A CRITICAL ASSESSMENT OF CONDITIONAL CASH TRANSFERS PROGRAM IN TURKEY

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### ACRONYMS AND ABBREVIATIONS

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<tr>
<td>CCT</td>
<td>Conditional Cash Transfers</td>
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<tr>
<td>CEPAL</td>
<td>United Nations Economic Commission for Latin America and the Caribbean</td>
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<tr>
<td>COS</td>
<td>Cut-off Score</td>
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<td>FA</td>
<td>Familias en Acción (Colombia)</td>
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<td>IDB</td>
<td>International Development Bank</td>
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<td>IFPRI</td>
<td>International Food Policy Research Institute</td>
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<td>ILO</td>
<td>International Labour Organization</td>
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<tr>
<td>MIS</td>
<td>Management Information System</td>
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<td>NGO</td>
<td>Nongovernmental Organization</td>
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<td>R</td>
<td>Brazilian Currency</td>
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<td>PATH</td>
<td>Program of Advancement through Health and Education (Jamaica)</td>
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<td>PETI</td>
<td>Programa de Erradicação do Trabalho Infantil (Brazil)</td>
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<td>PRAF</td>
<td>Programa de Asistencia Familiar (Honduras)</td>
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<td>PROGRESA</td>
<td>Programa de Educación, Salud y Alimentación (Mexico)</td>
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<tr>
<td>RDD</td>
<td>Regression Discontinuity Design</td>
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<td>RPS</td>
<td>Red de Protección Social (Nicaragua)</td>
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<td>TL</td>
<td>Turkish Lira</td>
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<td>UN</td>
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1. INTRODUCTION

Increasingly recognized as a critical part of poverty reduction strategies, social assistance systems have been used to enable individuals, families, and communities to reduce risk and mitigate the negative effects of shocks to their livelihoods. Over the past ten years, programs combining cash transfers with promotion of human capital have gained considerable importance all over the globe. Currently, more than twenty countries implement or are planning to initiate CCT programs, and many more have shown interest in the idea\(^1\).

CCT programs address demand-side constraints for structural poverty through an incentive scheme which combines the short term goals of other social assistance programs with long term objectives of building human capital and breaking the vicious intergenerational circle of poverty traps. In other words, they combine the traditional role of social assistance prevailing in public programs with the newer concept of social investment. CCT programs address both immediate poverty reduction through cash payments for smoothing consumption and long-term poverty by promoting human capital accumulation. By linking the transfers to certain behavioral changes of beneficiaries, they aim at matching societal concerns with individual preferences. CCT transfers provide incentives for individuals to alter their behavior and this induced change increases the welfare of the society as a whole.

Conditional cash transfers program in Turkey is a targeted social assistance program which provides support to the poorest six percent of the population. CCT was developed as a sub-component of the Social Risk Mitigation Project. The initial program which was started in 2004 targeted 1.1 million beneficiaries. It continues to expand since then and more than 2 million beneficiaries are supported as of 2009.

CCT Turkey promotes long term human capital accumulation as its foremost objective. The program focuses on school age children and closely monitors compliance with conditions as a prerequisite for receiving the transfers. In this sense, the implementation of CCT program has

\(^{1}\) In June 2006, representatives of 40 countries participated in the Third Annual International Conference on Conditional Cash Transfer Programs, held in Istanbul, Turkey.
been accompanied by systematic studies to measure its effectiveness and to understand its broader effects. However, many questions remain unanswered, including the potential of the CCT program to function better, to address a broad range of challenges among poor and among different regions and to prevent the intergenerational transmission of poverty. This paper reviews the experience of Turkey in setting up and evaluating the impact of CCT program in order to find answers to these questions. For this, design features of CCT program are deeply and critically evaluated in light of other programs and country-specific features of Turkey. In addition, the existing literature on impact evaluation studies of Turkey to date is criticized in order to provide better results for policy recommendation. Section 2 gives the background context. Section 3 explains the concept of social protection while section 4 explains CCT programs. Section 5 gives the prominent features of CCT program in Turkey. Section 6 critically evaluates these features and the impact evaluation studies.
2. BACKGROUND CONTEXT

As the idea of welfare states and classical forms of social security collapsed, and in particular
as those models failed to produce solutions for developing countries, governments all over the
world have started to consider different and innovative ways in order to enable sustainable
development and “decent” livelihoods (Standing 2007). The fact that poverty and
unemployment have persistently remained extensive despite economic growth has required
change of policies.

People are subject to more systematic insecurity due to the changing patterns of the globalised
world and the increasing amount of economic and social shocks like sudden economic
deterioration or unexpected breakdown of entitlements as a result of natural disasters, an
epidemic or war, through which the livelihoods and productive capacities of all nations are
endangered (Standing 2007).

Traditionally, the idea of alleviating poverty and unemployment via cash transfers used to be
disregarded by the policymakers in developing countries, by international institutions such as
United Nations and World Bank, and the majority of aid agencies. Subsidizing specific
products and/or sectors, leaning on central kind of social insurance, and means-tested social
assistance for individuals who were affected specifically by contingency risks\(^2\) were the most
common policies. Noteworthy interest was given to public works while cash transfers had
quite a limited role (Standing 2007). However, the persistence of high poverty rates and
worsening social conditions brought poverty concerns to the policy agenda with renewed
impetus and this approach started to change by the 1990s (de Britto 2004).

One of the main reasons behind this change of policies is the reality that poverty and
inequality are significant problems which challenge the general prediction that economic
growth will create “trickle down” effect for the poor and economically insecure. In addition,
many other forms of aid have been shown to have narrow efficiency, particularly under the
cases of systematic shocks, where widespread collapse of entitlements are experienced, in
which all communities are plagued by an economic downfall, a natural disaster or an
epidemic (Standing 2007). Furthermore, traditional forms of policy making are challenged by
the opinion that poverty does not derive only from insufficient income, but also from a severe
\(^2\) Such as accidents, loss of job, disability, or old age.
lack in the provision of fundamental public services such as health, basic sanitation, education and housing.

The realization that emerging economies and developing nations spend reasonable amounts on social aspects\(^3\) but public resources cannot reach to the indigent fraction of the population has resulted in the acceptance of innovative ways, particularly by progressive governments (Lavinas, Barbosa and Tourinho 2001). In consequence, it is increasingly acknowledged that policies which *promote* work can be more beneficial than the policies which generate short term assistance (Standing 2007). In this respect, many experimental patterns blossomed around the world in reaction to the fact that poverty has remained constantly massive during several decades. The inefficacy of the traditional approaches has put forward that social programs, which will reach the scale and coverage needed to generate a real impact on the poor population that was historically overlooked by public policies, are necessary. Therefore, the participatory budget process emerged\(^4\) and *guaranteed minimum income programmes* for the poor population have been adopted as a way of poverty alleviation and inequality reduction attempt (Lavinas, Barbosa and Tourinho 2001).

\(^3\) For instance, approximately 19 percent of Brazil’s GDP used to be allocated to social aspects in the 1990s.

\(^4\) This process was first adopted by some left-leaning governments such as Porto Alegre (capital of the State of Rio Grande do Sul), Santo André (in the State of São Paulo), and Belo Horizonte (capital of the State of Minas Gerais).
3. SOCIAL PROTECTION

“Social protection” includes a broad set of public and private systems designed in order to protect people against risks to their subsistence and to keep them from falling into (or deeper into) poverty. These systems may take the form of insurance mechanisms which are used in the case of a shock, such as the illness of a wage earner, loss of a job, or a natural disaster. They may also take the form of regular cash or in-kind transfers given to people who suffer from chronic inabilities to secure subsistence due to age, disability, social class, or discrimination arising from the economic, social, and political systems in which they live (Adato 2008). This kind of formal social protection systems may be offered by the government, nongovernmental organizations (NGOs), or private-sector employers. Informal social protection systems, on the other hand, have traditionally been and continue to be provided by families or “communities”; however, these informal systems are generally constrained by patterns and shocks that simultaneously affect the whole family or community.

Social protection systems designed by governments and donor agencies have been trying to stimulate long-term, sustainable development processes, having the objective (and in the hope) of creating opportunities for people to get out of poverty and attain higher standards of living (Adato 2008). This can be obtained via interventions that invest in assets such as the health, nutrition, and education of children and adults, and improved social status and rights (Adato, Ahmed, and Lund 2004; Conway and Norton 2002). Social protection used to be considered as the territory of richer countries which have comprehensive social security systems and provide benefits through formal employment; however, it is increasingly being advocated as a right rather than a reactive form of relief, therefore, this form of protection is now being considered as part of antipoverty strategies in low-income countries (Norton, Conway, and Foster 2002; Adato 2008).

The value of social protection can be advocated on the grounds of ethical concepts, in other words, as a human right and the principle responsibility of the government to protect its citizens from poverty and severe deficiency. Additionally, social protection can be considered
as making contribution to growth through investments in human capital, infrastructural developments, strengthening of markets, and enabling political stability\(^5\) \((Adato 2008)\).

\(^5\) For instance, CCT programs can increase education levels, which, in turn, would lead to increased productivity \((Morely and Coady 2003)\), while a public works program can build roads or structures that support market activity, or introduce job training that improves labor-force participation and productivity \((Adato, Hoddinott, and Haddad 2005)\).
4. CONDITIONAL CASH TRANSFERS PROGRAMS

4.1 Underlying Premises and Objectives of CCT Programs

The idea of providing a minimum income to the poor segment of the population was first introduced in the 1970s, in Brazil. A different form of monetary income transfer, targeting not poor individuals but rather poor families with school-age children was launched by economist José Márcio Camargo and proposed to grant a monthly stipend equivalent to one minimum wage to all families, regardless of income, whose children are enrolled in the public primary school system. The argument for this targeted form of monetary income transfer is that limited schooling is the most important factor explaining the reproduction of poverty (Lavinas, Barbosa and Tourinho 2001). As a result, a new policy trend emerged in Latin America in the mid-1990s: the provision of cash transfers conditioned on certain behaviors of the recipients (de Britto 2004).

Conditional cash transfers (CCT) programs targeted to the poor households are used to incite beneficiary households to invest in their children’s human capital (de Janvry and Sadoulet 2006). Their premise is that families remain in poverty from one generation to the next because poor parents cannot invest adequately in their children. Decades of research have shown that attention to early child health, nutrition, and education significantly increases children’s chances of getting out of poverty later in life (Martorell 1995; Grantham-McGregor et al. 2007; Pollitt et al. 1995; Behrman 2000; Hoddinott et al. 2007). Yet increasing the availability and quality of supply-side factors often fails to make much difference when the poor cannot afford them (Ahmed et al. 2007).

CCT programs address demand-side constraints for structural poverty through an incentive scheme which combines the short term goals of other social assistance programs with long term objectives of building human capital and breaking the vicious intergenerational circle of poverty traps (de Britto 2004). In other words, they combine the traditional role of social

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6 However, this idea became a major issue in the 1990s in the national debate on combating inequalities, when Senator Eduardo Suplicy of the Workers’ Party presented a bill of law providing for a guaranteed minimum income for all Brazilian adults over 25 years of age with a monthly per capita family income less than R$240 (US$141). The proposal was to allocate a monthly stipend equivalent to 30 percent of the difference between an individual’s actual income and the above-mentioned figure, serving as a kind of national poverty line.
assistance prevailing in public programs with the newer concept of social investment (Lindert et al. 2006; Lomeli 2008). One of the underlying premises of a CCT program is the fact that financial constraints keep parents from sending their children to school, due to the opportunity cost of sending a child to school rather than to work, in addition to the direct costs of books, supplies, clothing, and transportation (Adato 2008). The other basic premise is that very poor people, for a variety of reasons, do not take advantage of the health services that may be available (Davis and Handa 2006). Therefore, by providing cash assistance conditioned on household participation in education and health services, CCT programs can play a protective and preventative role, via enabling basic consumption and preventing asset depletion while simultaneously promoting asset enhancement (Adato 2008). With this demand side perspective, CCTs attempt to more efficiently connect the basic approaches to social policy identified by Dreze and Sen (1991): protection from deprivation and promotion of capabilities.

CCT programs deliberately target the poorest and most vulnerable groups. They provide money to poor families contingent on investment in human capital (Ahmed et al. 2007). By targeting cash transfers to poor households, CCTs seek to alleviate short-term poverty. By linking the transfers to investments in human capital, they address long term poverty (Ahmed et al. 2006). In this manner, CCT programs intend to respond two interconnected problems: the failure of universal social policies in reaching the poor, particularly in the areas of education and health, and the failure of the social protection systems in use to provide effective protective mechanisms during crises (de Britto 2004).

7 Since the most abundant asset of the poor is labor, the usual coping strategy for economic shocks among poor households is intensifying female and children participation in the labor market. Both might result in leading to school drop-out, either because the child needs to engage in full-time income-earning activities herself or because, in the absence of adequate childcare services, older children must leave school to look after younger siblings (IDB 2000).

8 CCT programs may even play a transformational role. For instance, under the cases in which educating girls provides them with the opportunity to alter their future relationship with male partners. Moreover, female education can support further female education.

9 This component can be seen as promoting longer term opportunities which go beyond the shorter duration of the cash transfers (Adato, 2008). However, conditionality feature of CCT programs is highly debated. For discussions regarding the benefits and drawbacks of conditional transfers, see, for instance, Adato and Bassett (2007), Samson (2006), and de Brauw and Hoddinot (2008).
4.2. International Experience on CCT Programs

CCT programs were originally developed in Latin America and the Caribbean where they were pioneered by some small-scale programs initiated at the local level; however, they became widespread in the region after the severe macroeconomic effects of the Asian Crisis\(^\text{10}\). The first large scale program that incorporated education and health components was Education, Health, and Nutrition Program (Progresa) of Mexico, launched in 1997\(^\text{11}\) (Rawlings and Rubio, 2005). The major underlying presumption of CCT programs suggests that supply side of social services for education and health is present and that promoting demand via income effects is insufficient to produce major changes in human capital investment (Bourguignon, Ferreira, and Leite 2002). Therefore, a condition which transforms the income effect into a price effect shall be ascribed to the cash transfer (de Janvry and Sadoulet 2006). Well known programs following this approach include Program de Educación, Salud y Alimentación (Progreso) in Mexico, Bolsa Escola and Bolsa Familia in Brazil, Familias en Acción program (FA) in Colombia, Red de Protección Social (RPS) in Nicaragua, Programa de Asistencia Familiar (PRAF) in Honduras, the Program of Advancement through Health and Education (PATH) in Jamaica, Food-for-Education in

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\(^{10}\) A school grant (Bolsa-Escola) programme, based on a guaranteed minimum income, similar to a family allowance and conditioned on school attendance, was primarily applied in a successful way during the administration of Federal District Governor Cristóvam Buarque, which began in 1994. At the end of his governance in 1998, the Bolsa-Escola Programme included 26,000 families, some 80 percent of the potential target public, calculated according to the poverty line of one half the minimum wage per capita (US$38). For the first time in Brazil, a social programme had reached the sphere and coverage needed to form a real impact on the poor population historically unnoticed by public policies. The monthly allowance of one minimum wage (R$130 or US$76), a direct monetary income transfer and a high figure in accordance with Brazil’s social assistance policy standards (traditionally based on the in-kind distribution of foodstuffs and patronizing “protection”), made it feasible to move ten thousand families out of acute poverty. It also helped target social spending on measures to fight poverty, and therefore expanding their redistributive effect (between 1995 and 1997, the per capita amount increased from R$113 or US$78 to R$279 or US$168, while per capita social spending remained around R$450, or US$ 281). Finally, it decreased the school drop-out rate to zero among children eligible to the school grant, and reduced their repetition rate to below the average for the national capital as a whole. All of this was achieved with less than 1 per cent of the Federal District’s annual budget fund (Lavinas 1998; Lavinas, Barbosa and Tourinho 2001).

\(^{11}\) In March 2002, the name Progresa was changed to Oportunidades under President Vicente Fox and some of the objectives and operational features of the program were changed as well.
Bangladesh, Beca Futuro in Bolivia, Bono de Desarrollo Humano in Ecuador, and Subsidio Unico Familiar in Chile\textsuperscript{12} (Ravallion and Wodon 2000; Skoufias 2000; Morley and Coady 2003; Rawlings and Rubio 2005, Ahmed et al. 2007).

Some CCT programs such as in Brazil, Mexico and Argentina were designed domestically by national governments; however, direct involvement of international financial institutions has been increasing over time (Aguiar 2006; Golbert 2006a; Gomez-Hermosillo Marin 2006). UN agencies and development banks indicate on a consistent basis that CCTs are among the best social protection practices. They supply not only rhetoric but also practical support given the fact that significant funding has been provided to the distribution of program experiences, widening of existing practices and the reproduction of similar programs (de Britto 2004). In fact, International Development Bank (IDB) alone provided $4.5 billion support between the years 2000–2005, a period in which the largest number of CCT programs were being created in Latin America (Lomeli 2008; IADB 2006). Depending on the interpretation, CCT programs symbolize either a new approach to combat poverty, which follows market principles (Rawlings 2005), or an alternative minimalist social policy approach (Solano 2007). Some observers argue that CCT programs lead to greater effectiveness, whereas others indicate that they represent a decrease in the commitment to social justice, due to the fact that they focus only on the most extreme cases of poverty\textsuperscript{13} (Lomeli 2008).

Although CCTs differ in design across countries, they are typically qualified by a number of broad features\textsuperscript{14}. Components such as gender, human capital, community participation, and

\textsuperscript{12} A second group of programs provide education grants only, covering Programa de Erradicaçao do Trabalho Infantil (PETI) in Brazil, and Agente Joven. A third category, being focused on health and nutrition goals, encompasses Bolsa Alimentação and Cartão Alimentação of Brazil (Rawlings 2004).

\textsuperscript{13} For arguments stating that CCT programs, in general, are more respectful of market principles than the other supply-side interventions see Levy (1991), Levy and Rodriguez (2005), Braun and Chudnovsky (2005), Rawlings (2005), Bouillon and Tejerina (2006), Cohen and Franco (2006a), and World Bank 2007.

\textsuperscript{14} Lomeli (2008) states that CCT programs, in general, have ten prominent features. These are as follows: First of all, despite the fact that CCT programs involve demand side interventions, they are “compatible with the logic of the market”. Second, lack of investment in human capital in terms of education, health, and nutrition is one of the main reasons for the reproduction of poverty over several generations, which is a primary premise of CCT programs. Stated differently, the inadequacy of these components come together to create a vicious circle of poverty. Essentially, children from poor households face additional disadvantages which lead to lower future productivity and depressed future incomes (Morley and Coady 2003). Third, CCT
empowerment are all incorporated, to varying degrees (de Britto 2004). However, high administrative requirements and major political economy issues prevail within the structures of the programs.

Initial evaluations of these programs have indicated positive impacts on school enrollment and nutrition aspects (Morley and Coady 2003; Guerrero 2001; Sedlacek et al. 2000). There is significant evidence of success from programs implemented in Brazil, Colombia, Mexico, programs combine the traditional sense of social assistance with the newer concept of social investment. In the short run, they increase the income of poor households through direct transfers. In the long run, they stimulate investments in human capital by offering economic incentives and conditional rewards for continued school attendance of children. Fourth, CCT programs have a strong gender emphasis; in accordance with this aspect, the mother of the household is determined as the official program “beneficiary” (Adato 2008). Given the fact that mothers determine the nutrition, health and education of their children, they have key roles in the interventions made in order to break the vicious circle of poverty (Cohen and Franco 2006b; Lomeli 2008). Fifth, interventions made by CCT programs are concentrated on carefully determined points in the life cycle, which can have significant impacts on the rest of the lives of the individuals. Sixth, programs aim at changing the behavior of poor households by conditioning transfers on particular outcomes, such as persistent school enrollment, certain minimum rates of school attendance, generally around 80%, and periodic health controls. The proponents of conditioning the transfers argue that this main component enables programs to “address market failures” while at the same time internalizing the positive externalities accumulated by the investments in human capital (Lomeli 2008; Rawlings 2005). Seventh, CCT programs intend to encourage education not only by covering the direct costs of schooling, but also by compensating the opportunity costs of sending children to school instead of work. The idea behind CCT programs assumes that the benefits of education are permanent because they provide the children with the tools which will enable them to move out of poverty (Morley and Coady 2003; Lomeli 2008). Eighth, CCT programs canalize their funds to the neediest households because most social programs have budget constraints (Coady et al. 2004). They use a combination of different approaches in order to identify the beneficiary households. These approaches include proxy means testing (Chile was the first country to use this method), geographic poverty clustering, and community based targeting as well as self selection (Rawlings and Rubio 2003; de Britto 2004; Braun and Chudnovsky 2005; Rawlings 2005; Villatoro 2005b; Bouillon and Tejerina 2006; Lindert et al 2006; Cohen and Franco 2006a; Lomeli 2008). Ninth, national governments seek to form a direct relationship with the beneficiaries by transferring resources directly to the poor households instead of using bureaucratic intermediaries. This aspect of CCT programs, at least in theory, suggests an apolitical and nonparty approach (de Britto 2006; Levy and Rodriguez 2005; Lomeli 2008). Lastly, CCT programs often include an evaluation design with experimental or quasi-experimental features. A study conducted by the World Bank (2004) indicates that Mexico was the pioneer country in this sense by concentrating on real “impact measures” and the evaluation of Progresa-Oportunidades was far beyond than being just a simple formation of summary indices.
and Nicaragua indicating increase in enrollment rates, improvement in preventive health care and raise in household consumption (Behrman and Hoddinott 2000; Behrman, Sengupta, and Todd 2000; Gertler 2000; Hoddinott, Skoufias, and Washburn 2000; Maluccio and Flores 2005; Morley and Coady 2003; Morris 2005; Schultz 2000a-c; Skoufias 2005; Yap, Sedlacek, and Orazem 2001). But, as school attendance can often be integrated with work, the effects on child labor seem smaller (Bourguignon et al. 2002). The impact on poverty reduction is not very clear. The research to date has been more successful in determining short term impacts; however, the magnitude of effects on poverty rates varies according to the program (Morley and Coady 2003). Future earnings are mainly determined by the quality of the education received, rates of employment, absorption of skilled labor in the economic structure and general rates of return to education; therefore, higher educational attainment does not necessarily generate higher earnings (CEPAL 2002; Bourguignon at al. 2002). The difficult issue is how to measure the longer term effects on the incidence and intensity of poverty (Lomeli 2008). It is generally concluded that CCT programs are more effective in reducing the severity (depth) rather than the incidence of poverty; i.e. transfers succeed in decreasing the gap between household income and the poverty threshold; however, do not raise households above this line (Draibe 2006; Cortes et al. 2007).

15 However, there are also some studies indicating that CCT programs were effective in reducing child labor as well. Maluccio and Flores (2005) and Parker and Skoufias (2000) are two examples.

16 Given the amount of transfers in comparison to the family income, in the short term, CCT programs may raise the income of poor households via transfers of cash, goods, and services (Lomeli 2008).

17 The effects of CCT programs on long-term poverty reduction cannot be measured yet. This is mainly due to the fact that the first beneficiary children who received transfers in the mid-1990s have recently started to graduate from school and participate in the labor force. It should also be noted that massive CCT interventions were made mostly during the past five years. Therefore, only simulations of possible future incomes are used as evidence. Even the estimates do not indicate whether the beneficiaries, with the foreseen increase in their future income, will be able to move out of poverty or not. In addition, the assumptions made in such simulations are mostly untested. Furthermore, it is suggested by some researchers that, under the present circumstances, more years of schooling does not necessarily translate into higher future incomes, especially in Latin America. For more information regarding the growing uncertainty about the impact of education on wages, due to the increase in the levels of schooling throughout Latin America, see Villatoro (2005a).

18 However, Morley and Coady (2003) argue that assessing the impacts of CCT programs simply by making comparison between poverty indicators measured before and after the implementation of programs is wrong. They state that the comparison should be made between treatment and control groups. When such a
5. PROMINENT FEATURES OF THE CCT PROGRAM IN TURKEY

5.1. Social Risk Mitigation Project and CCT

Turkey is one of the countries having the most corrupted distribution of income\(^{19}\) (Zabci 2006). Therefore, the fight against poverty has become one of the priorities of social welfare policy in the last decades. There was an indirect focus before the 1980s, which aimed to develop the level of income and living standards of the poor through rapid growth. After 1980, however, an expeditious increase in poverty rates generated a direct approach, whereas the severe economic crises of 2000-01 made the poverty problem one of the basic elements of the social protection policies of Turkey\(^{20}\).

The Government of Turkey has been implementing a number of social assistance programs, in the forms of delivering cash and in-kind benefits, and social services to poor individuals and families, and to individuals with specific needs (Ahmed et al. 2007). The Social Solidarity Fund (SYDTF) and the Social Services and Child Protection Organization (SHCEK) were

\(\text{19} \quad \text{A report prepared by TUSIAD (the Turkish Industrialists and Business Association), entitled as \textit{Distribution of Individual Income and Poverty in Turkey – A comparison with European Union}, which was published on 6 December 2000, indicated that Turkey has a much more unequal structure than the other European Union countries. According to the report, Turkey leaves Portugal, which is the country with the most unequal structure among EU countries, behind regarding unequal income distribution. The report stated: ‘Turkey’s income distribution is 28% according to the Gini coefficient and 123 times more unequal than Portugal according to the Theil index (TUSIAD, 2000).}
\)

\(\text{20} \quad \text{The 2000-2001 crises of Turkey: In 1999, an exchange rate-based stabilization program was initiated by the Turkish government to decrease inflation and take the unsustainable public-debt accumulation under control (Akyuz and Boratav, 2003). The program seemed to be successful for the following nine months but problems started to arise in August 2000 and an IMF bailout was required to pursue the program. However, sky-high overnight interest rates (four digit levels) and depletion of foreign exchange reserves, combined with massive attacks on the currency and rapid exit of capital, resulted in the collapse of the system in February 2001 (Ozatay and Sak, 2002). Consequently, on account of the negative effects experienced both on the demand and supply sides of the economy, currency peg had to be abandoned and free floating regime was initiated real GDP decreased by 7.5%, inflation rate increased to 73.2% in 2001, and unemployment rate rose to 12.3 \% after the crisis, which clearly indicate that this was the most severe economic crises in the history of Turkish economy (Yilmazkuday and Akay, 2008).}
\)
founded as the two main government institutions coping with social risk alleviation, as well as municipalities, nongovernmental organizations such as development foundations, and professional associations.21

The Solidarity Fund has been one of the major “social risk mitigation” institutions in Turkey since its establishment in 1986.22 The SYDTF provides assistance to vulnerable individuals or households in urban and rural areas through its affiliated Social Solidarity Foundations (SYDVs) which are located in each province and sub-province. SYDVs supply food, heating, education and health support to the very poor and to vulnerable households. In addition, SYDTF has been supporting employability training and income generating subprojects. Currently, there are 931 SYDVs in Turkey which receive a regular monthly budget from the SYDTF in accordance with an index based on population, human development, assets, expenditures, and income (Kudat et al. 2006).

Although SYDTF has been assisting poor households in various ways for more than twenty years, Turkey has not had a well-targeted and designed Social Safety Net (SSN) program for the vulnerable households (Ahmed et al. 2007). The earthquake and economic crises of 2000-01 led to the realization of the need to take measures against the destructive social and economic impacts of unemployment and poverty. One of the measures was reflected as an increase in the share of the social expenditures on the 2002 budget. Another significant measure was the “Social Risk Mitigation Project,” which was developed as a way to reform the SSN system. The SRMP is a program carried out directly to combat poverty in Turkey.24

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21 Different ministries and institutions in different regions implemented other social benefit programs as part of rural and regional development programs as well as in response to natural disasters.

22 The Social Solidarity Fund was established under law No. 3294. The objective of the law was defined as helping people in need and taking measures to improve social justice. As Senses (1999) has mentioned, the Fund was founded seven years after the start of a stability and structural adaptation program, which indicates a relationship between them (Zabci, 2006).

23 Social Risk Mitigation Project was signed on 11 September 2001 between the Turkish government and the World Bank and was taken into effect on 28 November 2001 after being published at the Official Gazette. Social Solidarity Fund was the implementing institution and the World Bank provided a 15-year loan of $500 million with a grace period of five years.

24 SRMP was designed to reduce, over the period 2002-2006, the negative effects of the 2000-01 crises on the poorest individuals and families and to improve their ability to cope with similar risks in the future. The crisis of February 2001 in Turkey caused a social risk environment in which the poor cannot survive on their own.
It had two main objectives: an adjustment portion and an investment portion. Investment portion consisted of three elements:

1. Institutional development: developing the capacity of state institutions which provide basic social services and social assistance to the poor,

2. Conditional Cash Transfers (CCT), and

3. Local Initiatives: increasing the income promoting and employability opportunities of the poor.

The purpose of the CCT program was implementing a social assistance system targeted to the poorest six percent of the population conditional on the participation in basic health and education services (Ahmed et al. 2007). The General Directorate of Social Assistance and Solidarity was responsible of the implementation of the CCT program. The initial program targeted 1.1 million beneficiaries, and had a budget of $360 million (World Bank 2001).

5.2. CCT Targeting Mechanism

The CCT program in Turkey uses administrative targeting at the national level to identify households with target group members, namely children aged 0-6 years, school-age children 6-17 years, and child-bearing age women. The program addresses the poorest of the poor, defined as the bottom 6 percent of the population in the income distribution.

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In addition, “danger of collapse” of the human capital was one of the most-frequently addresses issues and the premises of the Project. The social evaluations noted that the poorest households depend on the income of their children as a means to cope with the negative impacts of crises. However, this is one of the main reasons which speeded up the collapse of human capital in Turkey. 1999 Child Labor Survey of ILO supported this argument by indicating that there were about 1.5 million children working in Turkey.

The adjustment portion aimed at providing immediate assistance to the poorest segment of the population affected by the crises (social risk mitigation).

General Directorate of Social Assistance and Solidarity worked in cooperation with the Ministry of Health and the Ministry of Education for service delivery and monitoring so that the attendance records of CCT beneficiaries could be reported on a regular basis by the local schools and health centers directly to the Foundations.
“Proxy means testing” method is used to identify the poorest households. This approach is related with the indicators which are highly correlated with household income or total consumption expenditure, but at the same time easy to collect, observe and verify (Ahmed et al. 2007). Points are determined for all selected indicators, and the eligibility for being a program beneficiary is designated on the basis of a total score, as a proxy for household income (Kudat et al. 2006). Regression equations are estimated in order to predict per capita household consumption expenditure by using the data from the Household Income and Expenditure Survey conducted in Turkey in 2001. These equations give weights (points) to the individual indicators. These weights are assigned by the values of the coefficients of the selected indicators. Total scores are calculated for the respective households by multiplying the values of the individual indicators with their coefficient values, and then adding them up. In this way, the proxy means testing method uses the information regarding all of the selected indicators to identify the poor and the non-poor households. In other words, proxy means tests estimate household poverty levels as a criterion for program participation (Rawlings and Rubio 2005).

5.3. Beneficiary Targeting

The target population of the CCT program includes households who cannot afford to send their children to school or cannot pay regular health visit for their children, and pregnant women who cannot go to regular health controls or cannot give birth at hospitals. Families

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27 The first large-scale use of proxy means testing generated in Chile in the late 1970s and 1980s, in a program entitled as the Ficha CAS (card for social assistance). Since 1994, Mexico, Costa Rica, Columbia and Jamaica have adopted proxy means tests for some of their social assistance programs.

28 In countries such as Turkey where a large informal sector prevails, verifying true household money income can be very difficult and administratively very costly. Additionally, in Turkey and other countries with similar demographic patterns, a very significant part of household food consumption comes from food grown on private garden plots. Therefore, estimating the true value of home-produced goods can be challenging, since typically, they are produced with “costless” family labor and their quality may be different than, for example, the food items produced for sale. In proxy means tests, rather than trying to measure total income perfectly, information is based on the items that are much easier to measure and verify, like the number of children in the family, etc. These variables should be the ones which are correlated with poverty in the country, and which ideally are easy to measure and hence require little administrative cost to verify.
without any social insurance, expecting babies, having children at age 0-6 and/or school-age children are eligible to apply to the program.

Eligible families are determined by a proxy means scoring formula derived from a model which estimates per capita household consumption expenditure as a function of the variables such as household demographics, location, housing and assets. Data regarding these variables are required from the applicants in the application form. The system calculates the proxy means score of the applicants after the data are entered. Applicants are eligible for being CCT beneficiaries\(^{29}\) if the calculated score is below the predetermined cut-off score\(^{30}\) (Ahmed et al. 2007).

5.4. Payments

CCT payments are made through the branches of Ziraat Bank, as a result of the protocol agreement signed between SYDGM and the General Directorate of Ziraat Bank. An agreement was also signed with the General Directorate of Postal and Telegraph Organization to make payments of the beneficiaries who live in districts where no Ziraat Bank branches exist or where it is difficult to make payments through one branch of Ziraat Bank due to large number of beneficiaries.

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\(^{29}\) Beneficiary status can be sustained under certain conditions. As the supports provided by the CCT program should depend on positive behavioral changes of the beneficiaries, the maintenance of beneficiary status is based on the following conditions: Children receiving education support shall attend 80 percent of the total school days and not repeat the same grade more than once. Health support beneficiaries are subject to three conditions which were defined as follows:

- Children at 0 to 6\(^{th}\) months require regular check-ups every month.
- Children of 7\(^{th}\) to 18\(^{th}\) months require regular check-ups every two months.
- Children of 19\(^{th}\) to 72\(^{nd}\) months require regular check-ups every six months.

The condition for the women who receive the pregnancy support:

- Regular health check-ups are required every month until the birth.
- Birth shall be given in hospital.
- Post-birth check-ups are required following the birth.

\(^{30}\) Depending on the available budget of the CCT program, the Proxy means cut-off score (COS) which determined the level of poverty that would qualify for the program was set at 10,249.
CCT program’s foremost objective is to increase school attendance rates, for the poorest Turkish children in general and for secondary-school girls in particular and to decrease dropout rates\textsuperscript{31}. Reducing discrimination against girls in education is the underlying premise of this major objective, which is reflected with the higher transfers for enrollment of girls versus boys\textsuperscript{32}. Grants are higher for girls to provide an added incentive for reversing a pattern of unequal gender participation\textsuperscript{33}. In addition, education grants are higher for secondary school than for primary school to reflect the increasing opportunity cost of work as children grow older. The payments are made directly to the mothers in order to strengthen the situation of the women within the family and the society. Another feature of the payments is that the value of the grant decreases proportionally according to the number of children in the family.

As of 2009, monthly payment amounts for the beneficiaries of the education support are:

- 20 TL for boys attending primary school,
- 25 TL for girls attending to primary school,
- 35 TL for boys attending to secondary school, and
- 45 TL for girls attending to secondary school\textsuperscript{34}.

Total funds distributed for education, as well as the number of beneficiary students have been constantly increasing since the initiation of the program. 1.6 million TL was allocated for 59,000 children in 2003; 67 million TL for 697,000 children in 2004; 180 million TL for

\textsuperscript{31} Descriptive results of the final interim report of IFPRI (2006) based on the household survey data suggest that net enrollment rates, generally considered better indicators of educational attainment than gross rates, are high for children at the primary school (grades 1-8), but quite low at the secondary school (grades 9-11). For the entire sample of education beneficiaries, around 91 percent of all children (boys and girls) aged 6-14 are enrolled in primary school. However, only 48 percent of all children aged 14-17 are enrolled in secondary school. While boys overtake girls in terms of net enrollment at both levels of education, the gender gap is much larger in secondary school enrollment.

\textsuperscript{32} Especially, the rates of progression from primary (grade 8) to secondary (grade 9) level of education are relatively lower for girls than for boys.

\textsuperscript{33} It should also be noted that girls are more likely to drop secondary school than boys, which is another reason of the higher grants.

\textsuperscript{34} 1 US dollar = 1.49 TL
1,266,000 children in 2005 while 240 million TL of funds were allocated to 1,563,000 students in 2006. In 2007, 1,757,187 students in total benefited from education grants and 225.5 million TL was distributed. 293.51 million TL was distributed for education support in 2008 and the active beneficiary students registered at the system increased to 1,951,42035.

35 The amount of funds distributed for the health component has been increasing as well. The total amount provided to children was 0.80 million TL in 2003, 16.67 million TL in 2004, 61.29 million TL in 2005, 103.57 million TL in 2006, 95.94 million TL in 2007, and 118.25 million TL in 2008 while the number of beneficiary children increased from 24,644 in 2003 to 1,026,725 in 2008.
6. CRITICAL EVALUATION OF THE CCT PROGRAM IN TURKEY

Conditional cash transfer programs promote long-term human capital accumulation as a fundamental objective, recognizing its role in breaking the intergenerational transmission of poverty (Rawlings and Rubio 2005). In accordance with this goal, the programs focus mainly on children as the recipients of the human capital investments provided by the program and closely monitor compliance with conditions as a prerequisite for receiving the transfers. Consequently, implementation of CCT programs has been supported by systematic efforts to measure their efficiency and to understand their broader effects on household behavior.

In this section, Turkish experience in setting up the CCT program and evaluating its efficiency is reviewed. More precisely, this part of the paper aims at evaluating conditional cash transfers program in Turkey from two aspects:

First, CCT in Turkey is analyzed with respect to its design features. Determining the drawbacks and deficiencies of design features and presenting possible solutions would improve the construction and thereby the results of the program via leading to better understanding. This is of great importance to relatively newer programs such as CCT Turkey which has been fully operational only since 2005.

Second, the section draws from program documents provided by competent authorities and evaluation reports which were prepared by research institutions. As stated above, studies conducted to measure CCT program efficiencies have become complementary to those programs. These systematic attempts of impact evaluation embody significant value particularly in understanding household reactions and in designating relevant policies. Taking into account their significance for subsequent applications of the program, these reports are critically evaluated in order to draw conclusions about their impacts on policy decisions.

6.1. Limitations to Impact Evaluation of CCT Program in Turkey

The main studies carried out regarding the evaluation of the Turkish CCT program are reports prepared by international institutions (such as IFPRI) and submitted to the Turkish
Government. These studies specify the major limitations to the program and its implementation. Various important factors are influential on the assessment of program’s impact. These can be specified as follows: (1) the relatively recent initiation of program implementation; (2) late and irregular payments to beneficiaries; (3) lack of beneficiary awareness on program conditions such as amounts to be paid, payment intervals, etc.; (4) existence of a number of complementary programs in Turkey which have effects on the same beneficiary group, especially for education; and (5) the difficulty of acquiring MIS data that would be easily used for evaluation purposes (Kudat et al. 2006). These factors and their impacts are already discussed in depth by the existing literature; therefore this paper does not interpret these issues. Instead, several different arguments which are equally significant are addressed.

6.2. Evaluation of the Program Design and Impact-Assessment Studies

6.2.1. Impact Evaluation Methods

Use of Non-Randomized Approaches: Less Methodologically Robust

Program impacts are measured by assessing whether a program changes the mean value of an outcome variable among participants compared with what the outcome would have been had they not participated (Rawlings and Rubio 2005). In other words, comparing beneficiary outcomes to those outcomes would have been obtained the program not been implemented is necessary. This requires constructing a counterfactual measure of what might have been experienced without the program. The most effective way to form a valid counterfactual is randomly selecting beneficiaries from a pool of equally eligible candidates. In this way, average outcomes of not randomly selected individuals should provide an unbiased estimate of what experiences the beneficiaries would have had without the program.\(^\text{36}\)

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\(^{36}\) This approach has been implemented by IFPRI in its evaluation of several CCT programs such as Programa de Educación, Salud y Alimentación (Progresa) in Mexico (Skoufias, 2005), Programa de Asignación Familiar (PRAF) in Honduras, and Red de Protección Social (RPS) in Nicaragua (Maluccio and Flores, 2005). In all of these studies, baseline household surveys were carried out before the program started and
A good randomized or experimental evaluation enables beneficiaries and non-beneficiaries, on average, to have the same observed and, more significantly, unobserved characteristics. As participants are selected randomly, any differences between the groups arise due to chance, not selection. Thus, a credible basis for comparison which is freed from selectivity concerns is formed, and the direction of causality is certain. For this reason, randomized designs are generally accepted as the most reliable evaluation methods (Freeman and Rossi 1993; Grossman 1994). Another advantage to a randomized design is that program impacts can be easily calculated, explained and understood (Ahmed et al. 2006).

However, a randomized approach for the Turkish CCT program was not applicable. As the program had already having been implemented at the time the baseline survey data were collected and it is national, counterfactual construction was further complicated. This implies that there were not directly obvious comparison groups in areas without the program. This resulted in the usage of relatively weaker, non-randomized approaches for impact assessment. These methods rely on assumptions which are difficult to verify (Burtless 1995). Unobservable characteristics of participants such as motivation can significantly influence program impacts; however, they are usually not addressed in evaluations which use non-randomized designs. Therefore, these approaches are often regarded as less methodologically robust (Rawlings and Rubio 2005). This applies to the results of Turkish CCT program impact evaluation as well.

Two major statistical techniques are used to form a comparison group in CCT Turkey impact evaluation: regression discontinuity design and a form of matching. Both techniques are based on two key design elements of the program: the proxy means targeting model with its eligibility cut-off and the application process. In such use of RDD, program impacts are measured as the difference in average outcomes between two sets of program applicants: who scored “just” below the proxy means cut-off point and who scored “just” above it. The applicants who scored just above the line will not be beneficiaries, but should have very similar features to those who were eligible. This is due to two reasons. First, proxy means models do not differentiate well between households with very similar levels of welfare,
indicating that households just above and just below an arbitrary cut-off point may not be significantly different. Thus, program eligibility for households in the neighborhood of the cut-off score may be considered quasi-random. Second, both types of households applied to the program, which is assumed to eliminate a common source of selectivity bias and to suggest similar unobserved characteristics between the two groups.

Two IFPRI reports, namely Ahmed et al. (2006) and Ahmed et al. (2007) use RDD to estimate the effects of the CCT program in Turkey. Similar with other assessments, proxy means score is a significant but imperfect predictor of treatment indicated with the fact that about 9 percent of households do not “comply” with their assignment. A conservative and standard approach to the problem of imperfect compliance could have been used in the initial assignment by the proxy means to calculate intent-to-treat estimates of program effects, or to calculate late estimates by instrumenting program participation with the eligibility rule based on the proxy means. However, the authors simply drop those groups of “ineligible beneficiaries” and “eligible non-beneficiaries” from their sample. This is done, despite the fact that, as they acknowledge, “…dropping those households from the sample for estimation contributes potential bias to the impact estimates…” (Ahmed et al. 2007, pp. 123).

**Possibility of Manipulating Scores**

Another potential disadvantage of RDD approach is that, as the value of threshold becomes better known, households or sympathetic local program officials become more intended to manipulate scores in order to place some families, who would normally have been ineligible for the program, “just” below the eligibility cut-off score. Since this kind of manipulation is selective in the sense that it affects some households more than others (presumably on the basis of unobservable household characteristics), it could introduce important biases into estimates of program effects. This may be a significant problem for Turkey where several administrative problems were experienced due to the short time interval between the design

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37 See Appendix 1 for the results of RDD estimates on schooling.
and initiation of the program and continue to be experienced because of the program’s wide range.\(^{38}\)

**‘Local’ Estimated Impacts**

In addition, the major shortcoming of RDD evaluations is the fact that the estimated impacts are “local”, which apply only to households around the eligibility threshold. However, there appears to be considerable evidence with respect to the heterogeneity of CCT treatment effects (Maluccio and Flores 2005; Filmer and Schady 2006). On this account, it is not certain whether these estimates are relevant for other households whose proxy means value places them well below the threshold.\(^{39}\)

**External Invalidity of Small-Scale Project Findings**

One of the main constraints of impact evaluation studies is the fact that they are generally based on small-scale pilot projects. For a variety of reasons, it is uncertain how well the findings of these assessments estimate the impacts of large, nationwide programs:

- Households who participated in the pilot programs may be aware that they are taking part in an experiment, and this may cause them to act differently – for instance, they may be more likely to consent to the conditions or more open to the societal concerns of the program;

- Administrative staff of these pilots may be highly motivated in order to prove the success of pilot programs. As a consequence, these small scale pilots may not be

\(^{38}\) Institutional issues such as staff shortages, insecurity of the staff concerning the continuation of the program, and the inefficiencies resulting from accessing the web-based system are serious implementation challenges.

\(^{39}\) This heterogeneity is perhaps less of a concern for the evaluation of Turkish program due to the fact that the CCT reaches only to a very small fraction of the population, around 6 percent, than larger scale programs such as in Ecuador where CCT attempts to assist 40 percent of the population. However, it should be noted that although the initial CCT program in Turkey targeted 6 percent of the households, it is widening every year.
an accurate representative of how well a much larger program which is implemented by average staff would work in practice.

CCT Turkey is nation-wide and a pilot program was not implemented. However, a similar problem arises mainly due to the small-scale household survey. The program assists approximately 1.9 million education beneficiaries and more than 1 million health beneficiaries as of 2009; in total, the program provides support to more than 3 million beneficiaries and their families which indicates around 12-13 million individuals. However, CCT Turkey impact evaluations are based on the data from “Evaluating the Conditional Cash Transfer Program in Turkey: 2005-06 Household Survey” which consisted of 2,905 households. This indicates the fact that the dataset of the impact evaluation studies may be too small in order to provide generally representative results. In other words, the assessments of small-scale samples may provide precise estimates of the impacts of those pilots, but the external validity of the findings may be, to a certain extent, open to question. Naturally, efficient use of limited resources requires accurate estimates of program impacts, which is challenged by this problem.

6.2.2. Program Design

Data Collection (Quantitative Methods)

In Turkey, surveys collected information on demographic characteristics and socioeconomic features of applicants which included, inter alia, school enrollment, continuation, and completion, awareness of the CCT program conditionality, targeting accuracy, costs of education, occupation and employment, assets, food and nonfood expenditures, health and immunization status and economic shocks (Adato 2008). However, some additional types of quantitative data which were used in other CCT assessments were not collected in Turkey. For instance, the IFPRI evaluation of Progresa in Mexico included the data collected by school, clinic, and nutrition surveys, together with school and clinic administrative data, and student achievement test scores (Skoufias 2005). The Mexican assessment also included an evaluation of operations which used surveys and observation checklists to determine the quality of CCT service delivery and administration (Adato, Coady, and Ruel 2000). In this respect:
Given several limitations of survey methods such as the necessary briefness of questions and the use of proxies which are generally blunt measures, additional types of data would have enabled to better quantify the impacts on key indicators targeted by the program.

Furthermore, having different sets of data could have enabled different impact evaluations. For instance, an analysis of the Female Stipend Program in Bangladesh used household and administrative data in order to separately estimate program effects (Khandker, Pitt, and Fuwa 2003). The authors showed that the estimates of program effects on girls’ enrollment are similar using both sources of data; therefore, they could support their findings.

**Integration of Country-Specific Options for Participation**

CCT programs are administratively centralized because their complexity necessitates standardization; therefore, they offer fewer roads for community participation than many other development interventions. But, of course, they affect communities—positively or negatively—depending on their design and implementation (Adato and Hoddinot 2007). Programs, for instance, in Brazil, Colombia, Honduras, and Mexico include solutions in order to integrate different types of “local input” into their implementation:

- There is a beneficiary feedback system in Mexico.
- Brazil includes a system of local input into targeting.
- Honduras uses a form of school-based parents’ organizations and quality improvement teams for health services, and
- Mother assemblies are formed in Colombia.

Although data-based centralized targeting has generally been successful in reaching the poor and avoiding political manipulation at the local level, it has also often generated displeasure within communities particularly when people do not understand the targeting criteria, perceive it as unfair, or do not have access to a functioning appeals mechanism. CCT in Turkey includes an appeal mechanism, but given the enormous number of applicants and budget of the program, it was not even possible to include all households within the bottom 6 percent of the population. Therefore, exploring country-specific options for participation
could lead to a program which is even more effective in achieving its primary goals, while increasing collective and individual empowerment (Adato and Hoddinot 2007).

Current Levels of Specific Human Capital Outcome: A Shift in Priorities

With a proven track record, CCT programs are powerful strategies not only in alleviating poverty, but also in improving several educational, health-related, nutritional, and other welfare related outcomes. That said, CCT programs are not feasible in every country, and countries should not necessarily implement identical programs. First of all, current levels of specific human capital outcomes should be considered while assessing whether a CCT program is appropriate and determining its design features. For example, if enrollment rates of primary school children are already high, it makes little sense to condition transfers on primary school enrollment. On the contrary, greater scope exists for a CCT program addressing primary level education in a country with lower rates of enrollment.

RDD estimates suggest that the CCT program has no positive effect on primary school enrollment rates. This is mostly due to the already high enrollment rates at that level of education\(^40\). For this reason, transfers provided to many parents with primary school-age children were not efficient in the sense that they could not change human capital investment behavior. Stated differently, most of these parents would have sent their children to primary school even without the CCT assistance. This reveals that an approximately revenue neutral \(\text{change}\) in the program that would increase the grant for secondary school children while decreasing for the primary school children would have a substantially larger effect on enrollment of the latter, while having minor effects on the former (Attanasio, Meghir and Santiago 2001).

\(\ldots\text{this argues for shifting program resources towards supporting additional increases in secondary school enrollment. The extent of this}\)

\(^{40}\) Since 1970, Turkey had tried to increase the duration of primary or basic education from 5 to 8 years. The Eight-Year Compulsory Basic Education Law was finally passed in 1997. The current structure of the Turkish education system was constructed in 1997-1998 school year, with 8-years of compulsory primary education for children aged 6 to 14. Upon completion of the 8-year primary school cycle, students may continue to secondary school, which is four years in duration (World Bank 2005a; World Bank 2005b)
shift in priorities should be managed to reflect the relative social returns to additional improvements in primary versus secondary school participation... (Ahmed et al. 2007).

Necessity of Complementary Strategies (The Sufficiency of CCT Program as a Poverty Reduction and Human Capital Accumulation Strategy) and Alternative Program Designs

Conditional cash transfer programs, with their current designs, are important poverty reduction and human capital accumulation strategies aiming to improve the health, nutrition, and education status of young children in the short term and their income-earning potential in the future; ultimately reducing the possibility they will remain poor later in life. CCT programs address the poorest of the poor and extreme poverty of these households requires longer-term assistance. This indicates the fact that other complementary strategies are necessary (for people at other stages of the life cycle)41.

CCT program in Turkey provides cash transfers to primary level (grades 1-8) and secondary level (high school) students. Impact evaluation studies have proven that transfers do have impacts on secondary school enrollment rates, but they are not enough. For instance, RDD estimates of Ahmed et. al (2006) show that CCT program raises secondary school enrollment for girls by 10.7 percent. Although being a serious rate, this increase is not enough given the very-low secondary school enrollment rates of girls, especially in the South Anatolia and South-East Anatolia regions. The same study suggests that there is no evidence indicating that CCT program affected the rate of progression from primary school to secondary school. There are several supply and demand side factors behind these results. However, some complementary (and supportive) measures may create additional incentives for people. In this sense:

Offering additional benefits for high school graduation conditional on its investment in higher education, a productive activity, housing, or continued savings may be an example of such

41 Oportunidades in Mexico partially stresses this by offering (1) benefits throughout high school; (2) a conditional cash incentive for high-school graduation; and (3) a cash transfer for beneficiaries 70 years of age or older.
measures. This would be beneficial on two grounds: First, individuals would have further incentives and be motivated for longer-term investments on education. Second, government assistance of this from would help them (more easily) move out of poverty.

- While education is perceived to be important for boys, most parents value only primary education for girls. Research in eastern Turkey found that socio-cultural biases against schooling for girls were more powerful than cash incentives, indicating the need for complementary approaches to overcome these constraints. Taking into account the presence of numerous obstacles against educating girls, an alternative program design may be shifting program resources towards creating additional incentives for female education. Currently 45 TL are given for girls attending to secondary school whereas 35 TL are given for boys; hence, female education is already weighted more than male education. However, biases against sending girls to school are so strong that CCT payments had no impact on female enrollment rates in some areas. Nevertheless, CCT beneficiaries represent the poorest fraction of the population. This implies that they are in need of assistance for their livelihood. Therefore, higher transfers may be powerful tools for inciting parents. Current design of the program requires change in perceptions and/or socio-cultural patterns to increase secondary school enrollment rates of girls. On the other side, an alternative design does not necessarily entail a change in valuations. In this case, parents who do not value education for girls would be tempted by the relative significance of CCT support in their overall income. As a consequence, giving cash to parents only if they send their girls to school would reconcile the divergent interests of parents and children.

- As noted above, shifting resources from primary to secondary school is an option. Besides this, continuing supports at higher education level would be another option. Providing cash assistance for such a long term is a crucial challenge; but can be achieved by altering the program design. Impact evaluation results show that education is considered necessary for boys in order to get employed, and better employed. But high unemployment rates make most parents skeptical about the importance of education. This is more of a concern for sub-provinces and villages where employment opportunities are limited. However, long-term government support
for education which indicates the chance of going to the university may overcome this skepticism.

In brief, the extent of the change in program design would only be revealed through further disaggregation of differences. If considerable regional, gender, or ethnic differences are present, a CCT program targeting those lagging groups would be more effective than a countrywide program.

Of course, poverty reduction also requires other approaches to promote economic development and job creation.
7. CONCLUSION

Conditional cash transfer programs are demand side interventions – i.e., reducing opportunity costs and increasing access and incentives for human capital investment. They promote long-term human capital accumulation as a fundamental objective, recognizing its role in breaking the intergenerational transmission of poverty. Based on this goal, CCT programs focus mainly on children as the recipients and closely monitor compliance with conditions as a prerequisite for receiving the transfers. In this regard, implementation of CCT programs has been supported by systematic efforts to measure their efficiency and to understand their broader effects on household behavior. This paper critically evaluates Turkish experience in setting up the CCT program and assessing its efficiency. More precisely, this part of the paper aims at evaluating conditional cash transfers program in Turkey on two grounds:

- First, evaluation reports prepared by research institutions are critically analyzed in order to draw conclusions about their impacts on policy decisions,

- Second, CCT in Turkey is analyzed with respect to its design features.

The CCT program uses a proxy means test—an indicator-based method of targeting—in order to select program beneficiaries from a pool of applicant households. However, the results of a multivariate analysis of program participation reveal that the majority of the proxy means test indicators are not statistically significant determinants of program participation; this suggests the need for improving the predicting power of the proxy means test algorithm.

Given the importance of impact evaluation studies regarding the subsequent and future implementation of the program, these studies are criticized on four aspects with the aim of providing better results for policy recommendation: Use of non-randomized approaches which are less methodologically robust; possibility of manipulating scores; local estimated impacts; external invalidity of small-scale project findings.

CCT program is being implemented across Turkey since 2004. However, it became fully operational in 2005. At the macro level, CCT focused on:
(1) Establishing a rationalized targeting system which is based on proxy means test,

(2) Allowing access to benefits conditioned on behavioral changes in terms of human development, especially with regard to education and health elements, and

(3) Developing a system of monitoring and evaluation.

The primary objective of CCT Turkey is increasing school enrollment rates for the poor in general and for secondary school girls in particular. The impact estimates suggest that the program increased the secondary school net enrollment rate of girls by 10.7 percent. However, program suggests no positive impact on primary school enrollment rates. In addition, an alternative impact estimate carried out on a subsample of beneficiary households (whose CCT transfers were more regular) indicate that even if the program provides regular delivery of cash transfers in the future, significant positive impacts of the program on primary school enrollment are not likely to occur. This is mainly due to the already high enrollment rates at that level of education. Furthermore, impact evaluation studies denote no evidence about the rate of progression from primary to secondary school.

Overall, the evidence suggests that the program has had positive impacts on school participation at the secondary level, but not at the primary level. For this reason, transfers provided to many parents with primary school age children were not efficient on the grounds that they could not change human capital investment behavior. This reveals that an approximately revenue neutral change in the program design that would increase the grant for secondary school children while decreasing for the primary school children would have a substantially larger effect on enrollment of the latter, while having minor effects on the former.

In brief, the paper argues that changes in the program design focusing on ‘‘additional data collection methods, integration of country-specific options for participation, current levels of specific human capital income and a shift in priorities, and necessity of complementary strategies’’ would extend the positive effects of the CCT program. Of course, the extent of the change in program design should be revealed through further disaggregation of program components taking into account regional, gender, or ethnic differences. In such differences are considerable, a CCT program targeting those lagging groups would be more effective.
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Appendix 1

This section presents the estimates of the impact evaluation of Ahmed et al (2006). The schooling outcomes include net enrollment rates at the primary and secondary levels of education, secondary school dropout rates and the change in rates of progression from primary to secondary school. Most estimates are based on average differences in outcomes between program beneficiaries and non-beneficiary applicants.

Impact estimates based on Regression Discontinuity Design (RDD) were calculated as the difference in a weighted average of the outcome in the non-beneficiary group from a weighted average of the outcome in the beneficiary group. The treatment group consisted of CCT beneficiary households whose proxy means test (PMT) poverty score was just below the cut-off score (COS) of 10,249 and the comparison group consisted of non-beneficiary applicant households whose PMT score was just above the cut-off score.

The results of the RDD impact estimates on schooling outcomes are presented below. First, the change in primary school enrollment is given. Table 1 show that average net enrollment rates increased 5.9 percentage points for education beneficiaries between 2003 and 2005. However, children from non-beneficiary applicant households experienced an even larger increase in net enrollment of 8.9 percentage points over the two years. This means that the CCT program actually slowed growth in net enrollments by 3.0 percentage points in primary education. This impact estimate is statistically significant at the 10 percent level. A possible explanation can be that non-beneficiaries may be exhibiting a misguided response to having been rejected from the program. The non-beneficiaries included in the RDD estimates may believe that they can somehow improve their chances of being included in the program by sending their children to school.

A second analysis was conducted by restricting the beneficiary group to those households who have been in the program for the past 12 months. The irregular CCT payments were quite common especially in the first year of the program. However, the regularity of payments has increased over time. In this second group of beneficiaries, the estimated impact of the program on the change in enrollment rate from 2003 to 2005 is much smaller, estimated at only -0.7 percentage points, and this estimate is not significant.
Briefly the results below show no evidence of increased enrollment at the primary level of education that could be attributed to the CCT program.

Table 1 — CCT program eligibility by beneficiary status among households with school age children (6-17)

<table>
<thead>
<tr>
<th>Education Transfer</th>
<th>Eligibility Status (Proxy Means Score &lt; COS)</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Ineligible</td>
<td>Eligible</td>
<td>Total</td>
<td></td>
</tr>
<tr>
<td>Non-beneficiary</td>
<td>930</td>
<td>133</td>
<td>1,063</td>
<td></td>
</tr>
<tr>
<td>(%)</td>
<td>(87.49)</td>
<td>(12.51)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>Beneficiary</td>
<td>79</td>
<td>1,203</td>
<td>1,282</td>
<td></td>
</tr>
<tr>
<td>(%)</td>
<td>(6.16)</td>
<td>(93.84)</td>
<td>(100)</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,009</td>
<td>1,336</td>
<td>2,345</td>
<td></td>
</tr>
<tr>
<td>(%)</td>
<td>(43.03)</td>
<td>(56.97)</td>
<td>(100)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Ahmed et al., 2006.

Two measures of the impact of the CCT program on the probability of progression from primary to secondary school (grades 9-11) were constructed. These estimates are presented in Table 2a and Table 2b. The first measure included 12-14 year old students enrolled in grades 7 or 8 in 2003 and estimated whether participation in the CCT program changed their probability of being enrolled in secondary school in 2005. The second measure included grade 8 students in 2004 and estimated whether the CCT program had an impact on their probability of being enrolled in grade 9 in 2005. The results below indicate that the CCT program had no impact on the probability of continuing to secondary school.

Table 2a — RDD estimates of the impact of education transfers on the change in primary school net enrollment rates, 2003-2005

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Epanechnikov Kernel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beneficiaries</td>
<td>0.878</td>
<td>0.937</td>
<td>0.059</td>
</tr>
<tr>
<td>Non-beneficiaries</td>
<td>0.844</td>
<td>0.933</td>
<td>0.089</td>
</tr>
<tr>
<td>Difference in differences</td>
<td>-0.030*</td>
<td>0.017</td>
<td></td>
</tr>
</tbody>
</table>

| Gaussian Kernel      |      |      |                                   |
| Beneficiaries        | 0.866| 0.931| 0.065                             |
| Non-beneficiaries    | 0.848| 0.931| 0.083                             |
| Difference in differences | -0.018 | (0.015) |

Source: Ahmed et al., 2006. Standard errors in parenthesis. *significant at the 10% level.
Table 2b — RDD estimates of the impact of education transfers on the probability of progression to secondary school, 2005

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7th and 8th grade students in 2003 (age 12-14)</td>
</tr>
<tr>
<td></td>
<td>0.008 (0.055)</td>
</tr>
<tr>
<td>Gaussian kernel</td>
<td>-0.006 (0.046)</td>
</tr>
</tbody>
</table>

Source: Ahmed et al., 2006.
Standard errors in parenthesis.

In addition, the impact of education transfers of the CCT program on secondary school net enrollment rates as the difference in average probability of being enrolled in school in 2005 between education beneficiaries and non-beneficiaries aged 14-17 are estimated. Evidence was found regarding program impacts on net enrollment at the secondary level of education. Unlike the high enrollment rates in primary school, secondary enrollment rates are much lower, and hence, the scope for improvement is much greater.

Table 3 gives the estimates. Results are presented for the full sample, and by cohorts based on gender and rural/urban location. The results show that girls aged 14-17 who received education transfers were 10.7 percent more likely to be enrolled in secondary school, and this result is statistically significant.

Education transfers from the CCT program also caused large and significant differences in secondary school enrollment rates among sample households living in rural areas. For rural households across the sample, estimates show a 16.7 percent higher probability of being enrolled in secondary school for children aged 14-17. This estimate is significant at the 5 percent level. For boys in rural areas, the estimated impact is even larger. Beneficiary boys aged 14-17 had a 22.8 percent higher enrollment rate than non-beneficiaries in rural areas as a result of being in the program. This result was significant at the 10 percent level.

*These results imply that the CCT program is playing a primary role in increasing secondary school enrollment rates, particularly for girls, but also for children aged 14-17 in rural areas.*
The larger impacts on enrollment for girls reflect the program design which pays larger transfers to girls and the fact that they are likely to have lower opportunity cost of schooling than boys. As a result, the effective subsidy to households with school age girls is larger.

**Table 3 — RDD estimates of the impact of education transfers on secondary school net enrollment rates by gender and by rural/urban location, 2003-2005**

<table>
<thead>
<tr>
<th></th>
<th>Difference in net enrollment rates between beneficiaries and nonbeneficiary-applicants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Boy</td>
</tr>
<tr>
<td><strong>Overall</strong></td>
<td></td>
</tr>
<tr>
<td>Epanechnikov kernel</td>
<td>0.029</td>
</tr>
<tr>
<td>Gaussian kernel</td>
<td>0.003</td>
</tr>
<tr>
<td><strong>Urban</strong></td>
<td></td>
</tr>
<tr>
<td>Epanechnikov kernel</td>
<td>-0.019</td>
</tr>
<tr>
<td>Gaussian kernel</td>
<td>-0.057</td>
</tr>
<tr>
<td><strong>Rural</strong></td>
<td></td>
</tr>
<tr>
<td>Epanechnikov kernel</td>
<td>0.211</td>
</tr>
<tr>
<td>Gaussian kernel</td>
<td>0.228*</td>
</tr>
</tbody>
</table>

Source: Ahmed et al., 2006.

*significant at the 10% level. **significant at the 5% level.
Appendix 2

HOUSEHOLD CHARACTERISTICS

Based on the MIS data obtained from SYDGM, this section presents the characteristics of CCT education beneficiary households and health beneficiary households, on selected variables. It should be noted that, a complete analysis of all CCT beneficiary variables at the MIS database is beyond the scope of this study. This is due to two reasons: First, as a result of the technical limitations experienced (by SYDGM staff) while extracting data from MIS database all of the required variables could not be obtained. Second, the considerable size of the database requires a collective study. The purpose of this section is presenting reliable statistics regarding CCT beneficiary household characteristics which can be used for further implications of the CCT program.

Turkey is “young population” country. This fact is reflected in CCT beneficiary household statistics as well. Table 1 presents the percentage distribution of CCT beneficiary households by gender and age groups. As expected, the percentages of school-age population (children aged 6 to 18 years) are high. Among the total education beneficiaries, 40 years-old and above individuals constitute 15 percent of the population. On the other side, 60 percent of the population is younger than 18 years-old.

Table 1—Percentage distribution of population by gender and age group

<table>
<thead>
<tr>
<th>Age in years (Percent of total population)</th>
<th>0-6</th>
<th>07-12</th>
<th>13-18</th>
<th>19-40 above</th>
</tr>
</thead>
<tbody>
<tr>
<td>CCT education beneficiary households</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>19.9</td>
<td>24.2</td>
<td>15.7</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>19.5</td>
<td>23.6</td>
<td>14.9</td>
<td></td>
</tr>
<tr>
<td>Both sex</td>
<td>13.7</td>
<td>27.4</td>
<td>19.7</td>
<td>23.9</td>
</tr>
</tbody>
</table>

Source: Based on data from the MIS database of SYDGM.

Table 2 denotes the household size of education and health beneficiary households according to gender and age groups. Table 2a exhibits the results of Kudat et al. (2006).

— IFPRI reports are based on the household survey consisting of 2.905 households. On the other side, the data of almost 2 million beneficiaries were used for this analysis.
Table 2a – Household size of education and health beneficiaries according to gender and age groups

<table>
<thead>
<tr>
<th>Age groups</th>
<th>February 2005</th>
<th>September 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household average</td>
<td>6.47</td>
<td>6.45</td>
</tr>
<tr>
<td>0-6</td>
<td>1.16</td>
<td>1.33</td>
</tr>
<tr>
<td>07-17</td>
<td>1.69</td>
<td>1.61</td>
</tr>
<tr>
<td>13-18 female</td>
<td>0.65</td>
<td>0.59</td>
</tr>
<tr>
<td>13-18 male</td>
<td>0.54</td>
<td>0.51</td>
</tr>
<tr>
<td>19-40 female</td>
<td>0.95</td>
<td>0.95</td>
</tr>
<tr>
<td>19-40 male</td>
<td>0.85</td>
<td>0.87</td>
</tr>
<tr>
<td>40+ female</td>
<td>0.30</td>
<td>0.28</td>
</tr>
<tr>
<td>40+ male</td>
<td>0.33</td>
<td>0.30</td>
</tr>
</tbody>
</table>

Source: Kudat et al. (2006)

Table 2b exhibits the same statistics based on MIS data as of 2009. The average household size is approximately 7 for CCT beneficiaries. However, according to the poverty assessment report based on the 2002 Household Budget Survey, average household size in Turkey is 4.2 persons—4.3 persons in rural areas and 4.1 persons in urban areas. The report also shows that larger households are poorer than smaller households (World Bank 2005a). These findings support the necessity of a conditional cash transfers program in Turkey: Most households either cannot afford the direct and indirect costs of sending their children to school or the opportunity cost of foregone income generated by their children.

Table 2b – Household size of education and health beneficiaries according to gender and age groups

<table>
<thead>
<tr>
<th>Age groups</th>
<th>July 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Household average</td>
<td>7.12</td>
</tr>
<tr>
<td>0-6</td>
<td>1.58</td>
</tr>
<tr>
<td>07-17</td>
<td>1.71</td>
</tr>
<tr>
<td>13-18 female</td>
<td>0.63</td>
</tr>
<tr>
<td>13-18 male</td>
<td>0.56</td>
</tr>
<tr>
<td>19-40 female</td>
<td>1.1</td>
</tr>
<tr>
<td>19-40 male</td>
<td>0.91</td>
</tr>
<tr>
<td>40+ female</td>
<td>0.31</td>
</tr>
<tr>
<td>40+ male</td>
<td>0.32</td>
</tr>
</tbody>
</table>
Table 3 indicates the employment status of household head. For both education and health beneficiary household, wage labor is the major occupation, followed by seasonal or temporary work. Ahmed et al. (2007) showed that approximately 26 percent of education beneficiary household heads and about one-fifth of health-beneficiary household heads are unemployed. The findings of this study indicate an increase in unemployment rates of both groups, which can mainly be grounded on the severe impacts of the current economic crisis:

* 31 percent of education beneficiary households, and
* 24 percent of health beneficiary households are unemployed.

<table>
<thead>
<tr>
<th>Principal occupation of household head</th>
<th>Education beneficiaries</th>
<th>Health beneficiaries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage laborer</td>
<td>30.8</td>
<td>40.2</td>
</tr>
<tr>
<td>Salaried worker</td>
<td>2.0</td>
<td>2.1</td>
</tr>
<tr>
<td>Self-employed in agriculture</td>
<td>3.7</td>
<td>3.8</td>
</tr>
<tr>
<td>Self-employed in non-agriculture</td>
<td>8.2</td>
<td>7.7</td>
</tr>
<tr>
<td>Seasonal/ Temporary worker</td>
<td>16.9</td>
<td>18.2</td>
</tr>
<tr>
<td>Other</td>
<td>7.5</td>
<td>3.9</td>
</tr>
<tr>
<td>Unemployed</td>
<td>30.9</td>
<td>24.1</td>
</tr>
</tbody>
</table>

Source: Based on data from the MIS database of SYDGM.

Table 4 presents the ownership of some selected assets by CCT education and health beneficiary households. Ownership of a television is most common among all selected assets—95 percent of education-beneficiary households and 91 percent of health-beneficiary households reported that they had television. Ownership of a refrigerator is also widespread among the two household groups—89 percent of education-beneficiary and 80 percent of health-beneficiary households own a refrigerator. About 40 percent of education-beneficiary and one-third of health-beneficiary households have land-line telephones; while dishwasher ownership has the lowest rates.
Table 4 - CCT beneficiary household (selected) asset ownership

<table>
<thead>
<tr>
<th>Assets</th>
<th>Education beneficiary households (percent of households)</th>
<th>Health beneficiary households (percent of households)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land line phone</td>
<td>42.7</td>
<td>32.3</td>
</tr>
<tr>
<td>Television</td>
<td>95.2</td>
<td>91.6</td>
</tr>
<tr>
<td>Refrigerator</td>
<td>89.9</td>
<td>80.2</td>
</tr>
<tr>
<td>Dishwasher</td>
<td>1.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Washing machine</td>
<td>62.3</td>
<td>41.1</td>
</tr>
<tr>
<td>Vehicle (Bike + Motorbike)</td>
<td>8.5</td>
<td>4.6</td>
</tr>
</tbody>
</table>

Source: Based on data from the MIS database of SYDGM.

Table 5 shows the literacy rate of heads of CCT households. A higher proportion of CCT education beneficiary households are illiterate compared to health beneficiary households; but the difference is not significant. Approximately 68 percent of education beneficiary and 74 percent of health beneficiary households are literate.

Table 5 - Literacy status of household head

<table>
<thead>
<tr>
<th></th>
<th>Education beneficiaries (percent)</th>
<th>Health beneficiaries (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literacy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Does the household head know how to read and write?</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Can read only</td>
<td>1.5</td>
<td>2.0</td>
</tr>
<tr>
<td>Can sign name only</td>
<td>8.4</td>
<td>6.3</td>
</tr>
<tr>
<td>Can read and sign name</td>
<td>4.0</td>
<td>4.1</td>
</tr>
<tr>
<td>Can read and write</td>
<td>67.8</td>
<td>73.9</td>
</tr>
<tr>
<td>Can neither read nor write</td>
<td>18.1</td>
<td>17.7</td>
</tr>
</tbody>
</table>
Appendix 3

Table 1a-Enrollment gender ratio by level of education and the educational year

Gender ratio by educational year and level of education (5-year compulsory education)

<table>
<thead>
<tr>
<th>Educational year</th>
<th>Primary school</th>
<th>Junior high school and equivalent</th>
<th>High school and equivalent</th>
<th>Higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994/'95</td>
<td>94.85</td>
<td>67.8</td>
<td>65.6</td>
<td>65.19</td>
</tr>
<tr>
<td>1995/'96</td>
<td>94.72</td>
<td>67.91</td>
<td>67.59</td>
<td>67.4</td>
</tr>
<tr>
<td>1996/'97</td>
<td>93.84</td>
<td>69.34</td>
<td>70.07</td>
<td>66.93</td>
</tr>
</tbody>
</table>

Source: National Education Statistics
Table 1b-Enrollment gender ratio by level of education and the educational year

<table>
<thead>
<tr>
<th>Educational year</th>
<th>Primary education (1)</th>
<th>Secondary education</th>
<th>Higher education</th>
</tr>
</thead>
<tbody>
<tr>
<td>1997/'98</td>
<td>85.63</td>
<td>74.7</td>
<td>69.58</td>
</tr>
<tr>
<td>1998/'99</td>
<td>86.97</td>
<td>75.5</td>
<td>69.44</td>
</tr>
<tr>
<td>1999/'00</td>
<td>88.54</td>
<td>74.74</td>
<td>70.96</td>
</tr>
<tr>
<td>2000/'01</td>
<td>89.64</td>
<td>74.41</td>
<td>73.56</td>
</tr>
<tr>
<td>2001/'02</td>
<td>90.71</td>
<td>75.87</td>
<td>75.17</td>
</tr>
<tr>
<td>2002/'03</td>
<td>91.1</td>
<td>72.32</td>
<td>74.33</td>
</tr>
<tr>
<td>2003/'04</td>
<td>91.86</td>
<td>78.01</td>
<td>74.09</td>
</tr>
<tr>
<td>2004/'05</td>
<td>92.33</td>
<td>78.72</td>
<td>74.66</td>
</tr>
<tr>
<td>2005/'06</td>
<td>93.33</td>
<td>78.76</td>
<td>77.2</td>
</tr>
<tr>
<td>2006/'07</td>
<td>94.11</td>
<td>79.65</td>
<td>77.65</td>
</tr>
<tr>
<td>2007/'08</td>
<td>96.39</td>
<td>85.81</td>
<td>88.04</td>
</tr>
<tr>
<td>2008/'09</td>
<td>97.91</td>
<td>88.99</td>
<td>-</td>
</tr>
</tbody>
</table>


(1) Compulsory education was expanded to 8 years with law No. 4306 dated 18.08.1997 as of 1997/'98 educational year.