



IZA Policy Paper No. 34

**Should Cash Transfers Be Confined to the Poor?
Implications for Poverty and Inequality in
Latin America**

Pablo Acosta
Phillippe Leite
Jamele Rigolini

November 2011

Should Cash Transfers Be Confined to the Poor? Implications for Poverty and Inequality in Latin America

Pablo Acosta

World Bank and IZA

Phillippe Leite

World Bank

Jamele Rigolini

World Bank and IZA

Policy Paper No. 34
November 2011

IZA

P.O. Box 7240
53072 Bonn
Germany

Phone: +49-228-3894-0
Fax: +49-228-3894-180
E-mail: iza@iza.org

The IZA Policy Paper Series publishes work by IZA staff and network members with immediate relevance for policymakers. Any opinions and views on policy expressed are those of the author(s) and not necessarily those of IZA.

The papers often represent preliminary work and are circulated to encourage discussion. Citation of such a paper should account for its provisional character. A revised version may be available directly from the corresponding author.

ABSTRACT

Should Cash Transfers Be Confined to the Poor? Implications for Poverty and Inequality in Latin America¹

This paper compares for 13 Latin American countries the poverty and inequality impacts of cash transfer programs that are given to all children and the elderly (that is, “categorical” transfers), to programs of equal budget that are confined to the poor within each population group (that is, “poverty targeted” transfers). The analysis finds that both the incidence of poverty and the depth of the poverty gap are important factors affecting the relative effectiveness of categorical versus poverty targeted transfers. The comparison of transfers to children and the elderly also supports the view that choosing carefully categories of beneficiaries is almost as important as targeting the poor for achieving a high poverty and inequality impact. Overall, the findings suggest that although in the Latin American context poverty targeting tends to deliver higher poverty impacts, there are circumstances under which categorical targeting confined to geographical regions (sometimes called “geographic targeting”) may be a valid option to consider. This is particularly the case in low-income countries with widespread pockets of poverty.

JEL Classification: D6, H5, O1

Keywords: cash transfers, targeting, social assistance, poverty

Corresponding author:

Jamele Rigolini
The World Bank
1818 H St NW
Washington, DC 20433
USA
E-mail: jrigolini@worldbank.org

¹ We would like to dedicate this paper to Gozalo Llorente, who unexpectedly left us during its writing. We would like to thank Gonzalo and Alinne Veiga for excellent research assistance. We also thank helpful comments from Margaret Grosh, Ruslan Yemtsov, and Javier Baez. The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

1. Introduction

Cash transfer programs have become the centerpiece of many Latin American countries' social protection agenda. They have become popular not only as short term instruments to help the poor cope with economic shocks, but also as longer-term poverty alleviation programs supporting minimum consumption levels and promoting the accumulation of human capital.

Yet, while several evaluations have demonstrated the impact of cash transfers on poverty reduction and human development outcomes, they do absorb an important share of governments' budgets (Grosh *et al.*, 2008; Fiszbein and Schady, 2010; World Bank-IEG, 2011). Most countries in the Latin America and Caribbean (LAC) region count with conditional cash transfer programs (CCTs) targeted to poor households with children that account for budgets up to 0.6 percent of GDP (see Table 1). Some countries in the region (fewer than those with CCTs) also provide cash transfers to the elderly, many of them on a universal (i.e. categorical) basis, that require an even more sizeable share of public budget – up to 1.3 percent of GDP (see Table 2). These programs can account, in a country like Brazil, for up to 1.7 percent of GDP, and for the average in the region, between 1 and 2 percent of GDP (Grosh *et al.*, 2008).

Resource constraints and ethical considerations have led to a heated debate on the scope and coverage of cash transfers. Few doubt about providing benefits to people falling within demonstrable categories of vulnerable groups, such as the children, the elderly or the disabled, though there is still an open debate on how children and the elderly compete as the primary group to focus social assistance.² But there is less consensus on whether transfers should be given to all people within these categories (i.e. be “categorical”), or if they should be restricted to poor people within categories of beneficiaries (i.e. be “poverty targeted”). While poverty targeted transfers are more cost effective because limited resources are distributed among fewer beneficiaries, they remain more complex and costly to administer. And even the most sophisticated targeting systems miss some of the poor,

² Some argue that political lobbying tends to favor the elderly (“the elderly can vote, the children cannot:” Preston, 1984). Even in countries with well-developed social assistance schemes with a family accompaniment approach like Brazil and Chile, public spending per older is significantly higher than public spending per child (Turra *et al.*, 2011).

and may have difficulties to adapt to entry and exit to and from poverty because registers of beneficiaries cannot be updated frequently.

Table 1: Conditional Cash Transfers in Latin America and the Caribbean

Country	Program	Target Population	Amount (monthly US\$)	Number of Beneficiaries (latest available)	Cost (% of GDP)
Argentina	Programa Familias	Household Heads, Pregnant Females, Children <19	40-80 per child	500,000 households	
Bolivia	Juancito Pinto	Public school children up to grade 6	2 per child	500,000 households	
Brazil	Bolsa Familia	Poor and extreme poor households	30 per household + 7 per child	11,100,000 households	0.36
Chile	Chile Solidario	Extreme poor households (means-tested)	14 per child	256,000 households	0.08
Colombia	Familias en Accion	Extreme poor households with children <7 (health), and	Education: 8-33 per child; Health: 28 per	1,700,000 households	0.20
Dominican Republic	Solidaridad	Poor and extreme poor households with children <17	29 per household	461,000 households	
Ecuador	Bono de Desarrollo Humano	Households in first 2 income quintiles with children <17	15 per household	1,060,000 households	0.60
El Salvador	Comunidades Solidarias Rurales	Extreme poor households with children <16 in 100 rural	Education: 15 per household; Health:	100,000 households	
Guatemala	Mi Familia Progresiva	Extreme poor households with children <16 in 130	Education: 20 per household; Health:	250,000 households	0.20
Honduras	Programa de Asignacion Familiar	Poor households with children 6-12 years old up to	Education: 5 per household; Health:	240,000 households	
Jamaica	Program of Advancement through	Poor households (means-tested) until they graduate	100 per child	100,000 households	
Mexico	Oportunidades	Extreme poor households (means-tested)	Education: 12-23 per household;	5,000,000 households	0.40
Panama	Red de Oportunidades	Extreme poor households (means-tested)	50 per household	70,000 households	
Paraguay	PROPAIS II	Extreme poor households with children <15 in rural	120 per household	5,800 households	0.08
Peru	Juntos	Poor households with children <15	33 per household	454,000 households	0.11

Source: Based on Fiszbein and Schady (2010).

It is not therefore always obvious that poverty-targeted social assistance programs are the best approach to alleviate poverty. At the heart, the optimal design relates to societal preferences for redistribution and taxation (Mkandawire, 2005), as well as tolerance to exclusion errors or deviating from a “rights” approach. But the choice of design can also be informed by technical considerations, such as looking at the accuracy and cost effectiveness of different targeting mechanisms, which is the focus of this paper.

Table 2: Non-Contributory Social Pensions in Latin America and the Caribbean

Country	Program	Target Population	Transfer (monthly US\$)	Number of Beneficiaries (latest available)	Cost (% of GDP)
Argentina	Pensiones No Contributivas	65+ without contributory pension and in poverty	151.5	65,900	
Bolivia	Renta Dignidad (former Bonosol)	60+, universal	22-29	782,660	1.30
Brazil	Rural Pension	65+ in rural areas	342	800,000	
Chile	Pension Basica Solidaria	65+, in 3 lowest quintiles of income distribution	150	407,000	0.50
Costa Rica	Regimen No Contributivo	65+ in poverty	135	53,492	0.24
Ecuador	Pension Asistencial	65+ without contributory pension	35	502,828	
El Salvador	Pension Basica Universal	70+ in severe extreme poor municipalities	50	19,534	
Mexico	70 y mas	70+ in selected municipalities, universal	28.5	2,000,000	
	Oportunidades Adulto Mayor	70+ in households receiving CCTs (Oportunidades)	22.7	80,000	
	Pension Alimentaria	70+ in Mexico DF, universal	63.2	470,000	
Peru	Gratitud	75+ without contributory pension and in poverty	36		0.03
Trinidad and Tobago	Senior Citizen Pension	65+, income means-tested	189-472	73,110	1.30
Uruguay	Beneficio No Contributivo	70+, Income means-tested	240	31,577	

Source: Murrugarra (2011).

This paper simulates impacts of categorical and poverty targeted cash transfers on poverty and inequality in 13 Latin American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, Guatemala, Mexico, Nicaragua, Panama, and Peru. The simulations focus on two programs that tend to be the most widespread in the region: transfers to children up to five years of age, and to elderly people that are older than 65.

While, by their nature, poverty targeted transfers always deliver a higher poverty impact, both the incidence of poverty and the depth of the poverty gap appear to be important factors affecting the relative effectiveness of categorical vs. poverty targeted transfers. The comparison of transfers to children and the elderly also supports the view that choosing carefully categories of beneficiaries is almost as important as targeting the poor for achieving a high poverty impact. Overall, the findings suggest that in the Latin

American context targeting assistance to the poor tends to deliver higher poverty impacts. There are nonetheless circumstances under which categorical targeting confined to geographical regions may be a valid option to consider. This is particularly the case in low income countries with widespread pockets of poverty.

The paper proceeds as follows. The next section summarizes trends in social assistance and the ongoing debate on categorical vs. targeted social transfers. Section 3 discusses the methodology used in the simulations. Section 4 presents the simulation results for the 13 Latin American countries. Section 5 concludes.

2. The cash and targeting revolutions

All over the developing world, and particularly in Latin America, social protection programs are moving from universal in-kind benefits and subsidies, to targeted cash transfers. The rationale behind the silent revolutions towards cash lies in higher welfare impacts (cash can support households' needs beyond food), economic efficiency (e.g., avoidance of dead-weight losses and distortions from subsidies), transparency and accountability, and simplification of the administrative procedures in service delivery (Grosch *et al.*, 2008). While cash transfers are far from being a panacea and should be designed in the context of a broader social assistance strategy that takes into account the local context and political economy, they undoubtedly improved in many countries both beneficiaries' welfare and the cost effectiveness of social assistance programs.

With the expansion of cash transfers, a debate has however arisen on the extent to which assistance should be provided to all people falling within demonstrable vulnerable categories (such as the children, the elderly or the disabled), or only to the poor within these categories. Is it optimal, and, equally important, is it ethically correct to handpick beneficiaries within categories?

From an ethical perspective, many advocate that social assistance programs should favor horizontal equity and that any person falling into a category that tends to be vulnerable should have the right to receive assistance (ILO-UN Social Protection Floor initiative, 2010). This universal view of social assistance is strengthened by three potential

drawbacks of confining assistance only to poor beneficiaries within each category. First, poverty targeting may generate behavioral distortions and induce informality. For instance, poverty targeted pensions and health insurance programs financed out of general taxation that coexist with contributory ones may generate incentives to remain in the informal labor market and thus avoid contributing to the system (Levy, 2008). Poverty targeted cash transfers may also discourage labor force participation. Second, there is no targeting system that can perfectly identify vulnerable individuals within a given category. Even the most sophisticated targeting mechanisms miss some of the poor (exclusion error), and include some wealthier individuals (inclusion error). The question there is up to which point a society is ready to exclude some of the poor from assistance because of efficiency considerations. Finally, potential stigmas related to poverty targeting may also affect participation of the most vulnerable (Grosh *et al.*, 2008). Leite (2011) finds, for instance, that in Tanzania some of the elderly from rural poor villages did declare having 3 meals a day to avoid the stigma of being perceived as poor.

The extent to which these drawbacks represent a strong argument against targeting still remains an open discussion. When the benefits of social assistance programs do not become disproportionate, existing studies find that labor market distortions from poverty targeting remain moderate (Parker and Skoufias, 2000; Skoufias and Di Maro, 2011; Fiszbein and Schady, 2010; World Bank-IEG, 2011). And while exclusion error may still be considerable, many categorical programs also miss some of the poor – though in lower proportions – because of information failures and high participation costs in remote areas (Barrientos, 2008; Sluchynsky, 2008).

The categorical approach is also challenged by the reality of hard budget constraints and political economy considerations. Countries have limited resources to fight poverty and promote equity. Broad social assistance policies in developing countries cost already on average 2 percent of GDP (Weigand and Grosh, 2008; Grosh *et al.*, 2008), though wide disparities subsist across countries.³ And even if some countries may have the fiscal space to expand further coverage, this can be politically costly. In general, policy discussions tend to center on how to improve the programs' impact within the existing resources.

³ Programs focused on the elderly poor range for instance from 0.1 percent of GDP in the Seychelles to 10.6 percent of GDP in Ethiopia. See Schwarz (2003), and Kakwani and Subbarao (2005).

In addition to ethical and political economy considerations, there are also technical arguments both in favor and against targeting. The main advantage of poverty targeting is to increase the amount that can be transferred to each beneficiary for a given budget, which maximizes the poverty impact of transfers. For instance, Grosh and Leite (2008) analyze cash transfer for the elderly in four countries – Yemen, Niger, Panama and Kyrgyzstan. They find that, despite exclusion errors, poverty targeted social pensions are much more cost-effective per dollar spent, and, for a fixed budget, convey a higher poverty impact. On the other hand, however, targeting is costly. Caldes *et al.* (2006) and Grosh *et al.* (2008) find that administrative costs of poverty targeted conditional cash transfers (including the cost of collecting the data needed to construct a proxy means test and periodical reclassification of beneficiaries) tend to be around 10 percent of the program's budget. In some extreme cases it can absorb up to 30 percent of it, which can seriously affect the ability to provide larger transfers. Unless targeting really delivers strong differences in impact, categorical transfers should thus be considered as a valid option.

In sum, the optimal design of programs and the extent to which to target depends very much on local conditions (Coady *et al.*, 2004; Grosh *et al.*, 2008). In designing a cash transfers program, one must have a clear idea of the incidence of poverty among the target population and political economy considerations in favor and against poverty targeting. How many people are poor or at risk of poverty? How many belong to the target population group? Where do they live? What are their characteristics? What are the causes of their poverty and vulnerability? And, also, which system would be subject to less local capture? Is there enough capacity to support an effective and transparent targeting system? Only thereafter a clear assessment on whether and how to target can be performed.

This paper abstains from ethical considerations, and aims at contributing to the technical debate. The objective is to understand, by means of simulations, gains from poverty targeting in Latin America with respect to simpler categorical targeting. In doing so, it also provides some guidance on circumstances under which targeting may bring more benefits. It does not provide however a definitive answer for three reasons. First, because simulations are done for 13 countries only – too few to conduct a statistical meta analysis. Second, because the simulations do not consider behavioral changes of beneficiaries that could alter labor market decisions and poverty status. Third, and more importantly, because

there is no clear-cut answer to the question, which depends very much on budget, societal preferences and political economy considerations.

3. Data and methodology

In what follows, we look first at the impact on poverty and inequality of poverty-targeted and categorical cash transfers to children up to five years of age. We then repeat the exercise for social pensions to elderly people of age 65 and higher, and conclude by comparing the two. Our workhorse simulation consists of a hypothetical cash transfer program that transfers an amount equal to 0.5 percent of GDP to a reference group (i.e. children or the elderly). The amount was chosen to strike a balance between large CCT programs such as *Oportunidades* or *Bolsa Familia* that transfer around 0.3 - 0.4 percent of GDP, and more costly social pensions programs that in some countries transfer up or even more than one percentage point of GDP. In choosing a common metric, we will be better able to compare the poverty impact of both types of programs.

The simulations run as follows. For the targeted variant, we consider all households that meet the categorical criteria, and that have a gross income below USD 2.5 a day in per capita terms (an international widely used poverty line). In the literature, this group is referred to as the extreme poor. In 2010 the extreme poor consisted on average of 15 percent of the Latin America population (World Bank, 2010), and is the main beneficiary of social assistance programs. To estimate the size of the transfer, we then allocate 0.5 percent of GDP in equal shares to all beneficiaries (if there are 2 beneficiaries in one household, we give twice the transfer). To allow comparisons across countries, all simulations are done in 2005 PPP US Dollars. For the categorical variant, we repeat the same exercise but consider all households meeting the categorical criteria regardless of their poverty status. Having allocated the funds, we re-calculate for both variants households' poverty status.

Our estimations are based on several assumptions. First, we assume there are no behavioral changes, in particular that the program has no impact on labor market decisions and poverty status. The current evidence suggests that labor market distortions of cash transfer programs remain moderate, and we do not expect results to change dramatically if behavioral responses were considered. Second, the impact of a national program can

change substantially by urban and rural areas, and hence in a robustness exercise we discuss the impacts by geographical areas separately. Finally, the basic simulations neglect considerations related to the effectiveness of targeting, and assume that our hypothetical program is able to perfectly target the poor. To address this issue, we also discuss a simulation where we assume that targeting has 15 percent higher administrative costs than categorical transfers (so that the targeted program only distributes 0.425 percent of GDP), and that exclusion errors lead to missing 30 percent of the (randomly selected) poor, who do not receive the transfer.

Observe, also, that we look at the poverty and inequality impact of programs that are in addition to the ones that are already implemented. Ideally, it would be preferable to first subtract from households' income all transfers that they already receive, and subsequently add our transfer from the hypothetical program. In doing so, it would be possible to provide an idea on the extent to which the coverage of current programs could be improved to enhance cost effectiveness. Unfortunately, we only have limited and imperfect data about the amounts transferred to households in each country survey. We chose therefore not to explore that avenue.

The simulations are based on household surveys from 13 Latin American countries that have been collected and harmonized as part of the Socio-Economic Database for Latin America and the Caribbean (SEDLAC), a partnership between the Center for Distributive, Labor and Social Studies (CEDLAS) and The World Bank. The list of countries and of surveys used is shown in Annex 1. The analysis uses the income aggregates provided in SEDLAC, which we convert in 2005 USD PPP.

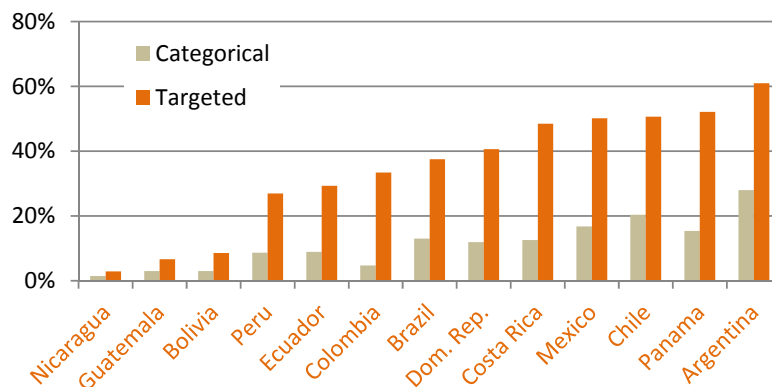
4. Results

Children

We begin by looking at the poverty and inequality impact of targeted and categorical cash transfers programs to families with children up to 5 years of age. Several features emerge. First, we can observe a relationship between income per capita, and the effectiveness of the program in reducing poverty under both the targeted and untargeted modality. The same

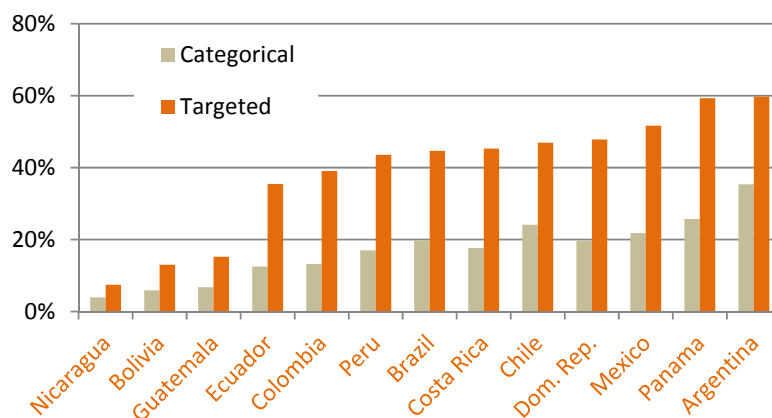
program (if implemented ideally) is more than twenty times more effective in reducing poverty rates in Argentina than in Nicaragua under both modalities, and eight times more effective in reducing the poverty gap. Without even considering implementation issues, it is thus far easier to achieve a poverty impact in wealthier countries than in poorer ones. Two main reasons stand out: transfers remain higher in wealthier countries because of larger budgets available, making it easier to lift people above USD2.5 dollars a day: 0.5 percent of GDP corresponds to an average of 715 USD per capita (in PPP terms) in 2008 in Argentina, but only to 134 USD per capita in Nicaragua. In addition, wealthier countries also display lower poverty rates and a lower proportion of children in the population, and therefore, under the targeted modality, a higher budget is distributed among fewer beneficiaries.

Figure 1: Changes in Extreme Poverty Rates - Children



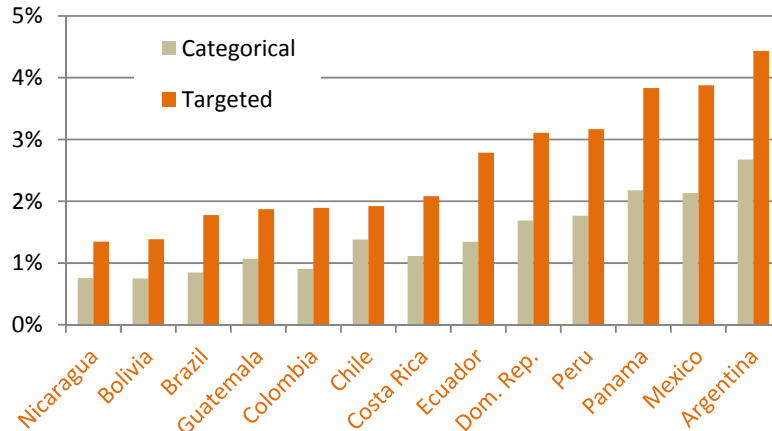
Source: Own calculations based on SEDLAC databases

Figure 2: Changes in Poverty Gap - Children



Source: Own calculations based on SEDLAC databases

Figure 3: Changes in the Gini coefficient - Children



Source: Own calculations based on SEDLAC databases

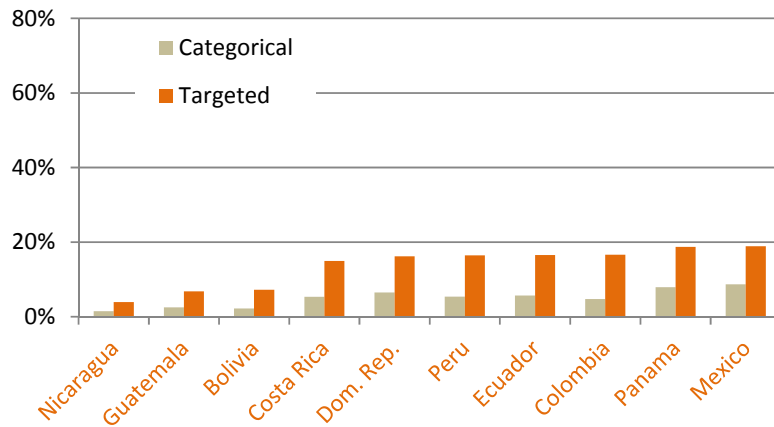
Second, targeted programs are, on average, 3.2 times more effective in reducing poverty rates (and 2.3 more effective in reducing the poverty gap) than categorical programs. There is, however, considerable variation across countries: in Nicaragua, a perfectly targeted program would only be 2 times more effective in reducing poverty rates than a categorical one, while in Colombia (the other extreme) this ratio jumps to 7.1. These differences are not explained by income levels alone: effectiveness in Nicaragua and Argentina, two countries with very different income levels, is for instance very similar. Rather, differences in impact depend on a more complex combination of factors, such as how widespread are pockets of poverty with people far off the poverty line. In Colombia, not only poverty is more widespread, but the poverty gap is twice as much as in Argentina. That implies the need of higher transfer levels to the poor to lift them out of poverty, hence a categorical transfer, which dilutes available resources among more beneficiaries, remains less effective.

Targeted programs are also much more effective in reducing income inequality. On average, in our sample, a categorical transfer of 0.5 percent of GDP to children reduces the Gini coefficient by 1.4 percent, against 2.6 percent for a targeted program. However, in contrast with poverty, there is little connection between the initial level of inequality, and the higher effectiveness of targeted programs as opposed to categorical ones.

Elderly

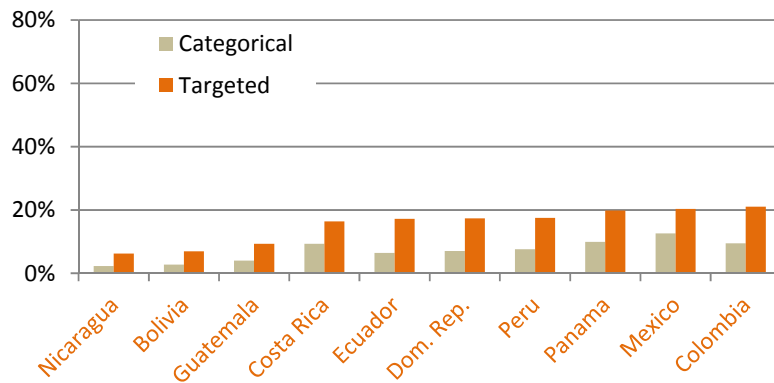
Next, we turn attention to social pensions given to beneficiaries of age 65 and older (Figures 4 to 6). Observe that some countries in the sample have already in place large and widespread contributory and non-contributory pensions systems (Argentina, Brazil, and Chile) that have already dramatically lowered poverty among the elderly to reach less than 5 percent of this demographic group. In these countries, it makes little sense to compare the effectiveness of categorical vs. targeted programs, and we have therefore excluded them from the analysis.

Figure 4: Changes in Extreme Poverty Rates - Elderly



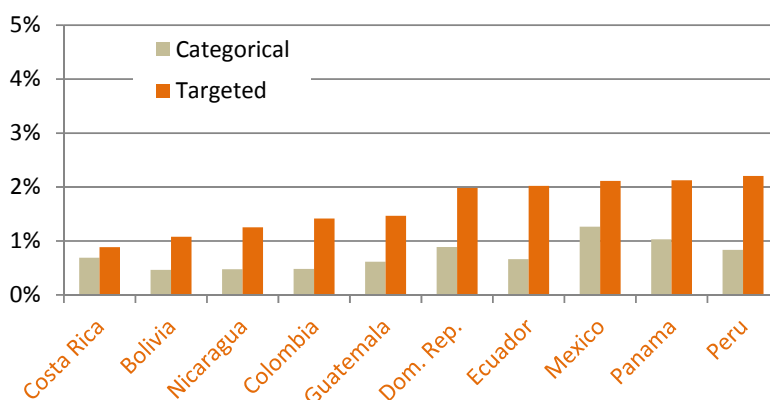
Source: Own calculations based on SEDLAC databases

Figure 5: Changes in Poverty Gap - Elderly



Source: Own calculations based on SEDLAC databases

Figure 6: Changes in the Gini Coefficient - Elderly



Source: Own calculations based on SEDLAC databases

The first, striking contrast with respect to transfers to children is that in all countries (with the exception of Nicaragua, and under some circumstances Guatemala), both targeted and categorical transfers to the elderly have a significantly lower impact on poverty than an equivalent program for children. The difference in poverty impact is large: on average, categorical transfers to children are 1.6 times more effective in reducing poverty than categorical transfers of equal budget to the elderly, and targeted transfers twice more effective. The reasons are straightforward: poverty rates among the elderly are, on average, lower than for children; and poorer families have more children, but not more elderly people. The simulations also suggest that the common belief that cash transfers to the elderly can reduce substantially poverty by trickling down to all family members has limited validity: with fewer elderly than children living in poor households, for the trickledown effect to be effective money should be transferred across family members living in different households, a much less likely event.

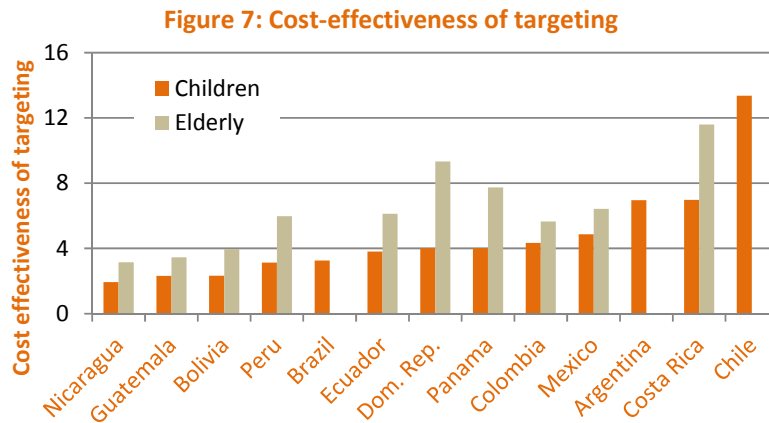
There is nevertheless considerable variation across countries in the poverty impact of transfers to the elderly. The maximum reduction in poverty rates (close to 20 percent) is achieved, as expected, in countries with high poverty incidence among the elderly, such as Mexico and Colombia. Effectiveness of a targeted program as opposed to a categorical one also varies substantially across countries, being 0.7 times higher in Nicaragua, to 1 in Guatemala, to 2 in Colombia and 3.2 times in Costa Rica, and 2.8 percent on average across countries. Similar conclusions apply for the reduction in poverty gaps (poverty targeted transfers are on average 2.3 more effective in reducing poverty gaps than categorical ones).

In addition to lower impacts on poverty, transfers to the elderly have also a lower impact on inequality than transfers to children. While, on average, targeted transfers to poor children reduce income inequality by 2.6 percent on average, the same amount of resources targeted to the elderly poor reduces income inequality by 1.7 percent. Again, poverty-targeted transfers are more effective in reducing income inequality than categorical ones across countries (2.3 times more on average), though the difference is less pronounced in Costa Rica and Mexico.

Cost-effectiveness of categorical vs. targeted programs

The previous section deals with the extent to which, for a given budget, targeted programs are more effective in reducing poverty and inequality. But the reverse question is also of interest: how much would it cost to achieve the same poverty impact of a targeted program using a categorical one? To address this question, we proceed as follows. For a categorical program to achieve the same poverty impact than a targeted one, it must transfer the same amount of resources but to all beneficiaries – not simply poor ones. With this simple rule in mind, we look at the cost-effectiveness of categorical vs. targeted cash transfers, which is summarized in Figure 7.

In all countries under consideration, a targeted cash transfer can achieve the same poverty impact than a categorical one using from 2 to 13 times less resources. The large difference in costs suggest that in most countries some form of targeting, even if costlier and far from perfect, can lead to large efficiency gains and allow for more generous transfers to the poor. Efficiency gains show, however, strong heterogeneity across countries, with poorer countries demonstrating lower gains than wealthier ones, from around 2 in Nicaragua, Bolivia and Guatemala to around 7 in Argentina and Costa Rica, to 13 in Chile. In all cases, the cost-effectiveness of targeted interventions is even greater for transfers to the elderly than for children. The heterogeneity seems to have a direct link to the fact that wealthier countries have fewer poor people, and therefore, for a given overall budget, they can transfer a significantly larger amount of resources to a narrower set of people under targeted programs.



Source: Own calculations based on SEDLAC databases

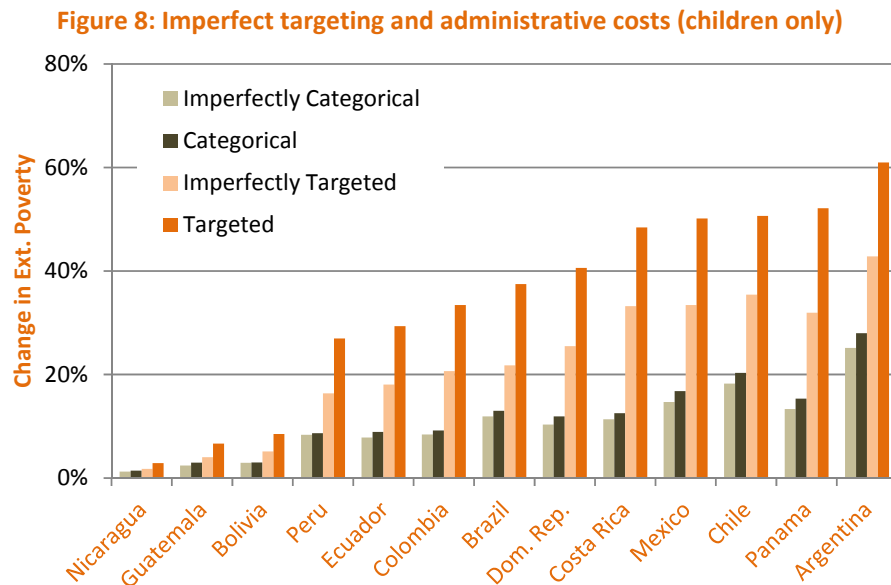
The heterogeneity in efficiency gains also suggests that targeting methods should vary by country. For instance, in low income countries with widespread poverty, implementing a sophisticated proxy means test (PMT) may lead to high costs and strong implementation challenges without being necessarily much more effective than simpler targeting based on categorical and geographic exclusion restrictions. In contrast, in wealthier countries, unless pockets of poverty show strong geographical concentration, implementing a more sophisticated targeting mechanism (such as proxy-means or means-tested mechanisms) could lead to large efficiency gains. In these countries, stronger implementation capacity could also better resolve some of the technical implementation challenges that lead to exclusion errors.

Imperfect targeting and administrative costs

These basic simulations miss an important feature. Actual poverty targeting, means or proxy-means tested, is costly and far from being perfect. As a robustness exercise, we simulate therefore the impact of an “imperfect” poverty-targeted program to children. To do so, we presume that the targeted program spends 15 percent more than the categorical program in administrative costs (so that 15 percent less resources are being transferred to the beneficiaries), and that exclusion errors lead to missing 30 percent of the extremely poor (randomly selected among potential beneficiaries). For comparison purposes, we also explore the possibility that categorical targeting is also subject to a degree of imperfectness,

missing 10 percent of the poor.⁴ These assumptions are in line with what is suggested by targeting evaluations of transfer programs in the region (Fiszbein and Schady, 2010).

Figure 8 presents the poverty impacts of the various variants. In all countries, the imperfectly targeted program continues to deliver a better poverty impact than the categorical programs. The impact remain in fact closer to the perfectly poverty targeted program, than to the categorical ones. Nevertheless, in countries where differences between targeted and categorical systems were already small, the attractiveness of a categorical program with respect to an imperfectly targeted one has now increased: in Nicaragua, for instance, a categorical program only achieves almost the same poverty reduction than an imperfectly targeted program that costs the same – but does not “miss” 30 percent of the extreme poor. In contrast, in wealthier and more unequal countries, such as Colombia, the need to transfer higher amounts to a fewer pool of poor beneficiaries makes an imperfectly targeted system still an attractive option.



Source: Own calculations based on SEDLAC databases

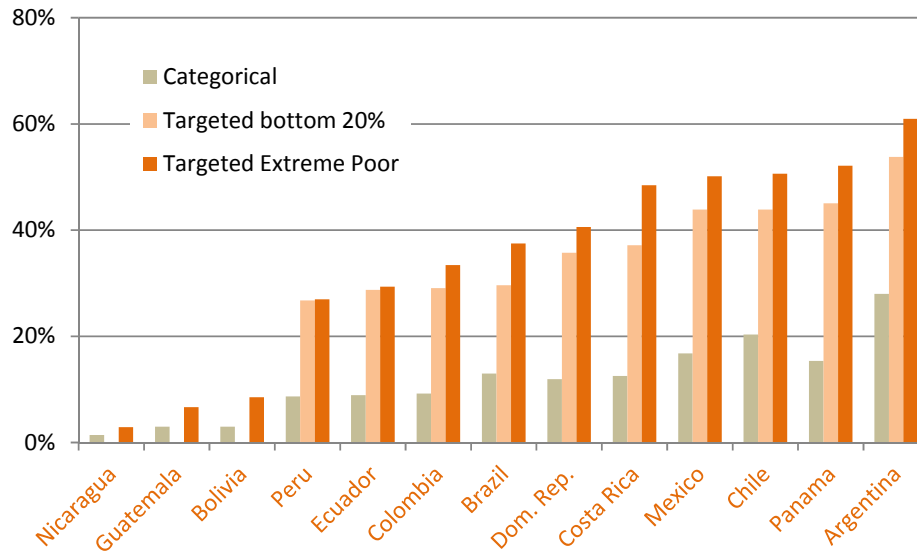
Relative targeting

Some countries do not target beneficiaries using an absolute poverty line, but a relative one, in which case transfers are targeted to people below a certain percentile, rather than those

⁴ To keep the budget at 0.5 percent of GDP, under the categorical variant of the simulation we distribute all the resources of the program to the remaining 90 percent of the population.

below a particular income threshold. Accordingly, we simulate the poverty impact of a program that targets the poorest income quintile, and compare the results with a program that targets the population below 2.5 USD per day.

Figure 9: Relative targeting (children only)



Source: Own calculations based on SEDLAC databases

The poverty impact of targeting the poorest quintile varies dramatically according to the poverty headcount and gap of each country. In Peru and Ecuador, where extreme poverty incidence among children is close to 20 percent, the two approaches are equivalent. In cases where poverty incidence is lower than 20 percent, a relative targeting would still reach all poor, but will dilute the average transfer due to the inclusion of non-poor beneficiaries. The resulting lower average transfer would imply that some of the poor will not be able to be lifted out of poverty. The lowest poverty impact in targeting the poorest quintile is however in countries with widespread pockets of poverty exceeding 20 percent, and in countries that have large poverty gaps, such as Nicaragua, Guatemala and Bolivia. In these cases, targeting the bottom quintile misses the beneficiaries who remain close to the poverty line, hence the transfers lift very few (or no) beneficiaries out of poverty. At the same time, however, the transfers reach more generously the poorest beneficiaries that remain far from the poverty line. It is not possible to assess, from a welfare perspective, which modality delivers higher welfare. The exercise shows however that changing the targeting modality can affect

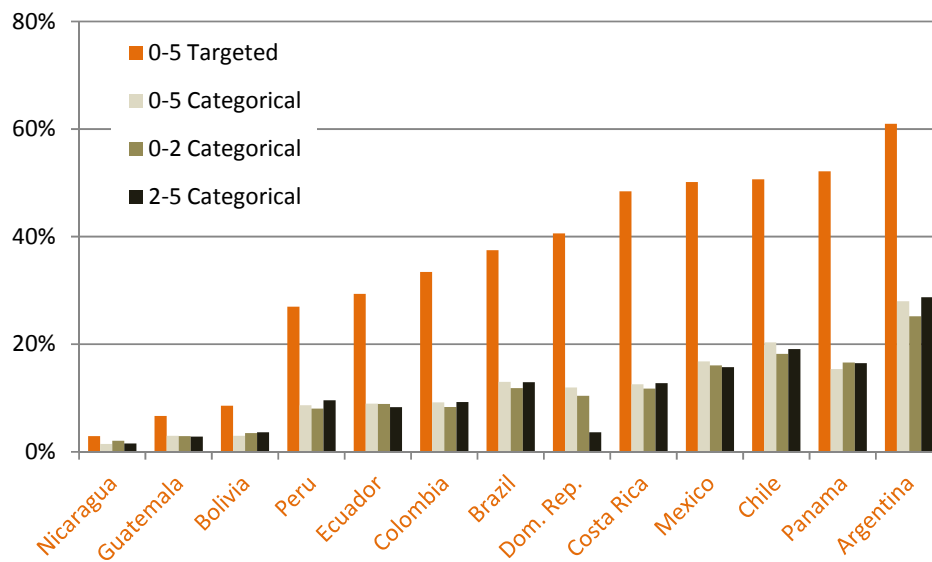
significantly the profile of beneficiaries, and hence how to target should be at the center of the discussion when discussing a program’s objectives.

Alternative age groups

All simulations assume that the targeted beneficiaries are children 0 to 5 years old, and elderly who are 65 years old or more. This section investigates whether slightly changing the eligibility age profiles can affect the poverty impact of the program. It is to be expected that the poverty impact will be affected only if the poor are concentrated in specific age or profile groups.

Figure 10 explores alternative age group definitions for children (it considers children 0 to 2 and 2 to 5 separately), to check if the poverty impact changes significantly by narrowing the age groups. With the exception of the Dominican Republic, the age group under consideration for a categorical transfer does not seem to alter significantly the results. This suggests that, overall, the distribution of income across age groups of children is such that providing higher transfers to a narrower group delivers a similar poverty impact than delivering lower transfers to a wider group. In all cases, the poverty impact under categorical targeting remains lower than under the targeted modality.

Figure 10: Poverty impact targeting different age groups (children only)

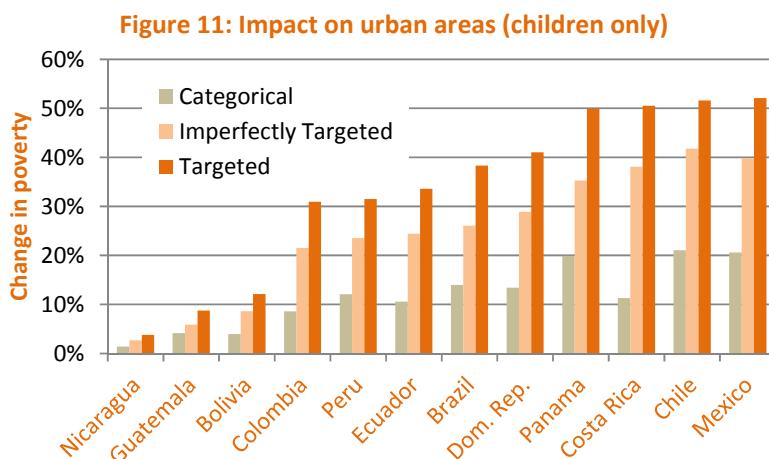


Source: Own calculations based on SEDLAC databases

Geographic targeting

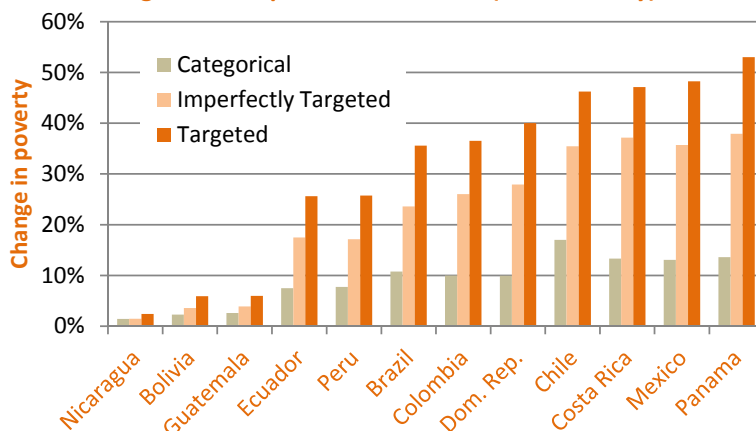
The poverty impacts of targeted vs. categorical programs may also vary geographically, for instance between urban and rural areas. Figures 11 and 12 present the differential poverty impact of a national program in urban and rural areas that transfers equal amounts to beneficiaries in both regions. Overall, despite the poverty incidence being on average three times higher in rural areas, there appears to be surprisingly little differences in program’s impact between rural and urban areas. In fact, a few results may appear counter intuitive at first sight, and we discuss them next.

In many countries, both categorical and targeted transfers achieve greater poverty reduction in urban than in rural areas. This is because, independently of poverty incidence levels, the poverty gap is smaller in urban areas (poverty gaps in rural areas are on average 3.5 times higher), hence, equal amounts transferred to beneficiaries achieve greater poverty reduction in urban areas. However, aside from Bolivia where the same targeted program achieves twice as much poverty reduction in urban than in rural areas, differences in poverty impact remain fairly modest, from 1.6 times in Nicaragua to 0.9 times in Colombia. This suggests that, on average, benefits ought not to differ much between urban and rural areas, though they could be slightly higher in rural areas.



Source: Own calculations based on SEDLAC databases

Figure 12: Impact on rural areas (children only)



Source: Own calculations based on SEDLAC databases

The lower poverty gap in urban areas also provides an explanation of why targeted transfers do not necessarily perform better in urban than in rural areas, despite the lower poverty incidence. In fact, the picture remains quite heterogeneous. In Nicaragua, where two thirds of the population in rural areas lives in extreme poverty (against a quarter in urban areas), targeting performs much better in urban than in rural areas: in urban areas, it achieves 2.7 times higher poverty reduction than a categorical program, as opposed to only 1.7 times in rural areas. But in Panama, on the opposite side of the spectrum, poverty targeting performs way better in rural areas. This is because the poverty gap in urban areas remains so small (2.3 against 12 in rural areas), that even a “diluted” categorical transfer would achieve massive poverty reduction. In contrast, targeted transfers in rural areas perform way better because they allow to transfer higher resources to the poor, and hence to overcome more easily the higher poverty gap.

5. Conclusions

From a theoretical perspective, targeting social assistance to the poor always improves the programs’ poverty impact since, for a given budget, targeted programs transfer more resources to fewer beneficiaries. However, the extent to which these gains are substantial enough to overcome some of the drawbacks related to targeting remains an empirical

question. The findings suggest that the incidence of poverty is key, but not the only factor affecting the relative effectiveness of targeted vs. categorical transfers. The rural-urban analysis strengthens the view that the relative effectiveness depends on a variety of factors, in particular the depth of the poverty gap: if it is relatively low, the difference in poverty impact of categorical vs. targeted transfers may not be that large.

The comparison of programs for children and the elderly also supports the view that choosing carefully the beneficiaries is almost as important as targeting to achieve poverty reduction. The simulations show that because, overall, there are less elderly than children who are poor, for given resources social assistance programs to the elderly achieve a lower poverty impact – even if they are poverty targeted. This does not necessarily call for phasing out social pensions, but for a rebalancing of the budget of social assistance programs towards the largest vulnerable groups.

Overall, the findings support the view that in the Latin American context targeting assistance to the poor tends to deliver higher poverty impacts. There are nonetheless circumstances under which simpler schemes, such as categorical cash transfers for vulnerable groups that are geographically confined to regions with strong pockets of poverty, may be a valid option to consider as an alternative to means tested or proxy means tested programs. This is particularly the case in low income countries with widespread pockets of poverty.

We would like to conclude with a note of caution. To achieve comparability across countries, the simulations abstained from looking at country specific factors that ought to be considered in the design of effective social assistance programs. Among these are more precise identifications of vulnerable groups and of geographic differences. The results should thus be taken as they are – a suggestive cross country comparison with no ambition to provide guidance for specific countries, which ought to include more country specific factors.

References

- Barrientos, A. (2008) "Social Pensions in low-income countries" in Closing the Gap, Editors Holzmann, R., Robalino, D., and Takayama, N. ISBN 978-0-8213-7971-4
- Caldes, N., Coady, D., and Maluccio, J. (2006) "The cost of poverty alleviation transfer programs: A comparative analysis of three programs in Latin America." World Development 34(5): 818-837
- Coady, D., Grosh, M. and Hoddinott, J. (2004). "Targeting of Transfers in Developing Countries: Review of Lessons and Experience." World Bank Regional and Sectoral Studies. World Bank and IFPRI.
- Fiszbein, A. and Schady, N. (2010). "Conditional Cash Transfers: Reducing Present and Future Poverty." World Bank Policy Research Report.
- Grosh, M., del Ninno, C., Tesliuc, E., and Ouerghi, A. (2008) "For protection and promotion: the design and implementation of effective safety nets" ISBN 978-0-8213-7581-5 (alk. paper) — ISBN 978-0-8213-7582-2
- Grosh, M., and Leite, P.G. (2009) "Defining Eligibility for Social Pensions: A view from a Social Assistance Perspective" in Closing the Gap, Editors Holzmann, R., Robalino, D., and Takayama, N. ISBN 978-0-8213-7971-4
- World Bank - IEG (Independent Evaluation Group) (2011) "Evidence and Lessons Learned from Impact Evaluations on Social Safety Nets" Washington, DC: World Bank. http://ieg.worldbankgroup.org/content/dam/ieg/ssn/ssn_meta_review.pdf
- ILO-UN Social Protection Floor initiative (2010). http://www.ilo.org/global/about-the-ilo/press-and-media-centre/insight/WCMS_141818/lang--en/index.htm
- Kakwani, N, and Subbarao, K. (2005) "Aging and Poverty in Africa and the Role of Social Pensions." Social Protection Discussion Paper 0521, World Bank, Washington, DC
- Kakwani, N., Veras Soares, F. and Son, H. (2005). "Conditional Cash Transfers in African Countries" UNDP International Poverty Center, Working Paper No. 9, November 2005.
- Leite, P.G. (2011) "Improving cost-effectiveness of targeting in Tanzania: The CB-CCT program" mimeo

- Levy, S. (2008) "Good Intentions, Bad Outcomes : Social Policy, Informality, and Economic Growth in Mexico" Brookings Institution Press 2008 c. 357pp, ISBN – 978-0-8157-5219-6
- Mkandawire, Thandika (2005). "Targeting and Universalism in Poverty Reduction" Social Policy and Development Programme Paper No. 23, UNRISD, Geneva, 2005
- Murrugarra, E. (2011). "Aging, Poverty and Social Protection in Colombia: Evidence and Policy Options." Mimeo, World Bank.
- Parker, S. and Skoufias, E. (2000) "The impact of PROGRESA on work, leisure and time allocation" Final report at International Food Policy Research Institute.
- Preston, S. (1984) "Children and the Elderly: Divergent Paths for America's Dependents" in Demography, Volume 21, Issue 4.
- Sluchynsky, O. (2009) "Administration of Social Pension Programs" in Closing the Gap, Editors Holzmann, R., Robalino, D., and Takayama, N. ISBN 978-0-8213-7971-4
- Skoufias, E., and Di Maro, V. (2009) "Conditional Cash Transfers, Adult Work Incentives, and Poverty" in Journal of Development Studies, Volume 44, Issue 7, 2008
- Schwartz, Anita M. 2003. "Old Age Security and Social Pensions." Social Protection Department, World Bank, Washington, DC.
- Turra, C., Holz, M., and Cotlear, D. (2011) "Who Benefits from Public Transfers? Incidence across Income Groups and across Generations in Brazil and Chile" in Population Aging: Is Latin America Ready?, Directions in Development, World Bank, Washington, DC.
- UNICEF (2010). "Progress for Children: Achieving the MDGs with Equity (No. 9)." UNICEF, http://www.unicef.org/publications/index_55740.html
- Weigand, C., and Grosh, M. (2008) "Levels and Patterns of Safety Net Spending in Developing and Transition Countries." Social Protection Discussion Paper 0817, World Bank, Washington, DC.
- World Bank (2010). "Did Latin America Learn to Shield the Poor from Economic Shocks?" LAC Poverty and Labor Brief.

Appendix

Annex 1: Household surveys

Country	Year	Survey	Observations (Households)
Argentina	2009	Encuesta Permanente de Hogares Continua	27,842
Bolivia	2007	Encuesta de Hogares	4,148
Brazil	2009	Pesquisa Nacional por Amostra de Domicilios	129,333
Chile	2009	Encuesta de Caracterización Socioeconómica Nacional	71,460
Colombia	2009	Gran Encuesta Integrada de Hogares	112,102
Costa Rica	2009	Encuesta de Hogares de Propósitos Múltiples	13,244
Ecuador	2009	Encuesta de Empleo y Subempleo y Desempleo	19,435
Guatemala	2006	Encuesta Nacional de Condiciones de Vida	13,686
México	2008	Encuesta Nacional de Ingresos y Gastos de los Hogares	29,468
Nicaragua	2005	Encuesta Nacional de Hogares sobre Medición de Nivel de Vida	6,884
Panamá	2009	Encuesta Continua de Hogares	13,386
Perú	2009	Encuesta Nacional de Hogares- Condiciones de Vida y Pobreza	21,753
Dominican Republic	2009	Encuesta Nacional de Fuerza de Trabajo	8,281

Annex 2: Simulation results

Argentina

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	8.34	6.01	8.10	3.26	7.83
P1	3.49	2.25	3.37	1.40	3.29
P2	2.20	1.33	2.11	0.92	2.07
Poverty line of US\$4					
P0	16.86	14.21	16.33	12.14	16.34
P1	6.90	5.17	6.68	3.74	6.59
P2	4.07	2.80	3.93	1.89	3.86
Gini	45.84	44.61	45.50	43.81	46.19
Annual Cost (in Millions)		2,658.6	2,658.6	2,658.6	2,658.6
Number of beneficiaries		2,268,498	2,531,433	326,361	36,797
Transfer per beneficiary (2005 US\$ Daily)		3.21	2.88	22.32	197.95

Bolivia

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	33.34	32.34	32.60	30.49	30.92
P1	14.48	13.63	14.09	12.60	13.48
P2	9.15	8.40	8.89	7.54	8.52
Poverty line of US\$4					
P0	50.40	49.93	49.99	50.40	49.84
P1	25.14	24.35	24.60	23.86	24.08
P2	16.03	15.23	15.63	14.45	15.11
Gini	57.19	56.76	56.92	56.40	56.57
Annual Cost (in Millions)		189.0	189.0	189.0	189.0
Number of beneficiaries		1,347,935	576,899	581,007	145,778
Transfer per beneficiary (2005 US\$ Daily)		0.38	0.90	0.89	3.55

Brazil

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	15.02	13.06	14.86	9.39	14.40
P1	6.90	5.54	6.78	3.82	6.63
P2	4.70	3.49	4.57	2.44	4.49
Poverty line of US\$4					
P0	27.53	26.14	27.21	26.44	26.92
P1	12.40	10.87	12.22	9.34	12.00
P2	7.81	6.43	7.67	4.95	7.51
Gini	53.74	53.28	53.58	52.78	53.57
Annual Cost (in Millions)		9,118.8	9,118.8	9,118.8	9,118.8
Number of beneficiaries		16,181,389	15,087,966	4,971,594	421,067
Transfer per beneficiary (2005 US\$ Daily)		1.54	1.66	5.03	59.33

Chile

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	4.25	3.39	3.99	2.10	3.56
P1	1.61	1.22	1.50	0.86	1.40
P2	0.98	0.72	0.91	0.56	0.87
Poverty line of US\$4					
P0	11.72	10.13	11.10	9.59	11.02
P1	3.84	3.14	3.62	2.56	3.45
P2	2.03	1.59	1.90	1.20	1.79
Gini	51.94	51.23	51.51	50.95	51.66
Annual Cost (in Millions)		1,105.9	1,105.9	1,105.9	1,105.9
Number of beneficiaries		1,362,349	1,831,181	101,987	38,906
Transfer per beneficiary (2005 US\$ Daily)		2.22	1.65	29.71	77.88

Costa Rica

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	8.09	7.08	7.66	4.17	6.88
P1	3.57	2.94	3.24	1.95	2.99
P2	2.38	1.89	2.06	1.39	1.95
Poverty line of US\$4					
P0	19.61	17.83	18.51	16.98	18.52
P1	7.19	6.27	6.70	4.90	6.39
P2	4.20	3.53	3.83	2.54	3.59
Gini	50.21	49.65	49.87	49.17	49.77
Annual Cost (in Millions)		230.9	230.9	230.9	230.9
Number of beneficiaries		410,092	330,723	58,776	28,524
Transfer per beneficiary (2005 US\$ Daily)		1.54	1.91	10.76	22.18

Colombia

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	16.11	14.63	15.35	10.73	13.43
P1	7.23	6.28	6.55	4.40	5.71
P2	4.73	3.95	4.09	2.77	3.61
Poverty line of US\$4					
P0	29.95	28.37	29.05	29.27	28.44
P1	13.15	12.01	12.38	10.37	11.39
P2	8.15	7.20	7.45	5.56	6.66
Gini	56.02	55.51	55.75	54.96	55.23
Annual Cost (in Millions)		1,883.5	1,883.5	1,883.5	1,883.5
Number of beneficiaries		4,807,219	2,962,392	1,109,547	524,883
Transfer per beneficiary (2005 US\$ Daily)		1.07	1.74	4.65	9.83

Dominican Republic

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	16.37	14.42	15.31	9.73	13.72
P1	4.82	3.87	4.48	2.51	3.98
P2	2.09	1.57	1.92	0.99	1.71
Poverty line of US\$4					
P0	34.66	33.14	33.25	33.73	32.66
P1	12.59	11.37	11.92	9.93	11.15
P2	6.24	5.34	5.85	4.13	5.34
Gini	48.86	48.03	48.42	47.34	47.89
Annual Cost (in Millions)		386.4	386.4	386.4	386.4
Number of beneficiaries		1,000,142	692,105	249,589	74,183
Transfer per beneficiary (2005 US\$ Daily)		1.06	1.53	4.24	14.27

Ecuador

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	19.17	17.46	18.08	13.55	16.00
P1	7.56	6.62	7.08	4.88	6.26
P2	4.48	3.77	4.12	2.71	3.66
Poverty line of US\$4					
P0	37.21	35.94	36.20	37.00	35.73
P1	15.36	14.18	14.64	12.90	13.67
P2	8.86	7.91	8.33	6.48	7.56
Gini	48.93	48.28	48.61	47.57	47.94
Annual Cost (in Millions)		511.4	511.4	511.4	511.4
Number of beneficiaries		1,386,874	1,253,728	364,580	204,886
Transfer per beneficiary (2005 US\$ Daily)		1.01	1.12	3.84	6.84

Guatemala

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	33.83	32.82	32.98	31.58	31.53
P1	14.35	13.38	13.78	12.17	13.02
P2	8.12	7.28	7.70	6.31	7.23
Poverty line of US\$4					
P0	53.37	52.73	52.69	53.37	52.82
P1	25.49	24.57	24.87	24.06	24.20
P2	15.65	14.74	15.11	13.87	14.46
Gini	55.85	55.25	55.50	54.80	55.03
Annual Cost (in Millions)		272.2	272.2	272.2	272.2
Number of beneficiaries		2,086,598	616,632	901,217	179,004
Transfer per beneficiary (2005 US\$ Daily)		0.36	1.21	0.83	4.17

Mexico

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	13.96	11.61	12.74	6.96	11.32
P1	5.59	4.37	4.89	2.71	4.46
P2	3.35	2.47	2.87	1.59	2.67
Poverty line of US\$4					
P0	28.74	25.99	27.15	25.76	26.59
P1	11.36	9.70	10.35	7.59	9.73
P2	6.53	5.29	5.81	3.66	5.38
Gini	50.52	49.44	49.88	48.56	49.45
Annual Cost (in Millions)		7,153.3	7,153.3	7,153.3	7,153.3
Number of beneficiaries		11,633,955	7,189,108	2,393,781	1,120,543
Transfer per beneficiary (2005 US\$ Daily)		1.68	2.73	8.19	17.49

Nicaragua

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	42.52	41.92	41.90	41.30	40.86
P1	17.65	16.95	17.24	16.33	16.55
P2	9.79	9.20	9.49	8.69	9.02
Poverty line of US\$4					
P0	63.30	63.12	62.80	63.30	63.26
P1	31.11	30.50	30.65	30.27	30.27
P2	19.14	18.51	18.75	18.08	18.23
Gini	52.26	51.86	52.01	51.56	51.61
Annual Cost (in Millions)		63.3	63.3	63.3	63.3
Number of beneficiaries		663,747	270,890	342,936	86,167
Transfer per beneficiary (2005 US\$ Daily)		0.26	0.64	0.51	2.01

Panama

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	15.99	13.53	14.73	7.65	13.00
P1	5.76	4.28	5.19	2.34	4.62
P2	3.02	2.05	2.68	1.17	2.43
Poverty line of US\$4					
P0	29.58	27.87	28.31	27.79	27.32
P1	12.25	10.49	11.39	8.21	10.53
P2	6.80	5.39	6.21	3.61	5.63
Gini	52.09	50.96	51.56	50.10	50.99
Annual Cost (in Millions)		205.2	205.2	205.2	205.2
Number of beneficiaries		370,654	282,508	92,402	36,492
Transfer per beneficiary (2005 US\$ Daily)		1.52	1.99	6.08	15.41

Peru

	Original Income (before transfers)	Categorical		Targeted	
		Children	Elderly	Children	Elderly
Poverty line of US\$2.5					
P0	19.52	17.83	18.48	14.26	16.31
P1	6.93	5.75	6.40	3.91	5.72
P2	3.43	2.59	3.12	1.60	2.82
Poverty line of US\$4					
P0	34.99	33.89	34.17	34.94	33.54
P1	14.68	13.44	14.00	12.20	13.09
P2	8.10	7.02	7.60	5.63	6.94
Gini	48.03	47.18	47.63	46.51	46.97
Annual Cost (in Millions)		1,143.7	1,143.7	1,143.7	1,143.7
Number of beneficiaries		3,751,466	2,517,343	1,199,495	421,194
Transfer per beneficiary (2005 US\$ Daily)		0.84	1.24	2.61	7.44