

NORWEGIAN UNIVERSITY OF LIFE SCIENCES



Education in Focus: Impacts of School Feeding Program on School Participation:

A case study in Dara Woreda of Sidama Zone, Southern Ethiopia



A thesis submitted in partial fulfillment of the requirements for the Master of
Science Degree in Development Studies

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DECLARATION

I, Desalegn Keba Dheressa, declare that this thesis is a result of my research investigations and findings. Sources of information other than my own have been acknowledged and a reference list has been appended. This work has not been previously submitted to any other university for award of any type of academic degree.

Date.....

Signature.....

Desalegn Keba Dheressa

Dedicated for my family who have always inspired me for success

And

For all children in Dara Woreda

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ABSTRACT

It has been claimed that School Feeding Programs increase school participation among poor and food insecure group of people. This study investigates if the program has significant positive impact on school enrollment, class attendance, and student drop-out patterns among primary school children in *Dara Woreda* of Sidama Zone, Southern Ethiopia. Data were collected from 102 households as well as 17 selected individual stakeholders. Household Questionnaire, Key Informant Interviews and Observation were the methods employed to collect the data. The quantitative data have been analyzed using mean, proportion, independent samples test and bivariate correlation techniques, whereas the qualitative data are analysed along with the quantitative results. The study found no significant positive impact of School Feeding Program on any of the three school participation indicators (enrollment, attendance and drop-out), although it has some roles with regard to these objectives. The result also shows that the major factors affecting school enrollment are demand for child labor, cost of schooling, availability of school, teaching quality and school infrastructure, distance to school, the availability of food incentives and safety concerns. Whereas, those affecting class attendance and student drop-out include illness, work for money/food, domestic work, school hour hunger and long distance to school. Besides, it has been determined that even among beneficiary households, the older the household head is the less likely that the children get enrolled to school during their primary school ages or will not properly attend class even if enrolled. Meanwhile, absence from classes decreases in both beneficiary and non beneficiary households when household head education level and household income are higher. However, it is found that neither household head education nor household income have significant effect on student drop-out in beneficiary households. The study recommends that both the nutritional and economic values of School Feeding Program should be improved in order to significantly enhance school participation.

Key Terms: School Feeding Program, SFP households, Non SFP households, School Participation, Household Enrollment Ratio, Absence Rate, Drop-out Ratio, Dara Woreda, Sidama Zone, Sothern Ethiopia

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LIST OF ABBREVIATIONS AND ACRONYMS

AR	Absence Rate
ARDO	Agriculture and Rural Development Office
CHILD-FFE	Children-In-Local-Development-Based Food for Education
CSB	Corn Soya Blend
DR	Drop-out Ratio
ESDP	Education Sector Development Program
FDRE	Federal Democratic Republic of Ethiopia
FFE	Food For Education
g	gram
GER	Gross Enrollment Ratio
HER	Household Enrollment Ratio
IFPRI	International Food Policy Research Institute
Kcal	Kilocalorie
KII	Key Informant Interview
MoE	Ministry of Education
NER	Net Enrollment Ratio
Non SFP	Non School Feeding Program
p	Probability
PSNP	Productive Safety Net Program
SAZ	Sidama Administrative Zone
SFP	School Feeding Program
sig.	Significance
SNNPR	Southern, Nations, Nationalities and People's Region
SPSS	Statistical Package for Social Sciences
UN	United Nations
VAM	Vulnerability Analysis and Mapping
WFP	World Food Programme

Chapter One: Introduction

1.1 Background

In many poor households, hunger has been a barrier to school participation. A hunger-stricken child is not only unable to enroll in school at the right age but also cannot attend properly even if enrolled. Besides, such children are also likely to quit school because they have to deal with their immediate subsistence needs before they get ready for schooling. Thus, low school enrollment, low class attendance and high student drop-outs are recurring problems in child education among poor households especially in areas of high food insecurity. Due to these reasons the level of education attainment has also been low in many developing countries although both private and social returns to education are recognized to be high (Adelman, Gilligan et al. 2008). However there is no doubt that other manifestations of poverty-than hunger-also affect school participation among poor households.

Ethiopia is one of the poor countries where hunger has been a major barrier to child education. The country has historically experienced severe famines, often in drought affected rural areas. Households in such areas usually find it difficult to feed the entire family since own production of food falls short of the demand in the household. Consequently, even children need to engage in some kind of activities to generate livelihood for their households. Thus, many primary school age children in food insecure areas remain out of school. On the other hand, even if schooling is free of charge, families in such areas still don't have the means to cover some costs as for books, clothes, shoes or transportation. These constraints also keep children from participating in schools but rather force them to stay home and help parents in household chores. Hence, to overcome such problems, investment in education must target not just children, but also households.

In response to these challenges, various interventions have been undertaken. Prominent policies have been designed both at national and international levels to help households invest on their children's education. School Feeding Program (SFP), also known as Food for Education program (FFE), is one such intervention that aims to address some of the nutrition and health problems of school-age children (Del Rosso 1999). It also aims at motivating poor households in their investments on education by subsidizing some of the costs of school participation.

School Feeding Program has been operated in two modalities: children are either fed inside the school compound (School Meals), or the entire family receives food conditional up on achievement of certain level of school attendance by children (Take Home Rations). In the School Meals scheme, children are fed breakfast, lunch or both in school. Such incentive directly targets primary school children, as opposed to Take Home Rations which aims to reach other needy members of the household as well. Nevertheless, both schemes aim to offer educational opportunity with food-based incentives for children as well as for parents to send their children to school. Unlike some other poverty alleviation programs which focus on short term gains, SFPs target investment in children education as a strategy to tackle poverty in the long term

School Feeding Programs are often integrated in to broad international and national education programs. For instance SFP is directly related to the first two Millennium Development Goals of halving hunger by 2015 (Goal 1) and of reducing gender gap in education by 2015 (Goal 2). Besides, SFP is also part of other international conventions like Education for All, among others (WFP 2008b).

The Ethiopian Ministry of Education (MoE), in collaboration with the United Nations World Food Program (WFP), adopted School Feeding Program for the first time in 1994 with an initial pilot project covering 40 primary schools in selected zones of four different regions¹ (WFP 2008a). As of 2007, the total beneficiaries reached 653,036 in food insecure areas of six regions² with more than 1000 schools assisted. School Feeding Program is one of the strategies of education development incorporated in the government's Education Sector Development Programs³ (ESDPs). Accordingly SFPs are expected 'to raise and maintain school enrollment with a particular focus on meeting the demand side of education of chronic food insecure and vulnerable children' (MoE 2005:9).

In Ethiopia, School Feeding Program has another twin component called Children-In-Local-Development-Based Food for Education (CHILD-FFE)⁴ that was included in the WFP Country Program (CP) covering four years (2007-2011). The CHILD-FFE is an extension of WFP's School Feeding Program that has been in operation since 1994. Under this

¹ Amhara, Tigray, Afar and Oromya Regions

² Afar, Amhara, Oromia, SNNPR, Somali and Tigray

³ ESDPs are five-year national plans that aim to improve access, coverage and quality of education.

⁴ CHILD-FFE is the second component of the WFP Country Program (CP) 2007-2011. The other is called MERET.

package, each child is entitled approximately 650 kcal (kilo calorie) per day in the form of Porridge. The food is prepared inside school premises by community paid cooks and the ingredients often used are Corn Soya Blend (CSB) mixed with a small amount of vegetable oil and salt, fortified with selected micronutrients (Riley, Ferguson et al. 2009). In pastoral and semi-pastoral areas, a special focus has been given for girls through the 'Girls Initiative', an initiative to support girls with a monthly rations of 2 liters of vegetable oil, subject to 80 percent class attendance (WFP 2008c).

In general, the expected outcome of SFP is to help households in poor rural areas invest on children education. It also aims at alleviating short-term hunger for children by feeding them in schools.

1.2 Statement of the Problem

Proponents of SFP claim that providing food in schools would ostensibly attract vulnerable children to school, improves their attendance and minimizes drop-outs. According to the United Nations World Food Program, School Feeding Program is an incentive for vulnerable families to invest in children's education and encourages poor households to send children to school and helps to keep them there (WFP 2008b). Empirical studies also reveal that School Feeding Programs indeed have significant positive impact on school participation. Such studies suggest SFPs are effective in encouraging school enrollment, enhancing class attendances, and lowering student drop-outs (see for example, Ahmed 2004; WFP 2009). To the contrary, few other studies reveal there is no observable impacts of School Feeding Program on school participation (see He 2009). This study, therefore, takes account of these arguments and evaluates the significance of a particular School Feeding Program in improving school participation among primary school children.

1.3 Objectives and Research Questions

The main objective of this study is to evaluate the impacts of a School Feeding Program on school participation; specifically on school enrollment, class attendance and student drop-out among primary school children, in Dara *Woreda* of Sidama Zone, SNNPR - Ethiopia. Besides, it also identifies other factors affecting school participations in the region. The research questions are:

- i. Does School Feeding Program have significant positive impact on school participation?
- ii. What other factors affect school participation in the study area?

1.4 Scope of the Study

The research is limited to analyzing the impacts of School Feeding Program on school participation among primary school children. According to the Ethiopian Education and Training Policy, primary education is a level of education that ranges from grade 1 through grade 8 (SNNPRG 2010). This level of education is divided in to first cycle (grades 1-4) and second cycle (grades 5-8) education. And the primary school age children are those from 7-14 year of age.

Although the impacts of SFP are studied in various ways such as the impacts on nutrition, cognitive development, learning achievement, agricultural production, and so on, yet these aspects are beyond the scope of this research and hence are not icovered here. In terms of geography, the study has been conducted in Dara *Woreda*, one of the provinces of Sidama Zone of the Southern Nations Nationalities and People’s Region of Ethiopia⁵.

1.5 Limitations of the study

The first limitation of this study is that it was conducted on small sample and hence this limits the ability of the findings to be generalized. Likewise, the study gathered data only on households who got at least one primary school child and thus it is difficult to represent the results of the study to those households who have not yet enrolled their children.

Second, the study does not establish immediate causal relationship between SFP and school participation indicators since other external factors might have also affected the relationships. The relative impact of the program could have better been explained by capturing the impacts of such external factors. To be able to certainly claim that measured differences in outcomes between the beneficiary (or treatment) group and the comparison group are precisely caused by the program, it is necessary to control for the effects of such and other factors. However this was not the case in the study because small sample size and the nature of the data made it impossible to employ advanced techniques to conduct such an analysis. Thus further data and large sample size is needed to determine the absolute impact of the program while also

⁵ See the description of the study area in the Chapter 3

controlling for other contextual variables through the application of advanced economics techniques such as regression analysis.

The third limitation of the study is the unavailability of adequate baseline data about schools' performances. Thus it was not clearly understood how school participation looked like prior to the introduction of the program. Such data could have supported the argument about the impacts of the program.

Fourth, there is some degree of skepticism over the reliability of data as some of them could have been inflated. This is because of the tendency of people to manipulate data during project appraisals so that the project continues to function. Data collected from households may not also be reliable in some cases as the respondents in many households are people who are either illiterate or partially-literate. Thus there is some concern that the household head may have provided inaccurate information, for example about the level of the children's school participation.

1.6 Thesis Outline

This thesis is divided into five different chapters, all organized according to the logical flow of the argument. The introductory chapter dealt with brief overview of School Feeding Program, its history in Ethiopian context and the statement of the problem. It also outlined the objectives, scope and limitations of the study.

Chapter two presents the theoretical framework and critically reviews the wider literature about the impacts of School Feeding Program on school participation. Besides, other factors that affect school participation are presented in this chapter.

The research methodology employed in this study will be described in the third chapter of the paper. It begins with the description of the study area; highlights the geographic, economic and social realities of the region followed by discussion on the sampling design, nature and source of the data, method of data analyses and formulations of variables.

Chapter four presents the results of the study and discusses them by juxtaposing with the existing literature about the impacts of School Feeding Program on school participation. Besides some other determinants of school participation are outlined in this chapter.

The conclusion and recommendation chapter will summarize the core results of the study and suggest some recommendations on possible measures that should be undertaken to improve the role of School Feeding Program in enhancing participation.

Finally, the list of cited literature is presented in the last chapter, followed by annexes of questionnaire, as well as Key Informant Interviews with all individuals chosen for this study.

Chapter Two: Theoretical Framework and Review of Literature

This chapter attempts to examine the findings of various studies conducted in the area of School Feeding Program and its impact on school participation. The majority of the literature discussed in this chapter maintain the claim that School Feeding Program has indeed significant positive impact on school participation. Besides, SFP is also supposed to be vital element in addressing issues like nutrition and gender disparity thereby contributing for the realization of some of the millennium development goals.

Before evaluating the claims of the literature about the benefits and/or drawbacks of School Feeding Programs, it is important to understand how SFP is targeted to potential beneficiaries. The following section outlines the methods as well as criteria employed for targeting.

2.1 Methods of Targeting School Feeding Program

The methods vary depending on the objectives of the program. Thus it is important to define the objectives of the program before choosing the targeting approach. For instance, if the objective is to reach out to the most vulnerable groups, then the target may constitute orphans and most vulnerable children (Bundy, Burbano et al. 2009). Whereas, a program with the objective of enhancing school enrollment may target areas with high level of food insecurity, high numbers of out-of-school children, high gender and social gaps in enrollment and poor retention of girls in school (WFP 2008b). There are two commonly used approaches of targeting: geographical and individual.

2.1.1 Geographical Targeting

Geographical targeting is the most frequently used criterion of targeting School Feeding Program especially in low-income countries where many children live in vulnerable, food insecure villages (Bundy, Burbano et al. 2009). According to this approach, programs are offered to certain villages based on poverty and food insecurity maps of the regions. A Vulnerability Analysis and Mapping (VAM), a tool developed by WFP, is employed to analyze ‘the causes of food insecurity and vulnerability among populations affected by conflict, natural disasters, financial or other shocks, or chronic vulnerability’ and this analysis involves both primary and secondary data collection (ibid, p.52). Thus the results of VAM may be used at the time of targeting beneficiaries for SFP.

It is argued that when the size of proposed School Feeding Program is small, then geographical targeting can effectively reach the poor segment of the population but as the coverage grows and becomes universal, a significant proportion of non-eligible children can sneak in to the program there by raising the operating cost (ibid).

Often rural areas are identified as more subject to poverty and food insecurity compared to urban areas. Consequently, urban areas are overlooked when School Feeding Programs are targeted. However, rapid urbanization and growing number of slums in cities also made urban areas to have large concentration of people living under extreme poverty (ibid). Thus school feeding can also be introduced in such areas to support vulnerable children.

Having decided where to target School Feeding Programs, the next decision is on which schools to select based on implementation criteria (minimum standards) and these standards are usually established in consultation with all stakeholders. Generally schools that qualify for targeting should be more disadvantaged than others based on the measure of implementation criteria (Vermeersch and Kremer 2004).

2.1.2 Individual Targeting

This approach of targeting focuses on individual children on the basis of vulnerability and well-being indicators where the ‘targeting criteria involve inputs from multiple stakeholders at different levels’ (Bundy, Burbano et al. 2009:53). However data generation is often expensive and for this reason individual targeting is not preferable targeting method for low income countries unlike for middle and high income countries. Although targeting individual children is more cost effective than geographical targeting, the process is however, deemed to be socially undesirable because it could result in stigmatization through discrimination of individuals (ibid).

2.2 The Theoretical Interactions of School Feeding Program and School Participation

This section will outline some of the theoretical links between School Feeding Program and school participation. However, it should be noted that SFPs also seek to address nutritional objectives. Although the sole focus of this study is to evaluate the educational objective of SFP, it must be understood that the interplay between SFP and school participation works in different

ways. In this section, I will present two ways through which SFPs affect school participation: the economic and nutritional functions.

2.2.1 The Economic Function of School Feeding Program

Even though the economic motivations for investing in education and nutrition status of primary school-aged children are well established, many poor and credit constrained households usually invest less than what is privately or socially optimal (Adelman, Gilligan et al. 2008). As a result, levels of education attainment remain extremely low in many developing countries despite enormous evidences that indicate both private and social returns to education are high (Hanushek 1986; Schultz 1988 cited on Adelman, Gilligan et al. 2008:10). Primarily, extreme poverty restricts households from sending children to school due to the fact that their day to day survival, and not educational need, has to be their immediate priority. Consequently, such households cannot provide children the opportunity to go to school and learn. Besides, even if some costs such as school fees are free, households still don't have the means to cover other costs such as for books, clothes, shoes or transportation. Thus, such households are unable to afford the cost of schooling and instead keep their children to work in money generating activities or make them care for younger siblings at home.

In response to such and other economic constraints for school participation, SFPs provide economic incentives for households to send their children to school. Adelman et al., (ibid) show that the decision of households on whether to send children to school is determined by comparing the expected future benefits of this education to the current cost. The current value of these future benefits is a measure of household's discount rate i.e., how much household values the improvements in current well-being over future improvements in well-being. The costs of education, on the other hand, include such expenditures as school fees, supplies, books, uniforms, and travel cost to school (all known as direct costs) as well as the opportunity cost of child's time such as caring for other family members, working on a family farm or business, or working outside the household to provide additional income (all indirect costs). The idea is households will not send their children to school if the costs of schooling exceed the expected benefits and that households must have some kind of incentives to compensate for these costs in order to increase the net benefit of schooling. Hence, food-based incentives such as school meals and take-home rations will compensate for both direct and opportunity costs resulting from the loss of household labor due to school participation (Adelman, Gilligan et al. 2008; Bundy, Burbano et al. 2009; He 2009).

However, not every School Feeding Program is expected to have the same effect since the size of the transfer relative to the cost also affects schooling decisions. In other words, it is important that the content and value of the school meals should be large enough to offset the current cost and also motivate the beneficiaries for positive action; i.e., to participate in schooling. For instance if the school meals are undervalued against the opportunity costs of participating in school, then it is unlikely that households will be encouraged to send children to school.

2.2.2 The Nutritional Function of School Feeding Program

The interaction between nutrition and education can be generally understood in three ways (Kazianga, de Walque et al. 2009). First, nutrition and health statuses influence the child's learning and his/her performance in school. That is poor nutrition among children affects their cognitive function and hence reduces their ability to participate in learning activities at school. Second, children who are malnourished or who are unhealthy are unable to attend school regularly and which in turn leads to poor academic performances. Third, hungry children encounter difficulties to concentrate and perform complex tasks than well nourished ones.

Because poor children do not get the basic nutritional building blocks from birth, they will be unable to learn easily. Studies show that by the time these children grow to primary school age, most of the damages have occurred to them and in fact such damages are irreversible. Even if school meals are provided after this critical period, their learning capability is much less than what would have been if they were properly fed from infancy (WFP)⁶.

It has been argued that school meals increase school participation by improving child nutrition through two links (Vermeersch and Kremer 2004). First, school meals improve nutrition by enabling children get more nutrients. Second, the improved nutrition leads to better educational achievements. The study also reveals that 'since child nutrition, child health and schooling reflect household preferences in human capital investments in the child; they might be correlated without any direct causal relationship between them' (ibid, p.4). Another study also shows that School Feeding Programs can improve health by reducing morbidity and illness and hence attract children to school (He 2009).

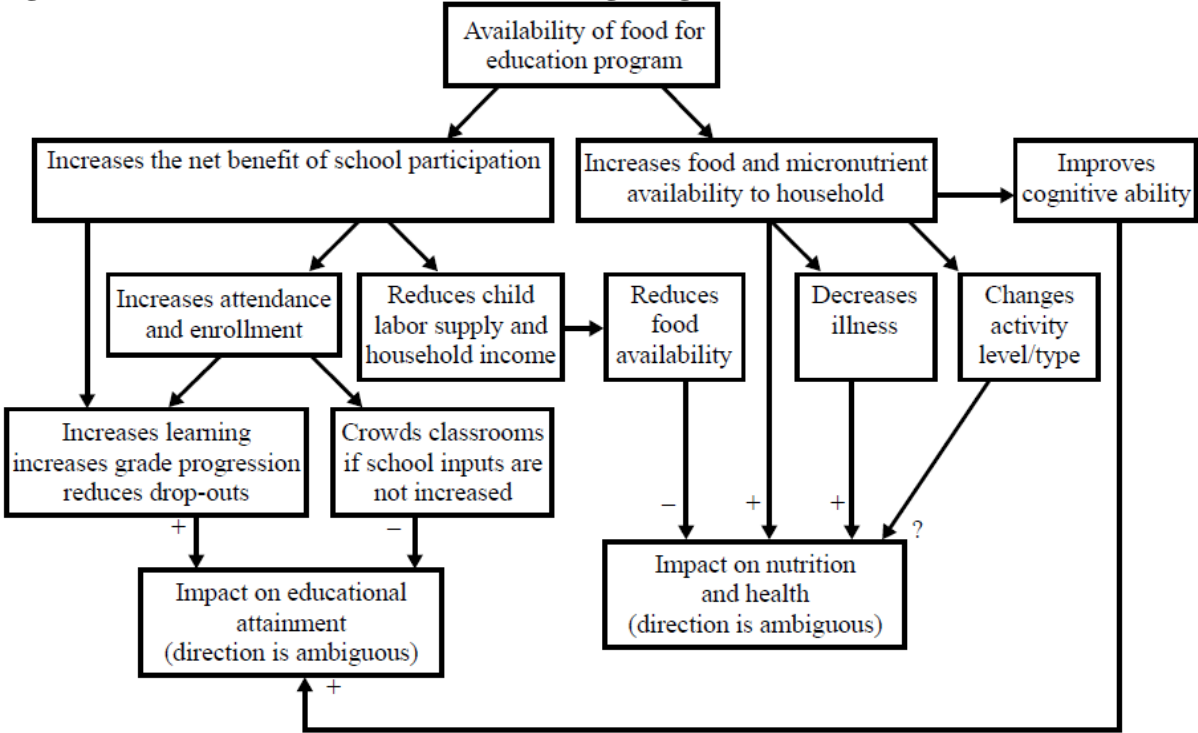
However there are conflicting arguments as to whether households adjust the feeding practices of school children at home in response to SFPs. Ahmed (2004) shows there is no reduction of

⁶ Extracted from <http://www.wfp.org/hunger/malnutrition>

food at home given to children who participate in SFPs in such a way that those children who benefit from SFP should get less at home. Instead, school meals are additional diets intended to what he or she can get from home. To the contrary, there are counter arguments to such claims. In response to the school meals, families may also adjust resource allocation among children within the household by taking away some resources from beneficiary children and redistributing them to other members of the household (Jacoby 2002; Kazianga, de Walque et al. 2009). As a result, those children from whom resources are taken away will be worse off if the food provided at school is not very useful compared to what they would have had at home.

In sum, the pathways through which SFP may affect school participation and nutrition outcomes are graphically displayed in Figure 1.

Figure 1: Potential Benefits of School Feeding Program



Source: (Adelman, Gilligan et al. 2008:10)

Figure 1 shows that SFPs will increase the benefits of school participation and gives more incentives for households to invest on child education. As a result, enrollment and attendance will increase which in turn improves learning, grade progression and reduces drop-outs. Ultimately, these interplays improve educational achievement. The gain in educational attainment may also be enhanced through improved cognitive ability due to SFP.

On the other hand although SFPs increase the benefits of school participation, they could actually reduce household income due to reduced child labor supply which thus lowers household food availability thereby posing negative impact on current nutrition and health. The increased school participation due to SFPs could also lead to crowded classes and hence negatively affects learning unless school capacity is increased accordingly.

2.3 School Feeding Program and School Participation

Having examined the conceptual relationships between school meals and school participation, this section discusses some of the relevant empirical studies. The majority of the literature analyzed for this study reveal that SFP have indeed positive impact on school participation as measured by school enrollment, class attendance, and student drop-out status (see for instance Meng and Ryan 2003; Ahmed 2004; Vermeersch and Kremer 2004). However, most of these findings are based on empirical data obtained from schools where the program was popular and has been relatively effectively implemented.

Vermeersch and Kremer (2004) conducted a field-study in Western Kenyan preschools between 2000 and 2002 to evaluate the impacts of School Feeding Program on school participation and achievement. Preschoolers, in this context, are defined as children between ages of 4 and 6 who lived within walking distance of school. They found that children in the treatment group participated 35.9 percent of the time compared to 27.4 percent in the comparison (control) group and this difference was statistically significant (ibid). The program increased participation of both children who were previously enrolled (what they call intensive margin) and children who would have gone to school in absence of the program (extensive margin). But they emphasize that any increase in school participation in the absence of qualified teaching falls short of better educational achievement since there are strong complementarities between teacher characteristics and school meals.

Nevertheless, their study was on preschools and hence this may not have much relevance for primary school children. Besides, preschoolers are early-age children and may not have family obligations like many primary school age children might have in poor areas. Thus preschoolers are relatively free of duties that could keep them away from school.

Another study conducted in Jamaica shows that school meals indeed improve education of

beneficiaries (Grantham-McGregor, Chang et al. 1998). They found that school performance indicators (enrollment, attendance, drop-out rate, repetition of grades, school attainment levels, cognitive function, and class-room behavior) have all improved in response to school feeding. This is because the provision of school meals reduces the parents' cost of sending children to school thereby promoting early enrollment and improving attendance. The more time children spend on learning in response to school meals, the more they will learn and the less they repeat school or drop-out (ibid, p.785).

To the contrary, certain other studies are critical to school meals and they doubt if they have any positive impact on school participation whatsoever. He (2009) for instance found that WFP assisted School Feeding Program (what he calls the standard program) does not increase enrollment at any level compared to control schools (ibid).

In the following subsections, some of the literatures in relation to the three aspects of school participation (school enrollment, class attendance and student drop-out) will be discussed.

2.3.1 School Feeding Program and School Enrollment

As was discussed previously, the availability of subsidized in-school meals will increase school enrollment if the program changes the household's schooling decision for some children who would not have been enrolled in school otherwise. And for these households to enroll their children, they need to be convinced that the 'net benefits of participating in the program exceed the gap between direct and opportunity cost of schooling and the expected benefit of schooling' (Adelman, Gilligan et al. 2008:11). In other words, households usually compare the size of the transfer relative to the size of the cost-benefit gap and these comparisons ultimately determine the magnitude of the increase in enrollment rates.

Another important point is about the roles that school meals play in encouraging early enrollment. Even though in-school meals are believed to affect age at entry through an income effect, i.e., by increasing household income and raising the benefit of attending school, yet this income effect should be large enough to make households send their children to school (ibid). Adelman, Gilligan et al. (ibid) show that school meals affect the age at entry in different ways. First, the provision of food offsets the cost of educating children by making available additional income for households, and consequently raising the benefits of attending school. This is called an income effect of school feeding. When this income effect is large, it can cause households

to send their children to school at a relatively younger age thereby minimizing the possibility of late entry. Secondly, the ‘neighborhood effect’ resulting from School Feeding Program may also influence the age at entry. That means the act of households to send their children to school earlier with the commencement of School Feeding Program would create a social pressure and prompt similar action on the part of those who haven’t enrolled their children yet (ibid).

In this subsection, I will present some of the empirical studies in the area of School Feeding Program and the impacts on enrollment.

Ahmed (2004) conducted a study in food insecure areas of Bangladesh to see the impact of School Feeding Program on school participation. The data collection took place in 2003 after children in the treatment schools received a mid-morning snack of fortified wheat biscuits every school day for one year. To determine whether the increases in enrollment (and attendance – as well shall see in the next section) were indeed due to the program, he carried out econometric analysis to isolate other potential explanatory factors. Thus Ahmed’s study found that School Feeding Program have statistically significant positive impacts on both gross and net enrollment rates with 14.2% and 9.6% increases respectively (ibid). However, this finding does not take account of other unobservable characteristics of households in the treatment area that could affect household’s decision to enroll children. Therefore, it appears inconclusive to claim that the difference in enrollment between treatment and control groups was the result of the program without considering unobserved factors.

Another study on 32 Sub-Sahara African countries shows that providing food in school under the Food for Education (FFE) scheme contributed to increasing absolute enrollment in WFP assisted schools by 28% for girls and 22% for boys in just one year (Gelli, Meir et al. 2007). After the first year, however, enrollment pattern showed variation depending on the type of FFE program; i.e. whether the provision of food in school was combined with take home rations or was served alone. In those places where on-site feeding and take home rations were offered together, girls’ absolute enrollment kept on increasing by 30% subsequent to the first year. Meanwhile, schools that provided only on-site feeding have just recorded increase in an absolute enrollment that was same as before the feeding program was implemented.

Along with enhancing enrollment, School Feeding Programs also help to adjust the age at entry by attracting children during their right age. In poor countries like Ethiopia, children may begin

primary education much later than the recommended age for various reasons. For instance factors such as lack of funds, lack of childcare and little awareness about the benefit of enrolling children during the recommended age are some of the causes for late entry (Adelman, Gilligan et al. 2008).

2.3.2 School Feeding Program and Class Attendance

The second indicator of school participation analyzed in this study is class attendance. It is believed that school meals can be effective at increasing class attendance because children receive the meal only when they attend school (ibid). As discussed earlier the opportunity cost of allowing a child to attend school varies across school days and seasons and this cost could even be higher than the expected benefit. For instance in places where child labor forms the integral part of agricultural work during a particular day/season of a year, class attendance could be low. In such cases, school meals may or may not encourage attendance depending on how the beneficiaries value them. Thus, the value of the meal relative to the difference between the cost and expected benefit of schooling also determines attendance (ibid).

Adelman, Gilligan et al. (ibid) show three aspects of nutrition can influence class attendance. First school meals alleviate short term hunger of school children during the school day ‘by providing more nutrients to the child, providing the child with a meal when he or she would have not otherwise have had one, or replacing a meal that would have been received after school with one during school hours’(ibid., p.11). Thus this aspect of nutrition targets for short term impact and enables a child concentrate and learn more. A study of the effects of school breakfast in rural Jamaica show that overcoming school hours hunger leads to better concentration and learning (Powell, Walker et al. 1998). Second, school meals may also generate nutritional improvements for a child over long run. The improved nutritional status as a result of school meals will in turn enhance a child’s physiological capacity for learning thereby increasing the benefits of schooling and the child’s desire to attend school. Third, school meals can also reduce morbidity through improved nutrition and consequently enhance attendance. Morbidity is a cause of absence in many developing countries and school meals help children overcome this problem and learn longer. In this regard school feeding increases micronutrients intake and hence will strengthen children’s immunity and avoid infectious diseases among children (Scrimshaw and SanGiovanni 1997 cited on Adelman, Gilligan et al. 2008:12).

Ahmed (2004) evaluated the impact of school feeding on attendance in Bangladesh as well and found that the SFP has a statistically significant positive impact. The program increased class attendance of participating students by 1.34 days per month (ibid). However, class attendance from school registers showed attendance increased in both program and control schools during this period, and that the increase was 1.1 percentage points higher in program schools (ibid).

Another study conducted on 814 children in second-through fifth-grade classrooms in rural primary schools in Jamaica where children were randomly assigned to receive a breakfast (576–703 kcal and 27 g of protein) or placebo (orange slice with 18 kcal) each day for one school year found a small improvement in attendance rates for children receiving breakfast over the control group (Powell, Walker et al. 1998). However, this impact is small because the attendance rates in both groups were about 70 percent even prior to the study.

Similarly, a study in Huaraz, Peru found that a school breakfast increased attendance rates of fourth and fifth-grade students by 0.58 percentage points in the treatment schools whereas it declined in control schools by 2.92 percentage points (Jacoby and Cueto 1996 cited on Adelman, Gilligan et al. 2008:24). The evaluation took place 30 days after the start of the breakfast program and following those 30 days the breakfast program was also implemented in the control schools.

2.3.3 School Feeding Program and Student Drop-out

Adelman, Gilligan et al. (2008) present the interplay between school meals on one hand and grade repetition, learning achievement, and school performance on the other. They show that this effect works in two mechanisms. First, because school meals improve class attendance, children will spend more time learning in school. So the more time children spend in school, the better they learn and these interplays ultimately result in improved school performance, which thus minimizes the probabilities of drop-out. This is however dependent on other factors such as school quality, availability of learning materials and teacher quality. Thus, unless properly implemented, school feeding has rather the potential to worsen drop-outs (ibid). Second, improved nutrition may also enhance school retention and performance in the short and over long run. In the short run, school meals could alleviate hunger and make children concentrate and learn better so that school performance will be improved and hence drop-out is minimized. In the long run, school meals could enhance learning provided that school meals improve the nutritional status of children and if nutritional status also affects learning (ibid).

Back to Ahmed's (2004) study in Bangladesh, School Feeding Program has a statistically significant negative impact on student drop-out. This study reveals that the primary school drop-out rate in the program rural area was 29 percent and that the overall completion rate in this area is 6 percentage points higher than control rural areas. Controlling for child and household characteristics, he found that school meals reduce the probability of dropping out of school by 7.5 percent (ibid).

2.4 Other determinants of School Participation

The discussion so far mainly dealt with the impact of SFPs on school participation after controlling all other observable external factors. In this section I will present some of the other factors affecting school participation as identified in the literature.

A recent study by Bundy, Burbano et al. (2009) reveals that there are generally many factors which influence the decision of parents to enroll a child and his/her ability to attend regularly. These include; the perceived value of education, the availability of employment opportunities, the direct and indirect costs of schooling and the availability and quality of school facilities.

Another study in rural Ethiopia found that factors such as qualification of teachers, parents demand for child labor, school cost, distance to school, poverty, threat of harassment, availability of role model to follow, abduction (of females), early marriage and parents' education level were factors affecting school participation (Buraka 2006).

The draft mid-term evaluation of the Ethiopian food for education program states that high level of school enrollment and class attendance recorded in the program schools is also the result of such external factors as changing attitudes of parents towards education of children, improved school facilities, availability of more female teachers in the school and so on (Riley, Ferguson et al. 2009). The evaluation further revealed that in the presence of these factors, some parents are even willing to send children to school regardless of the school meals.

Geographic location of the program itself matters how parents value school meals and hence has direct implication for school participation. For instance SFP in Ethiopia receives greater weight in parental decision in pastoralist areas of Afar and Somali regions, and less in highland regions (ibid). In other words, parents in pastoralist areas are more responsive to the

program than their counterparts in highland areas. Similarly, a study conducted in Bangladesh revealed that children living in SFP area have higher probability of being enrolled in school compared to children in control area (Ahmed 2004). Thus location of children in relation to the program schools is another important factor that affects the enrollment rate.

Equally important determinant of schooling in rural Ethiopia is the role of child labor in household chores. A study shows that rural Ethiopia has one of the highest rates of children's labor activity in the world and that children in those areas start to assume household and farm works as early as four years of age. On average children carry out 29–30 hours of labor work every week and this clearly affects their school participation (Admassie and Bedi 2003). Even if school meals increase enrollment, absenteeism may rise for households that had low child labor supply and decreases for households that had a relatively large child labor supply (Kazianga, de Walque et al. 2009). Thus increase in enrollment could result in higher absenteeism rates among labor constrained households and/or those who lack access to labor market.

A study on the household constraints of schooling in Ethiopia also reveals that wealth of the household, nutritional status of the child, and mother's and father's education have an important effect on the probability of a child attending class (Rose and Al-Samarrai 2001). Likewise, a study in Bangladesh shows that absenteeism from school is higher for children from wealthy families than those from poor families (Meng and Ryan 2003). Besides, another study in Bangladesh revealed the probability of student drop-out decreases as household income increases (Ahmed 2004). Thus household income has significant positive impact on school participation in general.

Other study conducted on the determinants of child schooling in Ethiopia found that investment on child schooling is influenced by household and community education externalities, availability and distance to schools as well as quality of school infrastructure (Chaudhury, Christiaenseny et al. 2006). School factors like school quality and school price have also strong effect on schooling in Ethiopia (Admassie and Bedi 2003). These results are related to findings in rural India that show parental education, school infrastructural quality, teacher regularity, parent–teacher cooperation, and the number of teachers per child are positively related to school participation (Drèze and Kingdon 2001). This study also found that lack of parental or child motivation, cost of schooling, demand for child labor and low quality of

schooling, among others also negatively affect school participation (ibid).

A study in New Zealand also shows there are a number of reasons that affect students' class attendance. And these factors relate to students themselves, to the school or to the student's family circumstances (Ng 2007). Besides, school or teacher factors can also affect their ability to attend school. These include, for instance, teaching quality, the school culture, and to school-community links (ibid). Other factors affecting school participation identified in a study in Nepal include the students' lack of access to schooling that is relevant to their lives and of a quality sufficient to make attendance worthwhile (Jamison and Lockheed 1987). Similarly, in the relatively few studies of determinants of school-leaving behavior in developing countries, the poor quality of teachers as well as schools emerged as a principal reason for students' dropping out (ibid).

Vermeersch and Kremer (2004) in their study in Kenya argue that even if a School Feeding Program increases school participation in the absence of teaching quality, then it is unlikely to result in better educational achievement. Thus there should be strong complementarities between teaching characteristics (teaching quality, for example) and school meals for greater educational outcome (ibid).

2.5 Critiques of School Feeding Program

Despite the merits discussed so far, SFPs have also several critiques both for their educational as well as social implications. Vermeersch and Kremer (ibid) argue that school meals only targets children going to school while not reaching out to children who are weak or too young to go to school. Take home rations on the other hand could reach these members of the family by reallocating food in such a way that food is distributed on need-based way. They also argue that school meals will disrupt teaching and learning by taking away school hours and hence potentially worsening school performance through increased grade repetition and drop-out.

Besides, high level of school participation rate as a result of the program increases the pupil-teacher and pupil-to- classroom ratios causing crowding (Vermeersch and Kremer 2004; Gelli, Meir et al. 2007; Kazianga, de Walque et al. 2009). Thus unless schooling infrastructure and number of teachers are scaled up accordingly in order to accommodate the increase, the program could reduce teaching quality.

School Feeding Program may also result in unwanted switching of students between schools. Children from non program schools can be attracted in to program schools and consequently cause crowding in the later (He 2009). Besides, school meals can be inappropriately given to students who were not originally targeted and hence results in overcrowding and wasting of available resources as well as other inefficiencies in the allocation of resources (ibid). Because some children would have come to school without the program or with less generous programs, the inability to target school meals only to needy children raises the cost of the program per additional student enrolled (Adelman, Gilligan et al. 2008; He 2009).

In sum, the majority of the literature examined so far has shown that School Feeding Programs have indeed positive impacts on school participation. They reveal that SFPS are associated with increased school enrollment, high class attendance and lower student drop-out rates. Finally the literature shows that other factors have clear influence on enrollment, attendance and drop-outs, in addition to just school meals.

Chapter Three: Research Methodology

This chapter presents description of the study area, the research strategy, sampling procedure, instruments of data collection, techniques of data analysis as well as meanings and definitions of variables.

3.1 Description of the study area

This study is conducted in Dara *Woreda*⁷, one of the districts of Sidama Zone in Sothern Nations Nationalities and People's Region of Ethiopia (SNNPR). Dara is located at 6^o30'N, 38^o25'E, and is one of the 19 *Woredas* in Sidama Zone⁸ (FDRE 2008 see also Maps 1&2,P.22).

As of 2007, Dara *Wereda* has a total population of 157, 866 people of whom 77,811 are male and 80,055 are female (ibid). Agriculture provides an occupation for about 95% of the population of Dara, of whom 85% rely on crop production. Whereas the remaining 5% are public servants with a regular monthly salary (ARDO 2010).

The Dara *Woreda* is divided into three livelihood zones: *The Sidama Maize Belt Livelihood Zone*, *Sidama Coffee Livelihood Zone* and *Sidama-Gedeo Highland Enset and Barley Livelihood Zone*. The study was carried out in the Sidama Maize Belt Livelihood Zone where there are poor and food insecure villages as observed from the Poverty and Food insecurity Map of the region. This livelihood zone faces mounting challenges including 'population growth, declining landholding sizes, deforestation, land degradation, declining soil fertility, erratic and insufficient rainfall, and dependency on relatively expensive agricultural inputs that require regular and adequate rainfall for production' (SAZ 2005:1). Besides, drought is the main hazard in this region and often results in crop failure and increased staple food prices. Although drought used to be irregular problem, yet it became recurring phenomenon in recent years especially since 2000 (ibid). Malaria during the rainy seasons and water shortages in the dry seasons have also significantly affected health and availability of labour in households. As a result, the population is largely food insecure and obtains only less than half of the food needs from own production and the rest through purchase, relief aid and payment in kind (SAZ 2005). This pattern, however, depends on household wealth. Households that are very poor get nearly half their food needs from own production⁹, the rest being obtained from purchase and relief

⁷ A *Woreda* refers to a district within a Region (or *Kilil*). *Woredas* consist of a number of *Kebeles*, which are the smallest administrative units of Ethiopia. A collection of *Woredas* forms Zones, which in turn form Regions or *Kilil*. There are 9 such administrative Regions in Ethiopia that form the Federal Government of Ethiopia.

⁸ Sidama Zone itself is one of the 13 zones in Southern Nations Nationalities and People's Region.

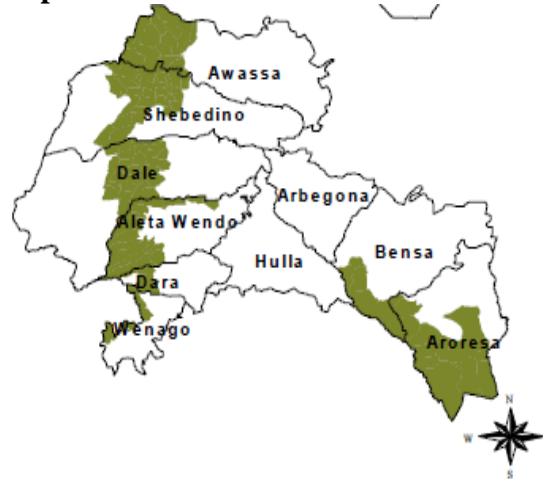
⁹ Compared to wealthier households who get 85 – 95% of their food through own production.

programs (ibid). Besides, such households also get some food from livestock products and in-kind payments (Productive Safety Net Programs, for instance). However dependency on relief programs decreases with wealth, i.e., for wealthier households, the bulk of food needs comes from own production (ibid).

Map 1: Map 1: Location of Sidama Zone



Map 2: Location of Dara Woreda



Sources: (SAZ 2005; Abbagero 2010).

Notice that the green shades on the right hand side map show the areas that constitute the *Sidama Maize Belt Livelihood Zone*, which also include some parts of *Dara Woreda* where the study was conducted.

The major food crops grown in the Sidama Zone as a whole include Maize and Enset¹⁰ whereas the main cash crops grown vary from one livelihood zone to another but usually include Coffee, Chat (Khat)¹¹ and Chili Peppers (ibid). Most of the population in *Dara Woreda* earn income from production and selling of crops mainly Coffee, Chat/Khat, various fruits, Maize, Barley and Potatoes, according to their chronology (ARDO 2010).

Educational indicators have been very low although there are signs of enormous progresses over the last two decades. For instance, the 1994 Population and Housing Census of Ethiopia shows only 27.91% of the population living in *Dara Woreda* were considered literate and only about 9.76% of the estimated primary school age children were enrolled in school prior to 1994 (FDRE 1996). Nonetheless, this has been swiftly changing during the last couple of years. The total number of primary school age children (7-14 years) in *Dara Woreda* during the 2008/9 academic year was 35,891; of whom 17,620 were boys and 18,271 were girls (SNNPRG 2010).

¹⁰ Enset, commonly known as "false banana" is Ethiopia's most important root crop, a traditional staple crop in the densely populated south and south-western parts of Ethiopia (Kemal 2010:42)

¹¹ Khat is a leafy green shrub and its leaves are chewed for their amphetamine-like stimulant effects (ninemsn. "Khat factsheet." 2010, from <http://ninemsn.com.au/>).

However, the number of primary school age children admitted to primary schools during the same period was 29,562; whom 16,489 were boys and 13,073 were girls (ibid). This gives a Net Enrollment Ratio¹² of 82%¹³ in the whole *woreda* during the period, meaning some 18% of the primary school age children are not yet enrolled in school.

3.2 The Research Strategy

The overall design of this study is comparative as it entails studying two contrasting cases (beneficiaries and non beneficiaries), using identical methods. The evaluation method employed in this study is comparing the outcomes of program and non program schools using what is known as the ‘*with-without*’ approach (Geda 1999). Thus the method compares schools/households with the program and those without, as a way to measure the impacts of the project. This approach assumes that both supported and non supported households have similar characteristics (in terms of, for example, income, household head age and education level distribution), and any observed difference between beneficiary and non beneficiary households is attributed to the effect of program. However the main critique of this approach is that no two groups are absolutely identical and that there should be at least one factor that differentiates them, even though all external factors can be controlled when studying the relative impacts of programs (ibid).

3.3 Sampling Design and Sample Size

There were four schools in Dara which have been supported with the contemporary WFP School Feeding Program during the 2008/9 academic year. This study is however conducted on two of them: Safa and Wata Dara primary schools along with two other non supported schools; Upper Safa and Kebado primary schools. The main reasons for choosing this site are because it offered potential accessibility of data compared to any other site in the region and because it encompassed schools which are relatively deemed worthy by WFP local office. Besides, the study region presented far better credential opportunities where official records are also readily available in comparison with other villages.

¹² *Net enrollment ratio* is the number of students enrolled in a level of education who belong in the relevant age group, as a percentage of the population in that age group

¹³ Computed by the author

The household sample consists of households located within 5 kilometers of distance from the schools and at the same time those who have got at least one child in any of the four primary schools. These households were stratified based on whether they had children in program or non program schools. A list of all such households was obtained from *Kebelle* Offices (small administrative units) and with the help of local field assistants. The number of households in each stratum is roughly similar with 322 beneficiary households and 316 non beneficiary households. These numbers, however, include some 110 households who had children in both program and non program schools. These (110) households are not included in the sample since the purpose of this study is to compare the program and non program school participation. Thus, the net numbers of households who had children only in program and non program schools are, therefore, 212 and 206 households respectively. Following this, a proportional household size of 30% was planned to be randomly chosen from each stratum. By the end of the survey, 52 beneficiary and 50 non beneficiary households were reached making it approximately 25% of the households in each stratum. The rest 5% either gave incomplete information (which I considered as missing value and excluded from the analysis) or were unable to be accessed.

On the other hand, the Key Informant Interviews were conducted with 17 individuals in total; consisting of 4 school principals, 5 Parent-Teacher Association members, 1 country and 1 local WFP officers, 1 Focal Person, and 5 randomly selected students in both school types.

3.4 Type and Methods of Data collection

Both quantitative and qualitative data were collected for the study. The quantitative data were collected from both groups of households through questionnaire. Besides, additional quantitative data was also obtained from school records, SNNPR Education Bureau Annual Reports and WFP's official documents. The qualitative data, on the other hand, was collected through Key Informant Interviews with School Principals, Parent-Teacher Association members, selected students; WFP country and local officers; and a Focal Person. In addition, some qualitative data have also been collected through direct observation. The data were collected from September to October 2009 when the new academic year began. Besides, additional data have been collected during April-May 2010. To facilitate and speed up data collection, three field assistants were recruited and given 3 days training on both theoretical and practical aspects of field work.

3.5 Methods of Data Analysis

After the field work, the quantitative data were coded, entered into SPSS package, and cleaned and verified. Following this the data have been analyzed using three techniques. First, the three school participation indicators (presented and defined in the following section) have been compared and contrasted for both groups of households using an Independent Samples T Test. The main reason for using this technique was because both the data type and study design fit in to the assumptions of the model. Second, descriptive statistics such as weighted averages, totals and proportions have been employed to determine some household characteristics. Third, two-variable correlations are also established to test the relationships between selected household characteristics and school participation indicators and to determine if these correlations are significant.

On the other hand, the qualitative data have been analyzed and integrated into the findings of the quantitative data to strengthen the discussion. This means the results of the Key Informant Interviews and direct observations have been juxtaposed with the quantitative results wherever necessary.

3.6 Meanings and Definitions of Variables

In this study, school participation refers to school enrollment, class attendance and student drop-out statuses. Thus, three different indicators have been formulated to measure the levels of enrollment, attendance and drop-out: Household Enrollment Ratio (HER), Attendance Rate (AR) and Drop-out Ratio (DR). However, each of these terminologies have different meaning and derivation than other conventionally known indicators. For instance, Household Enrollment Ratio has been computed only for those households who have got at least one primary school children and thus should not be seen as identical to Gross Enrollment Ratio (GER) although both are derived from similar calculations.

Household Enrollment Ratio is the ratio of the total number of children going to primary school within a household to the number primary school age children in that household (those from 7 to 14 years). Thus like GER, HER calculation also involves over-age, under-age and/or grade repeating children, which thus can result in ratio of more than hundred percent.

Absence Rate is the second indicator employed in this study and it measures class attendance.

Thus, the attendance rate has been measured by pupil absentee days over the study period. In other words, Absence Rate measures the number of days a primary school child failed to fully attend class during the academic year. Thus the Absence Rates are same as those recorded in the official school transcripts of the children that were given to them by the end of the academic year. When there are more children in the household who were absent from school during the period, the average Absence Rate is computed by adding all the absences and dividing them by the number of absentees.

Drop-out Ratio compares the number of children who failed to complete the academic year as a percentage of all children actually enrolled in to school the same year. In other words, it is the ratio of the number of children who dropped out of school during the academic year divided by those who were actually enrolled in to school the same year.

Chapter Four: Results and Discussion

This chapter presents a thorough analysis of the data. In addition, the links between the findings and the wider literature have also been established for broader understanding.

4.1 Household Demographics

Apparently, most of the household demographics are similar for both SFP and Non SFP households. There are no significant variations between the two groups in terms of some demographic characteristics. As presented in Table 1 (p.28), the household head gender composition is almost equal between the two groups in that both are dominated by male headed households with roughly similar proportions (82% in SFP households and 82% in Non SFP households). Meanwhile, the mean sample household head age is 50.0 years in both categories of households (see Table 1). This indicates most of the household heads are in their late ages by the time younger children attend primary education and this age trends in turn, as we will see in the later sections of this chapter, has significant impact on school participation. Household head education attainment is also found to be quite similar between SFP and Non SFP households. The average grade attained in both groups, as shown on Table 1, is grade 3, which means household heads from both treatment and control groups attained only the first 3 grades of primary education. The education level of household heads too, as we shall see later in this paper, is found to have implications for school participation.

Annual household income¹⁴ is found to be almost the same for both groups; 3901 birr¹⁵ for SFP households and 3963 birr for Non SFP ones (see Table 1). Nevertheless, household wealth in this region is determined primarily by land and livestock holdings¹⁶ (SAZ 2005). Due to resource constraint, information was not collected on the other determinants of wealth and hence income remains to be the only measure of household wealth. Thus further study is needed to identify other wealth indicators in addition to just income. The major sources of income for the households in the study area are crop sales, casual employment¹⁷, and livestock and its by-product sales (ibid).The relationship between household income and school participation is discussed in the later section of this chapter.

¹⁴ Household Income is calculated on the basis of average weekly income and is multiplied by 52 to arrive in estimated annual income.

¹⁵ Birr is the Ethiopian currency and \$1 was traded for approximately 13 birr when this study was conducted.

¹⁶ Very poor households are those with 0.25 ha of land and 0 cattle, 0-2 sheeps/goats and 0 donkeys. Whereas better off households have 1.5 - 2 + ha of land as well as 10 – 20 + cattle, 5 – 15 sheeps/goats and 1-2 donkeys (Ibid).

¹⁷ Casual employment refers to agricultural works – Enset processing, Firewood and Water fetching.

Table 1: Household Demographics

	School Type					
	SFP			Non SFP		
	Mean	Count	Percentage	Mean	Count	Percentage
Household head gender						
Male	-	43	83%	-	41	82%
Female	-	9	17%	-	9	18%
Subtotal	-	52	100%	-	50	100%
Household participates in relief programs or PSNP						
Yes	-	17	33%	-	14	28%
No	-	35	67%	-	36	72%
Subtotal	-	52	100	-	50	100%
Household head age	50.0	-	-	50.0	-	-
Educational grades attained by household head	3.0	-	-	3.0	-	-
Annual household Income (in Birr)	3901	-	-	3963	-	-
Number of children in the household	5.0	-	-	5.0	-	-
Number of primary school age children	2.0	-	-	2.0	-	-
Actual primary enrollment	3.0	-	-	3.0	-	-

Source: Author's Survey.

The total number of children residing in a household, on average, is another similarity between the two groups. Children in a particular household not only refer to the family's own siblings, but also include other people who are related to the household through adoption or blood and who live together in the same household. Accordingly, the average number of children in each household (of both groups) is 5, excluding the household head and his/her spouse, if any (see Table 1). Thus on average there could be some 7 people in one household, a typical very poor family size in this region¹⁸ according to the findings on (SAZ 2005). In fact wealthier

¹⁸ Very poor household size ranges from 5 – 7 people

households tend to have even large size than this because they attract relatives from very poor households to come and work in household chores. Thus when the host family's siblings go to school, the labor gap is filled by the poor relatives who work on cultivation, Enset processing and fetching firewood and water (ibid). Besides, household heads in wealthier families tend to be older and polygamous and this also allows them to have more children (ibid).

As shown on Table 1, the average number of primary school age children (7-14 years of age) is also the same for both groups of households (about 2 children). This means there are, on average, 2 primary school age children in every household who are either enrolled or not yet enrolled in school. Similarly, the average number of actually enrolled children in primary schools is the same for both SFP and Non SFP households; 3 children on average (see Table 1). This number, however, not only represents primary school age children, but also children outside the primary school age.

Finally, the survey reveals that some 17% of the households in SF group and 14% in Non SF group either benefited from relief programs or participated in Productive Safety Net Program (PSNP)¹⁹ (see Table 1). According to the PSNP Project Memorandum (2005), the primary PSNP targeting groups in Ethiopia were people in chronically food insecure *Woredas* and households who meet certain criteria from both sets (Sharp, Brown et al. 2006). The *Woredas* selected for PSNP are by definition those who have previously been subjected to chronic food shortages and thus relied on emergency relief. The main difference between relief program and PSNP is that in the latter case emphasis is placed on recurring problems and hence longer-term solutions are devised by identifying chronically poor and food insecure groups and providing them with 'more stable and predictable transfers' (ibid., p.5).

The following main factors are considered to include or exclude a household from PSNP: relative poverty (as measured by income level), food access or production, farming assets (landholding and livestock), off-farm income, size of labor, availability of remittances / family support, demographics and health, and linkages with other programs (ibid). Thus PSNP beneficiaries are those who have substantially lower incomes, farm less land, and own a lower value of assets than non-beneficiaries. They also have less labor and higher age-based dependency ratios, and are more likely to suffer from food shortage in the previous year (ibid).

¹⁹ PSNP is a policy initiative by government and donors to shift millions of chronically food-insecure rural people from recurrent emergency food aid to a more secure and predictable, and largely cash-based, form of social protection.

Generally, the household characteristics were mostly similar between the two groups of households, confirming that both SFP and Non SFP households exist in the same socio-economic environment.

4.2 School Feeding Program and School Participation

In this section, the data on school participation are analyzed and compared for SFP and Non SFP households. Household Enrollment Ratio, Absence Rate and Drop-out Ratio have been computed for both groups of households and analyzed using the independent sample t-test technique. Besides, the qualitative data have also been put together for broader understanding.

4.2.1 School Feeding Program and Enrollment

We have seen in Chapter Two that one of the primary objectives of providing school meals is to increase school enrollment. The School Feeding Program in the study area also contributed to some extent towards this objective although, as found out from the discussions that follow, it does not have significant impact on households' enrollment decisions.

It was observed that children in *Dara Woreda* of the Sidama Zone have greater roles in household economic activity. Since this region is a cash crop area where coffee growing is an important economic activity, households almost exclusively depend on their children's labor especially during the harvesting season (from September to October). Consequently, households tend to keep children on household duties than encouraging their schooling since the opportunity cost of schooling exceeds the expected benefits. This result maintains the argument about the economic function of School Feeding Program discussed in Chapter Two. It is claimed that households will not enroll their children to school if the costs of schooling exceed the expected benefits and that households must have some kind of incentives to compensate the current costs to keep the benefit of schooling high (Adelman, Gilligan et al. 2008). However, the value of such compensation should be high enough for the beneficiaries to enroll their children to school, which is not the case in the study area.

The result of this study shows School Feeding Program has minimal role in affecting household's decision to enroll children to school, compared to other factors identified (see Figure 3, p.40). Thus, school meals do not have significant influence in parents' enrollment decisions for such households. On the other hand, the opportunity cost of sending children to

school, which is the child labor that households would have lost if they had enrolled their children to school, is considered very high given the important roles of children in the household duties. Consequently, for such households the expected benefit of enrolling children in the program school is lower than the opportunity cost of doing so. One farmer household head, who is also a member of Parent-Teacher Association member, said during a Key Informant Interview:

....my elder children are studying in Safa School [Program School] but I have not enrolled their younger siblings yet because I cannot afford to work alone by enrolling all of my children to school simultaneously. If all my children go to school, nobody will help me in farm works nor take care of the household chores. So I will enroll my younger children only in the future when I have someone to substitute them but for now they just stay home.

Thus in the case of SFP households, some parents have had the impression that it is more important to keep younger children work for them than enrolling them to school regardless of the availability of SFP since the opportunity cost of sending them is greater than the expected benefit and this attitude could have been reflected in their failure to enroll children during the school age.

The other factor that resulted in small effect of the School Feeding Program in enhancing enrollment could be the absence of take home rations in the existing program. In fact take home rations are provided only in pastoralist areas of the country where the gender gap in primary education is extremely wide²⁰. A study in Sub-Sahara African countries shows that in-school feeding by itself is considered to have little impact on school participation unless it is coupled with take-home rations (Gelli, Meir et al. 2007). Thus the absence of take-home rations from the ongoing School Feeding Program in Dara *Woreda* could have limited the significance of the program in increasing enrollment. This opinion is also shared by Safa School principal. When asked about whether the absence of take home rations in the ongoing feeding program has any significant effect on enrollment level, the principal replied:

Well girls' enrollment in our school is relatively lower than that of boys although the gap is not too wide like what you observe in other schools. We believe that in-school feeding

²⁰ Source: key informant interview with WFP officer

alone does not attract girls to school effectively. Thus, take home rations are needed to [particularly] attract girls from poor families who could not come to school. Take home rations should reach the families of such children as compensation for the losses of labor due to school participation and to enable girls come to school.

After analyzing the data from the household questionnaires, it is found that the Household Enrollment Ratios (HERs) for both SFP and Non SFP households are well above 100 percent indicating high level of enrollment in both groups (see Table 2, p.32). The fact that the HERs are above 100 percent in both groups could be seen as significant achievement in enrollment. But it also indicates that there are over-age or under-age students because of late or early entry; it could also indicate the existence of grade repetition. This is because parents do not have the incentive to send their younger children to school during their primary school age, since such children are expected to take over the duties of their elder siblings when the later are enrolled in school. Studies show that because of late entry and grade repetition, many children in developing countries have already reached adolescence by the time they join primary schools (Adelman, Gilligan et al. 2008).

Table 2: Mean Household Enrollment Ratio, Absence rate and Drop-out Ratio between household types²¹

Household Category	Indicators		
	Household Enrollment Ratio (Mean percentage)	Absence Rate (Mean days)	Drop-out Ratio (Mean proportion)
SFP	119	8.6	0.15
Non SFP	122	8.4	0.15

Source: Author's Survey.

From Table 2, it can be observed that the mean HER in SFP households is 119% and in Non SFP households it is 122%., suggesting relatively lower over-age, under-age or repeated children exist in SFP schools than in Non SFP ones. Nevertheless, the independent samples t test shows that the difference in terms of Household Enrollment Ratio between SFP and Non SFP households was not statistically significant (see Table 3, p.33). In other words, the mean

²¹ Notice that the table only shows the statistics used in interpretation of the results and hence other statistics have been omitted from the table for the purpose of simplification

Household Enrollment Ratio of SFP and Non SFP households is not statistically different from zero at the 5% level of significance. Although there is an estimated sample mean difference of 3%, there is insufficient evidence ($p=0.699$) to suggest the difference is statistically significant. The t test statistic is -0.388 and the 95% confidence interval of the difference is between -21.85 and 14.70. This interval includes 0 and hence it could be that 0 is the real difference implying no significant difference between SFP and Non SFP households in terms of HER.

Table 3: Independent Samples t Test

Indicators	T-test for Equality of Means				
	t	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
				Lower	Upper
Household Enrollment	-0.388	0.699	-3.0	-21.85	14.70
Absence Rates	0.453	0.652	0.2	-0.80	1.27
Drop-out Ratios	0.013	0.990	0.0	-0.09	0.09

Source: Author's Survey.

Generally, from the discussion so far, it can be concluded that the School Feeding Program in Dara Woreda of Sidama Zone have not significant positive impact on enrollment. This is because the economic role of child labor in this region is so high that parents would rather prefer to keep their children home than sending them to school. Second, the existing School Feeding Program provides only in-school meals (no take home ration scheme), which in turn could minimize the impact of the program on enrollment. Third, there is high Household Enrollment Ratio in both groups, which shows the inclusion of over-age/under-age children and/or high grade repetition. Thus, there is no relative value of the School Feeding Program in attracting children to school during their school age. Finally, the HER in SFP households is not significantly different from those in Non SFP households suggesting that there is no unique performance of the SFP.

4.2.2 School Feeding Program and Class Attendance

Class attendance, measured by Absence Rate, is also analyzed to determine if the School Feeding Program has significant positive impact on school participation. However, the study found no evidence of significant impact of School Feeding Program on class attendance.

First, the result of this study shows that that the nutritional benefits of school meals are inadequate as observed during the field work. Some beneficiary children argue that the food they receive in school is too small and unsatisfactory and that it hardly affects their class attendance²². This concern is also shared by the SFP principal (Wata Dara School) who argues:

....each student receives Corn Soya Blend [CSB] of just 120 grams a day in a single meal but this is not enough compared to the energy they need to concentrate in school. There are children who come from remote and distant areas walking 2-3 hours each day. By the time they arrive in school they get hungry but will not eventually get food. Since WFP instructs us to provide food during the break hours, these hungry children will have to wait for 2-3 more hours to get a meal. Besides, the current allocation is so small that it does not satisfy them. For these reasons, children are unable to stay longer in school and miss school for extended time. We have frequently appealed the matter to WFP and Woreda Education Bureau but so far we haven't got any answer.

It is found that the main cause of absence in both SFP as well as Non SFP households is illness (see Table 4, p.44), and many of the absences are hunger-related incidents of illnesses²³. Because of the direct implication of nutrition on health status (See also Weinreb, Wehler et al. 2002), we may infer that the nutritional benefit of School Feeding Program is not significant to make children attend school. This is contrary to the claim that School Feeding Program improves the nutritional status of children so that they can attend school (see Adelman, Gilligan et al. 2008). Thus the nutritional function of SFP, discussed in Chapter Two, might be low to have significant effect on attendance.

On the other hand, children eat monotonous meals throughout the year and hence get bored of school meals since it is prepared from just CSB (Corn Soya Blend). One beneficiary student said the following during a Key Informant Interview:

²² Revealed during the key informant interview with selected beneficiary children

²³ Source: key informant interview with Parent-Teacher Association member

What we usually get is Porridge during break hours and we find it boring to eat the same food every day. In some circumstances children even do not want to eat school meals because they are fed up of having same dishes routinely.....

A report by the World Bank shows that for children who have plenty food at home, it may be less appealing to eat monotonous school meals every time though such attitude could change owing to long school hours which forces children to eat even if they complain (Bundy, Burbano et al. 2009).

Nevertheless, no direct inference can be made in this study about the lack of nutritional benefits of the School Feeding Program because of the nature of the data and thus more experimental field studies are required to scientifically determine the nutritional impact of School Feeding Program on children and the subsequent effects on class attendance.

Second, the pattern of school attendance varies across the academic year depending on the seasonal demand for child labor, for instance, to work on seasonal agriculture. This is particularly the case for children who help their parents in coffee related businesses. Such children often turn out to be absent from school during the coffee picking seasons (usually from September to October) because this is when their labor is more demanded. During such period, households prefer to keep their children on these tasks than sending them to school since the economic contribution of children becomes more valuable than the perceived future educational benefit. As discussed earlier, children's readiness to come to school and attend is influenced by the extent to which their parents value the food their children receive in school premises (Adelman, Gilligan et al. 2008). Thus it appears that the School Feeding Program is not well valued by parents because it has not encouraged them to send children to school during coffee picking periods. For instance, one farmer household head said the following during the Key Informant Interview:

....the coffee harvesting season is a period when all members of the household help in picking the beans and eventually offer them to the market. During this time, we raise more money from coffee trading than any other season and hence the help of all members of the family is essential. As you can see me, I am an old man and losing my strength. If my children cannot help me in the farm work, would do? Thanks to God, I have got blessed children who are always by my side in this very critical time of the year.

Figure 2: Children during coffee picking



Photo: Author

Similar claims are also made by some program administrators. The SFP principal (Safa School), for instance, argues that:

In the beginning of the academic year, we observe that many children miss school mainly due to the overlapping of this period with the coffee picking season. Coffee is the main economic activity of the region, and many children are obliged to help their parents with that. We have tried to convince the parents but the situation could not get any better. This has been a custom practiced for many years.

When coffee business is more attractive in other livelihood zones, poor households in Sidama Maize Belt Livelihood Zone send their children in neighboring livelihood zones to work as migrant workers (SAZ 2005). Thus, some of the absences from school reported in this period were in fact due to participation of children in coffee business.

Referring to the results of the study (Table 2, p.32) the mean Absence Rates in SFP and Non SFP households were 8.6 and 8.4 days respectively. Although the Absence Rate is higher in SFP than Non SFP, the difference is, however, not statistically significant at 5% (see Table 3, p.33). Thus, based on $p=0.652$ it can be concluded that Absence Rate in SFP households is not statistically different from that of Non SFP households. Besides, the 95% confidence interval of the difference is between -0.80 and 1.27, implying the mean differences could even be 0. This finding is, however, contrary to other studies that show class attendance - as a measure of school participation- can be improved by School Feeding Program (see Powell, Walker et al. 1998; Ahmed 2004; Vermeersch and Kremer 2004). They claim that because children receive food only when they come to school, in-school feeding therefore makes them attend classes.

In sum, we may infer from the above discussions that there is no evidence that suggests School Feeding Program has significant positive impact on class attendance. First, there is a perception that the school meals in this region are not nutritionally rich to prevent children from nutrition-related illnesses. In turn, when children are ill, they cannot attend classes and hence we may infer that the School Feeding Program has no significant positive impact on class attendances. Second the variety of the school meals is limited and this could not significantly encourage children to attend. Third, the opportunity cost of sending children to school is high, whereas school meals present little incentive to compensate for such costs. Finally independent test of Absence Rates shows there are no significant differences between SFP households and Non SFP households in terms of class attendance.

4.2.3 School Feeding Program and Student Drop-out

As discussed in Chapter Three, the study area is one of drought-prone areas of Sidama Zone that often face various shocks. Like many other places in the country, agriculture in this region is also rain fed and households often face food shortages during the dry seasons. Children who could not fulfill their food needs grow stunted and in most cases are vulnerable to diseases. Consequently such children are unable to participate in school properly because of illnesses, most of which result from hunger and poor nutrition. Studies have shown that child hunger is associated with higher rates of chronic illness (Weinreb, Wehler et al. 2002). When there are no means to combat hunger, children are forced to drop-out of schools. Thus one of the reasons behind launching school meals in this region was to enable children cope up with the effect of

hunger and make them actively participate in school²⁴.

Although some studies reveal that In-School Feeding Programs have positive impacts on drop-outs (Ahmed and del Ninno 2002), some others claim the evidences are inconclusive (Adelman, Gilligan et al. 2008). The result of the study shows that illness is the main reason for student drop-out in both groups of households (see Table 4, p.44). And some of these drop-outs are due to hunger-related incidents of illness, while others are due to some other causes of illnesses. Thus there is no evidence that shows the School Feeding Program overcomes hunger and hence prevents children from dropping-out of school.

On the other hand, there are also some drop-outs due to economic reasons (see Table 4). However such causes are very similar to the economic reasons of non class attendance discussed in the previous section. In other words, children could also drop-out of school in order to work on cash generating activities, notably coffee picking. Thus the economic function of School Feeding Program discussed in Chapter Two is once again not significant enough to prevent children from dropping out.

The quantitative data shows that a total of 21 children from SFP and 18 from Non SFP households dropped out of school during the study period. The mean drop-out ratios (number of drop-outs in each household during the year as a percentage of number of children who were enrolled to school during the same year) are equal in both groups of households (0.15 each, see Table 2, p.32). This means 15% of the children enrolled in primary school during the study period dropped out of school the same year. The statistical differences of these drop-out ratios are again tested using the Independent samples t-test and it is found that the drop-out ratio in SFP households is not statistically different from that in Non SFP households at 5% level (see Table 3, p.33). Some explanations can be made for this; first, although the drop-out rates have declined in both schools in recent years (as observed in the schools' records), it is impossible to determine whether SFP contributed for this because they could have been improved without the program as seen in Non SFP schools. Second, non food determinants of school participation such as the level of school quality- measured by teacher-student ratios, the availability of schooling inputs and infrastructure could be better in Non SFP schools, and thus equaled the effect of School Feeding Program.

²⁴ Source: key informant interview with WFP focal person

Thus the drop-out ratios for SFP and Non SFP groups are not significantly different at 5% level. The sample mean difference is 0 and the 95% confidence interval of the difference is between -0.09 and 0.09 in which zero could be the real difference. Thus we have no sufficient evidence to conclude the drop-outs in SFP households are significantly different from those in Non SFP.

In general, there is no evidence that suggests significant positive impact of the School Feeding Program on student drop-out. Unlike the claim that School Feeding Program improves the nutritional status of children, which in turn reduces drop-outs, no such association are observed in this study leading us to conclude the school meals are not nutritionally rich enough to affect drop-outs. Besides, the economic function of the program is also not large enough to avoid drop-outs. Finally the independent samples t-test of absence ratios between the two groups of households shows no significant difference.

4.3 Factors Affecting School Participation

In this section, an attempt is made to identify some of the factors that affect school enrollment, class attendance and student drop-out in the study area.

4.3.1 Factors Affecting Enrollment

There are various factors that affect households' enrollment decisions. Figure 3 (p.40) shows some of these determinants of enrollment in the study area. The result shows that factors such as demand for child labor, cost of schooling, availability of school, school factors (perceived teaching quality and school infrastructure), distance to school, availability of food incentives and safety concerns are some of the most important determinants of enrollment in the region. Details of each factor are presented in the following sections.

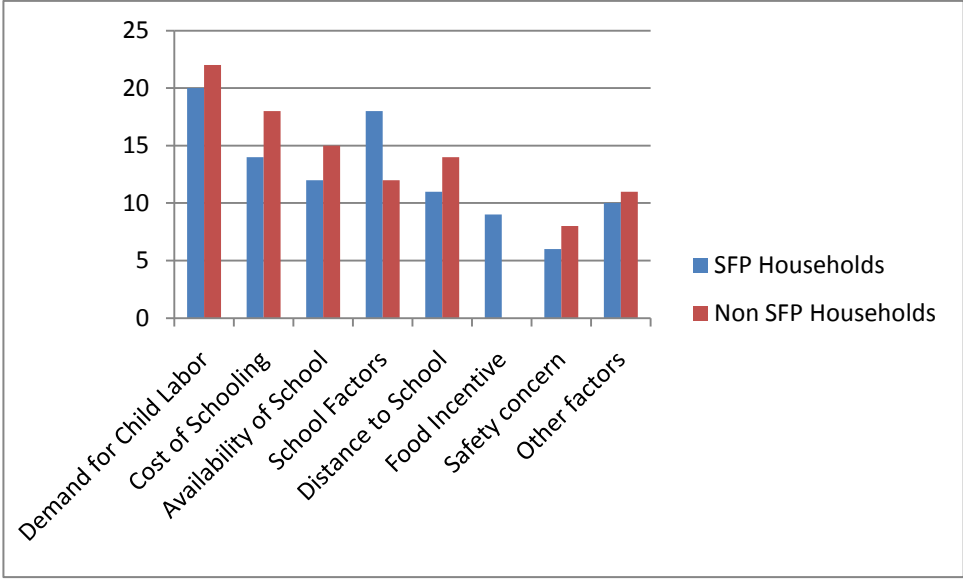
4.3.1.1 Demand for Child Labor

One of the prominent determinants of school enrollment in the region is households' demand for child labor. The data shows that demand for child labor is the major determinant of enrollment in both groups of households - 20% of the responses in SFP households, and 22% in Non SFP households (see Figure 3).

As discussed before, the contribution of child labor in both income generating activities and household chores is significant. Thus households, especially those with labor scarcity tend to delay children's enrollment in order to make them work on such duties. Studies on

determinants of school enrollment also show that rural Ethiopia has one of the highest rates of children’s labor activity in the world with children working for extended hours within a week (Admassie and Bedi 2003). This is because children start to assume responsibility in their early ages and help parents in such activities as coffee picking, fetching water and fire woods and so on.

Figure 3: Factors affecting enrollment: Percentages of each response relative to all responses



Source: Author’s survey

4.3.1.2 Cost of Schooling

Cost of schooling refers to both direct costs as well as indirect costs. The direct costs are those paid out of pockets such as those for learning materials (for instance for exercise books), while indirect cost are opportunity costs of enrolling children that include child labor that may be forgone if children are enrolled to school. Both of these costs affect households’ schooling decision to enroll or delay students to school.

In this study, about 14% of the responses in SFP households and 18% of those in Non SFP households revealed cost of schooling affected school enrollment of children (See Figure 3).

4.3.1.3 School Availability

This factor is closely related to distance to school but refers to abundance of schools in the study area. Lack of school supply could be a constraint to school participation as identified in

some studies (see Jamison and Lockheed 1987), particularly in cases where there are no adequate options to make a choice from. School availability as a determinant of school participation arises when there is no school within walking distance, when the available schools are overcrowded, or when the quality of available schooling is low (ibid).

Referring to Figure 3 again, the availability of school is another factor affecting school enrollment with 12% of the responses in SFP households and 15% in Non SFP households.

4.3.1.4 School Factors

School factors are factors peculiar to the school compound. These include teaching quality and school infrastructure. Teaching quality refers to abundance of teachers (teacher-student ratio), qualification of the teachers and standard of the teaching-learning process. In fact, households have little knowledge about these at the time of enrollment decisions. However they extensively seek information from neighbors, friends or relatives before making up their mind about which school they want their children enrolled.

School infrastructure refers to teaching facilities such as number of class rooms, desks or other learning aids and materials. Studies reveal that such factors largely affect enrollment in Ethiopia (Riley, Ferguson et al. 2009). Although limited in their capacity to satisfactorily accommodate all children (as observed during the study), these factors are also given some weights at the time of enrollment. It was observed that there is relatively high overcrowding in SFP schools and therefore some households preferred to send children to Non SFP schools. Thus, there is switching of students between schools in response to overcrowding. During the Key Informant Interview, the SFP principal (Safa school) said:

....over the past few years, the school admitted more students than our capacity leading to overcrowding of class rooms and overburdening the teachers. To overcome this, we transferred some students who live closer to upper Safa primary school in to that school...

A study in Sri Lanka shows that heavily overwhelmed School Feeding Program could prompt students to switch from schools with the program to schools without (He 2009). In my study,

about 18% of the responses in SFP households and 12% in Non SFP households show that school factors are issues that affected households' enrollment decisions (see Figure 3).

4.3.1.5 Distance to School

Distance to school is also one of the factors affecting school enrollment. In some cases, it takes children two or three hours to reach their schools and thus without doubt distance to school is a major factor in enrollment decision in this region. In fact, studies also show distance to school is one of the factors affecting enrollment in Ethiopia (Chaudhury, Christiaenseny et al. 2006). Since all of primary schools are located closer to urbanized villages, children from remote areas will find it difficult to come to school.

Thus, distance to primary school is a very important determinant of enrollment decision to households. The result of the study shows that 11% of the responses in SFP households and 14% in Non SFP ones identify distance to school as a factor affecting their children's enrollment decision (see Figure 3).

4.3.1.6 Availability of In-School Food Incentive

For households who have children in program schools, the provision of food in school has also influenced the enrollment decision. Besides, some stakeholders²⁵ claim that in school meals determine enrollment of children to school. For instance, Wata Dara school principal said the following during our interview:

Ever since the SFP was launched in 2005, we observe an increase in the number of children enrolled in our school. From the point of encouraging households to enroll their children, I think SFP is an important tool and should further be strengthened. In fact, it does not mean that there are no weaknesses with the existing status. But I do believe that further improvements in the program's operation can boost enrollment rates even beyond the current level...'

The role of school feeding in enhancing enrollment was broadly discussed in Chapter Two (see Ahmed 2004; Vermeersch and Kremer 2004; Kazianga, de Walque et al. 2009). The data reveals that 9% of the responses in SFP households cite school feeding as a determinant of enrollment (see Figure 3).

²⁵ The SFP principals and WFP focal person

4.3.1.7 Safety Concerns

Safety concerns are factors such as fear of abduction, accident concerns while children are en route to school, concern for harassment incidents and so on. Like many other rural areas in Ethiopia, female children are subject to abduction threats and this may affect their school enrollment. In some cases, parents insist they are not willing to enroll their children to distant schools fearing the risk of abduction and harassment. Similar concern is given for safety of the children on their way to school, which includes traffic accidents and risk of getting lost. As shown in Figure 3, safety concerns also affect enrollment, with 6% of the responses in SFP households and 8% of those in Non SFP households being in favor of this factor.

4.3.1.8 Other Determinants of Enrollment

There are also some other factors that affect enrollment of children to school. These include, among others, children's own preference, neighborhood effect²⁶ and intention of parents to keep all children in the same school. For instance studies show that households in neighborhood reinforce each other to send children to school through social pressure on those who haven't enrolled their children to do so by looking neighbors (Adelman, Gilligan et al. 2008). In this study about 10% the responses in SFP households and 11% in Non SFP ones state such and other factors as factors affecting enrollment (see Figure 3).

In general, the above discussions attempt to find out possible determinants of enrollment in *Dara Woreda*. Accordingly, demand for child labor, cost of schooling, availability of school, teaching quality and school infrastructure, distance to school, the availability of food incentives, safety concerns and some other factors are the main factors affecting enrollment.

4.3.2 Factors Affecting Class Attendance and Student Drop-out

This section highlights some of the determinants of attendance and drop-out. The result of this study reveals that the major factors affecting class attendance and student drop-outs in the study area are illness, work for money/food, domestic work and some other factors (see Table 4, p.44). In fact, the major causes of absence and drop-outs in *Dara Woreda* in general are seasonal labor demand during the coffee picking season (October –December), shortage of food, malaria breakouts in lowland areas, and long distances to school (SAZ 2005).

²⁶ A household sometimes makes decisions inspired by neighbor's actions

Table 4: Causes of absence and drop-out from school

Causes	School Type			
	SFP		Non SFP	
	Absence	Drop-out	Absence	Drop-out
Illness	30%	39 %	33%	35%
Work for money/food	27%	21%	26%	24%
domestic work	23%	18 %	22%	22%
other	20%	22 %	18%	19%
Sub Total	100%	100%	100%	100%

Source: Author's survey

4.3.2.1 Illness

Illness is the major problem hindering attendance and it is also a cause of drop-outs in many households. It ranges from mild to severe sicknesses that often relates to poverty and inadequate nutrition of children. Although most of the households state the symptoms (Illness) as a cause, it is observed that the root causes of many absences and drop-outs are indeed hunger related phenomena. This is because sickness in this region usually results from poor nutrition²⁷. Studies also show that school age children with severe hunger have significantly higher chronic illness rates than those with moderate or no hunger (Weinreb, Wehler et al. 2002).

Poverty has also direct implications for health. It is shown that severe poverty has negative effects on children's health (ibid). When poor children are sick, they will stay at home for extended period of time without seeing a medical practitioner. The fact that many of the households are poor implies that they cannot afford the cost of medication, but instead rely on traditional healing practices which may not help children recover from their illness.

Besides, malaria is also a common cause of illness as it occurs throughout the year with May to November being the worst period (SAZ 2005). Because of lack of clean water during the dry season, children may also suffer from water born diseases notably diarrhea particularly from December to March (ibid).

²⁷ Interview with WFP Focal Person

Table 4 (p.44) shows that about 30 percent of the causes of class absences in SFP households and 33 percent of those in Non SFP households are due to illnesses. This indicates illness is the main cause of absence for school children in the region. On the other hand, illness constitutes for 39 percent of the causes of drop-outs in SFP households and 35 percent in Non SFP ones showing again illness is the major cause of student drop-outs in the study area.

4.3.2.2 Work for money/food

Work for money/food may refer to engagements that would earn money/food for the household. Such activities may include working on seasonal works as in coffee picking or undertaking private businesses. As discussed in the previous sections, one of the features of this region is that children contribute to household's economic activities either directly or indirectly. As a result, child labor is very demanded in agricultural works especially during coffee picking seasons (September to October). It was shown that the decision of parents to enroll children to school depends on how much they value schooling against the contribution of children in such household duties (see Adelman, Gilligan et al. 2008). Similar consideration also affects class attendances and even drop-outs of children from school. Some children would have to miss or drop-out of school in order to work in seasonal jobs for their parents and hence support their family's economy.

The result of the study shows that of all causes of absences reported, 27 percent in SFP and 26 percent in Non SFP households are due to children's participation in works for money/food (see Table 4. Meanwhile, 21 percent of the reasons for drop-outs in SFP households and 24 percent in Non SFP are works for money/food (ibid).

4.3.2.3 Domestic work

Domestic works refer to household chores and may include taking care of siblings and elderly, fetching water from river, herding, making food, looking after the house and so on. A study in Nepal shows that the time that a rural student spends in school is usually at the expense of his or her doing useful work at home (Jamison and Lockheed 1987). However, the demand for female child labor is higher than the demand for male child labor when it comes to domestic work (ibid). It is revealed²⁸ that children (especially girls) shall take care of the domestic chores when the rest of the family members engage in coffee work.

²⁸ Source: Key Informant Interview with Parents-Teacher Association member

Looking again at Table 4, domestic work constitutes 23 percent of the reasons for school absence in SFP households and 22 percent in Non SFP households. Mean while 18 percent of the reasons for drop-outs in SFP households and 22 percent in Non SFP households are also due to domestic works.

4.3.2.4 Other Factors Affecting Class Attendance and Student Drop-out

Other causes of absence and drop-out mentioned by SFP and Non SFP households mainly include hunger during school hours, long distance to school, students' own reason (for instance lack of motivation), early marriage, abduction, birth delivery and death of the family member or the child himself, dissatisfaction with school environment and so on. Such factors account for 20 percent of the causes of absences in SFP households and 18 percent in Non SFP households. On the other hand, they account for 22 percent of the reasons for drop-outs in SFP households and 19 percent of the reasons in Non SFP (see Table 4).

In sum, the main determinants of attendance and drop-outs are illness, work for money/food, domestic work, school hour hunger and long distance to school.

4.4 Relationship between School Participation and Household Factors

In this section, an attempt is made to see the correlation of Household Enrollment Ratio, Absence Rates and Drop-out Ratios with some of the household factors. Information about household head age, education level and household income are collected to test their relationships with school participation indicators. Then bivariate (two-variable) correlations are established using SPSS. In the following three sub-sections, such tests are shown for the three school participation indicators used in this study.

4.4.1 Household Enrollment Ratio Vs Household Head Age, Education level and Household Income

The relationship between Household Enrollment Ratio and household head age is supposed to work in a reverse direction. As already outlined in the previous discussion, a higher Household Enrollment Ratio implies the inclusion of over-age or under-age enrollment and/or grade repetition.

Table 5 (p.50) reveals that the correlation between Household Enrollment Ratio and household age in SFP households is 0.345 where this is significant at 5% (sig. 0.012). Thus there is a

moderate positive relationship between the two variables; i.e., the higher the household head age, the higher is the Household Enrollment Ratio, but also that other variables clearly influence the pattern of Household Enrollment Ratio. It can thus be inferred that households with older heads tend to have more over-aged or under-aged children in primary education than households with younger household heads. This relates to our previous discussion about the dependency of households on children's labor for cash works especially when the household head gets older. In other words children are kept to work on farms or engage in commercial trading than going to school, but this problem is more apparent in households with older heads than those with younger heads.

For Non SFP households the correlation is, however, a (weak) positive 0.084 and this relationship is not significant at 5% (sig. 0.564). This shows although the average household age in both groups of households is same, the age effect on Household Enrollment Ratio is however not significant for Non SFP households (see Table 5). Thus we may infer that the household head age in Non SFP households does not affect children's enrollment and that there could be other factors affecting the ratio.

Meanwhile, Household Enrollment Ratio and household head education level have weak negative relationship in SFP households and weak positive relationship in Non SFP households. This is given by -0.159 (sig. 0.261 for SFP households and 0.018 (sig. 0.901) for Non SFP households at 5% showing no significant correlations in both cases (see Table 5).

Finally, the correlation between Household Enrollment Ratio and household income is also a weak negative relationship for SFP households and a weak positive relationship for Non SFP households. The correlation is -0.164 (sig. 0.247) for SFP households and 0.043 (sig. 0.769) for Non SFP ones at 5% which also indicate no significant relationships in both groups of households (see Table 5). Thus, the only significant correlation found is that of Household Enrollment Ratio and household age for SFP households, all the others being weak.

4.4.2 Absence Rate Vs Household Head Age, Household Head Education level and Household Income

Similar correlations are also tested for Absence Rates and the three factors for both groups of households. For SFP, the correlation between average number of days children are absent from class and household head age is 0.478, with a strong positive relationship at 0.01 (sig 0.00).

There is also a positive relationship for Non SFP households where the correlation is 0.312, although it is significant at 0.05 (sig 0.027) (see Table 5). Both suggest there is a tendency such that, the older the household head is, the more likely students in the household will miss class for more days, but also that other variables clearly influence the tendency of being absent from class. Thus once again we observe that children with older parents have high probability to miss class in order to help their aging parents in various activities. This is because when parents get older, both household economic activities and domestic works are born by children who are now the pillars of the family.

To the contrary, a rather strong negative correlation is found between the Absence Rate and household head education level for both categories of households (-0.685 and -0.430 respectively), with both correlations being significant at 0.01 (sig 0.00 each) (see Table 5). This shows that there is a tendency that the higher household head education level is, the less likely that students in the household will be absent from school for longer days. We can thus infer that better educated household heads have better attitude towards education of children and that they encourage children to attend school than keeping them at home.

Similarly the correlations between Absence Rate and household income in both groups of households are represented by strong negative relationship (-0.515 and -0.368 respectively) with both being significant at 0.01 (sig. 0.00 each) (see Table 5). It can be, therefore, inferred that the higher the household income the less likely that students miss school to help their parents in generating income but also that other factors affect the attendance too.

Overall, there are significant positive correlations between household head age and Absence Rates for both groups of households. Besides, the correlations of household head education level as well as household income with Absence Rates are also significant and negative for both groups.

4.4.3 Drop-out Ratio Vs Household Head Age, Household Head Education level and Household Income

The third levels of correlations to be studied are those between Drop-out Ratios and the respective three variables (household head age, household head education level and household income).

The correlations between Drop-out Ratios and household head age are found to be not statistically significant for both groups of households. There is a weak negative correlation in SFP households represented by -0.124 (sig. 0.382) while there is a weak positive correlation in Non SFP households as given by 0.038 (sig. 0.795) (see Table 5). Thus household head age has no statistically significant impact on the number of children dropping out of school implying there are other more prominent factors instead.

Meanwhile, Drop-out Ratios in both SF and Non SFP households are negatively correlated to household head education level (-0.219 and -0.343 respectively) although the correlation is not significant for SFP households (see Table 5). For Non SFP households, the correlation is significant at 5% (sig 0.015) and hence we may infer that there is a tendency such that the higher the household head education level is, the lower is the Drop-out Ratio but that other factors also affect Drop-out Ratio.

Finally, there is a strong negative correlation between drop-out ratio and household income in Non SFP households with a significant correlation coefficient of -0.456 at 1% (sig. 0.001). Thus, the higher the Non SFP household income, the lesser the drop-out ratio but that other factors also affect the Drop-out Ratio. For SFP households, the correlation is a weak negative relationship given by -0.263 (sig. 0.060) (see Table 5).

In sum, the correlations between Drop-out Ratio and household age are not significant for both groups of households. The correlation of household head education level with drop-out ratio is significant only for Non SFP households and is negative. Also the correlation between drop-out ratio and household income is significant only for Non SFP households and it is negative.

Table 5: Correlations of variables (Pearson's r)

		household head age	household head education level	Annual household Income (in Birr)
Household Enrollment Ratio in SFP households during the last one A/Y	Pearson Correlation	0.345*	-0.159	-0.164
	Sig. (2-tailed)	0.012	0.261	0.247
	N	52	52	52
Household Enrollment Ratio in Non SFP households during the last one A/Y	Pearson Correlation	0.084	0.018	0.043
	Sig. (2-tailed)	0.564	0.901	0.769
	N	50	50	50
Absence Rates in SFP households during the last one A/Y	Pearson Correlation	0.478**	-0.685**	-0.515**
	Sig. (2-tailed)	0.000	0.000	0.000
	N	52	52	52
Absence Rates in Non SFP households during the last one A/Y	Pearson Correlation	0.312*	-0.430**	-0.368**
	Sig. (2-tailed)	0.027	0.002	0.009
	N	50	50	50
Drop-out Ratio in SFP households during the last 1 A/Y	Pearson Correlation	-0.124	-0.219	-0.263
	Sig. (2-tailed)	0.382	0.118	0.060
	N	52	52	52
Drop-out Ratio in Non SFP households during the last 1 A/Y	Pearson Correlation	0.038	-0.343*	-0.456**
	Sig. (2-tailed)	0.795	0.015	0.001
	N	50	50	50

*correlation is significant at the 0.05 level (2-tailed)

**correlation is significant at the 0.01 level (2-tailed)

Chapter Five: Conclusion and Recommendation

5.1 Conclusion

In this study, attempts have been made to evaluate the significance of School Feeding Program in enhancing school participation among primary school children in Dara *Woreda* of Sidama Zone, Southern Ethiopia. The result shows that although School Feeding Program has some roles, yet its impact on school participation is not significant.

It is found that household head gender, age, education level, household income, number of children in a household, number of primary school age children as well as number of children enrolled in to primary school are all, on average, similar between SFP and Non SFP households. Thus it could be inferred that any observed difference between the two groups in terms of school participation indicators is attributed to the effect of the program. However, there are no significant differences in terms of school participation as measured by Household Enrollment Ratio, Absence Rate and Drop-out Ratio between the groups and hence this might lead us to conclude the School Feeding Program in Dara *Woreda* has not brought any significant difference in school participation. Nevertheless, such generalization could be inconclusive given limited data set and smaller sample size.

The result of the study found no significant increase in enrollment as a result of school meals. In other words the relative impact of School Feeding Program on enrollment is not significant. It is observed that the existing program presents less incentive to attract children to school or enable parents send children to school. One possible reason for this is that children in this region actively contribute towards their households' livelihood by generating income or taking care of household chores. Thus there is unwillingness on the part of parents to enroll children during the right age because of the high opportunity cost associated with enrollment. Another reason is that the existing School Feeding Program does not include take home rations, which could have particularly attracted girls from poor households. Meanwhile, the Household Enrollment Ratios in both groups are well over 100% indicating over-age/under-age enrollment and/or grade repetition. This is because some children help their family during their primary school age and hence their enrollment could delay for this reason. Independent test of Household Enrollment Ratios also shows no significant difference between the two groups of households - SF and Non SF, in terms of enrollment pattern. We may thus infer the current School Feeding Program has

no significant impact on school enrollment.

The data on the effect of School Feeding Program on attendance also shows there is no significant increase in attendance because of the program. This could primarily be due to the inadequacy of school meals to augment the nutritional status of children as observed during the study. Some children are unable to come to school or if they do, could not stay there for the whole school hours due to hunger or hunger related incidence of illness. The size of the meals allocated for the students is also not large enough to encourage their school attendances. In addition, school meals could not compensate for the opportunity cost of letting children to school. This is because children have greater roles in household activities and thus the cost of sending them to school is greater than the perceived benefit of doing so. The independent samples t-test of Absence Rates shows there is no significant difference between the two groups of households/schools in terms of school attendance.

School Feeding Program also shows no significant positive impacts on drop-out rates. This is because school meals neither significantly contribute to nutritional statuses of school children (and hence cannot avoid hunger related cause of drop-outs) nor do they compensate for the opportunity cost of school participation. The independent test of sample Absence Rates also shows no significant difference between the two groups of households/schools in terms of drop-out rates.

Attempts have also been made to identify factors affecting school participation in the study area. Accordingly, the major factors affecting enrollment are demand for child labor, cost of schooling, availability of school, teaching quality and school infrastructure, distance to school, the availability of food incentives and safety concerns. Meanwhile, the main determinants of school attendance and drop-out include illness, work for money/food, domestic work, school hour hunger and long distance to school.

Finally, some correlations have been computed to examine the relationships between certain household demographics and school participation indicators. The correlation between Household Enrollment Ratio and household age is significant and positive for SFP households. In other words, the older the household head, the higher is the Household Enrollment Ratio which in turn implies the existence of over-age school children or high school repetition in such households. On the other hand, there are significant positive correlations between household

age and Absence Rate for both groups of households, meaning the older the household age, the higher is the Absence Rate. Besides, the correlations of household head education level as well as household income with Absence Rates are significant and negative for both groups; which implies the higher the household head education level and household income, the lower is the Absence Rate. Last, the correlation of household head education level with Drop-out Ratio is significant and negative for Non SFP households meaning drop-out is lower in households who have relatively highly literate household heads. And the correlation between Drop-out Ratio and household income is also significant and negative for Non SFP households, i.e. the higher the household income, the lower is the Drop-out Ratio for these households.

5.2 Recommendation

The study shows that the School Feeding Program in Dara *Woreda* could not cause significant increase in school participation because both its nutritional and economic values are negligible relative to the costs of schooling. Although SFP offers less potential benefits compared to programs that deliver food directly to beneficiaries in terms of, for example, meeting short term hunger and specific nutritional needs, it can still be an incentive to significantly enhance school participation. Thus, program administrators should look for ways to improve both the quantity and quality of school meals if the objectives are to be satisfactorily achieved. To this end, the School Feeding Programs need to be designed as part of an effective package of interventions that address the nutrition and health needs of school-age children as well as should provide more incentives for parents. For instance, program administrators could consider the possibility of integrating the School Feeding Program with other nutrition and health interventions like deworming, micronutrient fortification or supplementation. This enables to enhance the nutritional impact of School Feeding Program on school participation.

It is important to strengthen the community participation in organizing and implementing SFPs. This is because community assisted schools offer certain advantages such as ‘increasing the contact, and hence communication between parents and teachers, officials and others; giving parents the opportunity to become more aware of what goes on at schools; and serving to raise the value of education/the school for parents and the whole community’ (Del Rosso 1999: 8). Recently, SFP has been renovated in some areas of Ethiopia as Children-In-Local-Development-Based Food for Education (CHILD-FFE). The aim of this program is to promote local ownership of projects by assisting children and communities to

effectively plan for a better child-friendly school environment and to enable schools to become local development centers within communities. Thus such initiative could also be implemented in the SFP being underway in Dara *Woreda*.

The study shows that school meals are provided during the break hours of the schools, and thus children who travel long distances to reach school remain hungry during the first half of the school day. Program managers and policy makers should, therefore, consider the possibility of delivering meals early in the day before lesson begins so that children do not leave school early in the day. Such adjustment also makes children concentrate during the entire school period. Likewise, the prospect of implementing take home rations in addition to school meals should also be assessed to reach some member of households and increase the benefit of school participation.

Program administrators should also identify and address any potential bottlenecks in implementation. It is reported that there exist delays in commencing School Feeding Program every semester, particularly in the beginning months, due to administrative inefficiencies. Thus food should be delivered on time so as to minimize the number of days with no feeding since delay could also undermine the impacts of school feeding on school participation.

It is observed that children's involvement in household works is high in the region to the extent of affecting their school participation. Thus awareness creation for the households could change their attitude towards schooling and enable them to enroll children to school during the right age. This could be carried out by local authorities or other concerned bodies through campaigns or educating the local people.

Because School Feeding Program by itself cannot enhance school participation, the government should improve access and availability of schools through construction of new schools and/or expansion of the existing ones since both of these factors strongly determine participation. Similarly, it is also of paramount importance to increase the teaching quality through hiring adequate and qualified teachers as well as improving school infrastructures and ensuring sufficient learning materials.

The assessment of household demographics reveals both SFP and Non SFP households exist in similar socio-economic environment. Partiality in targeting could raise ethical questions since

Non SFP households are no better in socio-economic indicators as well. This suggests the School Feeding Program could be scaled up to reach Non SFP households as well. However, the targeting criteria and mechanisms should ensure only high risk children and communities are reached. This is because resources are limited in poorest countries like Ethiopia and that providing food is expensive, and so effective targeting is necessary.

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Annex 1: Household Questionnaire – SFP Households

0.1 Interviewer Name _____

0.2 Date |__|_|_|/|__|_|_|/|__|_|_|

0.3 Village Name: _____

Consent Form

My name is _____ and I am an enumerator in this survey on behalf of Mr. Desalegn Keba Dheressa, a graduate student of Development Studies at the Norwegian University of Life Sciences. The purpose of this interview is to collect data for his master's thesis about the impacts of School Feeding Program on school participation among primary school children in Dara *Woreda* of Sidama Zone, SNNPR-Ethiopia. The information gathered in this interview will be used only for academic purposes and that they are strictly confidential. Your full name will not be written down anywhere and there will be no way to identify you. Your participation is voluntary. You may refuse to answer any question and choose to stop the discussion at any time. You can also ask questions about this study at any time. There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping the researcher understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

Section I: Household Demographics

1.1 Household head sex (gender):

1 Male 2 Female

1.2 Household head age (in years):

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1.3 Household head's education level: (please enumerate the sum of formal education years)

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1.4 Annual household income (in Birr):

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1.5 Household participated in Productive Safety Net Program or relief programs:

1. Yes 2. No

1.6 Number of children in the household whose age is between 7-14 years:

Male	Female

1.7 Total number of children in the household:

Male	Female

1.8 Number of children enrolled in School Feeding Program schools:

Male	Female

Section II: The State of School Participation

2.1 In a scale from 1 to 5, where 1= to very small extent, 2= to small extent, 3= to some extent, 4= to great extent and 5= to very great extent, indicate whether the following factors affected enrollment of children to school (put 'X' mark where it applies).

Factor	1	2	3	4	5
1. Distance to the school	()	()	()	()	()
2. Availability of food incentive	()	()	()	()	()
3. Abundance and qualification of teachers	()	()	()	()	()
4. Abundance of desks, class rooms, etc	()	()	()	()	()
5. Availability of school	()	()	()	()	()
6. Safety concerns for children	()	()	()	()	()
7. Other:-					
i. _____	()	()	()	()	()
ii. _____	()	()	()	()	()
iii. _____	()	()	()	()	()

2.2 Average number of days children missed school during the last one academic year

2.3 Indicate whether any of the following factors was/were the reason for the absence in 2.2:

Reason	Yes	No
1. Illness	()	()
2. Work for money/food	()	()
3. Helping in domestic work	()	()
4. Child refused to go to school	()	()
5. Marriage	()	()
6. Pregnancy	()	()
7. Huger	()	()
8. Other reason: _____		

2.4 Average number of drop-outs from school during the last one academic year_____

2.5 Indicate whether any of the following factors was/were the reason for dropping out in 2.4:

Reason	Yes	No
1. Illness	()	()
2. Work for money/food	()	()
3. Helping in domestic work	()	()
4. Child refused to go	()	()
5. Marriage	()	()
6. Pregnancy	()	()
7. Huger	()	()
8. Other:_____		

End of questionnaire
Thank you for your time

Annex 2: Household Questionnaire – Non SFP Households

0.1 Interviewer Name _____

0.2 Date |__|_|_|/|__|_|_|/|__|_|_|

0.3 Village Name: _____

Consent Form

My name is _____ and I am an enumerator in this survey on behalf of Mr. Desalegn Keba Dheressa, a graduate student of Development Studies at the Norwegian University of Life Sciences. The purpose of this interview is to collect data for his master's thesis about the impacts of School Feeding Program on school participation among primary school children in Dara *Woreda* of Sidama Zone, SNNPR-Ethiopia. The information gathered in this interview will be used only for academic purposes and that they are strictly confidential. Your full name will not be written down anywhere and there will be no way to identify you. Your participation is voluntary. You may refuse to answer any question and choose to stop the discussion at any time. You can also ask questions about this study at any time. There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping the researcher understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

Section I: Household Demographics

1.1 Household head sex (gender):

2 Male 2 Female

1.2 Household head age (in years):

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1.3 Household head's education level: (please enumerate the sum of formal education years)

--	--

1.4 Annual household income (in Birr):

--

1.5 Household participated in Productive Safety Net Program or relief programs:

2. Yes 2. No

1.6 Number of children in the household whose age is between 7-14 years:

Male	Female

1.7 Total number of children in the household:

Male	Female

1.8 Number of children enrolled in schools:

Male	Female

Section II: The State of School Participation

2.1 In a scale from 1 to 5, where 1= to very small extent, 2= to small extent, 3= to some extent, 4= to great extent and 5= to very great extent, indicate whether the following factors affected enrollment of children to school (put 'X' mark where it applies).

Factor	1	2	3	4	5
1. Distance to the school	()	()	()	()	()
2. Abundance and qualification of teachers	()	()	()	()	()
3. Abundance of desks, class rooms, etc	()	()	()	()	()
4. Availability of school	()	()	()	()	()
5. Safety concerns for children	()	()	()	()	()
6. Other:-					
i. _____	()	()	()	()	()
ii. _____	()	()	()	()	()
iii. _____	()	()	()	()	()

2.2 Average number of days children missed school during the last one academic year

2.3 Indicate whether any of the following factors was/were the reason for the absence in 2.2:

Reason	Yes	No
1. Illness	()	()
2. Work for money/food	()	()
3. Helping in domestic work	()	()
4. Child refused to go to school	()	()
5. Marriage	()	()
6. Pregnancy	()	()
7. Huger	()	()
8. Other reason: _____		

2.4 Average number of drop-outs from school during the last one academic year _____

2.5 Indicate whether any of the following factors was/were the reason for dropping out in 2.4:

Reason	Yes	No
1. Illness	()	()
2. Work for money/food	()	()
3. Helping in domestic work	()	()
4. Child refused to go	()	()
5. Marriage	()	()
6. Pregnancy	()	()
7. Huger	()	()
8. Other: _____		

End of questionnaire
Thank you for your time

Annex 3: Key Informant Interview with school principal (SFP School)

0.1 Name of the school_____

0.2 Village_____

0.3 Date |__|_|_|/|__|_|_|/|__|_|_|

Consent Form

My name is Desalegn Keba Dheressa, a graduate student of Development Studies at the Norwegian University of Life Sciences. The purpose of this interview is to collect data for my master's thesis about the impacts of School Feeding Program on school participation among primary school children in Dara *Woreda* of Sidama Zone, SNNPR-Ethiopia.

The information gathered in this interview will be used only for academic purposes and that they are strictly confidential. Your full name will not be written down anywhere and there will be no way to identify you. Your participation is voluntary. You may refuse to answer any question and choose to stop the discussion at any time. You can also ask questions about this study at any time.

There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. When was the school established?

2. When was the Feeding Scheme introduced in the school?

3. Which organization is/are supporting the program?

4. What is the total enrollment of children under the feeding scheme during the 2008/09 academic year?

Boys	Girls	Total

5. What type of food is served?

6. How much quantity of food is allocated for each student during the school day?

7. What time of day are meals served?

8. Where does the food come from?

9. Who is responsible for cooking and monitoring the feeding session?

10. Is every child in the school entitled to the feeding scheme? If No, why?

11. How do you evaluate the impacts of feeding program on school participation (enrollment, attendance and drop-outs)?

12. In your opinion, what other factors affect participation of students in your school?

13. What are the associated problems with School feeding, if any?

14. What is your over all comment on the program?

Annex 4: Key Informant Interview with School Principal (Non SFP School)

0.1 Name of the school_____

0.2 Village_____

0.3 Date |__|_|_|/|__|_|_|/|__|_|_|

Consent Form

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There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. When was the school established?

2. What is the total enrollment of children during the 2008/09 academic year?

Boys	Girls	Total

3. Based on your records, has school participation (enrollment, attendance and drop-out) improved during the last academic year? Why do you think is that?

4. What factors affect participation in the school?

5. Do you think that the school participation (enrollment, attendance and drop-outs) will improve if children are fed in schools? Why?

Annex 5: Key Informant Interview with beneficiary Student (SFP School)

0.1 Name of the school_____

0.2 Village_____

0.3 Date |__|_|_|/|__|_|_|/|__|_|_|

Consent Form

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There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. Do you get food from school every day?

2. How much food do you get from the school every day?

3. Does the food you get from school satisfy you? If no, why?

4. Have you been hungry during the school hours? If yes, what did you do?

5. Why did you choose this school to study?

6. Have you ever been absent from school during the last one year? 1. Yes 2. No

7. If yes how many times? And, why?

8. Did you quit your study during the last one academic year? If yes, why?

9. What is your opinion regarding the school feeding program?

Annex 6: Key Informant Interview with Non beneficiary Student (Non SFP School)

0.1 Name of the school_____

0.2 Village_____

0.3 Date |__|_|_|/|__|_|_|/|__|_|_|

Consent Form

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There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. Why did you choose this school to study?

2. Have you ever been hungry during school hours? If yes, what did you do?

3. Have you ever been absent from school during the last one academic year? If yes how many times and why?

4. Did you quit school during the last one academic year? If yes, why?

5. Do you think you will participate more in school if you get school meals? Why?

Annex 7: Key Informant Interview with Parent-Teacher Association member

0.1 Place _____

0.2 Date |_|_|/ |_|_|/ |_|_|

Consent Form

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There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. What is your role in the school feeding program?

2. Do you think that school feeding program has improved enrollment? Why?

3. Do you think that school feeding program has improved school attendance? Why?

4. Do you think that school feeding program has reduced drop-outs? Why?

5. What other factors affect enrollment of children to school?

6. What other factors affect school attendance?

7. What other factors affect drop-outs from school?

8. What are the weaknesses of school feeding program in this region?

9. In your opinion, what must be done to improve school feeding program?

Annex 8: Key Informant Interview with WFP Country Officer

0.1 Place _____

0.2 Date |_|_|/|_|_|/|_|_|

Consent Form

My name is Desalegn Keba Dheressa, a graduate student of Development Studies at the Norwegian University of Life Sciences. The purpose of this interview is to collect data for my master's thesis about the impacts of School Feeding Program on school participation among primary school children in Dara *Woreda* of Sidama Zone, SNNPR-Ethiopia.

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There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. What is WFP's role in school feeding programs?

2. Where does the funding for SFP come from?

3. Has WFP been adequately supplying meals to schools? If not, why

4. Is the school feeding program being carried out in Ethiopia same as those carried out elsewhere in terms of quantity and quality of the food? If not, why?

5. Does WFP make periodic evaluations of all school feeding programs in the country?

6. What is being undertaken to improve the current program?

Annex 9: Key Informant Interview with WFP Local Officer

0.1 Place _____

0.2 Date |_|_|/|_|_|/|_|_|

Consent Form

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There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. Why did WFP choose the schools in Dara *Woreda*?

2. What was the basis of targeting those schools?

3. Does WFP believe students get enough meal while in school? If not, why?

4. Is there any plan to scale up school feeding program to support more schools than those currently being supported?

5. What kind of feedbacks do you get regarding the impacts of school feeding program on school participation?

6. What are the challenges that WFP is facing with regard to the program?

7. What kind of measures are undertaken to improve the performance of school feeding program?

Annex 10: Key Informant Interview with WFP Focal Person

0.1 Place _____

0.2 Date |_|_|/|_|_|/|_|_|

Consent Form

My name is Desalegn Keba Dheressa, a graduate student of Development Studies at the Norwegian University of Life Sciences. The purpose of this interview is to collect data for my master's thesis about the impacts of School Feeding Program on school participation among primary school children in Dara *Woreda* of Sidama Zone, SNNPR-Ethiopia.

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There is no direct benefit or money to be given for you in participating to this study. However, I hope that the study will benefit your community by helping me understand the impacts of School Feeding Program and recommending what should be done to improve school participation. Thank you in advance!

1. What is your role in the school feeding program?

2. Do you think school children get enough food while in school? If not, why?

3. Has there been significant increase in school participation following the School Feeding Program?

4. What are the limitations of School Feeding Program in this region?

5. How do you evaluate the current School Feeding Program?
