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By Fernando Reimers, Carol DeShano da Silva and Ernesto Trevino

A new ‘silver bullet’ is racing across the desks of national policymakers and officials in international development agencies – the conditional cash transfer (CCT). This policy tool provides cash transfers to poor households, which are conditional on their children regularly attending school. It seeks to meet better the immediate needs of poor households, as well as to reduce the risk that disadvantaged children leave school early. The growing acceptance of CCTs relates to its simple and persuasive concept, as well as to research indicating that, to some extent, it works.

This working paper critically examines some of the evidence on CCTs, specifically that concerning the educational benefits to children living in poor households. What distinguishes this review from others is the explicit focus on the educational effects rather than on poverty effects. It examines the available evidence on CCTs to see whether, in fact, children who received transfers learn more than they would without the programme.



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By Fernando Reimers, Carol DeShano da Silva and Ernesto Trevino



UNESCO Institute for Statistics, Montreal, 2006

UNESCO

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Introduction

A new ‘silver bullet’ is whizzing across the desks of policymakers and officials in development organizations: the conditional cash transfer (CCT) in education. There is a powerfully simple idea at its heart – to alleviate poverty, strategies must blend short- and long-term objectives. Specifically, cash transfers allow people who are poor to buy food and other necessities, thus improving their short-term choices; with immediate needs better met, the conditions attached to cash transfers act as incentives for poor households to support the education and health of their children. For the longer term, the resulting increase in the children’s human capital helps break the intergenerational transmission of poverty. The growing acceptance of CCT derives both from its simplicity and from study evidence that indicates it works, in some ways. This paper critically examines some of that evidence, focusing on the documentation of educational effects.

The ultimate test of whether CCT incentives succeed in alleviating the inter-generational transmission of poverty lies in examining the actual life chances and choices made by the children of beneficiaries. However, obtaining this evidence is a long-term proposition – one that will likely never occur due to the complexities and costs involved. Without this evidence, the merit of CCT programmes will continue to be assessed on limited information and by the extrapolation of long-term outcomes from observed short-term impacts.

At the outset we clarify that our aim is not to discuss CCTs as short-term poverty alleviation tools. It is sensible that people who do not have the resources to eat would be better off if provided with the resources to do so. We also do not set out to examine the health effects of CCTs. The links between better nutrition, resulting from increased ability to eat, and increased health are also arguably fairly straightforward. The focus of our analysis instead is on the assumed (but, as we will show in this paper, insufficiently demonstrated) educational impact of CCTs. An aspect of the proposition that CCTs are effective instruments to alleviate poverty in the long term is, as we have mentioned, that they induce families to support the education of their children in ways that will make them less likely to be poor in the future. It is this part of the rationale in support of CCTs that explains why in many countries a large proportion of the funding for CCTs is accounted as ‘education spending’. For many of the programmes examined in this paper, the cost of CCTs accounted as ‘education spending’ exceeds 8% of all education spending, a sizable share in a sector in which typically 80-90% of all spending goes to salaries. This means that CCTs use up a significant portion of the ‘discretionary’ education spending, that is spending which could be devoted to other programmes to directly expand access to school or improve education quality. For this reason, CCTs are in effect considered an education policy option, one which competes for resources with alternative options to improve educational opportunity.

In Mexico for example, CCTs represent approximately one-fifth of the Ministry of Education’s budget which is not committed to salaries, as shown in **Table 1**. The

total cost of the *Oportunidades* Programme increased from 23.6 billion pesos in 2004 to 35 billion pesos in 2006. Approximately one-half of the costs of *Oportunidades* scholarships are accounted as part of the public education budget. These scholarships represent over 10% of the budget of the Ministry of Education and around 4% of the total federal education budget. About one-half of the budget of the Ministry of Education is committed to salaries; the share represented by salaries is about 70% for the total federal education budget. Relative to the portion of the education budget not committed to salaries, the scholarship programme represents 20% of the budget of the Ministry of Education and about 15-17% of the total federal education budget.

Table 1. Cost of *Oportunidades* relative to other education expenditures from 2004 to 2006

Allocation of the budget of the *Oportunidades* programme by component

Budget in Thousand of Current Pesos

Component	2 0 0 4		2 0 0 5		2 0 0 6	
	Total	Share %	Total	Share %	Total	Share %
Social Development (food)	8,365,393	35.4	11,874,008	38.2	14,655,983	41.9
Public Education (scholarships)	11,987,819	50.7	15,468,436	49.7	16,550,000	47.3
Health	3,290,900	13.9	3,767,054	12.1	3,800,812	10.9
T O T A L	23,644,112	100.0	31,109,498	100.0	35,006,795	100.0

Share represented by the education component of *Oportunidades*, relative to the education budget

Budget in Millions of Current Pesos

Component	2 0 0 4		2 0 0 5		2 0 0 6	
	Total	Share %	Total	Share %	Total	Share %
Total cost of <i>Oportunidades</i> Scholarships relative to:	11,987.8	3.9	15,468.4	4.6	16,550.0	4.6
Total Federal Education Budget ⁽¹⁾	306,712.9		336,578.9		356,923.3	
Total cost of <i>Oportunidades</i> Scholarships relative to:	11,987.8	10.6	15,468.4	12.1	16,550.0	12.0
Total Budget of the Ministry of Education (SEP)	113,414.1		127,668.4		137,590.4	

Share represented by salaries and non-salaries in the education budget

Budget in Millions of Current Pesos

Component	2 0 0 4		2 0 0 5		2 0 0 6	
	Total	Share %	Total	Share %	Total	Share %
Total Federal Education Budget ⁽¹⁾	306,712.9	100.0	336,578.9	100.0	356,923.3	100.0
Salaries (personnel services)	226,290.7	73.8	238,361.7	70.8	259,643.6	72.7
Non-salaries	80,422.2	26.2	98,217.2	29.2	97,279.7	27.3
Total Budget of the Ministry of Education (SEP)	113,414.1	100.0	127,668.4	100.0	137,590.4	100.0
Salaries (personnel services)	51,850.0	45.7	53,791.2	42.1	58,363.1	42.4
Non-salaries	61,564.1	54.3	73,877.2	57.9	79,227.3	57.6

⁽¹⁾ This refers to the education of the Ministry of Education (Secretaria de Educacion Publica, SEP) as well as to other federal budget items; Transfers to the States and Municipalities (Ramo 33) and Pensions and transfers to the systems of basic, normal, technological and adult education (Ramo 25).

**Share represented by the education component of *Oportunidades*,
relative to the education budget not committed to salaries**

Budget in Millions of Current Pesos

Component	2 0 0 4		2 0 0 5		2 0 0 6	
	Total	Share %	Total	Share %	Total	Share %
Total cost of <i>Oportunidades</i> Scholarships relative to:	11,987.8	14.9	15,468.4	15.7	16,550.0	17.0
Non-salaries of the Total Federal Education Budget	80,422.2		98,217.2		97,279.7	
Total cost of <i>Oportunidades</i> Scholarships relative to:	11,987.8	19.5	15,468.4	20.9	16,550.0	20.9
Non-salaries of the Ministry of Education Budget	61,564.1		73,877.2		79,227.3	

Source: Direccion General de Planeacion y Programacion de la Secretaria de Educacion Publica. Personal Communication. 17 August 2006.

When examining CCT as an education policy option, it is important to critically examine the evidence and assumptions that underlie the inferences about its long-term effects. In particular, special attention should be given to alternative potential uses of these resources in light of the opportunity costs of CCT programmes. For example, in many rural and urban marginal schools children drop out after repeated unsuccessful attempts to learn to read from poorly-trained teachers or with inadequate or insufficient instructional material. Providing financial incentives to continue in school will create pressures for parents and teachers to retain students in school, but does not directly address the conditions that undergird school failure, dropout and poor educational quality. The direct costs of providing high-quality reading material, classroom libraries and professional development of teachers focused on literacy instruction strategies are in all likelihood smaller than the costs of CCT programmes.

The second form of opportunity cost is more subtle. CCTs provide government officials the option to *appear* to address human capital objectives in a national development strategy, even as they avoid difficult reforms to significantly improve education. For example, in some countries, the low quality of education stems in part from very inadequate forms of teacher selection, preparation and promotion, often resulting from the role that teacher unions and other politicians play in education management. Addressing these problems has real political costs to a government. In contrast, investing resources which could have been invested in significant improvements in the quality of teaching in CCTs has the double political advantage of avoiding the political costs of the former, while capturing the political benefits of distributing cash directly to the poor, an opportunity that many government officials and politicians perceive as yielding political support. This perverse political economy of CCTs, as far as they allow governments to eschew difficult but necessary education reforms while 'delivering' popular - even if ineffective - programmes to improve human capital, cannot only 'buy time' for governments but also institutionalise mechanisms that would make education reform less likely in the future. In many of the communities where the

programmes operate, school quality is deficient in numerous dimensions, ranging from frequent teacher absences, to teachers who are poorly educated or motivated to teach, to schools lacking the basic infrastructure and resources to provide instruction. In those settings it may be a rational decision for students to not go to school. Attempting to alter that decision by offering financial incentives to attend low-quality schools is at best a waste of resources and at worse a mechanism to alleviate the pressures to improve schools by subsidising attendance to what is otherwise a broken or deficient enterprise unable to generate demand based on its merits.

Because of these opportunity costs of CCTs, we believe their educational value should be assessed carefully and not just in terms of whether they succeed in increasing school attendance among the children who receive the transfers. After all, it is not surprising that, given strong incentives, people who are resource-poor make the target choices. The question is whether these choices actually improve their well-being and opportunities in both or either the short and long term.

Much of the thinking in the development community has approached education as a 'black box' – where the inputs and outputs implicit in the programme theory underlying a policy option are known, but the causal pathway in between is not. It is assumed that more education (more years of schooling) is generally better and children's experiences in schools are generally beneficial. The evidence that supports this thinking comes largely from examining the economic opportunities and salary differentials of persons with different levels or years of education, and the more-limited evidence on the differences in productivity of individuals with different levels of education. Because people are not ordinarily randomly assigned to attain different levels of education, this latter evidence is limited because it is difficult to deduce how much their achievements are attributable to their schooling and how much they result from unobserved differences among individuals or their families who seek higher levels of schooling or not.

Interest in the quality of educational experiences is relatively recent in the development community. Some authors have suggested that the quality of education is fundamentally more important than access to school or the number of years of schooling and that, as a result, rates of return to school conflate the impact of educational attainment and quality because it is the quality of the education they receive and not the total time spent in schooling that allows some individuals to attain higher years of schooling than others (Hanushek, 1995). That is, the fact that individuals with higher levels of schooling tend to earn more, on average, than individuals with lower levels of schooling would reflect not only the contribution of the higher number of years of school attained, but also the fact that, in order to attain them, those who were promoted to higher levels of instruction had received an education of a higher quality at lower levels. This proposition has its challengers (Kremer, 1995) and a lively debate on the potential policy trade-offs between access and quality continues.

This debate aside, it is apparent that educational attainment is a crude proxy for the increases in human capital. Presumably, the options of educated people are greater because the educational enhancement of their skills – cognitive, creative, problem-solving and performance – enables them to perform at *increased* levels of productivity in society. In other words, education empowers people to be more productive by improving their abilities, not by the number of years spent in school or the number or level of educational credentials. (Admittedly, paper credentials *do* matter to some extent as a kind of password to opportunities. For example, many job searches screen candidates initially based on a set level of education attained, not on the skills of applicants.)

In the case of CCT programmes, it is not difficult to imagine that poor families might agree to send their children to schools of low quality, given sufficiently important incentives. This paper probes the available evidence on CCTs to see whether, in fact, children who receive transfers learn more than they would have without the programme. We anchor this central question in a critical examination of a series of related questions: What are CCT programmes about? What do they cost? How are they targeted and implemented? Where does learning figure in the underlying programme theory? A detailed list of these questions is presented in **Appendix A**.

For this review we selected a group of studies that examined conditional cash transfers in education, as well as summary evaluations of the studies. The documents reviewed for this study are presented in **Appendix B**. The criteria for including a study in this review were that they provided empirical evidence sufficient to support some conclusions about possible educational effects, and that the design of the programme and the evaluation was sufficiently and clearly documented to answer the questions guiding this review. We used several other reviews of these programmes to access primary evaluations, searched the ERIC catalogue and consulted colleagues in development organizations to access literature not documented in scholarly sources. What distinguishes this review from others that have been conducted of the same programmes is the explicit focus on the *educational* effects rather than on poverty effects (Morley and Coady, 2003). By and large, we limited our study to the review of existing studies, but we occasionally have inserted our own analysis of evidence when we felt it clarified the central arguments of this paper.

The paper is structured in the following sections: a schematic summary of the main arguments that will be developed; descriptions of the variation in programme approaches; examination of the programme theories; discussion of the evaluation approaches; a review of the evidence of the impacts; and a synthesis of impact outcomes to highlight implications for policy and future research.

1. Main argument: Are CCTs effective for education?

This paper is not about the adequacy of CCT programmes to transfer cash to poor families. Most reviews of available research focus principally on this question (Morley and Coady, 2003) and, on that score, the evidence is fairly compelling – the programmes *are* progressive ways to direct public spending to the poor, largely because they are well targeted and emphasise families with children. We find it reasonable that programmes which are principally about short-term poverty alleviation also have a secondary objective related to education – and this education aspect can increase public support for cash transfers. In this context, all and *any* educational gains, however limited, are celebrated.

Where we depart from current conventional wisdom about CCTs is in considering them especially virtuous because they simultaneously pursue poverty reduction and education objectives. We ask instead what precisely the programmes achieve educationally, which is different from celebrating, as a bonus, any additional educational benefits that a poverty reduction programme may have. This distinction is not purely academic; it has practical consequences for the rationality of public spending.

In a review of the progressivity of public spending, i.e. in the context of defining a safety net, these programmes would be more attractive than non-targeted subsidies on food. When deciding which poverty reduction options to pursue, it is clear that CCTs have advantages. In contrast, in a review of the efficiency of education spending, it is far less clear that these programmes are a better way to increase a country's human capital than allocating resources directly to the improvement of educational quality. As an education policy option, we find far less conclusive evidence that these programmes are an appropriate alternative or even a necessary part of the policy mix. They are certainly not the 'silver bullet' that some press have made them out to be.

Based on the evidence reviewed in this paper, we conclude that there is *very limited support* for the conclusion that CCTs are effective educational instruments, in particular with regards to their ability to increase learning. To a great extent, this is because the theories upon which these programmes are based are deficient. They assume that the quality of instruction available to children from poor families is adequate and that poor students learn more if they spend more time in school. There are other reasons to be cautious about the educational potential of these programmes – namely their targeting inefficiency. Some families who receive transfers would enrol their children in school anyway, while other families find the transfer insufficient incentive. It should also be noted that evidence does not bear out the common assumption that children are typically kept from school because they must work in order to sustain the household economy. One of the most problematic assumptions of these programmes is that, as a long-term poverty reduction strategy, they also bring supplementary returns to education in highly-marginalised communities. Indeed,

there are even reasons to be concerned that these programmes have potentially negative effects on the quality of education.

After examining the available evidence and studies, we conclude that conditional cash transfers *do* have positive effects on school attendance and educational attainment, both in terms of promotion from one grade to the next and, consequently, in the number of years of schooling completed by participants. However, the magnitude of these effects is modest, particularly for transfers to pupils in primary education. Effects are greater at the secondary level and in facilitating the transition from primary education. However, in light of the low instructional quality in some of the schools attended by low-income children, it is not clear what students are gaining from the additional years in school. The effects on educational attainment are inferred from differences observed in the short term between students who receive the transfers and comparison groups. These short-term differences are then extrapolated to infer long-term attainment differences, although these have not been directly examined to date. The evidence regarding impact on learning outcomes is far more limited and inconclusive.

Most of the CCT studies assume that the quality of education provided is adequate. They do not examine how the programmes influence the *quality* of learning or discuss the *opportunity costs* of these programmes relative to resources allocated directly to improve instructional quality. None of the existing studies are designed to examine the independent and interactive consequences of cash transfers and the quality of education. From the perspective of the education policymaker, this information is essential to inform decisions about the appropriate balance of resources on both sides of the supply-demand equation. Several CCT programmes include quality-improvement components, but they are usually poorly designed and implemented.

Here lies the main limitation of the evidence: the lack of support for the proposition that children learn *more* as a result of CCT programmes. The 'black box' approach to examining effects in learning and instruction leaves what happens to children *inside* the schools unexamined. This fundamental omission is central to any discussion of the merits of these programmes as part of an education strategy. The evidence examined in this paper does not allow us to say whether these programmes are an effective way to improve human capital. It is certainly not possible with the evidence to conclude that these programmes are a necessary part of a broad education strategy. In fairness, it is also not possible, based on the evidence available, to state that these programmes are *not* helping students to learn more. A way to think about these programmes is as a component in a strategy to improve human capital that includes *direct* actions to influence quality. The problem with the available evaluative evidence is that it does not address the crucial issue of whether these programmes have been implemented as part of efforts that have included direct efforts to improve instructional quality. The evidence also does not speak about how the effects of

these programmes differ in contexts of varying instructional quality. In a nutshell, we know little about the true educational effects of these programmes; this is disconcerting given the relatively long period of time these programmes have been in place and the level of funding devoted to them, often counted as education funding.

In contrast, the evidence does suggest that these programmes *are* a useful way to make a broad poverty alleviation strategy more transparent (because the criteria to assign the transfers are publicly known, compared to typical welfare programmes which leave much discretion to implementing agencies about who could receive welfare payments) and to build long-term concerns into a strategy to alleviate short-term poverty (a cash transfer by definition can only alleviate the short-term effects of poverty, but a condition that works as an incentive for families to make decisions that enhance the health or education of their children may have beneficial long-term effects that could work in the direction of breaking the inter-generational transmission of poverty). The evidence suggests that, when well targeted, these CCT programmes are an efficient way to allocate resources that would have been allocated to other programmes to alleviate poverty in the short term. The evidence does not, however, suggest that these programmes are more efficient than using these resources in other ways to improve the quality of instruction or to foster high-order cognitive skills.

One question that emerges from this review is whether these programmes are best targeted at children who have not yet completed primary education. Most of the evidence pertains to this level of education. So it may not be appropriate to extrapolate these findings to speculate about possible effects at the secondary or tertiary education levels, where students are older and their opportunity and instruction costs are significantly higher. There are also more reasons to be concerned with the cumulative effects of deficient educational preparation at lower levels when thinking about educational achievement at the secondary level or higher. The proposition that demand-side interventions will be beneficial for students with poor prior academic preparation seems untenable. What can a CCT do for a high school student who has a hard time keeping up with academic content because s/he did not learn to read well in elementary school? Consequently, a question for which the studies examined in this paper provide no answer is whether conditional cash transfers are an appropriate strategy to support educational expansion once a country has achieved universal primary education. However, the programmes apparently succeed in improving primary and lower secondary school attendance among the poorest groups of the population.

Among the programmes reviewed for this paper, *Progres-Oportunidades* is the most sophisticated, both because of the complexity of the human capital framework that undergirds its design and the well-designed evaluation that has generated abundant evidence to answer many of the questions we raise in this paper. A number of the evaluations of the other programmes have been, in fact, modeled after *Progres-Oportunidades*.

2. The programmes: Poverty alleviation versus educational development

This section describes the general characteristics of each programme included in our analysis. These descriptions outline each programme's objectives and costs, the key actors in the programme's development and implementation, the targeting mechanism used to identify beneficiaries, the implementation process, and changes that took place during the programme's execution. The programme descriptions are organised according to their primary, explicit objectives to alleviate poverty or support educational development.

2.1. CCTs for poverty alleviation

Progres-Oportunidades, Mexico

Progres-Oportunidades is a conditional cash transfer programme that started in Mexico in 1997 under the name of *Progres* (1997-2001). The programme's general objective is to support households which live in extreme poverty, enhance individual capacity and improve well-being (SEDESOL, 2003b). *Progres-Oportunidades* includes components in the areas of education, health and nutrition. Since 1997, enrolment in *Progres-Oportunidades* has expanded from 101,000 students to 4.4 million students in 2002 (SEDESOL, 2003a). The latter figure roughly represents 39.7% of the population in the age group 6 to 14 years. Also, *Progres-Oportunidades* has exponentially increased the number of households served, starting with 225,702 households in 1997 and reaching an estimated 5 million households in 2004, or 22.5% of the total number in Mexico (INEGI, 2000; Parker and Teruel, 2003; SEDESOL, 2004).

Some of the specific basic education objectives of *Progres-Oportunidades* include: improving educational access for those in extreme poverty; lowering the rate of child illness to reduce school absences; increasing children's opportunities to complete basic education; and encouraging family participation in schooling (SEDESOL, 2003b).

Although the motivation to create *Progres-Oportunidades* is not clearly articulated in the various assessment documents, there are two apparent rationales. First, the programme aimed to create a safety net for the poorest rural people who had been hard hit by the Mexican economic crisis of 1994-1995 (Treviño, 2001). Second, it aimed to recover political support for the government after it lost control of the Congress in 1997 and to establish a social programme that could withstand the change of presidential administration in 2000 (Parker and Teruel, 2003; Treviño, 2001).

From 1997 to 2000, *Progres* targeted poor rural communities with less than 2,500 inhabitants; however, a small number of semi-urban communities (populations of 2,500 to 14,999) were also included (Parker and Teruel, 2003).

The programme benefited only children attending Grades 3 to 9 of basic education (Schultz, 2000a). Since 2001, *Progres-Oportunidades* has also targeted poor urban communities with 15,000 inhabitants or more (Parker and Teruel, 2003; Hernández Prado et al., 2002). It has also expanded to include children less than 18 years old who are enrolled in primary and lower secondary education and those less than 22 years old who are enrolled in upper secondary school (SEDESOL, 2003a; SEDESOL, 2003b; Parker, 2003).

The targeting mechanism used in implementing *Progres-Oportunidades* has gone through several incarnations. In the programme's first stage, poor rural areas were identified using a marginality index created with information from the 1990 Census and the 1995 *Conteo* (a household demographic survey). The poorest households within each locality were identified using discriminant analysis (Skoufias et al., 1999). Then, community assemblies convened to "validate" or "legitimate" the selection (Coady, 2000). With the programme's expansion into urban areas, the targeting mechanism was altered. Potential beneficiaries now go to an *Oportunidades* module located in the community, where their socioeconomic status is assessed. The households identified as potential beneficiaries are visited to verify the information and, finally, discriminant analysis is used to select the households (Parker and Teruel, 2003; Hernández Prado et al., 2002).

Families receiving benefits under *Progres-Oportunidades* must fulfill a number of requirements related to both health and education. The education portion requires those under 18 years who have not completed Grade 9 to be enrolled in and attending school between Grades 3 and 9. Also, those between ages 14 and 21 who have completed Grade 9 must be enrolled in and attending upper secondary education (SEDESOL, 2003b). As a result, *the programme operates only in locations where schools are available, which excludes some of the most marginalised communities*. Education benefits may be suspended for a variety of reasons, including poor school attendance and failure to re-register for school (SEDESOL, 2003b). After three years of participating in the programme, beneficiary families enter into a re-certification process which includes a socioeconomic assessment to see if the family is still living in extreme poverty (SEDESOL, 2003b).

Cash is transferred to the female head of household. This is based on the assumption that mothers allocate better the resources for the well-being of the family (SEDESOL, 2003a; Adato et al., 2000). Education transfers vary in amount, based on the grade of the student receiving the benefits. Transfers also vary by gender at the lower and upper secondary levels. In January 2004, the grants ranged from approximately US\$ 10 per month for Grade 3 students in primary education to US\$ 37 for female Grade 3 students in lower secondary

education¹ (Oportunidades, 2004). These amounts correspond to 8% and 31% of the national minimum wage, respectively (INEGI, 2004).

Progres-a-Oportunidades is a federal government programme and the administration is highly centralised. The agency principally responsible for the programme design and implementation is the Ministry of Social Development, which coordinates and disburses programme resources. This institution works in close coordination with the Ministry of Public Education, the National Council of Educational Promotion (CONAFE) and the Ministry of Public Health. The Ministry of Public Education operates the education component of the programme (SEDESOL, 2003a). The programme's rules of operation assume that state governments will also participate to strengthen educational services in the localities where the programme is operating (SEDESOL, 2003b).

During 2004, the budget for *Oportunidades* was 10.5 billion pesos, approximately equivalent to US\$ 914 million (SHCP, 2004b), corresponding to 8.9% of the 2004 education budget (113.4 billion pesos or US\$ 10.3 billion) (SHCP, 2004a).

Progres-a-Oportunidades may be divided into at least four implementation stages which account for its eight years of existence: the set-up stage in 1997; programme expansion into rural and some semi-urban areas from 1998 to 2000; the incorporation of urban households in 2001; and the expansion into other urban areas between 2002 and 2004.

Familias en Acción (FA), Colombia

The *Familias en Acción (FA)* programme started up in 2000. It was part of *Red de Apoyo Social (RAS)*, the national social safety net programme developed in Colombia in response to the economic crisis of the late 1990s (Bouillon, 2004). *FA* provided a conditional cash transfer to families with the aim of improving education and nutrition in rural areas and fostering the creation of human capital (Attanasio et al., 2004). The programme was funded by a loan from the World Bank and Inter-American Development Bank (IADB), as well as the Government of Colombia, guaranteed at approximately US\$ 250-300 million annually from 2001 to 2004 (Bouillon, 2004). This amount constituted an additional 0.3% of Colombia's GDP per year and 10.3% of government educational expenditure in 2002 (Mineduc-Columbia, 2002).

FA follows the model of the *Progres-a-Oportunidades* programme in Mexico, with some differences. *FA* provides a grant of about US\$ 8 per month for each child attending primary school, an amount that corresponds to approximately 4.5% of the minimum salary. In 2001, the monthly grant was 12,000 Colombian pesos

¹ For all the conversions of monetary figures from local currencies into US dollars, we used the exchange rates published in the World Development Indicators Database (2005). In each conversion we used the exchange rate of the same year in which the original figure was published.

and, in 2002, 14,000 pesos (Centre for the Evaluation of Development Policies, 2004). To receive the grant, households must have children under the age of 18 years and they must attend school at least 80% of the time. Like *Oportunidades*, the grants are transferred to female heads of households (Attanasio et al., 2004).

Evaluating the impacts of *Familias en Acción* was a focus from the programme's inception. The funding agreement required that a portion of the programme budget be spent on evaluation (Attanasio et al., 2004). A consortium of three organizations (The Centre for the Evaluation of Development Policies at the Institute for Fiscal Studies at University College London; the Colombian research institute, *Econometria*; and the Colombian data collection firm, SEI) won the evaluation contract (Centre for the Evaluation of Development Policies, 2004). However, for reasons that were unclear in the evaluation, the Colombian government decided to begin implementing the *FA* programme early in 25 communities (Attanasio et al., 2004). This allowed an early evaluation to be done of communities that were already participating in the programme and those waiting to participate just a few months after the start of the programme (Attanasio et al., 2004).

In order to participate in *Familias en Acción*, municipalities could neither be a district capital nor located in a region that had received assistance after the 1995 earthquake (Centre for the Evaluation of Development Policies, 2004). By 31 October 2002, more than 400,000 eligible families had registered and 89% were beneficiaries. The evaluation report produced in April 2003 by the National Department of Planning stated that, at that time, 283,000 children were receiving the primary education cash transfer under the *FA* programme (*Departamento Nacional de Planeación*, 2003)

Programa de Asignaciones Familiares (PRAF), Honduras

The Family Allowances Program (*PRAF*) in Honduras has been operating since 1990 as part of the Honduran government's strategy to combat poverty. The reason for creating the programme – which targets poor families – was the anticipated negative effect of macroeconomic adjustment on poor families (IADB, 1998). Thus, the programme's primary goal was to serve as a financial safety net for needy families, with schools functioning as a channel to transfer the funds (IADB, 1998). The programme proposed to serve 38,883 households during its implementation (IFPRI, 2000).

Phase II of *PRAF*, which ran from 1999 to 2002, represented a significant shift in the focus, which expanded from reducing poverty to improving the education and health of poor, rural families. The new phase attempted to encourage families to invest in education and health by providing both supply and demand-side transfers (Caldés et al., 2004).

The programme's current general objectives are to increase human capital and reduce poverty through education and health initiatives (IFPRI, 2001). More specifically, *PRAF* educational goals are to increase the demand for education, expand community participation and raise teaching quality in primary schools (IFPRI, 2001). *PRAF* educational initiatives largely focus on improving the school enrolment of 6- to 12-year-olds in the first four grades of primary education. The programme also strives to improve the health of beneficiaries through nutrition and medical initiatives not extensively discussed here.

PRAF established eight goals to serve as indicators of the programme's success (IFPRI, 2000):

- 20 percentage point increase in the proportion of 6-year-olds in school;
- 90% promotion rate into Grades 2, 3 and 4;
- 10% reduction in absences;
- presence of parent associations in all schools;
- 100% of parent associations trained in community participation;
- 100% of teachers trained in strategic planning methodologies; and
- an increase in the number of days teachers work annually.

After the *PRAF* programme was altered in 1998 with the implementation of Phase II, two incentive payments were initiated – one to address health and the other to address education (IADB, 1998). Households with children who have not yet completed primary Grade 4 may receive transfers as long as the children remain enrolled and have regular attendance (Caldés et al., 2004). The education transfer is approximately US\$ 38 (812 Lempiras) annually for each child under age 13 enrolled in Grades 1 to 4. A maximum of three children per household may receive benefits. A financial transfer to parent associations was also instituted during Phase II (IADB, 1998). Moreover, a quality-related component, the Learning Development Incentive, was slated for distribution through non-government organizations (NGOs) and intended to improve the provision of education services (IADB, 1998). In order to receive these supply-side transfers, primary school administrators were required to begin a school improvement programme and establish a plan to increase community participation (IFPRI, 2000). To evaluate the effects of each of these education components, as well as the health components not included here, beneficiaries were grouped into four categories – with just two groups receiving educational cash transfers (IFPRI, 2000).

IADB is the main funding organization for *PRAF*. Healthcare providers, including Rural Health Centers and local NGOs, may receive *PRAF* funding and, with schools, are involved in implementing and sustaining the programme. The Technical Analysis Unit (UNAT) of the Office of the President of the Republic coordinates *PRAF*, among other social programmes (IADB, 1998). The total cost of *PRAF* Phase II is US\$ 50.4 million, including local support provided by the Honduran government in the amount of US\$ 5.1 million to be spent over three years. Of the total funding, US\$ 17.7 million is spent on health and US\$ 22.6

million on education; in 2003, the total budget represented 7.9% of the national education budget. Dividing the total programme budget over its three-year timetable, the average annual total budget of the programme is equivalent to 2.6% of the 2003 public education expenditures. The actual *PRAF* education component in 2003 represents 4.5% of public educational expenditure. However, dividing the *PRAF* education component by three years, the average annual amount would be US\$ 7.5 million, corresponding to 1.4% of the national education budget (Presidencia-Honduras, 2003).

The mechanisms used to target beneficiaries were poverty and health indicators from the 1997 National Census which led to the identification of a possible 70 municipalities (Caldés et al., 2004). From that group, 50 municipalities were randomly selected to receive interventions and 20 remained as the control group. Finally, 40 municipalities participated in demand-side interventions, including the education conditional cash transfer.

In 2002, this targeting mechanism resulted in *PRAF* reaching 17% of the total Honduran population. Under the initial Phase II funding goals, about 30% of the target population in the country would receive benefits (IADB, 1998). Overall, there were 47,800 beneficiaries in 50 rural municipalities from seven departments (administrative divisions); 87% of participants were classified as poor (Caldés et al., 2004).

The Phase II implementation process was not without challenges. In 2001, a new government came into power and the *PRAF* implementation team was replaced, potentially compromising the operation of the programme (Caldés et al., 2004). Further, the final impact evaluation shows that the initiative to transfer cash to parent-teacher associations was not fully implemented because of legal issues.

Red de Protección Social (RPS), Nicaragua

The Nicaraguan Social Safety Net Program (*RPS*) is a conditional cash transfer programme whose aim is to promote increased human capital for impoverished families. Created in 1999, *RPS* was based on the models of the Mexican *Progres-a-Oportunidades* and Honduran *PRAF* programmes (IFPRI, 2001). The main educational objective of *RPS* is to reduce dropout among students enrolled in the first four grades of primary school.

Like other programmes, *RPS* includes both a health and educational component, and transfers are paid to female heads of households (IFPRI, 2001). There are three types of education cash transfers – two directed at families and one that supports teachers (IFPRI, 2001).

- The first family cash transfer (*bono escolar*) pays families with eligible children a fixed, bi-monthly cash allowance regardless of the number of children in the household. The “school voucher” is valued at approximately US\$ 16 per year. The transfer represents about 18% of the average

minimum wage (BC-Nicaragua, 2005). To receive the benefit, students in eligible households must be enrolled in school and cannot have six or more absences during any school quarter.

- The second family transfer (*mochila escolar*) is a cash allowance to pay for necessary school supplies, and each individual child in a household may receive this benefit. This “backpack voucher” is worth about US\$ 18 per year. The amount represents roughly 20% of the average minimum wage (BC-Nicaragua, 2005).
- The third cash transfer is a cash allowance or “supply voucher” (*bono a la oferta*) for teachers in the amount of US\$ 4. Generally, this money is given to families enrolled in *RPS* who then transfer the money to teachers (IFPRI, 2001).

The overall transfer amounts are calculated based on individual household expenditures. The education component is fixed at 8% of total household expenditures, which is comparable to the allowance offered under Mexico’s *Progres-a-Oportunidades* programme (IFPRI, 2001). The total annual cash transfer expected for the school and backpack vouchers is US\$ 114. This represents 10.5% of the average annual minimum wage for 2003 (BC-Nicaragua, 2005).

In order to receive educational benefits, there are a number of conditions families and their children must fulfill. Households identified as eligible may participate in either the health or educational component or both. Only recipient households with children between the ages of 7 and 13 who have not yet completed fourth grade may receive the education transfers (IFPRI, 2001). The children are required to enrol in school and attend at least 85% of school days each month. Beneficiaries must also be responsible for transferring the teacher voucher.

The primary funding organizations for the *RPS* programme are IADB and the Government of Nicaragua. The total budget allocated for the two phases of *RPS* was US\$ 32.2 million. Of that total, IADB provided US\$ 29 million. In addition to the funding organizations, local Nicaraguan NGOs and community members played significant roles in the programme implementation, particularly in terms of providing information about health care and education.

The *RPS* targeting mechanism is less detailed than those of *Progres-a-Oportunidades* or *PRAF*; however, generally speaking, it is also aimed at poor, rural populations using geographical targeting (IFPRI, 2001). The *RPS* target phase included two departments (administrative divisions), Madriz and Matagalpa, based on their high levels of poverty and capacity to implement the programme (IFPRI, 2001). In the six municipalities participating in the pilot phase, up to 90% of the population was considered poor (IFPRI, 2001).

Food for Education (FFE), Bangladesh

The Food for Education (FFE) programme, started in 1993, is very similar in function to the programmes already discussed. However, instead of using conditional cash transfers, FFE transfers *food* to needy families on a monthly basis to encourage children to attend school (Ahmed and del Ninno, 2002). Poor primary school students are the primary targets of the programme. Those receiving transfers are required to remain in school. Overall, the FFE programme intended to foster the accumulation of human capital among poor families, reduce dropout rates and improve educational quality (Ahmed and del Ninno, 2002).

FFE was originally launched on a large-scale pilot basis and provided a free monthly supply of wheat to poor families. The monthly “payment” was approximately equal to the amount a child would eat in 2 to 4.5 days (Arends-Kuenning and Amin, 2000). By 2000, 27% of primary school children in Bangladesh were enrolled in the programme (Ahmed and del Ninno, 2002).

Evaluations of the FFE programme show that it accounted for 19.9% of total primary education expenditure in Bangladesh in 1994, up from 4.7% in 1993 (Ahmed and del Ninno, 2002). The primary education budget as a proportion of total education expenditures did not increase proportionately, meaning that some of the funds supporting FFE may have come out of non-primary education budgets (Ahmed and del Ninno, 2002). In the programme’s first year, 1993, FFE cost approximately US\$ 17 million; during 1990 to 2000, the cost more than quadrupled to US\$ 77 million (Ahmed and del Ninno, 2002).

The FFE programme had a two-step geographical targeting mechanism aimed at poor families and students (Ahmed and del Ninno, 2002). First, two or three economically disadvantaged unions (rural administrative unit, subdivision of a subdistrict) with high illiteracy rates were selected; next, all government or registered schools, as well as one religious school, were identified for participation; finally, all households with school-aged children were designated as eligible if they met specific criteria (Ahmed and del Ninno, 2002). Only families that were landless or that had a household head who was female, a day laborer or participant in a designated low-income profession could benefit (Ahmed and del Ninno, 2000). Any household that met all the necessary targeting criteria but was already receiving benefits under one of the other social safety net programmes, such as the Vulnerable Group Development (VGD) programme or the Rural Maintenance Programme (RMP), was not eligible for FFE (Ahmed and del Ninno, 2002).

FFE benefits were distributed based on the number of children per household, their ages and school attendance (Ahmed and del Ninno, 2002). Eligible households received up to 20kg of wheat or 16 kg of rice per month. In exchange, households were required to guarantee their children’s attendance at

school for at least 85% of classes per month and random attendance inspections were carried out to ensure compliance. This condition is similar to that seen in the *Progres-Oportunidades* programme in Mexico, *PRAF* in Honduras and *RPS* in Nicaragua. Households with only one child received a smaller food ration of 15 kg (Ahmed and del Ninno, 2002). Households were selected to participate in the programme by the School Managing Committee and the Compulsory Primary Education Ward Committee. No more than 40% of students in any union unit could receive benefits (Ahmed and del Ninno, 2002). The programme was executed by providing each household head or participating student with a ration card. Each month, students collected their food ration at the school (Ahmed and del Ninno, 2002).

Unlike most of the other conditional cash transfer programmes reviewed thus far, the FFE programme claimed to focus particularly on improving the quality of education in primary schools (Ahmed and del Ninno, 2002). Thus, in order to receive food parcels each month, schools were required to meet certain quality standards. First, a grading system was established whereby food transfers to D-grade schools were suspended until performance improved (Ahmed and del Ninno, 2002). Second, examinations of students in Grades 3 to 5 were implemented. Students needed to maintain or improve their performance on examinations from one year to the next and at least 10% of fifth-year students were required to qualify for the end-of-year examination (Ahmed and del Ninno, 2002).

In 2000, 5.2 million students were enrolled in schools participating in the FFE programme. Of those, 2.1 million were beneficiaries, or about one-third of all primary school students (Ahmed and del Ninno, 2002). The evaluation found that, although 63% of households in the poorest quintile were enrolled in the FFE programme, there were also many households (about one-third) in the richest quintile benefiting from FFE (Ahmed and del Ninno, 2002). The FFE programme ended and was replaced by a cash grant in 2002 (Bangladesh EFA Report, 2003).

Social Safety Net Scholarship (*JPS*), Indonesia

The Indonesian school scholarship and grant programme (*Jaring Pengamanan Sosial, JPS*) provided scholarships and block grants to both students and schools. It was implemented in 1998/1999 as a social safety net in response to the economic crisis in Indonesia and was funded for three years (Cameron, 2002). The programme's objective was to encourage children to remain in school (Perdana and Maxwell, 2004).

The *JPS* programme targeted 6% of the primary school population, providing scholarships of 10,000RP (Indonesian rupiah) per month (Cameron, 2002). It also targeted 17% of lower secondary and 10% of upper secondary students. At the beginning of the 1998/99 school year, 8.4% of primary school students in the evaluation sample were receiving *JPS* scholarship funds, with a total of 1.2 to 1.6

million scholarships provided (Cameron, 2002). The annual amount of the scholarship per student is approximately US\$ 16 for primary school students, US\$ 32 for lower secondary students and US\$ 40 for upper secondary students (Perdana and Maxwell, 2004).

Primary *JPS* funders included the World Bank, Asian Development Bank and the Government of Indonesia at a total amount of US\$ 350 million for three years (Cameron, 2002). The Cameron evaluation examines the programme during the first four to five months of implementation (Cameron, 2002).

The programme is geographically targeted in addition to focusing on the poorest students and the poorest schools. "Poor" is defined in three ways: the National Coordinator Agency for Family Planning (BKKBN) designation; student dropout as a result of economic need; and lack of current participation in a scholarship programme. Students falling into the two lowest BKKBN rankings get first priority in terms of receiving scholarships (Cameron, 2002). According to the evaluation documents, during the second year of the programme, the poverty formula used to designate scholarship recipients was altered to account for the recent economic crisis. A minimum of 50% of scholarships were reserved for poor girls (Cameron, 2002).

Although the *JPS* programme had a broad targeting mechanism, there was a quota for the total number of students eligible to participate at the school level. The multi-tiered system to identify the quota for each school was based on the federal poverty index. According to the poverty level, the central government set a scholarship quota for each district (Haryadi, 2001). At the district level, the following criteria are used to determine eligibility: districts distributed 65% of scholarships to sub-districts, according to enrolment; the remaining 35% of scholarships were distributed to schools representing the poorest 50% in the district; and sub-districts allocated scholarships to schools based on a similar set of criteria, targeting schools that charge less than 50,000RP per month. Within an individual school, students who lived far from school, were orphaned or had more than three siblings under 18 years old were given priority (Haryadi, 2001). Students received funds directly, picking them up at local post offices (Pendana and Maxwell, 2004).

The *JPS* school scholarship programme targeted students in both public and private schools. Primary school scholarships were given only to students in Grades 4, 5 and 6. According to the evaluation, the percentage of students eligible to receive scholarships was selected based on the annual dropout rate, at that time 1.2 million students per year (Haryadi, 2001). However, it is unclear exactly what formula was used to arrive at the target of 6% of primary school students. Students could also be denied continued participation in the scholarship programme if they dropped out for non-economic motivations, received other scholarship support or participated in criminal activity (Haryadi, 2001).

Table 2 summarises the programmes examined in this review – their total costs, beneficiary population and per pupil transfer. We also provide information on per pupil spending in primary education in these countries as a comparison.

Table 2. Summary of poverty alleviation CCTs, coverage and cost

Programme (country, year started)	Coverage (year)	Total annual budget US\$ millions (year/s)	Percentage of public education expenditure
<i>Progres-a-Oportunidades</i> (Mexico, 1997)	5 million households (2004)	914.0 (2004)	8.86
<i>Programa de Asignaciones Familiares (PRAF)</i> (Honduras, 2000)	47,800 households	40.3 (2001-2003)	2.6* (2003)
<i>Red de Protección Social (RPS)</i> (Nicaragua, 2000)	10,000 households (2001)	10.0 (2001-02)	10.2
Food for Education (FFE) (Bangladesh, 1993)	2.1 million students (2000)	77.0 (1999)	7.9
<i>Familias en Acción (FA)</i> (Colombia)	N/A	250.0 to 300.0 annually (2001-2004)	10.3

* This figure compares the average budget per year and the public educational expenditures in 2003.

Source: Adapted from Morley and Coady, 2003, p. 21.

The CCT programmes created primarily to alleviate poverty share multiple similarities. All of the programmes described in this section were created during periods of economic crisis. They specify fairly clear targeting criteria to identify the beneficiary population and appear to be effective in reaching the poorest groups – and therefore appear to be a more efficient way to alleviate poverty than generalised subsidies or non-targeted programmes that distribute cash or services. They arguably represent one of the most progressive forms of redistribution of public spending. The clarity of the targeting criteria helps establish mechanisms to ensure the transparency of the programmes; and, because of this, there is probably less corruption associated with CCTs than with more traditional forms of direct-income transfers to the poor.

Viewed as welfare programmes, CCTs are sophisticated in that they combine several dimensions of assistance (e.g. food, health and nutrition) and provide incentives to help families make decisions that should benefit children and promote the long-term development of human capital. Given the high levels of poverty in the contexts where these programmes have been implemented, it is obvious that the beneficiaries are among the most needy and their welfare is improved. From this point of view, these programmes are successful instruments of income redistribution and alleviation of relative poverty.

Another important feature of these CCTs is that they all have used careful evaluation as a tool to maintain social accountability and to ensure political support and continuity. This coupling of programme evaluation with public decision-making is a significant innovation that should not be underestimated. It offers a new level of public accountability and debate about poverty alleviation and social policy. This debate has not been without controversy, but this is healthy from the point of view of supporting learning from these experiments and more enlightened social policy.

By and large, these CCT programmes have been implemented in rural areas with the exception of the recent expansion of *Progresa-Oportunidades* to urban areas. These programmes are primarily a direct response to the challenges of poverty, a way to improve the living conditions of the poor. From this perspective, they represent significant and valuable initiatives to help those living in poverty. Since these programmes also aim to encourage investment in the human capital of poor children, the distinction from the programmes we review in the following section can be unclear. Yet, we think it is important to consider the former CCTs principally as poverty-alleviation instruments, which should be assessed on the basis of their effectiveness in reaching the poor and helping them meet their basic necessities to survive, primarily securing food. As will become apparent in subsequent sections, it is also against this criterion that their performance is more clearly beneficial.

These programmes are also all heavily dependent on loans from development agencies. From this standpoint, their sustainability is questionable. As short-term poverty alleviation strategies, this vulnerability should not be problematic, but as permanent social safety nets, it is complicated to fund social services with public debt. Given their large dependency on public borrowing, these CCT programmes are not really redistributing income among different groups but transferring resources from future taxpayers to those who are poor at present. It could therefore be argued that these resources might be more efficiently invested in developing their prospects in the future economy, mainly by improving their productivity.

A related variety of CCT programmes, which have been designed more explicitly to support educational expansion, are reviewed in the following section. Nevertheless, the education theories that underlie their design are no more sophisticated than those examined in the preceding section. In practice the distinction between the programmes which had primarily poverty alleviation objectives and those that had more salient education objectives is limited. In all cases a portion of the costs of the programmes are accounted as 'education spending' and from the point of view of the recipients of the scholarships there is little difference between both sets of programmes.

2.2. CCTs for educational development

Bolsa Escola (BE), Brazil

The Brazilian school scholarship programme, *Bolsa Escola*, began in 1995 at the municipal level and was expanded to the federal level in April 2001. *BE* provides cash transfers to the most impoverished families with school-aged children in exchange for continued school attendance. Unlike most of the CCTs discussed so far, *BE* originally targeted urban children. The goals of the programme are to increase educational attainment, reduce both short-term and long-term poverty, reduce child labour and provide a social safety net for times of economic crisis (World Bank, 2001).

BE began as a municipal programme in the city of Campinas in 1995 and then in the capital city of Brasilia (World Bank, 2001). By 1998, at least 56 municipalities and four states in Brazil had implemented cash transfer programmes. The municipal programmes were considered successful in that they were well-targeted, saw more beneficiaries entering school at the appropriate age, and produced lower dropout rates and higher promotion rates among beneficiaries than non-beneficiaries (World Bank, 2001). The federal programme, implemented in 2001, is funded by the federal government but is monitored by participating municipal governments. In order to participate, municipalities must create a council to evaluate and control distribution of the scholarship. In 2003, the administration of the newly-elected President Lula da Silva incorporated the *BE* programme into a more comprehensive social safety net programme, called *Bolsa Família*. The new programme includes health, food, education and social assistance components (Presidencia da Republica-Brazil, 2004). The evaluations cited in this paper were completed prior to this change.

The federal *Bolsa Escola* programme targets households with a monthly income below 90 Brazilian reais per month. These households are identified by the local prefecture. Families receive approximately US\$ 15 per child and households can receive a maximum of US\$ 45. The head of the household, usually the mother, receives an electronic card, much like a debit card, from which they can withdraw the transfer from the federal bank. Beneficiary households must include children between the ages of 6 and 15 to qualify, and children must attend school regularly. Families must be resident of the municipalities in which they are receiving the benefits and cannot be simultaneously enrolled in similar social programmes, such as PETI, the programme to eradicate child labour (MEC-Brazil, 2005).

In order to receive the cash transfers, eligible students are required to attend school 85% of total school days, a condition similar to those seen in other CCT programmes. Schools are expected to report student attendance to monitoring bodies. Every three months, participation in the programme is re-evaluated.

A large-scale evaluation of the educational impacts of the federal *BE* programme has not yet been completed. The evaluation used in this study uses household data to examine the programme's impact on school attendance and child labour; school quality and student learning are not assessed. At the time that our evaluation was conducted, the cost of the scholarship programme was less than 0.2% of GDP in Brazil. In 2001, *BE* was funded at approximately US\$ 1.7 million. In 2002/2003, more than 5.7 million families participated in the programme, benefiting approximately 8.3 million children. The programme distributed 124.5 million reais that year (MEC-Brazil, 2005).

Girl's Attainment in Basic Literacy and Education (GABLE), Malawi

In 1991, the U.S. Agency for International Development (USAID) designed and implemented GABLE, a CCT aimed at expanding access to primary education for girls. Like the Bangladesh Food for Education programme, the GABLE programme was not a cash transfer programme in the traditional sense. Instead, it provided school fee waivers for all girls who did not repeat in primary Grades 2 to 8 (USAID Impact Evaluation, 1999). Thus, the targeting mechanism for the GABLE programme was quite broad in that all girls were eligible; however, it also favoured girls who were already able to achieve educationally. In 1990, annual school fees were about US\$ 1.30 per child (USAID, 1999). Over the course of the 1990s, the programme went through several phases and eventually waived school fees for both girls and boys, as well as focusing on improving the quality of education.

Although USAID designed and implemented the programme in conjunction with the Government of Malawi, a number of international organizations and local NGOs provided funding and implementation support.² The budget was US\$ 20 million for the first phase of GABLE, which ended in 1994 when the Malawi government made primary education free for all students. In the programme's second phase (1994-2000), GABLE was transformed from a school fee waiver programme into a school quality and social mobilisation programme.³ At that time, the waiver component ended. In 2000, funding of primary education made up 58% of the Ministry of Education budget (Herbert et al., 2002).

Eduque a la Niña, Guatemala

This girls' scholarship programme in Guatemala began in 1994 as a three-year pilot project aimed at reducing the enrolment gap between girls and boys in primary education.⁴ *Eduque a la Niña* was part of a larger education initiative called the Basic Education Strengthening Project (BEST) (Stromquist et al., 1999). BEST had a mid-term evaluation in 1992 and was redesigned in 1993, just before the girls' scholarship programme started up under a new umbrella initiative called the Girl's Education Project (GEP).

The *Eduque a la Niña* pilot programme primarily benefited rural indigenous girls where it ran in 36 communities – in six different departments (administrative units) – that had the greatest gaps between girls' and boys' enrolment in primary school (Chesterfield et al., 1997). The programme had four primary education components: providing monthly scholarships of approximately US\$ 4 to families with girls of primary school age; providing community outreach workers to assist in academic tutoring and organising parent committees; creating parent committees which participated in the selection of scholarship recipients; and supplying educational materials (Chesterfield et al., 1997).

² Donors supporting GABLE included: the World Bank, U.K. Department for International Development (DfID), Danish International Development Assistance, German Development Cooperation, USAID, Japanese Agency for International Cooperation, UNICEF and the European Union (Herbert et al., 2002). The design and implementation agencies involved included: USAID; Creative Center for Community Mobilization (CRECCOM); the local NGO created by Creative Associates International Inc. (during the last two years) which designed the social mobilization campaign (Herbert et al., 2002); Save the Children; Chancellor College, which participated in the social mobilisation campaign; Malawi Institute of Education (MIE) which carried out action research on gender issues on behalf of GABLE (Herbert et al., 2002); and American Institutes of Research which carried out the Improving Education Quality/Malawi Project to strengthen local institutional capacity.

³ GABLE II was created in 1994 to expand upon the original programme. Phase II ran from 1994 to 1998, focused on improving the quality and efficiency of primary education and was funded at US\$ 45.5 million (Mitchell). Phase II was extended and ran until 2000. Both a 1997 mid-term evaluation and a 2002 summative evaluation were done on GABLE II.

⁴ Girls' scholarship programmes have existed in Guatemala since the mid-1980s (Chesterfield and Enge, 2002). From 1987 to 1994, a project to provide scholarships in the amount of US\$ 4 a month, implemented through an NGO called the Guatemalan Association for Sexual Education (AGES), served between 1,500 and 3,000 girls.

In this programme scholarships were one among a number of components to increase school attendance of girls. Each participating community received a selected combination of components; only one package, Package 1, included scholarships (Chesterfield et al., 1997). The Chesterfield evaluation took place after the completion of the pilot and thus the programme could be considered mature.

Eduque a la Niña was funded jointly by USAID, *la Fundación de Azucar*, five other public and private sector organizations and the Japanese Agency for International Cooperation which provided materials (Chesterfield et al., 1997). In 1989, USAID authorised US\$ 30 million to fund BEST activities over six years; the Guatemalan government promised an additional US\$ 31 million. The evaluation assessed the cost effectiveness of the girls' scholarship component, concluding that the provision of scholarships represented a 90% increase in the average annual expenditures per child in primary school (Stromquist et al., 2000). During the final year of the programme, in 1996, 488 scholarships were awarded. Overall, more girls enrolled in upper elementary level (Grades 3 to 6) received scholarships than those in the early grades (Chesterfield et al., 1997).

While our distinction between the two kinds of CCT programmes is somewhat arbitrary, the programmes reviewed in this section use economic incentives to support educational participation and are targeted to poor families; whereas the programmes reviewed in the previous section are primarily about alleviating poverty but include an education component. The programmes here are more focused on education and are easier to evaluate using a narrower set of criteria. They are also part of broader educational strategies which include components to improve quality (with the exception of *Bolsa Escola*), even though the evaluations have not been designed to assess the independent and interactive effects of these components. As approaches to influence the decisions made by families, they are also less comprehensive. The amounts transferred and the total costs of the programmes are also more modest than those of poverty-oriented programmes.

3. Programme theory: How are CCTs supposed to work?

In this section we analyse the theories behind the CCT programmes reviewed. Our purpose is to reflect on the most salient aspects of the frameworks undergirding these programmes. This analysis starts by organising these theories into several categories. Immediately after, we present the rationales each programme has for justifying its creation, as well as for understanding the educational processes that each programme expects to influence. Finally, we present concluding remarks on the programmes' theories.

CCTs have implicit or explicit working theories that shape their organization and function. These theories may be divided in two parts. First, CCT programmes propose rationales for their creation, usually stated as the general objective. There are three common objectives: need for human capital accumulation, alleviation of poverty and provision of a safety net under conditions of economic crisis.

Second, CCT programmes have theories related to the decisions families make about the participation of their children in school and about how students make decisions. These theories provide a framework to understand the way in which the programme foresees the relationship between the programme incentives and several aspects of the education process. Most programmes aim at increasing enrolment, attendance and attainment using cash transfers as an incentive and the conditionality as a mechanism to ensure that the educational objectives are met. The assumption is that children are working instead of going to school and that, faced with economic incentives, parents will choose to send their children to school instead. It is also assumed that once in school students will learn more than those who are not in school, but this assumption depends obviously on what happens in school.

However, as mentioned earlier, educational theories of these programmes generally regard the functioning of schools as a "black box". The theories implicitly expect that cash transfers can affect the opportunity to learn without directly influencing the quality of instruction. This feature is well recognised in several evaluations of these programmes. For example, some authors argue: "The premise for the success of such programmes is that the supply of schools is sufficiently adequate and that the main barriers to schooling come from income constraints, direct costs, opportunity costs, as well as preferences" (de Janvry and Sadoulet, 2003). Other researchers point out, "In the ongoing debate about the issues of quality and access as well as resources versus process, most participants agree that the provision of basic inputs such as a decent building, a teacher, textbooks and a blackboard is a prerequisite to providing a good-quality education. Our starting point in this book is that without access to a basic quality education, conditional transfer programmes can be neither rationalized nor efficient. But even when such basic quality is available, lower utilization by children from extremely poor families is still observed... Where the delivery of

quality education is an issue, the design of CTE programmes can and should reflect this fact” (Morley and Coady, 2003).

However, the evidence on the quality of schools available to the poorest children in the countries covered by the evaluations suggests that this quality is very low, both because it is generally low at the country level and because there are quality divides for children from different income groups and for those living in urban versus rural areas. As a result, the assumption that there is an available supply of quality education for the children who benefit from a CCT programme is not supported with evidence.

In Brazil and Mexico, for example, where data exist on the educational performance of 15-year-olds in school compared to students in OECD and other middle-income countries, the percentage of students scoring below the most basic level of literacy (the ability to identify the basic theme in a text or locate a piece of information in a text meeting a single criterion) was significantly larger than in the other 39 countries participating in the study. Whereas 19% of the students in Brazil and 12.5% of the students in Mexico were unable to read at that basic level, only 3.7% on average of the students in OECD countries, 2.2% of students in Spain and 6.9% of students in Portugal read below that level. The same pattern is observed for the percentage of students who read just *at* that basic level: 32.8% in Brazil and 26.4% in Mexico, compared to 9.3% on average for the OECD, 9.3% in Spain and 14.3% in Portugal (UNESCO/OECD, 2003). Given how educational achievement relates to the socioeconomic background of students in these and most countries and given the segregation of students in school by socioeconomic background, arguably the students receiving conditional cash transfers attend schools where most students perform at these very low levels of literacy.

A UNESCO study on educational achievement of Grade 3 and 4 students in 12 Latin American countries confirms that students in rural areas perform at significantly lower levels than their counterparts in medium-sized or large cities and their counterparts in private schools. In Brazil, for example, 18% of the students read at or below Level 1, but in rural areas 38% of the students read below that level. In Mexico the respective figures are 36% in urban areas but 52% in rural areas (UNESCO, 2003). The evidence that exists suggests that, in the schools that children from low-income households tend to attend, students learn, on average, very little.

In the following section, we group programmes according to the dominant theory that undergirds their creation. In each grouping, we describe both general and educational theories for each programme. We then summarise the main issues regarding the educational theories of the programmes.

3.1 Programmes aimed at human capital accumulation and poverty alleviation

Human capital accumulation and poverty alleviation are the most common general objectives of CCT programmes. These objectives seem to be divided theoretically as short-term and long-term expected impacts. In fact, programmes often combine human capital accumulation and poverty alleviation objectives. As **Table 3** shows, five out of the nine programmes analysed here argue that the motivation for their creation is the accumulation of human capital as a long-term strategy for poverty eradication. For the short term, four of these five programmes also aim to alleviate poverty through the distribution of cash transfers. Therefore, these CCT programmes expect to lessen the impact of poverty in the short run, while breaking the intergenerational cycle of poverty in the long term. It is also interesting to point out that the programmes define human capital as a combination of educational attainment with either nutrition or health, and sometimes both.

Table 3. Average level of student achievement in schools where students do/do not receive *Progres-Oportunidades* scholarships, Mexico, 2004

	Student receives scholarship	N	Mean	Standard deviation	Standard error mean
School quality	Yes	14756	445.3155	43.15550	.35526
	No	7423	468.9104	42.73809	.49605

Source: Original calculations with data from INEE (2004). *Pruebas Nacionales ciclo 2003-2004: Bases de datos de alumnos Logro y contexto*. Dirección de Pruebas y Medición Subdirección de Procesos Estadísticos. Instituto Nacional para la Evaluación de la Educación, México.

This comingling of short- and long-term objectives creates some complications for the operation and evaluation of these programmes. *Progres-Oportunidades*, for example, targets the poorest members of the community because an important objective of the programme is to transfer cash to the poor and targeting the poorest is efficient. *Progres-Oportunidades* has, however, also a long-term objective – to contribute to poverty reduction by increasing the human capital of the children of the poor. From the point of view of this objective, the cash transfer is expected to be an incentive to families to make decisions in favour of educating their children. However, targeting to the poorest within poor communities may not be an efficient way to achieve the objective of increasing the education level of the children of the poor.

A recent analysis shows that targeting in *Progres-Oportunidades* is inefficient because resources are transferred to families that would have sent their children to school anyway and are not provided to less-poor families in the same communities who are not sending their children to school: “Many poor parents in fact do send their children to secondary school because they value education, while many non-poor parents do not send their children to school because they

have no appreciation for education or live far from a school. In addition, because the cash incentive is a fixed amount...for many poor the offer of a *Progres-Oportunidades* transfer is insufficient for them to decide to send their children to school” (de Janvry and Sadoulet, 2003). Among the poor families who are targeted by the programme, only 11% have children in school *because* of the transfer; 65% who get the transfer would have attended school without it; and 24% do not attend because the transfer is insufficient. Among less-poor families in the same communities, 74% have children who attend school and 26% do not attend because they do not receive a transfer.

The following four programmes may be classified within the category of human capital accumulation and/or poverty alleviation: Food for Education in Bangladesh, *PRAF* in Honduras, *Progres-Oportunidades* in Mexico and Social Safety Net Programme (SSNP) in Nicaragua. Programmes, such as *Familias en Acción* in Colombia or *Bolsa Escola* in Brazil, also aim for the accumulation of human capital or the alleviation of poverty; however, these were not the main motivations for their creation and for this reason they were classified in a different category.

The main motivation to create the Food for Education (FFE) programme was to overcome poverty which is considered an obstacle to the accumulation of human capital since the financial constraints of poor families may prohibit parents from sending their children to school due to the costs of books and uniforms (Arends-Kuenning and Amin, 2000). Therefore, the programme aims to lessen the impact of poverty on children’s attendance at school. Implicitly, this programme defines human capital as the combination of education and nutrition.

In terms of education, the FFE programme seems to focus mainly on increasing attendance and reducing dropout. To reach these objectives, the programme theory proposes to provide food for students attending school and, also, to improve the quality of the schools. The theory simply assumes that the food distributed by the programme is a sufficient incentive to attract children to school, reduce their opportunity costs of attending school and reduce their chances of dropping out. The rationale for improving schools is mainly through penalties aimed at schools that do not comply with a certain level of performance both in scores received by students and in annual exam results in Grades 3, 4 and 5. Therefore, the programme has neither a strategy to intervene directly within the schools nor a strategy to increase learning outcomes. It only sought to increase test scores by setting performance requirements for schools in order to be eligible for programme benefits. This means that the programme followed a “black box” approach to understanding school quality and there were no actions aimed at supporting the worst-performing schools. Also, the rationale of the programme did not necessarily target schools with lower performance, since the schools demonstrated a minimum standard of performance before FFE participation. Therefore, the programme did not follow a compensatory approach in terms of improving schools, since schools with the lowest performance did not

qualify to participate, despite being the institutions with the greater need for improvement.

The Family Allowances Programme (*PRAF*) in Honduras aims at increasing human capital and reducing poverty. The theory of action for this programme is that, in the short run, conditional cash transfers would help to reduce poverty while, in the long run, the transfers would promote the accumulation of human capital. In this context, human capital is understood as educational attainment and health.

The educational rationale of *PRAF* establishes the need for providing both supply-side and demand-side support. The theory proposes that cash transfers targeted to the families of poor students would boost educational demand, increasing enrolment and attendance. Simultaneously, these transfers would increase promotion rates. Therefore, it is assumed that enrolment and attendance are sufficient conditions for moving from one grade to the next. The supply-side component of *PRAF* assumes that a financial incentive provided to parents' associations would propel the creation of school improvement programmes, increase teacher quality and push schools to embrace community participation. This clearly is a tangential approach to improving school and teacher quality which makes enormous logical leaps regarding the relationship between parental participation, school variables and teacher quality. The programme, although recognising the need for supporting schools, does not provide a clear conception of how either schools or teaching the functions.

Human capital and poverty are the two main arguments for the creation of *Progres-a-Oportunidades* in Mexico. However, the theory of the programme has changed slightly over time, despite the fact that the policy instruments remain basically the same. The programme's background theory was an integrated approach to human capital accumulation, pursuing both short-term and long-term effects. In the short run, *Progres-a-Oportunidades* looked for the alleviation of poverty through subsidising poor households and integrating support on education, health and nutrition. In the long run, the programme – through the combination of its grant schemes, targeting of poor persons and the conditionality of the grants – aimed to stimulate human capital accumulation among the poor and to try to stop the intergenerational transmission of poverty (Parker and Teruel, 2003; Skoufias, 2001; Coady, 2000). In fact, in Coady's cost-benefit analysis of *Progres-a-Oportunidades* (Coady, 2000), he explicitly differentiates the human capital approach from an approach that seeks to develop capabilities as proposed by Amartya Sen (1999). Although continuing with basically the same policy instruments, the theoretical justification of *Progres-a-Oportunidades* has been redefined as a programme to enhance human capabilities (SEDESOL, 2003a). It is interesting to note that the integrated approach to human capital has not varied substantially, but the justification has done so.

Progres-Oportunidades also treats education and schools as black boxes. The programme theory expects that attendance, enrolment and attainment would increase as a result of the economic incentive posed by the cash transfer and its conditionality. Also, the cash transfer scheme suggests an increasing opportunity cost of attending school for children as they become older, as well as greater chances that girls will abandon school due to cultural factors. This programme does not include any measure to improve the quality of instruction in order to serve the poorest populations. However, more than 80% of the students who receive the benefit attend schools that are, independently, part of compensatory programmes of quality improvement. *Progres-Oportunidades* assumes that the educational authorities at the national and state levels will implement the necessary actions to maintain and improve quality. The evaluation of the programme reflects a limited view of educational quality as it focuses only on student/teacher ratios as a measure of quality.

The theory behind the Nicaragua Social Safety Net Programme is not fully articulated, although its evaluation states that the programme was modeled after programmes like *Progres-Oportunidades*. The motivation for the SSNP creation is twofold: reducing poverty in the short run; while, in the long term, supporting the accumulation of human capital among the poor and extremely poor population. In this programme, human capital is understood as a composite of education, health and nutrition. The report implies that increased levels of education and improved levels of nutrition could reduce current and future poverty. However, since this is a pilot programme, it is not clear whether the theoretical basis will have the opportunity to be tested in the long run, especially considering that the majority of the funding comes from the IADB, a factor that may compromise the sustainability of the programme over time.

The SSNP implemented both supply- and demand-side support mechanisms. The underlying educational theory suggests that if students enrol and attend school regularly they will be promoted to the next grade. While not explicitly articulated in the programme documents, perhaps implicit in this programme is also the notion that children who are healthy and well-fed are more likely to do well in school. The supply-side intervention provides grants to parents' associations, assuming that this measure would improve school management. On the other hand, the programme distributes grants among teachers for school supplies, considering that this will be a sufficient condition for improving the quality of instruction. The "*mochila escolar*" is a school supplies voucher provided to each participating child in an enrolled household. It serves as an additional support for students who are attending school because of the school voucher and can be used to purchase clothes or shoes. All students enrolled in the programme automatically receive the *mochila escolar*.

3.2 Safety net programmes

The provision of safety nets during economic crises is another argument used to create CCT programmes. Safety nets are usually temporary programmes aimed at softening the impact of economic crises. Therefore, these initiatives have mainly short-term objectives as they are expected to end when the crisis does, although they are sometimes adopted permanently.

FA in Colombia and *JPS* in Indonesia are safety net programmes, as Table 2 indicates. It also shows that these programmes may have multiple general objectives but, according to the evaluation documents for both, they should be mainly regarded as safety net interventions. In contrast, programmes like *Bolsa Escola* in Brazil cannot be considered a safety net. Although there is an end date to the programme, on the municipal level it has been in existence since the mid-1990s, so it is not a short-term intervention. It also was not created during any specific economic crisis but actually coincides with the beginning of the push for universal primary education. The explicit purpose of the programme is to increase school enrolment and attendance (the theory being that becoming educated will allow students to lift themselves out of poverty).

There is a discrepancy in the narrative about this project offered by the Brazilian Ministry of Education and by World Bank evaluators. While the Ministry of Education emphasises the educational objectives of the *BE* programme, as described previously, the World Bank points out that the general objectives of *BE* establish that this programme aims to reduce poverty and child labour while providing a safety net for families in times of economic crises (World Bank, 2001). The presentation of the programme rationale suggests that *BE* is more inclined to provide a safety net than to reduce poverty in the long term, without explicitly mentioning the accumulation of human capital as an objective. Also, the expected end of the *BE* federal programme in 2010 indicates its temporary nature, another characteristic of safety net programmes. The theory for the creation of the programme seems to assume that poverty is an obstacle for children attending school and an incentive for child labour. Therefore, the programme aims at temporarily softening the effect of poverty in order to increase the demand for school and reduce child labour. Implicit in the programme is the premise that low levels of educational attainment are linked to poverty and increased levels of schooling will help to reduce poverty.

The educational theory of *Bolsa Escola* focuses mainly on attendance. The rationale states that low performance is directly related to poverty, economic vulnerability and the need for poor children to work. The programme theory suggests that increasing attendance will increase performance and attainment. The cash transfers are then the policy instruments to increase attendance. The theory assumes that students' attendance at school is a sufficient condition for learning and continuation in the school system, without considering some of the barriers that the education system and the schools posit on the children's path of

learning and attainment. Again, *BE* envisions schools and the education system as black boxes that should comply with the assumptions about their functioning in order to reach the programme objectives on attendance, learning and attainment.

In Colombia, the *FA* programme has a twofold motivation behind its conception. On the one hand, the programme was created as a safety net to protect poor families from the economic crisis of the late 1990s which contributed to a decline in income, food consumption and school attendance, as well as an increase in dropout (Bouillion, 2002). On the other hand, the programme attempts to foster the accumulation of human capital among the rural population. Human capital is defined here as education and nutrition. It is interesting to note that *FA* only considers human capital accumulation in primary education as it is a narrow vision in terms of stopping the intergenerational transmission of poverty and changing the long-term structure of the society.

The *FA* programme focuses on increasing enrolment in primary education using cash transfers as incentives, mainly to cover the direct costs of schooling. Within *FA* the role of schools and the workings of education are taken as given, meaning that the programme does not include interventions to improve the education that beneficiary children receive. The theory at work seems to consider that schools are well-equipped and teachers are prepared to foster learning among their students – again a “black box” approach. The *FA* rationale does not claim any effect by the programme on child labour or any other related variable.

The main aim of the *JPS* scholarship and grant programme in Indonesia was to offset threats to enrolment rates among poor children in a context of economic crisis. Therefore, *JPS* is a safety net programme aimed at lessening the effects of an economic crisis in terms of both poverty and school enrolment. The rationale behind the programme is that poor families reacting to the economic crisis may withdraw their children from school in order to put them in the labour market to supplement household income. Implicit in the programme’s theory is the assumption that school scholarships may replace the income a family loses by sending a child to school instead of the labour market – or compensate for the opportunity cost of sending children to school.

JPS also uses a “black box” understanding of education. Although the programme began providing both block grants to schools and scholarships for students, the provision of block grants was changed with fewer schools participating because of changes in programme funding (Haryadi, 2001). Moreover, during its different stages, *JPS* has not provided a rationale regarding the workings of education. Also, school and teaching processes are taken as given. Because *JPS* does not include any component that aims to impact the content or quality of education, the programme seems to assume that schools and teachers are already able to promote learning among students.

3.3 Programmes with broader frameworks

Other programmes have broader justifications for their creation. As presented in **Table 4**, GABLE in Malawi has the strengthening of democracy as its main objective, while *Eduque a la Niña* in Guatemala aims to promote economic development. These broad definitions make matching programme outcomes to objectives a difficult task. As a result, it is complicated to assess the overall impact of programmes with such loosely defined general objectives.

Table 4. Programme theory and motivation to create the programme

Country/programme	Democracy	Safety net	Economic development	Gender inequalities	Human capital accumulation	Child labour	Poverty
Bangladesh Food for Education (FFE)					X		X
Brazil <i>Bolsa Escola (BE)</i>		X				X	X
Colombia <i>Familias en Acción (FA)</i>		X			X		
Guatemala <i>Eduque a la Niña</i>			X	X		X	
Honduras <i>PRAF</i>					X		X
Indonesia <i>JPS scholarship/grant</i>		X					
Malawi GABLE	X			X			
Mexico <i>Progres-a-Oportunidades</i>					X		X
Nicaragua SSNP					X		X

Eduque a la Niña stresses the importance of girls' education attainment due to its relationship with nutritional, educational and industrial variables that foster economic development (Chesterfield et al., 1997). Therefore, economic development seems to be the main motivation behind the programme. It was created under the assumption that it was necessary to provide financial support for covering the opportunity costs of girls attending school and, in this way, increasing their attendance and attainment. This premise indirectly suggests that the programme aims to reduce child labour. The programme also proposes that opportunity costs rise along with age – or school grade – and stipulates higher transfers for enrolling and attending higher grades of education. The programme does not include school interventions – the education system as black box. It indirectly seeks to influence schools by organising parent committees. Also, by creating opportunities for academic tutoring, *Eduque a la Niña* implicitly recognises the need for continuing academic work outside school.

The main motivation behind GABLE has changed over the life of the programme. At first moment, GABLE aimed to prepare Malawi's citizens to participate in democracy by providing a scheme similar to free primary education (whereas the education system established during British rule was selective and exclusionary). This is related to the local political context in which the programme was implemented. Therefore, it seems that the creation of the programme was envisioned as a political signalling of the benefits that democracy could bring to Malawian society. However, the rationale of the programme evolved through its different implementation phases as the local context changed. Once the policy of free primary education was instituted, GABLE theory was revised to focus on fostering education quality by providing learning materials and inputs for classrooms as well as developing social mobilization projects to change gender stereotypes. This shift was justified by the argument that, without change, the quality of education would decrease as enrolment increased.

The educational rationale behind GABLE in its first phase seems to claim that waiving school fees would have an impact on school access, participation and completion. Therefore, the programme dealt with school fees, only one of the direct costs of attending schools. In subsequent phases, the programme rationale aims to support the quality of education by providing learning materials and school inputs in a context of huge increases in enrolment which supposedly may affect the quality of education. Within the programme's framework, it seems that the quality of education depends only on learning materials and supplies for classrooms. The programme does not consider issues such as teacher training or school management in its rationale for improving the quality of education. However, qualitative studies of GABLE II (after the end of the fee waiver) show that the programme changed attitudes about gender and included a training component.

3.4 Educational theories of the programmes

The educational theories of CCT programmes, in general, do not treat the education process with any sophistication. The programmes largely focus on enrolment, attendance and attainment. In fact, as shown in **Table 5**, six of the nine programmes reviewed focus on attendance; six on enrolment; and five on both attendance and attainment. It is interesting to note that none of the programmes is aimed explicitly at improving learning, despite this being a crucial step in the accumulation of human capital and the reduction of poverty as discussed earlier. Only the FFE programme considered learning in its theory but in a very rudimentary and regressive way that was not aimed at supporting learning by the poorest children. The programme established average performance standards for schools to be eligible. Two programmes, *PRAF* and *SSNP*, try to impact school quality and learning by providing grants to parents' associations; however, this tactic has very weak theoretical and empirical links with learning. The theory of the GABLE programme in Malawi included the provision of materials as a way of directly intervening in learning, but this seems

to be a consequence of the reorientation of the programme after the implementation of free primary education.

Table 5. Programme theory in education

Country/programme	Attainment	Attendance	Dropout	Enrolment	Learning	Quality of instruction	Repetition/promotion	School improvement
Bangladesh Food for Education (FFE)		X	X					
Brazil Bolsa Escola (BE)	X							
Colombia Familias en Acción (FA)				X				
Guatemala Eduque a la Niña	X	X						
Honduras PRAF	X	X		X			X	X
Indonesia JPS scholarship/grant								
Malawi GABLE	X	X		X		X		
Mexico Progres-Oportunidades	X	X		X				
Nicaragua SSNP	X	X		X				

The programme theory of how a CCT would enhance the educational opportunities of the poor is fairly simple. The assumption is that the poor do not go to school because their opportunity costs are high. However in Mexico, for example, 13% of males and 56% of females who are not in school at ages of 15 to 18 are not working (de Janvry and Sadoulet, 2003). This suggests that the decision to attend school is influenced by more than opportunity cost. “There is no evidence that child labour substitutes schooling. The Mexican study further compared the growth of school enrolment with the reduction in work participation. The study suggested that girls in particular tried to combine their time spent on domestic work with school at the expense of their leisure time” (Henschel, 2002).

Issues of quality of instruction, teacher education and school management are virtually left out of the theoretical frameworks of CCT programmes. Most leave large leaps in logic when proposing connections between policy interventions and educational outcomes. In sum, most of the programmes fail to provide a comprehensive or adequate theory of how school processes would lead to the accomplishment of the programme’s objectives.

Human capital is a concept that takes education as a crucial factor in human and economic development. However, the programmes using this framework understand human capital mainly as educational attainment. This limited vision of

the role of education in human capital may cause programmes to fall short of their aims.

Analysing data from a representative national sample survey of schools and students in Mexico, we observed that, on average, students who received a *Progres-a-Oportunidades* scholarship attended schools of substantially lower quality than their counterparts who did not receive the scholarship, as Table 2 shows. On a curriculum-based language test, Grade 6 students who received the scholarship attended schools where the average levels of student achievement were about half a standard deviation from the average level of student achievement in schools where students did not receive the scholarship.

Furthermore, controlling for school quality and socioeconomic background of the student, receiving the *Oportunidades* scholarship explains a very small proportion of the variation in student achievement on the language test and is negatively related to achievement, as **Table 6** shows. This table presents a taxonomy of fitted multiple regression models. Using OLS (ordinary least squares), we fitted several regression models to estimate the relationship between receiving an *Oportunidades* scholarship and achievement in Spanish reading for students enrolled in Grade 6 in indigenous or rural primary schools. The results show that receiving a scholarship is negatively related to achievement, as presented by Model 1 (M1). However, this model only predicts 3% of the variation in student scores. Model 2 (M2) estimates achievement in relation to receiving a scholarship and school quality (aggregate of student achievement in a reading test by school). The results indicate that receiving an *Oportunidades* scholarship has a negative relationship with achievement, after controlling for school quality. It may be argued that, since *Oportunidades* is targeting the poorest students, the relationship between receiving a scholarship and achievement may be reflecting inequalities in socioeconomic status. We deal with this issue in Model 3 (M3), which estimates student achievement by using a dummy variable that indicates whether the student is receiving a scholarship, a variable for school quality and socioeconomic status (the latter is an average of possessions at home). The results indicate that, after removing the variation associated with school quality and socioeconomic status, receiving an *Oportunidades* scholarship is negatively and significantly related to achievement. In other words, students who receive the scholarships have lower levels of performance on a language test than their peers not receiving them, after controlling for socioeconomic status and school quality. Without evidence on other unobserved differences between these two groups of students or on prior levels of student achievement, we cannot conclude whether CCTs are, in this case, closing the learning gap between beneficiaries and non-beneficiaries, but it is obvious that an important gap in levels of student achievement remains, in spite of the existence of *Oportunidades*. Whatever contributions the programme may be making to closing the gap, it has clearly not closed it yet. A plausible explanation for these persistent gaps in the educational achievement of students who receive CCTs in Mexico and those who do not stems from the fact that poor

children tend to be segregated in schools that are, on average, of lower quality. For example, 69% of the sixth grade students receiving *Oportunidades* scholarships attend schools in rural areas, compared to 18% of those who do not receive the scholarships. While the scholarship may provide a student living in a rural area a small advantage relative to other students in rural areas not receiving the scholarships, this is too small to offset the many advantages students in urban areas have relative to students in rural areas. For example, students receiving *Oportunidades* scholarships are significantly more likely to work in various chores than those not receiving the scholarships. Fourteen percent of those in the sixth grade cook for their families, compared to 8% of the students not on scholarships. Twenty one percent of them do the laundry for their families, compared to 12% of those not on scholarships. They are also more likely to clean their homes (51% vs. 45%) and to iron clothing (12% vs. 7%) and to help in harvesting (22% vs. 10%). Students on scholarships are also more likely to report that they work for pay than those not on scholarships (37% vs. 22%). Students on scholarships are significantly less likely to practice sports, something 38% of them do, compared to 51% of the students not receiving scholarships. The combined and cumulative differences in home circumstances and conditions in schools faced by students who receive *Oportunidades* scholarships and those who do not shape different academic trajectories. Students on scholarships, for example, are more likely to have experienced academic failure, 14% of them repeated first grade compared to 7% of those not receiving scholarships. These two groups of students report also different academic experiences, for instance when asked whether their teachers encouraged them to pursue studies beyond the primary level, 29% of the students on scholarships replied rarely or never, compared to 16% of the students not on scholarships.

Table 6. Taxonomy of fitted multiple regression models in which student achievement in Spanish reading is predicted by different variables

Predictor	Models		
	M1	M2	M3
Intercept	471.609***	6.643	13.279**
Predictors			
Student receiving <i>Oportunidades</i> scholarship	-27.464***	-4.067***	-3.364**
School quality		.992***	.977***
Socioeconomic status			6.446***
R ²	.032	0.38	0.365
Error df	2217	2217	1483

~p <0.10; *p <0.05; **p <0.01; ***p <0.001

Source: Original calculations with data from INEE (2004). *Pruebas Nacionales ciclo 2003-2004: Bases de datos de alumnos Logro y contexto*. Dirección de Pruebas y Medición Subdirección de Procesos Estadísticos. Instituto Nacional para la Evaluación de la Educación, México.

4. CCT impacts on education

In the previous section, we described the ways in which conditional cash transfers were *expected* to work, as expressed in their programme theories. In this section, we will examine whether the programmes have been successful in meeting the explicit or implicit goals by outlining their impacts on education. Overall, most programmes report improvements in at least one of the following areas – primary school enrolment, promotion, repetition and/or dropout – but impacts vary widely. While the strongest impacts appear to be on enrolment and continued school attendance, the effects on reducing repetition, dropout and completion are, generally speaking, not well documented. CCTs that established evaluation systems from their inception predictably offer more reliable measures of results. Programmes established as temporary or crisis-relief programmes are less able to show measurable results.

Most significantly, few of these programmes – including ones that made student performance, school quality or teacher instruction priorities – show *any* impact on student learning, quality of instruction or school improvement. This is problematic because, as enrolment rates in basic education in many developing countries are increasing, achievement gaps do not appear to be closing. The result of these shifting needs – from initial enrolment in basic education to calls for improved school quality – is that the CCT programmes reviewed in this study may be compelled to review their missions in order to remain relevant.

4.1 Enrolment

The educational theories of the cash transfer programmes in Colombia, Honduras, Malawi, Mexico and Nicaragua all attended to increasing student enrolments. However, only two – *PRAF* in Honduras and *RPS* in Nicaragua – actually resulted in increased enrolments (see **Table 7** for educational outcomes). For *PRAF* scholarship recipients, the likelihood that a student between the ages of 5 and 12 who had not been enrolled in school in 2000 would be enrolled in 2001 increased by 17 percentage points (IFPRI, 2003). *RPS* saw enrolment for recipients increase from 68.5% to 93.2%, whereas enrolments for non-recipients increased by only 3 percentage points (from 72% to 75%). Mexico's *Progres-Oportunidades* and Colombia's *Familias en Acción* saw no improvements in primary school enrolment, and enrolment results from the GABLE programme in Malawi were inconclusive because the programme overlapped with the government's abolition of fees for primary schooling. Overall, just two of five programmes whose educational theories focused on increasing enrolments were successful.

Table 7. Educational outcomes of primary school students participating in CCT programmes

Country/programme	Attainment	School attendance	Dropout	Enrolment	Learning	Quality of instruction	Repetition/promotion	School improvement
Bangladesh Food for Education	N/A	Overall attendance is 70% in FFE and 58% in non-FFE schools.	N/A	For ages 6-10, grew from 70% to 73% (1992-1996) for girls and 53% to 70% for boys.	N/A	N/A	N/A	N/A
Brazil Bolsa Escola (BE)	N/A	95% of boys in treatment and 92% in control group attended regularly. Girls showed similar results.	Dropout rates were lower for treatment than control group (0.3% vs. 6.1%).	N/A	N/A	N/A	N/A	N/A
Colombia Familias en Acción (FA)	N/A	N/A	N/A	No impact on primary school enrolment (ages 7-13).	N/A	N/A	N/A	N/A
Guatemala Eduque a la Niña	2% of treatment and 11% of control group did not return to school the following year.	91% of treatment and 88% of control group had regular attendance.	Annual completion was similarly high (around 90%) for all pupils.	Inconclusive	N/A	N/A	N/A	N/A
Honduras PRAF	N/A	Scholarship recipients attended one day more per month than non-recipients.	Dropout rates for scholarship recipients decreased from 7.0% to 2.4%.	Beneficiary (ages 5-12) enrolment up by 17 percentage points from 2000 to 2001.	N/A	N/A	N/A	N/A
Indonesia JPS scholarship/grant	N/A	N/A	N/A	Inconclusive	N/A	N/A	N/A	N/A
Malawi GABLE	Girls' share of enrolment, in Standard 8 grew from 36% in 1991 to 39% in 1995/96.	Inconclusive	N/A	Girls' enrolment increased but school fees were abolished for all students during same period.	N/A	N/A	N/A	N/A
Mexico Progres-Oportunidades	Average increase from 6.8 to 7.4 years.	Increased probability of boys' attendance by 1.3 to 1.8 percentage points.	Girls' dropout in Grade 3 fell by 17.9% and boys' by 14.0%.	No impact on primary school enrolment.	N/A	N/A	Repeating grades fell by 8.4% for girls and 3.8% for boys.	N/A
Nicaragua RPS	92% of treatment and 80% of control group remained in school by Grade 4.	Increased average number of students attending regularly by 30 percentage points.	Dropout rates fell in Grades 1-4.	Increased from 69% to 93% for treatment vs. 72% to 75% for control group.	N/A	N/A	Promotion rate rose from 85% to 94%.	N/A

*N/A = No data available on this outcome.

4.2 Attendance

The theories behind six programmes – FFE, *Eduque a la Niña*, *PRAF*, *GABLE*, *Progres-Oportunidades* and *RPS* – explicitly addressed improved regular attendance (see Table 5). Overall, most programmes did result in increased school attendance by cash transfer recipients. In the FFE programme in Bangladesh, for example, students in the treatment group had an attendance rate (assessed by a comparison of student headcounts and the official attendance register) of 70%, while their control group counterparts had an attendance rate of just 58% (Ahmed and del Ninno, 2002). Likewise, regular attendance (defined as 85% of school days) by participants in the Nicaragua *RPS* programme increased by 30 percentage points (IFPRI, 2001). Of the other programmes whose theories addressed attendance, *Eduque a la Niña*, *Progres-Oportunidades* and *PRAF* saw modest improvements, with the *GABLE* programme again showing inconclusive results.

4.3 Dropout, repetition and promotion

Dropout, repetition and promotion were not often addressed in programme theories. The FFE programme focused on dropout and *PRAF* tackled repetition and promotion, but neither programme evaluation found an impact in these target areas. However, some programmes that did not explicitly address dropout in their programme theories *did* see improvements in dropout rates. Students participating in the *Bolsa Escola* programme had a dropout rate of 0.3%; their non-scholarship counterparts had a dropout rate of 6.1%. One evaluation of *Progres-Oportunidades* found the programme reduced girls' dropout in Grade 3 by 17.9% and boys' dropout by 14%. Grade failure among *Progres-Oportunidades* recipients also decreased. Similar positive effects on progression rates are found in the evaluation of *RPS* in Nicaragua, where progression rates increased on average by 8.5%, from 85% to 93.5%, and more for the poorest households (9.3%).

Although the programme theory of *Eduque a la Niña* did not explicitly target dropout, repetition and promotion, the Guatemalan scholarship programme was consistent in its impact in these areas. Evaluations of the programme found that, in 1996, 11% of girls without the scholarship did not return to second grade; in comparison, just 2% of girls receiving scholarship did not return (Stromquist et al., 1999). In addition, the rate of promotion among scholarship recipients rose modestly during the three years of the programme (Chesterfield et al., 1997).

4.4 Student learning

None of the CCT programmes made student learning an explicit aim, as evidenced in the analysis of the programme theories. Not surprisingly, none of the programmes have shown an impact on student learning, despite the fact that some programme evaluations included measures to estimate learning gains.

After almost a school year and a half of exposure to *Progres-Oportunidades*, there was no significant positive impact on achievement test scores among beneficiaries. In fact, there are 19.4% of cases in the control group (not receiving scholarship) that have higher achievement scores than their counterparts in the treatment group (Behrman et al., 2000). This may suggest that the programme is well-targeted to the poor, but that the combined effects of the programme and the school may not be enough to compensate for the disadvantages of being poor.

The evaluation by the International Food Policy Research Institute (IFPRI) of Bangladesh's FFE programme found that, despite the specific quality conditions placed on FFE schools, FFE students continued to lag behind non-FFE students on Grade 4 achievement tests. However, controlling for differences in social class in the composition of both kinds of schools, the same study found that the students who did not receive FFE did better in FFE schools than in non-FFE schools, which the authors interpret as evidence that the programme increased performance of all students in FFE schools.

No impacts on school quality or learning were noted for *RPS* beneficiaries in Nicaragua or *PRAF* recipients in Honduras, and the evaluation of GABLE I in Malawi indicates that, overall, it is unclear whether the programme had any significant effect on educational quality or efficiency. None of the other programmes evaluated had any mention of improvements in school quality or student achievement.

The theories behind the CCT programmes reviewed in this analysis state that reducing poverty is a primary objective. Since we know that individuals' future earnings are strongly linked to their level of education – and the enhanced cognitive skills they gain through those increased years of education – we could hope to see improvements in student learning resulting from CCTs. The actual outcomes suggest otherwise, bringing into question not only the educational impact CCTs might have but their potential for increasing social mobility and reducing poverty among the most marginalized populations.

To sum up, conditional cash transfers are less impressive in terms of their educational impact than they are as direct poverty alleviation transfers. There is evidence of some positive impact on enrolment, but it is not clear that transfers are efficient, particularly at the primary school level, because the transfer is given to many families who would have sent their children to school without the transfer. A good example of this is the inefficiency of *Progres-Oportunidades* as a stimulant to primary school enrolment, as documented in a recent evaluation: "*Progres* transfers to the poor increase the continuation rate from 97% to 98%. As a consequence, 97 children must be paid to induce one additional child to stay in school. The cost per additional child in primary school is no less than US\$ 9,700 per year. While this additional child may need special assistance, getting him/her to school through a cash transfer to all poor families is clearly inefficient. Dropping the primary school component from *Progres* would save

55% of the educational budget” (de Janvry and Sadoulet, 2003). The evidence in this regard is somewhat more favourable for enrolment in secondary education.

The evidence is more favourable regarding attendance at school. Given that opportunity to learn is influenced by time spent learning, this is a positive result. If the schools that students go to were such that children could actually receive quality instruction once they attend, it is clear that the transfers would help students learn. This is a critical assumption of these programmes, as we have discussed throughout this report: that the quality of the schools attended by the children is at least adequate. Unfortunately, this has not been directly assessed by the existing evaluations, nor have the evaluations been designed to examine the independent and combined effects of improving quality along with the cash transfers. Indirect evidence suggests that the quality of instruction available to most children is, indeed, not adequate. As a result, it is possible that in spite of spending more time in school and attaining marginally higher levels of schooling, as a result of receiving the transfers, the beneficiaries of these programmes will not have enhanced cognitive skills and competencies in the end that will improve their long-term opportunities.

There is no evidence that students receiving cash transfers perform at different levels in tests of student achievement than their counterparts not receiving the transfers. This should be a cause for concern, if the transfers are seen as a strategy to improve the education levels of the children of the poor.

5. What is the theory of action of CCT programmes?

In what ways do CCT programmes work well – and why? As *Eduque a la Niña* in Guatemala shows, when girls receive scholarships to attend school they are more likely to go regularly, less likely to repeat grades and more likely to be promoted to the next grade than girls who do not receive scholarships. Furthermore, boys in schools where girls receive scholarships also show similar gains. It can be concluded that CCT scholarships do not simply influence parents to send eligible children to school (girls in the Guatemala case) but rather sends a strong message about the importance of education so that parents tend to send all children to school. *Eduque a la Niña* was not designed to evaluate separately the contribution of scholarships, improvements in instruction, parent committees or tutoring by outreach workers; all we can say is that a strategy which combines scholarships with improving conditions in and around schools produces the observed results. We do not know what each component of the strategy could achieve in isolation.

It is apparent that the way in which families respond to incentives is highly context-specific. In Malawi, for example, support with tuition fees for girls failed to produce an increase in enrolment and was actually accompanied by an increase in repetition rates.

One of the difficulties of CCTs stems from how they are managed. The programmes are usually run by government units that are functionally independent from ministries of education or health. This remote control is at the heart of some of the conceptual deficiencies discussed in this report: CCT programmes do not address direct improvements in the quality of education, because the units overseeing them have no functional authority over schools. And, apparently, these administrative units have difficulties coordinating with the relevant units in the Ministry of Education.

The fact that CCT programmes treat schools as “black boxes” may reflect a conceptual and disciplinary limitation in their design as much as an organizational limitation in how these programmes are set up institutionally. There are no incentives, and arguably large transaction costs, to design or evaluate CCT programmes with an eye to developing a coordinated strategy that takes on the task of improving quality. This limitation reflects a general deficiency of public policy – the fragmented treatment of public policy problems by separate government offices with the ensuing lack of coordination and synergy at the implementation stage. This fragmentation happens with policies and programmes in the same government agencies and much more so with problems parcelled out across the bureaucratic boundaries of various government agencies. Families making decisions about short-term survival – and about long-term decisions affecting the health, nutrition and schooling of the young – work in a seamless space of opportunities and constraints that is simply not reflected in the

patchwork of bureaucratic boundaries that separate the school from the health clinic from the employment centre. Conceptually and practically, integrating social services is the best way to match the multifaceted limits families face and to achieve synergies among the various arms of social intervention. However, the organizational design of public policy programmes makes such integration challenging at best.

The management of the CCT programmes reviewed here varies from more-centralised forms (Mexico) to more-decentralised forms (Brazil). It is possible that a centralised approach undermines the formation of social capital and reinforces historic forms of state relations that limit the civic agency of people who are poor. In some ways, a programme designed and managed by a central state to induce poor families to make particular decisions is reinforcing the patron-client nature of traditional politics rather than supporting the democratic agency of individuals and communities and the development of social capital among members of communities. On the other hand, centralised management may be a tool that governments devise to safeguard the transparency of the programmes, especially in terms of assigning transferences and to avoid clientelism at the level of local authorities.

One important aspect of the theory of action of these programmes is the willingness of the public to support assistance to families who are poor if it is tied to some conditions, in particular education for children. In some ways, the education and human development components of CCTs serve as a social-marketing device to make taxpayers more willing to support redistribution of resources. However, it is important not to oversell these programmes to achieve objectives for which they are ill-suited, especially in the long term. CCTs appear well-suited for transferring resources to people who are poor and creating a safety net to protect the most vulnerable from economic shocks – but deeply inadequate for the goal of educational development. CCT programmes should, therefore, focus on poverty alleviation rather than educational development, and certainly not both at once, and any education benefits be regarded as a “bonus.”

6. Implications for education policy and research

As one of the most careful reviews of CCTs states, the programmes combine a remedial approach to poverty (currently poverty alleviation by transferring income to the poor) with preventive or developmental roles (sustained decrease in poverty by improving educational status within households). From a policy standpoint, however, there may be trade-offs between these objectives (cash transfer versus increasing education). How one judges success thus depends on what one values, on the kinds of benefits valued. Since the preponderance of the summary evaluations adopt a perspective that principally values the cash transfer objective, in this report we have adopted a contrarian view, one that focuses principally on education effects. The assessment of the educational merits of CCTs should not be made in the abstract, but in the context of examining alternative education policy options. In assessing CCTs, we think it is essential to determine whether they are principally an instrument of poverty alleviation with an education component, or principally an education policy instrument with a secondary poverty alleviation component: we do not see these two as interchangeable, as some authors do (Morley and Coady, 2003).

Strictly judged as an educational instrument, CCTs are not particularly impressive. The available evidence says little about whether students learn more, and it documents relatively modest effects in school participation, progression and attainment of additional years of schooling. Furthermore, in targeting beneficiaries on the basis of poverty rather than educational need, CCTs are educationally inefficient. They transfer incentives to families who would have enrolled their children in school anyway and such children would have had regular attendance. The incentives are insufficient to motivate some families to enrol their children in school and they do not reach families who might enrol their children in school if given the incentive. Some estimates suggest that as much as half of the total cost of CCT programmes is inefficiently spent in terms of education results (de Janvry and Sadoulet, 2003).

Given the hefty commitment of resources represented by these programmes, about 5% of the education budget on average (Morley and Coady, 2003), the potential opportunity cost related to improving quality is significant since ministries of education rarely spend more than 10% of the education budget in quality improvement. A central question then is whether an additional 5% of the educational budget is better spent providing scholarships so that poor families send their children to school or better spent on initiatives that directly improve quality, e.g. a programme of teacher training and textbook production to support early literacy instruction. Strictly speaking, we have at this point no evidence to answer this kind of question – but it is an important question to ask of CCT programmes in the context of education policy. Because none of the studies were designed to assess the independent and interactive effects of CCTs with quality improvement measures, it is not possible at this point to establish whether similarly modest, or greater, educational effects than those documented in the

studies reviewed could be obtained with quality improvement measures alone. Conducting such studies is thus one of the most immediate research implications of this review.

It is also important to keep in mind that CCTs may be influencing instructional quality in negative ways, principally because they provide teachers with additional means to exert authority over students and parents that are not dependent on the quality of the instruction they provide. In many developing countries, the quality of instruction fails to foster the development of higher-order cognitive skills because teachers depend on outdated and ineffective pedagogies and, in some contexts, rely on unusually strong forms of punishment in order to manage classroom discipline, further enhancing the power of teachers disproportionately over more disadvantaged students. In education systems where schools with high concentrations of poorer children are more likely to have the least skilled teachers, this adverse effect of CCT programmes would not only sustain substandard pedagogies, but potentially exacerbate gaps in quality between poor and non-poor students.

In addition, there are various reasons that have been offered to increase parental participation in school management and decision-making. To some it is a central aspect of the complicated process of improving quality (Hanushek, 1995). Increasing parental participation in school councils is also a way to build social capital and to foster the development of democratic skills and attitudes. Empowering teachers with the authority to directly influence the welfare of poor families may undermine the potential to develop more democratic and participatory forms of school management. This may, in turn, undermine the development of schools as civic spaces that can build up essential skills for democratic participation in society.

Only one of the programmes discussed here has evaluations that explicitly examine possible adverse effects on quality. The Food for Education programme in Bangladesh found school attendance grew 35% and enrolment of girls rose 44%. These large increases raise the possibility that quality would decline because of larger class sizes. While the evidence is that, controlling for social class of students, the evaluation found that non-FFE students did better in FFE schools than in non-FFE schools; however, this evaluation is taking place in contexts of relatively overall low quality (there are potential “floor” effects) and, arguably, with larger classes it would be harder to improve quality in the future in the direction of enabling teachers to provide more differentiated attention to students who are failing to learn.

Since CCTs are based on a relatively simple educational theory – that children will learn more if they attend school regularly – there are real limitations to the possibility of extrapolating from current evidence, which pertains primarily to the lower levels of education, to the potential effectiveness of transfers at higher education levels. The basic theory of these programmes is that children drop out

of school because of opportunity costs and that facing different incentives they would make different decisions. However, the effects of low-quality education are cumulative; in many contexts, students drop out of school after failing to meet the expected standards for a given grade. The decision to drop out is thus more the result of the interaction between opportunity costs and poor, prior academic preparation than it is of opportunity cost alone. Would the cash transfers be enough to keep students in secondary school when weak academic preparation at lower school levels makes it difficult for them to meet the demands of the secondary school curriculum? At present, the limited evidence available suggests that the effects of CCTs are greater at higher grades, given that indirect evidence also suggests that quality of education is very low at these levels. This indicates, perhaps, that cash transfers help keep students in school *as long as* the expectations for progression from one grade to the next are low. Whether this would ultimately translate into providing people with skills that would lead them better job options or quality of life is still an open question.

There are two critical assumptions implicit in the assessment of CCT educational effects. A critical assumption of CCT programmes is that their education effects will translate into poverty reduction because participants will be able in the future to obtain jobs with higher wages. *None* of the studies examined discuss the nature of the economies in countries with CCT programmes and whether, in fact, there is job growth that would make such assumption tenable. It is apparent that, at present, a number of economies in the developing world, including countries such as Mexico, are not generating enough job growth to absorb a significant share of those who are now poor, even if they were more educated. A second, related assumption is that labour markets reward relatively modest increases in levels of education. For example, in the case of *Progres-a-Oportunidades*, participants are expected to gain an average 0.66 years of schooling after eight years of participation in the programme. Are there appreciable differences in income between students with 6.80 versus 7.46 years of schooling? In Nicaragua, students in the *RPS* programme were estimated to obtain on average 3.09 years of schooling rather than 2.64. Are there economic rewards for such a difference when the overall level of education for both programme participants and non-participants is so low?

A critical assumption of CCT programmes with regard to their potential to alleviate poverty in the long term is that beneficiaries will have more income-generating opportunities. This is assuming that there are economic returns to being educated, especially for those living in rural areas. The evidence shows that many poor people do not have jobs. Since the availability of work is a critical assumption of cash transfer programmes, job creation should be a component in any long-term strategy for poverty alleviation. Estimates of rates of return on education in marginal, rural communities in Mexico, for example, show that for the three main occupations available in these communities, there are no returns on education beyond the primary level. "Under current circumstances regarding

local opportunities, secondary education is thus principally a passport to urban migration” (de Janvry and Sadoulet, 2003).

The effort to evaluate CCT programmes rigorously deserves a special mention. Most programmes used quasi-experimental designs to assess programmes’ impacts. Such designs planned for different implementation phases to create treatment (immediate beneficiaries) and control (future beneficiaries) groups. Through this strategy, programme administrators expected to overcome the ethical problems that uses of treatment and control groups may create. Despite the well-crafted evaluations, we still do not know why students receiving CCTs are having such modest gains in the educational areas assessed. The lack of better-elaborated educational theories applied to the evaluations has impeded the research and policy communities to see the interplay of CCT effects with the education that children receive at school. This is a shortcoming that should be addressed in order to have a better understanding of the potential pros and cons of CCT programmes for education (*for more details see Appendix B*).

To sum up, while conditional cash transfers have many of the features that agencies looking for ‘silver bullets’ find admirable, the education development community would be well advised to slow down in its eager embrace of this fast growing vogue. Looking at the evidence on educational impacts, the reasons for praising these programmes at the primary level of education where they have been implemented are modest at best. Looking at their direct costs and potential opportunity costs, there are more reasons to be prudent about whether CCT programmes enhance the cognitive skills of the children of the poor in the ways necessary to prepare them to have more options in life than their parents. Looking at the many pitfalls of past fads that were expected to provide quick fixes to reducing poverty or empowering the poor, there are reasons to strongly suggest that before additional resources are spent to pay children to go to school some resources should be devoted to finding out whether children receiving CCTs do, in fact, learn more than they would have if they had stayed out of school, and that what they learn has sufficient value.

These concerns over the educational effects of CCTs aside, there may be good reasons to give cash to the poor to help them survive, but there is no reason to call the funds expended in this way education investments and there is no more reason to think of CCT as an education policy option than to think of any other social programme as an education policy alternative.

APPENDIX A

QUESTIONS USED TO EXAMINE THE STUDIES REVIEWED

1. Description of the programme

- a. Country, time period, target population.
- b. What is the programme about? Is it only a transfer of cash to the family? Is it cash plus support to improve supply or quality of instruction? What are the rules to transfer cash (different for boys and girls, different for different ages, maximum per family). What does the amount transferred represent relative to per capita income, relative to per pupil spending in the country?
- c. How long has the programme been running?
Was the programme considered mature at the time of the evaluation?
- d. What is the total cost of the programme? Is this amount part of the education budget? What does this amount represent relative to the total education budget; to the total primary education budget?
- e. Description of targeting mechanism and formula. Information of costs in terms of administrative, private, incentive, social and political costs. How was the targeting formula developed?
- f. Implementation issues. How has the programme been transformed since implementation? Are all intended beneficiaries receiving the transfer? What is the relationship of the implementing agency to schools and school systems?
- g. Country context. General poverty, income and basic education indicators.

2. Programme theory

- a. Is this a programme designed on the premise that it will influence access to school; attendance; learning? Is the assumption that the quality of schools is good? Is the quality of instruction influenced in any way? Is the assumption made that students have other critical inputs for learning such as textbooks? What is the theory behind the design of the programme. (For example, some CCT programmes assume that child labour substitutes for education and that if families are given money equivalent to what children earn for the household that the children would be sent to school; this may not be the case, especially where children are required to do substantial household chores.)
- b. How does the programme's theory treat impacts on education versus impacts on poverty? Is the idea primarily about transferring cash to poor families; educating children; and/or other goals? How are trade-offs handled in the programme theory?
- c. What is the policy and programme context in which the CCT programme is situated? What other programmes are running to support education and alleviate poverty?

- d. What is the education context in which the programme operates? What is the quality of the schools likely to be attended by the children receiving CCT?

3. Evidence of impact

- a. Impact on access
- b. Impact on attendance
- c. Impact on learning
- d. Impact on quality of instruction
- e. Other impacts
- f. How do the overall conclusions of the study reflect the evidence available on impacts on education? (Is the evidence central or marginal to the conclusions?)
- g. What is the relationship of administrative costs to total amount transferred (the Cost Transfer Ratio)?
- h. What is the social and practical significance of the impact observed? (For example, *Progres-a-Oportunidades* is found to yield an additional 0.66 years of schooling for every 8 years of participation in the programme. What does this mean in practice to the students who benefit? Is there evidence of what it means?)
- i. Are there unintended negative effects? (For example, is there a decline in quality of education because of school overcrowding triggered by the programme?)

4. Critical observations (about the programme, study and available evidence)

5. Description of the evaluation design

- a. How was impact assessed? Is this an experimental design?
- b. How is programme implementation measured?
- c. In what areas is evidence measured? How does evidence for impacts in education compare with evidence of other forms of impact (e.g. poverty alleviation, supporting health and nutrition).
- d. How does the design of the evaluation reflect the programme theory? Has evidence been sought for all critical assumptions and aspects of the theory underlying the programme?
- e. Is the evaluation design sensitive to implementation issues? Is there any chance that implementation delays are confounding evaluation results? Are there issues with the institutional capacity to implement?

APPENDIX B

EVALUATION METHODS AND DESIGN

The analysis of programme evaluation designs and methodologies constitutes a fundamental input to adequately qualify programme impacts. Several issues should be taken into account when assessing the evaluation of a programme. The most important are: i) evaluation design; ii) programme maturity at the time of evaluation; iii) data used for evaluation; iv) methodologies used for analysis; and v) the match between the educational theory of the programme and the impact evaluation. Careful review of these characteristics of programme evaluation helps to limit the claims that can be made regarding the effects of the programme.

In this section we analyse the evaluation design and methods for each of the CCT programmes reviewed in this report. The evaluation design for each programme is presented individually and a summary table (Table B.1) shows the programme educational theory (marked with X) and those aspects of the programme that were considered in the impact evaluation (marked with E). When both letters (X/E) appear in the same box, it means that the programme was intended to alter that educational variable and that such an effect was observed.

It is important to stress several points before beginning the analysis of the evaluations. First, the evaluations of the programmes for the most part have been specifically designed as such. However, in the case of programmes, such as *Bolsa Escola* and *JPS*, the analysis of impact does not seem to have been part of the implementation of the programme. These evaluations use general sources of data created by national institutes of statistics to estimate the effects of the programmes. In other cases, such as *Progres-Oportunidades*, *PRAF* and *RPS*, evaluations were an integral part of the design and implementation of the programmes. These initiatives created their own instruments for data collection and tried to use experimental designs. There are also more general evaluations, such as the case of GABLE in Malawi, that do not provide convincing evidence about the effectiveness of the programme because of the general nature of the assessment.

Food for Education (BANGLADESH)

Evaluations carried out

The FFE programme in Bangladesh has two published evaluations of impact. First, the Ahmed and del Ninno (2002) evaluation that compares data from 2000 to 1993, the year the programme began. Second, the Arends-Kuenning and Amin (2000) evaluation that compared household data from 1992 to data collected in two villages during 1995 and 1996.

Evaluation design

The FFE programme had two evaluations specifically designed to measure its impact. The Ahmed and del Ninno evaluation had a quasi-experimental design. The main characteristic of the design is the decision to have “treatment” and “control” groups. The sample included 600 households in 60 villages in 30 unions in 10 *thanas* (district units). There were 110 schools in the same 30 unions. The selection process had three steps. First, 10 *thanas* were selected with probability proportional to size. Second, two FFE unions and one non-FFE union were selected in each *thana*. The programme started in academic year 1995/1996 in all of the selected FFE unions, except one where the programme started in 1993. The non-FFE union within each *thana* was randomly selected. Third, two villages from each union were randomly selected using probability proportional to size. In the selected villages a complete census of the households was carried out. This selection process was an attempt to create treatment and control groups, but since the selection mechanism was based on population size, there is no certainty the groups are statistically comparable.

Programme maturity

The programme had different degrees of maturity at the time of the evaluations, since they took place at different points in time. For the Ahmed and del Ninno evaluation, data was collected in 2000, seven years after the programme’s first startup, but four years after its 1995/1996 implementation in the majority of unions covered in the evaluation. However, the programme can be considered mature at the time of the Ahmed and del Ninno evaluation. On the other hand, the Arends evaluation was conducted early in the programme. This evaluation was based on a 1992 sample household survey of 240 households and data collected in two villages in northern Bangladesh in August 1995 and May 1996. This means that much of the data was collected two years after implementation, somewhat early to observe definite effects of the policy.

Data used for evaluation

Evaluations of the FFE programme used both data especially collected for assessment purposes and data from other sources. For example, the Ahmed and del Ninno evaluation uses primary data from multiple surveys that contain information on schools, households, local communities and grain dealers. The data were collected between September and October 2000. This evaluation also used an academic achievement test taken by 3,369 students enrolled in both FFE and non-FFE schools; test scores were correlated with household characteristics.

The Arends evaluation was based on a 1992 sample household survey of 240 households and data collected in two villages in northern Bangladesh in August 1995 and May 1996. During the time of the evaluation, about half of the households studied were also participating in a micro-credit programme, which was aimed at women and included a consciousness-raising component (Arends-Kuenning and Amin, 2000), a fact that might bias the evaluation's results. Another confounding factor is that one of the two villages surveyed did not participate in the FFE programme, but did participate in a scholarship programme for secondary school girls. The other village participated in both programmes (Arends-Kuenning and Amin, 2000).

Methodologies used for analysis

The FFE evaluations used mainly quantitative methodologies to analyse the information. The Ahmed and del Ninno assessment used two main methods. First, it compared treatment and pseudo-control groups on key variables. For example, the analysis of educational impact compares school enrolment, school attendance, drop-out rates and test scores. The evaluation also compared the effect of food consumption and nutrition in the two groups. Ahmed and del Ninno also used two-stage regression analysis to try to isolate the effect of the programme on school enrolment from other factors. The evaluation performs sensitivity analysis by testing two different models (Tobit and Probit) for the first stage. Both models rendered the same results.

The Arends-Kuenning and Amin evaluation attempts a before-and-after FFE comparison. This evaluation looked at the average number of hours boys and girls spent in school daily in FFE schools between 1992 and 1996. Most of the analysis focused on female secondary-school students, although the evaluation touched slightly on primary education.

Match between educational theory and impact evaluation

The evaluations of the FFE programme are at least partially in sync with the programme's theory of action. As Table B.1 shows, the FFE theory aims to impact attendance and dropout rates, while the evaluations have a greater scope – assessing impacts on attendance, dropout, enrolment and learning (the latter measured by test scores). Therefore, the evaluations seem to implicitly stress more ambitious objectives for the programme than the underlying theory does.

The evaluations of the FFE programme focus on the main objectives of the programme, which are increasing attendance and reducing dropout. The Ahmed and del Ninno evaluation focuses explicitly on enrolment, attendance, dropout rates and test scores, going well beyond the theoretical framework of the programme. On the other hand, the Arends-Kuenning and Amin evaluation centres its attention on enrolment and time spent in school, and mainly on secondary education for females.

Bolsa Escola (BRAZIL)

Evaluations carried out

Although CCTs linked to school attendance are generally known as *Bolsa Escola* in Brazil, there are several different initiatives implemented by different levels of government that also carry the name. The evaluations considered here are those that looked at the effects of CCTs for education at the national level, regardless of the implementing agency. None of these evaluations has used an experimental or quasi-experimental design. (We acknowledge that experimental evaluations are difficult to employ when implementing social policy, due to the planning and expense of such a evaluation design.)

There are three evaluations of the education effects of *Bolsa Escola*. Cardoso and Portela (2003) tested the effect of income transfers on school attendance and child labour. An *ex-ante* evaluation carried out by Bourguignon et al. (2003) aimed at simulating the demand for education in the presence of an incentive, such as the conditional cash transfer. Finally, Schwartzman (2003, 2006) analysed the relationship between cash transfer social programmes and schooling and equality.

Evaluation design

The three *BE* evaluations have different designs and assess different aspects of the programme. As mentioned, none employed an experimental or a quasi-experimental design. All three use general sources of data such as censuses and household surveys to estimate the effects of the programme.

Cardoso and Portela (2003) carried out an evaluation with a non-experimental design in which the analysis tries to tease out the combined effects of two income transfer programmes, the federal minimum-income programme and the *Bolsa Escola* programme, on child labour and school attendance. The evaluation relied on Brazil's 2000 Census. Since this study did not have an experimental design, the evaluators created artificial treatment and control groups using the propensity matching score method. The treatment group included children aged 10 to 15 who were living in families that received cash transfers from either of the two programmes mentioned above. Families with a disabled child were removed from the sample because it was assumed they would be receiving a cash transfer from another social programme. On the other hand, the control group incorporated those children who did not receive cash transfers due to the socioeconomic characteristics of their families, but who were otherwise eligible. The evaluation also attempted to control for the unemployment insurance cash transfer by constructing dummy variables for unemployed parents. To evaluate the programme's effectiveness in reducing child labour or improving school attendance, the evaluation constructed a variable for both. The evaluation compared the results of children participating in the programme with a sample group of children not participating in the programme.

Using data from the 1999 national household survey, Bourgignon et al. (2003) simulate the effects of the programme on school enrolment and the distribution of income. The evaluation models household decision-making in relation to the BE cash transfer. However, the simulation neither considers how the decision was made nor whether the decision would be different for different siblings in the same household. The evaluation tries then to simulate the demand for school using an *ex-ante* approach to estimate the number of children that may change either their school or work status as a result of the conditional cash transfer to households with different levels of income.

The Schwartzman (2003) evaluation analyses the relationship of several social programmes to education and equity comparing school attendance and child labour for two groups aged 5 to 17: beneficiaries of social programmes, where eligible persons in the household are receiving the benefits; and those registered in social programmes which include persons in the household who have registered for benefits but are not receiving them.

This analysis demonstrates that there are problems with the targeting of the programmes. While *Bolsa Escola* programmes are reasonably well focused in lower-income families (except for a bias against the urban poor in urban areas and some regional distortions), most of the stipends are given to families who were already sending their children to school. Schwartzman also finds that, in 2003, of the 8.3 million children in families receiving the benefit, 1.5 million – or 17% – were in the upper 50% income bracket. There are also problems with the age targeting. While school absenteeism becomes an important problem in Brazil at age 14, when adolescents start dropping out of school in large numbers, the programme is targeted at children between the ages of 6 and 15 who are in school, thus excluding older students and those that had already left school, including those that were attending special remedial or recovery course programmes ("*curtos supletivos*" or "*educação de jovens e adultos*") (Schwartzman, 2003, 2006).

Programme maturity

Since *Bolsa Escola* has multiple funding and implementation agencies, it is difficult to state a definite start date for the programme. However, it is accurate to say *BE* began at the municipal level in 1995 and was adopted at the federal level in 2001. Similarly, the evaluations used data collected in different years, a fact that makes it difficult to establish whether the programme was mature at the time of evaluation.

Data used for evaluation

None of the *BE* assessments collected data specifically for the purpose of evaluating the programme. The three evaluations used either household surveys or census data produced by the Brazilian Institute of Statistics. Cardoso and Portela used the 2000 Census, Bourgignon et al. used data from the 1999 household survey, while Schwartzman used data from the 2003 household survey.

Methodologies used for analysis

The three *BE* evaluations used three different methodological approaches to study the impact of the programme. Cardoso and Portela (2003) used propensity matching scores to create comparable groups of children that are receiving and not receiving benefits from social programmes. Bourgignon et al. perform a simulation of decision-making using a multinomial-logit model to estimate the probability of enrolling in school in the presence of the conditional cash-transfer incentive. Schwartzman analysed and tabulated descriptive data on school attendance, student socioeconomic background, and a number of additional variables.

Match between educational theory and impact evaluation

The theory behind *Bolsa Escola* was to increase educational attainment while reducing child labour. None of the evaluations directly measures educational attainment: two focus on school attendance and one analyses school enrolment. All three pay attention to child labour, in keeping with programme objectives.

Of the three evaluations, Schwartzman's is the most critical of the programme's underlying theory. He argues that the programme theory of *Bolsa Escola* is wrong: "namely that the explanation for the lack of education of low-income children is that they do not go to school because they need to work. In fact, millions of low-income children do go to school everyday. When they do not attend, it is usually not because they need to work, but because the school is not accessible, does not function as it should or they are unable to learn and drop out as they get alienated and reach an age when they can already start working and are less dependent on their parents' control" (Schwartzman, 2003, 2006). He explains that there is evidence indicating that the quality of schools attended by poor children is low and that the funds spent in these programmes should be directed to quality improvements and to bring back out-of-school children.

Familias en Acción (COLOMBIA)

Evaluations carried out

Familias en Acción had an *ad hoc* evaluation planned before the implementation of the programme. The evaluation included a baseline measure and a second analysis of data collected several months after implementation of the programme.

Evaluation design

The evaluation of FA was intended to have a quasi-experimental design. Following the example of other CCT programmes, FA aimed to develop an evaluation that made use of the gradual implementation process in order to create treatment and control groups for evaluation.

The evaluation was intended to measure pre- and post-programme differences in both treatment and control groups. For this purpose, the design included a baseline evaluation measuring selected variables (education, nutrition and health) before the implementation of the programme. Those results would later be compared to a round of data collected after implementation. The evaluation then tried to establish comparisons between treatment and control groups. The treatment group was made up of 50 municipalities where the programme was implemented and the control group consisted of 50 municipalities that were not selected to participate in the programme but were “reasonably similar” to the treatment group. The matching criteria included geographical location and quality of life (as measured by an index). Within each municipality, a random sample of households was also selected. In total, the sample was comprised of 10,660 treatment and 8,347 control households. Additionally the sample included 520 schools, 207 health institutions and 1,167 *Hogares Comunitarios* (Baseline, 2003).

As mentioned, the evaluation took place in two phases. The first phase – baseline data collection – was carried out between July and November 2002 in 57 treatment and 65 control communities. However, the government decided to implement the programme in 25 of the treatment communities before the baseline evaluation took place. As a consequence, instead of having only treatment and control communities, the treatment municipalities were divided into “treatment with payment” and “treatment without payment” to acknowledge the fact that in some communities the programme started before the baseline data was collected. The second phase, originally planned to take place a year after the beginning of the programme, actually took place only a few months after implementation (Attanasio et al., 2004). These changes increase the sources of bias that could affect the results.

Attanasio et al. (2004) recognise some shortcomings of the evaluation. First, they suggest that results may be biased because the population within the control group was aware of the implementation of the programme and was anticipating the eventual implementation in their communities at the time that data was collected. Second, the evaluation sample is smaller than optimal for observing programme effects; therefore, only relatively large effects can be reported with adequate precision. Third, since the assignment of communities to either treatment or control groups was not random, the evaluation tried to choose communities in the control group that were as similar as possible to those in the treatment group.

The evaluation of the *FA* educational component focused on comparing school enrolment among children aged 7 to 13 and 14 to 17 years. This evaluation did not consider any other educational variable.

Programme maturity

The maturity of the programme at the time of evaluation is one of the shortcomings of the assessment. The evaluation took place only a few months after the implementation of the programme, cutting short the time span typically required to see the effects of such a programme.

Data used for evaluation

The data for the *FA* evaluation came largely from two sources. The first source is the collection of baseline data to reflect the situation before implementation of the programme. Surveys specifically designed for the baseline evaluation were used in both treatment and control communities. As noted, the programme had already started in some of the treatment communities, creating a challenge for the evaluation. The second source of information was the data gathered in the early life of the programme. The surveys applied in both instances were created specifically for the programme evaluation.

Methodologies used for analysis

The *FA* evaluation aims to estimate the effects of the programme by using propensity score matching. The use of this technique addresses at least two issues related to the non-random assignment of municipalities to the programme. First, since municipalities were not randomly assigned, ex-post differences in the selected variables may actually capture pre-programme differences. On the other hand, the effect of the programme may be a result of the combination of variables which are different between the treatment and control communities. The propensity score methodology is intended to compare similar treatment and control households, matching them statistically on the basis of observable individual and community characteristics.

Match between educational theory and impact evaluation

The educational theory of *FA* sets out to increase school enrolment during a time of economic crisis. The evaluation, as mentioned earlier, focuses only on investigating the effect of the programme on school enrolment, closely following the programme theory.

Eduque a la Niña (GUATEMALA)

Evaluations carried out

Chesterfield et al. (1997) carried out the evaluation of *Eduque a la Niña* using a multi-method approach to investigate the impact of the programme. This was an *ad hoc* evaluation of the programme.

Evaluation design

The evaluation of *Eduque a la Niña* followed a quasi-experimental and multi-method design aimed at measuring the participation of girls during the first year of implementation of the programme. The evaluation used instruments, such as

inventories, checklists, classroom observation forms and focused interviews, as well as educational statistics collected by the Ministry of Education.

The assessment of *Eduque a la Niña* used two different samples. For an in-depth analysis, the evaluation used a stratified random sample. The strata consisted of the three different packages of actions of the programme. The sample also included a control group comprised of 12 schools that were not participating in the programme but had similar characteristic to those that were participating in *Eduque a la Niña*. The sample had nine schools, three representing each package. The sample schools represented 25% of the total number of schools participating in the programme. The evaluation report claims that the sample had an adequate number of schools and teachers to significantly determine large effects of the programme (two or more standard deviations) with a confidence of 95% and a power of 80%. It is important to mention that with this sample power only very large impacts could be determined, and many important effects of the programme may go undetected. On the other hand, for a quantitative general analysis of attendance, dropout, repetition and promotion rates the evaluation used data for all 36 schools in the programme and the 12 schools in the control group.

Each sample led to a different component of the evaluation. On the one hand, the sample for an in-depth analysis was used to study participation, looking mainly at daily attendance and teacher-student interaction as measured in classroom observations. The sample of the total number of schools led to a quantitative analysis of educational statistics such as attendance, dropout, repetition and promotion rates.

Programme maturity

The Chesterfield et al. evaluation took place three years after implementation of the pilot project, a period of time long enough to consider the programme mature.

Data used for evaluation

Data for the evaluation came from two different sources. First, the general quantitative analysis of the 36 schools used data from the Ministry of Education. The in-depth analysis of nine schools collected data on student participation and teacher-student interaction using instruments especially designed for this purpose.

Methodologies used for analysis

The data analysis was mainly descriptive. It consisted of calculating frequencies for each indicator and making comparisons between *Eduque a la Niña* schools and the comparison group. When necessary the evaluation used ANOVA for comparisons.

Match between educational theory and impact evaluation

Eduque a la Niña is one programme where the evaluation goes beyond the scope of the theory of the programme. According to the theoretical framework, the most salient goal of *Eduque a la Niña* was to increase school attainment among girls. However, as Table B.1 shows, the evaluation considers variables other than those that are related to attainment. Specifically, the evaluation measures attendance, completion, promotion, dropout and repetition, as well as teacher-student interactions. It is important to note that only the indicator of completion may be regarded as educational attainment, but all the other variables examined in the evaluation have theoretical links to attainment.

PRAF (HONDURAS)

Evaluations carried out

The *PRAF* programme in Honduras has been continuously monitored and evaluated by the International Food Policy Research Institute (IFPRI). The latest evaluation available is the Mid-Term Impact Report, published in July 2003. Within the series of documents that comprise the *PRAF* evaluation, there is a report on the monitoring and evaluation system that forms the basis of the analysis of the evaluation design presented here.

The evaluation of *PRAF* had three measurement points planned since the inception of the programme: baseline, mid-term and final. These three measurements have clear purposes within the evaluation strategy. The baseline, for example, makes it possible to determine comparability between treatment and control groups. The other two measurement points permit the study of the stability of the impacts and to estimate effects that may take a longer time to appear (IFPRI, 2000).

Evaluation design

The evaluation design of *PRAF* aimed to be experimental. It envisioned four intervention groups. The first group received only the demand-side incentive (conditional cash transfer) for households with children aged 6 to 12 who have not completed Grade 4. The second group received only supply-side incentives comprised of transfers to parent associations. A third group received a combination of the demand- and supply-side incentives. Finally, a fourth group received no incentives at all. The unit of assignment for the sample was the municipality in order to avoid contamination among the different groups. The sample included 70 municipalities distributed among the four strata.

Programme maturity

PRAF has been in operation since 1990 and was reformulated at the end of year 2000 as *PRAF* Phase II. The reformulation involved a new structure and operation in which conditional cash transfers for education were a main component. The mid-term evaluation of the programme took place during 2002, almost a year and a half after the programme began. The programme cannot be

considered completely mature at this point. The analysis presented here corresponds to an interim evaluation. A final evaluation will use data collected at the end of 2004, at which time the programme can be considered mature.

Data used for evaluation

The majority of the data for evaluating *PRAF* was generated through instruments specifically created for that purpose. The evaluation system includes the following instruments: household surveys, institutional surveys (for schools and health centres) and standardised tests in schools for Grades 2 to 4 (taking into account selection bias generated by the exclusion of children who do not attend school).

Methodologies used for analysis

The mid-term evaluation of *PRAF* used general linear mixed models as a method for evaluation. It compared the four sample strata longitudinally as well as in cross-sections. For the longitudinal analysis, the evaluation compared the status of individuals on enrolment, attendance and drop-out before and a mid-point of the programme (IFPRI, 2003). It is important to note that there were no measures of student achievement reported in the mid-term evaluation.

Match between educational theory and impact evaluation

The educational theory of *PRAF* aim to increase attainment, attendance and enrolment. The impact evaluation assesses programme impacts on attendance and enrolment, adding the evaluation of dropout. This is due to the fact that impact on education attainment takes a longer time to materialise and, therefore, its evaluation should take place in the longer term. Table B.1 presents the correspondence between theoretical aims and impact evaluation.

JPS (INDONESIA)

Description of the evaluation design

Cameron uses data from the “100 Villages Survey” to evaluate the scholarship programme. It is a survey of 120 households in 100 villages, in 10 districts across 9 different provinces. (Cameron, 2000) the households are largely rural. The data used was collected during a very short period (August and December 1998), in the midst of the economic crisis (Cameron, 2000). Not all families in the August 1998 survey (12,000) were included in the December 1998 (8,751) survey (Cameron, 2000); the evaluation sample includes only the 7,682 children eligible for the scholarship and whose households participated in both the August 1998 and December 1998 surveys (Cameron, 2000). The evaluation is able to identify households that received funds but not individual children.

Evaluations carried out

Cameron (2000) performed an analysis of the impact of the *JPS* programme on dropout rates.

Evaluation design

The Cameron evaluation did not have an experimental design. It uses household surveys to estimate the impact of *JPS* on dropout rates. Since the evaluation does not follow an experimental design, Cameron corrects for bias when estimating programme effects on dropout. Furthermore, the sample of the household survey is neither representative at the national nor sub-national level. The sample used for analysis included 7,686 children who were eligible for the programme and who appeared in the two rounds of data collection (August and December 1998).

The characteristics of the sample and the analysis do not guarantee causal inferences regarding programme effects on dropout rates, despite the fact that the author controlled for some sources of bias.

Programme maturity

The programme started in academic year 1998/1999, while the evaluation used data collected in August and December 1998. Therefore, the programme cannot be considered mature at the point of the evaluation, because it had only 4 to 5 months of implementation. However, since this is a programme designed to lessen the effect of an economic crisis, the evaluation does not seem completely out of place.

Data used for evaluation

The *JPS* evaluation used household survey data from the “100 Villages Survey”. This survey collects information from 120 households in each of 100 villages across Indonesia. The villages, located in 10 districts across eight of the country’s 27 provinces, represent different types of rural economies. The survey was not designed to be representative at the national level. The evaluation used data from the August 1998 and December 1998 rounds.

Methodologies used for analysis

The evaluation used Probit models of analysis for estimating the effects of the *JPS* programme on dropout. The evaluation also corrected for some sources of bias using different approaches. First, the regression model controlled for educational attainment over time in order to remove the effect of previous educational attainment on the probability of dropout. It also used the technique of the “five nearest neighbours” and the “kernel-based” method to match children in appropriate groups for comparison.

Match between educational theory and impact evaluation

The *JPS* programme aimed to reduce dropout and maintain enrolment rates during a period of economic crisis. The evaluation of the programme exactly analysed the effect of the programme on dropout rates in the period immediately after the crisis. As Table B.1 shows, there is a match between educational theory and impact evaluation. Although *JPS* also included sustaining enrolment among its objectives, the main mechanism for doing so is by reducing dropout.

GABLE (MALAWI)

Evaluations carried out

GABLE II has two main evaluations. The first is a mid-term assessment conducted in August 1998 in which participatory research – including interviews – was done. The second assessment corresponds to a summative evaluation conducted in 2002 to study the overall performance of the programme. The summative evaluation focuses on GABLE's overall impact on the education sector, its beneficiaries and Malawi's economic growth (Herbert, 2002). During the extension phase of GABLE II, the Social Mobilization Campaign-Educational Quality programme was implemented. A village-based school project was also created in three districts with rural populations (Herbert, 2002).

Evaluation design

Both GABLE evaluations look at general aspects of the programme within the Malawian context. The evaluations do not aim to analyse the impact of specific policy instruments on the variables related to the objectives of the study. The mid-term evaluation of GABLE II consisted of participatory research methods, including interviews. On the other hand, the summative evaluation of GABLE published in 2003 used data from a variety of sources. These include: Malawi government documents, ministry of education statistics and USAID reports, as well as 15 field sites were also visited for data collection (Herbert, 2002). The evaluations do not say anything about the effectiveness of the programme.

Programme maturity

Both the mid-term and summative evaluations of GABLE II took place when the programme was considered mature, since it started in 1991.

Data used for evaluation

The data used for the evaluation mainly consisted of qualitative interviews with different actors involved in the programme and some descriptive statistics on repetition, dropout and performance.

Methodologies used for analysis

The methodology is purely descriptive and general.

Match between educational theory and impact evaluation

There is no match between the evaluation and the educational theory of the programme.

Progres-Oportunidades (MEXICO)

Evaluations carried out

Progres-Oportunidades is the most thoroughly evaluated CCT programme as of this writing. Just in terms of its educational component, there have been evaluations of the programme's impact on test scores (Behrman et al., 2000), cost-effectiveness of supply- and demand-side interventions (Coady and Parker, 2002), qualitative diagnostics that stress some issues related to education (Addato et al., 2000; Escobar Latapí et al., 2002), school enrolment (Parker 2003; Schultz, 2000b), educational choice (Saudoulet et al., 2002), school attendance (Schultz, 2000c), human capital (Skoufias, 2001) and child labour and schooling (Skoufias and Parker, 2001).

Most of these evaluations have been commissioned by a variety of institutions to estimate the impact of the programme in the specific areas mentioned.

Evaluation design

From its beginning, *Progres* (before transforming into *Oportunidades* in 2002) tried to establish an experimental design to measure programme impacts. Although the design was not purely experimental, it tried to use the graduality of the implementation process to establish treatment and control groups. In fact, the evaluation design for *Progres* "can be considered to be somewhere between a randomised experiment and a quasi-experimental evaluation" because the evaluation used "randomisation to the extent that it was feasible" (Parker and Teruel, 2003). The evaluation of *Progres* randomised at the level of locality, because randomising within localities was considered politically unviable and unethical (Parker and Teruel, 2003). The evaluation sample consisted of repeated observations (panel data) collected for 24,000 households in 506 localities. The data were collected between October 1997 and November 1999. The communities were located in the seven following states: Guerrero, Hidalgo, Michoacán, Puebla, Querétaro, San Luis Potosi and Veracruz. In the end, 320 localities were designated as part of the treatment group and 186 localities were made part of the control group (Skoufias, 2000).

The programme has been continuously evaluated. In 2002 six different evaluations were published, however, none used a randomisation strategy similar to that implemented for the evaluation of the first stage of the programme. It is interesting to note that with the expansion of the programme into semi-urban and urban areas it would have been possible to perform an experiment again using the graduality of the implementation process to measure the effects of the programme in these geographical areas. However, the evaluation did not follow this path.

It is worth noting that the programme has been evaluated using both quantitative and qualitative methods.

Programme maturity

The programme can be considered mature at the time of evaluation, since it started in 1997 and the evaluations took place only two years after the programme launch. Most recent evaluations have touched upon the expansion of the programme to semi-urban and urban areas, but the programme was not mature in these areas at the time of evaluation. In fact, the programme experimented with different types of targeting methods during the first stage of the implementation in semi-urban and urban locales.

Data used for evaluation

The data used to evaluate *Progresa* came principally from household and school surveys especially designed for the evaluation of the programme. In subsequent periods, after the transformation of the programme into *Oportunidades*, most of the quantitative evaluation on education used data from both household surveys and school indicators provided by the national educational authority.

Methodologies used for analysis

The assessment reports measure programme educational impacts in the areas of access to school, attendance, initial ages of school entry, dropout, re-entry, repetition, years of schooling, learning and child labour. Most of the evaluations use multivariate statistical methods to assess impact. Most use difference and difference-in-difference estimators (Behrman et al., 2001; Behrman et al., 2000; Parker, 2003; Schultz, 2000a; Schultz, 2000b; Schultz, 2000c; Skoufias and Parker, 2001). The evidence shows favourable programme impacts on enrolment (especially in secondary education), attendance, repetition, estimated years of schooling and child labour. Programme impact was not significant on primary education enrolment and test scores.

Match between educational theory and impact evaluation

Most of the evidence from the evaluation reports touches on the key assumptions of the programme theory regarding education. As mentioned, the evaluation measured access to school, attendance, initial ages of school entry, dropout, re-entry, repetition, years of schooling, learning and child labour. However, there are important variables missing from the analysis of the educational impact. For example, the only variable of school quality included in the models is student-teacher ratio, which is a very limited measure and may be endogenous for isolated rural schools – precisely those included in the first phase of the programme. In another example, the analysis of test scores does not control for family background.

Table B.1 shows that the programme was assessed beyond the scope of its most explicit theoretical objectives. However, the evaluations study programme effects on many of the variables that the programme implicitly expected to influence.

RPS (NICARAGUA)

Evaluations carried out

The evaluation of the *RPS* programme was comprised of a baseline evaluation before implementation and a follow-up afterwards. Both evaluations were carried out by IFPRI. There will be a representative household survey conducted after the follow-up, one large enough to allow adequate precision for making reliable inferences about the entire population.

Evaluation design

The evaluation of the pilot phase used a design that could approximate to an experimental design. The programme selected the departments of Madriz and Matagalpa for implementation using the following criteria: high poverty; access to schools; easy communications; and strong local capacities (Arcia, 1999). Census areas were selected based on four poverty indicators, including household size, access to drinking water, access to latrines, and illiteracy rates (Arcia, 1999). The census areas were selected and categorized into one of four priority groups. Those in priority 1 and 2 categories (42 areas) were selected for the first stage of the pilot phase and those in priority 3 and 4 categories (17 areas) were selected for the second stage. In July 2000, the 42 first-stage areas were randomly assigned either to intervention or control groups (IFPRI, 2001).

The evaluation design is unclear or, at least, seems to have developed differently than planned, and the documents do not clarify this matter. According to what the documents state there were two “baseline” surveys (Baseline I with 1,758 households and Baseline II with 252 households only in the intervention areas). These two baseline surveys were samples of the Census I and Census II data collections. These censuses were used to identify eligible households at different points in time. In fact, there was also a Census III which came later in the implementation of the programme. Although the original intention of the programme seemed to be the identification and census of all households in the targeted areas from May to July 2000 – the time frame for Census I – problems of exclusion led to the incorporation of new households in September 2000 (Census II) and April 2001 (Census III). These factors may threaten the accuracy of the evaluation, since different households were measured at different points in time. The baseline surveys also may not represent an accurate sample of the population. Furthermore, the evaluation of *RPS* states that the population in the three censuses differs in terms of educational and household indicators (IFPRI, 2001).

The evaluation is based on the Baseline I and Baseline II measures as well as a final measure taken in October 2001. There is evidence of delays in the implementation – such as distribution of vouchers to students – that may have biased the result of the programme. To carry out the evaluation, four primary sources of information were used:

- the population census describing the education and economic characteristics of the households;
- the household baseline survey of 42 participating census areas;
- the quality control baseline data, resulting from 82 household interviews; and
- a school survey of 214 schools participating in the *RPS* programme.

Areas were randomly assigned to intervention and control groups. Nearly all households were eligible to participate in the intervention because the areas originally selected for the census were considered impoverished. The evaluation team calculated a sample size of 1,764 households, evenly divided between the intervention and control groups. After taking the population survey, the census areas were reduced to 36 to remove urban localities and the sample was reduced to 1,758 households. A second census was carried out in 2000 with additional localities and a final sample size of 2,010 households was established.

Programme maturity

The programme was not mature at the time of evaluation. The programme started up in September 2000 and the evaluation used the baseline data and evaluation from October 2001, just one year after the implementation of the programme. However, the timing of the evaluation seems reasonable since *RPS* is only a pilot programme.

Data used for evaluation

The data used for the evaluation of *RPS* was collected using instruments especially developed for assessing this programme. These instruments included household surveys and institutional surveys – one of them a survey of school facilities.

Methodologies used for analysis

The evaluation used longitudinal analysis of population groups and individuals. There was a comparison of means between intervention and control groups on different indicators. The report suggests in the methodology part that difference-in-difference estimators were used, but this is not clear in the evaluation of the programme. The evaluation also uses linear regression and logistic regression, however, this is not stated in the final report evaluation (IFPRI, 2002). The main method for evaluation is the comparison of means between intervention and control groups. However, this method does not allow for the control of other variables which may be influencing the outcome under analysis, taking into

consideration that treatment and control groups were different with reference to educational and household indicators.

Match between educational theory and impact evaluation

As Table B.1 shows, there is coincidence between the educational theory of the programme and its impact evaluation. *RPS* expected to influence educational attainment, enrolment and attendance. The impact evaluation concentrated on measuring the effects on continuation (which can be seen as a short-term form of attainment), dropout, attendance, promotion and enrolment. Since the programme also has a supply-side component, the evaluated considered the number of teachers, student-teacher ratios and the number of sessions per school in both treatment and control groups.

Table B.1: Match between educational theory and impact evaluation

Country/programme	Attainment	Attendance	Dropout	Enrolment	Learning	Quality of instruction	Repetition/promotion	School improvement
Bangladesh Food for Education (FFE)		X - E	X - E	E	E			
Brazil <i>Bolsa Escola (BE)</i>	X	E		E				
Colombia <i>Familias en Acción (FE)</i>				X - E				
Guatemala <i>Eduque a la Niña</i>	X - E	X - E	E	E		E	E	
Honduras <i>PRAF</i>	X	X - E	E	X - E			X	X
Indonesia <i>JPS scholarship/grant</i>			X - E	X				
Malawi <i>GABLE</i>	X	X		X		X		
Mexico <i>Progres-Oportunidades</i>	X - E	X - E	E	X - E	E		E	
Nicaragua <i>RPS</i>	X - E	X - E	E	X - E			E	E

APPENDIX C

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