	27%	2%	40%	15%	1.6%	0.0%	1.98	1.63	1.47
Desayuno escolar	1.5	1.0	30%	2%	44%	3%	0.8%	0.0%	2.22	1.79	1.32
Comedor infantil	2.3	1.0	2%	0%	43%	3%	0.1%	0.0%	2.13	1.87	1.32
Almuerzo escolar	0.8	0.9	8%	0%	45%	1%	0.1%	0.0%	2.25	1.94	1.28
Disability PASIS	31.3	1.3	7%	0%	35%	2%	2.1%	0.0%	1.74	1.66	1.28
Community child care or kindergarten	26.0	1.0	16%	2%	37%	5%	4.3%	0.1%	1.85	1.49	1.20
FAMI	8.9	1.2	3%	0%	38%	7%	0.3%	0.0%	1.91	1.53	1.14
Restaurante escolar	4.5	1.1	7%	2%	29%	8%	0.3%	0.0%	1.47	1.47	1.08
Preschool lunch	12.5	1.3	15%	2%	33%	5%	1.7%	0.0%	1.65	1.46	1.05
School snack or lunch	0.8	1.1	22%	4%	30%	6%	0.2%	0.0%	1.48	1.42	1.03
Preschool snack	7.1	1.5	15%	2%	30%	7%	0.9%	0.0%	1.52	1.35	1.02
Renda minima	8.1	3.1	6%	1%	26%	10%	0.4%	0.0%	1.30	1.49	0.95
Old age PASIS	38.6	1.5	6%	1%	26%	5%	1.8%	0.0%	1.32	1.47	0.94
Vaso de leche	0.2	1.4	57%	10%	29%	7%	0.2%	0.0%	1.44	1.36	0.93
Gas Subsidy	15.7	N.A.	74%	93%	9%	34%	3.5%	0.0%	0.46	0.59	0.9
Potable water subsidy	2.9	2.2	14%	2%	24%	7%	0.3%	0.0%	1.18	1.27	0.89
Family allowance	4.6	0.6	28%	15%	24%	7%	1.8%	0.0%	1.19	1.30	0.79
Comedor popular	7.6	1.8	6%	1%	20%	9%	0.6%	0.0%	1.01	1.03	0.67
Powdered milk or glass of milk	2.0	1.3	7%	3%	21%	12%	0.3%	0.0%	1.03	1.21	0.64
School breakfast	6.5	2.5	36%	8%	18%	9%	3.7%	0.2%	0.89	1.14	0.62
School materials packet	2.7	2.3	32%	11%	18%	14%	1.3%	0.1%	0.89	1.06	0.61
Glass of corn mush (atol)	1.9	1.7	41%	19%	17%	14%	1.4%	0.1%	0.86	0.97	0.58
PROCAMPO	6.7	5.8	11%	6%	12%	43%	0.4%	0.0%	0.60	0.60	0.53
School snack	1.7	2.0	38%	22%	13%	15%	1.0%	0.1%	0.66	0.85	0.50
Scholarships*	33.9	5.8	4%	2%	11%	31%	0.7%	0.2%	0.56	0.63	0.46
School scholarship	5.5	7.0	9%	2%	14%	19%	0.2%	0.0%	0.69	0.72	0.45
Scholarships	13.4	10.6	5%	5%	5%	61%	0.2%	0.1%	0.26	0.25	0.35
Other Gov transfers*	8.9	7.4	3%	2%	7%	50%	0.1%	0.0%	0.37	0.54	0.33
School transport subsidy or school schc	6.8	4.3	2%	5%	3%	38%	0.1%	0.1%	0.13	0.17	0.18
Nutrition pension (alimenticia)	36.7	6.6	1%	5%	1%	59%	0.1%	0.8%	0.06	0.17	0.12

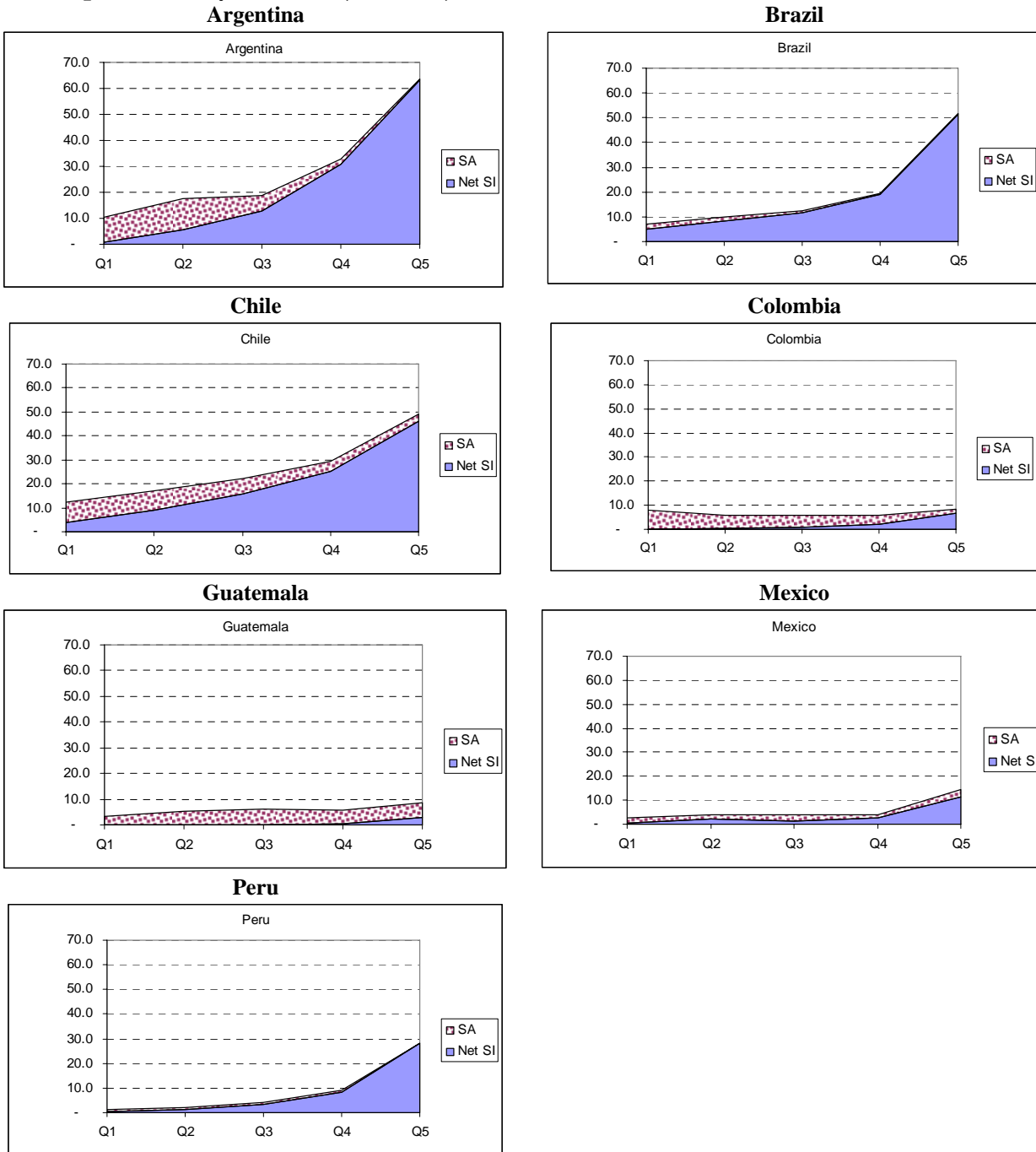
Authors' estimations using household surveys. Dominican Republic: IDB estimates from ENCOVI 2004.

Figure 7 – The Coverage Gap



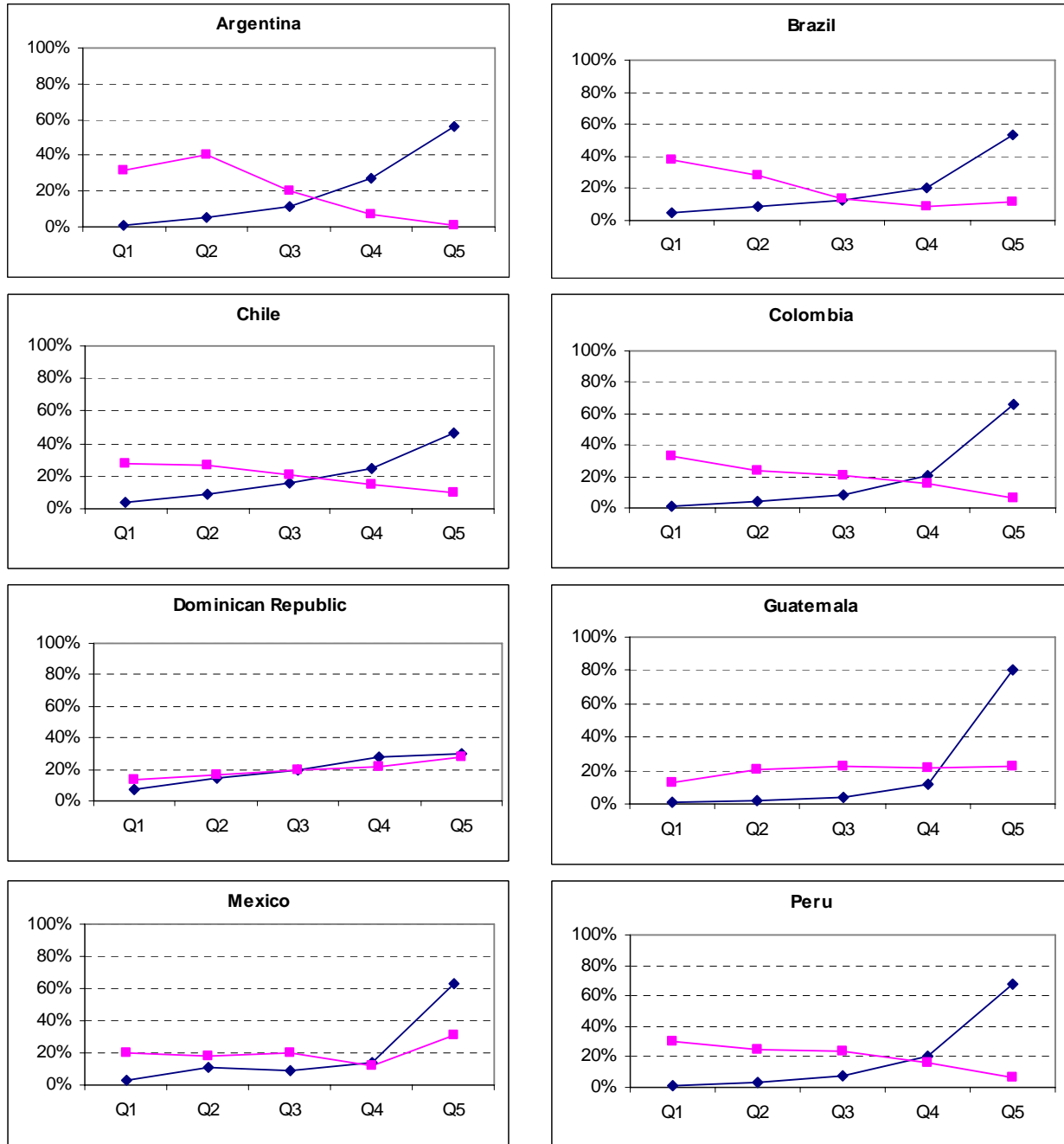
Sources: Authors' estimates from household surveys; Dominican Republic: IDB estimates from ENCOVI 2004.

Figure 8 – Public Transfers: Resource Flow to Each Quintile Per Capita Monthly Benefits (US\$PPP)



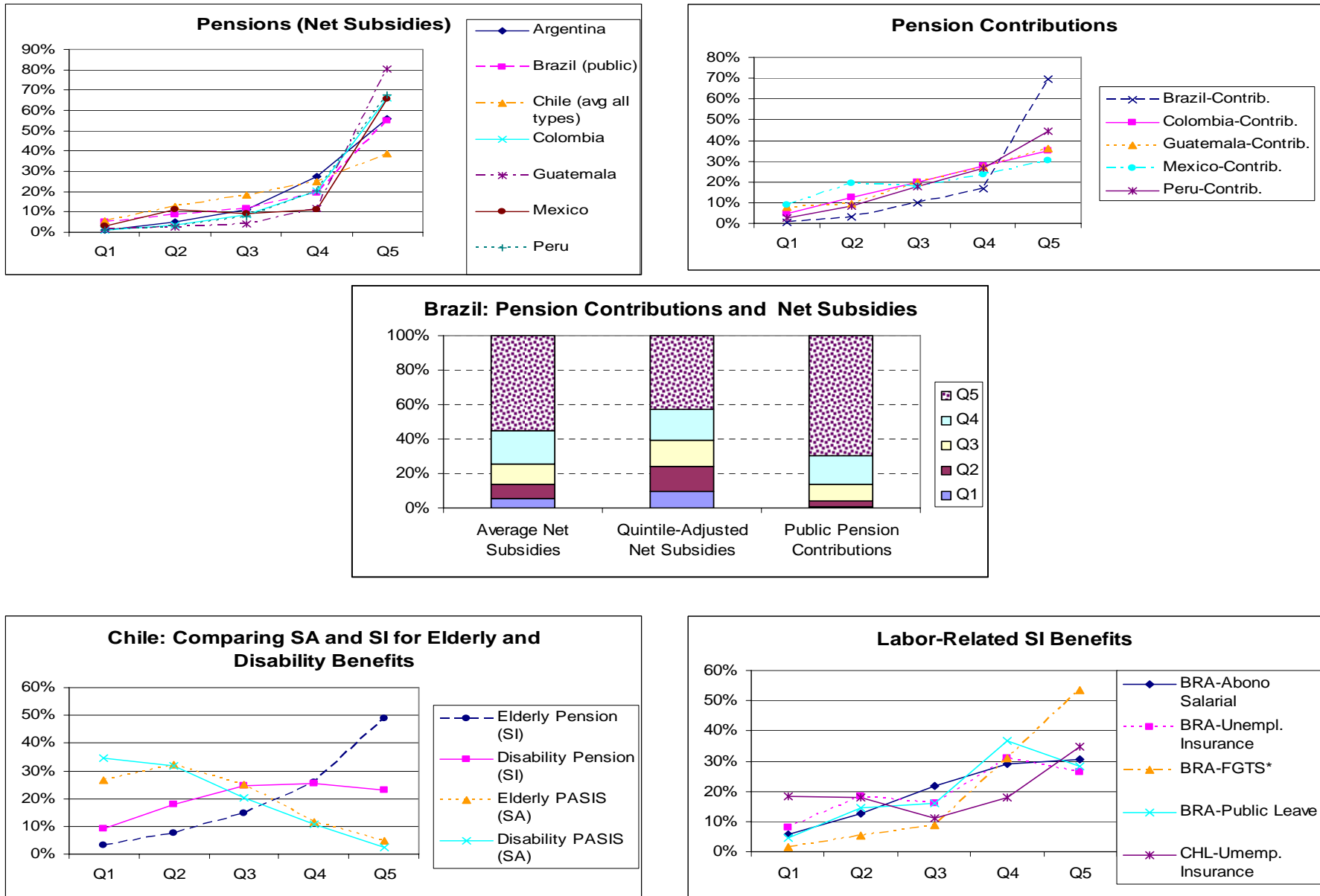
Sources: Authors' estimates from household surveys.

Figure 9: Absolute Incidence of Public Transfers, By Country



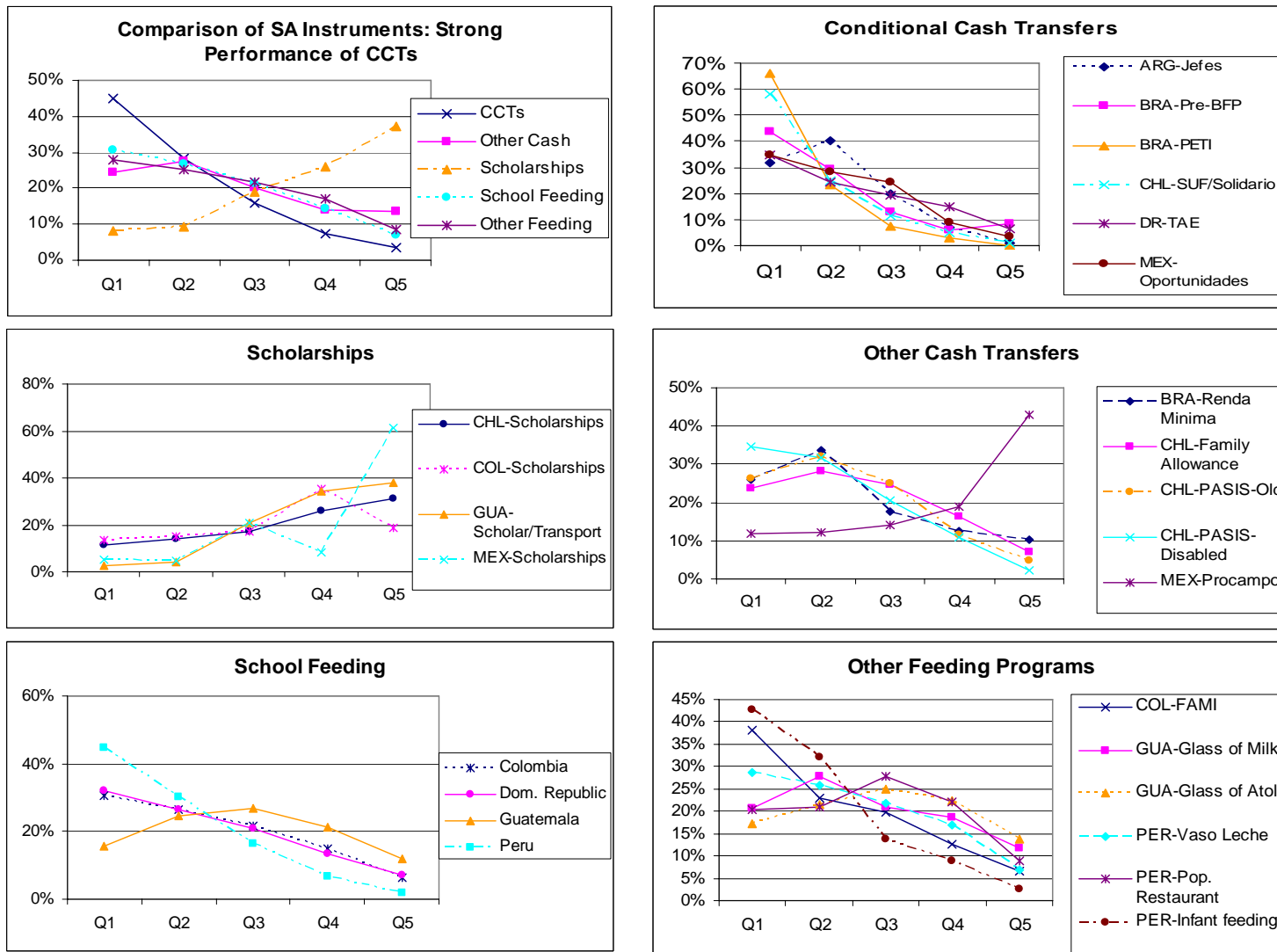
Sources: Authors' estimates from household surveys; Dominican Republic: IDB estimates from ENCOVI 2004.

Figure 10 – Absolute Incidence of Specific Social Insurance Instruments



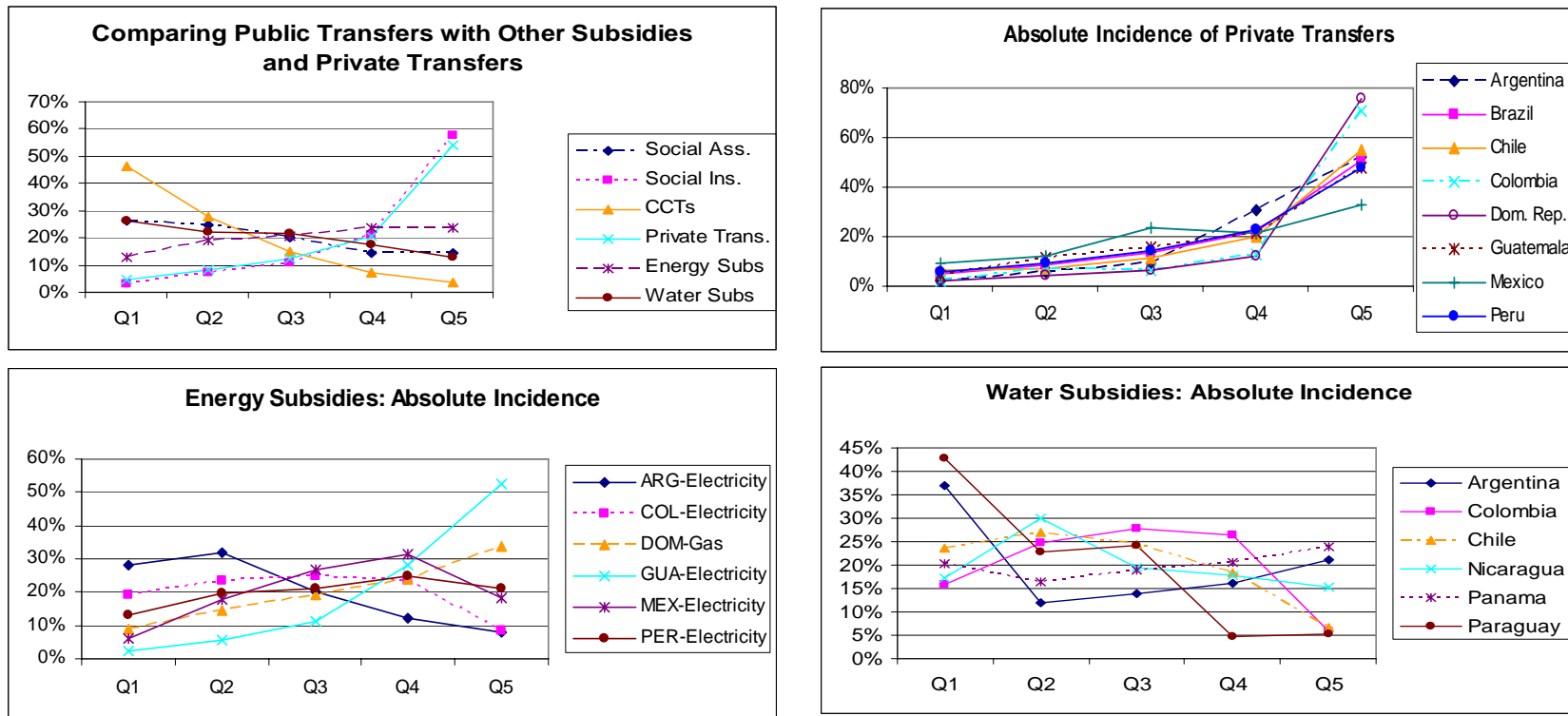
Sources: Authors' estimates from household surveys.

Figure 11 – Absolute Incidence of Specific Social Assistance Instruments



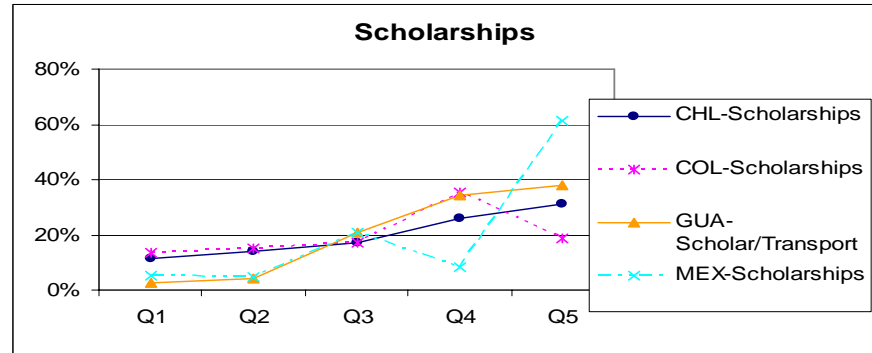
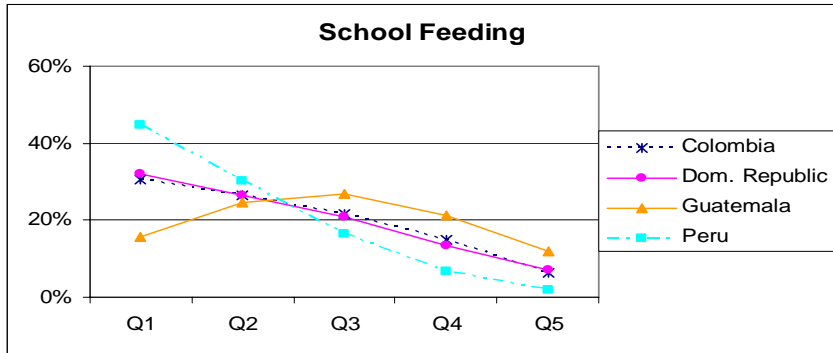
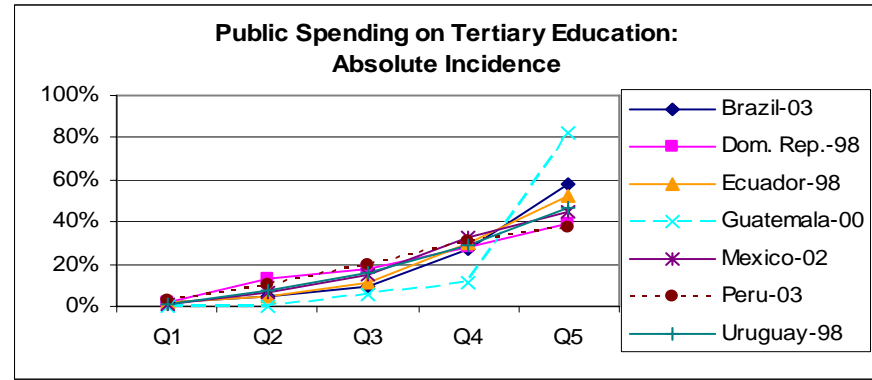
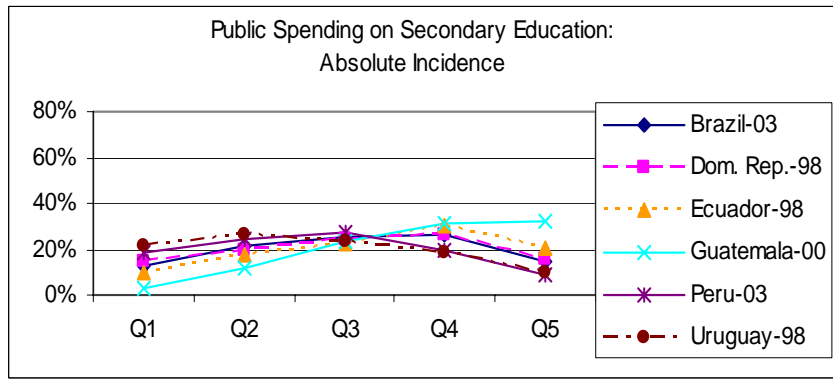
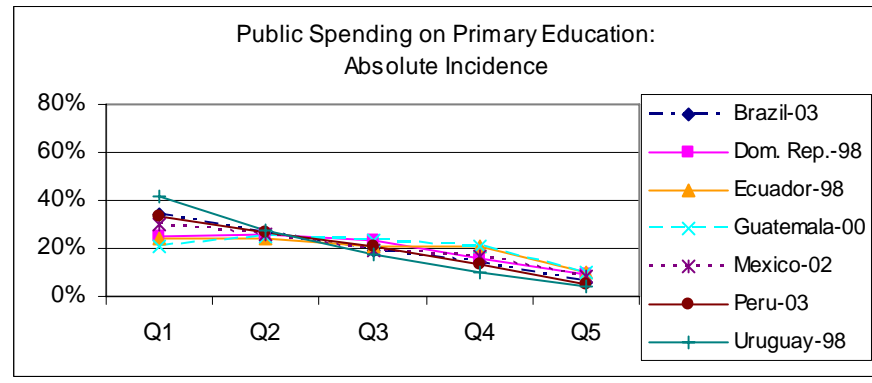
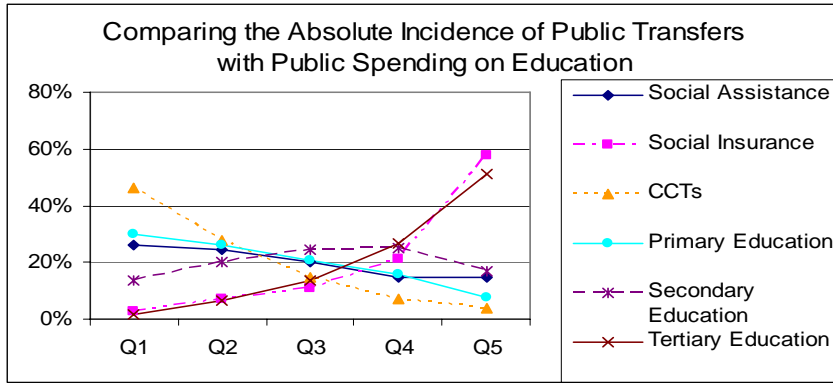
Sources: Authors' estimates from household surveys; Dominican Republic: IDB estimates from ENCOVI 2004.

Figure 12 – Comparing Distributive Impacts of Public Transfers, Other Subsidies and Private Transfers



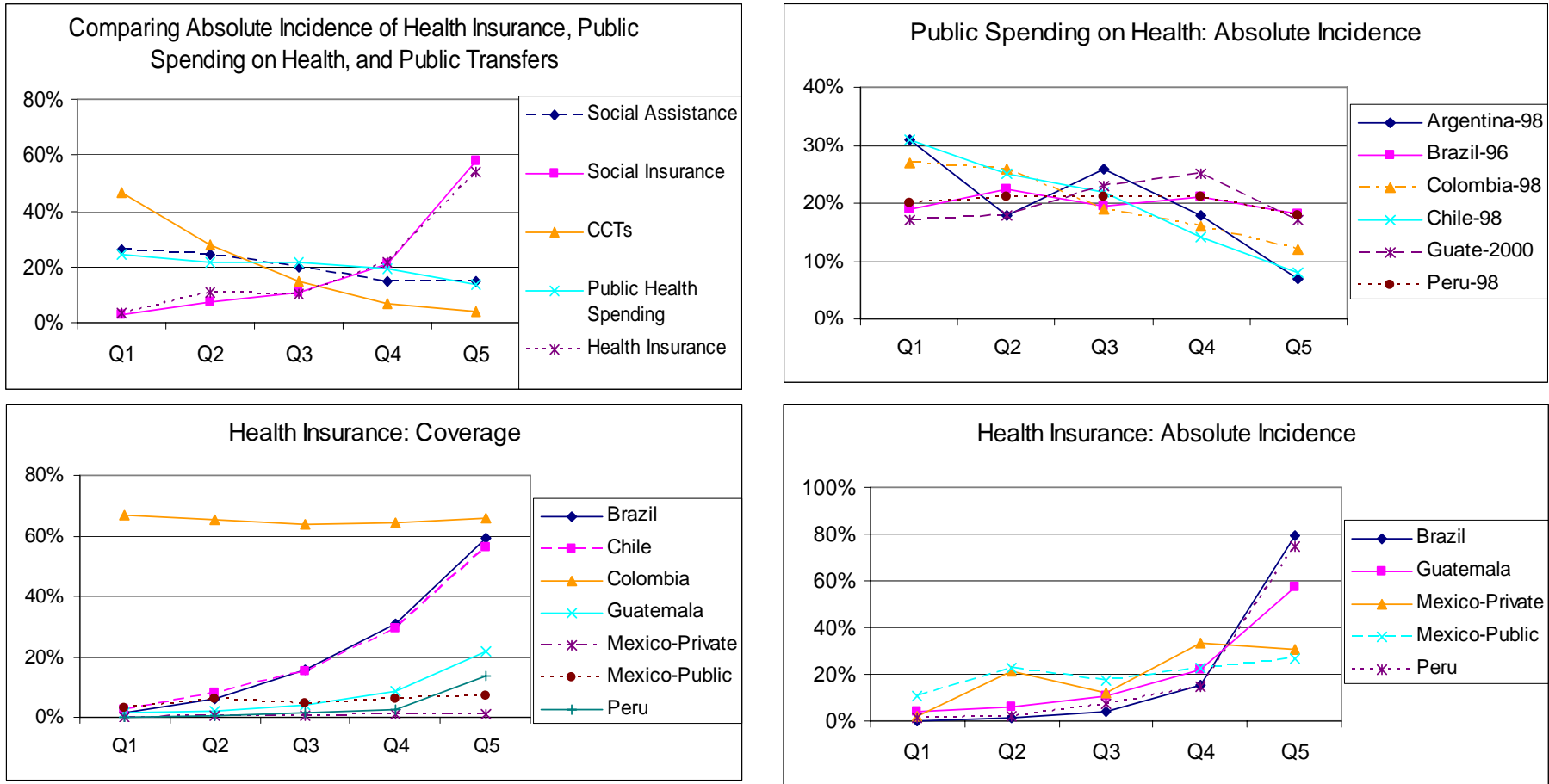
Sources: Private Transfers and Chile potable water subsidies: Authors' estimates from household surveys; Dominican Republic: IDB estimates from ENCOVI 2004; Energy and water subsidies: Komives, Foster, et. al. (2005).

Figure 13 – Comparing the Absolute Incidence of Public Transfers, Public Spending on Education, and School-Based Transfers



Sources: Public Transfers (including school feeding and scholarships): Authors' estimates from household surveys; Education incidence compiled by authors using the following sources: Brazil: Authors' estimates from PNAD 2003; Dominican Republic: World Bank (June 2000); Guatemala: World Bank (2004); Ecuador: World Bank (June 2000); Mexico: World Bank (August 2004); Peru: (World Bank (June 2005); and Uruguay: World Bank (July 2002).

Figure 14 – Comparing Distributive Impacts of Public Transfers, Health Insurance and Public Spending on Health



Sources: Public transfers, health insurance: Authors' estimates from household surveys; Public Spending on Health: (a) Projeto EQUILAC, World Bank, as cited in Medici (July 2005); (b) for Brazil: World Bank analysis of the PPV 1996.

**Table 5 - Targeting Accuracy:
International Comparisons with the Coady-Grosh-Hoddinott Index**

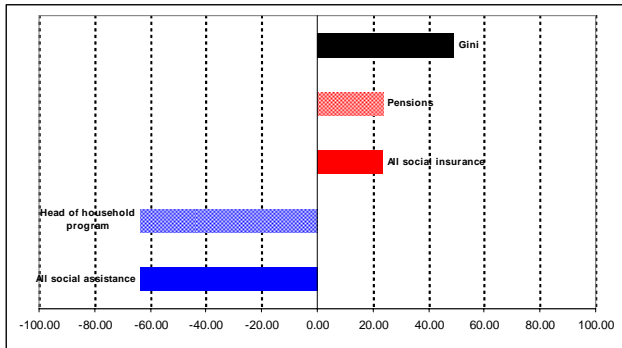
	<i>Median</i>	<i>Range</i>
<u>Social Assistance International</u>		
All methods (85 programs)	1.25	0.28 - 4.00
Top 10 Programs	2.15	2.02 - 4.00
Worst 10 Programs	0.6	0.28 - 0.78
<u>Social Assistance LAC (CGH for poorest quintile, 20%)</u>		
All methods (40 programs)	1.38	0.06 – 3.30
Top 10 Programs	2.23	1.77 – 3.30
Worst 10 Programs	0.51	0.06 – 0.83
<u>Social Assistance LAC (CGH for poorest two quintiles, 40%)</u>		
All methods (40 programs)	1.39	0.17 – 2.24
Top 10 Programs	1.91	1.63 – 2.24
Worst 10 Programs	0.90	0.17 – 0.90
<u>Social Insurance LAC (CGH for poorest quintile, 20%)</u>		
All methods (16 programs)	0.24	0.04 – 0.92
Top 10 Programs	0.29	0.16 – 0.92
Worst 10 Programs	0.15	0.04 – 0.26
<u>Social Insurance LAC (CGH for poorest two quintiles, 40%)</u>		
All methods (16 programs)	0.36	0.09 – 0.90
Top 10 Programs	0.47	0.34 – 0.90
Worst 10 Programs	0.31	0.09 – 0.48

Sources: Social assistance international: database from 48 developing countries in Coady et al. (2004).
LAC social assistance and social insurance: our database from 8 LAC countries.

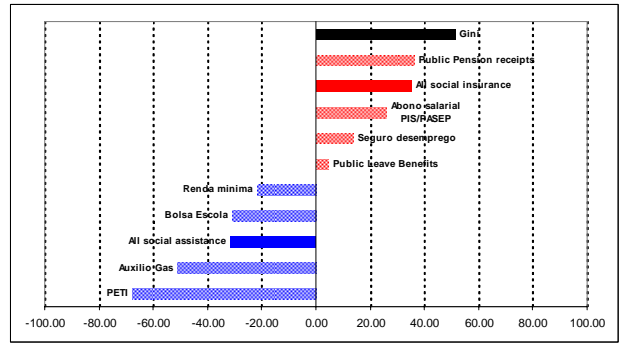
Figure 15 – Do Public Transfers Reduce or Exacerbate Inequality?

Concentration Coefficients

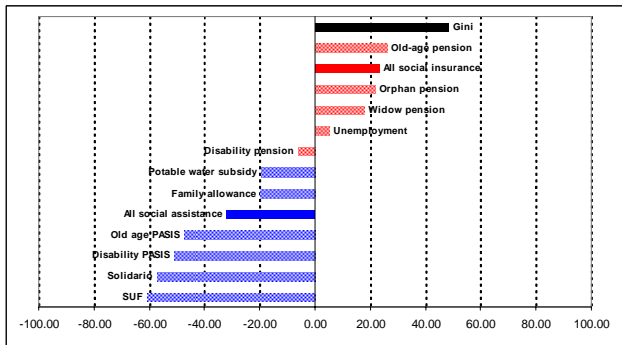
Argentina



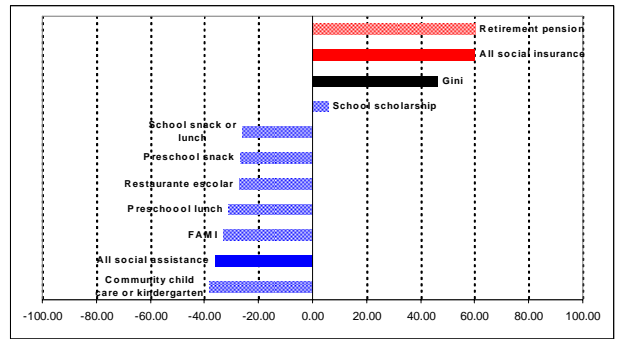
Brazil



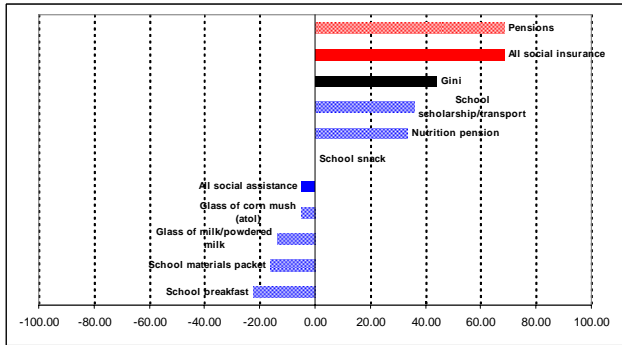
Chile



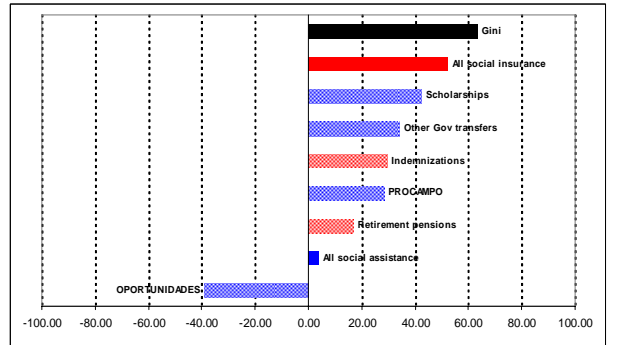
Colombia



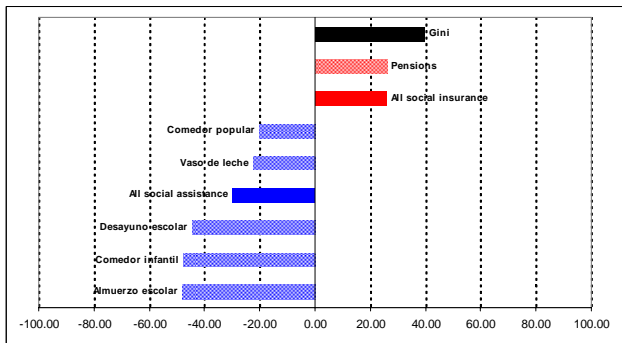
Guatemala



Mexico



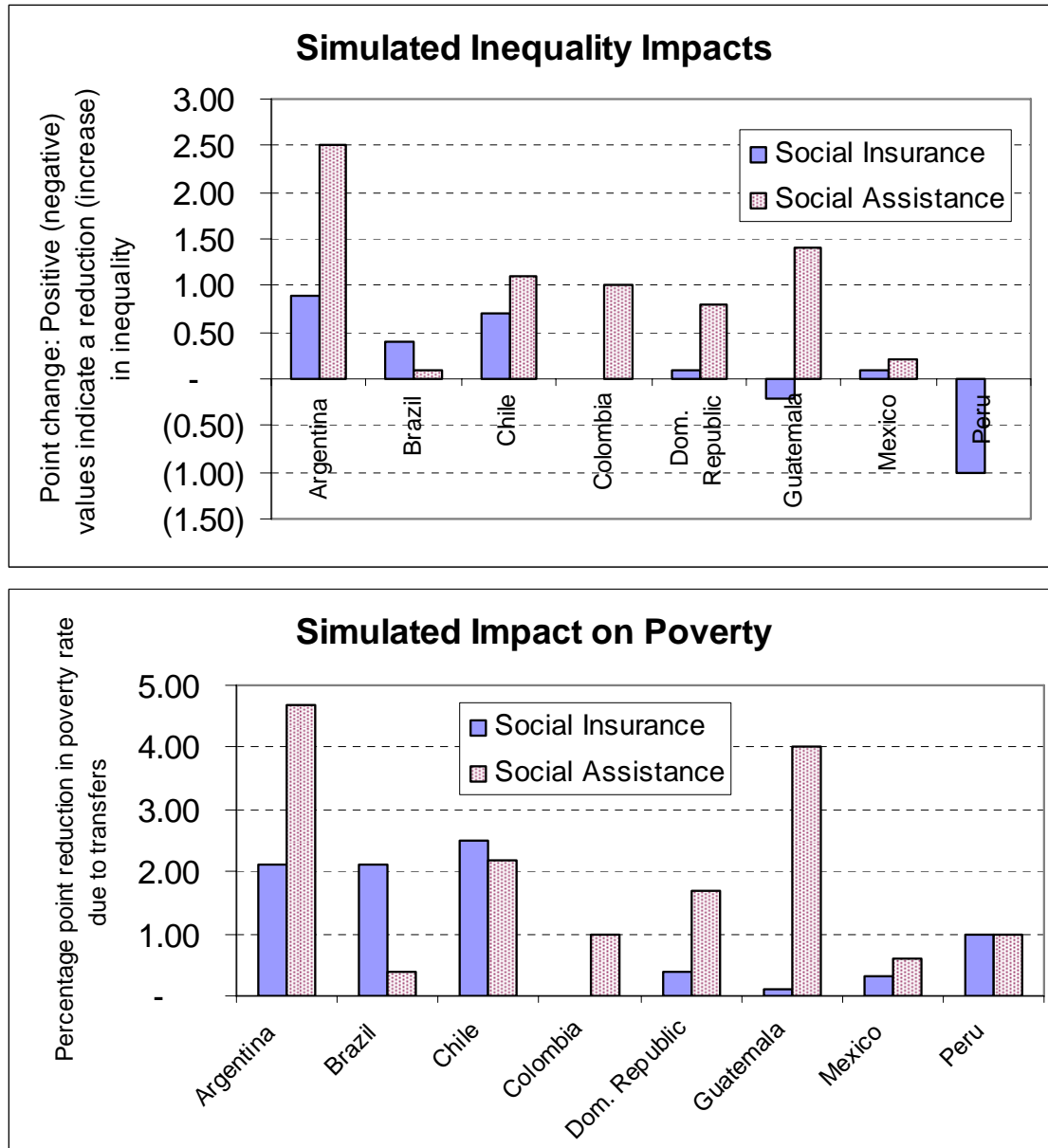
Peru



Black = Gini coefficient
 Red = Social insurance
 Blue = Social Assistance

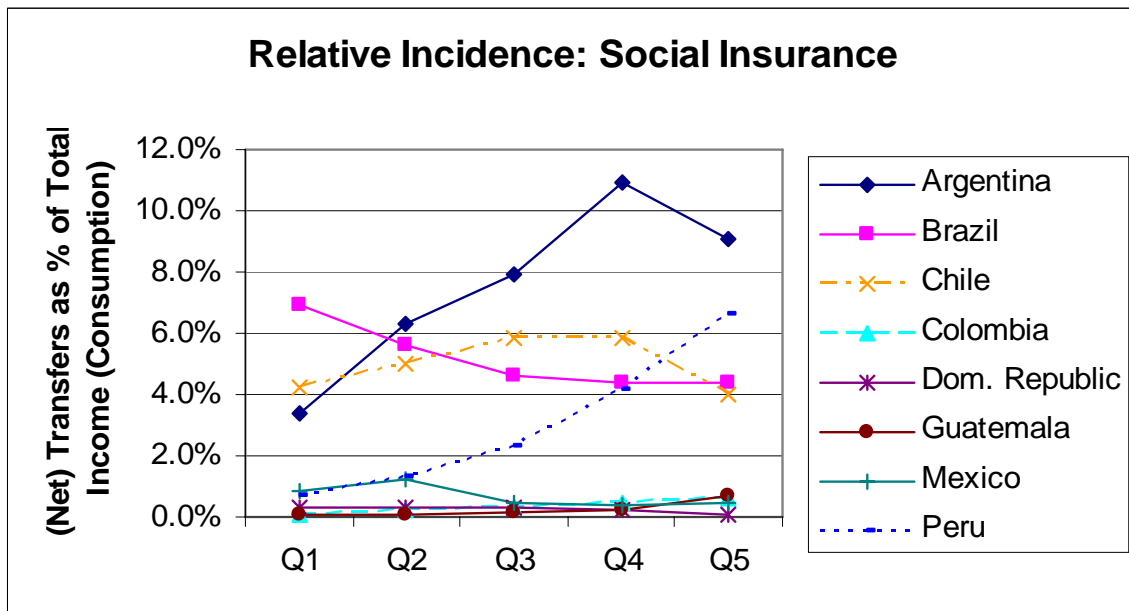
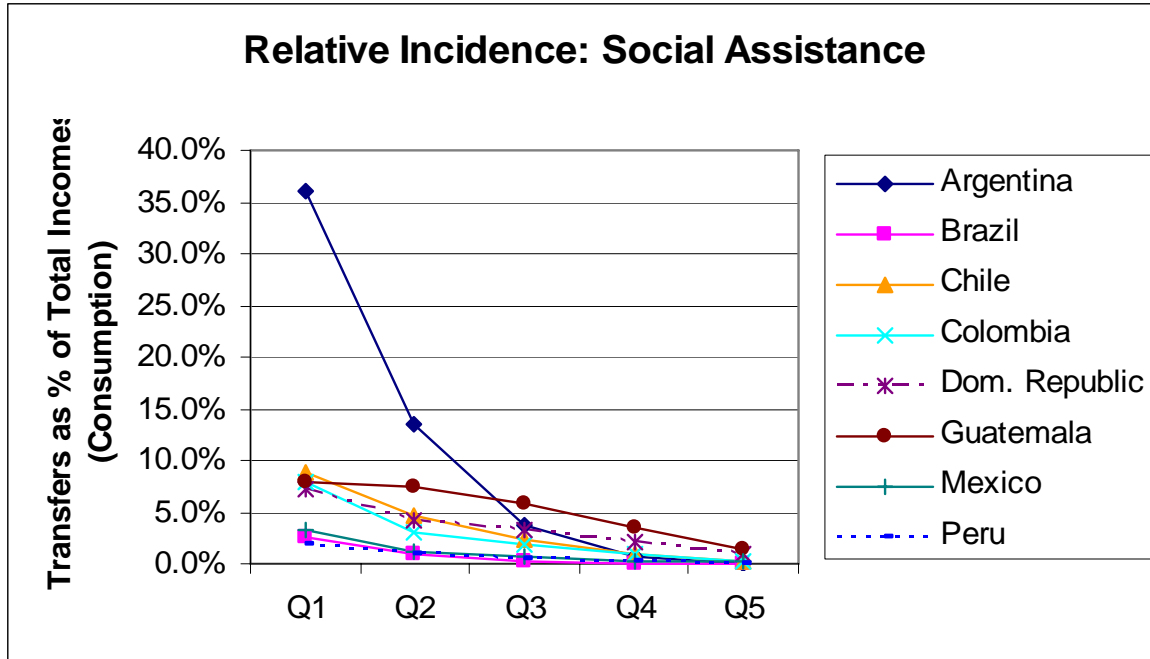
Source: Authors' estimations using household survey data. Note: under social insurance, we use the average adjusted net pension subsidies (net of average contributions). IDB analysis for Dominican Republic did not include concentration coefficients.

Figure 16 – Simulated Impacts of Public Transfers on Inequality and Poverty



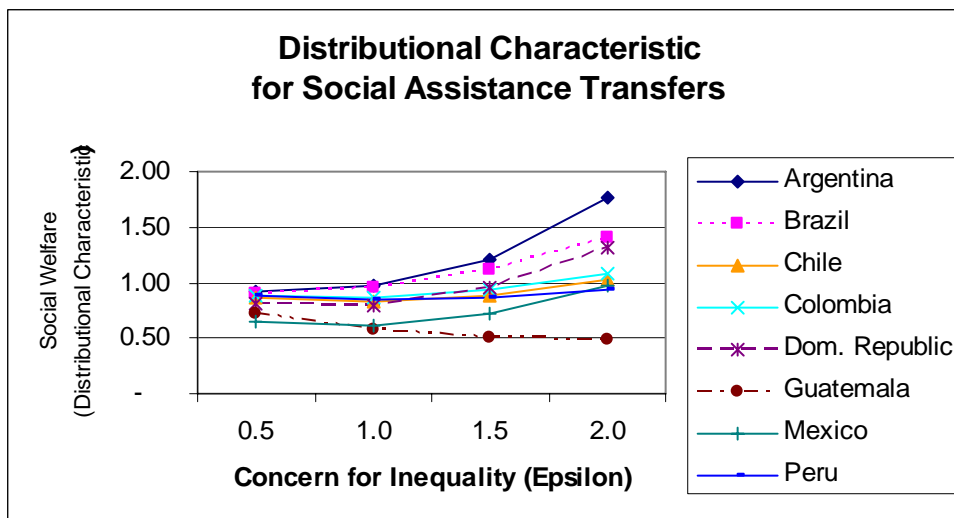
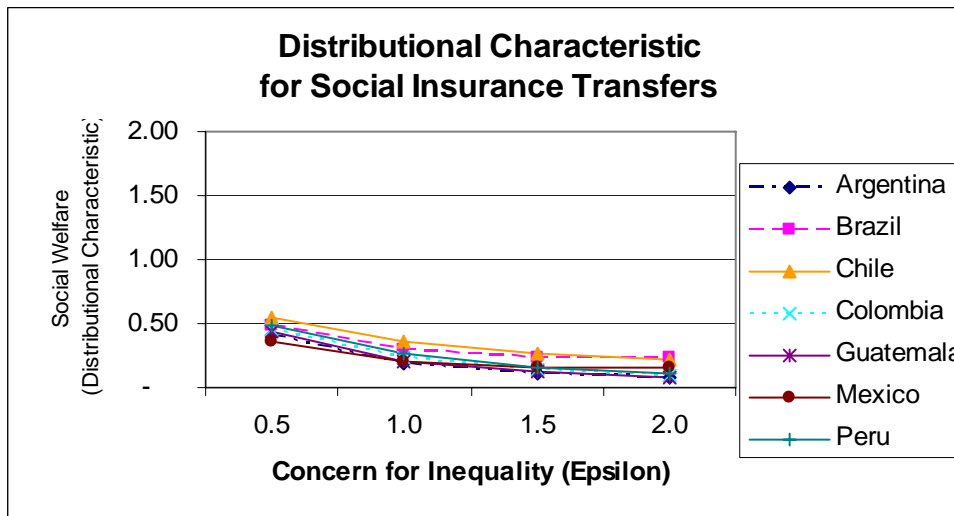
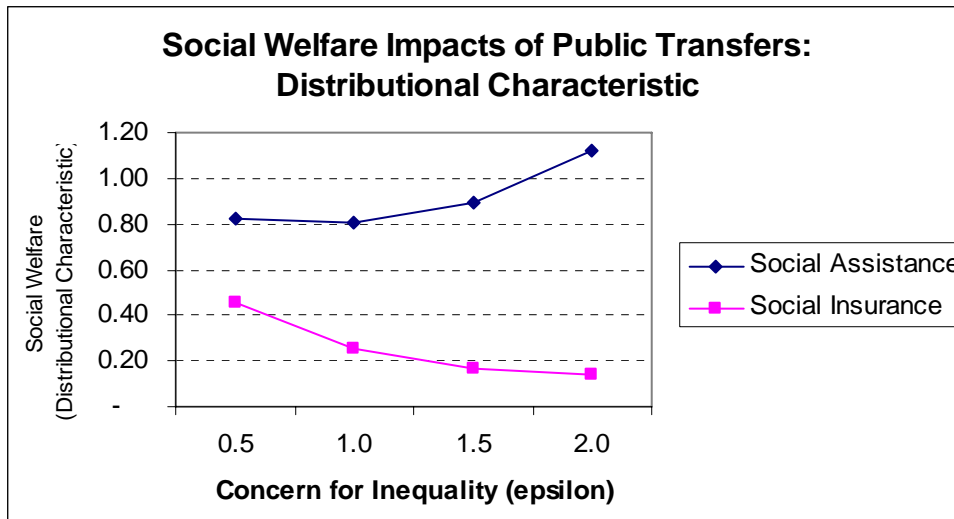
Sources: Authors' estimates from household surveys; Dominican Republic: IDB estimates from ENCOVI 2004. Note: under social insurance, we use the average adjusted net pension subsidies (net of average contributions). For the Dominican Republic, social insurance only includes SS Health and not pensions since available evidence suggests full contributions for that scheme, and hence a zero net subsidy.

Figure 17 – Relative Incidence of Public Transfers



Sources: Authors' estimates from household surveys; Dominican Republic: IDB estimates from ENCOVI 2004. Note: under social insurance, we use the average adjusted net pension subsidies (net of average contributions). For the Dominican Republic, social insurance only includes SS Health and not pensions since available evidence suggests full contributions for that scheme, and hence a zero net subsidy.

Figure 18 – The Welfare Impact of Public Transfers Depending on Society’s “Concern about Inequality”



**Figure 19 – Decomposing the Welfare Impact of Public Transfers:
Targeting and Sizing Components**

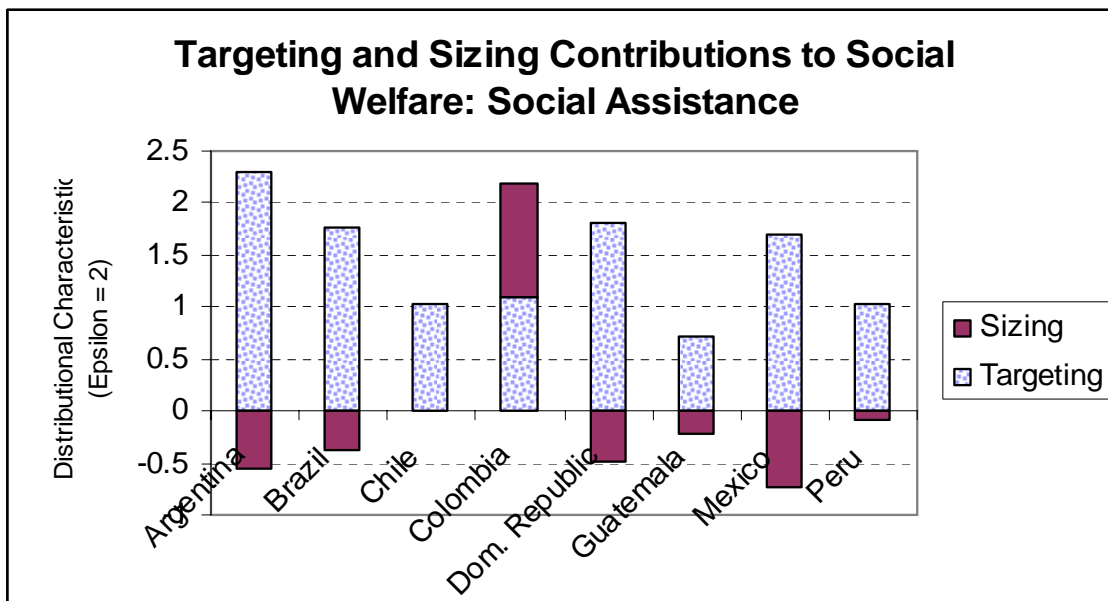
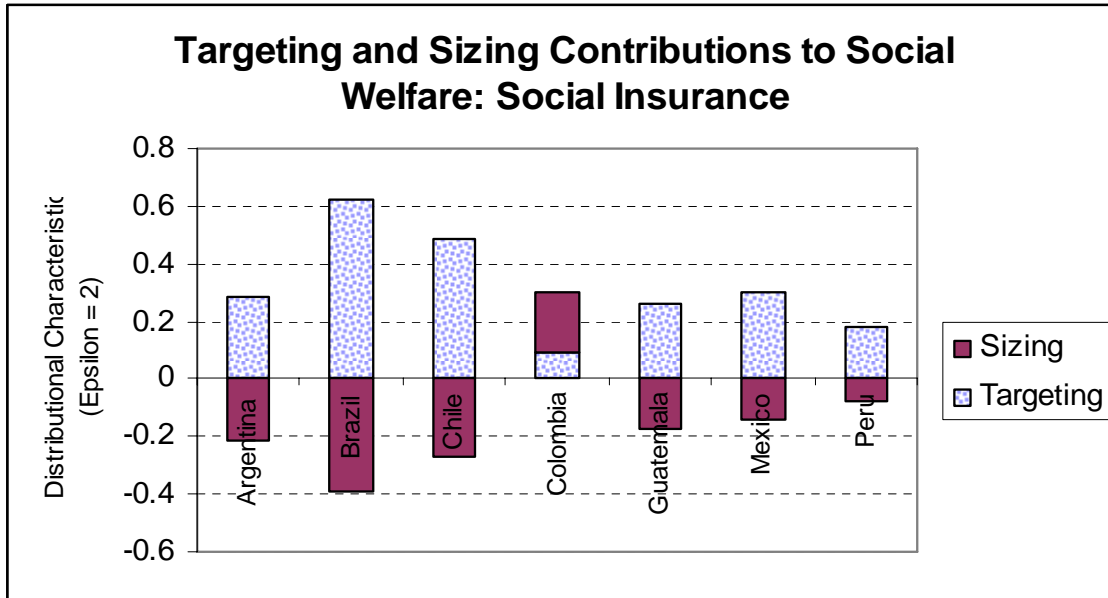
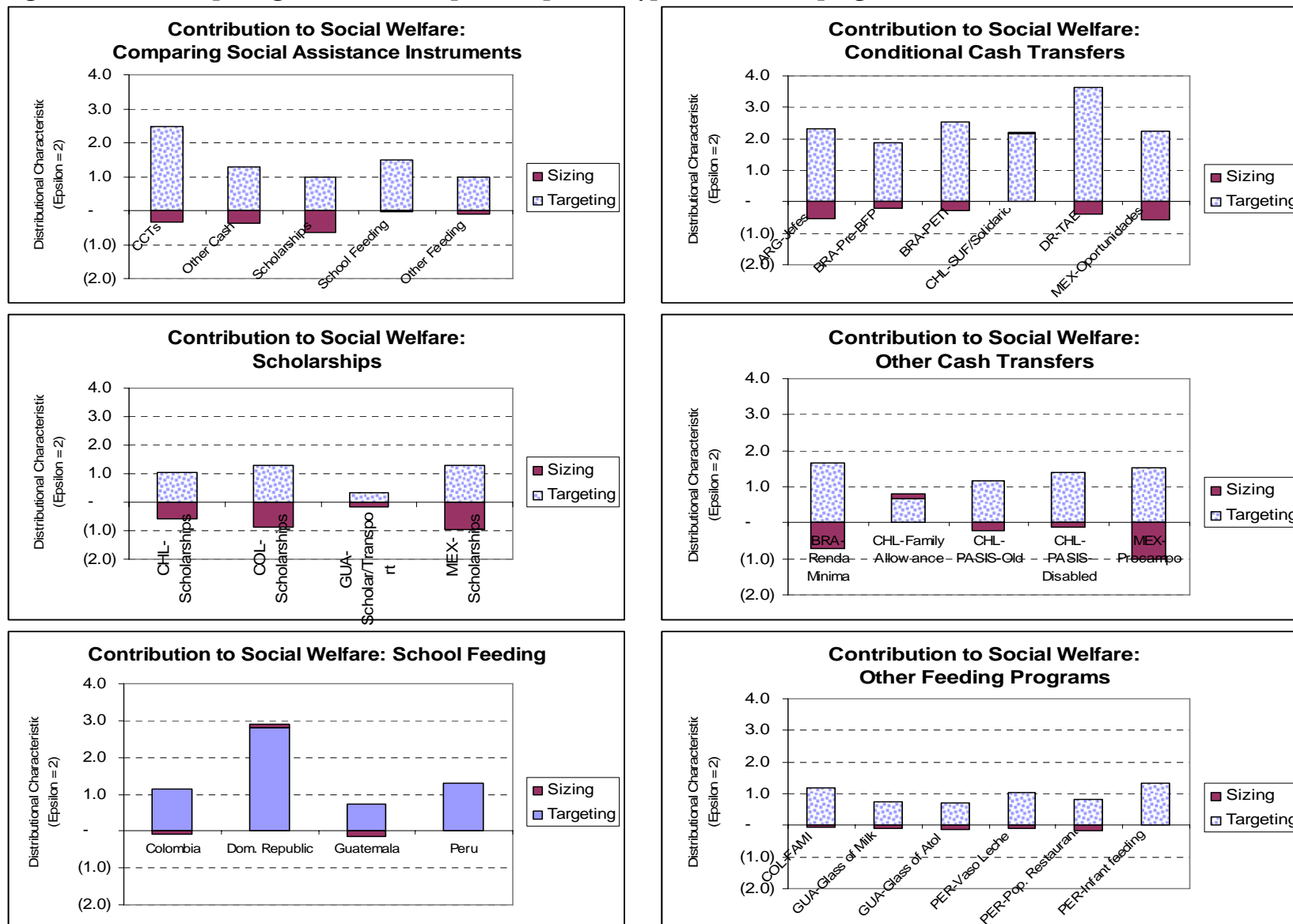


Figure 20 – Decomposing the Welfare Impact of Specific Types of Transfer programs



Sources: Authors' estimates from household surveys; Dominican Republic: IDB estimates from ENCOVI 2004.

Table 6 – Administrative Costs: Conditional Cash Transfers

Administrative Costs: Conditional Cash Transfers

Country/Program	Year	Outlays	Amounts	% of Total Costs	Cost-Transfer Ratio (CTR)
Argentina Jefes de Hogares (Federal costs only)			(mn pesos)		
	2004	Total	3,382.3	100.0%	n.a.
		Transfers	3,328.9	98.4%	n.a.
		Administrative	53.4	1.6%	1.6
Brazil Conditional Cash Transfers (Federal costs only)			(mn reais)		
Pre-reform programs (BE-start up)	2001	Total	578.4	100.0%	n.a.
		Transfers	493.5	85.3%	n.a.
		Administrative	84.9	14.7%	17.2
Pre-reform programs (BE, AG)	2002	Total	2,398.6	100.0%	n.a.
		Transfers	2,272.4	94.7%	n.a.
		Administrative	126.1	5.3%	5.6
Merging programs (BE, AG, BFP)	2003	Total	2,661.8	100.0%	n.a.
		Transfers	2,578.1	96.9%	n.a.
		Administrative	83.7	3.1%	3.2
Bolsa Familia Program (still merging)	2004	Total	5,461.3	100.0%	n.a.
		Transfers	5,308.8	97.2%	n.a.
		Administrative	152.5	2.8%	2.9
Bolsa Familia Program	2005	Total	6,711.7	100.0%	n.a.
		Transfers	6,537.8	97.4%	n.a.
		Administrative	173.9	2.6%	2.7
Colombia Familias en Acción			(mn dollars)		
	2000-04	Total	330.9	100.0%	n.a.
		Transfers	296.2	89.5%	n.a.
		Administrative	34.6	10.5%	11.7
Mexico Progres/Oportunidades start-up			(mn Mx\$)		
	1997	Total	461.2	100.0%	n.a.
		Transfers	223.6	48.5%	n.a.
		Administrative	237.6	51.5%	106.3
	1998	Total	3,364.6	100.0%	n.a.
		Transfers	2,888.8	85.9%	n.a.
		Administrative	475.8	14.1%	16.5
	1999	Total	6,890.1	100.0%	n.a.
		Transfers	6,407.8	93.0%	n.a.
		Administrative	482.3	7.0%	7.5
	2000	Total	9,490.5	100.0%	n.a.
		Transfers	9,107.0	96.0%	n.a.
		Administrative	383.5	4.0%	4.2
	2001	Total	12,393.8	100.0%	n.a.
		Transfers	11,650.2	94.0%	n.a.
		Administrative	743.6	6.0%	6.4
	2002	Total	14,623.3	100.0%	n.a.
		Transfers	13,773.1	94.2%	n.a.
		Administrative	850.2	5.8%	6.2
	2003	Total	22,331.0	100.0%	n.a.
		Transfers	20,991.1	94.0%	n.a.
		Administrative	1,339.9	6.0%	6.4

Compiled by authors with information from the following sources: Argentina: Dirección de Análisis de Gasto Público y Programas Sociales

Brazil: Authors' analysis of data from SIAFI and MDS; Colombia: Fernandez, Luisa (2005), drawing on data from Fondo de Inversión

para la Paz (FIP), area financiera; Mexico: Fourth Government Report on Public Spending.

Table 7 – Administrative Costs in Decentralized Institutional Context

Brazil: Administrative Costs in Four Urban Municipalities

Transfer values refer to those paid out in each specific municipality (average 2002-03)

	Admin Costs as % of Total Costs	Cost-to Transfer Ratio (CTR) (Centavos)
Municipal Administrative and Non-Transfer Service Costs		
Belo Horizonte	16.9%	20.4
Recife	2.6%	2.7
Teresina	2.2%	2.3
Uberaba	21.1%	26.8
Weighted Average Across 4 Municipalities	9.7%	10.8
Average Federal Administrative Costs (nationwide)		
Average federal 2002-03 (pre-reform)	4.2%	4.4
Current federal 2005 (Bolsa Família)	2.6%	2.7
Average Federal + Municipal Costs (for 4 municipalities in sample)		
Average 2002-03 (pre-reform)	13.9%	15.2
Current federal 2005 (municipal average 02-03)	12.3%	13.4

Sources and notes:

Municipal cost data: Hoerning, Lindert and Bajon (2005). Municipal administrative and non-transfer service costs cover: local registration; monitoring conditionalities; social controls; accompanying social worker services; costs of linking BFP beneficiaries to complementary services. Municipalities vary significantly in their accounting practices and capacity to carry out these services. Municipal estimates cover merged federal and local programs (joint management).

Federal cost data: World Bank analysis of data from SIAFI, MDS. Federal administrative costs include costs of overall management of the program, targeting and beneficiary selection; registry database management; payment services; monitoring and evaluation.

Table 8 – Non-Comparability of Disaggregated Administrative Cost Records for Select Conditional Cash Transfer Programs

Non-Comparability of Disaggregated Administrative Costs

	Mexico Progreso 1997-2000	Bolsa Familia 2005	Colombia Fam.Acción 2000-2004
General Administration/Planning	4%	2%	26%
Registration/Eligibility	40%	4%	34%
Payment of Transfers	22%	95%	13%
Delivery/Monitoring Conditionalities	18%		27%
Monitoring and Evaluation	12%		
External Evaluation	4%		1%
Total	100%	100%	100%
Ref: Admin Cost Share (latest year)	6.0%	2.6%	10.5%

Source: Compiled by authors using information from:

Mexico: Caldés, Coady and Maluccio (January 2004)

Brazil: Authors' analysis of data from MDS, SIAFI (Federal Only)

Colombia: Fernandez, Luisa (2005), drawing on data from FIP.

Notes:

Brazil: (a) Registry/Eligibility is MDS oversight of this process; actual data collection is conducted by municipalities (costs not estimated here) + database managed by payments agent (Caixa); (b) Payment of transfers costs also include registry database management.

Colombia: "Delivery/Monitoring of conditionalities" is listed as "program infrastructure."

Table 9 – Administrative Costs: Food-Based Programs

Country/Program	Year	Outlays	Amounts	% of Total Costs	Cost-Transfer Ratio (CTR)
Bolivia - School Feeding (WFP)					
	2003	Total	4.1	100.0%	n.a.
		Transfers	1.8	44.5%	n.a.
		Administrative	2.3	55.5%	124.9
Colombia - School Feeding (WFP)					
	2003	Total	1.2	100.0%	n.a.
		Transfers	1.0	79.5%	n.a.
		Administrative	0.2	20.5%	25.8
Dominican Republic - School Feeding (WFP)					
	2003	Total	2.4	100.0%	n.a.
		Transfers	2.1	90.6%	n.a.
		Administrative	0.2	9.4%	10.4
El Salvador - School Feeding (WFP)					
	2003	Total	2.6	100.0%	n.a.
		Transfers	1.4	53.8%	n.a.
		Administrative	1.2	46.2%	85.8
Guatemala - School Feeding (WFP)					
	2003	Total	0.6	100.0%	n.a.
		Transfers	0.5	97.0%	n.a.
		Administrative	0.0	3.0%	3.1
Honduras - School Feeding (WFP)					
	2003	Total	5.1	100.0%	n.a.
		Transfers	3.6	69.9%	n.a.
		Administrative	1.5	30.1%	43.0
Nicaragua - School Feeding (WFP)					
	2003	Total	3.0	100.0%	n.a.
		Transfers	1.8	61.7%	n.a.
		Administrative	1.1	38.3%	62.2
Brazil - School Feeding (PNAE) (consolidated: federal, state, and municipal costs)					
	1997	Total	0.4	100.0%	n.a.
		Transfers	0.3	71.1%	n.a.
		Administrative	0.1	28.9%	40.7
Peru - Vaso de Leche (consolidated central and municipal government costs)					
	2004	Total	14.5	100.0%	n.a.
		Transfers	8.5	58.9%	n.a.
		Administrative	6.0	41.1%	69.7
Peru - Popular Restaurants (consolidated central and municipal government costs)					
	2004	Total	45.7	100.0%	n.a.
		Transfers	6.8	14.9%	n.a.
		Administrative	38.9	85.1%	571.5

Compiled by authors using information from the following sources:

WFP Database on school feeding: Administrative and transfer totals for WFP school feeding are based on country analysis of costs per beneficiary. Data gathered by WFP for 2003. Total costs (but WFP database does not explicitly specify if these include local costs)

Brazil PNAE evaluation by Ometto et. al. PNAE cost estimates cover all levels of government (consolidated: federal, state, municipal).

Peru: Linder, Anja (2005); cost estimates for both central and municipal governments.

Annex 2:

Public Spending on Transfers: Reconciling Public Accounts and Household Survey Data

Using the definitions provided in the main text of the report, this Annex seeks to document our analysis of public spending on transfers – as well as the classification of these instruments between social insurance and social assistance – in the eight study countries. For each country, we first examine the overall patterns of public spending on transfers within the broader context of social spending and as a share of GDP. We then present detailed data on public spending on specific transfer programs, classified by social assistance and social insurance (using public accounts data). We then estimate what share of total public spending on social assistance and social insurance is captured by the (usually limited) set of transfers included in the household survey questionnaires.

ARGENTINA

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that public spending for all levels of government (“consolidated government”) on social protection transfers accounted for about 9.6% of GDP in 2003 (Table 1). Although social protection spending has remained relatively stable in relation to GDP from the period of 2000 to 2004, it increased as a share of overall social spending (Table 1). While federal social protection spending decreased slightly, there was an even more significant shift in its composition, with social assistance spending increasing at the slight expense of social insurance outlays (Table 2).

Table 1 – ARGENTINA: Consolidated Social Spending, 2000-04

Consolidated Government Spending (all levels of government)					
	2000	2001	2002	2003	2004
Social Spending as Share of GDP:	21.4%	22.1%	19.7%	19.1%	19.2%
Education	5.0%	5.2%	4.4%	4.1%	4.3%
Health	5.0%	5.1%	4.4%	4.3%	4.4%
Social Protection	10.1%	10.4%	9.8%	9.6%	9.2%
Social Insurance	8.9%	9.2%	8.6%	8.3%	7.7%
Social Assistance	1.2%	1.3%	1.2%	1.4%	1.5%
Other Social Spending ¹⁰¹	1.3%	1.4%	1.1%	1.1%	1.3%
% of Total Social Spending :	100%	100%	100%	100%	100%
Education	23.4%	23.5%	22.4%	21.2%	-
Health	23.1%	23.1%	22.6%	22.7%	-
Social Protection	47.2%	47.1%	49.7%	50.3%	-
Social Insurance	41.5%	41.4%	43.5%	43.2%	-
Social Assistance	5.7%	5.7%	6.2%	7.1%	-
Other Social Spending	6.3%	6.3%	5.3%	5.8%	-

Source: Dirección de Análisis de Gasto Público y Programas Sociales.

¹⁰¹ Includes housing, sewerage and water supply, municipal services, community services, etc.

Table 2 – ARGENTINA: Federal Government Social Spending, 2000-04

Federal Government Only

	2000	2001	2002	2003	2004
Social Spending as Share of GDP:	12.1%	12.1%	10.9%	11.3%	11.4%
Education	1.3%	1.3%	0.8%	0.9%	1.1%
Health	2.4%	2.4%	2.1%	2.0%	2.1%
Social Protection	7.4%	7.6%	7.5%	7.4%	7.1%
Social Insurance	6.9%	7.1%	6.2%	5.8%	5.8%
Social Assistance	0.4%	0.4%	1.3%	1.6%	1.5%
Other Social Spending	1.0%	0.9%	0.7%	0.9%	1.2%
% of Total Social Spending :	100%	100%	100%	100%	100%
Education	10.5%	10.4%	7.4%	8.6%	9.2%
Health	20.1%	19.9%	18.7%	18.0%	18.4%
Social Protection	61.1%	62.7%	67.9%	65.2%	62.0%
Social Insurance	57.8%	59.1%	56.3%	51.2%	48.9%
Social Assistance	3.3%	3.6%	11.6%	14.1	13.1%
Other Social Spending	8.3%	7.0%	5.9%	8.1%	10.4%

Source: Dirección de Análisis de Gasto Público y Programas Sociales.

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. In 2003, spending on social insurance accounted for about 78% of federal government social protection spending in Argentina (Table 3). This spending generally falls into two categories: pension (social security) and employment-related benefits:

- ***Sistema Integrado de Jubilaciones y Pensiones (SIJP)*** The SIJP, established in 1994, includes a Public Pay-as-you-go (PAYG) Regime and an Individual Funded Regime. The SIJP has three pillars: (a) a PAYG scheme managed by the National Social Security Administration (ANSeS); (b) a second, that includes private funds in parallel to a PAYG regime;¹⁰² and (c) a third that consists mostly of voluntary participation and is limited in size.¹⁰³ Federally funded programs that fall within pillars one and two include:
 - ***The Programa de Prestaciones Previsionales***, managed by the ANSeS, provides oversight for two pension regimes, the *Régimen Nacional de Jubilaciones* and *Régimen Nacional de Pensiones*. In 2003, this program accounted for 32.7% of social spending, or 3.7% of GDP;
 - ***Complemento a las Prestaciones Previsionales***, a transitional pension, aimed at providing benefits to workers that contributed to the old system. All workers with contributions before the reform and retiring after 1994 receive a Compensatory Benefit (PC), proportional to the pre-retirement income and the number of years with contributions to the old system. In addition, workers retired before the reform will continue to receive their benefits.¹⁰⁴ In 2003, spending on this program accounted for 1.1% of social spending, or 0.12% of GDP.
- The ***Asignaciones Familiares*** program provides a variable per-child income supplement to formal sector workers below a threshold income level, but it was not designed as an anti-poverty program. In 2003, total program spending amounted to 4.9% of social spending, or 0.56% of GDP;

¹⁰² Disability and survivors benefits are financed by the second pillar, depending on the option (funded or PAYG) the worker has chosen, while survivor benefits due to death of a retiree are financed in the same way as the retirement payment.

¹⁰³ World Bank, *The Pension Reform in Argentina: Six Years After the Reform*, 2000.

¹⁰⁴ World Bank, *The Pension Reform in Argentina: Six Years After the Reform*, 2000.

- **Seguro de Desempleo**, established in 1991,¹⁰⁵ provides temporary monetary subsidies to unemployed workers provided that: (a) they hold a worker identification number (*Código Único de Identificación Laboral*); (b) were contracted under proper labor laws¹⁰⁶ and meet the minimum time requirements according to the job type (permanent, seasonal, or temporary); (c) do not receive non-contributory pensions; (d) are not temporarily or permanently incapacitated; and (e) make the claim within 90 days from the last date of employment. Spending on *Seguro de Desempleo* in 2003 amounted to 0.57% of total social spending, or 0.06% of GDP.

Social Assistance. Social assistance accounted for about 22% of consolidated social protection spending in 2003, or 1.4% of GDP (Table 1). Federally-funded social assistance in Argentina include: (a) cash transfer programs such as the *Ingreso para el Desarrollo Humano* (IDH) and *Jefes y Jefas de Hogar* (discussed below); (b) food based programs channeled through the *Programa de Emergencia Alimentaria*; (c) non-contributory pensions such as assistance, auxiliary and those granted by extraordinary laws; and (d) other programs that provide assistance linked to health and education and focus on the provision of basic needs. Cash transfer programs include:

- **Jefes y Jefas de Hogar (JJH)**, managed by ANESeS and the Ministry of Labor, Employment and Social Security (MTEySS), is an emergency workfare program designed to provide financial assistance to male/female household heads with children in order to guarantee the Family Right of Social Inclusion, ensuring (a) the school attendance and health of the children; (b) access of beneficiaries to formal job training and education; and (c) their participation in productive projects or community services. Beneficiaries of JJH receive monthly payments of \$150 pesos per month (US\$176 PPP). In exchange, beneficiaries must participate in a work or training activity (infrastructure or community services projects), designed to improve the basic social and economic conditions of the poor neighborhoods where they are implemented. Spending on the JJH program represents about 0.85% of GDP.
- **The IDH Program**, instituted in the second half of 2002, is aimed at promoting the development, health, and schooling of children through the provision of cash transfers to poor families that are conditional on school attendance and health controls, and that depend on the number of children (up to a maximum of 200 pesos per family per month). In 2003, IDH provided assistance to 243,532 families, accounting for 0.63% of social spending, or 0.07% of GDP.

¹⁰⁵ Ley N° 24.013.

¹⁰⁶ El régimen de la Ley de Contrato de Trabajo.

Table 3 – ARGENTINA: Composition of Social Protection Spending, 2003
Overview of Public Accounts (Federal Government Only)
Calibration with Household Survey Questions

	Spending from Public Accounts Data (2003)	Items and % Captured by Household Survey Questions (2003)
Total Social Protection (% of total SP)	100%	84.1%
Social Insurance	78.4%	69.9%
Social Assistance	21.6%	14.2%
Social Insurance (% of total SI)	100%	100%
Pensions	89.2%	89.2%
Asignaciones Familiares	9.7%	n.a.
Seguro de Desempleo	1.1%	n.a.
Social Assistance (% of total SA)	100%	65.7%
Acciones de Empleo (Jefes)	65.7%	65.7%
Pensiones no Contributivas	12.2%	n.a.
Seguridad Alimentaria	5.7%	n.a.
Atención de Grupos Vulnerables	5.7%	n.a.
Acciones Compensatorias en Educación	4.0%	n.a.
Atención de la Madre e Niño	1.7%	n.a.
Programas Medicas	3.2%	n.a.
Otros	1.7%	n.a.

Source: World Bank analysis of data from Dirección de Análisis de Gasto Público y Programas Sociales.

Public Spending on Transfer Programs Analyzed in Household Survey Analysis

The Continuous Permanent Household Survey (EPCH) (2003) collected representative sample data for urban areas only. The EPCH 2003 includes **social insurance programs** in its questionnaire, primarily retirement pensions. This program accounted for 89.2% of total federal spending on social insurance (Table 3). The EPCH also included questions on unemployment insurance, but the sample captured in the survey was too small for robust analysis. The EPCH 2003 also included **social assistance programs** in its questionnaire, principally *Jefes y Jefas de Hogar*. This program accounted for 65.7% of total federal spending on social assistance (Table 3).

BRAZIL

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that federal government spending on social protection transfers accounted for about 10.8% of GDP in 2003. This share has grown over time, primarily due to increases in spending on social insurance (pensions). Nonetheless, the share of GDP and total social spending allocated to social assistance has also grown over the past five years. This represented just under 0.81% of total social spending at the federal level (Table 4).

Taking into account the consolidated accounts of federal, state and municipal governments, we find that total spending on transfers represented about 12.8% of GDP in 2003, or 52.9% of total consolidated government social spending (due to relatively higher shares of spending on health and education by sub-national governments), Table 5.

Table 4 – BRAZIL: Federal Social Spending, 2000-04

Federal only, Government Spending

	2000	2001	2002	2003	2004
Social Spending as Share of GDP:	12.4%	13.0%	13.2%	13.4%	13.7%
Education	0.9%	0.9%	0.8%	0.8%	0.7%
Health	1.8%	2.0%	1.9%	1.8%	1.9%
Social Protection	9.5%	10.1%	10.4%	10.8%	11.0%
Social Insurance	9.0%	9.5%	9.7%	10.1%	10.1%
Social Assistance	0.5%	0.5%	0.7%	0.8%	0.9%
Other Social Spending	0.2%	0.1%	0.1%	0.0%	0.1%
% of Total Social Spending (Federal):	100%	100%	100%	100%	100%
Education	7.2%	6.8%	6.2%	5.9%	5.4%
Health	14.9%	15.2%	14.3%	13.2%	13.5%
Social Protection	76.5%	77.4%	79.2%	80.7%	80.3%
Social Insurance	72.4%	73.2%	73.8%	74.9%	73.8%
Social Assistance	4.1%	4.2%	5.4%	5.8%	6.5%
Other Social Spending	1.44%	0.69%	0.40%	0.26%	0.74%

Source: World Bank analysis of data from SIAFI, MDS

Table 5 – BRAZIL: Consolidated Social Spending, 2000-04

Consolidated Federal, State and Municipal Governments

	2000	2001	2002	2003	2004
Social Spending as Share of GDP:	22.2%	22.5%	23.2%	24.2%	24.1%
Education	5.0%	5.2%	4.2%	5.3%	4.8%
Health	3.8%	4.1%	4.1%	4.7%	4.9%
Social Protection	11.9%	11.9%	13.5%	12.8%	13.1%
Social Insurance	10.9%	10.9%	12.3%	11.7%	11.7%
Social Assistance	1.0%	1.0%	1.2%	1.2%	1.4%
Other Social Spending	1.5%	1.3%	1.5%	1.4%	1.2%
% of Total Social Spending:	100%	100%	100%	100%	100%
Education	22.6%	22.9%	18.0%	21.9%	20.0%
Health	17.1%	18.3%	17.6%	19.3%	20.4%
Social Protection	53.7%	52.8%	58.2%	52.9%	54.6%
Social Insurance	48.9%	48.4%	53.1%	48.1%	48.6%
Social Assistance	4.7%	4.4%	5.1%	4.8%	6.0%
Other Social Spending	6.6%	6.0%	5.1%	6.0%	5.0%

Source: World Bank analysis of data from SIAFI, MDS

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. Social insurance accounts for about 93% of total federal spending on transfers in Brazil (Table 6). This spending generally falls into two categories: (a) pension benefits, which are managed by the Ministry of *Previdência Social* (MPS), with payments handled by the National Social Security Institute (INSS), the payments agent; and (b) employment-related benefits, which are managed by the Ministry of Labor. Publicly-funded pensions and related benefits include:

- **Publicly-Funded Pensions for Private Sector Workers (RGPS).** The *Regime Geral de Previdência Social* (RGPS) is a mandatory pay-as-you-go defined-benefit scheme for private sector workers in the formal private sector and state enterprises. The scheme also includes cross-subsidies for the rural poor. In 2003, 66% of federal level spending on social insurance went to RGPS pensions (Table 6). Financed by payroll contributions from workers and employers, RGPS has consistently carried significant deficits, which are financed by general revenues. The RGPS deficit averaged 1.7% of GDP in 2003, or about a quarter of total benefits.¹⁰⁷

¹⁰⁷ Palocci, et al. (May 2005).

- **Civil Servant Pensions (RJU).** The *Regime Jurídico Unico* (RJU), now called the RPPS, is a mandatory pension scheme for civil servants managed by federal, state and municipal governments and the armed forces and police. Each tier of government administers separate RJU schemes for its employees. The scheme guarantees pensions equivalent to the worker's last salary before retirement. Until 1998, neither civil servants nor the government (as employer) helped finance the system; all benefits were funded entirely by the public budget. Since 1998, civil servants were required to pay 11% of their salaries to be enrolled in the system. However, large deficits remain, averaging 1.98% of GDP in 2003, or 85% of total benefits paid out in 2003.¹⁰⁸ Overall, total spending on RJU benefits accounted for 23% of federal social insurance spending (Table 6), or 2.3% of GDP in 2003.
- **Public leave benefits (auxílios and other benefits)** include a variety of publicly-collected benefits funded by employer contributions, including benefits for sick leave, accident leave, and maternity leave. Increasing steadily in recent years, federal spending on public leave benefits accounted for 6.8% of federal social insurance spending and 0.84% of GDP in 2003. The social protection system also includes a number of employer-mandated benefits – such as family allowances – which do not involve public collection of revenues or distribution of benefits (and are thus not accounted for in our tables).

Other labor-related social insurance benefits include:

- The ***Abono Salarial***, instituted in 1970,¹⁰⁹ is a social insurance wage supplement (salary bonus) that provides one minimum wage to formal sector workers (those registered in the *Programa de Integração Social* (PIS) or the *Programa de Formação do Patrimônio do Servidor Público* (Pasep)),¹¹⁰ provided that they meet specific eligibility criterion (minimum wage limits, employment history, etc.). In 2003, federal spending exceeded R\$1.8 billion providing assistance to over 4.6 million individuals. This accounted for 1.2% of federal social insurance spending and 0.1% of GDP.
- **Unemployment insurance (*seguro de desemprego*)**, established in 1986,¹¹¹ provides temporary monetary subsidies and professional training to formal sector workers, domestic employees, and seasonal fisherman (*pescador artesanal*). The benefit value is based on the last three salaries received by the employee, with minimum and maximum values between 1 and 2 minimum wages. In 2003, federal level unemployment insurance expenditures totaled 0.4% of GDP and 4.5% of federal social insurance spending.

Social Assistance. Social assistance accounts for about 7% of total federal Government spending on public transfers in Brazil (Table 6). Federally-funded social assistance in Brazil includes several broad categories: (a) conditional cash transfers; (b) constitutionally-guaranteed targeted cash transfers for the poor disabled and elderly (non-contributory BPC-LOAS benefits); (c) tailored social assistance for youths (*Agente Jovem*) and child laborers (PETI); (d) school feeding; and (e) a variety of other social services and programs. The large majority of these are cash-transfers, though some programs or sub-components of programs include in kind transfers (e.g., school feeding) or tailored social services.

- **Conditional Cash Transfers.** Prior to recent reforms, conditional cash transfers included:

¹⁰⁸ Palocci, et al. (May 2005).

¹⁰⁹ Leis Complementares N^os 7 e 8.

¹¹⁰ PIS is a benefit paid to employees of private firms through the Caixa Econômica Federal, whereas Pasep is paid to public sector employees through Banco do Brasil.

¹¹¹ Instituted in 1986 by Decreto-Lei n.º 2.284 de março de 1986, regulamentado pelo Decreto n.º 92.608 de 30 de abril de 1986.

- The *Auxílio Gas* program, managed by the Ministry of Mines and Energy, which provided small bi-monthly cash transfers to low income families in lieu of price subsidies on cooking gas (which were phased out in 2001);
- The federal *Bolsa Escola* Program (school grants program), managed by the Ministry of Education and created in 2001, which provided a monthly cash transfer per school-aged child up to the limit of three children per family for a maximum benefit conditioned on these children maintaining at least 85% daily school attendance;
- The *Bolsa Alimentação* Program (health grants program), managed by the Ministry of Health and created in 2001, which provided a monthly cash transfer to low income families with pregnant and lactating women, and/or infants and young children aged 6 months to 6 years conditioned on pre and postnatal care and growth monitoring, compliance with vaccination schedules, and health education; and
- The *Cartão Alimentação* Program (food card program), managed by the former Ministry of Food Security and created in 2003, which provided a cash transfer to poor households provided that they spend it on food.

The separate operation of these four programs targeted largely the same population group (poor families with monthly incomes less than around R\$100) proved inefficient and they were merged into a single program, called the *Bolsa Família Program* (family grants) in October 2003. The *Bolsa Família* Program, managed by the Ministry of Social Development and Hunger Eradication (MDS), provides monthly transfers ranging in size depending on per capita family income and family size and composition. In total, conditional cash transfers accounted for almost 30% of total federal social assistance spending in 2003 (or 0.23% of GDP). This share has since risen to over 35% of federal social assistance spending (or 0.31% of GDP in 2004). These benefits are all managed by MDS, with a federal bank (*Caixa Econômica Federal*) serving as the payments agent.

- **BPC-LOAS Constitutional Assistance Benefits for the Poor Disabled and Elderly.** Cash transfers and social services are guaranteed under the constitution for the poor elderly and poor disabled. These benefits (known as the *Benefício de Prestação Continuada*, BPC) are managed by MDS, though the INSS serves as the payments agent. They involve monthly cash transfers to poor elderly and disabled citizens. In total, BPC benefits accounted for over half of federal social assistance spending in 2003 (Table 6), or 0.42% of GDP.
- **Tailored Social Assistance for Youths and Child Laborers.** MDS also operates two transfer programs aimed at youths and child laborers:
 - The Program for the Eradication of Child Labor (**PETI**) was established in 1996 with the goal of eradicating the worst forms of child labor in Brazil, while increasing educational attainment and reducing poverty. The program is managed by MDS and is targeted via means testing, household composition, and geographic residence in municipalities with high incidence of dangerous forms of child labor. It provides a cash transfer to families provided that their children (a) attend school; (b) stop working; and (c) participate in extended-day after school programs, which are also financed under the program. In 2003, PETI accounted for 3.4% of federal social assistance spending (Table 6).
 - MDS also operates the *Agente Jovem* program targeted at at-risk youths. Established in 1999, it attempts to (a) enroll and maintain students in the education system; (b) promote social and family cohesion; (c) prepare youth to act as social change units in their communities; (d) diminish violence, drug use, and teenage pregnancy; and (e)

integrate youth into the job market. The program provides work and community service training, and financial transfers directly to youth between the ages of 15 and 17 years provided that they maintain at least 75% program activity attendance. In 2003, Agente Jovem accounted for 0.5% of federal social assistance spending.

- **School Feeding.** The Ministry of Education operates a school feeding program, which accounted for 8.1% of federal social assistance spending in 2003.
- **Other Social Assistance Programs.** MDS manages a number of other social assistance programs, including: *Sentinala*, a program to eradicate child and youth sexual abuse (mainly social services); *Economia Solidaria* (income generation services); *Fome Zero* (various food security interventions); and other social services. In addition, the Ministry of Labor recently launched a “First Jobs” (*Primeiro Emprego*) program targeted at youths, which we classify under social assistance. These “other social assistance” programs represent less than 5% of total federal social assistance spending (Table 6).

Table 6 – BRAZIL: Composition of Social Protection Spending, 2003

Overview of Public Accounts (Federal Government Only)

Calibration with Household Survey Questions

	Spending from Public Accounts Data (2003)	Items and % Captured by Household Survey Questions (2003)
Total Social Protection (% of total SP)	100%	94.7%
Social Insurance	92.8%	92.8%
Social Assistance	7.2%	1.9%
Social Insurance (% of total SI)	100%	100%
Pensions (Previdência) ¹¹²	<u>93.8%</u>	n.a.
RGPS - Aposentadorias e Reformas	45.2%	45.2%
RGPS - Pensões	16.5%	16.5%
RGPS - Public leave benefits ¹¹³	6.8%	6.8%
RJU - Pensions for public sector workers	23.0%	23.0%
Labor Benefits	<u>6.2%</u>	n.a.
Abono Salarial (PIS/PASEP)	1.2%	1.2%
Unemployment Insurance	4.5%	4.5%
Social Assistance (% of total SA)	100%	22.7%
Conditional Cash Transfers	<u>29.3%</u>	n.a.
Auxilio Gas (AG)	6.8%	6.8%
Bolsa Alimentação (BA)	2.7%	12.5%
Bolsa Escola (BE)	12.5%	n.a.
Cartao Alimentação	2.5%	n.a.
Bolsa Família (BF)	4.8%	n.a.
BPC-LOAS Cash Transfers and Social Services	<u>53.7</u>	n.a.
BPC-Elderly	20.3%	n.a.
BPC-Disabled	33.4%	n.a.
Tailored Assistance for Youths and Child Laborers	<u>3.9%</u>	n.a.
PETI	3.4%	3.4%
Agente Jovem (Youth Program)	0.5%	n.a.
School Feeding	<u>8.1%</u>	n.a.
Other Social Programs	<u>4.9%</u>	n.a.

Source: World Bank analysis of data from SIAFI, Dataprev, MDS

¹¹² Pension percentage total of 93.8% includes administrative overhead (1.6%), Prev. Especial (0.5%), and other benefits (0.1%).

¹¹³ Public Leave Benefits includes: (1) Auxílio-Doença; (2) Auxílio-Reclusão; (3) Auxílio-Acidente; (4) Auxílio-Doença; (5) Auxílio-Acidente de Trabalho; (6) Auxílio-Suplementar; (7) Salário-Família de Segurados; (8) Salário-Maternidade; (9) Pecúlio; (10) Abono de Permanência em Serviço; (11) Acidente de Trabalho; and, (12) Acid. Trabalho.

Public Spending on Transfer Programs Analyzed in Household Survey Analysis

The Household Budget Survey (POF 2002-03) is the first nationally-representative survey in Brazil to include direct questions on a number of specific transfer programs in its questionnaire. As such, it presents a unique opportunity to directly observe the redistributive impact of these transfers. These redistributive outcomes are analyzed in other sections of this present study.

Transfer Programs Included in the Household Survey. The POF 2002-03 includes several key **social insurance programs** in its questionnaire, including: (a) publicly-funded pension benefits, which correspond with the RGPS and RJU pension regimes depending on which sector the worker was employed in;¹¹⁴ (b) public leave benefits; (c) the salary bonus (*abono salarial* PIS/PASEP); and (d) unemployment insurance. These programs are all described above. Together, these programs account for 100% of total federal spending on social insurance (Table 6).

The POF 2002-03 also included several important **social assistance programs** in its questionnaire, including: two of the main pre-*Bolsa Familia* conditional cash transfers (*Auxilio Gas* and *Bolsa Escola*), the child labor eradication program (PETI) and *Renda Minima*, which refers to sub-national programs offered in some localities. Together, these programs account for 22.7% of total federal spending on social assistance (Table 6). Some notable federal social assistance programs that were not directly covered by the POF 2002-03 questionnaire include: the BPC-LOAS benefits for the elderly and disabled,¹¹⁵ *Bolsa Familia* (which was introduced after the survey was conducted), and school feeding.

Notable Non-Public Transfer Programs Included in Household Survey. The POF 2002-03 also included a number of non-public transfer programs that we analyze for redistributive outcomes, including:

- Private pension receipts, which likely reflect a recently-introduced voluntary and fully-funded complementary pension fund;
- Private health insurance payments;
- Private transfers, which constitute donations to the household or household members from persons who are not members of the household; and
- Receipts of severance payment benefits from the FGTS. The FGTS could have been classified as a public transfer, however it did not fully fit our definition of either “public” or “social insurance” for the following reasons. (a) Not Social Insurance. FGTS contributions, which are collected via a mandatory 8% payroll tax for formal sector workers, are maintained in the form of individualized, interest-bearing accounts. Workers have access to the FGTS account if dismissed without just cause, upon retirement or death, or as a means of co-financing a private home purchase or high health expenses. Since the accounts are individualized, there is no “risk-pooling” from these contributions. FGTS payments would thus not be considered “social insurance” transfers in our sense, but accounts withdrawals from “forced savings” accounts. (b) Not fully public. Although the funds are collected by public authorities, they are managed

¹¹⁴ The POF also includes information on public pension contributions, which we are using to analyze “net” public pension benefit receipts.

¹¹⁵ Some respondents did indicate receiving BPC benefits in response to a question regarding receipt of any “other” benefits but the sample was deemed too small for our analysis.

by the *Caixa Economica Federal* (a federal bank) and do not enter fiscal accounts by the Treasury (either for contributions or for payments). Given these features, we do not classify the FGTS as “public social insurance transfers.” Nonetheless, we analyze these transfers in the household survey, but not as part of the categories of public social assistance or public social insurance.

CHILE

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that central government spending on social protection transfers accounted for about 7.6% of GDP in 2003 (Table 7).

Table 7 – CHILE: Federal Social Spending, 1999-03

Central Government Spending	1999	2000	2001	2002	2003
Social Spending as Share of GDP:	16.6%	16.7%	17.6%	17.1%	16.0%
Education	4.1%	4.2%	4.2%	4.3%	3.9%
Health	2.8%	2.9%	3.2%	3.2%	3.1%
Social Protection	7.6%	7.6%	7.7%	8.3%	7.6%
Social Insurance	6.9%	6.9%	6.9%	7.5%	6.9%
Social Assistance	0.7%	0.7%	0.8%	0.8%	0.7%
Other Social Spending	2.1%	2.0%	1.5%	1.4%	1.3%
% of Total Social Spending (Federal):	100%	100%	100%	100%	100%
Education	24.7%	25.1%	23.9%	24.7%	24.5%
Health	16.9%	17.4%	18.3%	18.5%	19.3%
Social Protection	45.8%	45.5%	48.7%	47.9%	47.4%
Social Insurance	41.6%	41.3%	44.2%	43.5%	43.1%
Social Assistance	4.2%	4.2%	4.5%	4.4%	4.4%
Other Social Spending	12.7%	12.0%	9.0%	8.9%	8.8%

Source: World Bank analysis of data from Mesa and Salazar (2003), Mesa (2004), and Estadísticas de las Finanzas Públicas (1987-2003).

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. Social insurance accounted for about 90.8% of total social protection spending in Chile in 2003 (Table 8).¹¹⁶ Chile’s social insurance system includes a mandatory contribution regime to personal accounts known as the “AFP system” and a traditional pension system which includes: (a) programs for contributory and non-contributory pensions; (b) health and maternity; (c) labor accidents and professional illness; and (d) family and welfare benefits. In this section we examine the INP and Armed Forces pension regimes, both partially financed by general tax revenues. Social insurance pensions and related benefits include:

- **The Institute of Social Security Normalization (INP).** In 1980 the institutions that managed the various pension programs of Chile’s pre-reform system were merged into one single entity, the INP. At present, the INP manages the pension programs of workers that elected not to join the AFP in addition to: (a) labor accidents and work-related illnesses; (b) means tested pensions (classified in our analysis as social assistance); (c) two different family

¹¹⁶ Calculation refers only to central government expenditures on social protection and excludes the AFP, Chile’s private social insurance system.

allowance programs; (d) unemployment allowance (which is not an unemployment insurance); and (e) other benefits established by special laws;¹¹⁷

- **Pensions for the Armed Forces.** The social security programs for the Armed Forces were left out of the reforms and their administration remained under the responsibility of the National Defense Social Security Fund (CAPREDENA) and the General Department of Social Security for the Police Force (DIPRECA). The pension system for the Armed Forces runs at a deficit and benefits are almost totally financed by the central revenue budget.¹¹⁸

Social Assistance. Social assistance accounted for about 9.2% of federal social protection spending in Chile in 2003 (Table 8), or 0.7% of GDP (Table 7). Federally-funded social assistance in Chile includes: (a) cash transfer programs such as *Chile Solidario* and the Unified Family Subsidy (SUF); (b) potable water subsidies; (c) non-contributory assistance pensions; (d) in-kind transfers; and (e) others such as food-based programs, school feeding and scholarships.

- The ***Sistema Chile Solidario***, builds on the Puente (“Bridge”) program piloted in early 2002, and acts as the entry point to the Chilean social protection system. The objective of the Chile Solidario program is to overcome the isolation and the exclusion of the impoverished by actively promoting both assistance and protection. Participating households that are identified through the Ficha CAS¹¹⁹ receive both a conditional cash transfer¹²⁰ that is intended as an additional incentive to stay in the Puente Program, and personalized assistance in one of seven potential areas: health; education; employment; housing; income; family life; and identification (legal documentation). Households that participate in Solidario and then graduate from the Puente program are guaranteed access to all the non-contributory transfers to which they are entitled (namely, the SUF, PASIS, and SAP). In 2003, total program spending accounted for 0.3% of social protection spending, or 0.02% of GDP.
- The ***Unified Family Subsidy*** (SUF), an income-support program for indigent households with children under 18 years of age and not covered by social insurance. The program was initiated in 1981. Eligibility is based on a proxy means test (Ficha CAS).
- The Chilean Government also finances the ***Subsidio al Consumo de Agua Potable y/o Servicio de Alcantarillado***, which partially subsidizes the costs of potable water and municipal services for families residing in permanent housing that are unable to cover the total costs of services. In 2003, combined program spending accounted for around 1.7% of social protection spending, or 0.13% of GDP.
- The ***Pensiones Asistenciales de Ancianidad y de Invalidez*** (PASIS), also known as the assistance pension program, was created in 1975. It grants pensions to persons over 65 years of age and to the disabled, provided that their income is lower than 50% of the minimum

¹¹⁷ Since January 1993, all new workers entering the labor force must become member of an AFP. Current functions of the INP (pension payments, calculating and issuing Recognition Bonds, etc.) are transitory and will come to an end when the last pensions are paid to workers who did not change to the AFP system and when the last Recognition Bond is paid.

¹¹⁸ In 1997 budget contributions to the system covered 93% of expenditures in pensions in CAPREDENA and 95% in DIPRECA (Acuña and Iglesias, 2001).

¹¹⁹ Ficha CAS is a proxy-means testing instrument used by the Chilean government to determine program eligibility.

¹²⁰ The conditional cash transfer is set at Ch\$10,500 per month for the first six months of the Puente program; decreases to Ch\$8,000 in the second six months of the program; then to Ch\$5,500; and finally to an amount equivalent to the SUF for the last six months.

pension.¹²¹ In 2003, total estimated program spending accounted for roughly 4% of social protection spending, or 0.3% of GDP.

- The *Programa de Útiles Escolares* and *Textos Escolares* each provide basic school materials for primary and secondary students. For the first, eligibility is limited to those that are recipients of the *Program de Alimentación* (School Feeding Program), whereas the later is open to all student and teachers attending subsidized schools. In 2003, spending on these in-kind transfers accounted for approximately 3.3% of social assistance spending, or 0.08% of GDP.

Table 8 – CHILE: Composition of Social Protection Spending, 2003

Overview of Public Accounts (Federal Government Only)

Calibration with Household Survey Questions

	Spending from Public Accounts Data (2003)	Items and % Captured by Household Survey Questions (2003)
Total Social Protection (% of total SP)	100%	98.6%
Social Insurance	90.8%	100%
Social Assistance	9.2%	7.8%
Social Insurance (% of total SI)¹²²	100%	100%
Pensions	100%	100%
Social Assistance (% of total SA)	100%	85.1%
PASIS	46.1%	46.1%
SUF	11.8%	11.8%
Family Allowance	10.4%	10.4%
Potable Water Subsidy	7.1%	7.1%
Scholarships	6.5%	6.5%
Solidarity	3.3%	3.3%
In-kind transfers	3.3%	n.a.
Other SA ¹²³	11.5%	n.a.

Source: World Bank analysis of data from Mesa and Salazar (2003), Mesa (2004), and Estadísticas de las Finanzas Públicas (1987-2003).

Public Spending on Transfer Programs Analyzed in Household Survey Analysis

The CASEN 2003 includes several key **social insurance programs** in its questionnaire, including: (a) old-age, disability, widow, and orphan pensions; and (b) unemployment, which include both insurance and *cesantía* (Table 8). Unfortunately, the survey does not distinguish between public and private pensions. The CASEN 2003 also included several important **social assistance programs** in its questionnaire, including: (a) *Chile Solidario*; (b) Family Allowance; (c) SUF and the potable water subsidy; (d) Scholarships; and (e) PASIS. Together, these programs account for 85.1% of total federal spending on social assistance (Table 8).

COLOMBIA

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that consolidated government spending on social protection accounted for about 6.5% of GDP in 2003. Social spending in Colombia increased significantly in 2001, mainly due to a rise in social insurance spending (Table 9).

¹²¹ The minimum amount of the welfare pension is approximately a third of the minimum pension and is incompatible with the receipt of any other pension.

¹²² Excludes the AFP pension regime.

¹²³ Refers primarily to health-based social assistance programs (Salud Oral, Escolar and Mental).

Table 9 – COLOMBIA: Consolidated Social Spending, 2000-04

Consolidated Federal, State and Municipal Governments

	2000	2001	2002	2003	2004
Social Spending as Share of GDP:	12.2%	14.3%	14.9%	14.4%	14.8%
Education	<u>3.6%</u>	<u>4.2%</u>	<u>4.9%</u>	<u>4.9%</u>	<u>5.1%</u>
Central Government	0.8%	1.0%	1.0%	0.7%	0.8%
Decentralized Government	2.8%	3.2%	3.9%	4.1%	4.2%
Departments	2.3%	2.6%	3.6%	3.9%	4.0%
Municipalities	0.5%	0.6%	0.3%	0.3%	0.3%
Health	<u>1.9%</u>	<u>2.4%</u>	<u>2.2%</u>	<u>2.3%</u>	<u>2.3%</u>
Central Government	0.6%	0.8%	0.5%	0.5%	0.5%
Decentralized Government	1.3%	1.6%	1.7%	1.8%	1.8%
Departments	0.9%	1.1%	1.5%	1.6%	1.6%
Municipalities	0.4%	0.5%	0.2%	0.2%	0.2%
Social Protection	<u>5.2%</u>	<u>6.1%</u>	<u>6.3%</u>	<u>6.5%</u>	<u>6.5%</u>
Social Insurance	4.6%	5.4%	5.6%	5.8%	5.9%
Social Assistance	0.6%	0.7%	0.7%	0.7%	0.6%
Other Social Spending	<u>1.5%</u>	<u>1.6%</u>	<u>1.5%</u>	<u>0.7%</u>	<u>0.9%</u>
% of Total Social Spending:	100%	100%	100%	100%	100%
Education	<u>29.8%</u>	<u>29.3%</u>	<u>32.8%</u>	<u>34.0%</u>	<u>34.1%</u>
Central Government	6.7%	6.9%	6.7%	5.2%	5.7%
Decentralized Government	23.1%	22.4%	26.0%	28.8%	28.4%
Departments	19.0%	18.4%	24.3%	27.0%	26.6%
Municipalities	4.1%	4.0%	1.7%	1.9%	1.8%
Health	<u>15.6%</u>	<u>16.7%</u>	<u>14.9%</u>	<u>16.0%</u>	<u>15.4%</u>
Central Government	4.6%	5.6%	3.3%	3.4%	3.2%
Decentralized Government	11.0%	11.1%	11.6%	12.6%	12.1%
Departments	7.6%	7.7%	10.2%	11.0%	10.6%
Municipalities	3.4%	3.4%	1.4%	1.6%	1.5%
Social Protection	<u>42.6%</u>	<u>42.8%</u>	<u>42.5%</u>	<u>45.3%</u>	<u>44.3%</u>
Social Insurance	37.5%	37.8%	37.8%	40.4%	40.2%
Social Assistance	5.1%	5.0%	4.7%	4.8%	4.2%
Other Social Spending	<u>12.0%</u>	<u>11.1%</u>	<u>9.8%</u>	<u>4.8%</u>	<u>5.9%</u>

Source: World Bank analysis of data from the National Planning Department, Economic Studies Division (DNP- DEE), Acosta-Gamboa (2005), Ministry of Finance and Superintendency of Family Subsidy.

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. Social insurance accounted for about 89% of total consolidated social protection spending in 2003 (Table 10). Colombia's social insurance programs include the main publicly-managed pay-as-you-go pension scheme, run by the Social Security Institute (ISS) plus special programs,¹²⁴ such as: (a) the pension solidarity fund for workers in informal sector, disabled workers, and community mothers, which provides old-age; (b) the family allowance fund for low-income workers and their families; and (c) a universal health insurance program (SHIR).

Social Assistance. Social assistance accounted for about 10.7% of social protection spending in Colombia in 2003 (Table 10), or 0.7% of GDP (Table 9). Social assistance programs consist primarily of programs administered by the Colombian Institute for Family Welfare (ICBF), including early childhood development and school feeding. There are also national programs designed to alleviate the impact of the high unemployment rate and human capital risk (Red de Accion Social - RAS), which is under the Office of the President, and implemented by the National Coordinating Unit (NCU).

- **Columbian Family Welfare Programs (IBCF).** The IBCF, a public establishment with legal representation, administrative autonomy and autonomous resources, is affiliated to the Ministry

¹²⁴ According the Colombian World Bank SSNA of 2002, less than 30 percent of the economically active population of Colombia contributes to any pension fund (public or private), and only 3% of those employed with incomes in the bottom quintile contribute to the national pension fund. As such, the national pension system is not designed for the poorest, who are unable to make contributions. World Bank. Colombia Social Safety Net Assessment, 2002.

of Health. The purpose of the main ICBF programs is to protect families and strengthen the human capital of poor children by providing food, care, early childhood stimulation, and nutrition. Programs are implemented at the local level with the participation of NGOs and include:

- **Hogares Comunitarios de Bienestar (Columbian Institute for Family Welfare)**, instituted in 1987, seeks to improve living conditions of urban and rural sector families of the poorest sectors of the population, including pregnant women, children 0 to 6 years old and/or Indians. Financed through a 3% payroll tax and family contributions (37.5% of a minimum monthly salary), the program provides children nutrition and health care at the Hogar Comunitario de Bienestar (HCB);
- **Hogares FAMI (Familia, Mujer e Infancia) (Family, Women and Children's Homes)**, a program that attempts to improve conditions of women with children under 2 years of age in vulnerable situations. Financed through payroll taxes and family contributions (25.5% of a minimum monthly salary), it is supervised by a community mother who provides nutrition, health advice and visits families. Each Welfare Community Home (FAMI) assists up to 15 families with: Pregnant women and nursing mothers, children between the ages of 6 and 24 months, and family members with them;
- **Asistencia Nutricional al Escolar y Adolescente (School Restaurants)**, which provides a nutritional supplement to schools for a period of 120 days per year in order to fight drop outs and increase schooling of beneficiaries; and
- **Desayunos Infantiles (Children's Breakfast)**, an in-kind subsidy that provides children with a box of milk (flavored), a package of cookies (40g) fortified with iron and a monthly kilo of *bienestarina*, a micronutrient's supplement, for a period of 250 days per year. The program prioritizes families in rural areas with children from 6 months old until 5 years of age from vulnerable households primarily targeting those families not covered by Familias en Acción.
- The **Clubes Prejuveniles** program finances workshops on cultural activities, sports, artistic, educational and productive areas for children and young adults.
- **Red de Asistencia Social (RAS)**. Launched in 2001 and managed by the Office of the President, the RAS safety net is composed of three programs:
 - **Familias en Acción**, a conditional cash transfer program that attempts to ameliorate the impact of Colombia's recent economic recession on the poor. The program seeks to protect and promote human capital formation of poor children (aged 0-17) by supporting families' investments in their health, nutrition, and education in the face of sharply reduced incomes,¹²⁵ by providing two kinds of grants: (a) an educational grant equivalent to the direct cost borne by low-income families to send their 7-17 year old children to school;¹²⁶ and (b) a health and nutrition grant equivalent to the cost of

¹²⁵ World Bank. Colombia Social Safety Net Assessment, 2002.

¹²⁶ US\$6 per child per month in primary school and US\$12 per child per month in secondary school.

raising the poorest families' consumption to the indigence line for eligible families with 0-6 year old children;¹²⁷

- **Empleo en Acción**, a community works program that aims to provide temporary employment to unskilled workers in the bottom income quintile through the financing of salaries and some of the materials needed to carry out public work programs in low-income communities;¹²⁸ and
- **Jóvenes en Acción**, a training program for young adults that aims to provide practical training and financial support to unemployed, low-income youth with the long-term goal of increasing the participants labor market prospects and earnings. The program, based on the Chile *Jovem* program¹²⁹, consists of a three to five month long training course, followed by a three month internship, during which participants receive a scholarship equivalent to approximately US\$63 per month for women with children less than 7 years of age and US\$44 per month for others.

Table 10 – COLOMBIA: Composition of Social Protection Spending, 2003

Overview of Public Accounts (Consolidated Federal, State and Municipal Governments)

Calibration with Household Survey Questions

	Spending from Public Accounts Data (2003)	Items and % Captured by Household Survey Questions (2003)
Total Social Protection (% of total SP)	100%	93.0%
Social Insurance	89.3%	84.2%
Social Assistance	10.7%	8.4%
Social Insurance (% of total SI)	100%	100%
Pensions	94.7%	94.7%
Family Allowances	4.1%	n.a.
Pensions Solidarity Fund	1.0%	n.a.
Unemployment Subsidy	0.2%	n.a.
Social Assistance (% of total SA)	100%	79.0%
ICBF (Child programs)	79.0%	79.0%
Social Safety Net (RAS)	<u>21.0%</u>	n.a.
Familias en Accion	17.9%	n.a.
Empleo en Accion	0.6%	n.a.
Jovenes en Accion	2.5%	n.a.

Source: World Bank analysis of data from the National Planning Department, Economic Studies Division (DNP- DEE), Acosta-Gamboa (2005), Ministry of Finance and Superintendency of Family Subsidy.

Public Spending on Transfer Programs Analyzed in Household Survey Analysis

The Survey of Living Conditions (ECV 2003) includes both social insurance and social assistance programs in its questionnaire, including pensions (though not disaggregated by public or private) and the ICBF social assistance programs. The survey thus captured about 95% of social insurance spending and 79% of social assistance outlays (Table 10).

¹²⁷ US\$20 per family per month.

¹²⁸ World Bank. Colombia Social Safety Net Assessment, 2002.

¹²⁹ The Chile Jovem program mobilizes the private sector to invite competition between public and private sector training providers and ensure relevance to labor market demand.

DOMINICAN REPUBLIC

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that government spending on social protection transfers accounted for about 2.4% of GDP in 2004. Data from 2001-2004 shows that although overall social spending has decreased in recent years, the percentage allocated to social protection increased substantially, from 15.5% in 2000 to 35.5% in 2004, an increase of more than 80% (Table 11).

Table 11 – DOMINICAN REPUBLIC: Public Social Spending, 2000-04

Central Government Spending	2000	2001	2002	2003	2004
Social Spending as Share of GDP:	7.3%	8.2%	8.2%	7.0%	6.6%
Education	2.5%	2.7%	2.9%	1.9%	1.5%
Health	1.8%	1.9%	1.9%	1.2%	1.2%
Social Protection	1.0%	1.6%	0.9%	1.3%	2.4%
Social Insurance	0.0%	0.6%	0.6%	0.8%	0.7%
Social Assistance	1.1%	1.0%	0.3%	0.5%	1.7%
Other Social Spending ¹³⁰	1.8%	2.0%	2.4%	2.6%	1.5%
% of Total Social Spending :	100%	100%	100%	100%	100%
Education	34.6%	33.4%	35.7%	27.7%	22.8%
Health	24.8%	22.6%	23.6%	17.7%	18.0%
Social Protection	15.5%	19.5%	11.4%	18.2%	35.5%
Social Insurance	0.0% ¹³¹	7.6%	7.5%	11.0%	10.5%
Social Assistance	15.5%	11.8%	3.9%	7.2%	25.0%
Other Social Spending	25.1%	24.5%	29.3%	36.4%	23.7%

Source: World Bank staff calculations based on ONAPRES and Lizardo, 2005.

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. Social insurance accounted for about 30% of social protection spending in the Dominican Republic in 2004 (Table 12). In 2001, the Dominican Republic reformed its social insurance scheme aimed at a gradual but massive expansion in the number of workers who contribute to retirement savings plans, much larger public transfers to the poor and elderly, and a significant expansion of health care coverage.¹³² In this section we examine the main formal sector schemes prior to the reform, since many of them are still in place due to the gradual nature of the pension reform. Social insurance pensions and related benefits include:

- ***Instituto Dominicano de Seguridad Social.*** The Dominican Social Security Institute (IDSS), governed by a basic law enacted in 1947 along with its subsequent amendments, is a mandatory pension scheme for private sector workers. IDSS offered a variety of benefits including maternity, sickness, accidental death and basic health care. The financing of these benefits was based on contribution revenues. In 2001, the ratio of contributors to pensioners was approximately 17:1. Until the reform of 2001, less than one-third of the labor force participated in a formal pension scheme and an even smaller proportion of the current elderly received pension income.¹³³ In 2000, pension spending for IDSS accounted for 0.16% of GDP;

¹³⁰ Includes housing, sewerage and water supply, municipal services, community services, etc.

¹³¹ ONAPRES reports no expenditures for social insurance in 2000.

¹³² World Bank, Dominican Republic, Public Expenditure Review, 2004.

¹³³ World Bank, Dominican Republic, Public Expenditure Review, 2004.

- ***Fundo de Jubilaciones y Pensiones de los Empleados Publicos (FJPEP)***. The FJPEP was established in 1981 as a new pension scheme for civil servants. The scheme is financed on a purely pay-as-you-go basis by employee contributions of 4 percent of salary with the remaining deficit covered directly from the central budget. In 2000, spending on central government pensions amounted to 0.29 percent of GDP, covering roughly 9 percent of the labor force. In parallel, decentralized government pensions, which are substantially higher than those of central government employees, totaled 0.14% of GDP, covering 2.6 percent of the labor force;¹³⁴
- ***Instituto de Seguridad Social de las Fuerzas Armadas y la Policía Nacional (ISSFAPOL)***. The Social Security Institute for the Armed Forces and Police (ISSFAPOL) was set up in 1982 to pay pensions to military and police. As other schemes, it is financed on a pay-as-you-go basis with a six percent contribution from employees. In 2000, ISSFAPOL covered 1.2 percent of the labor force and accounted for 0.23% of GDP;¹³⁵
- **Supplementary and non-contributory schemes.** Various public institutions also offer supplementary pensions to their workers. For example, IDSS provides a generous defined-benefit plan to its staff that is largely unfunded, and will ultimately become the responsibility of the central government. The agency for public health, SESPAS, also manages a small, non-contributory pension program targeted at the impoverished elderly. This program provides cash transfers to approximately 9,000 elderly persons. Another program, created recently, provides daycare facilities for elderly persons.¹³⁶ In 2000, total pension spending on non-contributory pension schemes totaled less than 0.01% of GDP.

Social Assistance. Social assistance accounted for about 70% of social protection spending in 2004 (Table 12), or 1.7% of GDP (Table 11). Social assistance expenditures have increased substantially in recent years, and in 2004 surpassed education (1.5%) and health (1.2%) as a percentage of GDP.¹³⁷ Federally-funded social assistance in the Dominican Republic includes: (a) cash transfer programs such as *Comer es Primero* and *Tarjeta de Asistencia Escolar*; (b) food-based programs including school lunches, direct food donations, as well as programs that provide food items at subsidized prices such as *Comedores Económicos* and INESPRES; and (c) consumption subsidies such as gas and the essential drugs program (PROMESE).¹³⁸

- **Cash Transfer Programs include:**
 - ***Tarjeta de Asistencia Escolar (TAE)***, managed by the State Secretariat of Education (SEE) and created in 1992, was a conditional cash transfer program designed to improve children's school attendance and retention rates in basic education. The program's stated objectives were: (a) guarantee access to and permanence in the education system; (b) reduce dropout rates and analphabetism; and (c) link families to children to guarantee access to and permanence in the education system. In 2004, the amount of total transfers executed total RD\$236.6 million or 1.8% of social assistance spending;¹³⁹

¹³⁴ World Bank, Pension Reform in the Dominican Republic, 2003.

¹³⁵ World Bank, Pension Reform in the Dominican Republic, 2003.

¹³⁶ World Bank, Pension Reform in the Dominican Republic, 2003.

¹³⁷ See Lizardo (2005).

¹³⁸ This section is based largely on García, *Mapa de Los Program de Protección Social*, 2005.

¹³⁹ TAE was discontinued in 2004 and merged into the School Assistance Incentive Program (*Incentivo a la Asistencia Escolar, ILAE*).

- ***Incentivo a la Asistencia Escolar (ILAE)***, implemented in 2005 as an improvement of the TAE , provides variable cash transfers conditioned on children’s maintaining a minimum enrollment and regular assistance of 85%; and
 - ***Comer es Primero***, also instituted in 2005, addresses the food and nutritional emergency needs of extremely poor households by: (a) complementing their income; and (b) reducing the incidence of malnutrition and undernourishment, especially among infants. Eligible households receive a monthly transfer of RD\$550 which can only be used to purchase foods items in authorized shops.¹⁴⁰
- **Food Based Programs include:**
 - The ***Programa de Alimentación Escolar (PAE)***, also managed by the State Secretariat of Education and created in 1992, provides in-kind transfers to children between 5 and 14 enrolled in public pre-school and basic education schools. The program’s stated objectives are: (a) to increase school attendance and reduce drop out rates in public schools at pre-school and basic education levels; (b) improve students’ learning; (c) contribute to increased community participation in school activities; (d) support local agricultural and agro-industrial production; (e) improve children’s nutritional habits; and (f) improve living conditions of households with school age children. The 2004 executed budget totaled RD\$1,513.2 million or 11.8% of social assistance spending;
 - **Price Stabilization Institute (INESPRE)**. INESPREE, also referred to as popular markets, is managed by the Office of the Presidency. Created in 2000, the Institute’s mandate is to guarantee the supply of basic food items and regulate prices to protect consumers and producers. INESPREE provides commercialization subsidies for producers and consumption subsidies for consumers, by purchasing excess agricultural goods at below market prices and reselling them at subsidized prices in urban marginal areas. In 2004, executed spending totaled RD\$1,432.9 million, whereas the estimated total value of the transfers to consumers were RD\$455 million or 3.6% of social assistance spending¹⁴¹; and
 - ***Comedores Económicos***, managed by the office of the Presidency, was established in 1942 to improve the nutritional status of the population and the access of low income individuals to food. Transfers are either in-kind (food) or consumption subsidy (food sold at subsidized prices). In 2004, executed spending totaled RD\$206.5 million or 1.6% of social assistance spending.
 - **Consumption Subsidies include:**
 - ***Gas Propano Líquido (GPL)***. GPL was created in 2004 as a poverty alleviation program to allow poor households access to low price fuel for domestic use. Consumer purchasing GPL in containers of 22.5 gallons or less buy GPL at a subsidized price (currently RD\$25 per gallon). The difference between the subsidized and import price is covered by fiscal resources. The amount of transfers executed in 2004 totaled RD\$5,608 or 43.7% of social assistance spending;

¹⁴⁰ A list of items consistent with consumption patterns of poor households has been identified. There are approximately 56 shops serving the first 16,000 beneficiary households.

¹⁴¹ The total value of transfers to consumers is the difference between the value of goods acquired from producers and the value of the products sold to the public.

- The *Programa de Medicamentos Esenciales* (PROMESE) was established in 1984 to finance and manage popular pharmacies (*Boticas Populares*) and to provide generic and essential drugs at reduced prices. There are no specific eligibility criteria for the population and PROMESE has since expanded its original mandate to procure pharmaceuticals for all public health facilities. PROMESE estimates that the value of the transfers to consumers in 2003 was approximately RD\$275.5 million.

Table 12 – DOMINICAN REPUBLIC: Composition of Social Protection Spending, 2004

Overview of Public Accounts (Federal Government Only)

Calibration with Household Survey Questions

	Spending from Public Accounts Data (2004)	Items and % Captured by Household Survey Questions (2004)
Total Social Protection (% of total SP)	100%	83.1%
Social Insurance	29.5%	29.5%
Social Assistance	70.5%	53.6%
Social Insurance (% of total SI)	100%	3.1%
Pensions ¹⁴²	96.9%	n.a. due to zero net subsidy
SS-Health	3.1%	3.1%
Social Assistance (% of total SA)	100%	68.7%
Cash Transfers	<u>1.8%</u>	<u>1.8%</u>
TAE	1.8%	1.8%
Food Based Programs	<u>16.9%</u>	<u>16.9%</u>
PAE	11.8%	11.8%
INESPRE	3.5%	3.5%
Comedores Económicos	1.6%	1.6%
Consumption Subsidies	<u>50.0%</u>	<u>50.0%</u>
Gas	43.7%	43.7%
PROMESE	6.3%	6.3%
Other social programs ¹⁴³	31.3%	n.a.

Source: World Bank analysis of data from Garcia (2005), Lizardo (2005).

Public Spending on Transfer Programs Analyzed in Household Survey Analysis

The ENCOVI 2004 included several key **social insurance programs** in its questionnaire, including: (a) retirement pensions; and (b) SS-Health. These two programs accounted for 100% of total federal spending on social insurance (Table 12). However, since this study uses only net subsidies for pensions – and available information suggests that pension schemes in the Dominican Republic are virtually fully-funded (see pensions annex), we assume a net subsidy of zero for pensions for the DR. Hence, our household survey analysis only captures 3.1% of social insurance spending in the DR.

The ENCOVI 2004 also included several important **social assistance programs** in its questionnaire, including: (a) TAE; (b) PAE; (c) subsidies; and (d) other food based programs. Together, these programs account for 68.7% of total federal spending on social assistance (Table 12).

¹⁴² Refers to pre-reform spending.

¹⁴³ Other programs include electricity subsidies, OMSA, Siuben, etc.

GUATEMALA

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that government spending on social protection spending amounted to Q2,698 million, representing 1.8% of GDP, 12.4% of total expenditures of central government, and 25% of social spending (Table 13). Public spending on social protection is low by international standards, reflecting the low level of overall public resources in Guatemala. Additionally, numerous social protection programs are managed by different agencies, as discussed below. As such, accounting for social protection spending is complicated and estimates of the total magnitude of such spending vary. Finally, although social protection spending appears to be rather low by international standards, it is not so low in relative to other social sectors in Guatemala and current levels mainly reflect the low overall public finance base in Guatemala (total public revenues represented about 10.5% of GDP in 2002).

Table 13 – GUATEMALA: Social Spending, 2000

Central Government Spending	2000
Social Spending as Share of GDP:	7.5%
Education	2.5%
Health	1.1%
Social Protection ¹⁴⁴	1.8%
Social Insurance	0.7%
Social Assistance	1.1%
Other Soc Spending ¹⁴⁵	2.1%
% of Total Social Spending (Federal):	100%
Education	34.3%
Health	18.0%
Social Protection	25.2%
Social Insurance	10.2%
Social Assistance	15.0%
Other Soc Spending	22.6%

Source: World Bank (2004). Poverty in Guatemala; Santiso (2001); and data from SIAFI

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. Social insurance accounts for about 40% of total social protection spending in Guatemala (Table 14). The *Instituto Guatemalteco de Seguridad Social (IGSS)* was established in 1946 as a publicly-managed pension scheme for formal, private, and public sectors across the country. It includes several main sub-programs: accident coverage; maternity and sickness; disability; old age (pensions) and survival. In 2000, it provided minimal coverage of the population, risked financial crisis, and was regressive (as shown in the present analysis of redistribution).¹⁴⁶ More recently, a pilot program (TAM) was launched in 1998 to provide social insurance to agricultural migrant workers and their families in the departments of Escuintla and Suchitepequez.

¹⁴⁴ Excludes social funds.

¹⁴⁵ Includes housing, social funds and social based labor programs.

¹⁴⁶ While the social security system is said to cover the entire country, not all services are available in all departments. For example, employee contributions in the Department of Guatemala are 4.83%, as compared with only 2.83% in Alta Verapaz. This is due to the fact that all programs are covered in the capital, but only accident and disability, old age and survivor programs are available in Alta Verapaz. Furthermore, as of 2000 the IGSS was in disarray and at risk of a financial crisis due to the failure of the Guatemalan State to pay IGSS contributions as an employer. Finally, the inability to match expenditures with social security contributions raises questions about the sustainability of the system as currently designed. In mid 2001, for example, the IGSS accident-maternity-sickness (IVS) program had a deficit of Q166 million, contrasting with its own surplus of Q178 million in 1998.

Social Assistance. In 2000, social assistance accounted for approximately 60% of social protection spending in Guatemala (Table 14). Including subprograms, there existed 37 social assistance programs (transfers, subsidies, disaster management and micro-credit programs) amounting to Q1,608.5 million and representing 59.6% of social protection spending by the public sector (15% of total social spending, 7.4% of total government expenditures and 1.1% of GDP. Publicly-funded social safety nets include:

- **In-kind Transfers.** There are 16 transfer programs (24 if sub-programs are included), which include scholarships, food for work, and other social assistance programs. These programs are discussed in the household survey analysis. They amounted to Q679 million or slightly over 25% of social protection spending (6.5% of social spending or 0.5% of GDP);
- **Subsidies.** There are six subsidy programs (9 if sub-programs are included), which include land (Q106mn), housing (Q295mn), electricity (Q372mn) and school transport subsidies (Q27mn). Each managed by a different ministry, they amounted to Q801 million, representing slightly over 29.7% of social protection spending (7.5% of social spending or 0.5% of GDP). **Subsidies** are partially analyzed below. Other programs include micro-credit and disaster management, and account for 4.8% of social protection spending.

Table 14 – GUATEMALA: Composition of Social Protection Spending, 2000

Overview of Public Accounts (Central Government Accounts)

Calibration with Household Survey Questions

	Spending from Public Accounts Data (2000)	Items and % Captured by Household Survey Questions (2000)
Total Social Protection (% of total SP)	100%	95.2%
Social Insurance	40.4%	40.4%
Social Assistance	59.6%	54.8%
Social Insurance (% of total SI)	100%	100%
Pensions ¹⁴⁷	100%	100%
Social Assistance (% of total SA)	100%	92.0%
Transfers	42.2%	42.2%
Subsidies	49.8%	49.8%
Disaster Management/Micro-credit	8.1%	n.a.

Source: World Bank analysis of data from SAIF, MEF.

Public Spending on Transfer Programs Analyzed in Household Survey Analysis

The ENCOVI 2000 includes both pensions and several social assistance programs in its questionnaire. The survey does not distinguish between types of pensions – or public or private; hence we assume that these questions capture 100% of total **social insurance** spending in Guatemala (though we do make adjustments for net subsidies, netting out contributions as discussed in the pensions annex).

The ENCOVI questionnaire also included several important **social assistance programs**, including: (a) scholarships (programs covering students in primary, secondary (basic and intermediary) schools); (b) school feeding (*galleta escolar desayuno, leche en polvo, vaso de leche, vaso de atol*); (c) PRONADE (decentralized, community-managed education program); (d) subsidies (school transport and electricity); and (e) other social assistance programs (various programs covering a variety of groups:

¹⁴⁷ Refers to disability, old age and survival coverage programs.

babies, children, orphans, youths, young delinquents, breast-feeding mothers, poor rural women, single mothers, poor elderly, etc). Together, these programs account for 92% of total federal spending on social assistance.

MEXICO

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that federal government spending on social protection transfers accounted for about 3.5% of GDP in 2002. This is fairly low, given Mexico's overall level of development – but as Table 15 shows, all categories of social spending are low in Mexico due to a generally low level of government (tax) revenues.

	2000	2001	2002
Social Spending as Share of GDP:	9.1%	9.5%	9.8%
Education	3.8%	4.0%	4.1%
Health	2.2%	2.3%	2.1%
Social Protection	3.1%	3.1%	3.5%
Social Insurance	2.2%	2.2%	2.6%
Social Assistance (includes labor)	0.8%	0.9%	1.0%
Other Social Spending (housing)	0.1%	0.0%	0.1%
% of Total Social Spending (Federal):	100%	100%	100%
Education	41.6%	42.7%	42.4%
Health	24.5%	24.6%	21.7%
Social Protection	33.9%	32.6%	36.0%
Social Insurance	24.8%	23.4%	26.1%
Social Assistance	9.1%	9.2%	9.9%
Other Social Spending	0.6%	0.5%	0.6%
Source: World Bank analysis of data from Annex of the Third Government Report, 2004. SHCP, SEDESOL, SAGARPA.			

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. Social insurance accounted for about 72.6% of social protection spending in Mexico in 2002 (Table 16). Until 2002, Mexico's social insurance programs included two main types of regimes: social security (IMSS and ISSSTE). Eligibility is restricted to formal sector employees. As a result, the government launched a new program, *Seguro Popular de Salud*, whose beneficiaries include those that are not covered by any social insurance system. Social insurance pensions and related benefits include:

- The *Instituto Mexicano del Seguro Social (IMSS)*, launched in 1943 to provide social insurance to non-governmental workers, originally operated as a pay-as-you-go (PAYG) system; today all federal expenditures of IMSS are drawn from public revenues.¹⁴⁸ IMSS includes individual retirement funds (SIEFORES, AFORES),¹⁴⁹ and is responsible for the provision of disability and life insurance to workers;

¹⁴⁸ Contributions disappeared from the balance sheet of IMSS as a result of the 1997 reform which set up individual accounts, therefore, all of federal expenditures on IMSS benefits are drawn from public revenues (World Bank, 2004).

¹⁴⁹ Mexico: An Overview of Social Protection. World Bank Report. January 28, 2005.

- The *Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (ISSTE)* provides social insurance services to workers from the public sector. The benefits of the system are retirement pension, access to health facilities, subsidized pharmacies and retail stores, and housing finance assistance from FOVISSSTE.

Social Assistance. Social assistance accounted for about 27.4% of social protection spending in Mexico in 2002 (Table 16), or 1.0% of GDP (Table 15). Federally-funded social assistance in Mexico includes: (a) cash transfer programs such as *Oportunidades* (including health, education and Ministry of Social Development budget) and Procampo; (b) food-based programs such as *Liconsas*, *Diconsas*, DIF/FAM, tortilla; (c) school scholarships for vulnerable population; and (d) labor programs such as PET and *Opciones Productivas*.

- **Cash Transfer Programs include:**

- *Oportunidades*, instituted in 1997 under as the Program for Education, Health and Food (*Progresas, Programa de Educación, Salud y Alimentación*), is managed by the *Secretaría de Desarrollo Social (SEDESOL)*. *Oportunidades* provides transfers to poor rural households conditional on participation in basic education (for the relevant age group) and health services. The educational component offers scholarships with values increasing with grade level and differentiated in favor of girls (after primary education); it is designed to cover the opportunity cost of attending school for children and youngsters in poor households. The food aid component, which is provided in the form of money as well as food supplements, is conditioned on the use of health services.¹⁵⁰ Until 2000 the program was targeted exclusively to poor rural communities. In 2001 the program was extended to urban localities and medium-secondary education. The program budget increased from 12.7 billion pesos in 2001 to 16.6 billion pesos in 2002, covering over 2.1 million persons. This program accounted for 28.1% of federal social assistance spending in 2002, or 0.3% of GDP;
- *PROCAMPO*, managed by Secretary of Agriculture and created in 1993, is an agricultural income-support program offering fixed monetary payments to low-income farmers per-hectare of basic crops, independent of production levels.¹⁵¹ The objective of PROCAMPO is to facilitate the transition to a rural market economy while reducing poverty among beneficiaries. In 2002, total program spending accounted for 19.6% of federal social assistance spending (Table 16), or 0.2% of GDP.

- **Food-Based Programs include:**

- The *Programa de Abasto Social de Leche*, managed by SEDESOL and created in 1965, provides: (a) milk at reduced prices to the poor population; and (b) supports small milk producers. Localities that benefit from other programs such as *Oportunidades* and *Apoyo Alimentario* are excluded;
- The *Programa de Apoyo Alimentario (PAA)* was created in 1972 to improve nutritional aspects of poor households and to provide complementary services to those

¹⁵⁰ World Bank, Mexico Public Expenditure Review, 2004.

¹⁵¹ World Bank, Mexico Public Expenditure Review, 2004.

offered by the national and local government. Households living in poor conditions¹⁵² receive a food subsidy that is either: (a) a food basket with an equivalent amount of Mex\$150.00; or (b) cash transfers that must be used for food purchases; and

- The ***Programa de Abasto Rural (PAR)***, which provides food at subsidized prices. Eligibility criteria for the PAR and PAA are identical and beneficiaries totaled 32,496,152 in 2002.
- **School Scholarships.** In order to improve education among the most vulnerable population, the government created scholarship programs such as ***Programas Compensatorios***, directed to children in marginalized areas, and the ***Escuelas Comunitarias*** Program, which consists in classes taught by students with a secondary education degree to children in remote areas. Both programs are administered by CONAFE (*Consejo Nacional de Fomento Educativo*).
- **Labor-Related assistance programs** include the ***Programa de Empleo Temporal (PET)*** and the ***Programa de Opciones Productivas***. These programs provide jobs, training, and monetary subsidies mainly to improve basic infrastructure, community projects, and address economic vulnerability.

Table 16 – MEXICO: Composition of Social Protection Spending, 2002

Overview of Public Accounts (Federal Government Only)

Calibration with Household Survey Questions

	Spending from Public Accounts Data (2002)	Items and % Captured by Household Survey Questions (2002)
Total Social Protection (% of total SP)	100%	95.2%
Social Insurance	72.6%	72.6%
Social Assistance	27.4%	22.6%
Social Insurance (% of total SI)	100%	100%
Pensions ¹⁵³	100%	100%
Social Assistance (% of total SA)	100%	82.5%
Oportunidades (incluye SEDESOL, education and health budget)	28.1%	28.1%
PROCAMPO	19.6%	19.6%
Programas de Educación	13.7%	13.7%
Programas Alimentarios ¹⁵⁴	8.9%	n.a.
Programas de Salud	8.6%	n.a.
Empleo Temporal	6.4%	6.4%
Otros ¹⁵⁵	14.7%	14.7%

Source: World Bank analysis of data from Informe de Labores, 2003, 2004, IMSS, ISSSTE, Ministry of Finance, SEDESOL, and Vision Estrategica del Gasto.

Public Spending on Transfer Programs Analyzed in Household Survey Analysis

The ENNVIIH 2002 includes several key **social insurance programs** in its questionnaire, including: (a) indemnizations¹⁵⁶; and (b) retirement pensions, which include both IMSS and ISSSTE. These later two programs are described above, accounting for 100% of total federal spending¹⁵⁷ on social insurance (Table 16). Unfortunately, the survey does not distinguish between public and private pensions.

¹⁵² Beneficiaries are households living in poor conditions (food based poverty line) in localities with no more than 2,500 people located in high vulnerable areas.

¹⁵³ Includes both IMSS and ISSSTE.

¹⁵⁴ Includes DIF/FAM, tortilla, LICONSA, and DICONSA.

¹⁵⁵ Other Government Transfers is the sum of “Otros Programas de Apoyo Gobierno” in the survey and aggregate of transfers with very low frequency in the survey that includes: VIVAH, CREDITO A PALABRA, PET, ALIANZA PARA EL CAMPO, FONDO Micro Pequeña y Mediana empresa. The programs Coinversion Social and Fonaes did not present observations at household level.

¹⁵⁶ Indemnizations are all incomes received from jobs loss, accidents at work and working risks, and is not discriminated amongst types of employment.

¹⁵⁷ Saludos para Todos was implemented in 2002 and is not included in SI survey calculations.

The ENNVIIH 2002 also included several important **social assistance programs** in its questionnaire, including: (a) *Oportunidades*; (b) PROCAMPO; (c) Scholarships and donations; and (d) other government transfers.¹⁵⁸ Together, these programs account for 27.4% of total federal spending on social assistance (Table 16).

PERU

Public Transfers within Broader Context of Social Spending

Using the classifications detailed below and public accounts data, we find that federal government spending on social protection transfers accounted for about 3.7% of GDP in 2003, representing 43.2% of total social spending at the federal level (Table 17). This share has remained fairly constant over time, averaging 3.7% of GDP from the period of 2000 to 2004. Most of social protection spending is devoted to the public pension system.

Table 17 – PERU: Federal Social Spending, 2000-04

Federal Government Spending Only

	2000	2001	2002	2003	2004 (prel. exec.)
Social Spending as Share of GDP:	8.1%	8.4%	8.7%	8.5%	8.6%
Education	2.9%	2.9%	3.0%	3.1%	3.2%
Health	1.4%	1.6%	1.6%	1.5%	1.6%
Social Protection	3.5%	3.7%	3.8%	3.7%	3.6%
Social Insurance	3.1%	3.2%	3.3%	3.2%	3.1%
Social Assistance	0.4%	0.5%	0.5%	0.5%	0.5%
Other Social Spending (incl. social funds)	0.3%	0.2%	0.2%	0.2%	0.3%
% of Total Social Spending (Federal):	100%	100%	100%	100%	100%
Education	35.1%	33.9%	34.7%	36.8%	37.5%
Health	17.3%	18.8%	18.5%	18.2%	19.0%
Social Protection	43.3%	44.7%	45.1%	43.2%	40.3%
Social Insurance	38.4%	38.4%	38.5%	37.3%	35.2%
Social Assistance	4.9%	6.3%	6.6%	5.9%	5.1%
Other Social Spending (incl. social funds)	4.3%	2.5%	1.8%	1.8%	3.1%

Source: World Bank analysis of data from MEF, DNPP

Composition and Classification of Transfers in Public Spending Accounts

Social Insurance. Social insurance, which is made up by contributory pensions, accounts for about 82% of total federal spending on transfers in Peru (Table 18). There are two public pension schemes: (a) the *Sistema Nacional de Pensiones* (SNP) managed by the *Oficina Nacional de Normalización Previsional* (ONP); and (b) the *Cédula Viva*, also managed by the federal government. Publicly-funded pensions include:

- ***Sistema Nacional de Pensiones (SNP).*** The SNP is a pension regime open to all public and private sector employees that provides retirement, disability, and other benefits. Beneficiaries of the SNP may retire at the age of 65, after having contributed to the system for a minimum of 20 years. In 2003, the SNP had 1.32 million members. Financed partially by member contributions, total benefits paid out in 2003 totaled S/2 785 million, 72.5% of which was

¹⁵⁸ Other Government Transfers is the sum of “Otros Programas de Apoyo Gobierno” in the survey and aggregate of transfers with very low frequency in the survey that includes: VIVAH, CREDITO A PALABRA, PET, ALIANZA PARA EL CAMPO, FONDO Micro Pequeña y Mediana empresa. The programs Coinversion Social and Fonaes did not present observations at household level.

financed from general tax revenues from the Treasury (not contributions), or about 77% of total benefits.

- ***Cédula Viva***. The *Cédula Viva* is highly regressive pension system for a reduced group of civil servants managed by the federal government. It provides far more generous benefits than the SNP and offers different levels of benefits to its own members. Unlike the SNP, the *Cédula Viva* allows for retirement before the age of 65, and has an upper limit of payment equal to S/857.¹⁵⁹ In 2004, pension reforms closed the *Cédula Viva* to new entrants and the legislature was empowered to reduce existing benefits and make it more difficult to raise future benefits. In that year, the public subsidy to the *Cédula Viva* equaled 99% of its cost, demonstrating the unsustainable nature of this pension scheme.

Social Assistance. In 2003, social assistance accounted for about 11% of total federal Government social protection spending in Peru (Table 18). The majority of these programs entail food-based assistance to different vulnerable and marginalized groups. Other social assistance programs provide food for work and some provide housing subsidies. Combined, social assistance spending in 2003 represented less than half of a percent of GDP, or 0.5%.

Food-Based Assistance. The principal food-based assistance programs in Peru include:

- The ***Vaso de Leche*** program, managed at the federal level by the Comptroller General's Office (*Contraloría General de la República*) and created in 1984, provides milk products or milk substitutes and other products such as oatmeal, *quinua* and other grains;¹⁶⁰
- The ***Desayunos Escolares*** program, managed by PRONAA and created in 1993, provides foodstuffs for children between the ages of 6 and 12 who attend state schools, targeting children in the poorest areas of the country;
- The ***Comedor Popular*** program, managed by PRONAA and created in the 1960s, provides subsidized food and social services to poor, marginalized urban and rural areas throughout the country;
- The **Supplementary Food Program for Groups at Risk of Malnutrition (PAFCO)**, managed by PRONAA and created in 1994, attempts to improve the nutritional state of children aged 6 to 36 months in the poorest areas of the country, through provision of food with a high nutritional content, through food and nutritional advice, hygiene advice, nutritional monitoring and provision of access to basic health services;
- The ***Comedor Infantil*** program, managed by PRONAA and created in 1996, provides food rations (breakfast and lunch) as well as training of mothers and teachers;
- The ***Almuerzos Escolares*** program, managed by the National Food Assistance Program (PRONAA) and created in 1999, provides a lunch ration of 190 grams to school children, targeting poor and extreme poor areas and regions with a high incidence of child malnutrition.

In 2003, the five most important programs, with total annual spending at about NS 647 million reached over 5.5 million beneficiaries during 2003, according to the household survey ENAHO. The largest of the food assistance programs was the Vaso de Leche with annual funding amounting to NS 356 in

¹⁵⁹ Ministerio de Economía y Finanzas (2004b) "Plan de Acción de los Sistemas de Pensiones en Perú 2004 - 2008" Vice Ministerio de Economía, Dirección General de Asuntos Económicos y Sociales, Lima, October.

¹⁶⁰ Law 26706 1996.

2003, or 0.17% of GDP. Excluding CdMs, the programs listed above accounted for 85.2% of social assistance spending in 2003.

Other Social Assistance Programs. There are a number of other social assistance programs that provide assistance for at risk groups as well as food. These include: (a) the Food and Nutrition Program for Families at Risk of Malnutrition (**PANFAR**); (b) the Food and Nutrition Program for TBC Patients and their Families (PANTBC); (c) **PROMARN**, the food and nutrition program for abandoned minors at risk of malnutrition; (d) **Proyecto PER 4808** (Food assistance to Pre-school and school children in Rural Areas); (e) the **Wawa Wasi** program, which provides daycare and health care services to poor and extreme poor children; and (f) other programs that provide shelter (*Hogares y Albergues*), infrastructure (*Proviás Rural*), and agriculture assistance (**PRONAMACHCS**) to poor and extreme poor households. Programs in this category account for roughly 13.0% of social assistance spending.

Table 18 – PERU: Composition of Social Protection Spending, 2003

Overview of Public Accounts (Federal Government Only)

Calibration with Household Survey Questions

	Spending from Public Accounts Data (2003)	Items and % Captured by Household Survey Questions (2003)
Total Social Protection (% of total SP)	100%	97.5%
Social Insurance	89%	89.0%
Social Assistance	11%	8.5%
Social Insurance (% of total SI)	100%	100%
Pensions ¹⁶¹	100%	100%
Social Assistance (% of total SA)	100%	77.2%
Vaso de Leche	44.3%	44.3%
Desayunos Escolares	14.3%	14.3%
Comedores Populares	12.0%	12.0%
PACFO (food supplement for at risk children)	5.4%	n.a.
Comedores Infantiles	3.6%	3.6%
School Lunch (Almuerzos Escolares)	3.0%	3.0%
Wawa Wasi (day care)	4.4%	n.a.
Other Social Assistance Programs ¹⁶²	13.0%	n.a.

Source: World Bank analysis of data from SAIF, MEF.

Classification of Transfer Programs Analyzed in Household Survey Analysis

Regarding **social insurance**, the ENAHO 2003-04 includes a question about receipt of “retirement pension” benefits. Unfortunately, the questionnaire does not distinguish either: (a) between the two public pension regimes; or (b) between public and private pensions. Our analysis thus assumes that the household survey covers 100% of federal pension benefits

The ENAHO 2003-2004 also included several important **social assistance programs** in its questionnaire, including: (a) *Vaso de Leche*; (b) *Comedor Popular*; (c) *Comedor Infantil*; (d) *Desayuno Escolar*; and (e) *Almuerzo Escolar*. Together, these programs account for 77.2% of total federal spending on social assistance.

¹⁶¹ Includes both the Sistema Nacional de Pensiones (SNP) and the Cédula Viva.

¹⁶² Others include food assistance programs for children ages 0 – 12 years and adults, in addition to other small programs.

Annex 3:

Estimating the Net Value of Pension Transfers

It is important to carefully measure the impact of “net subsidies” (net transfers) for contributory transfers, such as pensions. In general, public pensions generally have two complementary goals: (a) preventing the elderly from falling into poverty, often called the “first pillar;” and (b) smoothing consumption over the life cycle of an individual, often called the “second pillar.” The dual objective of public pension schemes, combined with incomplete detail about pension income collected in most household surveys, makes it challenging to analyze the performance of public pension schemes as a redistributive transfer instrument. Additionally, of the case study countries analyzed in this study, only Brazil’s household survey questionnaire (a) clearly distinguishes between public and private pensions; *and* (b) gathers data on both benefits and contributions. Nevertheless, recognizing limited data availability, this study attempts to evaluate the redistributive potential of pension schemes with respect to the goal of decreasing poverty.

If pensions were completely financed out of one’s own contributions, then there would be no need to consider pensions as a redistributive public transfer instrument. In LAC, however, most pension systems are only “partially contributory” and operate significant deficits, which pay out more benefits than collected contributions. These benefits are financed by general tax revenues – and constitute the pure “net public transfer” part of pension benefits.

A3.1 Analyzing Gross vs. Net Pension Benefits: Overview of Our Approach

In order to analyze pensions as public transfers, this study distinguishes between (a) “gross benefits,” defined as full benefits received, as reported in the household survey; and (b) “net transfers” from pensions, defined as the benefits received minus total contributions (i.e., the portion of benefits that is financed by general tax revenues due to deficits in the pension system). All results in this report are for net pension benefits. We calculate “net pension transfers” in two ways:

- **Average Net Pension Subsidies (all countries).** A relatively simple approach estimates the average contributions and net subsidies of pensions using available public accounts data. This calculation defines the net benefit received as the total benefit received by a specific individual, as reported in the household survey, multiplied by a coefficient that represents the average net subsidy share (netting out average contributions shares, as reported in public accounts). This average net subsidy coefficient is calculated from public accounts data and equals (total benefits paid out minus total contributions received) / (total benefits paid out). These calculations are presented for each country below. In terms of information conveyed, this approach would allow us to more accurately measure the distributional incidence of the “public transfers” part of pension benefits (the part financed by general tax revenues). It would not, however, capture differences in contribution shares of total benefits across the income spectrum. Unless otherwise specified, all results in our study reflect those for the average net pension subsidies (using the average net contributions coefficient).
- **Quintile-Adjusted Net Subsidies (Brazil).** Contributions likely vary across the income spectrum. To take this variation into account, we also calculate the “net subsidy” by netting out contributions shares estimated by *quintile* of the income distribution. This has the advantage of allowing for variation in both total benefits and contributions across the income distribution. It

requires, however, availability of household survey data on contributions, not just benefits. Due to data limitations, we present detailed results for these “Quintile Adjusted Net Pension Subsidies” for Brazil (whose survey includes more detailed questions on both public and private pension receipts and contributions than the other country surveys). These quintile-adjusted net pension subsidies are presented for illustration only (in the absolute incidence section of the paper) – everywhere else, we use the average net pension subsidy results. This approach assumes that each quintile is nationally representative of the distribution of contributions and benefits. Finally, it does not take into account the issue that today’s beneficiaries were yesterday’s contributors (redistribution over time).

Alternative, more complex approaches could use pensions software (such as PROST) to simulate the pension benefits and contributions of representative groups of individuals over their life-time. Ideally such estimates should be made for each individual/household in our sample. This approach is most accurate, in that it recognizes that the real value of pension benefits varies substantially based on when contributions were made and based on the structure of the pension system. This approach also allows simple prediction of how redistributive impact would change with modifications to the pension system design. The main disadvantages are the absence of data on year of a person’s contribution to pensions and the cost of using an entirely different approach to analysis for pensions than for other transfers. This option is not feasible for the current study, given a lack of such data.

A3.2 Average Net Pension Subsidies (From Public Fiscal Accounts), By Country

As discussed above, our first step in estimating “net pension” transfers adopts a relatively simple approach to estimate the average contributions using available public accounts data. This calculation defines the net benefit received as the total benefit received by a specific individual, as reported in the household survey, multiplied by a coefficient that represents the average net subsidy share. This average net subsidy coefficient is calculated from available public accounts data and equals (total benefits paid out minus total contributions received) / (total benefits paid out). We then apply this coefficient to the reported “gross pension” benefit information reported in the household survey. Table A3.1 summarizes the net subsidy share of pension transfers for each country in our sample. Subsequent paragraphs document our notes and sources for these calculations.

Country	Net Pensions Subsidy (Deficit Share of Total Benefits Paid Out)	Year of Public Accounts Data	Source of Information
Argentina	57%	2003	Dirección de Análisis de Gasto Público y Programas Sociales
Brazil	40%	2003	Ministry of Fazenda / Ministry of Previdência Social.
Chile	56%	2002	INP, AFP, ILO, World Bank
Colombia	77%	2003	El Modelo DNPension V 4.0 (Barraquer, Cuellar, Gonzalez, 2005).
Dominican Republic	0% (we thus drop pensions from the analysis of the DR)	2001	Dominican Republic ENCOVI redistribution study, IDB (2004), Pension Reform in the Dominican Republic, Palacios (2003).
Guatemala	25%	2000	Social Security Programs Throughout the World, 2003.
Mexico	84% (weighted average for IMSS and ISSSTE)	2002	World Bank Mexico Public Expenditure Review (2004), ISSSTE.
Peru	89% (weighted average for SNP and Cedula Viva).	2004	MEF, DNPP and MEF 2004b, estimates based on 2004 budget.

Argentina. In 2003, the federal government paid out a total of 21,711 million pesos in pension benefits (*prestaciones de la seguridad social*), but only collected 9,417 million pesos in direct social security contributions. This left a structural deficit of 12,293 million pesos, which was covered by general tax revenues. The average net “subsidy” is thus estimated at 56.6% of total expenditures.

Brazil. Brazil’s main publicly-financed pension systems operate on a pay-as-you go (PAYG) basis and include: (a) the system for private sector workers (RGPS); and (b) a system for public sector workers at the federal and sub-national levels of government (formerly RJU, now called RPPS). Using data from the Ministry of Finance,¹⁶³ we derived our estimate of the average net pensions subsidy using federal-level data in the following manner. In 2003, the federal government paid out a total of R\$143.3 in pension benefits (R\$107.1 billion from RGPS and R\$36.2 billion from RJU). However, direct contributions only totaled R\$86.1 billion (R\$80.7 billion for RGPS and R\$5.4 for RJU). As such, the combined structural deficit of the two federal regimes totaled R\$57.2 billion, or 40% of total benefits paid out (3.7% of GDP).

Chile. Surprisingly, despite the volumes of literature on Chile’s pension system, comprehensive and comparable public accounts data on pension spending, contributions and deficits (other than projections) were not readily available across Chile’s pension schemes. As such, we imputed average deficits (“net subsidies”) by piecing together available data. Chile operates two main pension systems: (a) INP, which is a public pensions system; and (b) AFP, which is a system administered by the private sector with full contributions (no net subsidy). Complete information was available on the coverage, spending, and contributions of the INP. These suggest overall deficits for that scheme of 94%. However, because Chile’s private pension system is significant – and household survey data from the CASEN do not distinguish between public and private pensions -- we decided to “weight” our average

¹⁶³ Palocci Filho, et. al. (April 2005).

pensions subsidy coefficient between the two programs (INP and AFP). We did this using information on total benefits paid out from both schemes as follows:

- **INP:** Total benefits paid out were recorded as US\$1,465 million in 2002. Total contributions were recorded as US\$90 million. The net deficit was thus US\$1,375 million, or 94% of total benefits paid out.
- **AFP:** Total benefits paid out was estimated at US\$996 million using information on total beneficiaries (421,884) and unit subsidies, which were reported to be 43% more than those under INP (i.e., estimated for AFP at US\$2,360 per beneficiary per year). Since AFP is reported to be fully contributory, the net deficit is assumed at 0%.
- **Weighted Net Subsidy.** Using the weights of total benefits paid out (US\$1,465 million for INP and US\$996 million for AFP), we find an average net subsidy coefficient of 56%.

Colombia. The 77% estimate comes from the Colombian Dirección de Estudios Económicos.

Dominican Republic. The information contained in the ENCOVI 2004 refers to the old regime of social security of the Dominican Institute of Social Security (IDSS). Research by Palacios (2003) showed that pre-reform financing of the three benefits systems was based on contribution revenues,¹⁶⁴ and IDSS nominally received contributions amounting to 12.5% of workers' wages – consisting of 7.5 percent from the employer and 2.5 percent each from the employee and the government.¹⁶⁵ For the given year (2001), a net subsidy of zero was adopted due to: (a) the high ratio of contributors to retirees; (b) financing based on contribution revenues; and (c) lack of government financing under the pre-reform situation.¹⁶⁶ As such, pension benefits is excluded from our analysis for the Dominican Republic.

Guatemala. Public spending on social insurance totaled 1,090 million Qz. in 2000.¹⁶⁷ Available data suggest that the net subsidy (paid by general tax revenues) was 25%.¹⁶⁸

Mexico. Our calculation of the net subsidy for Mexico's public pensions subsidy is a weighted average of the deficits of the two main public pension systems: the Instituto Mexicano del Seguro Social (IMSS) and the Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado (ISSSTE).¹⁶⁹ The IMSS is currently in a reform transition, but still pays out benefits for those grandfathered under the pre-1997 reform system.¹⁷⁰ In 2002, the IMSS paid out a total of 39,606 million pesos in pension benefits under that pre-1997 system, which represents a subsidy of 100 percent.¹⁷¹ In the same year, the structural deficit of ISSSTE was 14,724 million pesos, calculated from total benefits paid out (25,121 million pesos) minus total contributions (10,397 million pesos). Thus, total benefits paid out under the

¹⁶⁴ The ration of contributors to pensioners in 2001 was approximately 17:1.

¹⁶⁵ According to Palacios, the government rarely paid its 2.5 percent share and the IDSS estimates that the liability of the government on this account is over RD\$2.5 billion (about US\$150 million).

¹⁶⁶ Note that as part of the reform package of 2001 the government now makes arrear payments to IDSS.

¹⁶⁷ World Bank (2003).

¹⁶⁸ Social Security Programs Throughout the World, 1999.

¹⁶⁹ Public sector spending also covers the pensions for the armed forces (SEDENA, SECMAR), local government workers, and the principal state enterprises (Pemex, CFE, Luz y Fuerza, and IMSS – as employer). We did not analyze these deficits due to inadequate data.

¹⁷⁰ The 1997 reform transformed IMSS from a PAYG system to a defined-contribution system, in which individuals put their contributions into individualized accounts, managed mostly by private companies. As a result, the contributions, which partly offset the expenditures that IMSS made to retirees under the old system, disappeared from the balance sheet of IMSS. This requires ongoing transfers from the central revenues to cover the gap during the (long) transition (World Bank, 2004).

¹⁷¹ Excluding social quotas and seguro de invalidez y vida for active workers.

two systems was 64,727 million pesos. The total structural deficit of the two systems is thus 54,330 million pesos, or 84%.

Peru. Peru has two principal public pension schemes, the National Pensions System (SNP) and the Cédula Viva. In SNP, Peru’s government in 2004 paid out a total of 2.8 billion *nuevo soles* in total pension benefits, but only received 0.6 billion *nuevo soles* in contributions. Thus, the net deficit for SNP was 2.6 billion *nuevo soles*. In Cédula Viva, the government distributed 3.69 billion *nuevo soles* in total pension benefits, of which 3.65 billion were financed by general tax revenues (not contributions). Benefits paid out by the two systems thus totaled 6.54 billion *nuevo soles*, and the total net subsidy (deficit) from both systems was 5.8 billion, or 89% of total benefits.

A3.3 Quintile-Adjusted Net Pension Subsidies (Brazil Only)

As discussed above, since contributions likely vary across the income spectrum, we also calculate the “net subsidy” by *quintile* of the income distribution. Due to data limitations, we are only able to make this adjustment for Brazil.

National accounts data suggest that, on average across all beneficiaries of public pensions, 40 percent of pension benefits represent public expenditure. We infer that 60 percent of public pension receipts represent private contributions. We want to estimate similar coefficients for each quintile of Brazil and for rural and urban areas, but national accounts data do not allow such estimates.

Fortunately, Brazil’s household survey (POF) collects data on pension contributions. These data allow us to roughly estimate how the national average of pension subsidies varies across quintiles. Table A3.2 below presents descriptive statistics from POF on the mean value of public pension receipts and contributions from households in each quintile. The households and individuals that contribute to pensions differ from the households and individuals that receive pensions. By averaging across all households in each quintile, however, we indicate the general ratio of contributions to receipts in the existing pension system.

Table A3.2 Ratio of pension receipts and contributions by quintile

<i>Quintile</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Receipts of public pensions	\$12.24	\$19.56	\$27.55	\$44.85	\$127.48
Contributions to public pensions	\$0.03	\$0.12	\$0.37	\$0.65	\$2.66
Ratio	0.0024	0.0060	0.0135	0.0145	0.0209

Source: Authors’ estimates from household survey data.
Mean values in US\$ PPP for all population in the quintile

While household data can differ substantially from national accounts data, household data are consistent across quintiles. Hence while the absolute values of the ratios from Table 1 may be incorrect, the relative size of these ratios across quintiles gives useful information. In effect, we are seeking a constant θ with two properties. First, multiplying θ by the ratios r in each quintile from Table 1 shows the portion p of pension benefits that represent private contributions for each quintile:

$$p_i = r_i \theta , \quad i = 1, 2, \dots 5 \quad (1)$$

where the subscript i denotes the quintile. Second, when the values of p are averaged across quintiles with weights equal to the portion of all public pension contributions from each quintile – equivalently, with weights equal to absolute incidence a – we obtain the national average of 0.6:

$$\sum_{i=1}^5 p_i a_i = 0.6 \quad (2)$$

Table A3.3 below provides absolute incidence data.

Table A3.3 -- What portion of all public pension contributions come from each quintile?

<i>quintile</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>
Absolute incidence	1%	3%	10%	17%	70%

Source: Authors' analysis of the POF 2002-03.

Substituting equation (1) into equation (2) and solving for θ gives

$$\frac{.6}{\sum_{i=1}^5 r_i a_i} = \theta \quad (3)$$

Inserting values from Tables A3.2-3 into equation (3) provides the desired coefficient for each quintile:

Table A3.4 - Portion of pension benefits that are contributions and public expenditure

<i>Quintile or area</i>	<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>urban</i>	<i>rural</i>
Benefits that are private contributions	0.077	0.195	0.437	0.470	0.678	0.614	0.212
Benefits that are public expenditure	0.923	0.805	0.563	0.530	0.322	0.386	0.788

Source: Authors' analysis of the POF 2002-03.

Multiplying gross pension benefits by the second row of Table A3.4, then, transforms those benefits to net estimates.

Annex 4: Measuring Redistribution in Theory

This Annex provides additional details on our measurement of redistribution in theory. Annex 5 presents some important caveats and assumptions for applying these measures in practice.

Evaluations that compare the redistributive impact of several transfer instruments typically use either a graphical or an index approach. The graphical approach depicts the distributions of incomes or transfers (Case and Deaton 1998; Schady 2002). While this approach can usefully rank targeting effectiveness, it cannot easily estimate the magnitude difference in targeting effectiveness between various transfers. The index approach derives a number capturing the targeting performance – the distributional power – of a transfer. The index approach allows quantitative comparison of the targeting performance of transfers.

We use several statistics to measure the distributional power of publicly subsidized transfers, including measures of targeting such as coverage, relative, absolute incidence and its cousin the Coady-Grosh-Hoddinott index; simulations of the impact of transfers on poverty and inequality; and the distributional characteristic, a measure of social welfare gained per dollar transferred which is not sensitive to a transfer’s total budget size.

All of these measures rely on a similar group of variables. Define $\Lambda(\cdot)$ as an indicator function that takes the value 1 if its argument is true and 0 otherwise. For a given group – an income quintile, an area of residence, or a racial or ethnic group – let the binary variable g^b take the value 1 if a household is a member of the group of interest and 0 otherwise, let dm^b represent the per capita value of a transfer to household b , let n^b represent the number of persons in the household multiplied by the household weight in the survey, let y^b represent the reported income or consumption of a household, let a a parameter for distinguishing poverty indices, and let z equal a poverty line, which we set equal to the greatest income in the bottom quintile of the country’s income distribution. Since we use probabilistic household surveys for estimation and desire information that represents the country rather than the sample, we use a database of households but weights equal to n^b for all indices.

With these definitions, the **average per capita transfer value for the population** is simply the transfer averaged across households, or

$$\text{Average transfer per capita for population} = \frac{\sum dm^h w^h}{\sum w^h} \quad (1)$$

The average transfer per capita for beneficiaries (i.e., unit transfer value) is the transfer averaged across beneficiary households only:

$$\text{Average transfer per capita for beneficiaries} = \frac{\sum dm^h w^h}{\sum \Lambda(dm^h > 0) w^h} \quad (2)$$

We define coverage as the portion of the population that receives a transfer, or

$$\text{Program Coverage} = \frac{\sum \Lambda(dm^h > 0)w^h}{\sum w^h} \quad (3)$$

It should be noted that the above equations are related. Equation (1), for example, is the product of equations (2) and (3).

Absolute incidence represents the portion of a transfer's total budget received by a population group:

$$\text{Absolute Incidence} = \frac{\sum dm^h g^h w^h}{\sum dm^h w^h} \quad (4)$$

Relative incidence, a related measure, considers the “importance” of a transfer to a particular group relative to its consumption (income). It is the total transfer amount received by a specific group divided by total consumption (income) for that group, i.e.,:

$$\text{Relative incidence} = \frac{\sum dm^h g^h w^h}{\sum y^h w^h} \quad (5)$$

We also estimate a measure that Coady, Grosh, and Hoddinott (2004) compare for a number of transfer programs: the portion of the transfer budget received by a population quantile divided by the portion of the population in that quantile:

$$\frac{\sum dm^h g^h w^h / \sum dm^h w^h}{\sum g^h w^h / \sum w^h} \quad (6)$$

This statistic is a multiple of absolute incidence. For the bottom quintile, this statistic equals a transfer's absolute incidence for the bottom quintile multiplied by five. For the bottom decile, this statistic equals a transfer's absolute incidence for the bottom quintile multiplied by ten.

To measure the impact of transfers on poverty and inequality, we present poverty and inequality indices before and after the transfer. We use the Foster Greer and Thorbecke (1984) family of the poverty headcount ($\alpha=0$), poverty gap ($\alpha=1$), and poverty severity ($\alpha=2$) with all transfers:

$$\frac{\sum (1 - \frac{y^h}{z})^\alpha \Lambda(y^h \leq z) w^h}{\sum w^h} \quad (7)$$

For each transfer, we present the same indices without the transfer:

$$\frac{\sum (1 - \frac{y^h - dm^h}{z})^\alpha \Lambda((y^h - dm^h) \leq z) w^h}{\sum w^h} \quad (8)$$

We similarly measure inequality statistics with and without transfers.

While the preceding equations emphasize different aspects of transfers, on their own they are of limited use in addressing issues of magnitude, i.e., how much better or worse one transfer program is compared to another. The **distributional characteristic**, developed for the evaluation of taxation reforms by Ahmad and Stern (1991) and Newbery and Stern (1989) and applied to transfers by Coady and Skoufias (2004, 2005), requires more complicated derivation but allows more general interpretation. The distributional characteristic index (DCI) measures the change in social welfare (marginal benefit) achieved by transferring a standardized budget (say, \$1) through the program.

The distributional characteristic offers several advantages over equations (1) through (8).

First, the distributional characteristic makes value judgments – in particular, concern for the poor relative to concern for the rich – transparent and flexible.

Second, the distributional characteristic allows for a broader class of social welfare functions than other measures permit.

Third, the distributional characteristic avoids the controversy and difficulty of specifying a poverty line. Kanbur and Squire (2001) note one drawback of measures that assign zero welfare to marginal income of households above a poverty line: the well-being of someone just above a poverty line is similar to the well-being of someone just below a poverty line. Pritchett (2004) similarly argues that in describing well-being, a social welfare function should be “non-paternalistic.” The use of low poverty lines has difficulty passing this test.

Fourth, The DCI is useful for analyzing redistributive effectiveness because it allows for the quantitative comparison of how much better or worse are programs relative to each other *independently of the (different) sizes of their budgets*. In other words, for programs with the same budget, a program with a larger distributional characteristic is a program that has a greater effect on social welfare.

Fifth, the distributional characteristic can be decomposed into the welfare effect achieved through the selection of beneficiary households (targeting) and through varying the size of transfers across beneficiary households (redistribution). Like other indices, the distributional characteristic allows for analysis of the impact of program reforms from an initial, imperfect situation, and it allows quantitative comparison across programs of how much better one program is than another.

Sixth, the distributional characteristic takes into consideration all the households in the economy by assigning welfare weights to every household. Moreover, the concern of the society towards the poor people may be allowed to vary by changing the value of a single parameter. Undercoverage and leakage for example, judge a program by whether a poor or non-poor household or not is covered by the program, without taking into consideration the fact that the “rich” household participating in the program may be actually just above the poverty line and not from the top of the income distribution. Similarly the severity of poverty measure P(2) tends to assign welfare weights to households below the poverty line while those just above the poverty line are given zero welfare weights.

To derive the distributional characteristic, consider an economy with two groups, households and government, and a program with a fixed transfer budget B .¹⁷² Social welfare is specified as a standard Bergson-Samuelson function:

$$W[V^1(p, y^1), \dots, V^h(p, y^h), \dots, V^H(p, y^H)] \quad (9)$$

where $V^h(p, y)$ is the indirect utility function for household h , p is the vector of commodity prices faced by the household and y is total household income defined through the household budget constraint as:

$$y^h = wl^h + m^h = px^h$$

where w is a vector of factor prices, l^h is the supply of factors by the household, m^h is lump-sum transfers from the government to the household, and px^h is total household expenditures on commodities. Household indirect utility is assumed to be decreasing in commodity prices, increasing in factor prices and increasing in lump-sum transfers. A transfer program can be characterized by a vector $dm = [dm^1, \dots, dm^h, \dots, dm^H]$ where $dm^h > 0$ for beneficiary households and $dm^h = 0$ for non-beneficiary households. The social welfare impact of any transfer program is then:

$$dW = \sum_h \frac{\partial W}{\partial V^h} \frac{\partial V^h}{\partial m^h} dm^h \equiv \sum_h \beta^h dm^h \quad (10)$$

where β^h (the “welfare weight”) is the social value of extra income to household h . Multiplying and dividing the right hand side of (10) by the program budget $B = \sum_h dm^h$ gives:

$$dW = \sum_h \beta^h \frac{dm^h}{\sum_h dm^h} \sum_h dm^h \equiv \sum_h \beta^h \theta^h \sum_h dm^h \equiv \lambda B \quad (11)$$

where θ^h is the share of the transfer budget going to each household and $\lambda = \sum_h \beta^h \theta^h$.

Equation (11) can be used to highlight a number of important points on the welfare effect of programs. The term λ , also called the distributional characteristic (or Distributional Characteristic index, DCI) the program, represents the marginal benefit of distributing a unit of income (\$1) through a transfer program relative to the marginal cost (i.e. the budget). Thus the value of λ does not depend on the size of the program budget and a comparison of the values of λ across different programs allows to compare the social value of distributing income through different programs independently of the programs’ budgets. The full welfare effect of a program is described by the product of λ with the size of the program budget B . Thus programs with the same value of λ but higher budgets are likely to have a higher effect of social welfare. Alternatively, equation (11) implies that if the budget B is the same across all alternative programs considered then a comparison of the values of λ for each program provides “a sufficient statistic” of the welfare effect of programs. Given any two programs i and j , with

¹⁷² To keep things simple, we do not concern ourselves with the source of funds (e.g. taxing the richer households) for the budget allocated to poverty alleviation since one can think of this source of funds as being the same across competing programs and thus cancelling out in comparisons. See Drèze and Stern (1987) and Coady and Drèze (2000) for detailed discussion on these issues and Coady and Harris (2004) for an empirical application.

$\lambda_i < \lambda_j$ the ratio λ_i/λ_j provides an estimate of the budget savings that can be realized through allocating resources from program i to the better targeted program j (i.e. a program with the highest λ) under the maintained assumption that the two programs have the same welfare effect ($dW_i = dW_j$).

As equation (11) highlights, the distributional characteristic is weighted average of welfare weights of the social welfare impact of a transfer instrument multiplied by the share of the transfer going to each household. Therefore λ will differ across transfer programs both because welfare weights differ across households and because the structure of transfers (i.e. who receives them and how much) differs across programs. The greater the proportion of the budget ending up in the hands of the poorest households, the greater the distributional characteristic. The calculation of λ thus requires specifying welfare weights for each household. A useful and common method for specifying these weights derives from Atkinson's (1970) constant elasticity social welfare function. In that function, the relative welfare weight of household b is calculated as:

$$\beta^b = \left(\frac{y^k}{y^b} \right)^\varepsilon \tag{12}$$

where k is a reference household. Often that reference household is on the poverty line z , so $y^k = z$. In equation (12), ε captures aversion to inequality, with aversion increasing in ε . For example, $\varepsilon = 0$ implies no aversion to inequality – a dollar has a dollar of value regardless of who receives it – so all welfare weights take on the value unity. A value $\varepsilon = 1$ implies that if household b has twice (half) the income of household k , then the welfare weight of household b is 0.5 (2.0) but the welfare weight of household k is unity. As ε approaches infinity, the welfare impact of transfers to the poorest household dominates the evaluation, consistent with a Rawlsian maxi-min social welfare perspective where one cares only about the welfare impact on the poorest household. For example, if we divide households into income quantiles and attach to them a welfare weight based on quantile mean income, then as ε increases, the ranking of programs will be increasingly influenced by the share of transfers going to the poorest quantile. Specifying welfare weights using greater values of ε can incorporate concern for poverty without introducing sharp distinctions between poor and non-poor households.

Table 1. Interpreting the distributional characteristic for a transfer to one person

<i>DCI value</i>	<i>Interpretation for epsilon = 0.5 (low sensitivity to inequality)</i>	<i>Interpretation for epsilon = 2.0 (high sensitivity to inequality)</i>
0.05	The beneficiary has income of 400 times the poverty line	The beneficiary has income of 4.5 times the poverty line
0.5	The beneficiary has income of 4 times the poverty line	The beneficiary has an income of 1.4 times the poverty line
1.0	The mean beneficiary has income at the poverty line	The mean beneficiary has income at the poverty line
2.0	The mean beneficiary has income of .25 times the poverty line	The mean beneficiary has income of .71 times the poverty line
5.0	The beneficiary has income of 0.04 times the poverty line	The beneficiary has income of 0.45 times the poverty line.

A particular value of the distributional characteristic can be interpreted as the number of units social welfare generated per dollar transferred. For transfers with many beneficiaries, a more direct explanation is difficult. But for a transfer with only one beneficiary, the distributional characteristic would equal the marginal utility of that beneficiary. The following table gives interpretations of the

distributional characteristic for a transfer that only had one beneficiary. Although multiple-beneficiary transfers are more complex to interpret, one could generally think of the following table as describing the average beneficiary for transfers that have multiple beneficiaries. A transfer which reaches a person with incomes equal to half the poverty line will have a distributional characteristic of between 1 and 2 for low inequality sensitivity (epsilon = 0.5). But as inequality sensitivity increases, this same transfer will achieve a distributional characteristic near 5.

The distributional characteristic can be decomposed into two indices; each index is both conceptually and empirically useful. Define dm^* as the average transfer to beneficiaries, i.e., the total amount of transfers divided by the number of beneficiaries, where beneficiaries are those with $dm^b > 0$. Then add and subtract dm^* across all beneficiaries, so for all non-beneficiaries $dm^* = 0$, to get:

$$\lambda = \frac{\sum_h \beta^h dm^*}{\sum_h dm^h} + \frac{\sum_h \beta^h (dm^h - dm^*)}{\sum_h dm^h} = \lambda_T + \lambda_R \quad (14)$$

where λ_T is the **targeting efficiency** and λ_R is the **redistributive “sizing” efficiency** of the transfer instrument. So λ_R captures the welfare impact, keeping targeting constant, of deviating from uniform transfers. Also, λ_T captures the welfare impact of a program that divides B into equal amounts and gives them to the same beneficiary households, and λ_R is the adjustment that needs to be made to allow for the differentiation of transfer sizing across households in a more progressive ($\lambda_R > 0$) or regressive ($\lambda_R < 0$) manner. For programs that give every beneficiary identical transfers uniform transfers, $\lambda_R = 0$. The sense in which λ_R captures the redistributive efficiency of the policy instrument is made clearer by interpreting it as the welfare impact of a self-financing program that transfers dm^b to households and finances transfers by a lump-sum tax on all beneficiary households, i.e., all households with $dm^b > 0$.

Lorenz Curve, Concentration Index, Progressive and Regressive Transfers

A Lorenz curve graphically compares the cumulative distribution of income (y-axis) against the cumulative population ranked by income (x-axis). A concentration curve graphically depicts a government’s distribution of a transfer (y-axis) against the cumulative population ranked by income (x-axis). A Lorenz curve can be used for any welfare measure – income, consumption, commodity baskets, or others – and a concentration curve can be used for any kind of transfer – negative, positive, government-provided, or other. For simplicity, we discuss analysis of income and government transfers. Similar formulas produce the two curves: the only difference is that the concentration curve substitutes income from a government transfer in the place of total income.

Comparing the two curves shows the progressivity of a transfer. When the concentration curve for a transfer lies above the Lorenz curve for the population receiving the transfer, then the benefit has a more equal distribution than the country’s income does. Hence, the benefit is **progressive**. If the concentration curve lies below the Lorenz curve, then as a proportion of total income, rich people gain more from the transfer than poor people do, and hence the transfer is **regressive**.

Comparing a concentration curve to the 45 degree line indicates whether the transfer is pro-poor. If the concentration curve lies below the 45 degree line, then for any population portion x , the poorest x percent of the population gains less than x percent of the transfer’s budget, so the benefit is not pro-poor. If the concentration curve lies above the 45 degree line, then the poorest x percent of the population gains more than x percent of the transfer’s budget, so the benefit is pro-poor.

When the concentration curve crosses the Lorenz curve, a transfer's progressivity can be difficult to identify graphically. Hence the **concentration index**, a numerical expression of the concentration curve, avoids the difficulty of looking at crossing curves and instead measures progressivity in one index. To measure a transfer's progressivity, one compares the concentration index with the Gini coefficient, producing the Kakwani index.

The Gini coefficient of a population's income distribution, measuring income before receiving the transfer, can be expressed as follows:

$$G_x = 1 - 2 \int_0^1 L_x(P) dp \quad (15)$$

where G_x is the Gini coefficient, $L_x(p)$ is the Lorenz curve for pre-transfer income, and p is the pre-transfer distribution of income. Then the concentration index of the benefit is

$$C_B = 1 - 2 \int_0^1 L_B(P) dp \quad (16)$$

where C_B is the Concentration index and L_B is the concentration curve—the Lorenz curve for transfers distributed over pre-benefit income. The Concentration index takes values in the range [-1,1]. The more the index increases, the further the Concentration curve falls, and the more pro-rich the benefit becomes. Similarly, the more index decreases, the further the curve rises and the more pro-poor the benefit becomes. Again, when the concentration curve lies below the Lorenz curve, the benefit is regressive, and when the concentration curve lies above the Lorenz curve, the benefit is progressive.

The concentration index is sensitive to a transfer's total budget. Suppose that an analyst calculates a household's income then subtracts the value of a specific transfer in order to estimate the household's pre-transfer income. As the budget of that transfer changes, and correspondingly as the household's transfer receipt changes, the level of the household's pre-transfer income changes. More importantly, as the budget of that transfer changes, beneficiaries' pre-transfer incomes vary while non-beneficiaries pre-transfer incomes do not. Changing a transfer's total budget, then, re-ranks households according to pre-transfer income, and hence changes the concentration index.

The Kakwani index summarizes in one number the grade of progressivity of a transfer:

$$P_B^K = 2 \int_0^1 [L_B(P) - L_x(P)] dp = C_x - G_B \quad (17)$$

where P_B^K represents the Kakwani index. If the Gini coefficient is larger than the concentration index, then the Kakwani index is positive and the benefit progressive. If the Gini coefficient is smaller than the concentration index, then the Kakwani index is negative and the benefit is regressive. As the concentration index becomes more negative, the transfer becomes more progressive and pro-poor.

Annex 5:

Estimating Redistribution in Practice: Data, Assumptions and Welfare Aggregates

Estimating the indicators of redistribution outlined in Annex 5 in practice requires various decisions and assumptions. This annex discusses describes the household data sources used, presents notes on basic decisions and assumptions used in the analysis, and demonstrates that redistributive outcomes do not vary much whether or not consumption or income aggregates are used as measures of welfare.

A5.1 Household Survey Data

The eight household surveys used in this study have similar structures but varied methodological details. All but Guatemala's ENCOVI survey conducted interviews in 2002, 2003 or 2004. All the surveys have national coverage except Argentina, which surveyed only urban areas. In Brazil, Colombia, Guatemala, Mexico, Peru, the four surveys for which we use consumption data, we measure welfare by per capita consumption. For Argentina, Chile, and the Dominican Republic we measure welfare by per capita income. When available, we use the welfare aggregate that the survey's implementing agency constructed. For the Guatemala survey, we use the consumption aggregate constructed by the National Institute of Statistics (INE) and used in the Guatemala poverty assessment (World Bank 2003). For the Colombia survey we use the consumption aggregate that Nuñez and Espinosa (2004) constructed. We use IBGE's consumption aggregate for Brazil and construct the consumption aggregate for Mexico following Deaton and Zaidi (2000). All details of consumption and income aggregates appear in Table A1. We include the value of transfers in consumption aggregates, and we measure per capita consumption as the household's total consumption divided by the number of individuals in the household. For Brazil, Chile, Colombia, and Guatemala, the four countries that include questions on a respondent's indigenous identity, we identify a household as indigenous if the household head self-identifies as indigenous. For Colombia and Brazil, we identify a household as afro-descendent if the household head self-identifies as afro-descendant (Table 3).

Table A1. Overview of Eight Household Surveys Used in this Report

<i>Country</i>	<i>Survey name</i>	<i>Implementing agency</i>	<i>Survey months</i>	<i>Households</i>	<i>Welfare aggregate and source</i>	<i>Indigenous and afro-descendant</i>
Argentina	Continuous Permanent HH Survey (EPHC)	National Institute of Censuses and Statistics (INDEC)	4/03	16,924	Income from INDEC	No data
Brazil	Family Budget Survey (POF)	Brazilian Institute for Geographics and Statistics (IBGE)	6/02-6/03	48,470	Consumption from IBGE	Self-identification for both
Chile	National Socio-Econ. Survey (CASEN)	Ministry of Planning and Cooperation (MIDEPLAN)	11/03-12/03	68,146	Income from MIDEPLAN	Indigenous: self-reported Afro: no data
Colombia	Survey of Living Conditions (ECV)	National Admin. Department of Statistics (DANE)	3/03-5/03	24,090	Consumption Nuñez and Espinosa 2004	Self-identification for both
Domin. Republic	National Survey of Living Conditions (ENCOVI)	Banco Central de la Republica Dominicana	3/04-4/04	9,825	Income	No data
Guatemala	National Survey on Living Conds (ENCOVI)	National Institute of Statistics (INE)	7/00-11/00	7,276	Consumption from World Bank 2003	Indigenous: self-reported Afro: No data
Mexico	National Survey of Living Conditions in Mexican households (ENNVIIH)	Center for Economics Research and Teaching (CIDE), National Statistics, Geography, and Informatics Institute (INEGI), and Universidad Iberoamericana	4/02-8/02	8,440	Consumption constructed based on Deaton and Zaidi (2003)	Indigenous: self-identification Afro: No data
Peru	National Survey of households (ENAHO)	National Institute of Statistics and Informatics (INEI)	5/03-4/04	18,912	Consumption from INEI	No data

A5.2 Basic Assumptions and Decisions

The analysis adopted a number of basic assumptions and decisions. The **first** is the selection of a poverty line. Most countries develop a national poverty line based on the level of income required to purchase a nutritionally-adequate basket of food plus an allowance for non-food items. Poverty lines of one and two dollars per day are also used. For simplicity, we simply define the poverty line as the greatest income (or consumption) in the bottom quintile of the population, so 20% of the population is poor in our “baseline” situation with all transfers included (i.e., the poverty line is equal to the income or consumption cut-off for the bottom quintile in each country). This is close to (but slightly less than) the average of poverty rates using national poverty lines for the countries in our sample (unweighted average is 27%).

A **second** decision deals with selection of a welfare measure. All countries in this study include measures of income but only six include measures of consumption – surveys for Argentina, and Chile do not. Varied research (See Deaton 1992 and 1999) argues that consumption data offers a superior picture of welfare than income data do. We use consumption data for four countries where it is available. For Argentina and Chile, we present income data. A comparative analysis (shown below)

shows that changing from using consumption to using income has little effect on the general picture of transfers' redistributive impact.

Third, we distinguish between social assistance and social insurance transfers (as discussed in Annex 2) and calculate the net benefits of social insurance transfers (as discussed in Annex 3).

Fourth, this study does not examine the way in which taxes or contributions used to fund transfers are collected – or the redistributive impact of these financing sources. Rather, it assumes that these financing mechanisms are distributionally neutral. Box 3 in the text does present available evidence of tax incidence, concluding that taxes in LAC are only slightly regressive at best.

Finally, to measure the value of transfers, we estimate the monthly value of public expenditure in purchasing price parity (PPP) US dollars that each transfer represents. To convert from nominal local currency to year 2003 PPP dollars, we use data from International Financial Statistics (International Monetary Fund 2004) on inflation and from World Development Indicators (World Bank 2004) on PPP exchange rates. For each country, “all social assistance” represents the value of all social assistance transfers added together at the household level, “all social insurance” represents the value of all social insurance transfers added together at the household level, and “all social protection” represents the value of all transfers added together at the household level. In measuring the redistributive potential of transfers, we do not consider private costs (payments, donations of time and goods) incurred in receiving the transfer.¹⁷³

A5.3 Notes on Household Survey Data Analysis

Details of household surveys

This study uses eight household surveys that all include questions on income or consumption, household composition, and other factors typically included in living standards measurement surveys (LSMS). These surveys are generally the most recent available in each country, and all use a stratified and clustered design. Argentina includes urban areas only; all others include both rural and urban areas (Table A1).

Details of constructing income and consumption aggregates

Imputed rent from housing. Consumption aggregates include actual rent for non-owned housing and imputed rent from owned housing. Income aggregates include estimated rent from owned housing but do not include service flow value of implicit rent from non-owned housing.

Defining Household. For each country, we rely on the definition of a household that the creators of the household survey used. When a survey does not give clear direction, we generally exclude boarders, domestic workers, and visitors.

Regional and temporal price adjustment. For each country, we rely on the adjustments that the creators of the welfare aggregate used. In creating aggregates, we generally deflate prices to create one reference month and estimate price levels for each region of the country. In every case, we use the same price deflation for welfare aggregates (consumption and/or income, depending survey availability) and for transfer unit values.

¹⁷³ For consistency, we thus consider the full (gross) value of all transfers, including contributory “risk pooling” transfers (social insurance) such as pensions. Future versions of this research will also examine “net values” of pensions and the distribution of contributions.

Education and public good spending. For each country, we rely on the inclusion or exclusion of education-related spending that the creators of the welfare aggregate used. In creating aggregates, we exclude spending on education and education-related goods from the consumption aggregate. When the survey includes a publicly-subsidized school scholarship, however, we include the value of that scholarship in welfare aggregates (consumption and/or income, depending on survey availability).

Indigenous and afro-descendant. When a survey includes only one question on a respondent's identification as indigenous or afro-descendant, we use that question. When a survey includes several such questions, we prefer questions based on self-identification ("With which of the following groups do you identify?"). We define a household as indigenous or afro-descendant if and only if, according to the identifying question selected, the household survey identifies the household head as indigenous or afro-descendant.

Including transfer values in welfare aggregates. We include the value of transfers in consumption and income aggregates.

Intra-household allocation. We calculate all tables using a dataset of households, not individuals, with the weight of each household defined as the household's expansion factor multiplied by the number of individuals in the household. We estimate per-capita consumption, income, and transfers as the household total of consumption, income, and transfers divided by the number of individuals in the household.

Urban-rural. We define a household as residing in an urban area if the household survey's official definition classifies the household's locality or municipality as urban.

Including transfer values in welfare aggregates. We include the value of transfers in consumption and income aggregates.

Missing values and values of zero in welfare aggregates and transfer values. For income and consumption aggregates that national statistics institutes or other research organizations have constructed, we drop observations with missing aggregates from all data analysis. For aggregates constructed for this study, we assume that missing values for components of consumption and income aggregates have zero value. We include the few observations with zero estimated consumption or income in all data analysis except estimates of inequality. We define missing values of transfers to have zero value.

Aggregate transfer measures. The "All Social Insurance" measure includes all publicly subsidized social insurance transfers added together at the household level. Similarly, the "All Social Assistance" measure includes all publicly subsidized social assistance transfers added together at the household level. The "All Social Protection" measure includes "All Social Insurance" and "All Social Assistance" added together at the household level.

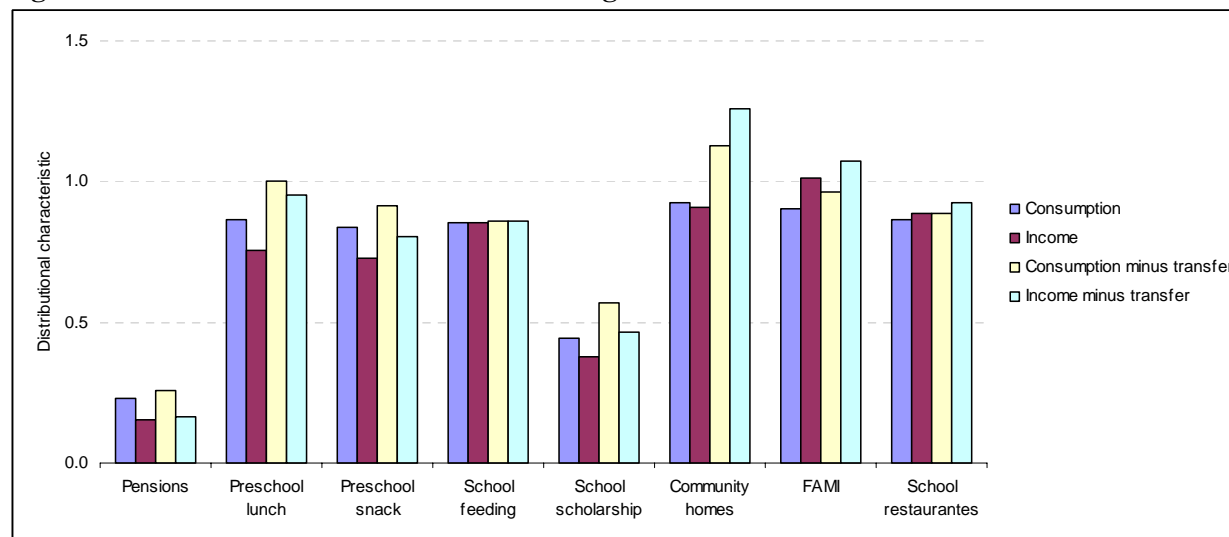
A5.4 Comparing welfare measures

To evaluate the effect of different measures on results, we calculate the distributional characteristic for several programs using both consumption and income for Colombia, Guatemala, and Peru. Figures A1-A3 below show that consumption and income yield similar rankings of transfers' distributional power and highly correlated estimates of transfers' distributional characteristics.

A second question considers whether, for calculating the distributional characteristic for a transfer, a person's welfare weight (β) should be the person's income with or without the transfer. The body of this paper reports on values using the person's income with the transfer, to ensure that the distributional characteristic for each transfer within a country is based on assigning constant welfare weights to households. Figures A1-A3 also display values for the distributional characteristic based on calculating welfare weights (β) using consumption and income with and without the indicated transfer. Subtracting the transfer amount has a larger effect on the estimated distributional characteristic. Subtracting this amount generally does not change the ranking of programs' distributional impact. In Guatemala, however, the divergence between income and consumption measures appears to be greatest, and for that survey, changing between measures has some influence.

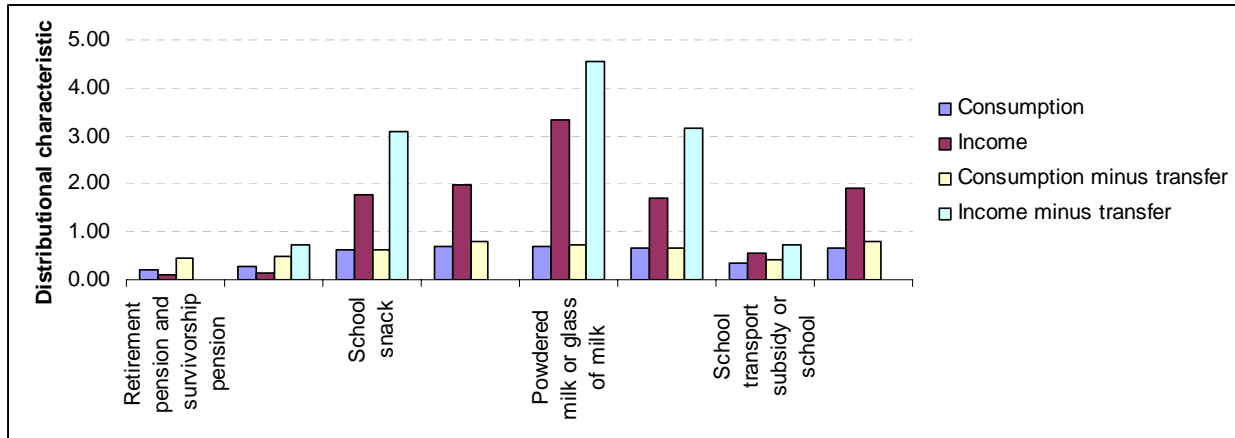
The correlation of these measures should inspire some confidence that rankings for Argentina and Chile would be similar if those surveys used consumption rather than income. They also suggest that subtracting a transfer amount from household consumption for the calculation of welfare weights has relatively little influence on resulting estimates of transfers' distributional impact.

Figure A1. Distributional characteristic according to different welfare measures, Colombia 2003



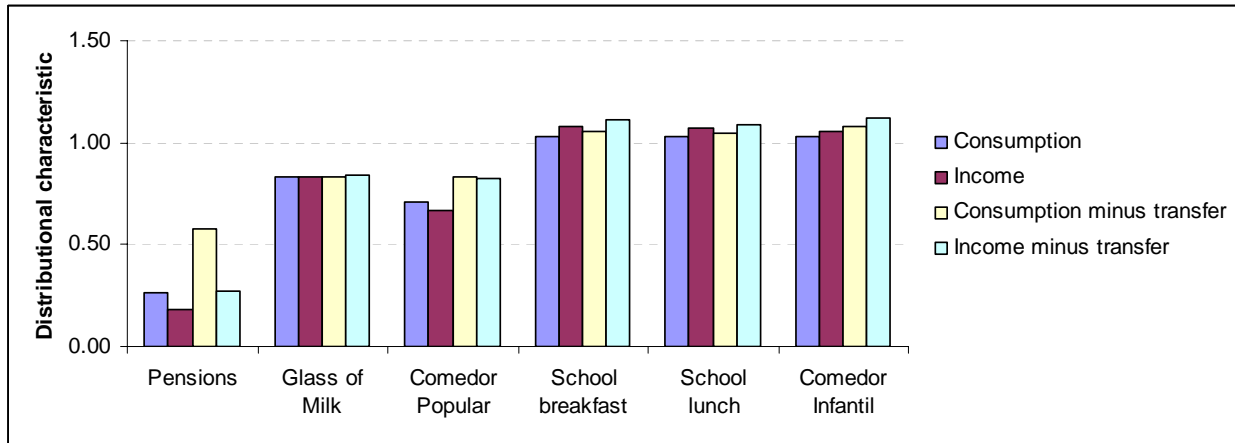
Source: Calculations based ECV 2003 household survey. Values use $\varepsilon = 1$.

Figure A2. Distributional characteristic according to different welfare measures, Guatemala 2000

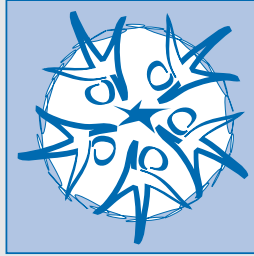


Source: Calculations based ENCOVI 2000 household survey. Values use $\varepsilon = 1$.

Figure A3. Distributional characteristic according to different welfare measures, Peru 2003



Source: Calculations based ENAHO 2003 household survey. Values use $\varepsilon = 1$.



This study measures the extent to which publicly-subsidized transfers in Latin America and the Caribbean (LAC) redistribute income. The redistributive power of 56 transfers in eight countries is measured by their coverage, size, absolute incidence, simulated impacts on poverty and inequality, and by their distributional characteristic, a statistic derived from taxation literature.

Our findings suggest that public transfers can be effective instruments to redistribute income to the poor. Yet frequently they have not managed to do so. Indeed, Robin Hood works in both directions in LAC, with public transfers redistributing income to both the rich and the poor. The redistributive impacts from social insurance are limited – and even regressive in some countries. This regressivity derives from two main design factors: a truncation in coverage due to requirements of membership in formal labor markets which exclude the majority of the poor, and highly generous unit benefits for those in the upper quintiles. Moreover, this regressivity applies to net social insurance transfers, which are subsidized by government budgets at the expense of all taxpayers. The more recent emergence of social assistance only partially offsets this historical “truncation” of public transfers in LAC. Despite coverage and distributional patterns that favor the poor, small unit subsidies limit the redistributive, poverty and inequality impacts of even the most targeted social assistance programs. We also find considerable variation among social assistance programs, with many food-based programs and scholarships being regressive. Governments should reconsider these programs – or at least strengthen their design. They could look to the targeting mechanisms used by conditional cash transfers – with impressive rewards for progressivity.

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