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## Social Protection Discussion Paper Series

### **Designing and Implementing Household Targeting Systems: Lessons from Latin American and The United States**

**Tarsicio Castañeda and Kathy Lindert, with Bénédicte de la Brière, Luisa Fernandez, Celia Hubert, Osvaldo Larrañaga, Mónica Orozco, and Roxana Viquez**

**June 2005**

Social Protection Unit  
Human Development Network  
The World Bank

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**Social Safety Nets Primer Series**

**Designing and Implementing Household Targeting Systems:  
Lessons from Latin American and  
The United States**

*By Tarsicio Castañeda and Kathy Lindert, with Bénédicte de la Brière,  
Luisa Fernandez, Celia Hubert, Osvaldo Larrañaga,  
Mónica Orozco, and Roxana Viquez\**

June 2005\*\*

**WORLD BANK INSTITUTE**  
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\*\*This study was completed in March 2005.

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# Social Safety Net Primer Series

The World Bank Social Safety Nets Primer is intended to provide a practical resource for those engaged in the design and implementation of safety net programs around the world. Readers will find information on good practices for a variety of types of interventions, country contexts, themes and target groups, as well as current thinking of specialists and practitioners on the role of social safety nets in the broader development agenda. Primer papers are designed to reflect a high standard of quality as well as a degree of consensus among the World Bank safety nets team and general practitioners on good practice and policy. Primer topics are initially reviewed by a steering committee composed of both World Bank and outside specialists, and draft papers are subject to peer review for quality control. Yet the format of the series is flexible enough to reflect important developments in the field in a timely fashion.

The primer series contributes to the teaching materials covered in the annual Social Safety Nets course offered in Washington DC as well as various other Bank-sponsored courses. The Social Safety Nets Primer and the annual course are jointly supported by the Social Protection unit of the Human Development Network and by the World Bank Institute. The World Bank Institute also offers customized regional courses through Distance Learning on a regular basis.

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## Papers in the Safety Nets Primer as of June 2005

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Targeting: Lessons from LAC – Overview	Lindert et al
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Transition Economies	Fox, Louise
Very Low Income Countries	Smith and Subbarao
<b><i>Special Vulnerable Group</i></b>	
Disability	Mitra, Sophie

## ACRONYMS

BA	Bolsa Alimentação (Nutrition Fellowship)- Brazil
BE	Bolsa Escola (School Fellowship)- Brazil
CAS	Comite de Acción Social (Social Action Committee) – Chile
CBT	Community Based Targeting
CCSS	Caja Costaricense del Seguro Social
CCT	Conditional Cash Transfers
CEF	Caixa Economica Federal (Federal Credit Union)- Brazil.
CPF	Cadastramento de Pessoas Físicas (Registry of Physical Persons) – Brazil
DATAPREV	Empresa de Processamento de Dados da Previdência Social (Data Processing for Social Security) - Brazil
DNP	Colombia’s National Planning Department
ENIGH	Household income and consumption survey- Mexico
ESE	Estratificación Social (Social Stratificación) – Colombia
FIS	Ficha de Información Social – Costa Rica
FODESAF	Fondo de Asignaciones Familiares - Costa Rica
FUNAI	National Foundation for Indigenous People – Brazil
GDP	Gross Domestic Product
GT	Geographic targeting
HH	Households
IBGE	Instituto Brasileiro de Geografia e Estatística (Brazilian Institute for Geography and Statistics) – Brazil
ID	Identification Number
IFPRI	International Food Policy Research Institute
IMAS	Costa Ricas’s Welfare Institute
INSS	Brazil’s National Social Security Institute
IRS	Internal Revenue Service (US)
LAC	Latin America and the Caribbean Region
MIDEPLAN	Ministerio de Planificación – Chile
MDS, MPAS	Ministério de Desenvolvimento Social (Ministry for Social Development), previously the Ministério da Previdência e Assistência Social (Ministry for Social Security and Assistance)- Brazil
MT	Means testing
NGO	Non- Government Organization
NIS	Numero de Identificação Social (Social Identity Number) - Brazil
NSAF	National Survey of America’s Families - US
PASIS	Assistance Pension- Chile
PMT	Proxy Means Test
PNAD	Household Income Survey- Brazil
POF	Household Budget Survey-Brazil
PROGRESA	Programa de Educación, Salud y Alimentación - Mexico
SEAS	Secretary of State for Social Assistance - Brazil
SEDESOL	Secretaría de Desarrollo Social de Mexico
SHIR	Subsidized Health Insurance Regime - Colombia
SIBES	Bolsa-Escola Information System- Brazil
SISBEN	Sistema de Selección de Beneficiarios (System for Selecting Beneficiaries) - Colombia
SIPO	Sistema de Información de la Población Objetivo-Costa Rica
SSN	Social Security Number - US
SUF	Unified Family Subsidy – Chile
TANF	Temporary Assistance for Needy Families -US
TCU	Tribunal de Contas da União (National Audit Office) - Brazil
UF	Unidad de Fomento (Inflation-adjusted unit) - Chile
US	United States
UMT	Unverified Means Test
VMT	Verified Means test

# Preface

The report is based on Country Case Study Reports that were commissioned in 2003 by the World Bank specifically for the purposes of this study for the following countries: Chile (Osvaldo Larrañaga), Colombia (Tarsicio Castañeda and Luisa Fernandez), Costa Rica (Roxana Viquez), Mexico (Monica Orozco and Celia Hubert), Brazil (Bénédicte de la Brière and Kathy Lindert; Brazil study co-financed by the World Bank and DFID) and the United States (Kathy Lindert). Research findings and earlier drafts of this report were presented at numerous workshops and seminars (two in Brazil in November 2003; two at the World Bank in Washington in November 2003 and January 2005; and one at the Second International Workshop of Conditional Cash Transfers in Sao Paulo in April 2004).

# Acknowledgement

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# Abstract

While targeting can effectively channel resources to the poor, implementation details matter tremendously to distributive outcomes. This report conducts an in-depth assessment of key design and implementation factors and their potential impact on outcomes for household targeting systems in six countries (the United States, Brazil, Chile, Colombia, Costa Rica and Mexico).

Several key factors affect performance, including: data collection processes; information management; household assessment mechanisms; institutional arrangements; and monitoring and oversight mechanisms. Chile's system performs impressively in terms of targeting outcomes, cost efficiency and transparency. Brazil and Mexico's systems perform well in terms of targeting and cost efficiency. The registries in the United States perform extremely well in terms of maximizing targeting accuracy and transparency, but the system is costly and errors of exclusion are high. Both Colombia and Brazil are currently undertaking to implement significant reforms to strengthen their registries, particularly for cost efficiency, which should improve their performance over time.

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# Designing and Implementing Household Targeting Systems: Lessons from Latin America and the United States

## 1. Introduction and Overview

**Motivation and Objectives.** Targeting social transfers to the poor has become a priority in many developing countries in the last two decades as a response to fiscal constraints and policy changes to improve effectiveness of programs in reducing poverty. The rationale for targeting is to ensure that limited program resources primarily reach the poor and that the poor, or sub-groups of the poor, are not excluded. The objectives of targeting are fully consistent with “universal coverage of the poor,” which is emerging as a goal for some large programs. Most social safety net programs require some sort of mechanism for screening households to determine eligibility, since the immediate benefits (transfers) are largely “private” (as opposed to “public”) goods. Countries have applied a variety of targeting instruments for social programs, including household (or individual) assessment mechanisms, broad categorical eligibility, or self-targeting. Many programs adopt a combination of these mechanisms.

A recent review<sup>1</sup> of experiences with methods used to target 122 interventions in 48 developing countries finds that targeting can indeed work: the median targeted program provides roughly 25% more resources to the poor than would random allocations. Nonetheless, the study also found significant variation in targeting outcomes both within and across types of targeting instruments. Implementation details matter tremendously to distributive outcomes. Significant potential remains for improvements in the design and implementation of targeting methods.

The purpose of this report is to build on this international review of targeting outcomes through an in-depth assessment of key design and implementation factors and their potential impact on outcomes for household targeting systems in six countries (five in Latin America plus the United States, as discussed below). Specifically, the report seeks to: (a) identify main aspects involved in designing and implementing household targeting systems (Section 2); (b) construct a summary evaluation of these household targeting systems according to specific criteria for judging “good practice” (Section 3); and hence (c) draw practical lessons regarding experiences (both positive and negative) with household targeting systems in six countries (Section 4). The intended audience is government officials in developing countries who are involved in designing and implementing safety nets and household targeting systems, as well as World Bank staff engaged with officials on policy dialogue on these topics.

**What are Household Targeting Systems?** As discussed above, countries have applied a variety of targeting instruments for social programs, including household (or individual) assessment mechanisms (means testing, proxy means testing), broad categorical eligibility (e.g., geographic targeting), or self-targeting. Many programs adopt a combination of these mechanisms.

Household targeting systems are the focus of this report, since they are commonly used for targeting cash transfer programs.<sup>2</sup> With household assessment, an official (usually a government employee) directly assesses, household by household, whether the applicant is eligible for the specific program(s). Unified household targeting systems are often designed to serve multiple social programs (with differing thresholds for eligibility). While the actual design and implementation of household targeting systems varies significantly by country, most systems involve the following basic steps:

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<sup>1</sup> Coady, Grosh and Hoddinott (2004).

<sup>2</sup> Indeed, Coady, Grosh and Hoddinott found that cash transfer programs most commonly rely on some form of household (or individual) assessment, such as means testing or proxy means testing. In many of the country cases, however, household eligibility decisions (via means testing or proxy means testing) are combined with other methods of targeting, such as geographic pre-selection of priority areas.

- Collecting data on specific (potentially eligible) households via interviews (and sometimes home visits) using pre-designed questionnaires (which depend on the type of household assessment mechanism);
- Entering these data into a unified household information registry (with varying degrees of verification and consistency checks);
- Comparing household characteristics with pre-established eligibility criteria (program-specific); and
- Establishing program-specific beneficiary lists (sub-registries) for the purposes of program implementation and payroll.

**Six Country Case Studies.** The report examines household targeting systems in six countries, including:

- The **United States**,<sup>3</sup> which uses Verified Means Testing (VMT) in which eligibility for social programs is determined via an assessment of household incomes and assets with rigorous verification to improve target accuracy. The United States does not have a consolidated national household information system for targeting. Rather, data collection, registration, database management and eligibility decisions are all decentralized to the state and/or municipal (county) levels, with federal oversight and fraud control.
- **Brazil**,<sup>4</sup> which uses an Unverified Means Test (UMT) in which eligibility decisions for social programs, including the Bolsa Família Program and its predecessors (Bolsa Escola, Bolsa Alimentação, Auxílio Gas, Cartão Alimentação), are based on self-reported income with little or no verification. Household data are collected by municipalities under decentralized implementation arrangements, but then consolidated into a national database called the “Cadastro Único.”
- Four other Latin American countries, including **Chile, Colombia, Costa Rica and Mexico**, which use Proxy Means Tests (PMT)<sup>5</sup> to target a wide-range of social programs to the poor and vulnerable. In these countries, eligibility decisions are based on data on an index of socio-economic variables that are used to predict household welfare. PMT instruments are becoming popular in LAC countries where the informal labor market is large, and information systems are weak not permitting extensive verification of incomes and wealth, and cross-checks across databases. The PMT systems that are reviewed in this study are among the oldest and most established in LAC, and include: Chile’s Ficha CAS system, which has been operating since the early 1980s; Colombia’s SISBEN system, which was launched in 1994; Costa Rica’s SIPO system, which was inaugurated in 1999; and the registry for Mexico’s Oportunidades (former Progresa) program, which has been operating since 1997.

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<sup>3</sup> Country Study on the US: Lindert, Kathy (2003). Implementing Means-Tested Welfare Systems in the US. The World Bank.

<sup>4</sup> Country Study on Brazil: de la Briere, Benedicte and Kathy Lindert (2003). Brazil’s Cadastro Único. The World Bank. This case study is being updated based on recent collaborative work by the Ministry of Social Development (MDS) in Brazil and the World Bank (including the authors of the case study) in designing a World Bank Project to support the Bolsa Familia Program. See The World Bank (May 25, 2004). “Project Appraisal Document: Bolsa Familia Project.” Report No. 28544-BR.

<sup>5</sup> Chile, Colombia, Costa Rica and Mexico Case Studies: (a) Larrañaga, Osvaldo (2003). Focalización de Programas Sociales en Chile: El Sistema CAS. The World Bank. (b) Castañeda, Tarsicio and Luisa Fernandez (2003). Targeting Social Spending to the Poor with Proxy Means Testing: Colombia’s SISBEN System. The World Bank. (c) Viquez, Roxana (2003). Sistema de Identificación de la Población Objetivo: SIPO en Costa Rica. The World Bank. (d) Orozco, Monica and Celia Hubert (2003). La Focalización en el Programa de Desarrollo Humano Oportunidades en Mexico. The World Bank.

The six individual country case reviews of household targeting systems were conducted by a team of World Bank and DFID staff and consultants – often in collaboration with government officials directly involved in implementing these systems. The country case studies were carried out in 2003 through interviews, site visits, and extensive desk research. They are presented in separate reports that were prepared specifically as background studies to this report and are available upon request.<sup>6</sup>

**Key Principles for Judging Success.** As discussed in Section 3, this report adopts four principles for judging the success of household targeting systems, including: (a) maximizing coverage of the poor (or alternatively, minimizing errors of exclusion); (b) minimizing leakages to the non-poor, to ensure that a greater share of resources spent on programs that use the household targeting systems reach the poor; (c) cost efficiency, by making efforts to minimize the cost of interviewing families while ensuring the integrity of intake efforts; and (d) transparency in all aspects to enhance credibility and reduce fraud.

**Caveats and Limitations.** A few caveats should be noted regarding the scope of this work. **First**, the sample of countries and household registry systems is too small to establish causality between the main design/implementation elements and performance outcomes.<sup>7</sup> Rather, the study seeks to derive practical lessons from both positive and negative experiences in designing and implementing these systems.

**Second**, the study does not treat “program-specific issues” such as (a) setting benefit levels for cash transfer programs (e.g., uniform vs. graduated benefit levels); (b) the potential adverse incentive effects (e.g., on work, private transfers or savings) of means-tested income transfers (though some discussion is included in Box 6 below); (c) the issues of exit criteria, time limits or graduation policies;<sup>8</sup> or (d) the issues of establishing, monitoring or enforcing program conditionalities for conditional cash transfer programs (CCTs). While these are certainly valid and relevant issues, this study seeks to fill a well-defined gap in existing literature by focusing on drawing practical lessons regarding the “how-tos” of designing and implementing household targeting systems.

**Finally**, it is important to emphasize that there is no single recommended “blueprint” recipe for household targeting systems. There is a large menu of factors involved in designing and implementing household targeting systems. These should be considered and adopted to each country’s particular “local realities” of socio-economic and political circumstances, institutional arrangements, and administrative capacities. This study and the six country case studies allow officials to review the positive and negative experiences in other countries to draw their own conclusions about what may or may not be relevant in their own country context.

**Overview of Main Findings.** Despite these caveats, a number of key messages do emerge from the cross-country analysis of six household targeting systems, including:

- **Household targeting systems should be designed with care.** The international review by Coady, Grosh and Hoddinott (2004) finds that targeting *can* work, but doesn’t always. Design and implementation details matter tremendously to distributive outcomes. Too often, however, governments want to launch programs quickly and they – and consultants hired to help them – don’t pay enough attention to the necessary details that go into designing and implementing household targeting systems. These systems take time to design, pilot, and implement on a large scale (at least 18 months). Numerous factors should be considered, including: (a) an appropriate data collection

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<sup>6</sup> The findings of this cross-country synthesis, as well as the six country cases, were discussed at several workshops, including two organized by the Government of Brazil in Brasilia (in November 2003), the second International Workshop on Conditional Cash Transfers (in April 2004), and various other fora.

<sup>7</sup> Another study, also being carried out by the World Bank, will try to expand this sample to examine “The Redistributive Impact of Transfer Programs in LAC” for a much larger sample of countries and transfer mechanisms. This regional study is currently under way. A study summary by Lindert, Kathy, Emmanuel Skoufias and Joseph Shapiro (September 2004) is available upon request. Results are expected by June 2005.

<sup>8</sup> Again, these issues are being researched and documented under another LAC regional study being conducted by the World Bank on “More than Just Cash: Enhancing Transfer Programs to Promote Long-Run Poverty Reduction.” This regional study is currently under way. A study summary by Lindert, Kathy and Leonardo Lucchetti (October 2004) is available upon request. Results are expected by June 2005.

strategy; (b) adequate systems management; (c) the feasibility and potential accuracy of household assessment mechanisms; (d) institutional arrangements; and (e) monitoring and oversight mechanisms to ensure transparency, credibility and control of fraud.

- **Data collection processes should be carefully designed** so as to ensure transparency, dynamism (open entry into registries), outreach to the (potentially poor), cost efficiency, and administrative feasibility. The strategy for conducting interviews and collecting data is as important to the success of household targeting systems as they type of eligibility mechanism used. The **quasi-exhaustive survey (census) approach** has the advantage of being cheaper (per interview) to implement. It also favors outreach to the poor. However, the survey (census) approach is generally static (allowing for only infrequent registration and updates) and was associated with somewhat weaker targeting accuracy in the cases in our sample. In contrast, the **on-demand applications approach** favors dynamic, on-going registration as well as regular updating and re-certification (due to the extensive network of welfare offices usually present with this approach). It was also associated with stronger targeting accuracy (lower leakage) among the cases in our sample. Nonetheless, the on-demand approach can also miss the poor (lower coverage), who may be less informed or connected. Depending on the poverty density of particular areas, mix of data collection approaches (on-demand applications and quasi-exhaustive surveying) can be an effective way to balance the goals of maximizing outreach to the poor with minimizing the costs of interviewing large numbers of likely, ineligible non-poor households. Micro-area poverty maps can help guide these design choices by providing localized information on poverty prevalence and density. Other factors should be considered in designing data collection strategies, including: (a) the location of interviews (home vs. office visits, or both); (b) the quality of interviews; and (c) communications.
- **Several factors pertaining to information management affect the quality of household targeting systems.** **First**, a consolidated national database is important and can help avoid duplications and track beneficiaries, even if data are collected locally. **Second**, proper identification of individuals is crucial. A unique social identification number should be used – ideally one that is used on a country-wide basis to be able to link registry information and beneficiaries with other systems and programs. Moreover, software and coding systems need to be designed to link individuals with particular families (or assistance units). These identification features have been stumbling blocks in many developing countries. They are not insurmountable, however. While countries would ideally assign individuals unique numbers at birth, in the absence of a single national identification number, registry questionnaires often collect information on multiple identification numbers and characteristics and then assign a new social identification number upon registration (and codes to link individuals to families). This is a feasible solution, provided that (a) data are consolidated and cross-checked in a single database system; and (b) the system has the capacity to update for changes (updates, recertification), and store and reference historical data. **Third**, updates and re-certifications are important for tracking fraud and avoiding situations such as “ghost” beneficiaries, which can emerge as registries become dated. They also allow for turnover in beneficiaries, to make space for other poor families to enter the registry (and programs). **Fourth**, database management should be designed to be able to flexibly respond to changing policies and updates and rely on common software (even if data entry is decentralized) with pre-testing of systems, well-designed manuals, and adequate training for users.
- **The choice of household assessment mechanism depends on a number of factors**, including (a) cost and administrative feasibility; (b) technical feasibility, given the degree of informality in the economy; and (c) political acceptability. Household assessment mechanisms should seek to maximize targeting accuracy at an acceptable cost and in a transparent manner.

- **Verified means testing (VMT)** produces “gold standard” results with respect to targeting accuracy. Extensive verification of information can also promote transparency and credibility (provided it is conducted in a standard way with equal treatment of all registrants). Nonetheless, VMT can be extremely costly to implement, and both administratively and technically infeasible in developing countries with high degrees of informality in labor markets.
  - **Unverified means testing (UMT)** can be a less costly, and more feasible alternative, particularly in situations in which quick decisions are required (such as hospital admissions in systems with subsidized health care for low-income families). Targeting accuracy can be reasonable with UMT (especially if combined with geographic targeting), though the outcomes in the Brazil case were not as strong as those for VMT or PMT. Moreover, concerns about a lack of transparency, measurement error and adverse incentives for under-reporting make UMT less attractive from a technical and political point of view when eligibility for large or long-term benefits is being determined. When incomes cannot be verified (due to administrative or technical limitations in a largely informal economy), proxy indicators (such as those used under PMT) can be used as “consistency checks” to “verify” self-reported incomes, and improve accuracy and transparency.
  - **Proxy means testing (PMT)** is a promising alternative for targeting cash transfers in developing countries with high degrees of informality in the labor market. In the cases examined in this study, PMT performed well in terms of targeting outcomes, cost efficiency and transparency. PMT can be more transparent and accurate than UMT (in most cases). In fact, some PMT systems in LAC have generated targeting incidence outcomes that approximate the impressive record of VMT for a mere fraction of the cost of interviewing and screening for eligibility. Between 80-90% of the benefits of proxy-means tested programs in Chile and Mexico are received by the poorest 40% (two quintiles) of households in those countries. Moreover, the costs of these systems are relatively low (ranging from US\$2.3-8.4 per interview in LAC, or 9-34% of comparable interview costs for VMT in the U.S.), and administrative requirements are more manageable for developing countries (particularly middle-income countries). Finally, the PMT systems in several LAC countries also rank fairly high for transparency.
- **Combining household assessment with geographic targeting can improve accuracy.** Most countries in LAC combine household assessment mechanisms with a certain degree of geographic targeting. The international review by Coady, Grosh and Hoddinott (2004) shows that combining multiple types of targeting mechanisms (e.g., PMT with geographic targeting) can yield higher accuracy. Areas with high concentrations or density of poverty can be prioritized for registration (e.g., with the survey-outreach approach) and program expansion. Nonetheless, to ensure that the poor in other (non-prioritized) areas also have access to the program – and to promote perceptions of fairness and transparency – this report asserts that anyone should be able to apply to register in the unified household information system at any time via on-demand applications (provided that they are clearly informed that registration does not guarantee benefits).
  - **Institutional roles should be clearly defined and communicated.** Designing clear institutional roles is essential for the success of household targeting systems. Institutional arrangements vary significantly by country and should be tailored to local realities (ideally building on existing government structures if they work well). There are several advantages and disadvantages of centralization vs. decentralization for the various functions and roles in household targeting systems. While there is no single blueprint for institutional roles, the cross-country study reveals some important advantages of a system involving centralized design and database management (data collection can be centralized or decentralized depending on the country context). Nonetheless,

arrangements should be made to promote quality at all levels, such as federal cost-sharing and financial incentives for municipalities if they are to be charged with implementing data collection. Moreover, clear federal guidelines for processes should be communicated, and instruments for federal oversight are needed.

- **Strong mechanisms for monitoring and oversight are crucial for all systems**, but especially with decentralized data collection. While no system is 100% immune to fraud or leakages, a variety of tools should be used to minimize them. Multiple mechanisms can be used, including: supervision of interviews, verification of information, automated checks, comparing registries with other data, random-sample quality control reviews, and citizen oversight (“social controls”). Using multiple instruments strengthens the system.

## 2. Main Elements of Household Targeting Systems

As discussed above, household targeting systems are commonly used to determine eligibility for cash transfer programs.<sup>9</sup> With household assessment, an official (usually a government employee) directly assesses, household by household, whether the applicant is eligible for a specific program(s). While the actual design and implementation of household targeting systems varies significantly by country, most systems involve the following basic steps (see Figure 1):

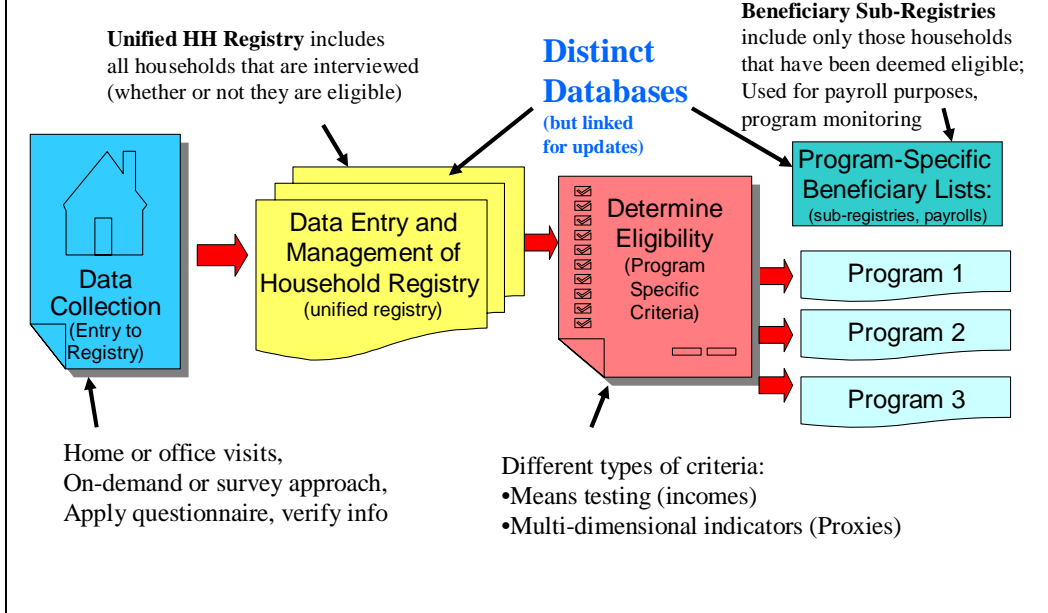
- Collecting data on characteristics of (potentially eligible) households via household-level interviews (either in offices, via home visits, or both);
- Entering these data into a unified information registry (with varying degrees of verification and consistency checks);
- Comparing data on household characteristics with pre-established eligibility criteria (program-specific); and
- Establishing program-specific beneficiary lists (sub-registries) for the purposes of program implementation and payroll.

Within this system, there is an important distinction between the **unified household information registry** (or “cadaster”), which includes all interviewed households (which may or may not be eligible for program benefits for an array of programs) and the **program-specific beneficiary lists (sub-registries)**, which include only households that have been screened and deemed eligible for specific programs. As discussed below, countries should seek to establish transparent, open and on-going processes for entry into the unified information registry, such that anyone may apply for program benefits at any time (although qualification for program benefits depends on meeting program eligibility criteria).

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<sup>9</sup> Indeed, Coady, Grosh and Hoddinott found that cash transfer programs most commonly rely on some form of household (or individual) assessment, such as means testing or proxy means testing. In many of the country cases, however, household eligibility decisions (via means testing or proxy means testing) are combined with other methods of targeting, such as geographic pre-selection of priority areas.

## Figure 1 - Household Targeting Systems: Basic Elements



The remainder of this section covers these basic steps, reviewing lessons learned from the six country case studies for each. Specifically, the following key elements in designing and implementing household targeting systems are reviewed:

- Data collection processes;
- Management of the unified household information registries;
- Types of household assessment (eligibility determination);
- Institutional responsibilities; and
- Monitoring, verification, and fraud control.

For easy reference, an overview of each of these main elements is presented for the six country studies in Table 1 (with more details for the LAC countries in Annex 1).

**Table 1: Overview of Key Elements of Household Targeting Systems in Six Countries**

	US	Brazil (Cad. Único)	Chile (Ficha CAS)	Colombia (SISBEN)	Costa Rica (SIPO)	Mexico
<b>1. Data Collection Process (entry to unified household registry)</b>						
• Initiation of interview, data collection strategy	On-demand Application	Quota-based Survey	On-demand Application (previously survey approach)	Mostly survey*	Mostly survey*	Mostly survey,* application in urban areas
• Location of interview	Welfare office (some counties require home visit)	Varies by municipality: home visits, registration in schools, health posts, markets, other municipal sites	Home visit	Home visit	Home visit	Home visit
<b>2. Managing Unified Household Information Registries</b>						
• National Database?	No, serious weakness	Yes	Yes	No, reforms to build national database	Yes	Yes
• Size	Varies by state Programs range from 6-42 million beneficiaries (more registered)	10.3 mn households 41.4 mn individuals (Dec. 2004)	1.74 mn h.holds 6.23 mn indiv. (2004)	6 mn households 27 mn individuals (2002)	250,000 households 1 mn individuals (2002)	9.5 mn households 41 mn individuals (2004)
• Multiple Uses?	Yes, varies by state	Currently primary user = Bolsa Família (and pre-reform programs; registry will expand for use by other programs)	Multiple (see Table 5)	Multiple (see Table 6)	Multiple at central government level	Currently primary user = Oportunidades (registry expanding for use by other programs)
• Updating, Recertification	Continuous updating; annual recertification required	Policy not yet established. Data are becoming out of date (some HH dating back to 2001)	Policy establishes that info is valid for 2 years. Database fairly up-to-date	Policy requires updating every 3 years (HH changes more frequently). Practice varies. Recent updating efforts launched	Policy requires updating every 3 years (HH changes more frequently). Practice varies. Recent updating efforts launched	Policy requires updating every 3 years (HH changes more frequently). Recent updating efforts launched
<b>3. Type of HH Assessment</b>	VMT	UMT	PMT	PMT with geographic targeting	PMT with geographic targeting	PMT with geographic targeting
<b>4. Institutional Responsibilities</b>						
• Design	Decentralized	Central	Central	Central	Central	Central
• Implementation	Decentralized	Decentralized	Decentralized	Decentralized	Central	Central
• Database Mgt	Decentralized	Central	Central	Decentralized	Central	Central
<b>5. Monitoring, Verification, and Fraud Control</b>	Multiple, sophisticated instruments	Weak; developing automated cross-checks, oversight system, social controls	Medium; centralized procedures but lacks system for auditing data collection	Weak; lacks system for auditing data collection	Weak; SIPO has never been audited or evaluated.	Medium-High; centralized at all stages, but lacks system for external audits

HH: Households. \*These countries rely mainly on survey sweep (censusing of poor areas), but also allow for on demand applications in some instances. VMT = Verified Means Testing; UMT = Unverified Means Testing; PMT = Proxy Means Testing. "With geographic" means that a poverty map is used to select areas where PMTs will be conducted using a survey sweep approach. Sources: Authors' assessments based on Country Case Studies (2003) commissioned specifically for this report plus updates from ministry websites.



## A. Data Collection Processes

As discussed above, in terms of information flows, the first step in implementing household targeting systems is data collection (using pre-designed questionnaires, which vary by type of household assessment mechanism, as discussed in Section C below). This process determines how households enter the unified information registry (to then be considered for eligibility for benefits).

Our six country review reveals that the *process* used to collect household information matters a lot – for all types of household assessment mechanisms. Desirable features of the data collection process include:

- **Transparency.** The process should be designed so that it promotes credibility of the system, via fair and equal treatment of anyone who applies for entry. Both in principle and in practice, modern systems allow any family to register in the unified household registry at any time – with the explicit understanding that registration does not guarantee benefits. Procedures for application and entry should be clearly defined and publicized. Communication is crucial, as discussed below.
- **Dynamism.** In modern systems, registration should be continuous and open, allowing households to apply at any time. This dynamism is particularly important if the programs that use the unified registry for eligibility decisions are intended to serve the newly (or transient) poor (in a safety *net* function – to “catch them when they fall”). Household circumstances change, particularly when faced with shocks. Modern household systems should be flexible enough to adapt to these changing circumstances via on-going and open registration. Generally, on-demand registration processes tend to be more dynamic, with the permanent network of local welfare offices favoring an open registry process. Survey-based approaches tend to be more static, with infrequent registration periods (sometimes open only every few years) or quota-based surveying (in which registration is closed once beneficiary quotas have been filled, as has been the case in Brazil; see Box 1).
- **Outreach to the (potentially) poor.** Specific efforts should also be made to reach out to register potentially poor households. Public awareness campaigns (using media commonly accessed by the poor, such as radios) should publicize registration procedures and entry points. As discussed below, quasi-exhaustive census-type registration (the “survey approach” as opposed to the “on-demand application approach”) can also be used in geographically-prioritized poor areas (determined using a poverty map) to promote registration of the poor.
- **Cost efficiency.** At the same time, efforts should be made to minimize the cost of interviewing, while ensuring the integrity of intake efforts. Some factors that determine these costs include, *inter alia*, the number of (eventually) ineligible households interviewed, the remoteness of households, the complexity of the questionnaire and verification requirements (discussed in Section C below), the number and location of interviews, and the frequency of updates and recertification. Although it is not possible to ascertain the poverty status of families prior to registration, certain tools, such as self-selection mechanisms (on-demand application approach) and geographic targeting (via poverty maps) can help minimize the cost of interviewing large numbers of ineligible families, as discussed below.
- **Administrative feasibility.** The data collection process also needs to suit the administrative capacities of the country and the agencies charged with implementing it. **First**, the two different approaches to data collection discussed below – the “survey approach” and the “on-demand application approach” each imply very different logistical structures, which may or may not be suited to the administrative capacity of a particular country (or agency). The “survey approach,” for example, requires (usually infrequent) assembly of large teams of interviewers to either conduct quasi-exhaustive census-style interviews (home visits) or to conduct mass registration on dedicated “registration days” (e.g., in public locations such as churches or schools with advance publicizing of

the event). The “on-demand application approach” requires a more permanent structure of points of contact (usually an extensive network of local welfare offices). **Second**, the frequency of updates and recertification should be administratively realistic and tailored to the characteristics of the intended target population (as discussed below).

Given these desirable features, several key considerations affect the nature and quality of data collection processes for unified household registries: (a) the type of registration process (on-demand vs. quasi-exhaustive outreach surveys); (b) the location of interviews; (c) the quality of interviewers; and (d) communications. These are each discussed in turn below.

**The Registration Process: On-Demand vs. Survey (Census) Approaches.** The process by which households enter the unified household registry varies by country. Two main approaches include: (a) on-demand registration, which relies on households to come to a local welfare office to register (apply for benefits); and (b) quasi-exhaustive survey (census) methods in which all households in a particular area are interviewed and their information is entered into the unified household registry. Some countries use a mix of these methods, depending on the geographic area:

- **Examples of On-Demand Applications: the U.S., Chile, Urban Mexico.** The United States and Chile use on-demand registration methods, whereby households must come apply at designated welfare or municipal offices to be included into the registry or for specific social benefits. It should be noted that Chile – which has the longest-standing PMT registry system in LAC – switched from a survey-based census approach to an on-demand approach in the 1990s. This shift was driven by several factors, including: (a) increasing awareness of, and familiarity with, the registry (including by the poor) over time, which facilitates reliance on an application method (since poor people know how to register); (b) decreasing poverty in Chile over time; and (c) the fact that poverty is not heavily concentrated in particular areas, which makes a survey-sweep approach very expensive relative to the number of people who would eventually qualify for benefits upon eligibility screening. For similar reasons, Mexico’s *Oportunidades* Program has also adopted an on-demand application approach in urban areas.
- **Examples of Survey-Based Approaches: Colombia, Costa Rica, Rural Mexico.** In Colombia, Costa Rica and rural areas in Mexico, most households are registered via a quasi-exhaustive survey (census) sweep of areas with high concentrations of poor people (determined via a poverty map). Nonetheless, these systems do allow for on-demand applications in some instances (e.g., in non-prioritized or urban areas).
- **Brazil’s Quota-Based Survey Approach.** In Brazil’s case, access to the Cadastro Único registry has traditionally been conducted through a quota-based survey (census) approach.<sup>10</sup> Municipalities were given pre-specified program quotas which limit the number of households they can register. Municipalities then registered that number using a survey approach. There have been no formal guidelines on how municipalities should identify which households to register. Without federal guidelines, some municipalities have used their own information from micro area poverty- and/or vulnerability-maps. For other municipalities, however, the decision-making process regarding which households are interviewed and registered for eligibility screening is not clear, with the obvious costs for transparency and potential for manipulation. As discussed in Box 1, the use of a priori quotas for

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<sup>10</sup> The Cadastro Único was launched in 2001 as an attempt to unify the previously separate household registries for four federal conditional cash transfer (CCT) programs: Bolsa Escola (school grants program), Bolsa Alimentação (health grants transfer), Auxílio Gas, and (later) Cartão Alimentação. The pre-existing registries for these programs were largely merged into the Cadastro Único. The Cadastro Único also expanded rapidly in terms of new registrants, some of which came from pre-existing municipal registries (some municipalities also operate their own CCT programs and corresponding registries). Then in 2003, after the Lula administration came into office, the Bolsa Família Program (BFP) was launched as an integration of these four federal CCT programs (BE, BA, AG, PCA). The BFP is also seeking vertical integration with local-level CCT programs (and registries). Eligibility for the BFP is currently based on data collected under the Cadastro Único, and the Ministry of Social Development is working to overhaul and improve the Cadastro Único.

household registry and screening systems is not advised (and Brazil is currently reforming this system to abandon the use of *a priori* registration quotas).

Both on-demand registration and the survey-based approach have their advantages and disadvantages (Table 2). **The quasi-exhaustive survey (census) approach** has the advantage of increasing the likelihood of reaching the poor in surveyed areas. The *marginal* unit cost of the survey approach is also 30% cheaper on a per interview basis than the on-demand registration approach (in LAC countries), particularly when home visits are required, due to the travel savings to public authorities arising from economies of scale in travel (to register a group of houses on the same trip, rather than traveling for each applicant individually). On the other hand, the **on-demand applications approach** has the inferred advantage of lowering *total* costs due to self-selection by the non-poor out of the registry process (their unlikely eligibility for social programs discourages them from taking the time to come apply for entry into the household registry). The on-demand application approach is also more dynamic, creating the needed institutional and logistical structure for on-going entry (applications), up-dating and recertification. Nonetheless, the on-demand application approach has the important drawback of potentially missing likely-eligible poor households if they are uninformed about the registry process or their potential entitlements to benefits.

**Table 2 – Relative Advantages of Different Data Collection Processes:  
Survey Vs. On-Demand Application Approaches**

	<b>Quasi-Exhaustive Survey Approach</b>	<b>On-Demand Application Approach</b>
<b>Relative Advantages</b>	<ul style="list-style-type: none"> <li>• Better chance to reach poorest who are less informed</li> <li>• Lower <i>marginal</i> registry costs (per household interviewed) due to economies of scale for travel costs</li> </ul>	<ul style="list-style-type: none"> <li>• Lower <i>total</i> costs due to self-selection of non-poor out of registry process (interviewing fewer non-poor households)</li> <li>• Dynamic, on-going entry, easier to update</li> <li>• More democratic nationally: anyone has right to be interviewed at any time</li> <li>• Permanent process helps build and maintain administrative and logistical structures</li> </ul>
<b>Best Suited:</b>	<ul style="list-style-type: none"> <li>• In areas with high poverty rates (over 70%) and/or high poverty density</li> <li>• In homogeneous areas (rural areas, urban slums)</li> <li>• With new registries (programs), particularly when need to start large program quickly</li> </ul>	<ul style="list-style-type: none"> <li>• In areas with low or moderate poverty</li> <li>• In heterogeneous areas</li> <li>• When registry is well known or well publicized (and outreach campaigns encourage applications in poor areas)</li> <li>• When people have higher education levels</li> </ul>
<b>Examples of Use:</b>	<ul style="list-style-type: none"> <li>• Colombia SISBEN (exhaustive surveying of pre-identified poor areas)</li> <li>• Brazil Cadastro Único (quota-based surveying)</li> <li>• Chile Ficha CAS until early 1990s</li> <li>• Mexico Progresas in rural areas</li> <li>• Costa Rica in poor areas</li> </ul>	<ul style="list-style-type: none"> <li>• US</li> <li>• Chile's Ficha CAS since early 1990s</li> <li>• Partial Use in: <ul style="list-style-type: none"> <li>• Mexico (urban areas)</li> <li>• Costa Rica (also available on-demand)</li> <li>• Colombia (also available on-demand)</li> </ul> </li> </ul>

Source: Authors' assessments based on Country Case Studies (2003).

As discussed below in Sections D and E, federal guidelines and oversight are needed for either approach, particularly when implemented under decentralized arrangements. For the **survey (census) approach**, for example, strong federal oversight is needed to monitor the selection of specific areas that get surveyed. Micro-area poverty maps can help guide municipalities in their choice of area to be surveyed (geographic targeting, as discussed below). Such poverty maps can also facilitate oversight by federal authorities for monitoring that the areas surveyed truly are those with high concentrations of poverty. Without such oversight, manipulation by municipal authorities in the choice of areas to be prioritized is possible. In Colombia, for example, municipalities have reportedly manipulated the areas in which survey sweeps are conducted in order to reduce costs (prioritizing more readily accessible areas) or for political manipulation. In Brazil, the federal government has not (yet) provided guidelines to municipalities to assist them in prioritizing geographic micro areas for their survey-based interviews. If **on-demand applications** are

conducted in a decentralized manner, federal oversight and public awareness campaigns are needed to ensure that outreach efforts are made to inform poor residents of the registration process and their potential eligibility for social programs.

### Box 1 – Registration Quotas, Program Quotas, and Fiscal Limits

When demand for programs exceeds available financing, countries need to find fair ways to fill the available “quotas” for program beneficiaries. It is important, however, to distinguish between “registry” quotas (which we do not recommend) and “program beneficiary” quotas (for which countries should adopt transparent and fair methods for filling). Both are discussed below.

**A Priori Registration Quotas.** Some countries establish quotas for registering households. For example, they instruct municipalities to register up to a certain number of households, based either on census or survey estimates of poverty or on program limits. Such has been the case with Brazil’s Cadastro Único. We do not recommend the use of *a priori* registration quotas for several reasons:

- These quotas result in excluding potentially poor – or including potentially non-poor – households before the data on household characteristics are collected or compared to eligibility criteria.
- As a result, the actors implementing registration (often local governments or coordinators) end up taking decisions about how to ration the registration – often without federal guidelines. These decisions can result in:
  - A lack of transparency for decisions regarding which households are interviewed and registered;
  - Opportunities for political manipulation (e.g., vote seeking by registering certain households with particular political affiliations);
  - The potential for replicating existing inequalities (e.g., where the extreme poor get excluded because they are less informed or less connected);
  - A non-dynamic registry that gets filled up to the initial quotas, is not updated, and then bars new entrants to the registry.
  - A lack of credibility and trust in the system, with perceptions of unfairness (why did X household get registered and not me when I think I should be eligible too)?

Instead of using registration quotas, we recommend a policy of open registration in which anyone can register at anytime, with the clearly communicated understanding that registration does not guarantee benefits. This policy is more compatible with an “on-demand” application approach. If a “survey-based census approach” is used, we recommend careful use of micro-area poverty maps to prioritize areas in which to conduct the quasi-exhaustive census-style registration (as discussed elsewhere). These poverty maps can be used to prioritize specific municipalities where registration would be carried out, or specific areas within (large) municipalities (depending on the degree of disaggregation of the maps).

**Program Quotas.** Given budget constraints, rationing in transfer programs is common. As such, efforts should be taken to ensure that transparent and fair procedures are used to select among eligible poor families from the unified household registry. Some methods for this include:

- Adopting random selection methods to randomly select among the poor that are identified in the (more universal, open registry). These methods should be well publicized and transparent – so that people know that beyond being poor, there is a random element to selection into a program (due to budget limitations). This helps promote perceptions of fairness regarding the system.
- Using micro-area poverty maps to guide registration and selection, offering slots first to the poor in the poorest areas, then proceeding to the next tier of poverty rankings to continue until program quotas are filled.

Given the heterogeneity of developing countries in general and the poor in particular, **a mixed approach** seems appropriate in order to balance (a) maximizing outreach to the poor and potentially eligible households; with (b) minimizing the costs of interviewing large numbers of households that are unlikely to be eligible for the programs using the registry, while ensuring that the system transparently allows for on-going entry into the registry.

As discussed above, **micro-area poverty maps** can help (a) determine which method – on-demand vs. the survey-based outreach approach – is appropriate for initiating data collection and interviews; (b) prioritize

areas in which to establish local offices (for on-demand applications) or conduct quasi-exhaustive surveying of households (geographic targeting); and (c) guide the degree of detailed information that needs to be collected and verified (e.g., using a “long” questionnaire form with all variables vs. a “short” questionnaire form with literally a “short list” of variables – such as household composition and residence – that need to be confirmed). Table 3 provides a summary of scenarios which geographic targeting and household assessment mechanisms are combined for data collection in unified household registries.

**Location of Interviews.** The site of the interviews can affect quality and costs. **Home visits** are useful for verifying family composition and residence, as well as visible living conditions (particularly for PMT), such as housing quality, public services and assets. Nonetheless, home visits can be costly to conduct (especially with the on-demand approach where each household is visited separately, see Box 2 below). The costs to the governments of conducting home visits should be weighed against the impact costs of missing potentially eligible poor households (or the financial costs to these households of travelling to welfare offices from remote areas) without such visits. Home visits can also be dangerous (e.g., in urban slums). Home visits also require either portable computers or PDAs for in-field data entry, or paper questionnaires (with the possibility that an interviewer would have to return if either malfunctioned and revealed inconsistent information). **Office visits** have their own advantages, including cost efficiency (for the government), the prevalence of computer infrastructure for immediate data entry and consistency checking during the interview, and on-going supervision. A well-developed network of local offices also facilitates updating, recertification and a dynamic open, on-going registry system.

The location of interviews varied in the sample of countries studied for this paper, and many countries used both types of locations. In the United States, most phases of the lengthy (on-demand) interview and VMT screening process are carried out in the office, though some counties (such as New York City) require home visits. Home visits are used for all four LAC countries that have adopted PMT as their screening mechanism (Chile, Colombia, Costa Rica, and Mexico). In Brazil, the federal government has not established guidelines for the location of visits and does not require home visits. As a result, municipalities have carried out interviews at a variety of locations (see Table 1 above).

**Box 2 – Interview Times and Home Visits**

Interview times are fairly comparable for home visits with PMT in LAC. Average interview times range from 15-20 minutes in Costa Rica, Colombia and Chile. Interviewers conduct an average of 15 home visits per day in urban areas with the survey approach, and 7-8 per day in rural areas. With the on-demand approach, interviewers conduct fewer home visits per day (because they have to travel to each house separately), averaging about 8-9 per day in urban areas.

**Quality of Interviews.** The quality of human resources and other inputs can significantly affect the interview process. Key inputs to consistent quality interviews include: (a) clear guidelines for qualifications of interviewers and supervisors; (b) training (including updates for program/policy changes); (c) clear and accessible interview manuals; (d) regular supervision; (e) the availability of needed tools and materials (computers, pens, paper, questionnaires, etc.); (f) familiarity with local customs, cultures, languages – or an availability of translators (especially for ethnically distinct groups). These factors vary significantly across the spectrum of countries sampled for this study (and even within each country). Additional information is provided in Annex 1 for the Latin American Countries and the individual country case study reports.

**Table 3 – Combining Geographic Targeting and Household Assessment Mechanisms for Data Collection in Unified Household Registries**

<b>Geographic Targeting Category (from disaggregated poverty map)</b>	<i>Implications and Factors to Consider</i>	<i>Application and Registry Process</i>		<i>Promotion and Outreach Methods</i>
		<i>INITIAL START-UP</i>	<i>PERMANENT</i>	
<b>Heterogeneous areas:</b> <ul style="list-style-type: none"> <li>• Medium- or lower-poverty rates (&lt;70%);</li> <li>• High inequality (Most areas)</li> </ul>	<ul style="list-style-type: none"> <li>• Many families will not be poor</li> <li>• Need to avoid costs of interviewing large numbers of non-poor</li> <li>• Need to make program available to those that are poor</li> </ul>	<p><b>INITIAL AND PERMANENT:</b>  <b>Demand-driven application process:</b> candidates come in to local welfare offices to apply; home visits follow initial interview (to verify residence, identity, welfare indicators).</p> <p>Regular re-certification by those that receive benefits required (every 2 years?)</p>		<ul style="list-style-type: none"> <li>• Public information campaign</li> <li>• Access via main local welfare office (self-selection for applications)</li> </ul>
<b>Areas with very high poverty density:</b> <ul style="list-style-type: none"> <li>• High poverty rate (&gt;70-80%), <i>and</i></li> <li>• Large number of poor people per km (e.g., high poverty urban areas)</li> </ul>	<ul style="list-style-type: none"> <li>• Most families will be poor</li> <li>• Still need to register them and verify residence, identity – could use “short form”</li> <li>• Large concentration (density) of poor people reduces unit costs of interviewing and registering</li> </ul>	<p><b>Initial survey-outreach sweep,</b> registering all families within that geographic area into database.</p> <p>Also allow those poor who were not included to go to local welfare offices to apply.</p>	<p><b>Permanent demand-driven application process:</b> Candidates come to local welfare offices to fill out basic application form and conduct initial interview (basic registry information). Home visit would follow to verify residence, household composition, and welfare indicators (marginal cost of latter is small once home visit already being conducted)</p> <p>Regular (bi-annual?) re-certification by those that receive benefits required.</p>	<ul style="list-style-type: none"> <li>• Public information campaign</li> <li>• Initial survey sweep</li> <li>• Satellite or mobile registry offices located in these areas</li> <li>• Candidates could also go to the main local welfare office</li> </ul>
<b>Areas with high but dispersed poverty:</b> <ul style="list-style-type: none"> <li>• high poverty rate (&gt;70-80%), <i>but</i></li> <li>• low density (e.g., very poor remote, rural areas)</li> </ul>	<ul style="list-style-type: none"> <li>• Most families will be poor</li> <li>• Still need to register them and verify residence, identity – could use “short form”</li> <li>• Dispersion of poor families (and likely remote locations) raises unit costs of interviewing and registering</li> </ul>	<p><b>Initial survey-outreach sweep,</b> registering all families within that geographic area into database.</p> <p>Also allow those who were not included to go to local welfare offices to apply.</p>	<p><b>Permanent process of repeated survey sweeps</b> using mobile unit and institutionalized teams due to high unit costs of each separate interview (economies of scale with survey sweep approach)</p> <p>Potentially eligible families can also come to nearest welfare office to apply at any time to guarantee open access between sweeps</p>	<ul style="list-style-type: none"> <li>• Public information campaign</li> <li>• Initial survey sweep</li> <li>• Repeated survey sweeps with mobile units and institutionalized teams</li> <li>• Candidates could also go to the nearest main local welfare office</li> </ul>

Adapted from de la Brière and Lindert (2003).

**Communications.** Communications strategies also play an important role in ensuring a transparent, credible and quality data collection process. Communications strategies should be designed to promote awareness of the registry itself (outreach tool), as well as of key aspects of the registration process. A “golden rule” of household registries is to communicate loudly the principle that registration in the unified registry does not guarantee eligibility for benefits of social programs. This should be communicated regularly in public, as well as at the start and end of interviews. In addition, the confidentiality policy adopted by the

#### **Box 3 - Confidentiality in Household Registry Information**

The general principle is that individual (identifying) data should be confidential, should not be used for tax purposes or commercial use, and data should be confidentially available to all public agencies (federal, state local) for the purposes of selecting beneficiaries (targeting), maintaining registries (payments issuance), and monitoring and evaluating program performance. Limited data access could be considered for approved researchers as long as individual identifying information is deleted.

In the US, case workers must inform individuals what information is needed, what will be disclosed and for what purposes (e.g., seeking child support, checking substance abuse, court records), about principle of verification and cross-checks with other computer systems. Applicants have to sign disclosure statements indicating consent. Most states do not use information for tax or immigration status purposes. Technologies can help: firewalls, encrypting, etc.

In LAC countries, confidentiality issues are becoming more important. In most countries, questionnaires filled by households have to be signed by respondents to certify that information is correct and to authorize the use of information by registry officials and social programs.

registry should be clearly explained to the applicants (Box 3). Finally, interviewees should: (a) be treated respectfully and in a culturally-appropriate manner; (b) be informed of their rights and responsibilities (including any responsibilities for future updates or re-certification); (c) be given information about who to contact if they have further questions or if they want to inquire about the status of their application (e.g., a toll-free hotline number or a website); (d) be allowed to ask questions themselves; (e) be provided with translation services if needed; and (f) be provided with information about appeals processes if they want to contest subsequent eligibility decisions. More modern welfare systems also use the interview process to refer applicants to other social services (providing informational brochures, contact information from other agencies and programs) – a communications opportunity for “one-stop shops.”

## **B. Managing Unified Household Information Systems**

As shown in Figure 1 above, once household data are collected, they are entered into the database of the unified household information registry. Several practical, operational and technological factors influence the management of unified household information systems. These include: (a) whether or not there is a consolidated national-level database; (b) identification numbers; (c) updating and re-certification; (d) and database management (including software design).

**National Database?** Most countries have a national data base of registered households (except the US and Colombia) and are able to manage registries better, avoid duplications and track beneficiaries more efficiently. The US and Colombia (as of 2003) do not have a central database and duplicate registration is a large problem. Because the US does not have a national database, it has not been able to enforce time benefit of federal programs and avoid duplications within federal, and with state and local programs, nationally (Lindert, 2003). Colombia is currently reforming SISBEN to create a national database.

**Proper Identification of Individuals and Households.** Single identification numbers for individuals is an essential element of unified household information systems. A unique social identification number should be used – ideally one that is used on a country-wide basis so as to link registry information and beneficiaries with other systems and programs. The methods for identifying individuals vary across the countries in our sample:

- **In the United States,** the main number is the Social Security Number (SSN) that allows for cross-checking across systems. Even in the U.S., however, the SSN is not foolproof (not everyone has one, there is some fraud, duplications exist). For registry and program administration, social welfare

offices assign meaningful “soundex number”: that runs checks on matches and “near-matches” for set of identifying characteristics: name, address, birthdate, gender, race, SSN, etc.<sup>11</sup> Case workers have to reconcile any “near matches” identified by the automated system to determine if the applicant is already “known” to the system. Once the applicant is identified as “new” to the system, a permanent case number is assigned and used for all case information.

- **In many LAC countries**, the absence of a unique national identification number is a key stumbling block. A long-term solution is thus to work with national registry offices to start a concerted effort to register newborns, particularly in remote or poor areas where lack of identity documentation and numbers is commonly prevalent. Without unique numbers, countries have resorted to some problematic solutions, including (a) rejecting those without an ID number (e.g., Brazil in the early phases of the *Cadastro Único*), which may leave out some of the poorest; or (b) assigning new numbers as people apply (new number for each questionnaire), in which case duplications may be a large problem (Colombia). Databases also need to be large and flexible enough to maintain historic files. Costa Rica already has a single identification number, which is used in SIPO and many other systems. Many countries (e.g., Brazil, Mexico) are currently implementing initiatives to assign their citizens unique social identification numbers that can be used to link various information systems (the unified household registries for cash transfers, social security information systems, health information systems, etc.). In the absence of a single national identification number, registry questionnaires often collect multiple identification numbers (e.g., in Brazil with the NIS, social identification number) and then assign a new social identification number upon registration. This is a feasible solution, provided that (a) data are consolidated and cross-checked in a single database system; and (b) the system has the capacity to update for changes (updates, recertification), and store and reference historical data.

Household information systems must not only be able to track individuals, but must also be able to link them to households and families (and make sure they are not linked to multiple households and families; see also Box 4 below for a discussion of definitions of households and families).

- **In the United States**, the permanent case numbers link household members with extensions to the head applicant’s personal case number (the automated systems can also match members via common characteristics, such as address).
- **In Brazil**, individuals are linked to families through the household number previously assigned and printed on the *Cadastro Unico* questionnaire. Municipalities receive instructions to never photocopy these forms and always use the original ones sent to them by MDS and the Caixa Economica Federal (CEF, the federal bank charged with managing the *Cadastro* database).
- **In other LAC countries**, including Colombia, Chile and Costa Rica, families have a unique number which covers three aspects: (a) the questionnaire number, which is applied to a housing unit and all households living there; (b) a household number, which refers to the group of people sharing the housing unit, cooking facilities and food expenses (there may be more than one household within a housing unit); and (c) the family number, which refers to those people grouped into a family and related by blood (there may be more than one family within a household and families are numbered sequentially in the household). Family members are given a sequence number defining their relationship to the family head (according to whether they are the family head, spouse, child, or other close relative to the head). As such, each person has a single identification number that links him/her to their family, household and housing unit. In practice, however, problems have arisen with duplications (multiple identification numbers for specific individuals and families) when multiple questionnaires are completed. This has been a particular problem in Colombia, where questionnaires

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<sup>11</sup> In addition, new biometric technologies, such as digital fingerprinting, are increasingly being used in welfare agencies in the U.S. Lindert (2003).



are not stored in a single database and software has not allowed for updating of the historical information.

**Updating and Re-certification.** Updates and re-certifications are important for tracking fraud and avoiding situations such as “ghost” beneficiaries, which can emerge as registries become dated. They also allow for turnover in beneficiaries, to make space for other poor families to enter the registry (and programs). Three types of updates are generally needed with household assessment mechanisms: (a) updates of any changes in household composition and location (address); (b) updates of changes in economic status or income; and (c) full-fledged re-assessments of all variables that determine eligibility (re-certification). The periodicity and onus for making these changes varies by type of household assessment mechanism (VMT, UMT, PMT) and data collection strategy. The logistical network of local welfare offices with demand-based applications (rather than an infrequent survey sweep) facilitates updates and recertification.

- **Demographic, Location Changes.** In general, changes in household composition and location should be updated on a continuous basis. Under the VMT system in the United States, such changes are done continuously and are the responsibility of the beneficiary (failure to update such changes will result in penalties). In LAC (the four PMT cases and Brazil’s UMT system), updates of changes in household composition (births, deaths, separations, etc.) are done irregularly, usually without a new home visit or interview. Due to the closed, static nature of most household registries in LAC, benefits have not been portable such that location changes are not updated or accommodated by the system.
- **Changes in Economic Status.** Under VMT in the U.S., any change in income, assets or employment status must be reported immediately to the local welfare office. The onus for updating this information (and providing documentation of the changes) lies with the beneficiaries of social programs and penalties apply if changes are not reported (random-sample spot checks are used to catch unreported changes, as discussed below). In principle, the same approach would apply under Brazil’s UMT, however, in practice procedures for updating have not been established (and indeed, the *Cadastro Único* software has prevented updates in the past). Under PMT, major changes in economic circumstances, such as employment and income are not generally updated regularly, as these changes may be transitory phenomenon, or may be used to manipulate poverty scores. These variables have generally small weights in the poverty scores, although they may affect welfare considerably in the short-term. Indeed, the failure to include variables of transient poverty is an inherent design feature of PMTs, which generally include variables such as human capital and ownership of assets which change more gradually, making PMTs more suited for structural or long-term poverty. Including variables to address transient poverty would require more regular updating, strong verification and extensive computer matches, which may be far beyond most LAC countries’ administrative capacity.
- **Full-Fledged Recertification.** The periodicity of full-fledged recertification will depend on (a) whether or not the target group consists of the chronic or transient poor (with alleviating chronic poverty being the more common goal and requiring less frequent updates); and (b) administrative and financial capacity for implementing recertification of households on beneficiary lists (sub-registries). In the US, re-certification is annual for most beneficiaries, except for certain chronic poverty groups (less frequent, 24 months; e.g., elderly poor). Re-certification is automatically scheduled and recorded in the system during the interview/eligibility process. Beneficiaries receive a reminder in advance of their re-certification date and lose benefits if they do not come to the local welfare office and provide all needed information and documentation for re-certification. Re-certification has been highly infrequent in LAC (2-3 years, see Table 1 above), due to incomplete policy design (e.g., Brazil’s law indicates an annual review but the operational guidelines and implementation experience have not put this into practice), costs and administrative feasibility

concerns, and political inertia (politicians unwillingness to remove beneficiaries from program registries).

**Database Management.** As discussed above, there is an important distinction between the unified household information registry (or “cadaster”) and the program-specific beneficiary lists (sub-registries, see Figure 1 above). Indeed, the coverage and functions of these registries are quite different:

- The **unified household information registry** (or “cadaster”) includes all interviewed households (which may or may not be eligible for program benefits for an array of programs). Unified household registries serve to: (a) collect, record, and store updated and historical information on household characteristics and circumstances; (b) verify and check the consistency of this information (including via automated cross-checks within the registry and with other databases, as discussed below); (c) automatically screen for eligibility of specific programs by comparing household information with pre-established program-specific eligibility criteria (to create the sub-registry beneficiary lists); and (d) provide needed information to support service planning and projections.
- **Program-specific beneficiary lists** are sub-sets (sub-registries) of the unified household registries and contain information only on households that have been deemed eligible for benefits through the eligibility screening process. These program-specific beneficiary lists serve several distinct functions, including: (a) triggering and monitoring payments (payroll function); (b) supporting case management (scheduling appointments, monitoring benefits and use of complementary services, tracking compliance with conditionalities, etc. depending on the nature of the program); (c) screening for duplicate benefits (within or between beneficiary databases); (d) monitoring time accrued on payroll (for the enforcement of time limits); and (e) providing information to support monitoring of program activities (physical, financial) and statistical reporting.

These two different types of registries (unified household registry vs. program-specific beneficiary databases) can be maintained separately to reduce administrative complexity and to facilitate sharing the unified household registry with various federal, state and local agencies so that it may be used as a screening device for multiple programs. Indeed, such separation is the practice under stand-alone household registries such as Chile’s *Ficha CAS* and Colombia’s *SISBEN*. Even if they are maintained separately, however, automated links must exist between them so as to facilitate updates from one to the other.

Some important features of effective database management include:

- **Flexibility.** Registries and their operating software must be flexible enough to adapt to changing policies, eligibility criteria, and case loads (numbers of registered households). They should also be designed to accommodate and store information for updates and re-certification (including the historical and up-dated information), and to search for duplicate entries (of individuals and/or households).
- **Common Software.** For managing the unified household registry, another key ingredient involves the use of a common software for data entry, validation and processing to be used by the agency(s) responsible for data collection activities. The use of a common software application reduces training costs and ensures compatibility for aggregating, consolidating and cross-checking databases produced by the different agencies. This is especially important when a decentralized approach is followed and local authorities are responsible for data collection and validation. A strong data entry and validation software would produce clean and validated program-specific beneficiary sub-registries to be shared with welfare agencies in electronic form, preferably with a reduced number of necessary variables, such as ID number, names, addresses and welfare scores that reduces the need to maintain and manage large data bases by for specific programs.

Unfortunately, most household registry systems in LAC have not given enough attention to ensuring the quality of information by taking measures to improve data management practices, securing single ID numbers for all household members, developing and pre-testing of data-entry and processing software, preparing clear and available manuals, conducting training, etc. This has resulted in inconsistent data, missing information (including ID information), hindering the process for building a national database.<sup>12</sup>

### C. Types of Household Assessment Mechanisms

As shown in Figure 1 above, once household data have been entered, consolidated and validated in the unified household registry, they can be compared to program-specific criteria to determine eligibility. This section reviews types of household assessment mechanisms in principle and in practice – covering the design of both the questionnaires and application of eligibility criteria.

**Types of Targeting Mechanisms in Principle.** As discussed in the introduction above, the rationale for targeting is to ensure that the limited program resources primarily reach the poor and that the poor (or sub-groups of the poor) are not excluded. Countries have applied a variety of targeting instruments<sup>13</sup> for social programs, including (a) household (or individual) assessment mechanisms<sup>14</sup> such as (i) Verified Means Testing (VMT), which involves screening applicants based on incomes, assets and expenditures; (ii) Unverified Means Testing (UMT), which relies on self-reported income with little or no verification; or (iii) Proxy Means Testing (PMT), which is based on predictions of welfare from demographic, education and asset variables; (b) categorical targeting, which refers to selecting broad groups of households based on a common characteristic (such as geographic location, see Box 4); or (c) self-targeting, which makes benefits available to all but involves design features intended to discourage the non-poor from claiming them while encouraging the poor to use the program.

The choice of a particular method depends on the program to be targeted, the information available, the administrative capacity of the country or agencies charged with targeting, and on the cost of the targeting method. Most cash transfer programs require household assessments (VMT, UMT or PMT) to determine eligibility since the immediate benefits (transfers) are largely “private” and are not site specific (unlike a school or water-sanitation system). However, targeting mechanisms can be combined to yield even better results. For example, geographic targeting (GT) is often combined with household assessment mechanisms, such as when PMT are applied to households in priority areas pre-identified by poverty maps (see Box 4). Also, self-selection can be combined with PMT as when people eligible under a PMT are required to meet certain conditions, (e.g., attend schools or receive health check ups regularly).

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<sup>12</sup> In Brazil, for instance, there were a number of municipal databases that could not be transmitted to the federal agency building the central database.

<sup>13</sup> See Coady, Grosh and Hoddinott (December 2002) for an in-depth discussion of the principles and outcomes of a wide variety of targeting mechanisms (household, group, and self-targeting instruments).

<sup>14</sup> Community-based targeting is another form of household assessment mechanism in which communities (rather than governments) determine eligible households using local knowledge and criteria. This household assessment mechanism is reviewed only indirectly here, to the extent that municipalities involved in identifying which households to interview for UMT in Brazil or PMT in other LAC countries apply a certain degree of local knowledge as is done in community-based targeting.

#### Box 4 – Geographic Targeting and Household Assessment

**Geographic Targeting.**<sup>15</sup> Geographic targeting is a popular method to identify the target population of social programs. With geographic targeting, eligibility for benefits is determined, at least partly, by location of residence. Tools used to guide such decisions include: (a) micro-area maps<sup>16</sup> of poverty and inequality (such as those which combine household survey and census data, as is the case in Mexico); (b) geographic data on particular social indicators (e.g., educational outcomes, Human Development Index); (c) geographic data on coverage of specific infrastructure (e.g., water systems, health coverage, school systems); and/or (d) geographic mappings of basic needs indices. The advantages of geographic targeting include its administrative simplicity, that it does not generate adverse labor-market incentives or stigma effects, and that it is easy to combine with other methods (discussed below). The limitations of geographic targeting include its information requirements (accurate, current, and spatially disaggregated data on living conditions), its weak performance when poverty is not spatially correlated, and the potential for political controversy of including and excluding certain areas. Geographic targeting is particularly appropriate in circumstances where (a) considerable variations exist in living conditions across regions; (b) administrative capacity is sufficiently limited so as to preclude use of individual or household assessment; and/or (c) delivery of the intervention will use a fixed site, such as a school, clinic, or ration shop.

**Geographic Targeting of Cash Transfers Instead of Household Assessments?** Some argue that cash transfer programs should rely entirely on geographic targeting instead of fine-tuned household assessments on the grounds that it would be more administratively simple. We disagree, and instead favor a combined geographic-household targeting approach (see below). Since the benefits of cash transfer programs are not site-specific (unlike a school or a sanitation system), and since these benefits are largely “private goods,” then even with “pure geographic targeting,” there is still a need to register individual households to confirm residence and household composition (generally with a home visit). With cash transfers, this minimum information is critical for adequate data management and payment purposes (to eliminate duplications, apply cross-checks, verify residence). Once a program undertakes to collect this minimum information on residence and household composition, the marginal costs of collecting the 10-15 additional variables needed to predict household welfare using a PMT are quite small. For example, in Nicaragua, the marginal cost of conducting PMT in addition to geographic targeting was only 30% (IFPRI, 2002).

**Even Better: Geographic Targeting Combined with Household Assessments.** The international study by Coady, Grosh, and Hoddinott (2004) shows that the combined use of multiple targeting mechanisms is associated with more accurate targeting outcomes. One common combination is between geographic targeting and household assessment mechanisms. Indeed, the household registry systems in the five LAC case studies for this present study all combine household assessment with some degree of geographic targeting. Coady (2001, 2003) shows the power of combining targeting methods for Mexico’s Oportunidades Program. His simulations show that: (a) geographic targeting alone results in a CGH outcome<sup>17</sup> of 1.7 (with the bottom quintile receiving 33% of benefits); (b) geographic targeting combined with PMT yields a CGH outcome of 2.0 (with the bottom quintile receiving 40% of benefits); and (c) a combination of geographic targeting, PMT, and demographic targeting (taking into account the number of children in the household) generates the impressive CGH outcome of 2.9 (with the bottom quintile receiving 58% of the benefits) – as is currently the case with the Oportunidades Program in Mexico (see Section 3 below). Given that the marginal cost of combining these methods is relatively low (see previous paragraph), we recommend this combined approach (but with the availability of on-demand applications in non-prioritized areas to avoid excluding the poor in those areas). Table 3 above suggests “rules of thumb” for ways in which poverty maps can combine with household targeting systems to not only strengthen the targeting of programs, but also to help guide decisions about the implementation of household registries (such as whether or not to use the survey-approach or the on-demand applications method for data collection).

**Household Targeting Mechanisms in Six Countries.** The six countries analyzed use a variety of household assessment mechanisms to determine eligibility for safety net programs (including cash transfers). The United States uses complex VMT to screen households for eligibility for its numerous federal programs. Brazil uses UMT to screen households for its conditional cash transfer programs. And the remaining four LAC Countries – Chile, Mexico, Colombia, and Costa Rica – all use PMT to screen households for eligibility for various safety net programs. All of these household assessment mechanisms require a clearly stated definition of the concept of the “assistance” unit (see Box 5).

<sup>15</sup> Adapted from Coady, Grosh and Hoddinott (2004).

<sup>16</sup> Small-area poverty maps can be constructed by combining data from a recent population census and household survey that includes a solid measure of consumption (or income). The survey allows the determination of the weights of the variables used to predict consumption (included in both the survey and the census), that could be used to predict consumption of all households in the country. Using a threshold level, such as the poverty line, each family in the census is calculated the probability of being poor (having estimated consumption below the threshold level), and then areas can be ranked by the mean probability of being poor in the area concerned. See: Elbers-Lanjouw-Lanjouw (2001). Practical application details, including statistical model and instructions are in Demombynes (2002).

<sup>17</sup> See Section 3 for a discussion of the CGH targeting indicator.

### Box 5 - Clear Definition of the Household or Family Unit

The definition of an assistance unit is important for the registry of beneficiaries and for the social programs to be targeted.

**Family = Assistance Unit.** The household registry systems in Chile (Ficha CAS), Colombia (SISBEN) and Costa Rica (SIPO) distinguish households from families. Households are defined as a person or group of persons that live in a house or part of it and share food or the food budget. The family, akin to nuclear family, is the person or group of persons within the household that live permanently in the house, and includes the couple and single sons and daughters with or without income, and people with no dependants and no income that depend from the family head. Thus, within a housing unit there may be one or more families with differing scores. The reason for this distinction is that the household information systems serve multiple programs, and these many not have the same definitions of the target assistance unit. Some programs, such as Chile's housing subsidy programs, or Colombia's subsidized health insurance program (SHIR), use families as the target assistance unit. The following example demonstrates the different eligibility scores that can result from different definitions:

**1 Household**

Father, Mother  
1 Married son, wife, two children  
1 Daughter, her infant  
Family friend living in house

**4 Families**

Family No. 1: Mother, Father  
Family No. 2: Married son and his wife, two children  
Family No. 3: Daughter, her infant  
Family No. 4: Family friend living in house

**Eligibility Criteria Depend on:** housing conditions (same for all), public services (same for all), presence of durables in home (same for all), education of family members (differs across families), dependency ratio within families (differs across families), crowding (persons sleeping per room for family), etc. As such, Family No. 1 may have a different score if the education of the mother or father is higher than other household members. If that is the case, Family No. 1 may not be eligible, but other families in the household might be eligible.

While these definitions are clearly stated in interviewers' manuals, and interviewers receive training, making such distinction has been difficult in practice. For example, in practical terms, because Colombia's SHIR program uses a different definition of the assistance unit than SISBEN, data use, management, and updating are more difficult. In fact, because the definition of household and family are from self-declared information, there may be manipulation of information to attain low score points. Both Chile and Colombia are considering dropping this distinction in new revisions of their systems.

**Household = Assistance Unit.** In Mexico the definition of registry unit is that of the household.

**Assistance Unit Self-Defined.** Under the main cash transfer program in the U.S. (the TANF Program), the assistance unit consists of family members that are identified by the applicants to constitute "the assistance unit" (AU). The AU generally includes children, siblings, parents, or other caretakers. It can exclude members of the household or family as determined by the applicant (e.g., if some members don't meet citizenship criteria), and these would not receive the pro-rated benefits. Individuals cannot be claimed under more than one AU, and the AU must include at least one child. All parental income must be considered, even if one or both parents are not present.

**Verified Means Testing and the Case of the United States.** Verified means testing (VMT) is considered the "gold standard" for household targeting.<sup>18</sup> VMT is primarily used in developed countries, where incomes, expenditures and wealth are formal, monetized and well-documented (and usually registered into massive automated government databases), making them more easily measurable and verifiable. As discussed in more detail in Section 3 below, VMT systems can generate strong targeting outcomes. Nonetheless, VMT systems are extremely complex (requiring extensive documentation and verification and hence strong administrative and systems capacity) and costly (in terms of staff time and financial costs of the system), as discussed in more detail below.

<sup>18</sup> Coady, Grosh, Hoddinott (2002).

In the United States,<sup>19</sup> most safety net programs adopt a rigorous form of VMT, applying several “tests” for eligibility with intensive verification and cross-checking of all information provided. Eligibility criteria are extremely complex and vary significantly across all 84 federal welfare programs, including the three main programs: TANF (cash transfers), Food Stamps, and Medicaid (medical coverage for the poor). Moreover, for some programs, such as TANF, states have the responsibility for establishing eligibility criteria. As such, these differ by state (and sometimes by county). In contrast, the Food Stamps Program adopts uniform national eligibility criteria. Depending on the program and state, eligibility tests can include:

- **Asset tests:** (a) comparing financial assets to some pre-determined threshold; and (b) vehicle asset tests (allowing up to a certain amount of the fair market value of vehicles possessed by applicants);
- **Gross income tests:** comparing gross earned and unearned income to some pre-determined threshold (taking into account household size);
- **Net income tests:** calculating net income (gross income minus some set of standard deductions and exemptions) and comparing it to some pre-determined threshold (taking into account household size); and
- **Benefit calculations:** implicit means tests whereby benefits are calculated as the maximum benefit level minus the income (net or gross) of the household (taking into account household size).

Criteria differ across programs and states not only in the types of tests performed, but also in the definitions of incomes used (earned vs. unearned, amounts of income deductions and disregards, etc.) and for the definition of the beneficiary unit (household, family, assistance unit, etc.). In overall income thresholds, on average, state criteria for the TANF program imply a slightly poorer target population than the uniform federal criteria for the food stamps program and the threshold for the Medicaid program. The average income threshold for TANF equals about 60 percent of the federal poverty line. This compares with gross and net income thresholds for the food stamps program of 128 percent and 99 percent of the federal program respectively, and a threshold of 133 percent of the federal poverty line for Medicaid. Strict comparisons, however, are complicated by the fact that each program counts incomes differently. In addition such programs as TANF have work requirements and time limits that could affect program participation.

**Box 6 – Incentive Effects of Means-Testing**

Much attention has been given to the potential negative incentive effects of **income testing on labor market participation**. Disincentives to work can be created if targeting is sharp and benefits are reduced as earned incomes rise. Indeed, reducing such adverse incentives, and their potential for creating a poverty trap, is what has motivated many of the welfare reforms in the United States in 1996, including: (a) work requirements for welfare recipients; (b) time limits; (c) higher earnings disregards (the amounts of earned income that are not counted for eligibility); and (d) higher income thresholds and continued eligibility for non-cash benefits (food stamps, Medicaid) for welfare beneficiaries when they become ineligible for TANF (cash transfers) due to higher incomes.

Empirical studies in the US also suggest that **asset tests** may reduce savings by lower-income families.<sup>20</sup>

There is little empirical evidence of the **effects of UMT or VMT** on labor-market and other behaviors in LAC. Given that these mechanisms are less tied to actual earned incomes, their effects are likely to be less than with VMT. Recent analysis by the World Bank found little evidence of a strong effect of cash transfers on labor-market participation in Brazil.<sup>21</sup>

The accuracy – and the complexity – of VMT in the U.S. derive largely from extensive verification of income and asset verification. Indeed, this verification is one of the major aspects that distinguishes VMT from UMT in the spectrum of household assessment mechanisms. Two tools are generally used for verification purposes: documents and computer matches. During the interview, the case manager typically explains to the customer the types of verification that will be conducted, and identifies what documentation will be needed. For income (earned and unearned), documentation must generally cover the past two months

<sup>19</sup> This section adapted from Lindert (2003).  
<sup>20</sup> Orzag, Peter R. (2001).  
<sup>21</sup> World Bank (May 25, 2004).

and include: pay stubs, employer wage statements, benefit letters from other programs (social security, unemployment compensation, pensions, etc.), employer letters, etc. For assets (cash or non-cash), such documentation must include the applicant's most recent banking statements (savings and checking), value of stocks or bonds, life insurance policies, vehicle documentation, etc. For expenses, applicant's must provide documents on: shelter costs, most recent utility bills (gas, electricity, water), written statement of child care costs, real estate tax bills, recent medical bills, and child support payments made by the applicant. The use of computer matching systems has almost doubled since 1991 from an average number of system matches of about 7.5 to about 14 currently.

**Unverified Means Testing and the Case of Brazil.** Because the prerequisites for operating VMT are generally lacking in developing countries (such as high degree of formal, monetized and documented incomes, high administrative and financial capacity), some countries, including Brazil, have attempted to determine eligibility using unverified means testing (UMT) systems. These systems compare data collected on self-reported household incomes to pre-determined eligibility cut-offs.

In principle and practice, the use of self-reported incomes suffers from a higher risk of mis-measurement and fraud due to: (a) the high potential for measurement errors for self-reported income; and (b) adverse incentives for under-reporting. Even in independent household surveys<sup>22</sup> (which do not yield any financial incentives for under-reporting – such as eventual program benefits), measurement errors – due to seasonal, informal and in-kind earnings – tend to result in an under-estimation of incomes. To better measure income, extensive questions are needed – to probe for different sources of income (various jobs, part-time jobs, self-employment earnings, non-labor sources, etc.) and over various reference periods (past week, past month, past year). Without this kind of detailed probing, incomes tend to be significantly under-estimated. These measurement errors are exacerbated when self-reported income data are collected for the known purpose of determining benefit eligibility – as is the case with the use of UMT as a household targeting mechanism.

**In Brazil,**<sup>23</sup> conditional cash transfer programs, including the recently created Bolsa Família Program (BFP) and its predecessors (such as Bolsa Escola),<sup>24</sup> currently rely on UMT using data collected under a unified registry, the *Cadastro Único*,<sup>25</sup> to screen families for eligibility. Both at the national and the local level, some geographic targeting does seem to have been used in implementing the *Cadastro Único* and user programs, such as Bolsa Família and its predecessors (e.g., Bolsa Escola, the largest of the pre-reform programs). First, at the national level, the *Cadastro Único* and its user programs were initially implemented with greater intensity in the North-East region of the country, which has a higher poverty rate. Second, since data are collected locally (and with *a priori* registration quotas, as discussed above), some municipalities did make use of geographic tools – such as local area poverty or vulnerability maps – to prioritize areas for registration.

Available evidence suggests that Brazil's *Cadastro Único* suffers from both measurement errors and adverse effects of incentives for under-reporting:<sup>26</sup>

- **Measurement Errors: Weak Questionnaire.** Measurement errors with the *Cadastro Único* are likely due to a weak questionnaire. Despite the high degree of informality in Brazil's economy,

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<sup>22</sup> For example, analysis suggests that incomes are under-reported *even* in Brazil's household surveys, such as the PNAD surveys (even without these adverse incentives effects). See Elbers, et. al. (2003).

<sup>23</sup> This section adapted from de la Briere and Lindert (2003).

<sup>24</sup> The BFP is a conditional cash transfer program that was created in 2003 out of a merger of four cash transfer programs: Bolsa Escola, Bolsa Alimentação, Cartão Alimentação, and Auxílio Gas.

<sup>25</sup> The *Cadastro Único* was constructed via direct data collection and from consolidating pre-existing federal registries (such as the "SIBES" which was used for Bolsa Escola) and municipal-level registries (some municipalities maintained their own registries even before SIBES or the *Cadastro Único*; they commonly transferred these data to the *Cadastro Único* to save on re-registration).

<sup>26</sup> The use of UMT has also resulted in higher error rates in other countries, including in experiments with UMT in the United States. The State of Maryland (U.S.), for example, experimented both with VMT (today's system) and with UMT combined with audits and penalties for fraud (in the 1970s). The results indicate that, although the average payment error rate is 13.5% under the VMT system, the average payment error rate was 23% and the case error rate shot up to 53% under UMT. State of Maryland (1979) as reported in Lindert (2003).

coverage of questions and types of incomes in the Cadastro Único questionnaire is weak and limited. The questionnaire only includes six income questions: earned income (from labor), retirement benefits, unemployment benefits, alimony, gross agricultural income (covering the last “agricultural year”) and other income. Income data are not verified by any form of documentation or cross-checking. No instructions are given regarding: (a) which family members for which income data should be collected; (b) time reference periods (presumably quoted on a monthly basis by tradition in Brazil); (c) whether the income should be reported as average (monthly) or just the most recent unspecified time period (monthly); or (d) whether earned income should be reported as gross or net. Although other variables are collected, income is the only variable in the Cadastro Único questionnaire that is currently used to determine eligibility for the BFP. The Ministry of Social Development, which oversees the Cadastro, is currently working to improve the questionnaire (strengthening quality and considering the possibility of moving towards a PMT type system).

- **Incentives for Under-Reporting.** Two evaluations suggest that Brazil’s Cadastro Único suffers from the adverse effects of under-reporting. **First**, de la Brière, et. al. compared estimates of the poor using the Cadastro Único (merged with its predecessors) and a well-known household survey (the PNAD). This comparison reveals over a million additional “poor” households included in the Cadastro Único as compared with estimates from the PNAD. The tendency for households to underestimate incomes appears particularly strong among the “extreme poor:” almost twice as many extreme poor households (close to five million more) are identified by the Cadastro as compared with the PNAD. **Second**, Paes de Barros, et. al. (November 2003) conducted a re-survey of close to 5,000 urban households in the Cadastro Único. Among other findings, their re-survey results suggest that (a) quantitative information about incomes and consumption in the Cadastro is of very low quality (with, for example, a substantially higher share of households reporting zero incomes and consumption in the Cadastro than the re-survey); (b) qualitative information on non-monetary dimensions of poverty was much more accurate; and hence (c) multi-dimensional indicators (such as proxy-means tests, including but not restricted to monetary measures of income) produce a reliable, transparent ordering of the population.

Despite these difficulties with quality and transparency, the targeting *outcomes* for the Bolsa Escola Program (which has since been merged into Bolsa Família, with beneficiaries being registered in the Cadastro Único) are reasonably accurate (though not as strong as those for programs based on VMT or PMT), as shown in Section 3 below.

Moreover, in some situations, UMT could be the only feasible option to distinguish between the poor and non poor for benefits. For example, in situations where a quick decision is needed – e.g., in hospital admissions offices in countries have subsidies for health care of low income groups – UMT may be the only practical way to determine if a subsidy applies or not.

For situations where benefits will be granted for long periods of time (as is the case with many cash transfer programs), under-taking the verification of information – either verifications of income information or via proxy-means indicators – seems to be a worthwhile investment to improve both the equity and transparency of eligibility decisions.

**Proxy-Means Testing and the Cases of Chile, Colombia, Mexico, and Costa Rica.** Given the difficulties developing countries face in meeting the prerequisites for operating effective VMT systems, and the measurement problems inherent in UMT, many developing countries have opted for a feasible and promising alternative known as proxy-means testing (PMT). The composite index of proxy variables is particularly useful in developing countries where a high degree of informality, seasonality and in-kind earnings mean that incomes are not easily quantifiable and or verifiable. Proxy-means tests involve screening households for eligibility using a composite score on a multi-dimensional index of observable characteristics (“proxies”) that



are associated with poverty. The indicators used in calculating this composite score and their weights are generally derived from statistical analysis of household survey data (as discussed below).

PMT have several advantages that make them a promising and feasible alternative to UMT and VMT for household targeting systems:

- **Targeting Accuracy.** As discussed in Section 3 below, targeting outcomes of PMT are nearly as accurate as VMT and, in some cases, are more accurate than UMT, for the countries and programs in the sample.
- **Cost Efficiency.** As discussed in Section 3 below, the financial costs of administering PMT are *far* cheaper than VMT and in line with those for UMT.
- **Political Appeal.** The use of multi-dimensional indices to determine eligibility for programs can be more politically appealing than the more narrow reliance on incomes since, in many developing countries (particularly in LAC), public opinion commonly holds that poverty is multi-dimensional and spans more than just “income.”
- **Transparency.** The use of multiple observable variables for PMT is more transparent and verifiable than reliance on self-reported income, as under UMT.
- **Administrative Feasibility.** The administrative burden of PMT appears reasonable for many developing countries. The administration requirements for PMT are less burdensome than VMT and similar to those for UMT. They include: (a) a household interview and home visit to apply a short questionnaire (2-3 pages); (b) an automated information system for data entry, validation and processing a beneficiary registry (as discussed below); and (b) a proper monitoring, updating, quality control/audits system (as discussed below). Key to the proper functioning of the system is an institutional setting with clearly defined responsibilities for design, operation and financing, as discussed below.<sup>27</sup>

Unified household registries that collect information for PMT have become quite common in LAC, and are in use in a number of countries including Chile, Colombia, Costa Rica, Mexico, Nicaragua, Jamaica, and Argentina. The specific PMT systems that have been analyzed for this study include the case studies of Chile’s Ficha CAS system, Colombia’s SISBEN system, Costa Rica’s SIPO system, and the system developed by Mexico for the Oportunidades Program (previously known as Progresa).<sup>28</sup> These case studies were chosen because they are among the longest-standing proxy means testing systems in LAC (and indeed, in the world).

The design and implementation of PMT systems usually involves three steps:

- **Step 1: Determining PMT Variables and Weights.** The variables included in PMT composite indices should be easily observable, but also not easily manipulated. Some countries use different variables for urban and rural areas due to differing “manifestations” of poverty in those areas. Common variables include location, housing quality, ownership of durables, education, and occupations. Self-reported income is also sometimes included; in this case, the many other variables can serve as “verifiers” to validate income information reported by applicants. Table 4 compares the variables used for PMTs in Chile, Colombia, Costa Rica and Mexico. Although Brazil doesn’t currently use PMTs, it is considering moving to a PMT system for eligibility. Interestingly, the

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<sup>27</sup> Interestingly, the administrative requirements for PMT are not that much more burdensome than for geographic targeting (GT), since even with GT, efforts must be made to register families and confirm residence and family composition (see Box 4).

<sup>28</sup> As mentioned above, these case studies were conducted specifically for the purposes of this cross-country study and are available upon request. They are cited in the introduction and bibliography of this report.

existing *Cadastró Único* questionnaire already includes many of the same variables already in use in PMTs in other LAC countries, as seen in Table 4. The variables and their weights in PMT composite indices can be determined by regression or principal component analysis (see Box 7).

<b>Box 7 – Two Methods for Defining Variables and Weights in Proxy-Means Tests (PMT)</b>	
<b><u>Regression Method (Predictors)</u></b>	<b><u>Principle Components Method</u></b>
<ul style="list-style-type: none"> <li>• <b>Method:</b> Uses statistical regression models with household survey data to determine variables that “predict” consumption (or income) poverty. The regression coefficients are then used as weights in the composite PMT index.</li> <li>• <b>Works better when:</b> solid household survey data on consumption (or income) are available (to serve as the dependent variable in regressions).</li> <li>• <b>Advantages:</b> transparent, objective calculation of weights, fairly simple and rapid to construct the composite indices (about 2 months of work).</li> <li>• <b>Examples:</b> Nicaragua (IFPRI), Grosh and Baker (1995).</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Method:</b> Identify linear combinations of variables measured in household surveys to maximize observable variation between families or geographic areas. These variables are then included in the composite PMT index. Generally this approach is combined with analysis by technical specialists to estimate weights for the index.</li> <li>• <b>Works better when:</b> solid household survey estimates of consumption are not available (for the regression method). This method is useful to reduce the number of variables to be included in the PMT questionnaire.</li> <li>• <b>Advantages:</b> allows technical specialists (and society) to bring in qualitative information about the relative importance of variables (to determine weights); once established, the indices are transparent; <i>but</i> takes longer than the regression method to construct the indices (due to debates and discussions regarding the weights).</li> <li>• <b>Examples:</b> Chile (Ficha CAS), Costa Rica (SIPO), Mexico (Oportunidades), Colombia (SISBEN’s PRINQUAL procedure).</li> </ul>

- **Step 2: Collecting Data from Households.** Once variables, weights and the composite PMT index are identified and constructed, a questionnaire can be formulated and data can be collected from households. Questionnaires are not long (ranging from 3-8 pages in the four LAC countries that use PMT observed in this study). Data is usually collected via an interview, often with a home visit by a trained survey interviewer. The home visit seeks to verify visible living conditions of the family, particularly housing quality, public services and presence of durable goods. As discussed below, households can be interviewed on an *on-demand* basis (applications initiated by the households themselves) or via quasi-exhaustive surveying (censusing). Micro-area poverty maps can help determine (a) geographic areas that would be prioritized for conducting the registry or for program eligibility (geographic targeting, see Table 3 and Box 4); and (b) which method should be used to initiate interviews and data collection (on-demand application basis or quasi-exhaustive surveying), as discussed in more detail below. Indeed, the household targeting systems in Mexico, Colombia and Costa Rica all combine geographic targeting with PMT both to prioritize eligible areas and to determine the method used for data collection. Chile also previously used poverty maps to help prioritize geographic areas for registration (before switching to an on-demand system).
- **Step 3: Determining Household Eligibility By Calculating Composite PMT Scores.** Once data are collected (via an interview and possibly a home visit), they are entered into a unified household registry and cleaned (as discussed below). Household PMT composite indices (scores) are then constructed using the data collected on the variables in the index and the pre-determined weights (Box 7 above). This construction is usually an automated process, having been programmed into the registry software. These household PMT scores are then compared to previously-established eligibility cut-offs (thresholds) for particular social programs. These cut-offs can be specific score levels (as in Chile’s Ficha CAS) or ranges of scores (as in Colombia’s SISBEN). Countries commonly use these unified household registries and PMT scores to determine eligibility for a multitude of programs. Eligibility thresholds (cut-offs) can vary across multiple programs using same unified household registry database, and programs sometimes build in additional criteria outside the PMT score to reach specific program objectives (see Table 5 for examples of different PMT criteria for multiple programs using the unified Ficha CAS system in Chile; and Table 6 for examples of different eligibility classifications for multiple programs using SISBEN in Colombia). It is important to take different program eligibility criteria into account when designing PMT systems and questionnaires if they are to serve multiple programs. Once eligibility is determined by

comparing household scores to the eligibility thresholds, program-specific beneficiary lists (sub-registries) are created for the purposes of program implementation and payroll.

**Table 4 - Comparisons of Variables Included in Country's Questionnaires, 2002**

Variables	Chile	Colombia <sup>1</sup>	Costa Rica	Brazil	Mexico <sup>2</sup>
<b>Location</b>					
-Department/State	X	X	X	X	X
-Municipality	X	X	X	X	X
-Village	X	X	X	X	X (w)
-Address	X	X	X	X	X
-ID number	X	X	X	X	X
<b>Housing Quality</b>					
-In house-water	X (w)	X (w)	X (w)	X	X (w)
-Electricity	X	X	X (w)	X	X
-Waste disposal	-	X (w)	-	X	-
-Sewage disposal	X (w)	X (w)	X (w)	X	X
-WC with bath	X (w)	X (w)	X (w)	-	X
-Materials of floors	X (w)	X (w)	X (w)	-	X (w)
-Materials of walls	X (w)	X (w)	X (w)	X	X
-Materials of roof	X (w)	X (w)	X (w)	-	X
<b>Ownership of durables</b>					
-Color TV	X	X (w)	X (w)	-	X
-Refrigerator	X (w)	X (w)	X (w)	-	X (w)
-Washing machine	-	X (w)	X (w)	-	X (w)
-Air conditioning	-	-	-	-	-
-Water heater	X (w)	-	-	-	X
-Motor vehicle	-	-	X	-	X (w)
<b>Education</b>					
-Education (Yrs, all >5-6)	X (w - head)	X (w - oldest wage earner)	X (w - head)	X	X (w - head)
-Attendance to education	-	X	X (w)	X	X
-Illiteracy	-	-	X	-	X
<b>Occupation and income</b>					
-Occupation (>12-14)	X (w - head or spouse) >14	X (w - share of family members employed)	X (w) >6	X	X
-Unemployed	-	X	X	X	X
-Income variables	X (w) 2 var.	X (w) 1 var.	X (w) 2 var.	X 5 var.	X 7 var.
<b>Others</b>					
-Handicapped	-	X	X	X	X
-Health variables	-	X (w)	X	-	X (w)
-Agriculture variables	-	-	-	X (16 var.)	X (9 var.)
-Subsidies from social programs	X	-	X	X	X
-Migration	-	-	-	<sup>3</sup>	X
-Over-crowding	X (w)	X (w)	X (w)	X	X
-Ownership of site	X (w)	X	X (w)	X	X
<b>Total No. Variables</b>	<b>50</b>	<b>62</b>	<b>56</b>	<b>78</b>	<b>115</b>

Notes: X: means yes. w: means weighted variable. The number indicates number of variables. Not all variables are listed, only comparable ones. <sup>1</sup>: Description corresponds to old questionnaire. New statistical model is not yet available. Additional weighted variables are: mean schooling for people >12 yrs., share of children < 6 yrs. <sup>2</sup>: Only urban variables are listed. There are three questionnaires to be filled: Cedula de Inclusión, Urban Survey (ENCASURB) and Cedula de Verificación. Additional weighted variables are: number of persons, age and gender of household head, number of children 0-11 years, ownership of gas stove. <sup>3</sup>: Migration information refers to municipality of birth and time lived in current house. Source: see Country Studies listed in the beginning of the paper and the bibliography.

**Table 5 - Chile: Multiple Programs Targeted with PMT Index from Unified Ficha CAS System, 2002**

Program	CAS Score	Other Criteria
<b>Assistance Pension (PASIS)</b> <ul style="list-style-type: none"> <li>• Old Age</li> <li>• Disability</li> </ul>	<ul style="list-style-type: none"> <li>• CAS score gives priority for program;</li> <li>• Cut-off point given by regional budget.</li> </ul>	<ul style="list-style-type: none"> <li>• Older than 65 years;</li> <li>• Certificate for disability;</li> <li>• Per-capita income less than assistance pension;</li> <li>• Income of applicant less than assistance pension;</li> <li>• No pension from social security system.</li> </ul>
<b>Unified Family Subsidy (SUF) (Subsidio Único Familiar)</b>	<ul style="list-style-type: none"> <li>• CAS score gives priority for program;</li> <li>• Cut-off point given by regional budget.</li> </ul>	<ul style="list-style-type: none"> <li>• Younger than 18 years;</li> <li>• School attendance;</li> <li>• Health check ups;</li> <li>• No family subsidy from social security system.</li> </ul>
<b>Potable Water Subsidy</b>	<ul style="list-style-type: none"> <li>• CAS score gives priority for program;</li> <li>• Cut-off point given by regional budget.</li> </ul>	<ul style="list-style-type: none"> <li>• Regular payment of bills (subsidy suspended if late for three months)</li> </ul>
<b>Chile-Care Program - Integra</b> Care for small children 3-23 months and 24-59 months, including food and nutrition.	<ul style="list-style-type: none"> <li>• CAS score below 550 points or per-capita family income below \$37.000 pesos (US\$53).</li> </ul>	<ul style="list-style-type: none"> <li>• For children 3-23 months old;</li> <li>• For children 24-59 months old.</li> </ul> Priority to: <ul style="list-style-type: none"> <li>• Children of working mothers, looking for work or in training;</li> <li>• Children of women heads or adolescents;</li> <li>• Children of unemployed heads.</li> </ul>
<b>Low-Cost Housing Programs (5 programs)*</b>	<ul style="list-style-type: none"> <li>• In most programs CAS score &lt; 543 points. CAS score determines priority for program.</li> </ul>	In most cases, requisites are: <ul style="list-style-type: none"> <li>• No owner</li> <li>• No previous housing subsidy;</li> <li>• House value up to 280 UF</li> <li>• Minimum savings of 10 UF.</li> </ul>

\*Description and details of targeting criteria and programs are in Larrañaga (2003). Source: Larrañaga (2003).

**Table 6 - Colombia: Multiple Programs using SISBEN registries and Other Targeting Criteria, 2003**

Program	SISBEN	Priority groups	In Practice
Subsidized Health Insurance (health, s. assistance, SHIR)	SISBEN 1 and 2 Levels. <sup>1</sup>	Pregnant women, rural residents.	Not known if priority criteria have been applied by municipalities
Low Hospital Fees (“Vinculados” Program)	SISBEN 1: Pays 5% SISBEN 2: Pays 10%. SISBEN 3: Pays 30%.	None	Applied.
Conditional Cash Transfer (Familias en Acción)	SISBEN Level 1	Rural areas (625 municipalities smaller than 100,00 inhabitants and access to Banks for electronic transfer)	Both criteria applied. Has left some of the poorest out due to absence of Banks.
Public Works Program (Empleos en Acción)	SISBEN 1 and 2 Levels	Urban areas (500 municipalities). Plus, unemployed at time of application to program— Participate in lottery.	All criteria applied.
Youth Training (Jovenes en Acción)	SISBEN 1 and 2 Levels.	18-25 years old	Applied
Elderly Poor Subsidy	SISBEN 1 and 2 Levels.	None	Applied

<sup>1</sup>: These levels are considered the poor. Source: Castañeda and Fernandez (2003).

#### **D. Institutional Roles: Centralization vs. Decentralization**

Designing clear institutional roles is essential for the success of household targeting systems. Institutional responsibilities for these systems vary by country, depending on the degree of decentralization of social

spending and political, administrative and financial structures (see Table 7 below). In the U.S., the design, implementation and data management for household targeting systems is a local (state + municipal) responsibility for all programs, including key federal programs such as Food Stamps and the Temporary Assistance for Needy Families (TANF). Colombia is similar in its decentralization of most aspects, though the design (including common software) is centralized. Neither the U.S. nor Colombia has a consolidated national database, as discussed above, though Colombia’s reforms seek to establish one. In Chile and Brazil, the design of targeting rules and procedures is done by the federal level, data collection is conducted by local (municipal) authorities, and database management is centralized (with a national database). Finally, in Costa Rica and Mexico, the design of targeting system, its implementation (including data collection) and data management are all done by the federal government. There are several advantages and disadvantages of centralization vs. decentralization for the various functions and roles (see Table 8).

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	Most decentralized			Most centralized
	United States	Colombia	Chile, Brazil	Mexico, Costa Rica
Design of system	Decentralized	Centralized	Centralized	Centralized
Data Collection (implementation)	Decentralized	Decentralized	Decentralized	Centralized (federally managed)
Database management	Decentralized (no national database)	Decentralized (no national database)	Centralized (national database)	Centralized (national database)

Source: Authors’ assessments based on Country Case Studies (2003).

DECENTRALIZED FUNCTIONS		
Role	Advantages: Decentralized Functions	Disadvantages: Centralized Functions
<b>Design of system (eligibility criteria, common software, questionnaires, etc.)</b>	<ul style="list-style-type: none"> <li>• More involvement of local authorities in social policy</li> <li>• System can reflect local preferences, circumstances</li> </ul>	<ul style="list-style-type: none"> <li>• More transparent with federal guidelines for eligibility criteria, other design features</li> <li>• Common framework for monitoring, evaluation</li> <li>• Common software facilitates consolidation of a national database</li> <li>• Standard questionnaires more efficient, transparent</li> <li>• Less costly (economies of scale for devel. of software, questionnaires, etc.)</li> </ul>
<b>Data Collection (implementation)</b>	<ul style="list-style-type: none"> <li>• Empowerment of local authorities to identify and include poor</li> <li>• Can be more efficient (especially in very large countries)</li> <li>• Interviewers know local cultures, languages</li> <li>• With on-demand application method: have logistics and network (local welfare offices) to promote on-going registration</li> </ul>	<ul style="list-style-type: none"> <li>• Better quality control, consistency of data collection practices</li> <li>• Lower risk of manipulation by local authorities</li> <li>• Better when local capacities limited</li> </ul>
<b>Database management</b>	<ul style="list-style-type: none"> <li>• Databases can be tailored for use with other local programs</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitates assignment of single i.d. number</li> <li>• Better data quality control and auditing of databases</li> <li>• Facilitates building a consolidated, national database</li> <li>• Lower costs due to economies of scale</li> <li>• Facilitates cross-checks with other automated systems</li> <li>• Lower risks of corruption at local levels</li> <li>• Better when local capacities limited</li> </ul>

Source: Authors’ assessments based on Country Case Studies (2003) commissioned by the World Bank for the purposes of this report.

While there is no “blueprint” for institutional roles or the desirable degree of decentralization (and these choices must take into account local realities), Table 9 below outlines some of the more detailed functions that would be used in a “stylized” model of centralized design, decentralized data collection (implementation), and centralized database management (with a national database):

- **First**, the federal government designs the targeting system—questionnaire with variables and weights and the operation manuals and procedures—but application and data gathering activities are done by municipalities.
- **Second**, the state government runs cross checks and cleans information collected by municipalities in its jurisdiction and builds a state level data base to be sent to the federal level.
- **Third**, municipalities do actual data collection work using on-demand or survey approach, following federal rules and procedures, determining when one or the other approach is to be followed. An important issue with decentralized implementation (data collection) is the provision of federally-funded financial incentives (and technical assistance) to municipalities to cover the costs of these activities, as discussed in Section B (Principle No. 3, Cost Efficiency) below.
- **Fourth**, the federal government applies final cross checks (across states) and federal data bases—tax registries, financial records, property records, etc., to assemble a Master Federal Household Registry Database that is encrypted and devolved to state and municipal governments for own use in state and municipal programs. Also, the master household registry database is shared with federal agencies and research institutions (once appropriate provisions for protecting privacy have been taken) for frequent evaluations.
- **Finally**, the federal government would conduct various types of random-sample audits and quality control reviews to provide federal oversight of local data collection processes (as discussed below).

The same circuit should be followed for frequent updates and inclusion of new applicants. Programs and institutions delivering social programs could, then, record transactions made (benefits provided), on-line (or through regular updates on data batches), feeding a central database which can be the cornerstone of a National Single Registry of Beneficiaries and Benefits.

**Table 9 - Clear Institutional Roles Key: An Example for a Stylized Model with Centralized Design and Management, but Decentralized Data Collection**

<b>Federal</b>	<b>State</b>	<b>Municipal</b>
<ul style="list-style-type: none"> <li>• Design system, criteria</li> <li>• Develop common software (in consultation with various programs, levels of government)</li> <li>• Data cross-checking</li> <li>• Random audits, quality/fraud control (QCRs)</li> <li>• Data consolidation, federal level: Master federal database</li> <li>• Selection of beneficiaries for federal programs</li> <li>• Payments issuance (through banking system).</li> <li>• Consolidation of a national registry of beneficiaries of federal, state and local programs.</li> </ul>	<ul style="list-style-type: none"> <li>• Technical assistance, training, IT support to municipalities</li> <li>• Random audits, quality/fraud control</li> <li>• Data consolidation, state level: Master state database</li> <li>• Data cleaning, cross-checking</li> <li>• Selection of beneficiaries for state programs.</li> <li>• Sharing federal and state beneficiary lists with local and Federal Agency (s)</li> </ul>	<ul style="list-style-type: none"> <li>• Data collection by application or survey method, under federal rules and procedures (ideally with federal financing or cost-sharing, see Section B below)</li> <li>• Data entry, verification, processing, cleaning, cross-checking</li> <li>• Frequent updates, corrections</li> <li>• Data consolidation, municipal level: Master municipal database</li> <li>• Selection of beneficiaries for municipal programs.</li> <li>• Sharing federal and local beneficiary lists with Federal and state Agency (s)</li> </ul>

### **E. Monitoring, Verification, and Fraud Controls**

The use of sound instruments for monitoring household registries, verifying information, and controlling fraud are very important for the performance of unified household registries. Oversight instruments are even more important when data collection, entry and/or management is decentralized to local authorities. Perhaps because of the high degree of decentralization in its registry systems, the United States has developed a range of very solid monitoring, verification and fraud control instruments. LAC countries vary in the degree to

which they have developed such instruments, and these controls are generally weaker (though recent initiatives are strengthening them).

It is important to note that no system is 100% immune to manipulation and fraud. Even in countries with sophisticated verification and fraud controls, leakage to the non-poor and fraudulent benefits occur and are routinely uncovered.<sup>29</sup>

The goal is to develop feasible and cost-efficient systems to minimize the occurrence of fraud. Solid monitoring and verification systems also serve a political role, helping governments be accountable to citizens and the public and to answer “critiques” in the press.

A number of mechanisms for monitoring systems, verifying information and controlling fraud have been developed in LAC and the US. Some examples include:

- **Supervision of interviews (in the field or in offices).** Virtually all countries in the study sample include supervisors to oversee the data collection process. For example, supervisors in Colombia are supposed to review 100% of questionnaires at the end of every working day, sending those to be corrected for reapplication. A supervision report with most common mistakes is sent daily to the administrator of SISBEN so as to encourage improvements in the interviewer’s training.
- **Verification of information.** The VMT system in the United States relies extensively on documentation and verification of information (as described in more detail above). Verification of information is much less rigorous under the UMT system in Brazil (very little) or under the PMT systems in Chile, Colombia, Costa Rica and Mexico. Nonetheless, in both Chile and Colombia, supervisors do randomly select some 20% of questionnaires for verification of information collected. Interviews are redone if information is not consistent.
- **Automated checks.** Automated checks for consistency, duplication, and missing information can be extremely useful ways of monitoring and validating household registry systems. These checks are usually run within the registry (searching for duplications within the system) and as cross-checks between the registry and other national databases. Such automated cross-checks are extensive in the U.S., where the average number of cross-system matches has increased from 7.5 in 1991 to about 14 in 2003. They are less extensive – but under development – in LAC, as countries seek to integrate their various federal databases. A recent initiative in Brazil, for example, seeks to link multiple government databases (pensions, health care, educational attendance, labor, etc.) with the *Cadastro Único*, via a common social identification number (NIS). In Colombia, SISBEN software produces a list of errors of consistency and range, as well as a list of duplicate questionnaires. All questionnaires with identified errors must be verified in the field (home visit) unless the error arises from data entry.
- **Comparing registries with other data sources.** Data in unified household registries (or program beneficiary databases) can be compared with other data sources, such as a recent population census, micro-area poverty maps, household surveys to monitor geographic (or ethnic) patterns in coverage. Brazil, for example, is currently undertaking to compare the data in its *Cadastro Único* to those in the census (linking census segments) as a way to check and validate the information in the household registry.
- **Quality Control Reviews: Random-sample re-interviews.** An extremely useful tool for federal oversight of decentralized data collection involves re-interviewing a random sample of households within a random sample of municipalities on a regular (monthly, quarterly) basis. These random-

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<sup>29</sup> See Lindert (2003) for a discussion of fraud cases and controls in the United States.

sample “quality control reviews” (QCRs) or “spot checks” provide important feedback to federal authorities regarding the quality and accuracy of data collection processes. They can also be used to monitor and uncover fraud (by either beneficiaries or local authorities). In addition to the technical feedback they provide, these random-sample QCRs serve two other functions: (a) they provide incentives (and sometimes result in penalties) to municipalities for solid, transparent data collection processes; and (b) they can even serve as a political tool, so that when the inevitable cases of leakage or fraud get reported by the press, the federal government can show the public that it is accountable, it is enforcing procedures, and that it has systems for monitoring and uncovering fraud. The Food Stamps Program in the U.S. has developed an extensive system for conducting Quality Control Reviews (including random-sample state reviews, federal re-reviews, and penalties and incentives). Brazil is currently developing a system of random-sample spot checks (QCRs) to monitor performance and procedures for municipal data collection. Brazil’s random-sample QCR surveys will gather information on payments, eligibility, conditionality compliance under the Bolsa Familia Program, and beneficiary satisfaction feedback.<sup>30</sup>

- **Citizen Oversight and Social Controls.** Citizen oversight and social controls are important mechanisms to complement the more “technocratic” formal systems for controlling fraud and leakage. Most household registry systems in the LAC country cases include various mechanisms to support social control, including: (a) establishing local citizen oversight committees (Brazil); (b) publicizing toll-free “hotline” numbers (e.g., Brazil, Mexico), ideally with trained operators to answer and refer questions; (c) publicizing program beneficiary lists in municipal offices and/or on internet sites (e.g., Brazil, Colombia), and so forth. Many of these controls seem to rely on individual complaints, rather than organized group citizen oversight. Actual functioning of these mechanisms varies by country (see country case studies for information). Future research should seek to assess their implementation experience and effectiveness.
- **Audits, Penalties and incentives.** While the U.S. actively enforces fraud controls with (very large) financial (and sometimes criminal) penalties to states, municipalities and beneficiaries, such measures have not gone much further than policy statements in operational policies in LAC. Brazil is currently developing a formal audit/oversight function (*fiscalização*) as a collaboration between the Ministry of Social Development and the Attorney General (*Ministerio Público*).
- **Less Transparency in Weights and Variables for PMT.** Another method for reducing manipulation in PMT systems can be done by not publishing variables or weights used in calculating composite scores (although this only works for a short period of time before people figure out the weighting system) and changing variables and weights over time (which makes sense with economic development anyway). Chile’s *Ficha CAS*, for example, has repeatedly evaluated and updated its variables and weights.

### 3. Evaluating Household Targeting Systems in Six Countries

While the last section reviewed the essential elements in designing and implementing household targeting systems, this section evaluates the outcomes of the six systems analyzed for this report. The first part presents four key principles used for judging outcomes. The second part provides a summary assessment of the six household targeting systems.

#### A. Principles for Judging “Good Practice” in Household Targeting Systems

Four principles can be used for judging “good practice” of household targeting systems:

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<sup>30</sup> These QCR instruments are currently being developed in Brazil. See World Bank (May 25, 2004) for initial information.



- **Maximizing Coverage of the Poor.** The primary objective of targeting is to ensure that limited program resources primarily reach the poor and that the poor, or sub-groups of the poor, are not excluded. The operational indicator for evaluating this principle for judging success is generally measured by “coverage indicators,” which present the share of the poor (or those in the poorest quintile) that are covered by a particular “user program.” These data are usually available in independent household surveys, as discussed below. Several factors determine the degree to which programs (and their base unified registries) can maximize coverage of the poor. First, mis-targeting can result in leakages to the non-poor which takes away from the benefits that can accrue to the poor. Second, fiscal limitations (and the age of the program on its expansion path) can constrain the degree to which programs can cover the poor. Third, eligibility processes can deter application by the poor if they are too complex. And fourth, communications and outreach efforts can be undertaken to promote coverage of the poor.
- **Minimizing Leakages to the Non-Poor.** Given limited resources, one goal of household targeting systems is to try to minimize leakage to ineligible households so as to ensure that a greater share of limited program resources reach the poor. Nonetheless, some degree of leakages to the non-poor is inevitable. Moreover, a certain degree of leakage is acceptable if: (a) the leakage occurs due to unintentional “measurement error” (and not deliberate manipulation) from a transparent screening system; (b) this measurement error results in leakage to the near poor; and (c) the costs of reducing this leakage (in terms of the financial costs of improved target accuracy and the indirect costs that could result from accidentally excluding eligible poor families due to barriers to entry) outweigh the benefits of reducing it (in terms of the savings from allocating transfers to non-poor households that could instead be used to cover more poor households). The operational indicator for evaluating this principle for judging success is generally measured by “incidence indicators,” such as the share of benefits accruing to the poorest quintile(s) or the Coady-Grosh-Hoddinott Indicator, as discussed below. These indicators can generally be estimated using data from independent household surveys that include specific questions on receipt of benefits from “user programs.”
- **Cost Efficiency.** Efforts should be made to minimize the cost of interviewing, while ensuring the integrity of intake efforts. Some factors that determine these costs include: the number of (eventually) ineligible households interviewed, the remoteness of households, the complexity of the questionnaire and verification requirements, the number and location of interviews, and the frequency of updates and recertification. Although it is not possible to ascertain the poverty status of families *a priori* (before interviews and data collection), certain tools, such as self-selection mechanisms and geographic targeting (poverty maps), can help minimize the cost of interviewing large numbers of ineligible families.
- **Transparency.** Household targeting systems should be transparent and consistent in their treatment of households. While no system is completely immune to fraud, transparency is also important to reduce opportunities for political interference, and manipulation by officials and/or program beneficiaries. Transparency requires consistent application of clearly established procedures at all stages, including:
  - **Data collection Processes.** Factors that promote transparency for this phase include: (a) a dynamic, open registration process (anyone can register at any time with the understanding that registration does not guarantee benefits); (b) well-documented interview and data collection procedures<sup>31</sup> and operational manuals; (c) verification of information and field-based consistency checks; (d) quality and training of interviewers; (e) supervision of interviews; and (f) strong communications (see Section 2A above).

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<sup>31</sup> Procedures can differ for different circumstances (e.g., on-demand vs. survey based approaches), but criteria for choosing the approach should be well-documented, as should the prescribed principles for implementation of each approach.

- **Management of the unified household information system.** Factors that promote transparency for this phase include: (a) the existence of a national database; (b) unique individual and household identification numbers; (c) standard criteria and automated systems for cross-checking within the registry and with other registries; (d) regular updating and re-certification; and (e) real-time access to data by key users.
- **Household eligibility assessments.** Features that promote transparency for this process include: (a) solid documentation of eligibility guidelines;<sup>32</sup> (b) unified questionnaires (with solid design and documentation, including manuals); (c) verification of information (with clear procedures for verification); (d) automated application of eligibility guidelines; (e) application of established, clear procedures for appeals; (f) periodic independent evaluations of accuracy of system.
- **Oversight.** Solid mechanisms for monitoring registries, overseeing implementation, and evaluating their performance are crucial for accuracy and transparency. These features promote transparency of the overall system, and include: (a) federal oversight mechanisms, such as Quality Control Reviews (implementation assessments) as well as audits; (b) use of automated cross-checks against established criteria, other data sources, and benchmarks; (c) independent evaluations (e.g., of accuracy of “user programs” via household survey data); and (d) public availability of oversight, monitoring and evaluation reports. Social controls (citizen oversight) can also promote transparency, and are facilitated by hotline numbers (with trained operators), information (published lists of beneficiaries, dissemination of reports), and clear guidelines for local oversight committees.

## **B. Summary Assessment for Six Household Targeting Systems**

While the sample of programs and country registries in this study is too small to draw conclusions on the causality of particular outcomes by specific design and implementation features, cautious conclusions can be derived regarding the feasibility, functioning and performance of different mechanisms in developing countries with respect to the four principles for judging success discussed above.

### **Principle No. 1: Maximizing Coverage of the Poor**

This section examines the coverage of both the household registries and main programs that use them. In addition to the design and implementation factors discussed above, two other factors significantly affect coverage: fiscal limitations (size of the budget for user programs) and age of the registries and programs. When analyzing coverage of the poor, it is important to note that both the household registries – and the programs that use them – are at different phases of implementation in the study countries. Some registries, such as Chile’s Ficha CAS, have been in operation for decades. Others, such as Brazil’s Cadastro Único, are of more recent vintage (Table 10). Similarly, the “user programs” vary in their degree of implementation. Both Mexico’s Oportunidades (formerly Progresa) and the TANF Program in the US have been in operation since the mid-1990s. Brazil’s Bolsa Familia Program was only launched at the end of 2003, and its main predecessor, Bolsa Escola Federal, was only launched in 2001 (with local Bolsa Escola programs being launched since the mid-1990s).<sup>33</sup> This variation in the vintage of the registries and user programs has

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<sup>32</sup> This does not imply a single set of criteria for all situations. Centralized criteria can include different sets of criteria and procedures – e.g., different established variables for PMT in urban vs. rural areas (or regionalize), or on-demand application procedures in some areas, with survey-based approaches in others. If regionalization of criteria and procedures is desirable, they can be clearly stated in operational guidelines.

<sup>33</sup> The Cadastro Único was launched in 2001 as an attempt to unify the previously separate household registries for four federal conditional cash transfer (CCT) programs: Bolsa Escola (school grants program), Bolsa Alimentação (health grants transfer), Auxílio Gas, and (later) Cartão Alimentação. The pre-existing registries for these programs were largely merged into the Cadastro Único. The Cadastro Único also expanded rapidly in terms of new registrants, some of which came from pre-existing municipal registries (some municipalities also operate their own CCT programs and corresponding registries). Then in 2003, after the Lula administration came into office, the Bolsa Família Program (BFP) was launched as an integration of these four federal CCT programs (BE, BA, AG, PCA). The BFP is also seeking vertical integration with local-level CCT

significant implications for the coverage of the poor. Younger registries and programs will likely have smaller coverage than those with more long-standing implementation.

**Registry Coverage.** Administrative data suggest fairly ample coverage of registries in all LAC countries (Table 10). In terms of the total number of families and individuals registered, the registries range from 250,000 people in Costa Rica to 10.3 million in Brazil. Brazil’s Cadastro Único expanded at an exponential pace from its launching in 2001 and is now the largest in the set, despite being the youngest. While this expansion is indeed impressive, doubts persist regarding the quality of implementation and data in the Cadastro Único, as noted in other parts of this paper.

In relation to the estimated poor population, the total number of families (or individuals) registered exceed the total poor population in all LAC countries except Brazil (the relatively young Cadastro Único is still expanding). It is important to note, however, that not all families registered are poor – and not all receive benefits. Since the welfare levels of families cannot be known in advance of data collection and registration (see Box 1 above), it is normal for unified household registries to contain families that are not poor or eligible for specific programs. As such, not all of these counts of total families registered are poor. Unfortunately, independent evaluations of unified household registries have not been conducted. This would require independent surveys of registered families (and non-registered families for comparison) using random sampling and thorough questionnaires to measure welfare. Such surveys have not been carried out in any of the study countries.

**Table 10 – Coverage of Unified Household Registries in 5 LAC Countries**

	Registry				Country’s Population (reference; people not HH)		
	Year Launched	Total Number Registered			Total Population (million)	Estimated Poor* Number of people, (% of pop)	Quintile 1 Number (=20% of pop)
		Households	People (indiv.)	As of. (Year)			
Brazil’s Cadastro Único	2001	10.3 mn	41.4 mn	Dec. 2004	176.6 mn	47.1 mn (26.6%)	35.3 mn
Mexico Registry for Oportunidades Registry	1997 rural 2001 urban	9.5 mn	41.0 mn	2004	102.3 mn	21.5 mn (21%)**	20.5 mn
Chile Ficha CAS	1980	1.74 mn	6.23 mn	2004	15.8 mn	2.7 mn (17%)	3.2 mn
Colombia SISBEN	1994	6 mn	27 mn	2002	45.2 mn	10.4 mn (23%)**	9.0 mn
Costa Rica SIPO	1992	250,000	1 mn	2002	4.0 mn	636,000 (15.9%)	0.8 mn

Sources: Country case studies commissioned by the World Bank for the purposes of this study; government websites; and the World Bank World Development Indicators. \*Estimated Poor is the target population defined by either a national poverty line or a specific program (or, commonly, both). \*\*Extreme poverty rate; full poverty rate = 64% for Colombia, 51% for Mexico. World Bank Poverty Assessments.

**User Program Coverage.** An alternative involves evaluating the coverage of programs that use these unified household registries for eligibility decisions (“user programs”). Such an evaluation requires independent survey data for representative samples covering beneficiaries and non-beneficiaries. For programs with large national coverage, these data can come from nationally-representative household surveys (such as household living conditions, budget or income surveys) that include specific questions on the specific set of “user programs.” For smaller programs, this evaluation requires specially tailored surveys that capture a representative sample of beneficiaries and non-beneficiaries. Fortunately, in all countries studied except Costa Rica, independent, nationally-representative surveys do include specific questions on large “user programs.”

The results of these surveys show that actual coverage of the poor by program benefits is much smaller than registration. Figure 2 presents the shares of eligible poor families or those in the bottom quintile who receive benefits from transfer programs that base eligibility decisions on the information from the household registries described in this paper. Coverage rates range from 16% of the poorest quintile receiving Chile’s

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programs (and registries). Eligibility for the BFP is currently based on data collected under the Cadastro Único, and the Ministry of Social Development is working to overhaul and improve the Cadastro Único.

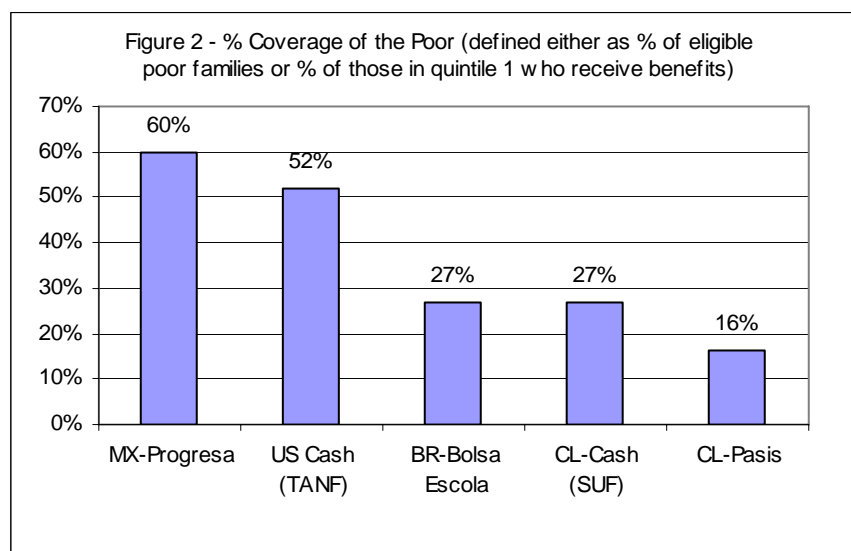
old-age benefits (PASIS) to 60% for Mexico's Oportunidades Program (Figure 2). Under-coverage of the poor could be explained by a number of factors:

- **Mis-Targeting (less to poor due to leakages to non-poor).** As discussed below, all programs incur some leakages to the non-poor. For example, in Brazil, while some 19 million people benefited from the Bolsa Escola program(s) in 2002-03,<sup>34</sup> preliminary estimates from the POF 2002-03 suggest that only half of these were in the poorest quintile (or 9.5 million, see Table 11 below). Similarly, while a similar number received transfers from Mexico's Oportunidades Program, only 58% of these were in the poorest quintile (calculated from survey data, see Table 11 below). Hence, more benefits for wealthier families mean lower coverage of the poor.
- **Fiscal limits and/or young age of the program.** Fiscal limits clearly seem to be the constraint with the Bolsa Escola program(s) in Brazil, as well as Chile's SUF cash transfers and PASIS old age benefits (Table 10 above). At the time the survey data were collected, Brazil's federal Bolsa Escola Program was only one year old (and the local Bolsa Escola programs were limited in scope). Even if targeting were perfect (with all beneficiaries being poor), Brazil's Bolsa Escola program(s) could only reach 55% of those in the poorest quintile, given fiscal constraints (in 2002-03). The Bolsa Familia Program, which has since replaced Bolsa Escola, is expanding rapidly in coverage, with the goal of attaining 100% coverage of the poor by the end of 2006. Fiscal limits were even more constraining for Chile's SUF and PASIS programs: even with perfect targeting, these programs could only reach 33% and 44% of the poor respectively. By 2003, however, Mexico's Oportunidades, was essentially operating at its planned capacity of 21 million beneficiaries. With this coverage, and perfect targeting, it could potentially reach all families in the poorest quintile. Hence fiscal constraints do not explain under-coverage of the poor in Mexico's Oportunidades program.
- **Complex Application Requirements.** Fiscal limits do not appear to be the main barrier to better coverage in the United States, since budgets are more than generous enough to cover the potential beneficiary population. Mis-targeting also does not explain the full share of under-coverage in the United States, since targeting outcomes in U.S. programs are quite strong (see below). Despite generous budgets and low errors of inclusion, the U.S. also records surprisingly high errors of exclusion for its main cash transfer program (TANF). Of all the individuals that are eligible for TANF, only about half participate.<sup>35</sup> This take-up rate is the lowest in decades. Most eligible families don't apply. Household survey data shows that some families don't apply because their potential benefits (which are pro-rated by income levels) are fairly small (43%) and would not warrant the time and hassle costs of applying. Nonetheless, a sizeable group of potentially eligible non-applicants (57%) could qualify for moderate (37%) or large (20%) benefits. Falling caseloads are particularly worrisome in recent years since the declines have corresponded with an increase in poverty. Several factors could deter potential beneficiaries from applying including: a complex on-demand application process, work requirements for TANF beneficiaries and restrictions on immigrant participation. This case demonstrates a potentially important trade-off in household targeting systems: the trade-off between fine-tuning eligibility decisions to reduce leakages to the non-poor and discouraging the poor from applying.

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<sup>34</sup> Federal and local Bolsa Escola Programs (million individuals).

<sup>35</sup> Information in this paragraph from Zedlewski, Sheila (2002). "Left Behind or Staying Away? Eligible Parents who Remain off TANF." The Urban Institute.



**Table 11 – Coverage of the Poor by Select “User Programs” that Base Eligibility on Household Targeting Systems (individuals, not households)**

	Total Pop. Of Country (million) (1)	Number In Q1 (million) (2)	Total Beneficiaries (million) (3)	Coverage of Quintile 1 (Q1) (those receiving benefits)		Maximum Possible Coverage-Q1 (6)*	Q1 Beneficiaries / Total (7)**
				% of quintile (4)	Number (mn) (5)		
Brazil Bolsa Escola	176.6	35.3	19	27%	9.5	55%	49%
Mex-Oportunidades	102.3	20.5	21	60%	12.2	103%	58%
Chile SUF cash	15.8	3.2	1.0	27%	0.8	33%	80%
Chile PASIS old age	15.8	3.2	1.4	16%	0.5	44%	36%

Sources: Authors' calculations using data from:

- Brazil: World Bank, MDS, POF 2002-03 (preliminary estimates from POF). Note that for data from POF, Bolsa Escola could mean either the federal program or the local (municipal) programs. Many municipal cadastros were migrated into the Cadastro Único when the Cadastro Único was established. Hence the targeting mechanisms are similar.
- From World Bank Case studies for Mexico (2003 data; from Coady 2003) and Chile (CASEN 2000 data)

\*Column (6) indicates the maximum possible coverage of program if all beneficiaries (3) were in the first quintile, as a share of the total number of people in that quintile (2). This is the total possible coverage of a program given its fiscal limitations and assuming perfect targeting (the “best” that could be done given budget constraints).

\*\*Column (7) represents the actual coverage of quintile 1 (5) divided by the total number of beneficiaries (3). In other words, it is the share of beneficiaries that are poor.

## Principle No. 2: Minimizing Leakage to the Non-Poor

As discussed above, it is common for unified household registries to include non-poor families in their databases. This occurs because it is difficult to assess the welfare status of families without interviewing and collecting data on them. Nonetheless, one of the goals of targeted social programs is to minimize leakage to the non-poor so that more benefits are available to cover the poor (either with higher benefits or broader coverage of the poor).

As discussed above, there are several operational indicators for assessing the targeting accuracy of registries and their “user programs,” including “incidence indicators” and the Coady-Grosh-Hoddinott Indicator. These indicators can generally be estimated using data from independent household surveys that include specific questions on receipt of benefits from “user programs.”

As discussed in more detail below, an analysis of these indicators reveals varying targeting outcomes for the programs that use the unified household registries described in this paper. The variation in outcomes largely reflects the numerous design and implementation factors related to the household targeting systems,

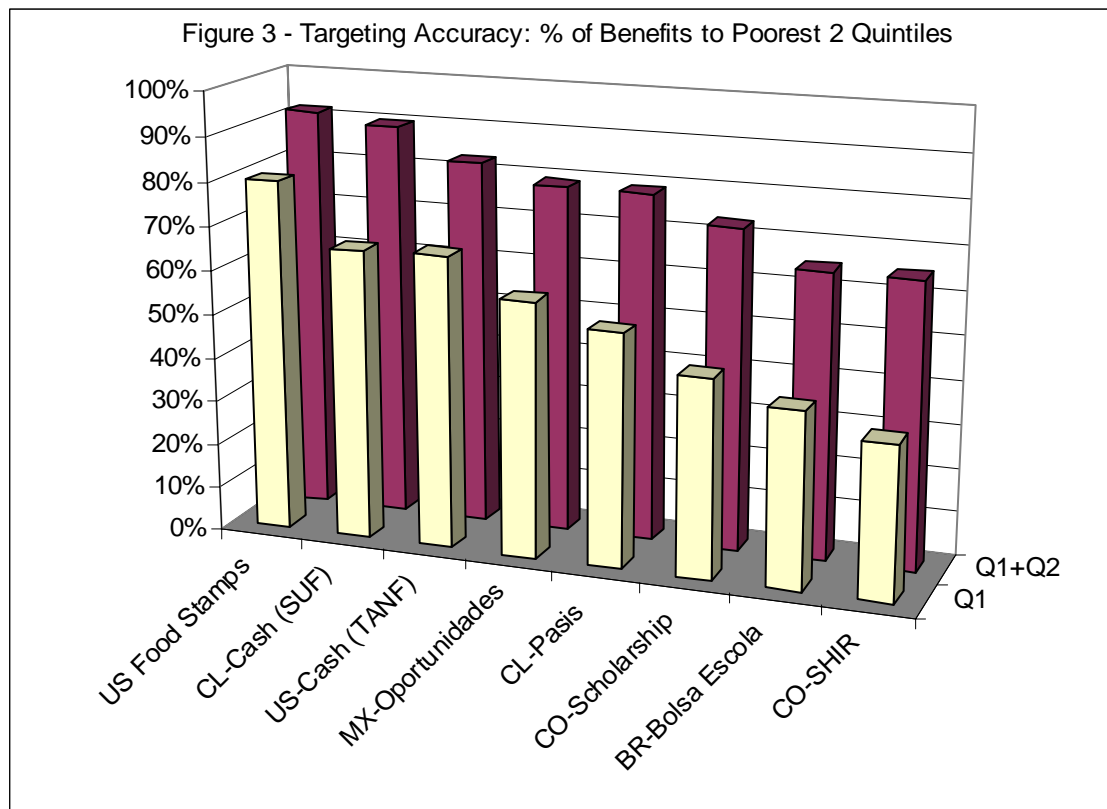
including: data collection processes, unified systems management, types and implementation of household assessment mechanisms, institutional arrangements (including the degree of decentralization) and instruments for monitoring and controlling fraud.

**Targeting Accuracy for the Six Registry Systems.** Table 12 below presents the distribution of benefits across quintiles for transfer programs that base eligibility decisions on the information from the household registries described in this paper. Figure 3 also presents the shares received by the poorest two quintiles in relative order of performance, from the U.S. Food Stamps program, which reveals the strongest targeting performance, to the Colombia subsidized health insurance program (SHIR), which is based on SIBEN and has the weakest targeting accuracy in the sample.

**Table 12 – Targeting Accuracy of Transfer Programs Using Unified Household Registries: Percent of Benefits Received by Each Quintile**

	Household Targeting System (Registry)	Q1	Q2	Q3	Q4	Q5	Total
Brazil Bolsa Escola	Cadastro Único; SIBES, local*	40	25	12	7	16	100%
Mex-Oportunidades	Oportunidades Registry	58	21	12	6	3	100%
Chile PASIS old age benefits	Ficha CAS	53	25	14	6	2	100%
Chile SUF cash transfers	Ficha CAS	66	24	7	2	1	100%
Colombia SHIR (health sub.)	SIBEN	34	31	19	11	5	100%
USA TANF (cash transfers)	Local unified registries	66	17	9	6	2	100%
USA Food Stamps	Local unified registries	80	12	5	2	1	100%

Sources: Authors' calculations from Brazil POF 2002-03 (preliminary results using income quintiles) and Chile CASEN 2000; Mexico results from Coady (2003), Colombia from DNP et.al. (2001). \* Brazil's Bolsa Escola program(s) include the federal program and local programs; beneficiaries were selected from various registries (SIBES – information system for Bolsa Escola, local registries, and the Cadastro Único) – most of which have been merged into the Cadastro Único.



**Targeting Accuracy Compared with International Evidence.** Table 13 presents an alternative indicator of targeting accuracy used in the international study of targeting outcomes by Coady-Grosh-Hoddinott

(CGH, 2004). This indicator 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. 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 40% of the population received 60% of the benefits, then the CGH indicator of performance is calculated as  $(60/40) = 1.5$ , which means that targeting has led to the target group (in this case, those in the poorest two quintiles) 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.

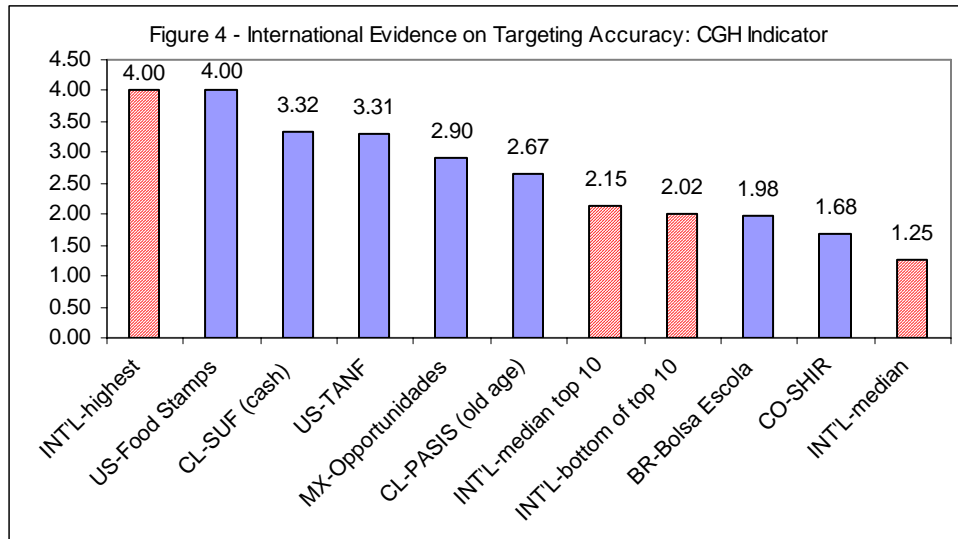
The calculation of this CGH indicator allows us to place the user programs in this study – and their unified household targeting systems – in a broader international context to judge their targeting accuracy. With this broader context, Table 13 and Figure 4 reveal that most of the user programs using the household targeting systems covered in this study generate rather impressive targeting outcomes. The programs in three countries – the US, Chile, and Mexico -- score above the median for the top 10 programs in the international sample of programs covered by the CGH study. The other two countries for which data are available<sup>36</sup> -- Brazil and Colombia – also record programs that use unified household registries with targeting accuracy outcomes above the overall median for the CGH international study.

**Table 13 – International Comparisons of Targeting Accuracy: Coady-Grosh-Hoddinott Indicator**

	CGH Indicator for Q1 (% received by Q1/ 20%)	CGH Indicator for Q1+Q2 (% received by (Q1+Q2)/ 40%)
Brazil Bolsa Escola	1.98	1.62
Mex-Oportunidades	2.90	1.99
Chile PASIS (old age benefits)	2.67	1.96
Chile SUF (cash transfers)	3.32	2.25
Colombia SHIR (health soc. ass.)	1.68	1.68
USA TANF (cash transfers)	3.31	2.08
USA Food Stamps	4.00	2.31
<b>Comparisons with CGI Study of 122 Interventions in 48 Countries</b>		
	Sample Size - number of programs	CGI Indicators: Median (range)
All methods	85	1.25 (range: 0.28-4.00)
Top 10 Programs	10	2.15 (range: 2.02-4.00)
Worst 10 Programs	10	0.60 (range: 0.28-0.78)
Any form of Household/Individual Assessment	37	1.50 (range: 0.50-3.47)
Means Testing	26	1.55 (range: 0.90-3.47)
Proxy Means Testing	7	1.50 (range: 0.50-2.08)
Community Assessment	6	1.40 (range: 1.01-2.65)
Any Categorical Method	58	1.32 (range: 0.40-4.00)
Geographic	33	1.33 (range: 0.82-4.00)
Age: elderly	12	1.16 (range: 0.40-2.15)
Age: young	26	1.53 (range: 0.50-2.15)
Other categorical	17	1.35 (range: 0.40-3.00)
Any Self-Selection Method	38	1.10 (range: 0.28-4.00)
Work	6	1.89 (range: 1.48-4.00)
Consumption	25	1.00 (range: 0.28-1.63)
Community bidding	7	1.10 (0.93-1.80)

**Sources:** LAC programs in first half of table: Author calculations from sources in Table 11. CGI study indicators from Coady, Grosh and Hoddinott (2004).

<sup>36</sup> Survey incidence data are not available for Costa Rica.



**What Factors Drive These Results?** Our sample is not large enough to draw conclusions about causality regarding which factors drive these outcomes. Some notable patterns, however, do seem apparent, including:

- Results by Type of Household Assessment Mechanism.** Verified means testing (VMT) represents the “gold standard” for household assessment. Interestingly, however, proxy means testing (PMT) can also approximate these results, though variation across PMT systems is significant. The targeting accuracy of unverified means testing (as under Brazil’s Cadastro Único and Bolsa Escola Program) was not quite as strong, though the results were surprisingly impressive and higher than the overall median for the international CGH study. Specifically:
  - Verified Means Testing (VMT).** The verified means testing system in the U.S. produces extremely accurate targeting outcomes. In fact, the targeting of the U.S. food stamps program is as high as any observed in the international sample, and represents a “gold standard” for targeting.<sup>37</sup> Targeting using VMT led to families in the poorest quintile receiving four times more than they would have received under universal or neutral targeting. The targeting accuracy of the U.S. TANF cash transfer program is also impressive, though leakages are a bit higher than under food stamps. The different outcomes for these two programs (for which eligibility decisions generally draw from the same application-based unified registries at the local level) could arise from the different emphasis placed on targeting under the two programs: unlike the food stamps program, which emphasizes target accuracy as a key performance indicator (and entails strong quality control review systems to monitor this), the federal government does not even establish national eligibility criteria for TANF (such criteria vary by state and sometimes municipality). Hence the eligibility profile for the two programs is different.
  - Proxy Means Testing (PMT).** As was found in the CGH study, PMT can generate impressive results, though there is significant variation in targeting accuracy (likely due to other implementation factors, as discussed below). In fact, targeting accuracy for Chile’s SUF cash transfer, which bases eligibility on the PMT under the Ficha CAS, is stronger than the VMT for the TANF cash transfer program in the U.S. and almost as impressive as the “gold standard” of VMT targeting under the U.S. food stamps program. Targeting for

<sup>37</sup> The only other program recording a score as high as that of the U.S. food stamps program is Argentina’s Trabajar program, which combines geographic targeting with self-selection based on a work requirement for very low wages. Trabajar also score 4.00 on the CGH indicator.



Chile's PASIS old age benefit is not quite as strong (though still impressively above the median for the top 10 programs in the CGH international study), probably due to the addition of other factors – such as age – into eligibility decisions. Mexico's Oportunidades program, which uses PMT for eligibility decisions, also generated very impressive targeting outcomes, with the poorest quintile receiving almost three times more benefits than they would have received under a universal intervention or random “helicopter drop” allocation. Colombia's PMT-based program (SHIR) records less accurate targeting, and this variation within the PMT mechanism likely arises from other implementation factors, as discussed below. It is important to note, that all PMT-based systems covered in this study also used geographic means to help prioritize poor areas for registration.

- **Unverified Means Testing (UMT).** Though Brazil's UMT system for Bolsa Escola does not perform quite as well as PMT or VMT, the system does generate noteworthy results in terms of targeting accuracy. Indeed, the poorest quintile receives close to two times more benefits under the UMT / Cadastro selection than they would have received under a universal intervention or a random “helicopter drop” allocation. It seems likely that this accuracy arises not only from unverified means tests, but also from different degrees of geographic targeting that were introduced both at the federal level. First, the federal Bolsa Escola program was initiated with strongest coverage in the North East parts of the country, where poverty rates are highest (incorporating a degree of geographic targeting at the national level). Second, as noted above, registration for Bolsa Escola (federal and local) was largely decentralized (under local cadastros, SIBES, and the Cadastro Único, most of which were merged into the Cadastro Único). Some municipalities report using geographic instruments – such as local maps of poverty and vulnerability – to locate the poor for registration into the unified household registries. As such, the somewhat surprisingly strong targeting results from Brazil's UMT system could also arise from some degree of geographic targeting in the system.
- **Results by Data Collection Process: Self-Selection via On-Demand Applications?** Though the sample is not large enough to generate statistically significant results, the top performers among the programs and systems studied were those for the U.S. and Chile – both of which use an on-demand application process for collecting household data for the unified household registries. It seems plausible that this on-demand application process filters out a certain share of non-poor households who opt out of applying for benefits, thereby introducing a degree of self-selection into the process. The countries with survey-based outreach methods (which register all households in a given area) have somewhat less impressive targeting accuracy, perhaps in part due to registration of larger numbers of (eventually) ineligible families.
- **Results by Institutional Arrangements: Lack of a Pattern.** There is no obvious pattern across targeting outcomes by institutional arrangements in the sample. In fact, the two countries at the two ends of our spectrum – the U.S. (with the strongest targeting outcomes) and Colombia (with the weakest) – are both the countries with the highest degrees of decentralization among the systems studied. It seems likely that the strong mechanisms introduced in the U.S. to monitor and oversee decentralized implementation make an important difference in reducing fraud and leakage. In Colombia, on the other hand, decentralized implementation has not been combined with strong monitoring or oversight, which could explain, at least in part, its relatively weaker performance.

### **Principle No. 3: Cost-Efficiency**

As discussed above, another principle for judging the success of household targeting systems is the degree of cost efficiency with which they are carried out. It is important to note that some “costs” are actually

investments, as they imply better quality of implementation (and hence transparency and targeting outcomes). Nonetheless, it is important that costs not be excessive.

Collecting comparable cost data across countries and systems is no small challenge. Nonetheless, the case studies did attempt to collect similar measures of costs for the unified registry systems, focusing on the costs of interviewing (excluding equipment and information systems costs). Some patterns emerge from this analysis.

**Table 14 - Estimated Total and Annual Cost of Registry Systems (US\$), 2002**

(Excluding costs of equipment or information systems technology)

Country	Number of people registered (Million)	Interview Costs (Urban-Rural)	Number of beneficiaries (Million people)	Annual cost per person registered	Annual cost per beneficiary	Amount of Benefits Targeted (million) <sup>5</sup>	Cost per benefit targeted (Percent)
Chile	5.6	8.4 <sup>1</sup>	1.9	1.2	3.6	526	1.3
Colombia	27.0	1.8-2.9 <sup>2</sup>	12.9	0.2	0.4	941	0.5
C.Rica	1.0	4.2-7.0 <sup>2</sup>	0.21	1.0	4.8	116	0.9
Mexico	36.9	4.9-6.8 <sup>2</sup>	21.0	0.4	0.7	2,300	0.7
Brazil	29	3.9 <sup>3</sup>	19.1	0.4	0.6	877	1.4
US	NA	86 <sup>4</sup> (~25)	NA	NA	86 (~25)	N.A.	NA

<sup>1</sup> Interview is good for two years; <sup>2</sup> Interview is good for three years; <sup>3</sup> Re-certification period has not been established; <sup>4</sup> Re-certification is one year. <sup>5</sup> Total amounts for programs using the registries for selection of beneficiaries (in some cases, this is multiple programs); data for 2002. NA: Not available. Sources: Authors' estimates based on figures in World Bank Case Studies (2003).

- **Costs by Type of Targeting Mechanism.** Average interview costs vary significantly by type of household assessment mechanism (Table 14).
  - Costs are excessively high with **verified means testing (VMT)** in the United States, with an average of US\$86 per interview, which takes on average five full hours per applicant across multiple visits. Adjusting these costs using unit prices in Latin America (specifically, average salaries for public social workers) yields a more comparable estimate of US\$25 (adjusted) for the same time taken for interviews. This is still *significantly* higher than the average costs for PMT or UMT systems in LAC.
  - Indeed, average interview costs per **proxy means test (PMT)** in the LAC countries vary from US\$2.3 in Colombia to US\$8.4 in Chile. As a share of benefits targeted to the poor, the costs for PMT (Chile, Colombia, Costa Rica and Mexico) are very small (0.5 to 1.3 percent). These shares of total benefits are much lower than those of other cost components (e.g., the costs of electronic transfers) for social programs. Within PMT systems, there seems to be considerable variation across countries. Several factors could explain this, including: (a) cross-country variation in salary costs; (b) the type of interviewers used: interviewers in Chile, for example are highly trained and salaried local municipal workers in most cases, whereas those in Colombia are trained high-school graduates (paid on a daily basis); and (c) the dispersion and remoteness of the population being interviewed. Also, the costs averaged across benefits take into account differing validity periods: in Chile, registry information expires (and must be recertified) after two years; in the other countries, the period is for three years. The time spent for each interview is fairly similar across PMT countries, averaging 15-20 minutes per interview.
  - The costs of **unverified means testing (UMT)** in Brazil are similar to the averages for PMT in the other LAC countries, and far cheaper per interview than the UMT in the United States.

- **Costs by Data Collection Method.** Interview costs vary significantly by data collection method (on-demand applications vs. survey sweep approach) and geographic area (urban vs. rural), as shown in Table 15 below.
  - **Survey-Sweep vs. On-Demand.** When home visits are involved, the survey-sweep (census) method is cheaper than the on-demand applications approach due to economies of scale in conducting home visits. With the survey-sweep method (described above), interviews cost public agencies an average of US\$4.2 per home visit (averaged across urban and rural areas). This compares to an average of US\$6.3 per home visit for the on-demand applications approach. Nonetheless, as discussed above, it is plausible that the *total* (as opposed to per interview) costs of the on-demand applications method is cheaper than the survey-sweep (census) method (at least in heterogeneous areas) due to cost savings from interviewing fewer (potentially) ineligible households (who self-select out of applying for benefits due to the time costs for applying).
  - **Urban vs. Rural.** For either method, it is cheaper to carry out home visits in urban than rural areas (due to the additional transport costs for travelling to remote rural areas), as shown in Table 15 below.
  - **Home Visits vs. Office Interviews.** Though comparable data are not available for office visits, it is likely that interview costs are significantly lower for office visits than home visits – for public agencies that is. For applicants (registrants), however, transactions costs are higher with office visits (than with home visits) due to the time and costs required for applicants to travel to local welfare offices. Such transactions costs likely result in a self-selection out of registration – which could not only deter wealthier families from applying, but could also potentially exclude the extreme poor.

**Table 15 – Costs Per Home-Visit Interview: By Data Collection Method (Survey vs. On-Demand), Urban and Rural Areas (2002), US\$**

	Chile	Colombia	Costa Rica	Mexico	Brazil	Simple Average
<b>Urban</b>						<b>4.4</b>
• Survey Method	N.D.	1.8	4.2	N.D.	3.9	<b>3.3</b>
• On-Demand Application	8.4	2.9	5.6	4.9	N.D.	<b>5.5</b>
<b>Rural</b>						<b>6.1</b>
• Survey Method	N.D.	2.7	7.0	6.8	3.9	<b>5.1</b>
• On-Demand Application	8.4	N.D.	5.6	N.D.	N.D.	<b>7.0</b>

N.D. = Not Done (data not available for calculation). Source: Country Case Studies commissioned by the World Bank specifically for this study (2003).

When discussing implementation and interview costs, an important issue that arises is: Who pays them? In answering this question, two notable distinctions arise: (a) between public and private costs; and (b) within public costs, between central and decentralized implementation arrangements:

- **Private Costs of Participation.** The costs described in Tables 14 and 15 above are those officially recorded and paid for by public authorities (federal or local). While not quantified for this study, the private costs (to families) of applying for registration in unified household registry systems include: (a) the time taken and financial transport costs for travelling to and from the local welfare office (with on-demand applications); (b) the time taken for interviews; (c) the time taken to gather needed documentation for verification purposes and VMT (which sometimes can also incur a financial cost if agencies charge fees for documentation preparation and processing); and (d) potential lost wages during the time taken for the entire process. These costs are not included in the public costs presented in Tables 14 and 15. Some measures that can help reduce these private costs of participation include: (a) locating welfare offices in or near areas with high concentrations of poor people; (b) introducing one-stop-shop offices, where people can apply for multiple benefits

and services at once; and (c) eliminating charges for documentation processing and copying. The survey-based approach also reduces private costs of participation.

- **Central vs. Decentralized Implementation: Financing of Administrative Costs.** When federal authorities carry out data collection (such as in Mexico), these implementation costs are recorded in, and financed by, the central authorities. With decentralized administration arrangements, this is not necessarily the case. In LAC countries with decentralized implementation (Brazil, Chile, Colombia), federal governments have not (yet) established a practice of reimbursing or co-financing the administrative costs borne by municipalities. These costs can be significant (Box 8), and this has been a point of contention among municipalities in Brazil who argue that they require financial incentives (and technical assistance in some cases) if they are to be held accountable for quality implementation of federal registries. Failure to provide co-financing incentives (and technical assistance) to municipalities can result in variable and low-quality implementation at the municipal level as well as registries that remain out-of-date (since municipalities have little incentive to update the data). In the United States, the federal government does provide some financial incentives to states and municipalities for administering safety net programs (and their unified registries), either via block grants (for TANF) or cost-sharing (paying 50% of administrative costs for food stamps).<sup>38</sup>

#### **Box 8 – Federal-Municipal Cost Sharing in Registries: the Case of Brazil**

In Brazil, for example, although the Cadastro Unico is managed centrally and used to establish eligibility for federal social programs (such as Bolsa Família), municipalities are responsible for carrying out data collection for the registry. They also have to absorb the administrative costs of these activities, since the Federal Government does not provide financing for them.

These implementation and data collection costs are non-negligible. Federal budget data suggest that administrative costs are about 3.2% of the total costs of the Bolsa Família Program. Only a small share of these are for operation of the Cadastro Unico (4% of total federal administrative costs; the lion's share of these costs is for the banking-service fee for making payments to beneficiaries). These federally-funded Cadastro Unico costs, however, mask a large share of the true costs of operating this registry, which are borne by municipalities via data collection and registration services. A World Bank study of local safety nets reveals that these activities do add a significant administrative cost.<sup>39</sup> In the municipality of Belo Horizonte, for example, when municipal administrative costs of implementing Bolsa Família (mainly registration for the Cadastro Unico) are taken into account (in addition to federal administrative costs<sup>40</sup>), total administrative costs of the program rise to 15.7% of total spending on the program, with costs borne by the municipalities representing about 70% of these total administrative costs.

Nonetheless, the administrative costs at the municipal level are not recorded under federal administrative budgets – nor reimbursed to municipalities. This has been a point of contention among municipalities in Brazil, who claim that they are responsible – but not financed – for implementation of this federal registry, and yet are also the ones to receive criticism in the press when cases of fraud are uncovered. Municipalities argue that financial (and often technical) assistance should be provided to cover these costs so as to provide the needed incentives for quality implementation.

#### **Principle No. 4: Transparency**

The degree of transparency varies significantly across the household targeting systems reviewed in this study (Table 16).

<sup>38</sup> In fact, since states/municipalities have opted to create unified (multi-program) registries, some of these funds cross-fertilize from one program to another in designing and administering registry systems (with economies of scale for multiple program use of single interview and registry systems). See Lindert (2003).

<sup>39</sup> Lindert, Hoernig and Pagon (forthcoming 2005). "Local Safety Nets in Brazil." The World Bank.

<sup>40</sup> Weighted by the share of beneficiaries in the municipality of Belo Horizonte.

- Despite the variation in implementation practices due to the decentralization of most roles, the household targeting systems in the **United States** rank “**high**” for transparency due to a high degree of information verification, monitoring, quality controls and formalized procedures.
- Transparency in **Chile and Mexico** is “**fairly high**” due to formal and documented eligibility criteria, formalized procedures and database management. Nonetheless, both countries lack systems for conducting regular external random-sample audits of databases and data collection procedure.
- Transparency in **Costa Rica** is “**medium-high**,” due to fairly strong data collection procedures and design of the targeting mechanism, as well as a widespread system of single identification numbers. Nonetheless, there are no systems for appeals or random-sample audits, and the targeting outcomes of SIPO have never been evaluated by an independent survey.
- Despite a relatively transparent design for the household assessment mechanism (PMT, questionnaires), transparency in **Colombia** is “**low**” due to fairly unclear or weak decentralized data collection procedures without centralized guidelines, a lack of a national database, serious problems with the lack of a national identification number, infrequent updating and recertification, a lack of audits or automated cross-checks, as well as reported cases of fraud and manipulation.
- Transparency in **Brazil** is also ranked “**low, but improving**.” The Cadastro Único (in 2003) ranks “low” for transparency largely due to: (a) the use of an *a priori* quota system for household registration that is not applied according to rules and procedures known by the public and implementing agencies (weak and unclear data collection strategies; (b) no updating or recertification procedures (in policy or practice); (c) a lack of real-time access to the Cadastro Único data (until 2005) by the Social Development Ministry (MDS) or municipalities (the system is operated by a federal bank); (d) the use of self-reported incomes and their potential for under-reporting and adverse incentives, as well as a weakly designed questionnaire instrument; and (e) a lack of systems for appeals or audits, as well as reported cases of fraud and manipulation. Nonetheless, MDS (which inherited the Cadastro Único from the previous government) is currently taking some critical steps to improve the transparency of the system, including (a) expanding coverage of a national identification number (linked to other systems); (b) launching a system for audits (in collaboration with other public agencies, such as the Attorney General, *Ministerio Público*); (c) instituting penalties for fraud; and (d) developing cross-checks for consistency and an Index of Quality for the Cadastro Único.

**Table 16 – Household Targeting Systems: Indicators of Transparency**  
(Ranking, Main Factors Contributing to Ranking)

	<b>TRANSPARENCY OF:</b>			
	<b>Data Collection Processes</b>	<b>Management of Unified Information System</b>	<b>Eligibility Screening Mechanisms</b>	<b>Institutional Arrangements &amp; Monitoring, Verification, Oversight</b>
United States (local unified registries)	<ul style="list-style-type: none"> <li>• <b>HIGH</b></li> <li>➤ Open on-demand registry (anyone, any time)</li> <li>➤ Well-documented procedures, manuals</li> <li>➤ Extensive verification</li> <li>➤ Highly trained interviewers</li> <li>➤ Supervision, review of interviews</li> <li>➤ Strong communications</li> <li>➤ Federal financial incentives, cost-sharing for administration</li> </ul>	<ul style="list-style-type: none"> <li>• <b>FAIRLY HIGH</b></li> <li>➤ Solid identification number system</li> <li>➤ Numerous automated checks</li> <li>➤ Regular updating, re-certification</li> </ul> <p>BUT: no national database (prevents cross-state checks)</p>	<ul style="list-style-type: none"> <li>• <b>HIGH</b></li> <li>➤ Highly documented eligibility guidelines (food stamps program)</li> <li>➤ Extensive verification of information</li> <li>➤ Automated eligibility decisions</li> <li>➤ Formal appeals procedures well established and applied</li> </ul>	<ul style="list-style-type: none"> <li>• <b>HIGH</b></li> <li>➤ Highly decentralized, but with extensive formal federal oversight mechanisms, including QCRs</li> <li>➤ Extensive use of automated cross-checks</li> <li>➤ Public availability of M&amp;E, oversight reports</li> </ul>
Chile (Ficha CAS)	<ul style="list-style-type: none"> <li>• <b>HIGH</b></li> <li>➤ Open on-demand registry (anyone, any time)</li> <li>➤ Well-documented procedures, manuals</li> <li>➤ Trained interviewers</li> <li>➤ Supervision, review of interviews</li> </ul> <p>BUT: currently working to strengthen communications and outreach to extreme poor</p>	<ul style="list-style-type: none"> <li>• <b>FAIRLY HIGH</b></li> <li>➤ Strengthening and expanding coverage of identification number system</li> <li>➤ Some consistency and validation checks</li> <li>➤ Fairly regular updating, recertification</li> </ul>	<ul style="list-style-type: none"> <li>• <b>FAIRLY HIGH</b></li> <li>➤ Highly documented questionnaire</li> <li>➤ Highly documented eligibility guidelines (for user programs)</li> <li>➤ Periodic expert evaluations of accuracy of Ficha CAS system, with subsequent updates</li> </ul> <p>BUT: system lacks formal appeals procedures</p>	<ul style="list-style-type: none"> <li>• <b>MEDIUM-HIGH</b></li> <li>➤ Centralized guidelines for data collection, eligibility</li> <li>➤ Centralized database management</li> <li>➤ Household surveys with specific questions on “user programs” permit evaluation of accuracy</li> </ul> <p>BUT: lacks system of external random-sample audits of databases and decentralized data collection procedures</p>
Mexico (Oportunidades Registry)	<ul style="list-style-type: none"> <li>• <b>FAIRLY HIGH</b></li> <li>➤ Centralized procedures</li> <li>➤ Implementation conducted by CG authorities</li> <li>➤ Well-documented procedures, manuals</li> <li>➤ Trained interviewers</li> <li>➤ Supervision, review of interviews</li> </ul> <p>BUT: closed registry in rural areas (infrequent enrolment)</p>	<ul style="list-style-type: none"> <li>• <b>MEDIUM</b></li> <li>➤ Strengthening and expanding coverage of identification number system</li> <li>➤ Some consistency and validation checks</li> </ul> <p>BUT: infrequent updating, recertification; also, need to strengthen national coverage of single identification numbers</p>	<ul style="list-style-type: none"> <li>• <b>HIGH</b></li> <li>➤ Highly documented questionnaire</li> <li>➤ Highly documented eligibility guidelines (for user programs)</li> <li>➤ Solid evaluation of accuracy, impact of system</li> <li>➤ Use of poverty maps to prioritize geographic selection of areas for registration</li> <li>➤ Has system of citizen attention to solve appeals</li> </ul>	<ul style="list-style-type: none"> <li>• <b>MEDIUM-HIGH</b></li> <li>➤ Centralized guidelines for data collection, eligibility</li> <li>➤ Centralized database management</li> <li>➤ Household surveys with specific questions on “user programs” permit evaluation of accuracy</li> </ul> <p>BUT: lacks system of external random-sample audits of databases and decentralized data collection procedures</p>

**Table 16– Household Targeting Systems: Indicators of Transparency -- CONTINUED**  
(Ranking, Main Factors Contributing to Ranking)

	<b>TRANSPARENCY OF:</b>			
	<b>Data Collection Proceses</b>	<b>Management of Unified Information System</b>	<b>Eligibility Screening Mechanisms</b>	<b>Institutional Arrangements &amp; Monitoring, Verification, Oversight</b>
Costa Rica (SIPO)	<ul style="list-style-type: none"> <li>• <b>FAIRLY HIGH</b></li> <li>➢ Centralized procedures</li> <li>➢ Implementation conducted by CG authorities</li> <li>➢ Well-documented procedures, manuals</li> <li>➢ Trained interviewers</li> <li>➢ Supervision, review of interviews</li> <li>➢ Households can register at any time</li> </ul>	<ul style="list-style-type: none"> <li>• <b>MEDIUM-HIGH</b></li> <li>➢ CR does have a unique ID number (called the “cédula de identidad” which is used by SIPO and all other systems</li> <li>➢ Cross-systems checks</li>   <li>BUT: Updating and recertification only every 3 years</li> </ul>	<ul style="list-style-type: none"> <li>• <b>FAIRLY HIGH</b></li> <li>➢ Highly documented questionnaire</li> <li>➢ Highly documented eligibility guidelines (for user programs)</li>   <li>BUT: No clear appeals process or record of appeals</li> </ul>	<ul style="list-style-type: none"> <li>➢ <b>LOW-MEDIUM</b></li> <li>Positive features:</li> <li>➢ Centralized guidelines for data collection, eligibility</li> <li>➢ Centralized database management</li> <li>BUT, problems:</li> <li>➢ SIPO has not formally been audited; no system for audits</li> <li>➢ There has been no evaluation of targeting outcomes (no independent survey data)</li> </ul>
Colombia (SISBEN, 2003)	<ul style="list-style-type: none"> <li>• <b>LOW</b>, due to:</li> <li>➢ Lack of common methodology for geographic prioritization</li> <li>➢ Lack of operational guidelines, manuals for decentralized data collection</li> <li>➢ Closed registry (infrequent enrolment)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>LOW</b>, due to:</li> <li>➢ Lack of national database</li> <li>➢ Duplications due to with lack of single identification number</li> <li>➢ Infrequent updating, recertification</li> <li>➢ Anecdotal evidence of manipulation of databases, frequent undocumented changes</li> </ul>	<ul style="list-style-type: none"> <li>• <b>MEDIUM</b></li> <li>➢ Well-documented questionnaire</li> <li>➢ Well-documented eligibility guidelines (for user programs)</li> <li>➢ Established appeals process (but not always followed, or implemented)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>LOW</b>, due to:</li> <li>➢ Lack of guidelines for data collection</li> <li>➢ No national database</li> <li>➢ Lack of audits or QCRs of municipal databases (new SISBEN application is developing these)</li> <li>➢ Little use of automated cross-checks</li> </ul>
Brazil (Cadastro Único, 2003)	<ul style="list-style-type: none"> <li>• <b>LOW</b>, due to:</li> <li>➢ Lack of common methodology for geographic prioritization</li> <li>➢ Lack of operational guidelines, manuals for decentralized data collection</li> <li>➢ A priori registration quotas resulted in unclear prioritization for registration of households at municipal level</li> <li>➢ Closed registry (infrequent enrolment)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>LOW-MEDIUM (improving)</b></li> <li>Positive features:</li> <li>➢ Centralized database management</li> <li>➢ Expanding coverage of national identification number with links to other systems</li> <li>➢ Instituting cross-checks</li> <li>BUT, problems:</li> <li>➢ MDS, municipalities without real-time access to Cadastro</li> <li>➢ Little or no updating, recertification (and policy for this not regulated)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>LOW</b> due to:</li> <li>➢ Questionnaire quality weak</li> <li>➢ Self-reported income suffers from mis-measurement and adverse incentives</li> <li>➢ Procedures, manuals weak or inexistent</li> <li>➢ No verification of information</li> <li>➢ Lack of formal appeals process</li> </ul>	<ul style="list-style-type: none"> <li>• <b>LOW but IMPROVING</b></li> <li>Problems:</li> <li>➢ Lack of guidelines for data collection</li> <li>➢ To date: lack of audits or QCRs of municipal databases</li> <li>Positive Features and Improvements:</li> <li>➢ National database</li> <li>➢ System for audits (<i>fiscalização</i>) being established (agreements with public agencies)</li> <li>➢ Penalties for misuse being instituted</li> <li>➢ Developing use of cross-checks and quality checks (e.g., the Quality Index)</li> <li>➢ Some social control (citizen oversight) mechanisms being developed</li> </ul>

Sources: Compiled by authors using the six country case studies commissioned specifically for this study.

#### 4. Summary and Conclusions

As discussed above, the purpose of this report was to synthesize practical lessons on the design, implementation, and performance of household targeting systems in six countries. It is important to note that the sample of household registries (and user programs) in the six countries is too small to establish causality between particular design/implementation features and the performance outcomes of these systems.

Moreover, there is no single recommended “blueprint” recipe for household targeting systems. There is a large menu of factors involved in designing and implementing household targeting systems. These should be considered and adopted to each country’s particular “local realities” of socio-economic and political circumstances, institutional arrangements, and administrative capacities. This study and the six country case studies allow officials to review the positive and negative experiences in other countries to draw their own conclusions about what may or may not be relevant in their own country context.

**Overview of Main Findings.** Despite these caveats, a number of key messages do emerge from the cross-country analysis of six household targeting systems, including:

- **Household targeting systems should be designed with care.** The international review by Coady, Grosh and Hoddinott (2004) finds that targeting *can* work, but doesn’t always. Design and implementation details matter tremendously to distributive outcomes. Too often, however, governments want to launch programs quickly and they – and consultants hired to help them – don’t pay enough attention to the necessary details that go into designing and implementing household targeting systems. These systems take time to design, pilot, and implement on a large scale (at least 18 months). Numerous factors should be considered, including: (a) an appropriate data collection strategy; (b) adequate systems management; (c) the feasibility and potential accuracy of household assessment mechanisms; (d) institutional arrangements; and (e) monitoring and oversight mechanisms to ensure transparency, credibility and control of fraud.
- **Data collection processes should be carefully designed** so as to ensure transparency, dynamism (open entry into registries), outreach to the (potentially poor), cost efficiency, and administrative feasibility. The strategy for conducting interviews and collecting data is as important to the success of household targeting systems as they type of eligibility mechanism used. The **quasi-exhaustive survey approach** has the advantage of being cheaper (per interview) to implement. It also favors outreach to the poor. However, the survey approach is generally static (allowing for only infrequent registration and updates) and was associated with somewhat weaker targeting accuracy in the cases in our sample. In contrast, the **on-demand applications approach** favors dynamic, on-going registration as well as regular updating and re-certification (due to the extensive network of welfare offices usually present with this approach). It was also associated with stronger targeting accuracy (lower leakage) among the cases in our sample. Nonetheless, the on-demand approach can also miss the poor (lower coverage), who may be less informed or connected. Depending on the poverty density of particular areas, mix of data collection approaches (on-demand applications and quasi-exhaustive surveying) can be an effective way to balance the goals of maximizing outreach to the poor with minimizing the costs of interviewing large numbers of likely, ineligible non-poor households. Micro-area poverty maps can help guide these design choices by providing localized information on poverty prevalence and density. Other factors should be considered in designing data collection strategies, including: (a) the location of interviews (home vs. office visits, or both); (b) the quality of interviews; and (c) communications.
- **Several factors pertaining to information management affect the quality of household targeting systems.** **First**, a consolidated national database is important and can help avoid duplications and track beneficiaries, even if data are collected locally. **Second**, proper identification of individuals is



crucial. A unique social identification number should be used – ideally one that is used on a country-wide basis to be able to link registry information and beneficiaries with other systems and programs. Moreover, software and coding systems need to be designed to link individuals with particular families (or assistance units). These identification features have been stumbling blocks in many developing countries. They are not insurmountable, however. While countries would ideally assign individuals unique numbers at birth, in the absence of a single national identification number, registry questionnaires often collect information on multiple identification numbers and characteristics and then assign a new social identification number upon registration (and codes to link individuals to families). This is a feasible solution, provided that (a) data are consolidated and cross-checked in a single database system; and (b) the system has the capacity to update for changes (updates, recertification), and store and reference historical data. **Third**, updates and recertifications are important for tracking fraud and avoiding situations such as “ghost” beneficiaries, which can emerge as registries become dated. They also allow for turnover in beneficiaries, to make space for other poor families to enter the registry (and programs). **Fourth**, database management should be designed to be able to flexibly respond to changing policies and updates and rely on common software (even if data entry is decentralized) with pre-testing of systems, well-designed manuals, and adequate training for users.

- **The choice of household assessment mechanism depends on a number of factors**, including (a) cost and administrative feasibility; (b) technical feasibility, given the degree of informality in the economy; and (c) political acceptability. Household assessment mechanisms should seek to maximize targeting accuracy at an acceptable cost and in a transparent manner.
  - **Verified means testing (VMT)** produces “gold standard” results with respect to targeting accuracy. Extensive verification of information can also promote transparency and credibility (provided it is conducted in a standard way with equal treatment of all registrants). Nonetheless, VMT can be extremely costly to implement, and both administratively and technically infeasible in developing countries with high degrees of informality in labor markets.
  - **Unverified means testing (UMT)** can be a less costly, and more feasible alternative, particularly in situations in which quick decisions are required (such as hospital admissions in systems with subsidized health care for low-income families). Targeting accuracy can be reasonable with UMT (especially if combined with geographic targeting), though the outcomes in the Brazil case were not as strong as those for VMT or PMT. Moreover, concerns about a lack of transparency, measurement error and adverse incentives for under-reporting make UMT less attractive from a technical and political point of view when eligibility for large or long-term benefits is being determined. When incomes cannot be verified (due to administrative or technical limitations in a largely informal economy), proxy indicators (such as those used under PMT) can be used as “consistency checks” to “verify” self-reported incomes, and improve accuracy and transparency.
  - **Proxy means testing (PMT)** is a promising alternative for targeting cash transfers in developing countries with high degrees of informality in the labor market. In the cases examined in this study, PMT performed well in terms of targeting outcomes, cost efficiency and transparency. PMT can be more transparent and accurate than UMT (in most cases). In fact, some PMT systems in LAC have generated targeting incidence outcomes that approximate the impressive record of VMT for a mere fraction of the cost of interviewing and screening for eligibility. Between 80-90% of the benefits of proxy-means tested programs in Chile and Mexico are received by the poorest 40% (two quintiles) of households in those countries. Moreover, the costs of these systems are relatively low (ranging from US\$2.3-8.4 per interview in LAC, or 9-34% of comparable interview costs for VMT in the

U.S.), and administrative requirements are more manageable for developing countries (particularly middle-income countries). Finally, the PMT systems in several LAC countries also rank fairly high for transparency.

- **Combining household assessment with geographic targeting can improve accuracy.** Most countries in LAC combine household assessment mechanisms with a certain degree of geographic targeting. The international review by Coady, Grosh and Hoddinott (2004) shows that combining multiple types of targeting mechanisms (e.g., PMT with geographic targeting) can yield higher accuracy. Areas with high concentrations or density of poverty can be prioritized for registration (e.g., with the survey-outreach approach) and program expansion. Nonetheless, to ensure that the poor in other (non-prioritized) areas also have access to the program – and to promote perceptions of fairness and transparency – this report asserts that anyone should be able to apply to register in the unified household information system at any time via on-demand applications (provided that they are clearly informed that registration does not guarantee benefits).
- **Institutional roles should be clearly defined and communicated.** Designing clear institutional roles is essential for the success of household targeting systems. Institutional arrangements vary significantly by country and should be tailored to local realities (ideally building on existing government structures if they work well). There are several advantages and disadvantages of centralization vs. decentralization for the various functions and roles in household targeting systems. While there is no single blueprint for institutional roles, the cross-country study reveals some important advantages of a system involving centralized design and database management (data collection can be centralized or decentralized depending on the country context). Nonetheless, arrangements should be made to promote quality at all levels, such as federal cost-sharing and financial incentives for municipalities if they are to be charged with implementing data collection. Moreover, clear federal guidelines for processes should be communicated, and instruments for federal oversight are needed.
- **Strong mechanisms for monitoring and oversight are crucial for all systems,** but especially with decentralized data collection. While no system is 100% immune to fraud or leakages, a variety of tools should be used to minimize them. Multiple mechanisms can be used, including: supervision of interviews, verification of information, automated checks, comparing registries with other data, random-sample quality control reviews, and citizen oversight (“social controls”). Using multiple instruments strengthens the system.
- **There is significant variation in the success of the six household targeting systems reviewed in this study.** As discussed in Section 3, this report adopts four principles for judging the success of household targeting systems, including: (a) maximizing coverage of the poor (or alternatively, minimizing errors of exclusion); (b) minimizing leakages to the non-poor, to ensure that a greater share of resources spent on programs that use the household targeting systems reach the poor; (c) cost efficiency, by making efforts to minimize the cost of interviewing families while ensuring the integrity of intake efforts; and (d) transparency in all aspects to enhance credibility and reduce fraud. Table 17 presents a summary report card for these four principles. Combining all four features, the systems of Mexico and Chile perform impressively well in terms of targeting outcomes, cost efficiency and transparency. The registries in the United States perform extremely well in terms of maximizing targeting accuracy (low leakages) and transparency, but the system is extremely costly and fails to cover about half of the poor (in part due to the complexity of the system). Both Colombia and Brazil are currently undertaking to implement significant reforms to strengthen their registries, which should improve their performance over time.

**Table 17 - Summary Report Card:  
Six Household Targeting Systems – Principles for Judging Success**

	<b>Maximizing Coverage of Poor</b>	<b>Minimizing Leakage to Non-Poor</b>	<b>Cost Efficiency (per interview)</b>	<b>Transparency (see Table 16)</b>
<b>U.S. Registries</b> (VMT, On-Demand Data Collection)	<b>Fair</b> About half covered Complexity is barrier	<b>Very strong</b> CGH: 3.3-4.0	<b>Expensive</b> US\$25 (86)	<b>High</b>
<b>Chile Ficha CAS</b> (PMT, On-Demand Data Collection)	<b>Low</b> 16-27% covered Fiscal constraints	<b>Very strong</b> CGH: 2.7-3.3	<b>Reasonable</b> US\$8.4 (on-demand more costly)	<b>Fairly High</b>
<b>Mexico Registry for Oportunidades</b> (PMT, Mixed Data Collection Processes)	<b>Fairly high</b> 60% covered Could cover all poor, but leakages detract	<b>Very strong</b> CGH: 2.9	<b>Reasonable</b> US\$4.9-6.8	<b>Fairly High</b>
<b>Costa Rica SIPO</b> (PMT, Mixed Data Collection Processes)	Data not available	Data not available	<b>Reasonable</b> US\$4.2-7.0	<b>Medium-High</b>
<b>Colombia SISBEN</b> (PMT, mostly survey sweep data collection)	Data not available	<b>Fair</b> CGH: 1.7	<b>Reasonable</b> US\$1.8-2.9	<b>Low but improving</b>
<b>Brazil Cadastro Unico</b> (UMT, survey sweep data collection)	<b>Low but expanding</b> 27% of poor covered by Bolsa Escola (2002-03); Some mis-targeting, fiscal constraints	<b>Fair</b> CGH: 1.98	<b>Reasonable</b> US\$3.9	<b>Low but improving</b>

Source: Compiled by authors using information presented earlier in this report.

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Note: Studies in **bold** are the six country case studies that were specifically commissioned for the preparation of this report. They are available from the authors or the World Bank's website upon request. They also contain extensive bibliography sections of their own for additional references, particularly those that are specific to the countries in question.

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## ANNEX 1 – MATRIX OF KEY FEATURES OF HOUSEHOLD TARGETING SYSTEMS IN 5 LAC COUNTRIES

	<b>Chile</b>	<b>Colombia</b>	<b>Costa Rica</b>	<b>Mexico</b>	<b>Brazil</b>
	<i>FICHA CAS</i>	<i>SISBEN</i>	<i>SIPO</i>	<i>OPORTUNIDADES</i>	<i>CADASTRO ÚNICO</i>
<b>A. Rationale for Targeting, Choice of Targeting Instrument and Objective</b>					
Rationale for targeting	Policy setting of the 80s: decentralization, targeting, demand –side subsidies, private participation in social service delivery (emphasis of each principle varies among programs).	National 1991 Constitution (Art. 356, 357 for transfers to states & municipalities)	Recent government policy that gives priority to targeting social spending rather than increasing already very high social spending level.	- Government strategy to change universal and unconditional subsidies to a scheme based on subsidies linked to conditions. - Decree of Federal Budget Expenditure - Operation Rules of the Program	- National 1988 Constitution for Social Assistance - Decree 3877, July 2001 (MPAS) for Cadastro Único - Cash transfers to poor families - Need for integrating transfers and avoiding duplication of benefits.
Type of Household Assessment Mechanism, Rationale	<b>Proxy Means Test</b> -There is no reliable information on incomes and wealth. -There is great heterogeneity among geographic areas. -Two decades of experience and improvements of Ficha CAS system.	<b>Proxy Means Test</b> - Introduction of demand subsidies to poorest families; - Heterogeneity of barrios within cities and rural areas vis-à-vis income and wealth. - Lack of accuracy of income, wealth information.	<b>Proxy Means Test</b> Traditional systems have not been effective. Incidence analysis show poor targeting of most social programs. Proxy means test is viable in CR given small size and high technical capacity.	<b>Proxy Means Test</b> - Take into account multiple dimensions of poverty - Avoid lack of accuracy of information by using multiple indicators separately.	<b>Unverified Means Test</b> - Income is self-declared, with no supporting documentation required
Objectives of targeting System	- Improve effectiveness of social spending. - Rely on an objective and uniform system. - Improve income distribution through targeting social spending. - Reduce poverty gap.	- Provide subsidies to the poor. - Classify people in transparent, uniform and objective way. - Eliminate political interference and corruption in distribution of subsidies to poor.	- Establish a technical, objective and uniform registration tool. - Make objective and better selection of beneficiaries of social programs. - Maintain a database that supports elaboration of plans, programs and projects for the poor	- Provide subsidies to the poorest families - Use a homogeneous criteria to define eligible households.	-To be used by all targeted federal programs of permanent character by federal public bodies, excepting those administered by INSS and DATAPREV. - Register all poor people

	<i><b>FICHA CAS</b></i>	<i><b>SISBEN</b></i>	<i><b>SIPO</b></i>	<i><b>OPORTUNIDADES</b></i>	<i><b>CADASTRO ÚNICO</b></i>
What was policy context	Reforms of social policy since beginning of 80s, introducing targeting, decentralization, demand subsidies and private participation. Benefit-incidence studies (1980s) indicated very poor targeting of social spending.	Decentralization of social spending to states and municipalities	Governmental policy against poverty proposed three avenues: economic growth; universal access to services; targeted assistance programs to the poor.	- Transit from general subsidies to targeted subsidies for poor families	- Decentralization of social spending and introduction of cash transfers. - Increasing costs of maintaining separate databases. - Multiple cash transfer programs using separate databases (inefficient)
What are legal foundations of system	Supreme Decree 414, September 1991.	Decentralization and health sector Laws 60/93, 100/93, 715 /01, CONPES 22/94.	Laws: 4760/71; 3095/63; special president's decrees, and others.	- Presidential decree - Operation Rules of the Program	-Decree 3877, July 2001 (MPAS) for Cadastro Único - Ministerial executive orders.
When was it created and how many national updates	- 1980, introduction. - 1987, major restructuring for form and variables. - 1999, reduce variables and weights in score model. - 2003, studies changes in unit of reference (family), questions and weights.	- 1994. - Updated Form and Manuals in 2003. - Household information has been updated more regularly (see below).	- First SISBEN system created in 1992 - 1999: Creation of SIPO - Household information updated regularly.	- Created in 1997 with rural coverage (under Progresía) - Updated 2001 for application in urban areas up to 75,000 inhabitants - Updated 2002 for application in urban areas up to 1 million inhabitants	- Registration began in July 2001 - Expansion continues - No updates yet.
<b>B. Size of Registry System and Use</b>					
Number of households (people) in Registry	- 1.74 million families (6.23 million people) (2004)	-6 million families (27 million people) 2002)	- 250.000 families (one million people) (2002)	- 9.5 million families (41 million people) (2004)	10 million families (40 million people) (2004)
% of total population	- 45% of population.	- 60% of population	- 25% of population	- 40% of population	-23% of population
Resources targeted with Registry System	- US\$525.7 million (1998)	- US\$ 940 million (about 1.1% GDP) (2002)	- US\$116.2 million (2002)	- US\$2.3 billion (2003)	- US\$877.3 million (2002)

	<i>FICHA CAS</i>	<i>SISBEN</i>	<i>SIPO</i>	<i>OPORTUNIDADES</i>	<i>CADASTRO ÚNICO</i>
<b>C. General Design Features (Roles of Government Levels)</b>					
Who designs and runs the Registry System	Ministry of Planning and Coordination (Mideplan) designs Form, software, operating manuals, training, variables and weights. Municipalities apply and administer system.	National Planning Dpt (DNP): Selects variables, design Form, Manuals and Software. State level: None. Municipal level: Application & Management.	IMAS (central level agency) : manages whole system, including design, selection of variables, application of surveys, data entry.	- National Coordination of Program (under Ministry of Social Development) at Federal level designs and runs targeting system.	Ministry of Social Development designs. Data collection decentralized to municipalities. The Caixa Economica Federal operates the data base, issues social identification numbers, pays benefits
Is this a unified Registry System?	Yes. All municipalities use same form and procedures. There are different weights for rural-urban.	Yes. Same Form and application manuals for ALL municipalities. Different weights for urban-rural.	Yes. Same Form and application manuals for all the country. Different weights for urban-rural.	Yes, same basic form but different application for urban and rural areas. Rural: census of poor areas Urban: on demand by applicants.	Yes. Single questionnaire.
Is the system multi-purpose or to be used by specific program.	Multi-purpose, to be used by many programs. Housing programs use total score and score in the housing variables section.	Multi-purpose, to be used by many programs. Registry is separate from programs.	Multi-purpose, to be used by many programs. Registry is separate from programs	Designed for the program, but includes information for other programs.	Current design focuses on needs of Bolsa Familia Program; others may also use it.
Who uses system by government level	<u>Central level:</u> - PASIS - SUF - Low income housing. - Pre-school program <u>Local level:</u> -Assistance programs.	<u>Central level:</u> -Health Ministry, Safety Net programs, housing, elderly subsidies, other. <u>State level:</u> Limited (varies by state) <u>Municipal level:</u> Health subsidies, social welfare programs, other.	<u>Central level:</u> - IMAS, CCSS, Housing Ministry. <u>Local level:</u> None.	<u>Federal level:</u> - Ministry of Social Development and, to a lesser extent, Ministries of Education and Health. In process for use by other programs.	<u>Federal level:</u> - Ministry of Social Development (Bolsa Familia Program, and beneficiaries remaining on the BFP legacy programs: Bolsa Alimentação, Bolsa Escola, Auxilio Gas, Cartão Alimentação) - <u>State &amp; Municipal:</u> very limited at the moment



	<i>FICHA CAS</i>	<i>SISBEN</i>	<i>SIPO</i>	<i>OPORTUNIDADES</i>	<i>CADASTRO ÚNICO</i>
<b>D. Specific Design Features</b>					
How are variables selected for questionnaire and calculation of weights for Poverty Score	Expert group determines variables. 1999 version uses Principal components, and discriminant analyses to determine final variables and weights.	Principal Component Analysis to determine variables and weights, using random national survey.	Experts determine variables. Principal Component Analysis to determine weights, using a random sample of households.	National Coordination uses discriminant analysis to find variables and weights.	Self-declared per-capita income is only criteria currently used for eligibility. Other variables collected in questionnaire. Will likely switch to PMT.
How many variables are in questionnaire (How many used for Score) (No. of pages)	50 variables, of which 13 weighted. (two pages).	62 variables (old Form), 74 (new Form). (13 weighted in old Form; Not known in new Form). (two pages)	56 variables; 16 weighted. (two pages).	115 variables, 11 weighted. (27 pages).	78 variables No score (only income) (three pages).
How are households selected to be in registry of potential beneficiaries	Survey applied to families that apply to specified social programs that use CAS for selecting beneficiaries.	- All families living in previously identified poor areas are included. - On-demand by those wanting to apply for specific program or benefit.	FIS applied on three types of requests: -By demand: a person comes to IMAS asking for a benefit. -By “seeping” or census: FIS is applied to all homes in a predetermined poor community. -By outreach: when referred to a special program or service.	Two steps: 1. National level defines geographic areas based on marginality index. 2. In rural areas the survey is applied to all families. In urban areas survey is applied to applicants.	Two steps: 1. Municipalities receive estimates (quotas) of their poor population 2. Households are registered until quota is met (If number of poor families exceed the quota, they may still be registered).
How are poor households not living in selected poor areas Registered	There is no prior selection of poor areas.	Need to apply for registration in municipal SISBEN offices.	They have to come to IMAS offices to request a benefit.	Not registered until areas are selected in the priorities established for full coverage (expected by year 2006).	No prior selection of poor areas by federal government (practice varies by municipality)

	<i>FICHA CAS</i>	<i>SISBEN</i>	<i>SIPO</i>	<i>OPORTUNIDADES</i>	<i>CADASTRO ÚNICO</i>
Can households register at any time, even when they fall in bad situation.	Yes.	Yes. In practice process takes long time (varies by municipality) due to large numbers of people.	Yes. IMAS adds the person to a “route” chart, and visits the family in the following few weeks.	No, periods are defined conditional on authorized budget each year. The socioeconomic situation is known only when survey is made and updated after 3 years.	Not in practice.
What identification number is used for household members	There is a unique ID number for each person and is used for all civil registries, economic activity. This number is the ID used in the Ficha CAS.	Not all people in Colombia have the Identity Card and number. People are identified by a 4-digit Form number, plus municipal and department codes.	Costa Rica has a unified, unique ID number, which is called “cédula de identidad”. This ID number is used by SIPO, as well as by all other systems.	Program provided ID (in process is a unique population registration ID).	9-digit household number on form, 11-digit Social Identity Number (NIS) for individuals, 11-digit CPF for individuals, 7-digit IBGE municipal number, 2-letter state code
Who is charged with application and operation of system	Municipalities are in charge of financing application and administration of ficha CAS.	Municipalities have a SISBEN office charged with this responsibility. In a few municipalities, health secretariats can apply SISBEN interviews in cases of emergencies for fee waiving or reduction of hospital charges.	IMAS manages system. Through formal agreements and contracts, parts of the process for data collection and registration of new families or update of existing ones, can be done by other public or private entities.	National Coordination	Municipalities conduct data collection. The Caixa Economica Federal processes the data and maintains the database.
How are indigenous groups registered in System	They are not registered in Ficha CAS.	SISBEN is not applied to indigenous groups. They are a special group with preferred access to selected programs.	In Costa Rica, indigenous people are less than 1% of total. These families are registered using the same procedures as the rest.	Same process than the rest of the population with special operation for translation during data collection.	Being defined; possible involvement of FUNAI and FUNASA.

	<i><b>FICHA CAS</b></i>	<i><b>SISBEN</b></i>	<i><b>SIPO</b></i>	<i><b>OPORTUNIDADES</b></i>	<i><b>CADASTRO ÚNICO</b></i>
How often is information updated. When households are taken out of the system ?	Information is valid for two years. Information is updated through a new survey when program requires it, if person wants to apply to a new benefit, or if person is re-applying (in case of not having been accepted previously).	Every 3 years, except for changes of address, births, deaths which occur on demand. In practice, varies a lot by municipality.	Every 3 years. A study indicates that once the FIS reaches 3 years of having been applied, a complete update of all variables (including housing) must be done. Non-housing variables become obsolete even before the 3 year period.	At this point every 3 years, except for changes on demand for address, names, deaths. Households taken out when they do not meet conditions established by program.	No process for updating or recertification at the moment, and periodicity for recertification not yet defined. Software glitches have prevented updating records.
Who conducts the home visits (interviews)	-The interviews are made by surveyors contracted by municipalities.	- Varies by municipality. Small municipalities (20,000 people or less) use local staff and hired interviewers to do surveys. Large municipalities often use private contractors.	- Usually done by universities or private entities, under IMAS supervision. - For home visits on demand, IMAS uses own personnel.	National Coordination by temporary personnel.	- Varies by municipality - Municipal workers (teachers, health, child labor monitors), students, NGOs, volunteers. - Public and private contractors in some state capitals.
What documentation is used for verification purposes	Individual identity card. Family book for registry of relatives. Pay stubs of wages, pensions, subsidies to determine money income. No external cross-checks.	-Identity Card for adults present. Birth certificates of children. No independent check is made of income and or wealth.	ID cards of adults; birth certificates of small children; evidence of income of employed; medical records of sick or disabled persons; receipt of payment of public services (electricity, phone, water).	Any official ID or certificates from municipalities or local authorities when official ID not available. Birth certificates in some cases.	ID: Birth and/or marriage certificates, ID card, Work and Social Security ID, Voter registration card. Income self-declared (no checks)
Who Owns and Manages Data Base of Registry	Municipalities. MIDEPLAN has a consolidated data base of municipalities.	Municipalities. National programs get bases from municipalities to do own data base. In future DNP will have a consolidated data base.	IMAS is owner and manager of database and supporting documentation.	Federal level. Oportunidades Program	Caixa Economica Federal operates registry. Should supply data to MDS.
Within the municipality what agency manages data base	Communal Commission composed by members of Social Department and Communal Secretary of Planning. Group coordinator in charge of safekeeping Fichas and database.	Generally, Planning Secretary. In some cases, Health Secretaries are authorized to contract SISBEN application to waive or reduce hospital fees.	N.A.	N.A.	The Cadastro Único working group if it exists, the mayor's office or the education / health secretary.

	<i>FICHA CAS</i>	<i>SISBEN</i>	<i>SIPO</i>	<i>OPORTUNIDADES</i>	<i>CADASTRO ÚNICO</i>
Who audits data bases of Registry	There are no external audit procedures of data bases.	DNP (in practice not done). In future, stronger role for DNP to audit.	SIPO has not been formally audited.	Coordination of Registry of Beneficiaries at SEDESOL.	Monitors from MDS (but not systematically). The TCU carried out an audit in October 2002. There have been audits in 2 states where data base is available.
Is there a national (Integrated) data base	Over the last three years MIDEPLAN has made consolidated databases. Bases are updated once a year.	No. National programs build own data bases with municipal information. In future, DNP will assemble national DB to share it with other institutions.	Yes. Access by IMAS local offices is done through intra-net and or internet.	Yes, it is a basic requirement to be able to allocate benefits with priority on the poorest regions of the country.	Yes.
Are there penalties for manipulation, misuse?	Supervisors apply controls to interviewers. Penalties for manipulation vary by municipality. Beneficiaries of programs may lose benefit if found to manipulate information. In practice, there is no control and no a unified legal framework.	Varies by municipality. In future, Decree penalizes government workers with dismissal; Beneficiaries with suspension of benefit.	Sanctions are: -For IMAS employee, disciplinary administrative file open. - For external, contracted person, immediate discharge. - For personnel hired by other institutions, suspension and/or formal accusation.	Yes, for families suspension of benefits. Government workers are subject to law of public workers.	None at the moment. If fraud is proven under Bolsa Familia, benefits are suspended.
Are there appeals, procedures? (Percent of appeals).	No appeal procedures for CAS system. When appeals occurred, the head of CAS team in municipality decides to take the questionnaire again, only if changes affect score. In principle people sign questionnaire and certify that information gathered is correct, minimizing appeals.	Yes, most if not all for re-taking the survey. Two legal ways: a) petition rights for inclusion or re-taking survey, and b) Tutela rights. Under Tutela, a judge can mandate a new survey in 48 hours. Number varies by municipality. Re-survey has led to duplications in registry.	Inclusion of a family in system does not guarantee inclusion in any program. Therefore, very rarely someone demands to be included in SIPO data base. People demand benefits, not inclusion in SIPO. There is no record of appeals.	The program has a system of citizen attention to solve appeals. The system guaranties petition right of citizens and a rapid answer to complaints, appeals presented by people or local authorities. The system operates through social controller, telephone attention, and attention to write petitions. People receive answer 45 days after.	None at the moment, though households can contact a hotline number to inquire.

	<i>FICHA CAS</i>	<i>SISBEN</i>	<i>SIPO</i>	<i>OPORTUNIDADES</i>	<i>CADASTRO ÚNICO</i>
<b>E. Money Costs (US\$) of Building and Running Registry System</b>					
Statistical models	The model for 2003 had a cost of US\$40.373	About US\$20,000 not including survey	--	About US\$14,000 not including survey.	Not applicable
Per unit (Housing Unit) cost of building and updating the Registry System	Varies by municipality. Experts estimate costs at about US\$8.4 including, data collection, processing, supervision and management of databases.	Varies by municipality. On average: US\$1.8 per home surveyed in urban, US\$2.7 in rural (not including costs of poverty maps and census planning).	Varies depending on the application mode; US\$6,97 as an average. - Urban Sweeping: US\$4.2 per household - Rural Sweeping: US\$7 per household. - Individual demand: \$5.6 per household	Varies depending on the application mode; Experts estimate costs at about:- - Urban: US\$4.9 - Rural: US\$6.8 - Average: US\$5.6	Varies by municipality from reported US\$ 0.39 to US\$ 7.35 per household interview. Average: US\$3.9 per household.  No update.
Who finances the building and operation of Registry	Municipalities finance implementation and management of Ficha CAS. MIDEPLAN finances small group of people for design, follow up and software development.	Initial census: DNP (60%), municipal. (40%). Operation: 100% municipal. DNP finances small group of people (7) for design, follow up and software development.	IMAS, using resources from 2 main sources: its own funds, and FODESAF funds.	Federal government.	Costs of data collection financed by municipalities <sup>41</sup> Database administration: 100% federal.
How long it took to build the initial Registry?.	Not known. Initial registry made at the beginning of the 80s.	2 and a half years to cover over 1,000 municipalities and 27 million people.	18 months	4 months for the first 300,000 families.	18 months to cover 29 million people, which represents 73% of current total.
<b>G. How Effective, Cost-Efficient is Targeting System?</b>					
Targeting Efficiency: - <b>Coverage</b> (% of Q1 receiving benefits) - <b>Incidence</b> (% of benefits accruing to Q1)	SUF-27%, PASIS-16%  SUF-66%, PASIS-53%	Not available  SHIR-34%	not available  not available	60% (Oportunidades)  58% (Oportunidades)	(Preliminary estimates) 27% (Bolsa Escola)  40% (Bolsa Escola)
Cost effectiveness (total cost of registry system vs. total subsidies allocated).	Estimated at 1.3% (annual 1998)	Estimated at 0.5% (annual 2002)	Estimated at 0.9% (annual 2002)	Estimated at 0.7% (annual 2002)	Estimated at 1.4% (annual 2002) <sup>42</sup>

<sup>41</sup> For a few large municipalities (Rio de Janeiro, Manaus, Maceio, Caucaia) which were late in their registry, the federal government paid a subsidy of US\$ 0.28 per interview plus US\$ 0.10 in questionnaire printing and interviewer's training costs which come to US\$ 0,38 of the reported US\$ 0,39 unit cost. At the other end of the spectrum, municipalities like São Paulo or Belo Horizonte and the majority of small municipalities totally financed the costs, except for printing and training.

<sup>42</sup> For calculations it is assumed an average cost of survey of US\$3.9 multiplied by 6 million families =US\$23.4 million, as initial cost. It is also assumed a validity period of 2 years for the information, so annual cost is US\$11.7 million. Then it is assumed a 10% of maintenance cost, equivalent to US\$1.2 million. This gives an annual cost of US\$12.8 divided by total subsidies allocated in 2002= US\$877.3 million, gives a rate of 1.4.