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**Ethiopia**

**The Demand for Primary Schooling in**  
**Rural Ethiopia**

**A Research Study**

**Report Prepared for:**  
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## **Definition of Acronyms**

<b>TGE</b>	<b>Transitional Government of Ethiopia</b>
<b>USAID</b>	<b>United States Agency for International Development</b>
<b>TPLF</b>	<b>Tigray Peoples Liberation Front</b>
<b>EPRDF</b>	<b>Ethiopian People's Revolutionary Democratic Front</b>
<b>SIDA</b>	<b>Swedish International Development Agency</b>
<b>SPC</b>	<b>School Pedagogical Center</b>
<b>MOE</b>	<b>Ministry of Education</b>
<b>SES</b>	<b>Socio-Economic Status</b>
<b>M&amp;E</b>	<b>Monitoring and Evaluation</b>
<b>EMPDA</b>	<b>Education Materials Production and Distribution Agency</b>
<b>NGO</b>	<b>Non-Governmental Organization</b>

# THE DEMAND FOR PRIMARY SCHOOLING IN RURAL ETHIOPIA

## Chapter 1

### Introduction

#### Scope of the Study

Educational planners often attribute low levels of educational participation (i.e., enrollment, persistence and performance) to supply-side constraints, and government efforts are directed at expanding the supply of schools, teachers, books and other educational materials. Aware that education is a factor in the increased productivity of human capital and consequently increases both the social and private<sup>1</sup> rate of return to human endeavor, policy-makers often assume that there is a latent or pent-up demand for education which will fill school places as soon as they become available. Little attention is given to the influence of demand-side factors on educational outcomes or the interaction of educational supply with demand. Further, the low level of supply in many countries serves to obfuscate to what extent the lack of or limited demand by households for educational services negatively affects educational participation. Demand issues should not be ignored, particularly in countries which are distinguished by regional, ethnic, rural-urban and gender segmentation, and where returns to education for certain groups may be low.

Ethiopia is such a country. Even at the height of Ethiopia's school expansion efforts in the 1970s and 1980s, the gross enrollment ratio for primary school did not surpass 36 percent, significantly below the African norm of 70 percent.<sup>2</sup> Both historical and recent evidence suggest that supply-side constraints can not alone account for the low primary school enrollment ratio in Ethiopia. A recently completed education sector review in Ethiopia points to several factors which could imply critically low demand for basic schooling outside urban areas<sup>3</sup>, such as:

- A drop in the primary GER from 36 percent to 22 percent over the last five years;
- Under-utilized capacity of schools in some rural areas;

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<sup>1</sup> Private rate of return refers to the individual's rate of return on schooling.

<sup>2</sup> World Bank (1988), *Education in Sub-Saharan Africa: Policies for Adjustment, Revitalization and Expansion*, World Bank: Washington, D.C.

<sup>3</sup> That fewer than 19 percent of rural children are enrolled in pre-university education (compared with 54 percent of urban children) and that more than 80 percent of Ethiopians are engaged in agriculture indicate the magnitude of the rural sector in the country.

- Parental/community expression of a lack of interest in and support of schools;
- Destruction of a large number of schools by the communities they are supposed to serve.

Parents, teachers and administrators interviewed by the sector assessment team cited several reasons to explain the low participation rate of children in primary school, most of which relate to demand-side or household factors. These include:

- No local opportunity for post-primary education;
- No link between primary education and wage employment opportunities;
- Irrelevancy of schooling to rural life;
- High direct costs of schooling;
- High opportunity costs;
- Poor quality of schooling and infrastructure
- Disagreement with language of instruction policy.

Nonetheless, despite these emerging indications of low demand for education in rural areas of Ethiopia, the situation remains unclear. The recent precipitous drop in enrollments could be viewed as a temporary phenomenon, attributable to disruption and destruction caused by the recent war and civil strife. This also may account for the relatively low gender disparity index, as indicated in national statistics, which contravenes expectations about low participation rates of girls in school. Further, the economic and cultural disparities among regions in Ethiopia confounds general or national-level analysis and strategizing. Finally, it is unclear to what extent the supply of schooling—availability and accessibility of school places, quality and relevancy of instruction—influences household demand for education.

Ethiopia is currently restructuring its educational system with the intent of providing a higher quality, more relevant education to a greater percentage of its population. A thorough understanding of the determinants of educational participation at the primary level is essential to the policy dialogue and planning process. The current study examines community-school relations to determine to what extent demand factors influence parents' decisions to school their children (and particularly their daughters), which demand-side factors are most influential, and the nexus between supply and demand for education, including supply-side determinants affecting enrollment. Its goal is to provide information to both USAID/Ethiopia and the TGE in order to craft policies and interventions which will expand educational opportunities, especially for rural children and girls.

### **Purpose**

The demand study provides baseline information about household attitudes and behaviors towards schooling, which will in turn provide the foundation for and guidance to TGE and USAID

efforts to make primary schooling more accessible<sup>4</sup> to Ethiopian children. Although multi-purposed, the demand study's overall objective and orienting research question was "what can be done by the government, the community, the school and households so that children, particularly daughters, are enrolled and persist in school?" Specific objectives were to:

- assess the current level of demand for primary education across a variety of settings, including regional and—in particular—gender differentiations, and determine to what extent demand issues constrain educational participation;
- identify and weigh (1) household (economic and socio-cultural) and (2) school factors and other characteristics which both negatively and positively affect parental decisions to enroll and keep their children in school;
- explore parental attitudes towards schooling, and their aspirations and expectations for their children;
- suggest and prioritize promising and potential solutions at both policy and programmatic levels that can feasibly be undertaken by the TGE (with donor support), according to regional, socio-cultural and gender breakdowns.

### **Organization of the Report**

The report is organized into three sections: the Introduction, the Analysis and Strategy Options and Recommendations for increasing education demand. This chapter and chapter 2, which presents background on the communities and profiles of the sample populations and schools, complete the introductory section.

Four chapters are included in the analytical section. Chapter 3 outlines trends and directions of educational demand at the national, regional and community levels. Chapter 4 analyzes household factors and school factors influencing demand, including parental attitudes toward education, socio-economic status and the interaction between the household and school.

Chapter 5 addresses gender issues related to demand. Educational participation by gender and locality are reviewed and parental perceptions of schooling and educational expectations for their sons/daughters are discussed with reference to parents who have never had a child in school in comparison to parents who have had at least one child in school. Obstacles to school participation and persistence, such as cultural/ethnic, religious, and economic factors are qualitatively analyzed with a focus on gender differences. The final chapter in this section (Chapter 6) in the section analyzes school financing data, including annual revenues and school expenditures for the 40 schools, sources and types of revenues and community, parental and student support for school finance.

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<sup>4</sup> More than simply increasing the number of school places, "accessibility" connotes that barriers and constraints to educational participation will be removed, whether they figure on the household-side or school-side of the issue.

The last section consists of Chapter 7. The first analyzes strategies and interventions suggested by parents and school personnel and discusses strategies inferred from the data. Past experience with promising strategies are reviewed with reference to potential interventions arising from the current study. It presents a summary of the analysis, conclusions about the nature of education demand in Ethiopia, and makes suggestions for possible interventions related to Ministry of Education policy.

### **Previous Studies of Factors Influencing Demand in Ethiopia**

Previous studies of educational demand in Ethiopia have concentrated largely on equity issues—including inter- and intra-regional and gender disparities (e.g., Ayalew 1989; Anbesu and Junge 1988; Esmonde 1991; Seged, Abraha et al. 1991; Assefa 1991; Gennet 1991). Ayalew Shibeshi (1989) in a study that compared supply of primary schools by region in 1973/74 and 1986/87, found that although there had been a substantial growth in the number of schools provided, they were unevenly distributed by region. Distribution of missionary schools, lack of stability in the northern regions and economic differences between regions accounted for the disparities. Gondar and Haraghe were the most disadvantaged regions. As supply may influence demand, such regional disparities are noteworthy. A pilot study carried out by the Ministry of Education in Keffa Region in southern Ethiopia in 1987 found intra-regional differences in access to educational services with urban dwellers and males having greater access (Ministry of Education, EPRS 1987). Surprisingly, the same study found that remote *awrajas* (zones) received greater access to textbooks than those closer to urban centers in Keffa suggesting that educational development often rides on the coattails of other economic development in rural areas.

Anbesu and Junge (1988) examined factors influencing primary school participation and performance in Dar Awraja, Gojjam. The study included a survey of 70 rural schools in which 33 head teachers and 1,612 pupils were interviewed. Parents were included in the study with 576 heads of households being interviewed. The researchers found that among the mothers, 98 percent were non-literate. Only 10 percent of school age children (ages 7-16) in Bahir Dar were enrolled and of these, two-thirds were male. Of the educational alternatives in the awraja, priest schools attached to the Coptic churches were more important for boys than for girls. Their findings for rural pupils' marital status by gender are pertinent to the current study of demand. They found that by grade 2, nearly 15 percent of boys and 18 percent of girls were promised for marriage, married or divorced and that by grade 4 nearly a fifth of the girls were promised, married or divorce with the proportion increasing to one third by grade 6 (1988:13). Indications are that marriage arrangements secured by Amhara parents for their children, as well as early marriage (as young as six years for girls and nine years for boys) influence parents' decision to send a child to school (Berhane-Selassie, 1992).

The most recent studies of demand have addressed determinants related to decreased enrollment. Although some of the decrease may be attributable to the war in the north and civil strife in the south, lack of economic returns to schooling indicated by the high unemployment rate of rural secondary school leavers also contributes to decreased demand. In Silti, Esmonde (1991) found that parents were less likely to enroll their children in primary and secondary schools than previously because they observed that youth with primary and junior secondary school

certificates were often unable to secure employment. The government during the period of the Derg was the primary employer in Ethiopia and with the structural adjustment measures instituted by the TGE in the past two years and the push for regionalization, the national administrative infrastructure has been noticeably reduced.

Increasing attention in Ethiopia has been devoted to gender disparities. Gennet Zewdie's report on female enrollment, participation and achievement at the primary and secondary levels is suggestive of the national inequities that exist with girls representing only 39 percent of the primary school population in 1989 (1991:91). Seged Abraha et al. (1991) in a study of factors shaping girls' performance found that in rural schools, higher female persistence is associated with teachers' length of experience but not with the presence of more female teachers. The study concluded that girls persist longer when general social demand is greater and larger schools are present to meet demand (1991:114). Assefa Beyene's study of female participation and performance in rural primary schools (1991) found that, contrary to trends, enrollment disparities by gender decreased as the grade level increased over a five-year period (1986-1990) in the primary schools in his study. However, the average drop-out rate for girls over the same five-year period was significantly higher than for boys. Among the factors that influence participation for both sexes in rural primary schools are health conditions that mitigate against persistence.

Early marriage arrangements influence demand and persistence. In Silti, Esmonde (1991) found that parents resist sending their children of either sex to school for fear that the *gerberra* arrangements for their children's marriages will be compromised. Parents fear the possibility that a promised child will meet another of the opposite sex to whom s/he is not promised, entering into a relationship that endangers the marital contract between parents. In Silti boys' parents have more of an investment as they transfer between Birr 100 (in 1994 US\$17) and Birr 1,000 (US\$172) in cash or kind to the promised bride's parents. Failure to keep the contract can result in serious problems for both sets of parents. When school committees during the Derg began forcing girls to attend school despite their parents' fears, most left school after only a few months out of respect for their parents' concerns. For example, in Dange Lasho Primary School, 57 girls were enrolled in grade 1 in 1986/87 but by the end of the year, only seven remained. Consequently, socio-cultural practices such as child marriage in many parts of rural Ethiopia continue to influence parental decisions about schooling.

Evidence of reduced demand from studies carried out in a single locality point to factors that need exploration in a broader context. The 1993 USAID education sector review indicated that the factors influencing educational demand outlined above may be more widespread than previously believed. The current demand assessment is designed to identify such factors and their impact on rural community demand in several regions reflecting the variations in ethnicity, language and religion that characterize Ethiopia.

### **The Research Questions**

The overall research questions that the study was designed to answer are: What is the status of educational demand in Ethiopia? What factors affect demand? What strategies, interventions

and programs might be implemented to increase educational participation in primary schools in rural areas? Under these broad questions, related questions fall into four categories: status of demand for education, school factors, and community and household factors, and questions related to more general policy issues. In all cases, regional and gender differences are taken into consideration in answering the questions.

- Education demand factors
  1. Is there a declining/stagnating/increasing demand for primary schooling in rural areas?
    - a. Has local GER fallen or risen over the past 5 years?
    - b. What has been the rate, direction of change?
    - c. What years did declines or increases in all of the above occur?
    - d. Are there indications that schools are not being used to capacity?
- School-related factors
  2. What are the implications of proposed school financing policy for rural schools (i.e., no fees, no land)?
  3. To what extent do schools depend on the community for support?
  4. To what extent do communities meet school needs?
  5.
    - a. To what extent can voluntary (and involuntary) increases or in (1) parental and (2) community support be expected?
    - b. How will change in support affect demand for schooling?
  6. What school attributes appear to encourage mothers/fathers to enroll their children in school?
- Community-related factors
  7. What is the attitude of rural communities toward school support (financial, management, labor contributions)?
  8. What is the perceived role of the school in the community?
  9. To what extent is there expressed support, antipathy or apathy by communities and parents towards schooling?
  10. Is there a discernable preference for religious schools?
- Household-related factors
  11. What do mothers/fathers expect of schooling? Of primary schooling?
  12.
    - a. Why do children (boys/girls) not enroll in primary school or drop out?
    - b. What are the obstacles to participation (enrollment and persistence)?

- Policy-related issues

13. Will expanding the school supply in rural areas result in increased enrollments?
14. What strategies, interventions and programs could be implemented to increase educational participation in primary schools in rural areas (i.e. optimize enrollment, reduce wastage through drop-outs)?

## **Methodology**

This study employs a research strategy that utilizes both quantitative and qualitative methods to elicit information about client communities and users and non-users of educational resources at the household level.<sup>5</sup> The approach has the advantage of being able to elicit critical information about the *relationship between a community and school*—a central aspect of educational demand in rural areas. Equally, the research allows for an assessment of community-generated solutions to problems facing the education sector. Increasing evidence suggests that without appropriate input from client communities, implementation of educational reforms is unlikely to be embraced or sustained. For these reasons, the research team initiated this methodology and designed instruments that included the use of quantitative and qualitative methods.

## **Research Instruments**

Quantitative and qualitative instruments were used to complement one another and were integrated into the total research strategy. The four types of instruments were: (1) a community data profile, based on observations and informal interviews, (2) a household survey, (3) a school survey, and (4) focus group interviews. All instruments were translated into the local languages for use by Ethiopian research teams whose members largely came from the region where the fieldwork was conducted.

### ***Community Data Profile***

One research team member in each community was assigned the task of gathering a profile of the community using techniques of observation and key informant interviews. The community data profile was designed to provide an overview of the environmental, educational and socioeconomic context in which to place a community's relationship to the government school and as a means of determining particular constraints to the demand for education. It elicited

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<sup>5</sup> Combining quantitative and qualitative methods in education research is not new. In Africa two USAID research assessments have integrated qualitative and quantitative methods. In a study that was carried out in Guinea in 1993, from which the mix of quantitative and qualitative methods in the current study is taken, school surveys and household surveys were combined with group interviews to assess educational demand in rural areas and to elicit suggestions for increasing demand (Tietjen et al. 1993). In a 1990 USAID-funded study of factors influencing girls' participation and persistence in rural Malawi, interviews with school staff, observations of classrooms over time, a small gender-balanced sample survey of enrolled children, their parents and their households, and a time allocation study of the children's after-school labor tasks were combined in the assessment (Davison & Kanyuka 1990).

information about the political structure of the community, its market and transportation facilities, the availability of health care, and the existence of educational institutions—both secular and religious. It also elicited information about each community's past experience with war and natural disasters such as drought and flooding.

### *Household Survey*

A household interview schedule or questionnaire was developed to measure household composition, socioeconomic status (based on culturally appropriate indicators such as house type, access to water and electricity, and farm implements), attitudes and experience with education—including children currently enrolled—and attitudes toward educational institutions in the community, including the government school.

The first part of the interview schedule related to generic questions pertaining to the household while the latter part was addressed either to the female or male head of household so that it could be disaggregated by gender. It contained questions that elicited gender-specific responses to questions about educational experience, aspirations for children of each sex, and educating boys versus girls. In a quarter of the 540 households surveyed, both husband and wife were interviewed to ascertain if there were differences between spouses related to educating their children of one sex or another.

### *School Survey*

The school survey was designed to collect data on enrollments, school organization and structure, student attitudes, headmaster and teacher attitudes, school finances, community and parental support and community-school integration. It also included a component on school practices and recommendations to increase enrollment persistence. One member of the research team, trained in conducting school interviews, reviewed a written questionnaire with the head of the local government school in each community. Because headmasters often had not been at the school long, the interview also included the teacher with the longest tenure at the school and was supplemented with occasional recourse to school records and account books. The school survey was completed in three interview sessions.

### *Focus Group Interviews*

The final instrument was a set of group interview schedules that focused on schooling. The focus group interview is a method that elicits open discussion on a particular topic with the possibility of exploring convergences and conflicts in the participants' opinions. It allows the flexibility to probe for underlying reasons related to particular opinions that, due to their quantitative format, household surveys prohibit. It also provides a means for participants to suggest solutions to community problems related to, in this case, education and to suggest strategies for increasing educational demand. Initiating and carrying out group interviews requires the collaboration and triangulation of a three person team: a facilitator, a recorder and an observer of the discussion.

An interview guide for parents was designed to elicit discussion about relations between schools and community, parental aspirations for their children, obstacles to schooling, especially for girls, and importantly, suggestions for changes that might lead to policies designed to increase rural parents' awareness of the benefits of schooling and, hence, demand for education. An interview guide for girls between the ages of 10 and 15 years who had never attended school elicited the girls' opinions about the value of education, the obstacles girls face to participation in schooling and attitudes toward enrollment of boys or girls. As group interviews are very time consuming they were carried out in only half (20) the villages.

### ***Triangulation***

The collection of quantitative data allowed the research team to assess the status of demand and a number of community and household variables that influence rural demand. It also enabled the team to measure the extent to which the communities were making use of the schools, methods of school financing, and parents' attitudes and behaviors with regard to schooling in the 40 rural communities. Qualitative data enabled researchers to place the survey data collected within a larger context that assists in explaining *why* parents and communities hold specific opinions about schooling in particular and education in general.

In conclusion, the methodology employed enabled the team to take advantage of a number of complementary research techniques that were carried out, sometimes concurrently, in a relatively short period of time. Approaching community members and parents in several ways facilitated our ability to analyze more concretely both general trends and specific issues in a more holistic way.

### **Selection of the Research Locales (Regions/Zones)**

The four research locales selection were based upon a number of criteria pertaining to factors that may influence demand for education. A primary criteria was that schools exist in sufficient quantity so that supply constraints did not overshadow other factors. Factors that were considered included regional variations in school supply and enrollment, regional/ethnic differences, and variation in the impact of war and civil strife. They were:

#### ***School supply and enrollment***

1. School density per population: The region must have a relatively high number of schools per population. Regions that had sparse school density per population, such as Afar Region where the total number of schools is 18 and Somali Region with a total of 15 schools were excluded from consideration based on the meager number of schools per population (e.g., Somali-speaking region—1:42,473).
2. Variations in enrollment (up or down) for two periods:
  - a. 1988-91 (4-year period)
  - b. 1991/92 and 1992/93 enrollments

### 3. Variation in primary enrollment by gender/zone.

#### *Regional/Nationality variation*

1. Nationality/ethnic group
2. Linguistic group
3. Religion (Coptic Orthodox Christian, other Christian, Muslim, etc)

#### *Impact of War and Civil Strife*

Of the four locales selected, two were in the north—Central Zone in Tigray (Region 1) and Semen Gondar in Gondar (Region 3)—and two were in the south, Bale which currently is a zone in the Oromo Region 4 and Welaita, which is a *wereda*, or district, in the ethnically and linguistically diverse Southern Peoples' Region (Region 7).

The two northern sites represent ethnic groups that speak related semitic languages with written scripts—Tigringna and Amharic—and have a similar cultural composition. The Amhara are the second largest ethnic group in Ethiopia (26 percent of the total population of nearly 54 million) whereas Tigreans represent roughly 5 percent of the population. Among both groups, Coptic Orthodox Christianity predominates and its churches provide Amharic basic literacy education. Land and lineage are passed down bilaterally through mother and father, and marriage arrangements by parents for their children (as young as 4 years for girls and 6 years for boys) are a feature of rural Tigrean and Amhara society (Berhane-Selassie, 1992). Largely subsistence production of *teff* (a grain), barley and wheat characterize rural production with some pastoralism. Both regions were heavily impacted by the long civil war fought in the north over Eritrea's separation and independence. The war and periodic drought have been posited as reasons for a drop in school enrollments, particularly in Gondar.

Bale is situated in the northwestern corner of Region 4 (see map), where Muslim Oromo predominate. The Oromo are the largest ethnic group in Ethiopia (33 percent of the population). They combine cattle herding with cash crop production of coffee and wheat. During the period of the Derg (1974-1991), much of the zone's land was turned over to state farm production of these and other cash-value crops. Oromingna is the dominant language. However, unlike the semitic languages of the north, Oromingna had no written script, being largely an oral language until the mid-twentieth century.

Northwest of Bale is the Southern Peoples Region—a patchwork of small ethnic groups each with its own language and socio-cultural composition. Concentrated in the Welaita district are the Welaita who are nearly 3 percent of the total population of the country. Situated in one of the most densely populated areas in southern Ethiopia, the Welaita have historical roots in Amhara, but have become patrilineal and polygynous in more recent history. The Welaita practice various forms of Christianity, including Coptic Orthodox Christianity, Catholicism and Protestantism. Earlier, missionary schools were a feature of the locale, but many of these became state-run schools during the period of the Derg. Welaita provides an example of the linguistic complexities found in the Southern People's Region.

## Sampling Frame

### *Selection of the Communities*

The sampling frame was a random selection of 10 communities in each of the targeted regional localities. A major criteria was that the community have at least one government primary school. The random selection used maps where available and lists of schools in the region where such maps were not available (e.g., Tigray). In a few areas a community indicated on a 1993 map prepared for the 1994 census turned out not to exist, had a different name or its residents had disbanded. In the minority of cases where this occurred, a community was picked from a list of alternates (see Appendix 2 for community list).

### *School selection*

Schools were the pacing unit for community selection. Once the *weredas* were targeted within a region, schools were randomly selected and this identified the community where household surveys and focus groups would take place. The school head or the teacher with the greatest longevity in the primary school in each of the 40 communities was the major respondent in the school survey, with input from randomly selected first, third and sixth grade students.

### *Household selection*

Thirteen households with school-age children were randomly selected based on site mapping of households in the majority of the 40 communities. In some cases the number of households was not available and a rough estimate had to be made in consultation with village leaders. The percentage of households in each community ranged from 0.52 percent of the total households in Afama Bancha village (Welaita) to 10.74 percent of the households in Adi-chilo village (Central Tigray). Table 1.1 demonstrates the average for each of the four research locales follows.

Locale	Total Number of Households	Average Percentage Households Samples
Bale	6,158	2.11
Welaita	11,420	1.14
S. Gondar	3,239	4.01
C. Tigray	3,708	3.51

In ten of the 13 households, five male household heads and five wives or female household heads were interviewed. In the remaining three households, both husband and wife were interviewed to determine if there were gender differences within a household pertaining to demand for education. The total number of households surveyed was 520 with a total of 640

interviews. As the interviews took place during the peak harvest season in Ethiopia (mid-December - mid-January), interviews with male respondents and some females occasionally were held in fields or in a market center.

### *Focus Groups*

Respondents in the focus groups were selected to represent a cross-section of mothers and fathers in the community who had had at least one child enrolled in school or who had never had a child in school. The focus groups for never-schooled girls in three locales and for their male counterparts in four villages in Semen Gondar, who turned out to be the disadvantaged gender category in that locale, proved more difficult to arrange as disadvantaged youth were reluctant to participate. There was no set number in a focus group; they ranged in size from three to twelve participants. In one region—Tigray—mothers and fathers were interviewed together after the initial three community sets had been completed.

## **Implementation of Field Research**

### *The Research Team*

The research team consisted of 40 people—Ethiopian and American—including an economist, sociologist and anthropologist, four field supervisors, eight team leaders and 20 research assistants. Initial design was developed by USAID. Planning, implementation and supervision were undertaken by the three U.S. researchers who were joined at the data analysis stage by an Ethiopian sociologist and an education research specialist.

Four Ethiopian field supervisors, two from the Ministry of Education, were hired to manage data collection in each of the four regions. In one region, a translator was hired since the Ethiopian field supervisor did not know the local language. In addition, two team leaders, each of whom was responsible for two to three research assistants (of whom two were female in each area), joined each regional team. One team leader specialized in the school survey while the other was responsible for focus group interviews and the community profile. The research assistants, who were secondary school leavers selected from the areas where the research was conducted, interviewed household respondents of their same sex and assisted in the focus group interviews.

The four teams, divided into two sub-teams in each area, covered two communities a week. Fieldwork began on December 18, 1993 after three days of training, and was completed by January 15, 1994.

### *Time Frame for the Study*

The time frame for the demand study was divided into three sections: planning, design of research techniques and team recruiting in the first phase, fieldwork in the second stage; and analysis and report writing in the third stage. Planning began in early November, 1993. The four instruments to be used in data collection were designed in the initial weeks. They were translated into the local languages and the two quantitative instruments were field tested during

the two weeks when the research assistants were being recruited in the field. The data collection, including four weeks of fieldwork, was completed by mid-January, 1994. Analysis and report writing were carried out in February (see Appendix 3 for time line).

## **Challenges and Constraints to the Analysis**

### ***Statistical data and changing administrative boundaries***

The last census in Ethiopia took place in 1984. Preparations are underway for a census in late 1994. Population statistics for the regions and zones are taken from projected estimates prepared by the Central Statistics Bureau for 1992. The estimates for regions are based on administrative regions which were redefined by the TGE in 1993 but for which accurate population data are not yet available. In the regions and zonal offices, the availability of population statistics varies depending on the impact of the earlier civil war in the north and civil disturbances in the south. At the district (wereda) level and at some of the schools, population and education statistics were missing where administrative offices had been looted or burned. Lack of statistical data in Ethiopia's rural areas was a major constraint for most of the research teams.

### ***Selection of communities***

The random selection of ten communities in three out of the four research locations took place in Addis Ababa using maps prepared for the 1994 census. In the case of Tigray, no maps indicating communities were available and the team, in consultation with a local education administrator, had to select communities from the regional capital based on a list of schools in the Abi Ađi area. While the communities in Semen Gondar and Bale were resettlement villages in various phases of transition in the post-Derg period, in Tigray the communities were not contiguous entities but were a widely dispersed collection of homesteads—often under a particular peasant association. The broad dispersal of homesteads meant that named communities were at times more difficult to define and that individual homesteads were often harder to reach than they were in the other areas.

### ***Carrying out fieldwork***

In carrying out fieldwork in very rural communities in Ethiopia, as elsewhere in Africa, a research team must get off the main road. In some cases it means walking into communities where no road exists and searching out homesteads where household interviews are to take place. Rural dwellers may be suspicious of the motives of researchers so time must be taken to establish rapport before an interview can be successfully conducted. The Ethiopian researchers found transportation into the most remote communities and the logistics of conducting interviews with heads of households and focus groups to be a challenge, particularly in view of the fact that the research was carried out during the height of the harvest season in most localities. Nonetheless, team members were able to collect the data within the planned time frame, making the analysis a much easier task for the principal researchers. The next chapter provides a profile of the communities in which they worked and the schools which served them.

## Chapter 2

### Profiles of the Communities, Households and Schools

This chapter provides descriptive information on the communities, households and schools where the study was conducted. Its intent is to introduce the reader to the general characteristics of the villages, households and school as a backdrop to the analysis of the subsequent chapters.

#### Communities

The forty communities and schools included in the demand study varied in size, infrastructure and climatic conditions. Population statistics were difficult to access and the number of households often a rough estimate. The community with the least number of estimated households was Adi-chilo in Tigray (121 households), while the largest was Afama Bancha in Welaita with an estimated 2,500 households. Every community had a peasants' association or farmers' association and many had land adjudication committees and/or village councils.

Of the 40 communities, 67.5 percent had school committees, but they were unevenly distributed with one for every government school in Tigray and none in Bale's villages. Climatic conditions and geographical features ranged from highland plateau in Bale and Semen Gondar to midland hills in Welaita and Tigray. Villages had experienced changes in climatic conditions and many had experienced cyclical drought. Others had experienced flooding or frost with damage to crops and, hence, food supplies. Finally, most of the communities in the northern regions were in the path of the civil war with resulting destruction of property and loss of life. Seven of the ten villages in Bale had experienced war with the Somalis in the past or more recent civil disturbances. In contrast, only 40 percent of villages in Welaita had experienced civil disturbances with loss of life occurring in only three of them. This section, then, provides a profile of the ten villages in each research site.

#### *Bale Villages*

Nine of the ten communities in Bale are resettlement villages set up during the Derg to make way for increased state farm production in the region. One—Wabe Barqitu—resulted from the resettlement of people upon completion of the Malka Wakana Dam, whose man-made lake flooded their former dwelling places and adversely changed the climatic conditions, according to local informants. The ten villages in Bale are undergoing transition as some villagers abandon them in search of better pasturage and others in search of better farming land.

The ten resettlement villages are characterized by a range of socio-economic circumstances and political institutions. The patrilineal Oromo who live in these villages are farmers who mix plow or hoe cultivation of grains with cattle herding. In two of the villages, Dobado-Ileensa and

Hollee Amba, the people are mainly pastoral cattle herders. Six of the ten resettlement villages have no local market, while one has a trading center for cattle and goats. Three villages have markets and retail shops and one—Barisa—has an Islamic hotel and a blacksmith. All ten villages have peasant associations and village councils with from five to seven members. Several have village development committees and four villages have women's associations. Six have mosque committees and at least one has a koranic school committee. None of the villages have government school committees for parents. The Oromo *gada* system of age-grading is active and co-exists in the shadow of the government-mandated peasant associations in at least three of the villages. Under the *gada* system suitable male elders in the oldest age-set become leaders and are responsible for the indigenous education of younger members of the community. The *gada* gerontocracy equally encompasses a politico-jural system that historically has provided the core of Oromo social structure. It, too, is in a state of transition as alternative forms of village structure take hold.

Socially, Oromo husbands are polygynous—where they have the material resources to provide for additional bridewealth transfers—and additional wives means that the cultural imperative toward large families is intensified. Marital residence is virilocal—that is, on marriage a girl moves to the home of her husband's family where she is subsumed within that patrilineal extended household, giving birth to children that belong to her husband's patrilineage. Such a marriage pattern may have implications for girls' education as parents are hesitant to invest in an education that will benefit a daughter's husband's family rather than her natal family.

Islam is the predominant religion in all ten villages with a small minority of Coptic Orthodox Christians in two of the villages. In addition, a quarter of the residents in Bura Chale are Coptic Christian and "a few" are Pentacostal Christians. Eight out of the ten villages have Muslim mosques, and KaChama and Bura Chale have Coptic Orthodox churches. Two of the villages—one of which has no mosque—have traditional Oromo religious shrines where spiritual elders conduct periodic sacrificial ceremonies for the health and well-being of the community. All of the villages with mosques have at least one koranic school and three of the villages have two koranic schools. According to local informants there has been a marked increase in the number of koranic schools—most of which are externally funded—over the past three years. The koranic school curriculum has recently been updated to include mathematics and other subjects taught in the primary school curriculum, according to the Muslim Council in Addas Ababa. When children—boys in particular—complete their studies in koranic schools they are eligible for further education in Addas Ababa and proceed to Madrassa—the koranic teachers' training colleges. Upon completion of their training they are virtually guaranteed a job in a koranic school where teachers are said to earn roughly three times the salary of government school teachers (Digga, personal communication, 1994).

Health is a major concern in Bale villages. Four of the villages have community clinics, six have none. The proximity of a hospital to the various villages ranges from a distance of over 200 kilometers to a distance of 90 kilometers. For some villages the nearest bus depot is 10 kilometers away while for others it is 50 kilometers. Of the 19 diseases cited in the 40 community profiles, Bale villages are inflicted with the majority (82 percent) of them. The most common in Bale are diarrhea and dysentery (cited in 7 villages), lung diseases (including bronchitis, pneumonia and tuberculosis) in the same number of villages, Typhus (4 villages) and

scabies—a highly contagious skin disease—in three of the villages. In addition, malaria and its related fever affect people of all ages in three villages. Venereal diseases were cited in two villages, and trachoma and intestinal worms affect children, in particular, in several villages.

Associated with health are cyclical hunger and famine resulting from drought. Only two villages in Bale had not experienced drought in the last nine years. The worst drought occurred in 1985/86, according to local informants. Four villages experienced crop yield shortages and hunger while three villages additionally experienced famine. In the case of one village, Dobado-Ileensa, the villagers responded to the drought through mass emigration in search of food. Barisa village not only experienced the drought but in a subsequent year, crop damage through flooding. In addition to famine from drought in 1986, Wabe Barqitu experiences periodically crop damage from frost.

Civil disturbances have periodically plagued most of the Bale villages. The civil unrest and destruction resulting from the war with Somalia in the mid-1970s were cited in three of the villages. One of these villages also sustained damage to a bridge, training center and telecommunications due to civil disturbances in 1983. More recently (1991) three villages, KaChama, Baka and Barisa, experienced crop theft or destruction and loss of life from civil war and in one village—Barisa—a school was partially destroyed.

### *Semen Gondar*

The ten villages in Semen Gondar are resettlement villages. They are clustered around the trading center of Dabat. The people living in these villages are Amhara, a bilineal ethnic group whose children belong to both the mother's and the father's descent groups and whose members practice inheritance of land and property by both men and women. Circumcision for both sexes (technically clitoridectomy and infibulation for girls) theoretically occurs seven days after birth although it varies by location. In all cases, circumcision must take place before marriage. Child marriages (between the ages of 4-12 years) and early marriages (13-16 years) are arranged by parents and involve an investment by the parents of the groom in gifts to the promised bride's parents. Once promised it is understood that the agreement is binding and parents take care that the promised children will not be exposed to other children of the opposite sex who might endanger the agreement between parents. At the time of marriage other gifts such as clothes and jewelry for the young bride and her parents are given by the groom and his family to the bride's family. Being patrilocal, the Amhara bride goes with her new husband to his family's home and becomes an integral member of the husband's family. Nonetheless, her children retain the lineage rights of both parents. Once married, the decision whether a girl attends school or not is left to her husband. If he is a minor, his family, with whom the couple lives (see Anbesu and Junge, 1988), decides.

The Coptic Orthodox church has a long history in Amhara culture and shapes the social institutions of villages in the region, including education. The Orthodox church has recognized for centuries the value of education and literacy. As a result priest schools are attached to every Orthodox church and children learn how to read and write in Amharic from an early age. Out of the ten Semen Gondar villages priest schools exist in seven of the villages. Equally important Orthodox priests in every community advise villagers on social problems, such as marital

disputes and family quarrels, that may disrupt the harmony of the community. Some Muslims are found in Shimelako and Tensiye villages, and a mosque exists in the latter village, but there are no koranic schools. In addition to the Amhara cultural institutions, all ten resettlement villages have active peasant associations, in some cases more than one, depending on population. Eight of the ten schools in Semen Gondar have school committees.

The major economic occupations in the resettlement villages are farming and cattle herding. In all villages, farmers use plows for the production of grains such as wheat, barley and *teff*, and in addition, cultivate beans and lentils. In the village of Gebreal, some villagers who cannot afford to purchase or rent a plow use hoes. In addition to farmers the village of Abtera also has nomadic herders who are away from the village much of the time. None of the villages have their own markets, although Gebreal has a small trading center for cattle and goats. All of the villages except two depend on Dabat as the major trading and market center. They usually travel to Dabat by foot, donkey or horseback from their highland plateau or terraced midland villages. The villages of Kegawonz and Mikara use Debark as their major trading center.

None of the villages has its own clinic. Most use a clinic in the nearest trading center. The distance to the clinic from the villages varies from four kilometers to 15 kilometers. The nearest hospital is in the town of Gondar—a distance of between 70 and 110 kilometers away from the villages. The major illnesses and diseases reported for nine of the ten villages (one village, Gebreal, reported no diseases) are: whooping cough in four villages, "relapsing fever" (possibly malaria) in three villages, and tuberculosis and pneumonia in two villages (Shimelako and Tensiye). Health does not appear to be the major concern that it is in the southern locations.

Even though six of the villages in Semen Gondar had experienced periodic drought with destruction of crops, four of the villages reported major destruction from flooding resulting in loss to crops and human life. Additionally, three villages reported crop destruction from frost and hail. Consequently, periodic hunger may result more from a combination of chronic natural disasters rather than from a single cause. Equally, as Semen Gondar was an arena in which fighting took place during the civil war in the 1980s, it is difficult to separate natural from human-caused disasters in this area.

All ten villages suffered to varying degrees from the civil war of the 1970s and 1980s. Roads, transportation infrastructure, including a bridge in Dequa, and telecommunications were destroyed in most of the villages. Only Tensiye escaped destruction. A clinic was also destroyed in Abtera. Schools, which became recruitment centers for both sides during the war, were partially or totally destroyed in seven of the villages. Crops were destroyed in many villages and people's homes as well, especially in Kegawonz. Five of the villages reported loss of human life.

### *Central Tigray Communities*

The community profile for Tigray differs from the other areas as the communities are not contiguous villages formed by resettlement schemes as in Bale or Semen Gondar, nor are they densely populated villages as in Welaita. Rather they are collections of scattered homesteads brought together administratively under peasant associations. In some cases they are in the

process of emerging or re-emerging after the war, a period of intense destruction in Tigray. What distinguishes the Tigray communities is the shared experience of Tigrean people in the civil war—a war that united them for a common cause under the leadership of the Tigrean Peoples Liberation Front (TPLF). The war and the role of the TPLF in rebuilding the infrastructure and mobilizing the people for development in the post-war period have created a sense of communal solidarity in communities that otherwise are dispersed.

Tigrean culture has similar attributes to Amhara culture in terms of economic, social and religious traditions. Economically, in both, rural dwellers are predominantly cultivators of grains with cattle herding being complementary to agriculture. In eight of the ten communities farmers practice plow cultivation while in two, Bega-Sheka and Agbe, hoe cultivation is practiced. Climatic conditions in Tigray prevent extensive agriculture. The soil is poor and filled with rocks. Rainfall is unreliable. The communities in Temben *awraja* are located on the highland plateau and in the midland hills. Enda Mariam is located at a higher elevation than the other communities with homesteads nestled among steep ridges. It has a more reliable source of water than the other communities. Half the communities have local markets and four have cattle trading centers. The others have none. Three of the communities with markets also have retail shops that sell agricultural products such as grains, butter and honey, as well as kerosene and clothes. In Work-Amba and Guya there are also small restaurants that sell local food and drinks.

Socially, Tigrean people practice bilineal descent similar to the Amhara. Child and early marriage are part of the culture with parents having a vested interest in their children's marriages. When a girl marries, she moves to her husband's family's homestead. Although gender inequalities historically have existed, efforts have been made more recently by the TPLF to sensitize the people to the importance of recognizing and resolving such inequities.

Coptic Orthodox churches are found in all of the communities and some, such as Work-Amba, Bega-Sheka and Enda-Mariam, have four churches. Every church has a priest school. The priest schools do not take the place of primary school but rather give Tigrean children a head start in literacy. A minority of Muslims are found in only one community, Work-Amba, but there is no koranic school.

The most important educational institution in each community is the primary school. That Tigrean people value schooling is seen in the proliferation of community-built schools mushrooming up in the last three years. Each has a parents' committee.

Of the diseases identified in the communities, malaria and meningitis were the most often mentioned (meningitis in 70 percent of the communities and malaria in half of them). Small pox and measles had led to child mortality in Agbe but not the other communities. A mobile clinic serves six of the communities and Guya and Taget have small clinics. The nearest hospital to the communities ranges in distance from 15 to 30 kilometers. The nearest graded road is between 13 and 50 kilometers.

All ten communities have experienced periodic drought and, in some cases, continuous drought during the past decade. Famine followed with many deaths. Seven of the communities had

experienced crop and property damage from flooding which also resulted in loss of life. Three communities had had locust infestations that led to crop destruction as well. Agricultural production is a tenuous proposition in Tigray and people cope with periodic drought and the threat of famine by emigration to areas where food and/or work are available.

Tigray was an arena of fighting during the civil war in the 1970s and 1980s. In every community, roads, bridges and transport facilities were destroyed. In Adi-Chilo a clinic was destroyed and schools were destroyed in most communities. People lost their homes and lives. The story of Tigray is one of rebuilding the infrastructure and educational facilities that were destroyed by the long war. It is a task that is spearheaded by the TPLF with the support of the EPRDF and the TGE.

### *Welaita Villages*

Welaita district has the most densely populated communities of those in the study. Environmentally the villages are situated within a green panorama of mountains, valleys and midland hills where the climate is generally temperate. However, the outwardly lush appearance masks critical problems in the ten villages related to land scarcity, decreasing soil fertility—which makes viable production difficult—and chronic problems related to health.

Of the ten communities in Welaita, nine have local markets but only one had a trading center for cattle and goats at the time of research—Woibo. Gudicho has no market. In addition to hoe cultivation of *ensete* (a banana-like tuber) and plow cultivation of grains, pottery (an exclusive specialization of women), carpentry, ironworking and local lumbering (specializations of men) are found in most villages. All villages have farmers' associations and several have land allotment committees. Three have women's associations and three, youth associations. Unlike the other three study locales, Welaita has few educational institutions other than the government primary schools in each community. Every school has a parents' committee.

The predominant ethnic group in all but one village—Achura—are the Welaita. In Achura there is mix of ethnic groups that include the Welaita, the Hadiya and the Kambata. The Welaita are patrilineal and practice virilocal residence. Marriages are arranged by parents for their children when they are sixteen or seventeen. However, currently the age of marriage for girls is falling. Village informants related that kidnapping of girls by would-be suitors prior to a girl's marriage is not unheard of and is a concern of fathers who fear for their daughters' security. By tradition Welaita men are polygynous. Co-wives have separate houses within a compound. The average number of children per woman is seven. Circumcision and age-grading for both sexes are an integral part of Welaita culture in seven of the ten villages. Fathers of school-going children in Admancho village related that most often initiation ceremonies occur in September with the Ethiopian new year and that these ceremonies demand cash outlays with the result that parents lack cash to pay for school fees. Initiation and marriage are perceived as being interconnected and have the potential for conflict with girls' enrollment and persistence in school.

Three sects of Christianity co-exist in the Welaita communities: the Coptic Orthodox Church of Ethiopia, Catholicism and various denominations of Protestantism, including Seventh Day Adventists in three of the villages. Missionary schools were

active in Welaita villages prior to the Derg, but curtailed their activities in the 1970s and 1980s under pressure from the Marxist regime. Currently government primary schools are the only educational institutions in the villages except for Gido-Homba and Woibo where Orthodox priest schools also exist.

Similar to Bale villages, Welaita villagers have experienced acute drought over the past decade. The extreme drought conditions in the mid-1980s led to hunger and famine which affected villages differentially with many dying of starvation in four villages and some—especially children—dying in four villages. In addition, flooding has caused destruction of crops and human life in Admancho and hail damage has affected crops in Achura.

Epidemic diseases are rampant in Welaita villages. Scabies is a particular concern. It affects people of all ages, but especially children, in 80 percent of the villages. In Achura village, parents of school children related that they feared their children might be contacting scabies at school and as result some were keeping their children home. Chronic malaria affects people in four villages and outbreaks of meningitis have affected Gido-Homa residents. Yellow fever was cited for Achura and dysentery was cited as a chronic problem that affects all ages in four villages. Death due to disease is a daily occurrence in Welaita villages and during the period of fieldwork, the research team found Achura villagers involved in four funerals in one day in the village of Achura. Only one of the ten villages has a local clinic. A hospital is much closer to the Welaita villages than is the case in Bale. Nonetheless, to get to the nearest hospital, villagers have to walk a distance of between 32 and 57 kilometers, bus service being rare in the area.

Civil war has impacted four of the villages in the last 15 years and a fifth village—Achura—cited ethnic conflicts within the village as being a source of civil unrest. In the four villages impacted by civil war, crops were destroyed and in three villages some people lost their lives. In Admancho, a clinic was destroyed and in Legama churches were destroyed, but the war did not reach the scale that it did in the northern part of Ethiopia, as the research in Semen Gondar and Tigray confirmed.

## **Households**

### ***Household Occupation***

Because this research was conducted in rural areas, well off the main commercial roads, the sample is heavily biased in favor of farming households. The overwhelming majority, (86 percent) of the heads of households surveyed indicated that farming was their main occupation.

<b>Head of H.H. Occupation</b>	<b>Percentage of sample</b>
Farmers	86 %
Herders: cattle/goats	4 %
Trader	7 %
Other	3 %

There was some variation by region regarding the household occupation. Ninety-five percent of the households in Welaita reported being farmers, while only 78 percent indicated farming as their occupation in Gondar [Table 2.2]. We anticipated a much higher composition of herders in certain regions, such as Tigray, than our sample indicates. One hypothesis is that the term "farmer" was volunteered by our respondents to indicate that they owned land, and did not migrate from location to location throughout the year with their herds. Because of this ambiguity, we believe the data indicating both trading and other occupations to be better indicators of the variation of occupation by region.

The households surveyed in Gondar were resettlement villages, located much closer to a small town market, than were the villages in Tigray or Bale. The percentage of heads of households identifying themselves as traders was significantly higher than in any of the other regions: 18 percent. Many individuals in Gondar indicated that they attended a regional market on a weekly basis.

<b>Region</b>	<b>Percentage Herders</b>	<b>Percentage Traders</b>	<b>Percentage farmers</b>
Bale	12%	0%	86%
Gondar	1%	18%	78%
Tigray	0%	6%	84%
Welaita	1%	4%	95%

For the entire sample, 23 percent of the households indicated that they had another business in addition to their main occupation. The variance between the regions regarding another business was considerable, ranging from a high of 46 percent in Bale, to a low of 7 percent in Gondar [Table 2.3]. It is interesting to note that Bale, where none of the households indicated they were primarily traders, had the highest "second occupation" in the sample. This suggests that trading is a supplemental activity in this area. Tigray had the second highest percentage of "other business" households, and like Bale, Tigray is highly dispersed compared to the other regions. Perhaps the rural areas in Bale and Tigray are not populated to a sufficient density to support

a large number of primary traders—rather, rural demand for traded goods appears to be satisfied through occupational diversification.

<b>Region</b>	<b>Percentage Other Business</b>
Bale	46 %
Gondar	7 %
Tigray	24 %
Welaita	15 %

Within each of the four regions, ethnicity was homogeneous, as 99 percent of the entire sample identified themselves as members of the dominant group in their region (Tigray, Amharic, Welaita, and Oromo). Primary language spoken in the home mirrored this ethnic identification, whereby 99 percent of the respondents indicated they spoke the language of the region as the primary language in their home.

#### *Social Integration*

Respondents were asked how frequently they attended church or mosque, and it was found that religious affiliation varied considerably by region. The population from Tigray claimed to attend most frequently, with 55 percent attending at least twice a week. By comparison, the Bale sample appeared to be the least religious, with only 6 percent attending on a semi weekly or daily basis. This is particularly interesting considering the asserted growth of Islam in the Bale region, as daily prayer is considered one of the basic tenants of the Moslem faith. Gondar had the next highest frequency of attendance, with 27 percent attending at least semi-weekly, followed by Welaita with 13 percent [Table 2.4].

<b>Religious Attendance</b>	<b>Tigray</b>	<b>Gondar</b>	<b>Bale</b>	<b>Welaita</b>
Daily	16%	7%	5%	
Semi-weekly	39%	20%	1%	13%
Weekly	41%	64%	84%	83%
Monthly	3%	9%	4%	1%
Annual	.5%		4%	
Never	.5%	.5%	2%	2%

Membership in community organizations, as well as frequency of attendance, is useful for operationalizing social capital in the community. Closer knit communities will typically demonstrate higher levels of organizational affiliation. In Bale, 99 percent of the population belonged to one organization, however, nobody belonged to more than one. In Tigray, 94 percent were affiliated with one organization, and another 3 percent were members of two groups. In Welaita, 20 percent of the population indicated they were not affiliated, while 8 percent in Gondar claimed no memberships [Table 2.5].

	<b>Tigray</b>	<b>Gondar</b>	<b>Bale</b>	<b>Welaita</b>
No Membership	2.5%	80%	1%	20%
One Membership	94%	19%	99%	66%
Two or More Memberships	3%	1%		14%

A clearer yet similar pattern emerged when examining the frequency of attendance for each respondent, in the previous month. Heads of households in Tigrey were clearly the most likely to attend organizational or community meetings—only 3 percent indicated they had not attended anything in the previous month, while 14 percent claimed to have had six or more meetings. Gondar was the second most "affiliated" of the regions, where it was found that 13 percent had not attended any meetings, but 56 percent had attended at least two meetings in the previous month. Welaita had 52 percent attending at least two meetings, with 22 percent having no meetings. Bale appeared to be the least affiliated, with 32 percent of the respondents indicating they had not attended any meetings in the previous month, and 39 percent stating they had attended two or more.

	<b>Tigray</b>	<b>Gondar</b>	<b>Bale</b>	<b>Welaita</b>
No Attendance Previous Month	3%	13%	32%	22%
One Meeting	3%	30%	30%	37%
2-3 Meetings	22%	43%	38%	37%
4-5 Meetings	58%	10%	1%	11%
6 or More Meetings	14%	3%		4%

### *Economic Status*

A range of economic indicators were examined in each of the households to ascertain the relationship, if any, between household income and participation in school. It was found that

many of these indicators, while demonstrating a statistically useful range of variation over the entire sample, were not applicable to all of the four areas under study. For example, respondents were asked how many metal farm tools they owned. There was considerable variation over the entire sample [Table 2.7]. More than half of the respondents indicated they owned at least one metal tool, while 7 percent claimed to own three or more.

<b>Number Metal Farm Tools</b>	<b>Count</b>	<b>Percent</b>
None	302	47%
1	178	28%
2	114	18%
3	33	5%
4 or More	14	2%

As can be seen from the next table [Table 2.8], the variation in number of metal tools owned is not consistent over all of the four regions. In Welaita, for example, 98 percent of the households do not own metal farm tools. In Gondar, families are unlikely to own more than a single metal farm tools.

	<b>Tigray</b>	<b>Gondar</b>	<b>Bale</b>	<b>Welaita</b>
None	48%	29%	12%	98%
1	39%	71%		1%
2	10%		61%	
3	1%	1%	19%	
4 or More	2%		8%	

## **Schools**

This section describes the characteristics of the forty schools surveyed in the four regions of the sample. Although other descriptive data about schools and their personnel are found in later chapters as part of analysis, the intention here is to provide a profile of the schools found in rural villages, by reporting on school origin, size, organization, infrastructure, resources, and teacher and student characteristics.

### *School origin and context*

The original building of the majority of sample schools—81 percent—were constructed in the 1970's and early 1980s. The earliest school constructed in the sample was in 1966 in Gondar; the latest schools constructed were in 1992 in Tigray and, again, Gondar.

The community is most often cited as a source of labor and resources (ie. materials and/or money) for school construction, although the figures in Table 2.9 are not limited to exclusive contributions. Nonetheless, for the total sample, more than half (54 percent) of the schools were built solely with labor and resources provided by SIDA or other donors (21 percent), the community (17 percent), or the government (15 percent). However, reflecting the policy of the previous government toward mass education, the largest percentage of schools were constructed through a partnership of the community and government.

There is minor variation across the four regions. In contrast to the schools in Gondar and Welaita where parents and students were cited as sources of labor and resources for school construction, the schools in Bale and Tigray reportedly received no assistance from parents or students, although it is likely that these fall into the category of community, despite attempt at distinguishing communities from parents.<sup>6</sup> Bale schools cited the government most often as the source of labor and resources; Gondar schools received labor and resource most often from a partnership between government and the community; Tigray school appear to have received support for construction most often from SIDA and other donors; and Welaita schools were most often constructed with labor and resources from the community alone. (See Chapter 6 for a discussion of resources and sources of support for the schools.)

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<sup>6</sup>The term "community" is used in two different ways throughout the report. In some cases (as in the previous sections) it refers to the population of the village at large, including both parents who have sent their children to school and those who have not or who do not have children. In cases where a distinction is made between the "community" and "parents"—as in the current section and in Chapter 6—the term "community" refers to those who do not have children enrolled in school. "Parents" refers to those whose children are currently enrolled in the sample school.

<b>Table 2.9 Original Construction Date and Provision of Labor and Resources</b>					
	<b>Total Sample #Schools (%)</b>	<b>Bale #Schools (%)</b>	<b>Gondar #Schools (%)</b>	<b>Tigray #Schools (%)</b>	<b>Welaita #Schools (%)</b>
<b>Date of Construction:</b>					
1960-69	4 (10)	2 (20)	1 (10)	0 (0)	1 (10)
1970-79	21 (53)	5 (50)	2 (20)	9 (90)	5 (50)
1980-89	11 (28)	3 (30)	6 (60)	0 (0)	4 (40)
1990-present	2 (5)	0 (0)	1 (10)	1 (10)	0 (0)
<b>Labor Provided by:*</b>					
Government	22 (55)	7 (70)	8 (80)	3 (30)	5 (50)
SIDA, Donors	12 (30)	5 (50)	1 (10)	6 (60)	0 (0)
Parents	6 (15)	0 (0)	4 (40)	0 (0)	2 (20)
Community	24 (60)	5 (50)	8 (80)	1 (10)	10 (100)
Students	3 (8)	0 (0)	1 (10)	0 (0)	0 (0)
<b>Resources Provided by:*</b>					
Government	22 (55)	7 (70)	7 (70)	3 (30)	5 (50)
SIDA, Donors	24 (60)	2 (40)	1 (10)	6 (60)	0 (0)
Parents	5 (13)	0 (0)	3 (30)	0 (0)	2 (20)
Community	25 (63)	7 (70)	4 (40)	1 (10)	10 (100)
Students	1 (3)	0 (0)	0 (0)	0 (0)	0 (0)

\*Figures represent the number and percentage of instances in which source provided labor or resources either alone or in partnership with other sources, and therefore percentages will not add up to 100 percent

Approximately 60 percent of the primary schools surveyed are located within 10 kilometers (or less) of a junior secondary school, whereas only 33 percent of the schools are within 10 kilometers of a senior secondary school. In some instances in Bale and Tigray, the primary school is fifty kilometers from the nearest secondary school. In contrast, the primary schools surveyed in Gondar and Welaita are within less than twenty kilometers of secondary schools. Although a 10 kilometer walk for students wishing to pursue post-primary education may be within the realm of possibility, the associated direct and opportunity costs and security issues may reduce the probability of enrollment at higher levels. The effect of future school opportunities on enrollment in the sample is ambiguous. For example, Tigray schools show the greatest increase in enrollments, despite their greater distance from secondary school opportunities. In contrast, Welaita school exhibit declining enrollment trends, although the primary schools survey are, on average, closer to secondary schools.

Table 2.10 Location of Nearest Junior and Senior Secondary Schools					
	Total Sample #Schools (%)	Bale #Schools (%)	Gondar #Schools (%)	Tigray #Schools (%)	Welaita #Schools (%)
<b>Junior Secondary:</b>					
1-5 km:	12 (30)	2 (20)	7 (70)	0 (0)	3 (30)
6-10 km:	11 (28)	3 (30)	3 (30)	2 (20)	4 (40)
> 10 km:	17 (42)	5 (50)	0 (0)	8 (80)	3 (30)
<b>Senior Secondary:</b>					
1-5 km:	6 (15)	0 (0)	4 (40)	0 (0)	2 (20)
6-10 km:	7 (18)	3 (30)	3 (30)	1 (10)	1 (10)
> 10 km:	27 (67)	7 (70)	3 (30)	9 (90)	7 (70)

### *Size of schools*

Based on 1993/94 data, the 40 schools included in the sample enrolled over 9000 students. The average enrollment in the sample schools is 232 students with a wide variance, the smallest school comprising 45 students and the largest 677 students. There is a bifurcation in school enrollment size, with Tigray and Welaita schools exceeding 300 students, and Bale and Gondar schools averaging little more than 100 students. The median school size is 171 students.

Within the total sample, the average number of girls per school represents less than a third of total average enrollments. This varies notably by region, where girls predominate in the typical Gondar school and are strikingly under-represented in Bale and Welaita schools. The average percentage of girls in Tigray schools at 32 percent, while falling far short of parity with boys, is closer to the 42 percent national average asserted in government statistical reports.

First grade enrollments in the average school account for 44 percent of the student body, ranging from 39 percent in Welaita to 56 percent in Tigray. (This and other enrollment trends are discussed more fully in Chapter 3.)

<b>Table 2.11 Number of Students (1993/94)</b>					
	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<b>Total Students:</b>	9,293	1,041	1,087	3,894	3,271
Girls:	2,773	211	647	1,241	674
Boys:	6,520	830	353	2,653	2,597
<b>Average Students/School</b>	232	104	109	389	327
<b>Range (min-max)</b>	45-677	45-161	71-203	184-677	154-498
<b>Average Percent</b>					
Girls/school:	30%	20%	60%	32%	21%
Boys/school:	70%	80%	40%	68%	79%
<b>Total 1st Graders:</b>	4,107	411	610	1,818	1,268
Girls:	1,523	94	353	701	375
Boys:	2,595	317	257	1,118	903
<b>Average Percent 1st Graders/School:</b>	44%	40%	56%	47%	39%

In 1993/94, 315 teachers taught in sample schools, averaging eight teachers per schools for the total sample. Some schools were served by as few as 3 teachers; others with as many as 14 teachers. More significantly, the ratio of students to teachers varied notably from the sample mean of 29 students per one teacher, ranging from a low of 12 students:teacher in Bale to a high of 49 students:teacher in Tigray. In fact, only Tigray schools exceed the 35-40 students:teacher ratio targeted by the Ministry of Education, suggesting that teachers may be under-utilized in rural schools. (For further discussion see Chapter 3.)

Female teachers are found in 70 percent of the sample schools, although they account for, on average, only 27 percent of the teaching force. (This is, however, slightly above the reported national average of 25 percent.) Bale and Welaita schools have the lowest proportions of female teachers at 19 and 24 percent, although they are distributed more evenly in Bale schools than in Welaita schools. Schools in Gondar enjoy the highest percentage of female teachers (36%). Tigray schools follow at 33 percent, but are distinguished by having at least one female teacher in every school surveyed. Interestingly, the average percentage of female teachers in school echoes the pattern of girls' enrollments as a proportion of the student body observed among the regions, ie. a higher percentage of female teachers corresponds to a higher percentage of girls students.

	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<b>Total Teachers:</b>	315	87	52	80	96
<b>Female:</b>	60	10	17	26	7
<b>Male:</b>	255	77	35	54	89
<b>Average Teachers/School</b>	8	9	5	8	10
<b>Range</b>	3-14	3-14	3-9	5-13	6-13
<b>Average Student:Teacher Ratio</b>	29:1	12:1	22:1	49:1	33:1
<b>Average Percent</b>					
<b>Female/school:</b>	27%	19%	36%	33%	24%
<b>Male/school:</b>	73%	81%	64%	67%	76%
<b>% Schools with Female Teachers</b>	70%	60%	90%	100%	30%

### *Organization*

Over half (59%) the schools in the sample are "complete", providing all six grades of primary education. Eighty-seven percent offer instruction through fourth grade, the level of instruction most often associated with functional literacy.<sup>7</sup> Consequently, for most of the school children in the sample acquisition of literacy is not constrained by the lack of grade levels. This, course, does not mean that other supply-side factors do not impede learning. From a regional perspective, Bale and Welaita enjoy the highest percentages of complete schools (80 percent respectively), whereas only 30 percent of the schools in Gondar and 40 percent in Tigray are complete.

	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<b>Grades:</b>	<b>#Schools (%)</b>				
1-2	1 (2.6)	0	1 (10)	0	0
1-3	3 (7.7)	2 (20)	0	1 (10)	0
1-4	7 (17.9)	0	3 (30)	5 (50)	0
1-5	5 (12.8)	0	3 (30)	0	2 (20)
1-6	23 (59)	8 (80)	3 (30)	4 (40)	8 (80)

<sup>7</sup>Instruction through the fourth grade level is also targeted for provision through village schools in the Ministry's new education strategy.

Fifteen percent of the sample schools operate on double shifts, although this practice is limited to Tigray and Welaita where student:classroom ratio is highest, with 62 and 75 students, on average, per classroom.<sup>8</sup> (See Chapter 3, Table 3.10.)

The national policy of local language use for core curriculum promulgated in 1992 is reflected in the sample schools. According to region, the schools' language of instruction for core subjects corresponds to the language prevailing in the region: Orominya for Bale schools, Amharic for Gondar school, Tigrinya for Tigray schools and Welaitinya for Welaita schools (although one indicated it also taught the core subjects in English). No other languages were indicated for core curricula instruction. All but one school also taught as special subjects at least one, and generally two, other languages. These were largely limited to Amharic and English. Not counting Gondar schools, 90 percent of the schools in the other regions taught Amharic, although one school in Bale and one school in Tigray did not. Similarly, 90 percent of the schools taught English as a special subject. With the exception of Amharic, no school reported teaching another national language as a special subject, not even the Gondar schools where Amharic instruction is given.

### *Infrastructure and resources*

The infrastructure of the schools is uniformly poor. Very few are constructed in durable (and costly) low maintenance materials, such as concrete. The few that are, generally have been built with assistance from SIDA or other donors. Most are constructed from local materials and methods—namely wood and mud plaster—with the exception of Tigray where many schools are made of dry-laid stone. Window openings, often eliminated in Tigray school construction, are protected by wood and tin shutters or a combination of both. Glazed windows do not exist in these rural village schools.

Roof type was expected to be a good indicator of richer—and possibly higher quality—schools, but for the most part there was little variation in the sample or among regions. Again, Tigray is the exception. While nearly all the schools in Bale, Gondar and Tigray have tin roofs, Tigray schools roofs are characterized by a range of materials—a mix of tin and thatch. Similarly most schools possess dirt floors, or a combination of stone and dirt.

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<sup>8</sup>This does not mean there are this many students in the classroom but rather represents the average ratio of enrollments to classroom available at the schools. Double shifting should, of course, reduce classroom crowding.

	<b>Total Sample #Schools (%)</b>	<b>Bale #Schools (%)</b>	<b>Gondar #Schools (%)</b>	<b>Tigray #Schools (%)</b>	<b>Welaita #Schools (%)</b>
<b>Wall Type:</b>					
Wood/mud:	27 (68)	8 (80)	10 (100)	0 (0)	9 (90)
Concrete:	3 (7)	0 (0)	0 (0)	2 (20)	1 (10)
Combination:	4 (10)	2 (20)	0 (0)	2 (20)	0 (0)
Other:	6 (15)	0 (0)	0 (0)	6 (60)	0 (0)
<b>Window type:</b>					
Glass:	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Wooden	14 (35)	7 (70)	0 (0)	1 (10)	6 (60)
Shutters:	7 (18)	0 (0)	5 (50)	1 (10)	1 (10)
Tin Shutters:	10 (25)	2 (20)	1 (10)	0 (0)	1 (10)
Combination:	9 (22)	1 (10)	4 (40)	8 (80)	2 (20)
Other:					
<b>Roof type:</b>					
Tin:	32 (80)	9 (90)	10 (100)	3 (30)	10 (100)
Thatch:	3 (8)	0 (0)	0 (0)	3 (30)	0 (0)
Stone:	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Combination:	5 (12)	1 (10)	0 (0)	6 (60)	0 (0)
Other:	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
<b>Floor Type:</b>					
Concrete:	1 (3)	0 (0)	0 (0)	0 (0)	1 (10)
Dirt:	29 (72)	6 (60)	9 (90)	6 (60)	8 (80)
Combination:	7 (18)	4 (40)	1 (10)	1 (10)	1 (10)
Other:	3 (7)	0 (0)	0 (0)	3 (30)	0 (0)

The unusual presentation in Table 2.14, with its focus on the lack of school facilities, emphasizes again the poor condition of the sample schools. Not surprisingly, none have electricity, but of greater import is that few can meet minimal sanitary conditions. Eighty-three percent of the schools do not have a source of water on the premises, necessitating, on average, a two-to-four kilometer hike to fetch water, a task often performed by students. (See Chapter 6 for discussion of student labor.) Twenty-five percent of the schools indicated their water source was located at a distance of more than four kilometers from the school. The majority of schools also lack latrines. When they do exist, roughly half are enclosed and gender-separated.

<b>The School Does NOT Have:</b>	<b>Total Sample #Schools (%)</b>	<b>Bale #Schools (%)</b>	<b>Gondar #Schools (%)</b>	<b>Tigray #Schools (%)</b>	<b>Welaita #Schools (%)</b>
Electricity:	40 (100)	10 (100)	10 (100)	10 (100)	10 (100)
Water:	33 (83)	8 (80)	5 (50)	9 (90)	10 (100)
Average Distance From Water Source:	2-4 km.	2-4 km.	< 2 km.	< 2 km.	2-4 km.
Playing Field:	11 (27)	3 (30)	3 (30)	1 (10)	4 (40)
Teacher Housing*:	38 (95)	8 (80)	10 (100)	10 (100)	10 (100)
Latrines:	27 (68)	5 (50)	10 (100)	7 (70)	5 (50)
Latrine Type:					
Open:	4 (10)**	1 (10)	n/a	2 (10)	1 (10)
Enclosed:	7 (18)	3 (30)		0 (0)	4 (40)
Gender-separated:	6 (15)	1 (10)		2 (10)	3 (30)

\* Teacher housing considered non-existent if disrepair prevents use.

\*\*percentage of total schools in column

Playing fields appear to be a feature of most rural schools, in even the land-poor Tigray schools. Surprisingly, the schools in Bale, Gondar and Welaita, which possess—on average—more land, are less likely to provide playing fields. This is due to the comparatively high emphasis these schools place on agricultural production for generating income, resulting in a trade-off between open space for children to play and the need to cultivate available land. (See Chapter 6.)

Teacher housing is not offered by most of the schools, and in the few that do—mainly in Gondar—it is not used due to disrepair. Some school indicated that the housing was allowed to deteriorate because teachers would not accept to live in the type of dwellings provided. They prefer to commute from rural towns where domestic accommodations are more sophisticated.

There is notable variation among the schools and regions in terms of the number of classroom per school, which ranges from two to nine rooms in an average of five classrooms per school. However, this become more meaningful when examined in terms of the number of students per classroom, with lows of 20-26 children per classroom in Bale and Gondar, and highs of 62-75 children per classroom in Tigray and Welaita. As most classroom were observed to be of uniform size (i.e., 35 student maximum capacity), the latter two regions suffer serious over-crowding, although there is—as seen previously—some attempts at double-shifting.

	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<b>Average Number of Classrooms/School</b>	5.1	5.2	4.7	5.8	4.7
<b>Range:</b>	2-9	3-6	2-6	3-7	4-9
<b>Average Student:Classroom Ratio</b>	45	20	26	62	75
<b>Average Number of Other Rooms at School</b>	3.2	4.3	3.1	2.1	3.3
<b>Schools with, # (%):</b>					
<b>Headmaster's office:</b>	31 (82)	9 (100)	10 (100)	3 (33)	9 (90)
<b>Teachers' Room:</b>	27 (71)	8 (89)	7 (70)	2 (22)	10 (100)
<b>Storeroom:</b>	2 (68)	8 (89)	7 (70)	3 (11)	10 (100)
<b>SPC Room:</b>	15 (39)	9 (100)	2 (20)	0 (0)	4 (40)

Most schools do have other spaces, in addition to classrooms used for teaching. The Bale schools, with an average of four additional rooms, are most well-equipped; the Welaita schools, with 2 extra rooms, are the worst. The majority of schools in Bale, Gondar and Welaita have a headmaster's office, a teachers' room and a storeroom, in descending order of likelihood. Conversely, in Tigray, the majority of schools do not. Relatively few schools in the sample (39%) enjoy a "school pedagogical center" (SPC) room. Bale schools seem particularly fortunate in this respect, although usage is uncertain.

Classrooms also lack basic amenities, although most do enjoy the convenience of a blackboard, either painted on or—more often—suspended from the wall. Eighty percent of the teachers do not have desks from which to work. Students fared slightly better in terms of furniture; nearly 60 percent of the students had either wooden benches or desks (or both), the remainder making do with mud benches or rocks. Bale schools are particularly well-equipped with student furniture; Gondar and Welaita schools are variable; and Tigray schools lack any wooden student furniture. Materials on walls, storage cabinets and notice boards seldom feature in the sample schools' classrooms, ensuring that the physical learning environment is a bleak experience for children and teachers alike.

The Classroom Does NOT Have:	Total Sample #Schools (%)	Bale #Schools (%)	Gondar #Schools (%)	Tigray #Schools (%)	Welaita #Schools (%)
Chalkboard:	2 (5)	0 (0)	1 (10)	0 (0)	1 (10)
Teacher Desk:	32 (80)	8 (80)	5 (50)	10 (100)	8 (80)
Material on Walls:	37 (93)	9 (90)	9 (90)	10 (100)	9 (90)
Storage Cabinet:	39 (98)	10 (100)	10 (100)	10 (100)	9 (90)
Notice Board:	37 (93)	8 (80)	10 (100)	10 (100)	9 (90)
Student Tables and Benches:	21 (59)	1 (10)	5 (50)	10 (100)	4 (40)

Overall, there is little distinction among the schools in terms of infrastructure and endowments to allow the development of a school endowment index. For example, if one school enjoys a concrete floor, it suffers a thatched roof and no water source. As noted, the level of infrastructure and endowments of the school are consistently low. However, allowing for varying regional standards, it does appear that the schools in Tigray are particularly deprived in comparison with the other regions, especially in terms of space capacity at the school and classroom facilities.

### *Teacher characteristics*

Despite concerns about backlogs of untrained teachers on a national level, the level of training attained by teachers in the sample schools is remarkably high. Ninety-seven percent have completed secondary school plus one year additional training, presumably at a Teacher Training Institute, according to national policy. At no school were the few less qualified teachers predominate, although Welaita schools employed half of the lesser trained teachers. Of the ten teachers with lesser training levels, only two were female (employed in the same school in Tigray), and they had completed secondary school.

Level of Training	Total Sample #Teachers (%)	Bale #Teachers (%)	Gondar #Teachers (%)	Tigray #Teachers (%)	Welaita #Teachers (%)
10 + 2	3 (<1)	0 (0)	2 (4)	0 (0)	1 (1)
12	7 (2)	0 (0)	0 (0)	2 (3)	5 (5)
12 + 1	302 (97)	86 (100)	49 (96)	78 (97)	89 (93)
12 + 2	1 (<1)	0 (0)	0 (0)	0 (0)	1 (1)
Total Teachers	313	86	51	80	96

\* Total numbers of teachers will vary due to missing data.

Contrary to expectations that rural village school would be assigned newly trained teachers according to stated MOE practice, teachers in the sample schools had relatively long experience as teachers. Over half (67%) had taught for more than 5 years, and a third for more than 10 years. Newly trained teacher constituted only 14 percent of the sample. Teachers in Bale and Welaita schools were more experienced (80% and 91%, respectively with over 5 years of experience), followed by Gondar (65%). In sharp contrast, the majority of teachers in Tigray schools (77%) had less than five years of experience.

Female teachers, on average across the sample, had less experience than their male counterparts. Only 23 percent of the female teachers had more than five years of teaching experience, possibly reflecting the relatively recent efforts of the MOE to encourage female enrollment in TTI's.

Years of Teaching	Total Sample #Teachers (%)	Bale #Teachers (%)	Gondar #Teachers (%)	Tigray #Teachers (%)	Welaita #Teachers (%)
Less than 3	45 (14)	4 (5)	4 (8)	33 (41)	4 (4)
3 to 5 years	61 (19)	13 (15)	14 (27)	29 (36)	5 (5)
6 to 10 years	100 (32)	37 (42)	16 (31)	16 (20)	31 (33)
More than 10 years	109 (35)	34 (38)	17 (34)	2 (3)	56 (58)
Total Teachers	315	88	51	80	96

\* Total numbers of teachers will vary due to missing data.

Reflecting both MOE policy and their own desire not to remain in rural villages, teacher tenure at the sample school is not long. Over half have taught at the school for less than three years; over three-quarters of the teachers have been assigned to the school for five years or less. This

is in sharp contrast to the comparatively lengthy average teaching experience. The teachers at the sample schools in Bale and Welaita had somewhat longer tenure at the sample schools than those in Gondar and Tigray, where between 90 to 99 percent of the teachers had been at the school for five years or less. Given that the schools have only recently re-opened in these regions, this is not unexpected.

Across the sample, female teacher have even less tenure at the school than male teachers. Compared with the 81 percent of total teacher who had been at the sample school five years or less, 91 percent of the female teachers had been there for a commensurate period.

Years at School	Total Sample #Teachers (%)	Bale #Teachers (%)	Gondar #Teachers (%)	Tigray #Teachers (%)	Welaita #Teachers (%)
Less than 3	173 (56)	51 (59)	31 (60)	56 (73)	35 (36)
3 to 5 years	78 (25)	14 (16)	16 (30)	19 (26)	29 (30)
6 to 8 years	35 (11)	12 (14)	5 (10)	1 (1)	17 (18)
More than 8 years	25 (8)	10 (11)	0 (0)	0 (0)	15 (16)
Total Teachers	311	87	52	76	96

\* Total numbers of teachers will vary due to missing data.

The few (11 percent) teachers who actually live in housing at the school are exclusively found in Bale and Welaita. In light of the data previously presented in Table 2.14, this is somewhat puzzling as not a single school in Welaita claimed to provide teacher housing. It is possible that these teachers pay for housing on or very near the school compound. The majority of teachers in the sample (65 percent) and in each region live within 5 kilometers of the school, and 76 percent of the teachers can be said to live in the community surrounding the school as this is the distance from which most students are drawn (see next section). On a regional basis, the teachers in Bale and Tigray are more likely to be part of the community, as 78 percent in Bale and 100 percent in Tigray live within five kilometers in contrast to the 58 percent in Gondar and the 62 percent in Welaita. In general, a very small proportion (5 percent) of teachers commute more than ten kilometers to their teaching job, the largest percentage in Bale.

While a slightly lesser percentage of female teachers actually live at the school (8 percent of total female teachers), a notably larger number live within five kilometers (77 percent). Overall, the 85 percent of female teachers living within the vicinity of the school compares favorably in terms of community integration potential with the total sample. No female teachers commute more than ten kilometers to the school.

<b>Table 2.21 Teacher Residence*</b>					
<b>Location of Residence</b>	<b>Total Sample #Teachers (%)</b>	<b>Bale #Teachers (%)</b>	<b>Gondar #Teachers (%)</b>	<b>Tigray #Teachers (%)</b>	<b>Welaita #Teachers (%)</b>
Housing at School	35 (11)	10 (11)	0 (0)	0 (0)	25 (26)
Less than 5 km.	206 (65)	59 (67)	30 (58)	80 (100)	37 (39)
6 to 10 km.	59 (19)	7 (8)	18 (35)	0 (0)	34 (35)
More than 10 km.	16 (5)	12 (14)	4 (7)	0 (0)	0 (0)
Total Teachers	316	88	52	80	96

\* Total numbers of teachers will vary due to missing data.

In keeping with the exhibited tendency of teachers to live within relatively easy commuting distance of the school, is the fact that most teachers are from the same region and share the same language and religion prevailing in the sample area, which potentially can reduce the cultural conflicts which could arise between teachers and communities and/or parent from dissimilar backgrounds. Nearly 90 percent of the teachers come from the same region in which they are employed, and 54 percent are from the same wereda. The exception is, as usual, Tigray where few teachers are from the same wereda as the school, but none are from outside the region. Although less than 25 percent, there is a greater proportion of teachers from outside the region in Bale and Welaita.

The origins of female teachers do not vary notably from the proportions of the total sample. Although fewer come from the same wereda (37 percent), more (53 percent) are from the same region (but different wereda) than the total sample, totalling 90 percent from the region. This indicates that female teachers are somewhat more likely to come from the same region in which they teach than male teachers.

Place of Birth:	Total Sample #Teachers (%)	Bale #Teachers (%)	Gondar #Teachers (%)	Tigray #Teachers (%)	Welaita #Teachers (%)
Same Wereda as School:	160 (54)	53 (69)	35 (67)	2 (3)	70 (73)
Same Region, Different Wereda:	97 (33)	8 (10)	11 (21)	70 (97)	8 (8)
Different Region:	40 (13)	16 (21)	6 (12)	0 (0)	18 (19)
Total Teachers	297	77	52	72	96

\* Total numbers of teachers will vary due to missing data.

Most teacher's maternal language is the same as the language used for the core curriculum in the school, which—as previously seen—is the same prevailing in the region. Only in Bale are teachers almost as likely to speak Amharic as their maternal language as the prevalent Oromingna. Although in Welaita, over 80 percent of the teachers speak native welaitingna, those who do not speak a language other than Amharic, Oromingna and Tigringna.

Maternal Language is:	Total Sample #Teachers (%)	Bale #Teachers (%)	Gondar #Teachers (%)	Tigray #Teachers (%)	Welaita #Teachers (%)
Spoken in School:	254 (82)	46 (58)	51 (93)	80 (100)	77 (81)
Not Spoken in School:	55 (18)	33 (42)	4 (7)	0 (0)	18 (19)
Total teachers	309	79	55	80	95

\* Total numbers of teachers will vary due to missing data.

There is also notable consistency between teacher religion and that prevailing in the community. Eighty percent of the teachers share the same religion as the community, with virtual congruency in Gondar, Tigray and Welaita. The situation in Bale is different where the population is a mix between Muslim and Christian. Since Table 2.23 is based on a dichotomy, the information about teachers in Bale could be misleading as it is nearly impossible to identify a prevailing religion. In fact, the teachers are about 50 percent Muslim and 50 percent Christian, which well might mean that they fit into the mixed religious environment perfectly. Also in 4 of the 10 Bale schools, teachers of the same religion (Christian or Muslim) are clustered, indicating that their religions were probably matched to the community.

<b>Teacher Religion:</b>	<b>Total Sample #Teachers (%)</b>	<b>Bale #Teachers (%)</b>	<b>Gondar #Teachers (%)</b>	<b>Tigray #Teachers (%)</b>	<b>Welaita #Teachers (%)</b>
<b>Predominates in Community:</b>	252 (84)	41 (48)	48 (96)	67 (100)	96 (100)
<b>Does Not Predominate in Community:</b>	47 (16)	45 (52)	2 (4)	0 (0)	0 (0)
<b>Total Teachers</b>	299	86	50	67	96

\* Total numbers of teachers will vary due to missing data.

The standard (i.e., government-mandated) number of teaching hour per week is 22 to 26 hours. Most (58 percent) of the teachers in the sample schools taught fewer than 20 hours per week. Approximately a quarter (27 percent) of teachers taught the regulation amount of hours per week, and 14 percent taught more than 26 hours per week. In the regions, it appears that the teachers in Bale are the most under-utilized, with over a third (36 percent) teaching only between 10 and 15 hours per week. While the majority of teachers in Tigray and Welaita did not carry full loads, they did approach a 20-hour per week. Teachers in Gondar, on the other hand, appear to be overworked; nearly 90 percent of them claimed to teach more than 26 hours per week. In that the schools in Gondar enjoy a reasonable student:teacher and classroom:teacher ratio which would prevent the need to double-shift, the reasons for the extra teaching hours are unclear. However, as seen in Table 2.20, a goodly number of teacher commute over six kilometers to the school, travel time which they may have included in their calculation of time on the job. (Indeed, some parent complained that teachers spent time which should have been in the classroom on travelling from their residences in rural towns.)

There is some slight difference in the amount of time female teachers instruct compared with the total sample. Although the 58 percent of female teachers who teach less than 20 hours is virtually equal to the total sample, it does appear that a smaller percentage (21 percent) teach the standard number of hours. However, this is reversed at the higher level of 26 hour per week, when the percentage of female teachers teaching is 20 percent, compared with 14 percent of the total sample.

Hours Taught per Week:	Total Sample #Teachers (%)	Bale #Teachers (%)	Gondar #Teachers (%)	Tigray #Teachers (%)	Welaita #Teachers (%)
Less than 10 Hours:	10 (3)	8 (9)	0 (0)	2 (2)	0 (0)
10-15 Hours:	64 (20)	36 (41)	0 (0)	14 (14)	14 (19)
16-20 Hours:	109 (35)	13 (15)	0 (0)	45 (46)	51 (68)
20-25 Hours:	85 (27)	30 (34)	7 (13)	38 (38)	10 (13)
More than 26 Hours:	45 (14)	0 (0)	45 (87)	0 (0)	0 (0)
Total Teachers	313	87	52	99	75

\* Total numbers of teachers will vary due to missing data.

### *Student Characteristics*

Data on several characteristics of students enrolled in the sample schools, salient to the issue of educational demand, was collected to complement the household profile. Specifically the issues of distance and student learning materials (books and supplies) are examined. In addition, in order to determine whether school quality had an impact on demand, a proxy variable for quality—sixth grade leaving exam pass rate— was developed.

Most (61 percent) of the students in the schools faced less than a 30-minute walk to school, and the vast majority (86 percent) walked less than an hour to school. This is to be expected as student enrollment is likely to be biased by ease of school accessibility. The students in Gondar were particularly favored by a short walking distance to school; 87 percent walk less than 30 minutes. In contrast, 43 percent of the student in Tigray reside only thirty minutes from the school. In fact, 17 percent of Tigray students must hike more than two hours to reach the school in comparison with the total sample's 4 percent.

Girl students mirror nearly the same percentage distributions as the total sample. Eighty-nine percent live within one hour of the school, and only 4 percent walk more than more than two hours. The enrolled girls tend to live a bit closer to the school, but not to any significant extent.

<b>Time to Walk to School:</b>	<b>Total Sample #Students (%)</b>	<b>Bale #Students (%)</b>	<b>Gondar #Students (%)</b>	<b>Tigray #Students (%)</b>	<b>Welaita #Students (%)</b>
<b>Less than 30 minutes:</b>	2,217 (61)	289 (60)	562 (87)	505 (43)	861 (66)
Girls:	818 (64)	65 (65)	357 (86)	181 (47)	215 (60)
<b>30-60 minutes:</b>	906 (25)	157 (32)	85 (13)	340 (29)	324 (25)
Girls:	315 (25)	29 (29)	58 (14)	113 (29)	115 (31)
<b>61-120 minutes:</b>	353 (10)	44 (8)	2 (0)	202 (17)	105 (8)
Girls:	91 (7)	6 (6)	2 (0)	53 (14)	30 (8)
<b>More than 120 minutes:</b>	145 (4)	1 (0)	0 (0)	131 (11)	13 (1)
Girls:	46 (4)	0 (0)	0 (0)	42 (10)	4 (1)
<b>Total Students:</b>	3,612	482	649	1,178	1,303
Girls:	1,270	100	417	389	364

\* Total numbers of students will vary due to missing data.

Slightly less than half (46 percent) of the students in the total sample possessed both math and reading books. Thirty-seven percent had either one or the other, 17 percent had neither book. The students in Welaita were the most well equipped: 59 percent of them had both a math and reading book and only 7 percent had none. The students in the Tigray school were the least likely to have both math and reading books, but the majority of Tigray students (62 percent) had either one or the other. The students in the Bale and Gondar school most often did without any book: 33 percent and 28 percent, respectively, did not have books. It is unknown to what extent the books were provided by the school or purchased on the market by parents.

Girls fared slightly less well than the sample in terms of possessing both math and reading books, which—by implication—means they were somewhat less likely to have both books than boys. A higher proportion of girls did not have any books, 22 percent compared to the 17 percent of the total sample. There is little striking at the regional level. A larger percentage of girls in Tigray had both math and reading books than the sample in the region. Counter to expectations, girls did not have less access to math books, except in Welaita where they trailed the sample by 5 percentage points. Whether distributed by the school or purchased by parents, it appears that in the sample schools, though there are the "haves" and "have nots" in terms of books, possession is not primarily determined by gender.

Students with:	Total Sample #Students (%)	Bale #Students (%)	Gondar #Students (%)	Tigray #Students (%)	Welaita #Students (%)
Math & Reading Book:	1,600 (46)	181 (37)	353 (52)	304 (30)	762 (59)
Girls:	506 (44)	36 (32)	210 (48)	100 (32)	160 (56)
Reading Book Only:	568 (16)	96 (19)	53 (7)	328 (33)	91 (7)
	174 (15)	25 (23)	32 (7)	88 (29)	29 (10)
Math Book Only:	744 (21)	54 (11)	81 (12)	254 (25)	355 (27)
Girls:	214 (19)	14 (13)	52 (12)	85 (28)	63 (22)
No Math or Reading Book:	582 (17)	164 (33)	202 (28)	126 (12)	90 (7)
Girls:	245 (22)	36 (32)	141 (33)	34 (11)	34 (12)
Total Students:	3,498	495	689	1,012	1,302
Girls:	1,139	111	435	307	286

\* Total numbers of students will vary due to missing data.

Although the majority of students come to school with at least an exercise book (66 percent) and pen (73 percent), approximately a third lack these rudimentary supplies. Students are less likely to have pencils, and only a small fraction (10 percent) possess erasers. The students in Bale school appear the most well-equipped; 82 percent have an exercise book or books and, perhaps a symbol of student affluence, 40 percent—the highest in the sample by far—have an eraser. The students in Welaita suffer from the least amount of school supplies; only half have exercise books and none have erasers. Clearly, many parents—while able to provide the for the school fees of the students surveyed—are either unable or unwilling to provide their children with the materials essential to the learning process.

It is often speculated that parents would be less willing support girls' schooling costs, either in terms of enrollment or provision of supplies, or the schools themselves would favor boys in providing materials, if available. This seems to be the case in the sample schools. In general, girls seem to be slightly less likely to have basic school supplies. The disparity is most pronounced between girls and, by implication, boys, in Bale. Twelve percent fewer girls have exercise books than the sample, and 13 percent fewer girls have pens. Even in Gondar, where girls outnumber boys in the schools, girls are less well provided for. They trail the sample in ownership of exercise books and pens. Oddly, in Welaita—where the students are the least well-equipped—the girls actually exceed the total sample percentages in two of three types of supplies.

<b>Students with:</b>	<b>Total Sample #Students (%)</b>	<b>Bale #Students (%)</b>	<b>Gondar #Students (%)</b>	<b>Tigray #Students (%)</b>	<b>Welaita #Students (%)</b>
<b>Exercise Books:</b>	2,365 (66)	408 (82)	476 (74)	832 (73)	649 (51)
<b>Girls:</b>	745 (65)	72 (68)	284 (68)	246 (70)	143 (51)
<b>Peas:</b>	2,599 (73)	262 (53)	344 (53)	1,057 (92)	936 (73)
<b>Girls:</b>	774 (67)	43 (40)	196 (47)	308 (86)	227 (82)
<b>Pencils:</b>	1,415 (40)	332 (67)	228 (53)	446 (39)	293 (23)
<b>Girls:</b>	509 (44)	69 (64)	344 (53)	129 (37)	83 (30)
<b>Erasers:</b>	345 (10)	199 (40)	114 (18)	32 (3)	0 (0)
<b>Girls:</b>	132 (11)	42 (39)	78 (19)	12 (3)	0 (0)
<b>Total Students:</b>	3,561	496	647	1,144	1274
<b>Girls:</b>	1,154	108	420	348	278

\* Total numbers of students will vary due to missing data.

Because many of the schools either do not have sixth grades, have not yet had sixth graders sit for the primary school leaving exam or have no data, the information in Table 2.29 is limited to 17 schools and 405 students for academic year 1992/93. Ninety-four percent of the students who reach the sixth grade sit for the leaving exam. Tigray students are less likely to take the exam. The average pass rate (of total students) for the sample is 82 percent. While this is relatively high, the reader should not forget that, although data was not collected for this survey, national data shows only a small proportion of students starting first grade pass the leaving exam. The schools in Gondar claim perfect success in terms of sitting and pass rates, i.e., 100 percent of the sixth grade students take and pass the exam. The students in Tigray exhibit the lowest pass rates of the regions, at 73 percent.

Overall, a lower percentage of girls sit for the exam and pass it than in the total sample, resulting in a 9 percentage point gap. This gap closes somewhat to 4 percentage points if the percentage of girls passing the exam is measured with respect to those sitting for it, indicating a self-selection process. Boys and girls are equally successful in sitting for and passing the leaving exam in Gondar, and in Bale a greater percentage of girls sit for the exam. The greatest gender disparity is found in Tigray where only about two-thirds as many girls as the sample sit for the exam and fewer still pass it. There is a 28 percentage point spread between girl and the sample pass rates, compared with a 3 and 8 percentage point spread in Bale and Welaita.

**Table 2.30 Sixth Grade Exam Pass Rate (1992/93)\***

<b>Average Percent of Sixth Grade Students:</b>	<b>Total Sample (%)</b>	<b>Bale (%)</b>	<b>Gondar (%)</b>	<b>Tigray (%)</b>	<b>Welaita (%)</b>
<b>Sitting for Exam of Total:</b>	(94)	(98)	(100)	(87)	(94)
<b>Girls:</b>	(85)	(100)	(100)	(56)	(90)
<b>Passing Exam of Total:</b>	(82)	(79)	(100)	(73)	(84)
<b>Girls:</b>	(71)	(76)	(100)	(45)	(76)
<b>Passing Exam of Sitting:</b>	(88)	(81)	(100)	(84)	(89)
<b>Girls:</b>	(84)	(76)	(100)	(79)	(85)
<b>N (Total Students)=</b>	406	84	16	101	205
<b>N (Girls)=</b>	106	29	5	27	45

\* Total numbers of students will vary due to missing data.

## **Chapter 3**

### **Status of Demand for Education**

This chapter examines the enrollment and educational consumption (see below for definition) trends in the schools and villages where the study was conducted. Aggregate national statistics indicate that the gross enrollment ratio for primary school has dropped from a high of 35 percent in 1988 to 22 percent in 1992, but they can not tell us whether this reduction is due to a lessening in the desire of households to school their children, a temporary disruption due to war and civil disturbance, or because of an inadequate number of school places to absorb aspiring students. By tracking the enrollment and educational consumption trends, we can begin to understand—to a certain extent—whether the national decline in enrollment signifies a short-term phenomenon or a longer-term tendency, and whether decreases in enrollment are due to supply-side constraints or lack of demand by households. While the purpose of the demand study in its entirety is to identify and weight the effects, if possible, of the factors influencing household demand for schooling, this chapter presents a description of the status of "demand" in the study areas and an initial attempt to distinguish between the hopefully transient, but destabilizing, effects of war and the inherent propensity of households to send their children to school. The following discusses enrollment trends by total sample and region, including first grade and girls' participation, examines the likelihood of school capacity limitations and tracks the changes in educational consumption over time.

#### **Research Questions**

The following research questions are addressed:

- Is there a declining, increasing or stagnating demand for primary schooling in rural areas where government schools exist?
- What has been the rate and direction of change over time?
- What years did declines or increases occur?
- Are there indications that the schools are not being used to capacity?

#### **Methodology**

The best way of measuring household investment in and demand for primary schooling is to track the gross enrollment ratio (proportion of school-aged children enrolled in primary school) over time, but in the areas where the research was conducted the population data is either

unavailable in the unit of analysis required (i.e., village level), suspect in terms of accuracy, or—because of deviations from the original sampling plan—not applicable.

Rather than construct artificial village gross enrollment ratios based on interpolations from regional and zonal statistics, we have based our analysis on (1) individual school enrollment and (2) an estimate of household educational consumption (actual years of primary schooling consumed by the household as a percentage of potential years of schooling) as indicators of demand in the period from 1988/89 to 1993/94.

There are six years of data for schools in the Bale and Welaita regions, and three years for Gondar and Tigray (where the schools were closed prior to 1991/92). In assessing the enrollment data, we have assumed that:

- the population is growing at approximately 3 percent
- there have been no major shifts in populations in the villages surveyed in the time periods indicated. (Profiles of the communities where the schools are located do not reveal catastrophic changes, but constant hardship and disease.)

Household educational consumption patterns were analyzed for 130 randomly selected households in each of the four regions. Surveys were alternately administered in the local languages to fifty male and fifty female heads of different households. In addition, for thirty households in each region, both female and male heads were comparatively surveyed to ensure instrument reliability as well as to conduct further gender analysis.

A distinction was made regarding the total historical consumption of household education and the current level of consumption. To do this, we have assumed the following:

- children between the ages of seven and twelve attending primary school are considered presently enrolled, reflecting current consumption patterns.
- children ages thirteen and over are considered as non-enrolled, reflecting historical consumption patterns.<sup>9</sup>

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<sup>9</sup> This was done in order to utilize a household consumption index for primary school. Although many children, and adults, attend primary school in Ethiopia, our goal was to develop an index that analyzes household potential to actual enrollments. Children of ages twelve and above had the same potential completion - six years of primary school. We were unable to differentiate those thirteen year olds who were attending second grade from those who had completed second grade and were now disengaged from school. By determining an arbitrary age ceiling (in this case, 12 years of age) we are able to infer current enrollment data for the majority of our sample. Because the measures were applied equally to both the numerator and denominator of the consumption ratio, bias is unlikely to be a factor in the analysis.

## Analysis

### *Total Sample*

In absolute terms, aggregate enrollments have increased by 62 percent in the sample schools, growing from 5,737 students in 1988/89 to 9,293 students in 1993/94 (Table 3.1). However, this in itself, tells us little as it does not capture regional changes or account for the direction and magnitude of change at individual schools. Instead, it is more informative to examine the average percentage changes in enrollments by school and by regions.

<b>Year*</b>	<b>Enrollments</b>	<b>Total students</b>	<b>Girls</b>	<b>Boys</b>
1. 93/94	a. for school:	9,293	2,773	6,520
	b. for Grade 1:	4,107	1,523	2,595
2. 92/93	a. for school:	8,282	2,277	6,005
	b. for Grade 1:	3,789	1,285	2,504
3. 91/92	a. for school:	6,403	1,757	4,646
	b. for Grade 1:	2,593	863	1,730
4. 90/91	a. for school:	5,212	1,214	3,998
	b. for Grade 1:	1,396	457	939
5. 89/90	a. for school:	5,235	1,350	3,885
	b. for Grade 1:	1,446	453	993
6. 88/89	for school:	5,737	1,215	4,522
	for Grade 1:	1,719	506	1,213

Between 1988/89 and 1993/94, average enrollments in the schools for which we have six years of data (Bale and Welaita) declined nearly 37 percent. Fifteen out of 17 schools experienced reduced enrollments and in 40 percent of these, the reduction was more than 50 percent of the student body. However, since 1991/92, average school enrollments have exhibited positive growth, up almost 38 percent, although they now appear to be increasing at a slightly declining rate. (Table 3.2) And there is a bifurcation in the growth direction of enrollments: between 1991/92 and 1993/94—the years for which we have enrollment data for all schools—60 percent of the schools have experienced increases in the number of students and declined in 50 percent have experienced decreases. MOE statistics for zonal growth rates mirror the direction of growth and relative magnitude of change calculated for the sample, with the exception of Gondar for which we have no data prior to 1991/92. Similarly, the difference in the magnitudes of growth can be attributed to the time span covered by the MOE data, which does not include the "take-off" period which begins in 1991/92.

Year	Total sample	Bale	Gondar	Tigray	Welaita
Zone Growth Rate, 87-92	NA	-20.3	-1.2	+31.8	-10.7
88/89-93/94	-36.84*	-56.48	NA	NA	-19.39
91/92-93/94	+37.86	-14.37	+44.75	+110.00	+1.64
92/93-93/94	+17.87	-7.45	+57.06	+12.12	+8.87

\*represents Bale and Welaita only

Year	Total sample			Bale			Gondar			Tigray			Welaita		
	N	T	%	N	T	%	N	T	%	N	T	%	N	T	%
88/89-93/94	15	(17)	88%*	8	(8)	100%	NA			NA			7	(9)	77%
91/92-93/94	11	(32)	34%	5	(6)	83%	2	(9)	22%	0	(10)	--	4	(9)	44%
92/93-93/94	13	(39)	33%	6	(10)	60%	2	(10)	20%	0	(8)	--	3	(9)	33%

\*represents Bale and Welaita only

First grade enrollments are often more reflective of changes in demand trends, as they reflect the immediate decision of households to embark on schooling for their children and are not mitigated by decisions to drop-out due to failure or other factors (although first-grade repeaters do confound interpretation somewhat). On average, first grade enrollments make up 48 percent of total enrollments in the sample schools. This represents nearly a 15 percentage point increase since 1988/89 when first grade enrollment was about 30 percent of total enrollments. Growth in first grade enrollments occurred precipitously in 1991/92, reflecting the reopening of schools and pent-up demand for primary schooling in Gondar and Tigray, and thereafter increasing by 1 percentage point a year. The growth rate of first grade enrollments levelled off in 1993/94, at 2.5 percent growth compared with 21 percent of the previous year. (Table 3.4).

<b>Table 3.4 First Grade Enrollments as Percentage of Total Enrollments</b>					
<b>Year</b>	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
88/89	30.31%	31.10%	NA	NA	29.60%
89/90	27.64%	31.61%	NA	NA	24.11%
90/91	27.56%	28.29%	NA	NA	26.91%
91/92	44.53%	27.06%	50.13%	70.82%	27.81%
92/93	45.19%	44.91%	53.12%	58.47%	32.11%
93/94	47.54%	39.05%	53.73%	46.88%	41.10%

Household educational data was provided for 2428 children, of which 1806 were at least seven years old (school age) resulting in an average of 4.49 children per household, or 3.34 school age children per household (Table 3.5). Approximately 45% of potential school aged children have attended at least one year of primary school (exclusive of literacy program and "other" participation) however, only 8.6% reported completing grade 6 or more. Confirming the school enrollment data, the household data demonstrates that the majority of educational activity occurs in the first three years, with rapidly declining participation in the higher grades. Only a third of those children participating in school have advanced beyond the third grade—less than 16% of all children age seven and above.

<b>Table 3.5 Educational Profile for Children of Total Households in Sample [n=540]</b>			
<b>Highest Ed. Level</b>	<b>Total Sample Count</b>	<b>Percentage School Age and Over</b>	<b>Percentage of Total</b>
None	1,548	51.3%	63.8%
Grade 1	253	14%	10.4%
Grade 2	147	8.1%	6%
Grade 3	115	6.4%	4.7%
Grade 4	68	3.8%	2.8%
Grade 5	76	4.2%	3.1%
Grade 6	53	2.9%	2.1%
Grade 7	34	1.9%	1.4%
Grade 8	19	1%	.8%
Grade 9	21	1.2%	.9%
Grade 10	12	.7%	.5%
Grade 11	4	.2%	.2%
Grade 12	9	.5%	.4%
Some Higher Ed.	3	.2%	.1%
Literacy Program	40	2.2%	1.6%
Other	26	1.4%	1.0%
<b>Total</b>	<b>2,428</b>	<b>100%</b>	<b>100%</b>

To fully understand current household consumption of education, it is necessary to examine participation data with the demographic distribution of children, by age cohort (Table 3.6). While overall non-participation rates average 51.3 percent for the entire sample, the non-participation rate for children of the school age cohort of 1994 has increased nearly 20 percent, from 51 percent in the previous table to a total of 70 percent. By comparing only the grade 0-6 population of the entire sample with the present cohort, a rough persistence pattern emerges (note: this does not include those individuals with more than six years education). It is evident that while non-participation is increasing, participation at the grade one level is increasing at the expense of higher grades. The trend is for a sharp drop off at grades three through six, from a household historical rate of 18 percent to only 5 percent current participation. This finding has been generally confirmed with the school enrollment data, where it was particularly acute in Welaita.

<b>Table 3.6 Educational Level or School Age Only Cohort, 7-12</b>			
<b>Grade Level</b>	<b>Count for Cohort 7-12</b>	<b>Percentage for Cohort 7-12</b>	<b>Percentage 0-Grade 6 Full Sample</b>
No School	531	70%	57%
Grade 1	136	17.9%	15.4%
Grade 2	54	7.1%	9%
Grade 3	24	3.2%	7%
Grade 4	8	1%	4%
Grade 5	3	.4%	4.6%
Grade 6	3	.4%	3%
<b>Total</b>	<b>759</b>	<b>100%</b>	<b>100%</b>

To capture the overall trends regarding household participation at the macro level, the total household primary participation ratio was compared for all members, and for those of school age only (Table 3.7). The measure is calculated by dividing the actual years of primary schooling completed by each child in the family, by the potential for each child as calculated by their school age. For example, a child of 7 would have one potential year of primary schooling, a child of 26 would have a maximum of six. The ratio was calculated for the entire family, providing a historical record of the total education consumed by each household. A ratio was also calculated for those children in all households of school age (7-12), which provides a comparison between "present" and "historical" patterns (the total household ratio includes, and thus averages in, present participation rates). The data demonstrates that educational participation has fallen rapidly among the school aged cohort, dropping over 10 percent from 26 percent participation to 15.4 percent. While a portion of this drop might be attributed to persistence, repetition, and primary participation beyond 12 years of age, such factors are unlikely to have affected the data by more than two or three percentage points, allowing conclusions regarding these fundamental relationships to stand. We can see that despite the enrollment rebound as exhibited in the school enrollment data, participation levels have yet to return to their previous historical levels.

<b>Table 3.7 Household Primary Enrollment Ratio</b>	
<b>Total Household Participation Ratio</b>	<b>Household Participation Ratio School Age Cohort</b>
26%	15.4%

## Regions

While the above discussion of the total sample paints a relatively positive picture of recovering enrollments, an examination of the different regions has a somewhat dampening effect. **Enrollments have grown in Gondar and Tigray, but have fallen in Bale and Welaita over the time span for which we have data.**

In Gondar, school enrollment has grown on average 45 percent since the schools reopened in 1991/92. This year, only two schools of ten declined in enrollments. First grade enrollment averaged over 50 percent of total enrollments and is growing at 6 percent per year in relation to total enrollments, indicative of a continuing increase in demand for schooling.

In Tigray, enrollments have grown 110 percent since 1991/92, although by 1993/94 growth had levelled off to 12 percent. Like Gondar, only two schools exhibited negative growth. First grade enrollments—while representing nearly 50 percent of total enrollments—have also declined, by 10 percent in 1992/93 and 20 percent in 1993/94. This is probably explained by capacity limitation to absorb additional students faced by the schools.

In Bale, school enrollments have fallen steadily every year since 1988/89, for a cumulative decline of 56 percent (about 7-10 percent per year). Only one school has exhibited positive growth during the period. First grade enrollments have also dropped by 5 percent in relation to total enrollments in 1993/94. As 35 percent of total enrollments they are well below the sample average (47 percent).

In Welaita, the negative trend is not so pronounced. Enrollments dropped only 19 percent between 1988/89 and 1993/94. In a notable reversal, they exhibited positive growth in 1992/93 and increased nearly 9 percent in 1993/94. Thirty-three percent of the schools, however, experienced declines in enrollment. Like Bale, first grade enrollment is approximately 36 percent of total enrollment, but—in contrast—is growing at a more rapid pace in relation to total enrollments.

The household data generally confirmed the school enrollment analysis. Because the historical contrast between all household members and those of present school age reflects broader long range trends than may be evident in the school enrollment data, the measures reflect a more marked contrast and drop between historically higher levels, and present participation rates (Figure 3.1). Both methodologies, however, support each other with respect to regional variation.

In Gondar, the historical household enrollment ratio has dropped just over 3 percent from 20.9 percent to 17.5 percent. This relatively small decrease, when comparing all household members with children currently of school age, most likely results from two factors. Firstly, historical participation in schooling has been relatively low in Gondar, well below the Ethiopian average of 26 percent. Secondly, the post-war surge in participation, as reflected in the school enrollment data, has boosted current participation levels. The school age cohort reflects this "boom" by demonstrating the highest participation levels of the four regions studied.

## **Regions**

While the above discussion of the total sample paints a relatively positive picture of recovering enrollments, an examination of the different regions has a somewhat dampening effect. **Enrollments have grown in Gondar and Tigray, but have fallen in Bale and Welaita over the time span for which we have data.**

In Gondar, school enrollment has grown on average 45 percent since the schools reopened in 1991/92. This year, only two schools of ten declined in enrollments. First grade enrollment averaged over 50 percent of total enrollments and is growing at 6 percent per year in relation to total enrollments, indicative of a continuing increase in demand for schooling.

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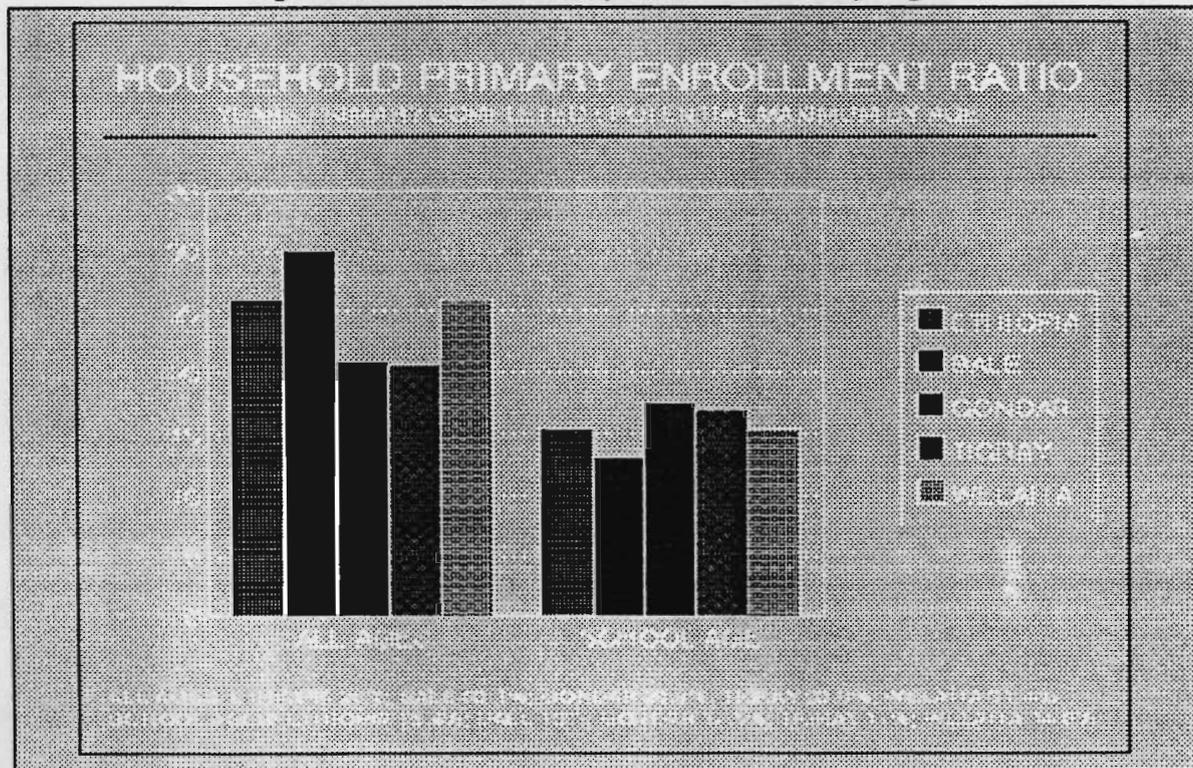
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In Tigray, enrollment patterns exhibit characteristics similar to that of Gondar. Starting from a relatively low historical family participation rate of 20.8 percent, current school age consumption levels are 17 percent. As the school data demonstrates, it can be presumed that the Tigray region harbors considerable "pent up demand", as many of the schools now operating were only recently re-opened, having formerly been closed for the duration of the civil war.

Bale has the dubious distinction of having dropped from the highest historical participation rate of 30.1 percent, to the lowest, currently at only 13% of school aged children. This trend—from relatively high rates to low, demonstrates both the potential demand/consumption patterns of the region, as well as current levels, which are undoubtedly aggravated by a range of social, political, and economic issues.

As with Bale, Welaita demonstrates a significant recent drop in household participation rates—from 31.4 percent for all family members to 14.3 percent of the school aged cohort. This phenomenon is particularly disturbing in Welaita, which, unlike the other three regions, was not acutely affected by civil war.

Figure 3.1. Household Primary Enrollment Ratio by Region



### Girls' Participation

How have girls fared in the tumultuous past six years? Currently (1993/94), girls' participation (i.e., girls' enrollment as a percentage of total enrollment) averages about 33 percent across the

sample, contrasting unfavorably but predictably with the national girls' participation rate of 42 percent in 1991/92, which includes urban as well as rural areas. The sample's current participation rate is the result of a somewhat uneven growth sequence, starting with a 21 percent participation rate in 1988/89 (Table 3.5) for Bale and Welaita alone. A better measure of the progress of girls' enrollment in the sample areas is to compare the net changes between 1991/92 and 1993/94, which demonstrates a negligible growth of less than two percentage points (or 1.56 percent). In 1993/94, only 17 percent (or 8 out of 40) of schools in the sample had achieved parity or better. Again, the regional variation is notable—with Gondar leading in girls' participation relative to boys', followed by Tigray, then Welaita and lastly Bale, although it differs almost completely with the zonal-level statistics prepared by the Ministry of Education. With the exception of Gondar, the MOE zonal rates are considerably higher—more favorable to girls—than the sample averages, most likely due to the study's exclusive focus on rural villages.

Table 3.8 Girls' Enrollment Trends—Participation Rate (Girls as Percentage of Total Enrollments) by (1) Zone and (2) Sample					
Year	Total sample	Bale	Gondar	Tigray	Welaita
Zone Participation Rate, 92/93*	NA	41.06%	55.66%	39.15%	33.10%
<b>Sample Participation Rate: (Boys)</b>					
88/89	21.16** (78.84)	22.70 (77.30)	NA	NA	19.79 (80.21)
89/90	24.85** (75.15)	26.17 (73.83)	NA	NA	23.67 (76.33)
90/91	22.98** (87.02)	26.89 (73.11)	NA	NA	19.51 (80.49)
91/92	32.63 (67.37)	24.40 (75.60)	54.28 (45.72)	26.67 (73.33)	21.77 (78.23)
92/93	31.45 (68.55)	17.65 (82.35)	58.17 (41.83)	30.07 (69.93)	18.63 (81.37)
93/94	33.14 (66.86)	18.31 (81.69)	61.77 (38.23)	31.83 (69.17)	20.65 (79.35)

\* Source: Basic Educational Statistics-Special Report No.1, EMIS, Ministry of Education, EC 1985

\*\* Bale and Welaita only

In Gondar, girls outnumbered boys (54 percent) when schools reopened in 1991/92, and the participation rate has steadily increased to 61.77 percent of total enrollments, with girls numbering over half the total enrollment in 80 percent of the sample schools (8 of 10). Only in Gondar do girls' enrollments equal or surpass boys. The MOE zonal participation rate (56 percent) closely approximates the sample schools' participation rate (58 percent) for 1992/93.

In Tigray, girls represent 32 percent of the students, rising from 27 percent in 1991/92, to 30 percent in 1992/93, but well below the MOE zonal rate given for 1992/93.

In Welaita, the girls' participation rates for 1993/94 is just over 20 percent, and has stagnated—barely one percentage point above the 1988/89 level. It was lower in 1992/93 (18,690) and well below the MOE zonal average for that year.

In Bale, the girls' participation rate for 1993/94 is the lowest at 18 percent, and is notable for the sole decline in girls' participation (relative to boys), of the regions analyzed in this study. Between 1988/89 and 1993/94, there was a decrease of nearly five percentage points. This is in sharp contrast with the MOE zonal rate of 41 percent. While MOE zonal figures would indicate that Bale ranks second in favoring girls' enrollments, the sample ranks it as least favorable.

### **Implications for Demand of Primary Schooling**

What can we conclude about the demand for education in the rural areas targeted by the study? The household consumption data, which provides for the longest potential window into demand, shows that present levels of participation are considerably lower today, on a national basis, than they have historically been. More particularly, the data from both school enrollments and household participation show that the four regions studied demonstrate markedly different educational demand characteristics.

Enrollments declined in the two regions for which we have data, in Bale and Welaita, during the unstable years between 1988 and 1991. Coupled with the fact that schools in Tigray and Gondar closed their doors during this period points to the general effect of civil war and political unrest, even in areas not directly involved by fighting. To what extent drops in enrollment are also due to household disinterest in schooling their children during this period is not feasible to ascertain with the data available. Indeed, on a conceptual level, even with extensive questioning of parents, it would probably be impossible to disaggregate the effects of war and civil strife from a more pervasive disinclination to send children to school.

However, the war ended in 1991 and a more stable environment was established. What has the effect of peace been on school enrollments? Can the drops in enrollment attributed by war be considered a temporary phenomenon? Based on the enrollment data, it does indeed appear that, in Tigray and Gondar, the war and resultant strife had a transitory effect. Since 1991/92, schools have reopened and enrollments have grown every year. Unfortunately, we do not have pre-war data in these schools, due in part to the difficulty of establishing—particularly in Tigray—what year were in fact "pre-war" and in part to the lack of school records reaching that far back into the past. Our household data, by which we are able to infer relative enrollment data, indicate that both Tigray and Gondar have had historically low levels of educational participation in comparison with the other areas studied. Although we have only two years of post-war growth rates, in Gondar, enrollments are continuing to grow at an increasing pace; while in Tigray, enrollments more than doubled from 1991/92 to 1992/93, and then the rate of growth fell to about 12 percent in the following year (1993/94). The incredible initial growth following the war can be explained by tremendous pent-up demand, but analysis of the precipitous drop in the Tigray schools enrollment growth rate is confounded by another dimension—supply constraints or lack of school capacity. In fact, it appears that this may have

served as the primary brake on the growth of enrollments in Tigray. Table 3.6 indicates that, although Tigray along with Gondar was the only area of the sample in which new schools were built, capacity limitations of the schools are severe. Sixty percent of the classrooms are over capacity and 40 percent are at or nearing capacity to accommodate new students. The student:teacher ratio is high (49:1) compared with the other rural schools surveyed, and the student:classroom ratio is even higher (62:1), which explains why 60 percent of the schools in Tigray frequently use the outdoors as a classroom. (but, oddly does not explain why only one school has resorted to double-shifting, unless teacher supply is a constraint.) Quite simply, demand can be said to exceed supply in Tigray.

By contrast, the growth rate of enrollment in Gondar has accelerated in the past three years, although never achieving the initial burst of growth as in Tigray. Nevertheless, demand can be said to be increasing, uninhibited for the moment by obvious supply constraints. The enrollments have not yet expanded to fill the capacity available—classrooms are less than 75 percent full (about 27 students per average classroom) and the student:teacher ratio is relatively low (24:1). Although the data is lacking, it can be postulated that enrollments in Gondar sample schools have not returned to pre-war levels or that, even in the pre-war years, capacity always exceeded supply. Nonetheless, it appears that—at least in the short-term—enrollments, and hence demand, unimpeded by war and supply constraints, is expanding. Of particular interest in Gondar is the low participation rates of boys relative to girls. We believe this to be associated with higher opportunity costs due to the prevalence of (male) child labor activities (cattle herding) in this particular region.

Because the effects of war were not as pronounced in Bale and Welaita and their intervening effects less severe, the real story about demand may be in these two regions where six years of data document a significant drop in enrollments, but recovery has not matched that in Tigray and Gondar.

In Bale, enrollments have decreased nearly every year and for every school since 1988/89. Significantly with peace, enrollments have not rebounded or exhibited positive growth, with the exception of a slight increase in enrollments in 1991/92—perhaps a transient "peace dividend." While it could be argued that this decline reflects the lingering effects of civil strife, this is not true of Tigray and Gondar where the fighting was most acute. Nor does there appear to be any capacity limitation in the schools—student:teacher and student:classroom ratios are the lowest in the sample, classrooms are not near capacity, and there is no need for recourse to the outdoors. Our research uncovered instances whereby relatively well endowed schools were severely underutilized, and remained so, despite the reduction or elimination of student school fees. As discussed previously, religious schooling is a notable feature of education in Bale, but at present there is no indication of competition between koranic schools and government schools, although this may develop in the future. Consequently, we conclude that the desire of households for primary schooling in Bale is declining.

The schools surveyed in Welaita have also shown a decline over the six-year period between 1988 and 1992, although not as extreme in magnitude or duration as in Bale. While enrollments have not rebounded to 1988/89 levels, they have shown a very modest growth rate from 1992/93 to 1993/94. There are, also, apparent supply constraints; although classrooms are not full, this

may reflect a high rate of absenteeism or be due to the fact that 50 percent of schools observed were on double shifts. A potentially disrupting influence encountered in the Welaita area were the unusually large number of transfers of both teachers and headmasters—in many cases these occurred during the school year. Certainly, Welaita—a densely populated area—has the highest student:classroom ratio (75 percent) in the sample. We conclude that household demand for school in Welaita remains fragile at best.

Girls' enrollments in relation to boys have stagnated in all areas except Gondar. This would indicate that there is a relatively low household demand for girls' schooling. Gondar is the notable exception, with girls accounting for over 50 percent of enrollments and their share growing. The popular explanation is that this is due to use of schools as conscription centers during the war. While this is undoubtedly true for many schools, only two of the ten rural schools in Gondar surveyed indicated that this had occurred and, then, not since 1987/88. Given the few schools where conscription happened, the lengthy timeframe and the recent three years of stability, it is difficult to attribute the ongoing growth in girls' participation to residual fear of conscription. A better explanation is required, and will be discussed in ensuing chapters.

**Table 3.9 Capacity of Schools to Accommodate More Students**

	Total Sample	Bale	Gondar	Tigray	Welaita
No. Schools Built Since 1991	2 (20%)	0	1	1	0
No. Schools With Additional Classrooms Built Since 1991	5 (29.4%)	0	1	3	1
<b>Classrooms are:</b>					
10-25% Full	12.5% of Schools	30.0%	20.0%	-	-
26-50% Full	17.5%	20.0%	50.0%	-	-
51-75% Full	45.0%	50.0%	30.0%	-	100.0%
75-100% Full	10.0%	-	-	40.0%	-
> 100% Full	15.0%	-	-	60.0%	-
Student:Teacher Ratio	30.15	12.97	23.67	49.44	34.53
Student:Classroom Ratio	45.39	20.09	26.06	62.23	74.86
Classroom:Teacher Ratio	0.73	0.66	0.94	0.81	0.53
Double Shift	15.0% of Schools	0.0%	0.0%	10.0%	50.0%
Outdoors as Classroom	27.5%	0.0%	20.0%	60.0%	30.0%

## **Chapter 4**

### **Factors Influencing Demand for Education**

This chapter examines the relationships between various household and school characteristics as they relate to the demand for primary education, based on survey responses. It is complemented by qualitative analysis which addresses the same issues in Chapter 5. The decision by individual parents (and children) as to whether or not to attend primary school is undoubtedly the result of a series of complex and highly interactive processes. Although we do not believe it is possible to explain all, or even most, of the motivations underlying individual decision making activities, we are prepared to draw conclusions based on descriptive, correlation, and statistical data derived from a randomly selected sample of schools, communities, and households. It is our view that there exists sufficient commonality among the autonomous actors (parents and children) and specific environmental and social characteristics, such that we can begin to understand the factors affecting the demand for primary schooling and form the basis for the development of policy options and strategies.

#### **Research Questions**

The following research questions are addressed:

- Why do children not enroll in primary school or drop out? What are the obstacles to educational participation?
- What parental/household characteristics seem to be linked with school attendance and persistence? What do parents expect of schooling?
- What school attributes appear to encourage parents to enroll their children in school?
- Will expanding/improving the school supply in rural areas result in increased enrollments?

#### **Methodology**

Decisions regarding education do not occur in a vacuum—they exist within a wide range of community, social, economic, and cultural experiences unique to each decision maker. Although the factors influencing education are numerous and the decision-making process diffuse and subject to diverse and idiosyncratic influences, we believe we can nonetheless explore many of the determinants of the decision making processes as they exist in Ethiopia today. To do this, we utilized a random sample of households, interviewing both mothers and fathers, exploring a wide range of attitudes, preferences, and characteristics of household educational decision

making. We also closely examined the characteristics and histories of community primary schools serving the household, in order to determine to what extent school attributes affect decision making. The enumerators were carefully chosen to reflect the cultural and linguistic norms of the areas researched, to ensure that as representative and complete a set of responses were obtained as current survey methodology allows.

## **Analysis**

### ***Reasons for enrolling children***

There exists a myriad of reasons as to why parents do or do not send their children to school. Measuring individual perspective is always an inexact science, the relationships between attitudinal characteristics and behaviors is frequently less than direct. In this study we were able to match behaviors, specifically, school enrollment histories of each family member, with a series of parent attitudinal questions designed to explore possible correlations and relationships. Our household primary participation ratio serves as the dependent variable for school decision making in much of this analysis.

Because of the comparatively low levels of school participation in the study, we expected to find considerable variation regarding the "whys" and "why nots" of sending children to school. We originally hypothesized that specifically because so comparatively few rural parents elected to send their children to school, they would be unique along a number of critical dimensions. Surprisingly, we found considerable consistency—indeed, parents seemed to demonstrate many of the same fundamental beliefs vis-a-vis schooling whether or not they elected to send their children. Figures 4.1 and 4.2 demonstrate this consistency by illustrating the comparative strength of the most frequently cited motivations for sending, or not sending, boys or girls to school. The questions were asked of both fathers and mothers, worded as follows:

"For the girls (boys) you send to school: Why do you send your girls (boys) to school?"

"For the girls (boys) you do not send to school: Name 2-3 reasons why you don't send your girls (boys) to school?" [See Figures 4.1 and 4.2].

Responses were coded and analyzed for both mothers and fathers regarding opinions expressed for sons and daughters. The three most frequently cited views are presented in Figures 4.1 and 4.2. Although we found some specific gender variation, particularly regarding fathers and their attitudes about their daughters, the most consistent theme is that of economic issues. Briefly stated, parents say they send their children to school so that they can get good jobs, and claim to be unable to send them due to household financial constraints. Both mothers and fathers agree that obtaining employment is the single most important reason to send children to school. A more general (and less informative) response was cited secondly: the importance of "learning about the world." Parents also concurred on the third most frequent response for boys—"to learn how to read and write letters." The importance of general literacy was not extended by fathers to their daughters: whereas mothers felt it was important for girls to learn to read and write letters, fathers cited "being a better wife/mother." We can only speculate that this reflects

normative gender roles—perhaps fathers view male letter writing as an avenue of political or social integration and status, particular to their sons.

When parents were asked why they did not send their children to school, economic issues were once again in the forefront (Figure 4.2). Both mothers and fathers agreed that opportunity costs ("needed to work at home") were the biggest impediments to sending their sons and daughters to school. The economic constraints were also reinforced in the third most frequent response—there was not enough money to purchase books and supplies. It is worth noting that the range of household costs on such matters was reported to be quite narrow and comparatively small—book costs, when reported, averaged 10 birr per year (\$1.75), while average school supply costs were reported to be 15 birr per year (\$2.60). The second most frequent response to the question was differentiated by gender. Regarding their sons, the second most frequent response was somewhat perplexing: both mothers and fathers agreed they did not send them because "they are not smart enough." What "smart enough" means concerning a basic primary school curricula is not immediately apparent, although it is more likely to reflect issues concerning motivation rather than that of ability. Regarding their daughters, fathers also cited poor security due to effects from the war. Other security concerns, such as "on the way to school," or "security in school is bad" were only infrequently cited—which makes the particular emphasis on war security more pointed. Presumably the decision not to send daughters to school was framed a number of years ago during the period of heavy warfare (Ethiopia is now entering a third year of post-war transitional government). This would imply that the war placed additional constraints on female enrollment, with subsequent inequities for the "war period" cohort.

Figure 4.1 Three Most Frequent Responses:  
Why Parents Send Children to School

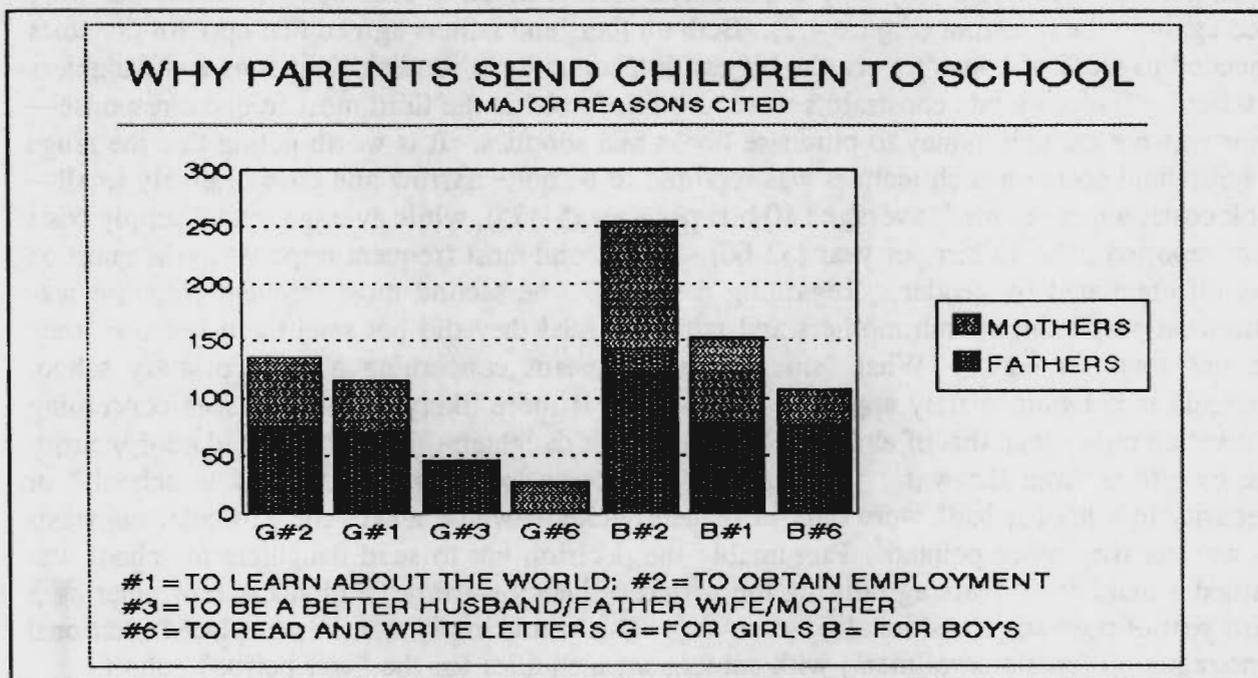
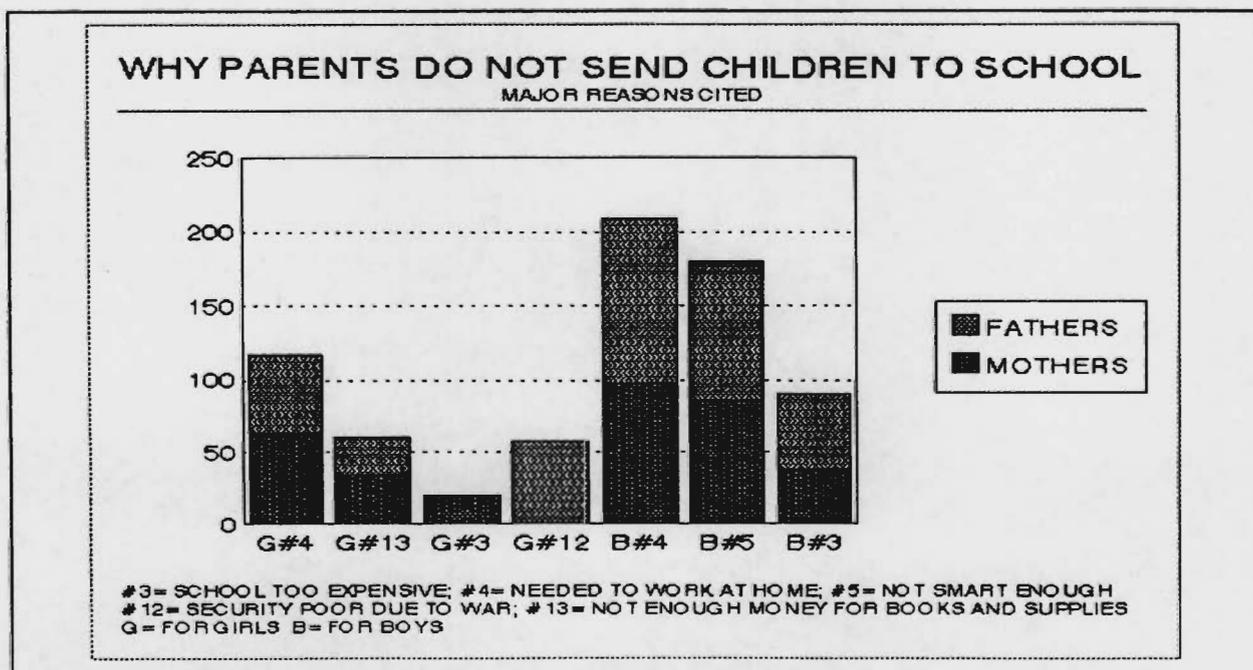


Figure 4.2 Three Most Frequent Responses:  
Why Parents Do Not Send Children to School



### *Parental Attitudes Toward Schooling*

The relationship between attitudes about schooling and household participation were explored with a number of questions that sought to evaluate parental confidence and expectations. Do parents think schooling is useful for rural life, or do they consider it an urban good—something alien to their lifestyle, or otherwise imposed? We found rural parents nearly unanimous in their more obvious appreciation of the merits of schooling. We asked them the following question: "Some people say school is bad, others say it is good. What do you think?" Our responses were universally consistent: virtually every parent stated that school was "good," irrespective of whether or not they chose to send their children. We also asked parents a question that sought to establish how relevant they thought schooling was for rural life. In this matter, there was considerably more variation. The results of the question "Do you need to go to school to become a good farmer, [or we inserted the respondents occupation if other than farmer]?", are presented in Table 4.3. Although the majority of parents stated that school was important for their occupation (in most cases, farmers), a significant minority did not view schooling as particularly utilitarian to their own lifestyles. Significantly, parents who send their children to school are more likely to indicate that there is no relationship between attending school and becoming a better farmer (or other parent occupation) than are parents who do not send their children to school. Thus, although obtaining employment is the foremost motivation for sending children to school, parents who are less likely to believe in the role of schooling and rural occupational relevance are more likely to send their children to school. Either these parents believe that school will be helpful in some other occupation at which they expect their children to engage in (an unlikely scenario, at best), or else there are other benefits which they consider to accrue to their children as a result of the schooling process.

Parent expectations regarding the economic pay-offs to schooling can hardly be over emphasized in this study. Although there was considerable skepticism regarding employment possibilities for school leavers, we cannot discount the "lottery effect" vis-a-vis hopes and aspirations. In this view, parents might decide to send a child to school, much as they might purchase a lottery ticket, in anticipation of the remote but vast potential returns to their investment. "Perhaps," a parent might think, "one child will be lucky, and get a well paid government job, helping the family financially in the future.... for this they will need an education." We asked mothers and fathers how the family would benefit by sending their children to school. The results were nearly unanimous: regarding their sons, 87 percent of the parents felt the family would benefit if "he will get a good job and help with the family finances." Regarding their daughters, parents provided this response 75 percent of the time.

Table 4.1 Attitudes Regarding the Importance of School for Occupational Development			
	Do Not Need School for Occupation	Need School for Occupation	Row Totals
Parents Who Do Not Send Children	75 (31%)	167 (69%)	242 (100%)
Parents Who Send Children	167 (43%)	219 (57%)	386 (100%)
Pearson's R <sup>10</sup>	-.122**		

### *Parent Assessment of School Costs*

We have already established how important economic criteria weigh on the decisions parents make regarding school choice. Parents hope their schooled children will obtain profitable employment that will assist the family. We have also seen that parents cite the costs of education, in terms of opportunity costs as well as school materials, as being among the biggest reasons for not sending children to school. Rural parents appear to be carefully weighing the possible benefits of future employment against the hard realities of both direct and indirect costs. We asked parents to specify which school expenses they found the most difficult, for both boys and girls (Table 4.2). Parents indicated that the expenses for which they had the greatest difficulty were the same for both boys and girls. Clothing costs were the most frequently cited, by 36.5 percent of the respondents. Although virtually every child has clothes, some parents indicated that the social expectation for children who attend school was to have better, higher quality clothing, perhaps including shoes. Our indications were that the tattered clothing children in rural areas typically wear would be seen as inappropriate for school use. School books were cited as the second most difficult expense. Book rentals are nominally 3 birr per academic year (\$.50), and it was apparent that many children attended school without the benefit of a book, pen, or even an exercise book (see Chapter 6). School fees, nominally the same per child as book rental, were also cited as a source of difficulty by over 20 percent of the sample. A number of headmasters informed us that although these fees appeared relatively modest, they had to waive all or part of the registration fees or risk withdrawal of the proportionately small student population they had.

Perhaps the sensitivity of school fees reflects expectations on the part of parents that school costs, as with teacher salaries, should be borne by government rather than at the household level.

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<sup>10</sup> The correlation coefficient, R, indicates the direction of the relationship between two variables, as well as its statistical significance. Two asterisks [typically] represent significance at the .05 level or greater, meaning that such a relationship is unlikely to be spurious or the result of a random event. The relationship depicted in this table, .12, is a relatively modest correlation, statistically significant.

<b>Table 4.2 The Greatest Difficulty Regarding School Expenses for Boys/Girls</b>		
	<b>Number</b>	<b>Percentage of Total</b>
Clothing	518	36.5%
School Books	415	29.2%
School Fees	298	21%
Other	187	13.1%

Parents in all four regions identified the cost of clothing as the most difficult school expenditure. Although a certain amount of clothing costs may not be directly associated with school, respondents indicated that there was a higher "standard" of dress expected of attending children. This study did not specifically measure the difference between clothing costs for attending and non attending children, however, simple observation while conducting this research demonstrated what appeared to be significant variation between the two populations. Children encountered at home were quite frequently seen wearing torn and ill fitting clothing. This was much less so the case among children observed in the classroom setting. Parents frequently discussed this "hidden" cost while conducting both the household surveys and the focused interviews.

Figure 4.3 is a histogram of the annual costs associated with clothing for children attending school. The mean of ninety five birr is approximately sixteen U.S. dollars per student (1994).

Although we commonly observed students in schools who were barefoot, they were virtually always the minority, and parents expressed expectations on this matter, as well. Figure 4.4 is a histogram of the annual costs of student's shoes. The mean of 26 Ethiopian birr equates to just over four U.S. dollars per year.

Figure 4.3 Cost of Children's Clothes

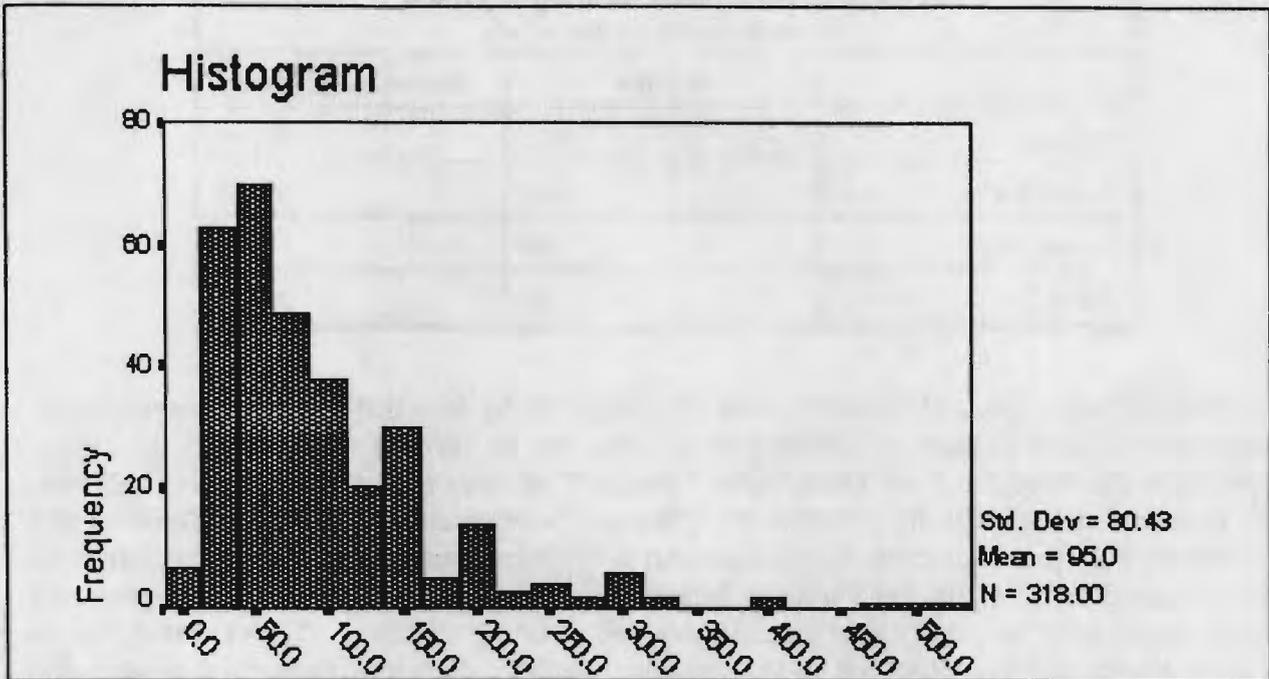
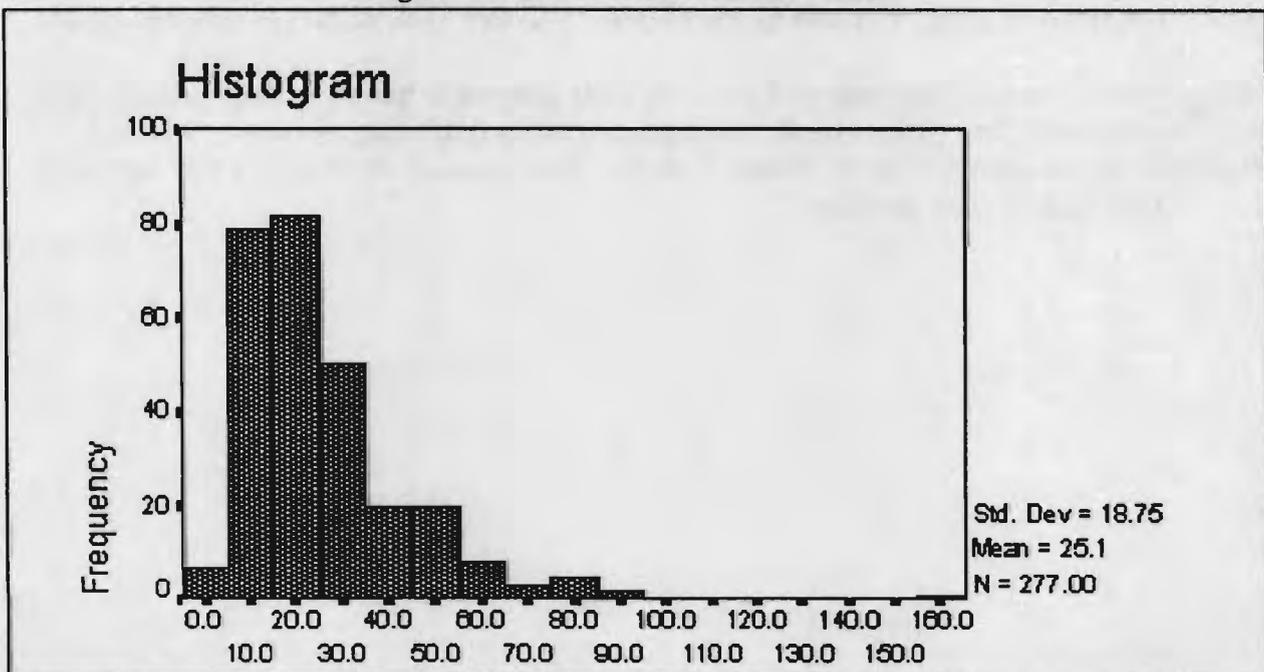


Figure 4.4 Cost of School Children's Shoes



Other commonly cited expenditures for school children included the costs of exercise books and school text rental fees, as well as other supply costs, such as pens, pencils, and erasers. Parents indicated that the cost of supplies were somewhat higher, at seven U.S. dollars (43 birr). Book

costs averaged about two U.S. dollars per year (10 birr). (See Chapter 6 for additional discussion.)

### *Parent Educational Background*

It has been repeatedly demonstrated that one of the best predictors of child educational achievement is that of parental achievement. Educational achievement for parents in this study was found to be unusually low (Table 4.3). Less than 7.5 percent of the parents surveyed had themselves experienced one or more years of formal education. The Pearson's R correlation between parents combined level of education and household enrollment ratio was found to be positive, at .11, and significant at .01.<sup>11</sup> Many studies have reported far higher correlations—.3 or higher would not be unusual for this relationship (1 would be a perfect correlation, 0 two unrelated variables). We believe that this relatively low correlation is due to the generally limited level of parental educational achievement in the rural areas. A plot was constructed depicting the relationship between the combined level of parental education, and the mean household consumption ratio<sup>12</sup> (Figure 3.1). Figure 4.5 shows a saw-toothed type of relationship, with gradual ascension, between parent educational level and household consumption. A more linear relationship was initially predicted, which would have appeared as a straight, ascending diagonal line in this chart. The jagged pattern demonstrates the variability of the relationship.

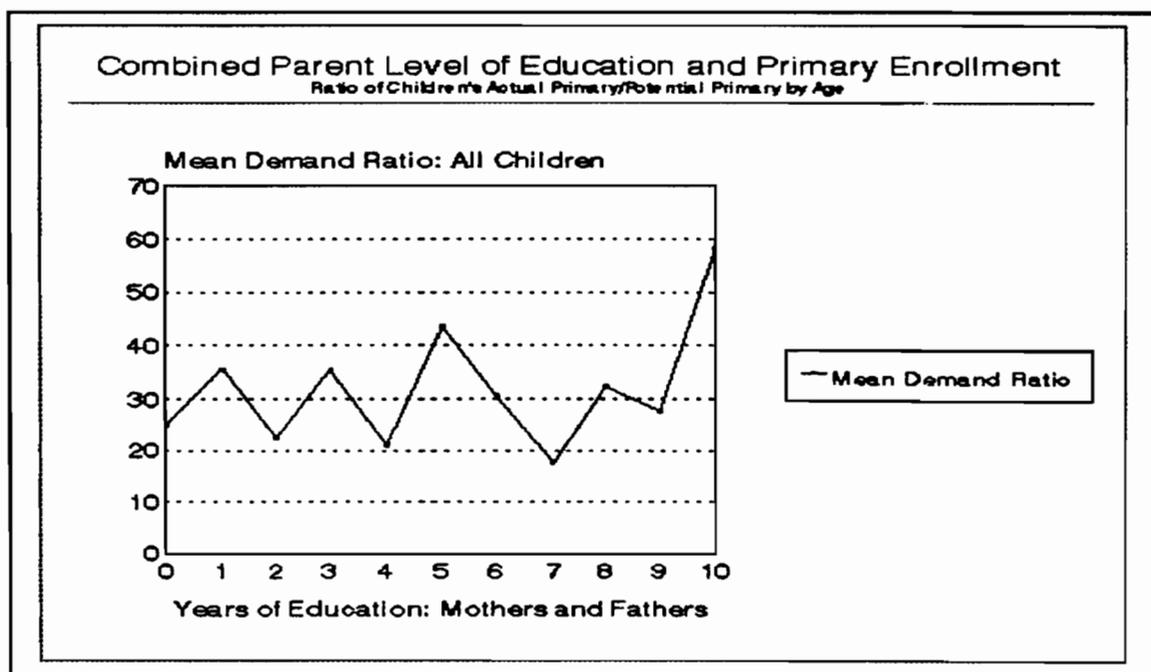
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<sup>11</sup> Pearson's correlation coefficient, R, indicates the direction of the relationship between two variables, as well as its statistical significance. Significance at the .01 level indicates that such a relationship is unlikely to be spurious or the result of a random event. The relationship depicted in this table, .11, is a relatively modest correlation, statistically significant.

<sup>12</sup> See chapter 3 for a detailed description of the household consumption ratio.

Table 4.3 Years of Education, Parents		
Years of Education	Number	Percentage
None	842	73.5%
One	6	.5%
Two	9	.8%
Three	25	2.2%
Four	8	.7%
Five	9	.8%
Six	9	.8%
Seven to 11	20	1.7%
Literacy	187	16.3%
Other	31	2.7%
Total	1,146	100%

Figure 4.5 Plot of Parental Education and Household Enrollment



## *Parent SES*

As our household attitudinal measures indicate, both direct and indirect costs play a major role in the educational decision making process. Measuring the social and economic status (SES) of rural households in Africa continues to be a daunting task, but it is nonetheless important in accessing and determining educational policy. Rural households are only marginally incorporated into a cash economy: the majority of their economic transactions are likely to be in the form of barter. Furthermore, the [lack of] range and variation in terms of occupation tend to make comparisons regarding social status difficult, at best. Even so, considering the importance placed on economic issues by our respondents, the careful evaluation and analysis of relative household SES measures becomes a critical, if sometimes elusive, component of our analysis. Previous research experience highlighted the difficulty in obtaining cooperation on even the most evident measures of household wealth: individuals are very reluctant to indicate the number of animals they own, for example, due to fears of taxation, as well as cultural norms and traditions. To estimate household wealth, we developed sixteen variables with which to construct an index of proxy income. A number of variables were the result of observation, such as home construction characteristics, and household furniture. Others were constructed so as to be perceived as somewhat less obtrusive, such as the number and type of farm implements in the household, availability of a barn, and the type of domesticated animals owned (rather than the number). A few of these variables have been examined with respect to the household consumption ratio, and in some cases they have demonstrated significant correlations. For example, owning a metal bed, barn, radio, and even a latrine, all demonstrated significant and positive relationships with the consumption ratio (Table 4.4). For the full sample, we can see that these four variables all have statistical significance at the .05 level, and Pearson's correlations of approximately .1 on a scale of 0-1 (see footnote 9 or 10). While these correlations are not particularly strong by themselves, we anticipate their utility in the formulation of a relative wealth index in a subsequent report. Even so, we can see that households who own a radio, metal bed, latrine, or barn, are more likely to have send their children to primary school. Considering the stress placed on economic issues by parents' attitudinal characteristics, this finding is both expected and confirmatory. Those families who are better able to afford education, as evidenced by other consumption patterns, are more likely to send their children to school.

It was also found that a number of variables are region specific: for example, owning a barn is of little use in predicting the relationship between educational consumption and income in Bale and Tigray, where there is no established tradition of their employment. Owning a radio, however, demonstrated a much stronger correlation in these areas than in Welaita and Gondar (Table 4.4). This undoubtedly reflects the regional heterogeneity present in the study, and underscores the need for careful attention in the formulation of region specific wealth indices. Each [wealth proxy] variable must be carefully examined in relation to the situational context in which it is employed.

Independent variables will be developed into an index of wealth, by region, in a subsequent report.

Variable	Coefficient* full sample	Coefficient* Welaita and Gondar only	Coefficient* Bale and Tigray only
Own a Radio	.119**	-.034	.214***
Own a Barn	.110**	.195**	.02
Metal Bed	.154***	.135**	.185**
Latrine	.096**	.120*	.07

\*p < .1

\*\*p < .05

\*\*\*p < .001

### *Explanations of Drop Out Behavior*

As our data in Chapter 3 clearly emphasizes, lack of persistence is a major component of low educational participation rates in rural Ethiopia. Not only do relatively few children enroll in school, but those that do so are more likely than not to terminate their primary school experience, after only one or two years. The impacted nature of many first grade classes, combined with the nearly universal sparse participation at the higher grades, makes optimum resource utilization a major problem in rural schools. Teacher-student ratios vary widely within schools, as do student-classroom ratios. To access drop out behavior, we asked heads of households who had formerly sent children to school, but had withdrawn them, to identify two or three reasons the children had stopped attending (Table 4.5). Once again, we found that economic constraints were cited as the overriding cause of lack of participation. Table 4.5 shows the three most frequent responses to the question "for the girls/boys you sent to school: name 2-3 reasons you don't send your boys/girls to school." Opportunity costs—requiring the children to work at home—were the most frequently cited causes for both girls and boys to be withdrawn. For boys, the costs of books and supplies were the second most common answer, and we have already noted the estimated average cost of 25 birr per academic year for these items (\$4.50). It is interesting to note that parents of withdrawn girls were more likely to cite the lack of employment opportunities in their decision to drop out. This corresponds to some extent with the attitude regarding why fathers send their children to school (Figure 4.1). Fathers indicated that boys should learn to read and write letters, a possible status orientation, while daughters were to learn to be good housewives and mothers, a practical application not dissimilar to the occupational preference displayed for girls in this question. The overall expense of school was the third most frequent response for withdrawing both girls and boys from school.

	<b>Boys</b>	<b>Girls</b>	<b>Both</b>
Needed to Work at Home	28.4% (110)	27% (31)	29.2% (141)
Not Enough Money for Books and Supplies	25.8% (100)		20.7% (100)
School is Too Expensive	10.2% (78)	13% (15)	19.3% (93)
No Jobs for School Leavers		16.5% (19)	
Other	25.6% (99)	43.5% (50)	30.8% (149)

The decision to drop out is not necessarily a terminal one. In the rural areas, it was not infrequent to find children of 15 or 16 attending grades 1-3. We were informed that for many of these older children, their schooling was interrupted for a variety of reasons—they had "stopped out," in current parlance. To access drop out decision making, we asked parents what would change their minds regarding their decision to withdraw their children from school (Table 4.6). On this question there was full agreement regarding both boys and girls: if the household farm/business was more profitable, the parents say they would alter their decisions. Further, over 13 percent indicated if jobs for school leavers were available, they would change their minds and send their children to school.

<b>What Would Change Parents Mind</b>	<b>Percentage (Count)</b>
If Farm/Business Was More Profitable	29.6% (256)
If School Did Not Interfere With Farming Seasons and Work	20.1% (174)
If There Were Jobs for School Leavers	13.3% (115)
Other	6.9% (319)

Economic issues were not the only enticements mentioned regarding the circumstances of dropping out. School fees, book rents, and opportunity costs all have the potential to conflict with the seasonal demands placed on rural households. Will school fees be due when it is necessary to purchase seed and fertilizer? Will parents find it necessary to choose between sending their children to school, or obtaining invaluable assistance at harvest time? Our findings indicate that a failure to make the necessary seasonal adjustments in the academic calendar appear to effect educational persistence. Over 20 percent of the parents indicated they would change their minds regarding withdrawing their children from school if the academic year did not interfere with the farming seasons/cycle.

To access the impact of specific calendar periods on household demands, we asked parents if there were any particular seasons in which they kept their children home from school. It is reasonable to assume that while some parents withdraw their children temporarily due to seasonal constraints, others will do so on a more permanent basis. In our sample of rural households, over 20 percent of the respondents reported keeping their children home from school during harvest season. Additionally, 11 percent kept them home during the rainy season of June through August. The potential conflict of the school calendar with the demands of rural life is likely to vary from region to region, depending on the nature of agricultural and climactic conditions. Careful study of this relationship is likely to yield considerable benefits vis-a-vis participation and persistence in primary education.

Season at Home	Frequency	Percentage
Harvest Season	88	20.3%
Rainy Season	49	11.3%
Sowing & Harvest	10	2.3%
Not Necessary	286	66%

In most communities, parents of school aged children have a range of options regarding their participation in various types of formal, nonformal, and informal education. There was considerable discussion, for example, in the Bale region, regarding the impact and influence of externally subsidized Koranic schools. In our sample, we found alternatives that included both secular and parochial schools, possibly competing for the same children in specific communities. Table 4.8 shows the extent of participation in these various options for the households in the study. The overwhelming majority (68 percent) of school aged children are not attending any type of formal schooling. Of the 31 percent who do attend, all but less than 2 percent participate in government education. It should be noted, however, that our household survey instrument was not designed for the analysis of the history of educational enrollment. Children with a previous history of parochial school attendance, as well as those who might participate in a supplementary capacity, are not captured in this table.

<b>School Choice</b>	<b>Number of Children</b>	<b>Percentage Attending</b>
No School	531	68.7%
Government School	234	30.3%
Koranic School	6	.8%
Priest School (Coptic)	2	.3%
<b>Total</b>	<b>773</b>	<b>100%</b>

For this reason, we queried students currently attending school regarding their parochial experiences. Between 17 and 28 percent of the students in the schools surveyed have attended at some time some other form of schooling, be it religious or a non-formal literacy training program.<sup>13</sup> Given the preponderance of Christian regions in the sample selection, it is not surprising that this is most often a priest or, in Welaita, a mission school (16 percent). Nonetheless, schooling through a religious institution is more common than through a literacy program. In the regions, the greatest attendance of schooling provided through religious organizations is in Bale (38 percent) and Welaita (21 percent), closely followed by Tigray (19 percent) and Gondar (14 percent). Bale students, in a region characterized by both Muslim and Christian populations, exhibited a high degree of schooling through religious institutions. Literacy programs were most popular as another form of schooling for Welaita students.

Between 15 and 22 percent of girl students attended another form of schooling, demonstrating a slightly lesser tendency than the total sample to consume schooling alternatives. This could be explained by higher opportunity costs for girls, but interestingly, more boys than girls have attended other schooling options in Gondar, where it is thought that opportunity costs for boys exceed those of girls. In general, a smaller percentage of girls attended priest schools and literacy program, while a larger percentage had attended koranic schools. The emphasis on religious schooling for girls is dramatic in Bale, where 27 percent of the girls had attended koranic school, and where 13 percent of the girls had attended priest school. A similar tendency is shown in Welaita. Larger percentages of girls have attended both koranic and priest schools than the sample in the region.

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<sup>13</sup> The inexactitude in the percentage is due to the fact that, while we can suppose that students went to either priest or koranic schools, it is possible that there is an overlap between religious schooling and literacy program attendance.

Students have attended:	Total Sample #Students (%)	Bale #Students (%)	Gondar #Students (%)	Tigray #Students (%)	Welaita #Students (%)
Priest School:	564 (16)	10 (2)	93 (14)	206 (18)	255 (21)
Girls:	135 (12)	3 (13)	21 (5)	1 (0)	110 (39)
Koranic School:	31 (1)	163 (36)	1 (0)	14 (1)	0 (0)
Girls:	37 (3)	24 (27)	0 (0)	4 (1)	9 (3)
Literacy Program:	372 (11)	10 (2)	82 (13)	80 (7)	200 (17)
Girls:	85 (7)	0 (0)	42 (10)	18 (5)	25 (9)
Total Students:	3,453	443	651	1,151	1,204
Girls:	1,151	420	420	358	284

\* Total numbers of students will vary due to missing data.

### *School Characteristics Related to Demand*

The descriptive data presented on schools in Chapters 2 and 3 show that across the sample the schools are of consistently low quality in terms of infrastructure, facilities and books/supplies available to student. In several schools, the capacity is strained by lack of classrooms. And, as will be explored in Chapter 6, the per student expenditures of the schools on students are variable, but low. However, the data indicate that many of the teacher characteristics are of a higher level than expected and with little variation within or among regions. Overwhelmingly, teachers have attained the requisite degree of training (apart from the issue of training quality and content) and are not new to the teaching process. By cultural traits—provenance, maternal language and religion—they should not be estranged from the community in which they teach. Many even live in the vicinity of the school. Finally, the majority of the few students who do reach the sixth grade and sit for the leaving exam do manage to pass it (although we do not have data on the grade repetition which allowed them to get to this point.)

But how do these factors relate to household demand for primary schooling? As a preparatory step to developing a regression model (next section), we examined the correlations coefficients (Pearson's R) of these factors with the demand variables to measure the strength of the association. The dependent or explanatory variables fall into four categories: school capacity, teacher capacity, school revenues and expenditures, and student achievement. The tables below present the correlations between the school quality variables and two measures of household demand, which measure (1) actual percentage household consumption of schooling for children between the ages of 7 and 12 and (2) historic percentage of household consumption of schooling for all children living in the household. Coefficients are noted if they have proved significant for one of the demand variables.

Overall, relatively few of the variables proved statistically significant. Of those that did, the significance level was relatively high (.01 or .05), but the strength of the correlations were quite weak—seldom exceeding .2. In general, one would expect to find correlations approaching .4

and .5. In some cases, the direction of the relationship was surprising and contrary to general expectations.

The student:teacher ratio and the classroom:teacher ratio proved significant only for the historic demand variable. The association for both were negative. This means that as the number of students and the number of classrooms per teacher increase so does the demand for education. Given that this is counter to expectations—if higher school quality were a factor in parental decisions, then an inverse relationship would hold—it is likely that this association does not imply causality but rather reflects that in areas where there is a high demand for education there is strain on both the teaching staff and the classroom capacity. This borne out by the fact that there is a higher degree of association for the classroom:teacher variable. As seen in previous chapters, overcrowding in the schools tends to manifest itself in the lack of classrooms rather than the lack of teachers.

<b>Table 4.10 School Capacity-Demand Correlation Coefficients</b>		
<b>Variable:</b>	<b>Current Household Demand Pearson's R</b>	<b>Historic Household Demand Pearson's R</b>
Student:Teacher Ratio	-.0577	-.0825*
Classroom:Teacher Ratio	-.0749	-.2590***

\*p < .1 \*\*p < .05 \*\*\*p < .01

There is a significant correlation between teaching experience and teacher tenure with historic demand, albeit very weak. The direction of the relationship is as expected: the longer the teaching experience and the more time spent teaching at the local school, the higher the demand for education. Although these variable were not significantly related to current demand for education, teachers living with close proximity to the school did exhibit a positive association with the demand variable.

<b>Table 4.11 Teacher Capacity-Demand Correlation Coefficients</b>		
<b>Variable:</b>	<b>Current Household Demand Pearson's R</b>	<b>Historic Household Demand Pearson's R</b>
Average Years Teaching Experience	-.0139	.1237***
Average Years Teacher Tenure at School	-.0346	.1359***
Teacher Residing within 5 km. of School	.1406**	.0654

\*p < .1 \*\*p < .05 \*\*\*p < .01

The details regarding school revenues and expenditures is examined in Chapter 6, but a few variable about expenditure levels are used here. The levels of unit expenditures and the purposes to which they are put have often been shown to bear a positive relationship to school quality and student achievement, and consequently are thought to exert a positive effect on parental decisions to school their children. In terms of school quality and student achievement,

we found that there was a statistically significant, negative relationship (-.2601\*\*\*); it appears that as the percentage of students passing the sixth grade leaving exam increases the percentage of per student expenditures decrease. Further, more confounding is the significant and negative relationship between student achievement and the percent of school budget spent on student materials (-.3559\*\*\*). Possible explanations are that the level of unit expenditure is so low it is below a threshold at which any expenditure can have a meaningful effect and that the little spent on student learning material is poorly used. A weak, but significant, correlation exists between school revenues and expenditures per student and current household consumption of education, which indicates that at the low levels of per student revenues and expenditures in the schools parent remain indifferent to these variables. Additionally, it can be argued that these variables are a function of household demand; in other words, the more students enrolled in a school the more revenue it would have (and could charge if demand were high and supply of school places low). However, we do find that, for the historic demand variable, there is a significant and positive (and very weak) relationship with two types of school expenditure, namely "stationary" and "teaching materials and library." Although the former does not have an obvious relationship with school quality as the stationary budget is used for school office supplies, teaching and library materials could be expected to improve school quality and student learning, leading to increased demand. However, the correlation coefficients are so small it would be imprudent to attribute to much meaning to their significance. There does appear to be a slight trade-off between the percentage spent on stationary and that spent on teaching (-.2079\*\*\*) and student learning materials (-.2762\*\*\*). For both demand variables, the percentage of school budget spent on sports equipment is negative.

<b>Variable:</b>	<b>Current Household Demand Pearson's R</b>	<b>Historic Household Demand Pearson's R</b>
School Revenues per Student	-.1327***	-.0218
School Expenditures per Student	-.1194**	-.0456
Percentage of School Budget Spent on Stationary	.0486	-.1078**
Percentage of School Budget Spent on Teaching Materials and Library	.0708	.1113**
Percentage of School Budget Spent on Sports Equipment	-.1098**	-.1102**

\*p < .1 \*\*p < .05 \*\*\*p < .01

Finally, using the leaving exam pass rate as a proxy for school quality, we find that it proves significant for both demand variables and the correlation coefficient is negative, indicating that—at best—parents are indifferent to this aspect of school quality when deciding whether to enroll their children in school.

<b>Variable:</b>	<b>Current Household Demand Pearson's R</b>	<b>Historic Household Demand Pearson's R</b>
Percent Students Passing Exam of Total	-0.2038**	-.1196**
Percent Students Sitting Exam of Total	-.1941**	-.0451

\*p < .1 \*\*p < .05 \*\*\*p < .01

The above discussion perhaps makes too much of the very weak relationships exhibited between some school attributes and the household demand for education, but the relationship between school supply factors and educational demand should not be dismissed because it has not been captured in the statistical analysis. Why do school attributes not figure more prominently in the analysis? We speculate that as fewer than 10 percent of the sample parent have ever gone to school themselves, it is unlikely that they have a concept of quality which corresponds to what professional educators hold important. Since the sample schools are, in general, of such low quality, parents probably never have the opportunity to develop higher standards or expectations of the learning process. In their experience school may be monolithic, always the same. We do know that "good" schooling is linked with employment in parents' minds, but seldom are the specifics of the schooling process mentioned. Until parents have the chance to see that there can be differences in school operations and the learning process, it is possible that school factors, other than available school places, will not notably affect demand.

Parents were also asked directly about their preference for certain school attributes, specifically about the gender of the teacher and single-sex schooling. Parents were relatively indifferent to the issue of preferred teacher gender, both for their daughters and sons; 75% did not believe it mattered as a factor desired school attribute. But of the 25 percent who did express a preference, nearly twice as many preferred a female teacher for their daughter (16 percent v. 9 percent). Oddly, in the case of their sons, there was a slight preference for female teachers, as well (14 percent v. 12 percent).

<b>Parents Prefer:</b>	<b>Total Sample #Parents (%)</b>
<b>For Daughters:</b>	
Female Teacher:	49 (16)
Male Teacher:	28 (9)
Does Not Matter:	227 (75)
<b>For Sons:</b>	
Male Teacher:	61 (13)
Female Teacher:	67 (14)
Does Not Matter:	353 (73)

The correlation coefficients in the following table indicate both actual behavior of household and some notable regional variation. Although once again the strength of the correlations are not strong, they are significant. Specifically, it appears that there is a real relationship between the percentage of female teachers in a school's teaching force and the percentage of girls enrolled in the student body. The higher the proportion of female teachers, the higher the proportion of girls students. That the coefficient is low, but significant accords with most parents' indifference to the issue of female teachers, as well that their schooling choices and scope for action are limited. However, it may well be that in the twenty-eight school where female teachers are represented, some parents are more likely to enroll their daughters. Interestingly, there is a relatively strong negative association between girls' enrollment and female teacher presence in Bale, and an equally strong positive relationship in Welaita. In Bale, this would appear somewhat unusual as one would expect that the Muslim parents might be more inclined to send their daughters to schools with female teachers. In Welaita, what is striking is that only a few (3) schools have female teachers. Consequently, coefficient indicated that there is a .4 correspondence between girls enrollment and female teacher presence.

	Total Sample Pearson's R	Bale Pearson's R	Gondar Pearson's R	Tigray Pearson's R	Welaita #Parents (%)
Percent Female Teachers and Percent Girls' Enrollment/School	.2679***	-.3422***	-.1395*	-.0373	.3759**

\* p < .1 \*\* p < .05 \*\*\* p < .001

Related to the issue of teacher gender is that of single-sex schooling. Studies from around the world, in both rich and poor countries, have found that single-sex education is often a factor in girls' educational participation, as well as persistence and attainment. Single-sex schools are generally not an option in the rural country-side of Ethiopia and are not provided by the MOE. Nonetheless, we found that more parents (50 percent) had a preference than in the case of teacher gender. Although parents of both daughters and sons preferred coeducation over single sex schooling for their children, possibly because it is the primary existing model. Nonetheless, about 20 percent of parent preferred single-sex schooling for their children.

Parents Prefer:	Total Sample #Parents (%)
For Daughters:	
All-Girl School:	64 (21)
Co-ed School:	89 (29)
Does Not Matter:	152 (50)
For Sons:	
All-Boy School:	99 (21)
Co-ed School:	160 (33)
Does Not Matter:	220 (46)

### *Macro-Analysis of Household and School Factors*

This section presents our attempt at identifying and prioritizing the household and school factors which have the greatest explanatory value for educational demand.

As described in Chapter 3, a dependent variable representing the demand for primary schooling was created based on the actual consumption of potential years of education per household (i.e., the aggregate number of years of schooling consumed by the household's children was divided by the number of years in the primary school cycle multiplied by the number of children). The resulting figure is a gross measure of household educational participation, capturing all the primary schooling consumed by the children in the household. It does not distinguish among years repeated, truncation through drop-out, late starting enrollment, etc.

With this as the basic measure, we refined it somewhat calculating the measure for two different groups of children to create two variables. The first variable, whose calculation was based on the educational consumption of the household's children between the ages of 7 and 12 years, is considered a better indication of current educational demand by the household. The idea is that to get a more accurate indication of the current level of demand only the years of schooling for those children who are most likely to be enrolled should be included. The second variable, using the years of schooling for all children age 7 and above in the household, is considered a measure of historical consumption. In principle this could include all children of any age still living at the home of their parents; in actuality, there were very few household that counted children in their early twenties. An additional advantage of this variable was that it captured any over-age children enrolled in primary school. In order to normalize the distribution these two variables were used as continuous variables in the analysis.

The independent—or explanatory—variables fell into two groups as well: household and school factors. The household factors included proxy measures for income, parental attitudes, household expenditures and decision protocols; the school attributes included infrastructure, school organization, teacher characteristics, revenues and expenditures, and a proxy for school quality, namely the sixth grade leaving exam pass rate. These have been describe and discussed in the previous section and earlier chapters.

A basic assumption of this approach is that the public or government school in the area of the village was the primary schooling option offered to household and thus the one to which they reacted. If there were a greater range of choices, this assumption would not be tenable. However, there seem to be few alternatives, principally religious schooling. As seen in the previous section, few household indicated that their children were enrolled in a school other than a government one. Further, from the survey of school children, it appears that schooling by religious institutions offers a supplementary education, not a replacement.

Because there was so much heterogeneity among regions and homogeneity within regions, we decided to build our model based on analysis of data from one region with the intention that this could then serve as a comparison for the larger sample across regions. However, we do not expect to find the same power in the explanatory variables because of regional differences. This

is especially true of the household data, where four separate scale would have to be created to analyze each region. For example, the proxy measures for income appeared to have different meanings according to region. Tin roofs, common in one area, were not in another, although other reasonable indications of wealth might be the same.

Since time did not permit the development of individual scales, the model region selected was Welaita, because the educational demand was found to be low but relatively steady over time and the supply of schools and dense population minimized the confounding effect of supply constraints. Further, for the most part, Welaita was comparatively untouched by the war. In short, as stable a situation as possible was required. Finally, unlike Tigray where there was very little variation in the household and school data, Welaita was characterized by some differences. Once a model was developed for Welaita, this was applied and adjusted for the entire sample.

In a perfect world, the ideal study would capture all information relevant to educational demand and express it measurable terms. It would not be difficult to explain variation and assign relative weights to each factor. But given the pervasive and ever-present difficulty in fixing the correspondence of attitudes and behavior, it was not our intention to maximize the explanatory model for household consumption of education. We know that many components of parental decision-making regarding their children's attendance at primary school is based on highly particular and idiosyncratic processes, related to individualistic histories. Consequently, our goal was to examine aspects of the decision calculus which might be characterized as more overt, observable and ostensibly "rational", and which are more amenable to policy formulation and intervention. Although some factors can not necessarily be changes, they can indicate certain obstacle to enrollment which may be addressed.

With specific regard to regression analysis, for example, rather than attempt to maximize the R-square value (i.e., the percentage of variation explained by the model), we attempted to identify statistically significant independent variables that could be measured in a comparative context. Further, in a study such as this it would be unrealistic to expect large R-square values because of the myriad, unmeasurable and interactive influences on the decision to school or not school children. The value of using this approach, however, is to identify the trade-offs between comparatively measurable variables (or categories of variables). Specifically, while we can not explain all the factors in the household decision calculus, we can indicate if a factor does not appear to figure as a consideration, as well as compare the relative weight or influence of factors which do figure and are significant.

In light of the above discussion, the models presented below are crude and approximate. In some instances, some of the iterations were limited by lack of data and consequently not all the independent variables could be tested in all the models, which severely handicapped analysis. Rather than attempt to transform all the data into usable variables, we selected those that initially appeared most promising as defined through means testing) or theoretically relevant. The key criteria meant by the models present below are: does model behave as anticipated, are the variables significant, are directions reasonable, and does it explain something.

The variables which appeared most promising and with which we experimented fell into several categories of theoretical interest, such as parental attributes, household wealth/income, cost of schooling, gender and school quality. The specific variables were:

- Parental education (EDPARENT)—the combine years of parental education per household
- Household bed type (BED)—expressed in dummy variable form with high quality bed (wooden legs) equally "have" and other type "have not"
- Household rooftype (ROOF)—with tin roofs on main dwelling as "haves and all others "have not"
- Radio (RADIO)—a radio or cassette own by the household as "have", all else as "have not"
- Household estimates of shoe cost (SHOE)—a dummy variable comparing parental estimates above the mean with those below
- Gender as a factor in decision to educate child (CHOICE)—a dummy variable distinguishing between gender as a factor and gender not as a factor in parental decisions
- Leaving exam pass rate (PCPEXTN6)—the percentage of sixth grade students passing the leaving exam of the total number of sixth graders per school
- Classroom:teacher ratio per school (CLSSTCH)
- Book possession rate (CLASBOOK)—percentage of children in grade 1, 3 and 6 having math and reading books of the total students in those classes per school

The functional form of the regressions are log-linear, in which the dependent variable is a natural log (because the form of the distribution more closely represents a normal distribution as a log function) and the independent variables are in linear form.

## Current Demand for Primary Schooling in Welaita

Variable:	B	Beta Weight	Sig. Level
EDPARENT	.085513	.302986	**
BED	-1.428551	-.213386	*
PCPEXTN6	-.023795	-.183904	*
CHOICE	-1.220347	-.131448	
R-square =		.24662	***
N =			53

\*p < .1 \*\*p < .05 \*\*\*p < .01

The analysis of the current demand for education in Welaita (percentage of household consumption for children 7-12 years old) shows three significant influencing factors, which together explain approximately 24 percent of the variation in the sample. By far the strongest in explanatory power, the level of parental education exerts a strong influence on household consumption of education. Each additional year of parental education accounts for a 8.5 percent increase in the household consumption of education. In short, more educated parents are associated with a greater likelihood of enrollment of children in primary school and a higher degree of educational demand. This has been amply borne out in the worldwide literature on educational demand as a factor in schooling children.

Counter to expectations that a proxy measure for household wealth would have a positive association with educational demand, the analysis indicates that households which have the highest quality beds consume 142 percent less education. If we believe that other indicators of wealth (in the ensuing models) are accurate, this unexpected inverse relationship may be due to the fact that incomes are so constrained that parents are making trade-off choice rather than being able to afford multiple consumption options. To put it crudely, households may be choosing beds over schooling and/or other items.

Households where the local primary school has higher percentage of students passing the sixth grade leaving exam consume 2.5 percent less education. This can be interpreted as a 1 percent increase in the pass rate equals a 2.5 percent decrease in household consumption of education. This result is puzzling, given the assumption that the pass rate is a reasonable proxy for school quality and that higher quality education should spur parents to invest in and consume more education. However, we have tried many other independent variables representing school quality—such as teacher experience, tenure in school, student:teacher ratio, expenditure per student (and parental expenditure per student)—and have found that they are weak and statistically insignificant. Failure of these variables to demonstrate any relationships with the household consumption variables substantiates hypothesis that parents in rural Ethiopia are not cognizant of or concerned with school quality characteristics (at least as we defined them) when making decisions to enroll their children in school.

Although was not significant statistically, the variable representing gender as a decision criteria was included because it figures in the model for historical demand and serves as a basis for comparison. Had this variable proved positive it would mean that if parents use gender as decision criteria, the result is 122 percent less household consumption of primary education. Because more boys are enrolled in school, this indicates that parents may deliberately chose not to send girls to school.

Although the number of cases is small,(a third of potential because many parents do not have school-aged children to include in data set), the model has a relatively strong explanatory value—24 percent of variation—with only a few variables. It is clear that household factors predominate, but they are disparate--covering parental attributes (education) and household wealth. The sole significant school attribute demonstrates a meaningful, yet inverse, relationship to expectations.

#### Historic Demand for Primary Schooling in Welaita

Variable:	B	Beta Weight	Sig. Level
CLASSTCH	-1.456128	-.275488	***
ROOF	.846871	.169337	*
CHOICE	.810226	.153447	*
EDPARENT	.036197	.142540	*
R-square=		.138332	***
N=			112

\*p < .1 \*\*p < .05 \*\*\*p < .01

The second model for Welaita looks at historic demand, i.e., using the years of schooling for all children in the household to compute household consumption, and re-evaluates all the independent variables tried in the first model. As indicated in the above table, all independent variables tested significant at the p=.1 level or better. This means that, although the R-square (14 percent is lower, the measurements of the independent variables are more reliable, as the significance is more robust.

While the sixth grade leaving exam pass rate was no longer valid, another school quality proxy—class-room teacher ratio— proved significant and strongest coefficient in the model. However, like its previous counterpart, it also demonstrated a negative and again counter-intuitive relationship with household consumption of schooling. Improvements in the classroom-teacher ratio are here associated with decreases in the consumption of education. In other words, the more teachers per classroom the higher the demand, which would mean that overcrowding in the schools is considered a desirable characteristic of school, an unlikely prospect. While its use as an explanation of causality is limited, in all probability this variable reflects the MOE ability to increase the number of teacher in a school as its enrollment increase,

on one hand, and its inability to expand or improve the school infrastructure to accommodate new students, on the other. This would correspond to the MOE practice of not providing much school improvement assistance in terms of buildings and of focussing on teachers, and coupled with community's inability or disinclination to underwrite construction expenses. Alternative interpretations could be that parents see excessive numbers of teachers as a sign of quality, although our statistical analysis shows no correlation between actual student:teacher ratios and educational demand. Additionally, parents could be influenced by relative teacher accessibility that less than full teaching loads would give, although analysis also shows no correlation with teacher residence in or near the community and educational demand.

Another proxy for household wealth/income, a tin roof, was significant and relative strong in its influence in the equation. Unlike the case of the bed variable, the roof variable has a positive association with educational demand. It is possible that ownership of a tin roof represents much greater wealth, a truer measure of affluence, than wooden bed ownership, and thus indicating that wealthier parents can afford to enroll children in primary school. Beds may be more immediately affordable and a readily accessible consumer good. In the Welaita sample there were certainly more wooden bed owners than tin roof owner. According to the statistics, if households have tin roofs, they consume 84 percent more education than those with thatch roofs, etc. in Welaita.

In this model, the use of gender as a criteria of selecting a child to go to school proved significant. If gender is used in the decision-making process, the household can be expected to consume 81 percent less education. Given that here are more boys in school than girls in Welaita, we can interpret this to mean that preference is for boys' schooling.

Another variable—household estimated expenditure for education—proved significant but we omit it from the analysis because of conceptual problems. As household expenditures on education increased, so did the demand for education. This, of course, is tautology and atheoretical vis-a-vis policy. The direction of causality is probably reversed. As demand increases, household expenditures on education are very likely to increase. We mention it nevertheless because underscores the reliability of dependent variable of household consumption.

Parental education remains a factor in household demand for education, although its influence is weaker in the historic demand for primary schooling than in the actual.

## Historic Demand for Primary Schooling Across Regions (Full Sample)

<b>Table 4.19 Multiple Regression Log of Historic Consumption-Full Sample</b>			
Variable:	B	Beta Weight	Sig. Level
SHOE	.799007	.237127	**
CLASSTCH	-1.206838	-.203775	**
RADIO	.600506	.094008	**
CLASBOOK	.591663	.091421	**
R-square=	.14440		***
N=	458		

\*p < .1 \*\*p < .05 \*\*\*p < .01

Turning the analysis to the full sample and using historic household demand as the dependent variable to maximize the number of cases, we find that another measure of household wealth, above-the-mean expenditure for shoes, has a strong, positive relationship with household consumption of education. The analysis tells us that if parents spent an amount greater than the average amount spent on shoes for children in the sample, then it consumed 79 percent more education. Certainly this is a proxy for household income, but it could be that shoe expenditure is an obligation accepted by parents in a child centered household. Run frequency to get percentage of parents spending on shoes. Since few parents spent money on shoe, this reflects" the attitude that "School children need shoes" and may discourage parents who cannot or do not buy shoes for their children from sending them to school.

As in the same analysis for Welaita, the classroom:teacher ratio variable continues to exhibit a negative and although not as strong a relationship with household consumption of education. Our interpretation remains the same: that the presence of more teachers, whether being used to teach children or not, is a positive factor in household decisions to enroll their children in school.

In this regression, the variable for radio ownership appeared significant and has a positive relationship with educational demand. Household which own radios and cassette players consume 60 percent more education. As the direction of the association accords with expectations of household wealth, we assume that radios, more expensive than wooden beds, are closer to tin roofs as a true measure of wealth. Far fewer families own radios than wooden bedsteads in the sample.

A school quality measure, the percentage of students with math and reading books, has a positive association with household consumption. Households in villages where the local school has a greater percentage of children equipped with both books consume 59 percent more primary school. Interpretation of this is not as straightforward as desired. While, on one hand, it could mean that schools which provide children with books are more attractive to parent either because of quality improvements or cost burden alleviation on the household, on the other hand, it could

also mean that children with books come from wealthier families who were able to afford to buy the books themselves. Since very few parents indicated expenditures on books, we assume that the former interpretation is the correct one: that, for whatever reason parents value schools where students have books.

## **Conclusion**

Economic constraints clearly represent the most salient impediments to participation and persistence in primary school in the rural areas. Parents cited economic opportunity as the primary motivation for sending children to school, and blamed economic constraints on their failure to do so. Correlations between proxies for household wealth and schooling, although preliminary, indicated positive and significant relationships between income and household enrollment /consumption patterns. Indications are that there is considerable variation regionally regarding the relative importance of various proxy measures.

Schooling was closely associated with occupational development by the majority of parents, although there appears to be a discontinuity in this view. Parents who maintained a non-occupational perspective, although in the minority, were somewhat more likely to send their children to school.

Parental educational levels were weakly correlated to household consumption practices. It is hypothesized that this is due to the relatively low participation rate of parents—less than 8 percent had attended any primary school themselves. In this sense, primary education may be considered a relatively "new" or otherwise impractical activity vis-a-vis rural life.

Specific school expenses were identified as being difficult for rural parents to manage. Clothing costs were mentioned as particularly exacting by over 36 percent of the households. School books were also cited as burdensome, by nearly 30 percent of the sample.

Although in many areas there were non-governmental parochial primary schools operating, they did not appear to have a significant impact on our population. Less than 2 percent of our sample children were currently enrolled full time in a parochial school.

The demands of seasonal agricultural practices appeared to play a significant role in parental decisions to withdraw children from school, on both a temporary and a permanent basis. Over 30 percent of the parents surveyed indicated that they kept their children home to accommodate these requirements. A further 20 percent of parents who had withdrawn their children from school maintained they would change their decision if the school year did not interfere with the agricultural seasons.

School supply factors had weak, but significant, effects on the level of household demand for primary schooling, far smaller than expected. Notable were the relationships between demand and the classroom:teacher ratio, per student school expenditure, and student pass rate, whose directions of association were the opposite anticipate. In essence, these correlations indicated that to some small extent that reduced demand corresponded to conventional indicators of improved school quality. These weak correlations may well indicate that parents are largely

unconcerned about school quality issues in light of the economic and financial barrier they must confront in deciding whether to send their child to school or not, as detailed above. When queried directly about two school factors which have proven important in other countries—teacher gender and single-sex schools—they were mainly indifferent.

The primacy of household and economic factors is also gently underscored by the regression models built for Welaita and the full sample. The level of parental education and household wealth proxies appear in three models. Although school factors also contribute explanatory power, their influence is negatively related to demand. Consequently, we conclude that while school quality is undoubtedly an important factor in the learning process, initially improving school quality in ways that do not alleviate household financial burdens will probably not prove the answer to increasing enrollments in rural village schools. The impacts associated with improved learning must work their way through the system over the course of a number of years, before parents appreciate that there is a positive pay off to quality education. Given the attenuated logical pyramid of quality inputs to household level benefits, the conceptual leap for parent to make between better school quality and their stated objective of wage employment may be too far to expect intervention in school quality to result in increase parental demand. (Of course, quality improvement which improve internal efficiency may increase enrollments in areas where there is pent-up or burgeoning demand.) Finally, we postulate that parents must be educated to be both consumers of and informed consumers of schooling in order to recognize and demand school quality improvements.

## Chapter 5

### Gender Issues Related to Demand

Gender, as a primary factor differentiating educational demand, cuts across many dimensions of the school and household/community axis. Being a comparative concept, gender analyses must include the opinions and behaviors of both male and female school staff, female and male students, and—in the community—mothers and fathers, husbands and wives. It is not enough to examine one half of the gendered population in any category—a full account is necessary to understand *why* rural parents make the decisions they do to send a particular child to school, and to what extent they will support the school once their children are enrolled. Armed with such evidence, we can then plan strategies designed to meet the relevant educational needs of both sexes, taking into account the variability of gender relationships that exist in rural communities.

This chapter has a two-fold purpose:

- to isolate and analyze specific gendered attitudes and behaviors that influence educational demand and explain *how* they currently affect rural demand;
- to analyze community perceptions of the school's role and assess the extent of parents' support for rural schools.

Chapter 3 pointed out gender disparities in enrollment rates by zone and by research locality. Even though girls lag behind boys in most zones and localities, it is notable that in Semen Gondar female enrollment rates have outstripped male enrollment rates over the past several years and are way ahead of Tigray female enrollments. Yet both regions were heavily impacted by the civil war in the 1980s. Is Semen Gondar's gender gap a temporary phenomenon due solely to war, or are there cultural and/or economic variables that also shape parents' decisions to enroll a boy in school? Are the obstacles to enrollment different for boys and girls? If so, why?

This chapter analyses parental and community expectations of education and attitudes toward government schooling, in particular, using a complementary set of analytical tools to those in Chapter 4; these include content analysis, comparative analysis of content data, and, where pertinent, data from interviews with key informants in the research communities. We analyze gender differences between parents of school-going children and parents with no children enrolled in school to determine whether gender or the distinction between parents of schooled and non-schooled children has greater weight. In all cases regional differences are taken into consideration. Educational alternatives to government schooling are briefly assessed in terms of the choices that rural parents make about educating their children. Obstacles to participation and persistence, including lack of cash for educational investments and opportunity costs—parental demand for children's labor, are a major concern. Gender bias in the selection of who

goes to school stems from cultural antecedents that are slowly changing. In analyzing such variables we draw on the opinions of non-schooled children as well as parents, using data derived from focus group interviews as the primary sources.

### **Methodology: Focus Group Interviews**

The purpose of focus group interviews is to elicit participants' attitudes, opinions and behaviors through an interactive group method. The methodology is used to collect qualitative data that is later analyzed using content analysis.

Focus group interviews were held with three categories of persons: parents with at least one child who presently attended school, parents with children who had never attended school, and never-schooled girls between the ages of 10 and 15 years. As they are time consuming, focus group techniques were used in only half the 40 communities. In the present research, they also allowed for a certain flexibility in sampling not available to household surveys. For example, in Semen Gondar, it was discovered in the first week of fieldwork that boys rather than girls were the disadvantaged group. Thereafter, focus group interviews were held with boys who had never attended school rather than girls as originally intended. Another aspect of flexibility is in the size of the group. Although it was intended that between 10-15 individuals would participate, there was no strict rule and the focus group size varied from three participants to as many as twelve depending on the availability of individuals in the particular social category targeted.

### *The Participants*

A total of 733 participants were included in the focus group interviews in the four localities. The largest category was for parents of schooled and non-schooled children with a total of 598 participants: 314 parents of schooled children and 284 parents of non-schooled children (see Table 5.1). Interviews with parents were held separately with mothers and fathers in all except two cases in Tigray, where three groups were gender separated and two were mixed groups of mothers and fathers. Moreover, in Tigray only one gender-specific session was held with mothers of never-enrolled children, leaving a sizeable gap in the data for mothers of non-schooled children in Tigray.

Non-schooled girls—and in Semen Gondar, non-schooled boys—were included as a category in order to examine the constraints they face to schooling and their attitudes toward various forms of education— both informal and formal. A total of 104 girls between the ages of 10 and 15 years participated in the focus groups, with one group included from Semen Gondar and five groups each from the other three localities. In the four focus groups for non-schooled boys in Semen Gondar, 31 boys between the ages of 10-15 were included.

**Table 5.1 Total Number of Parental Focus Groups with at least one child in school and with no children in school by region and gender (no. of groups & participants)  
Total N in the 4 types of focus groups = 598**

<b>(With School Children)</b>										
Type of Group	Bale		Welaita		S. Gondar		Tigray		Tot Gps	# Part
	Gps	No. Part	Gps	No. Part	Gps	No. Part	Gps	No. Part		
Fathers	5	50	5	25	5	46	3	29	18	150
Mothers	5	50	5	26	5	36	3	24	18	136
Mixed groups in Tigray							2	28	2	
Fathers							16			16
Mothers							12			12
										314

Total no. of parents with child + in school: 314 (Fathers = 166, Mothers = 148)

<b>(With Never Schooled Children)</b>										
Type of Group	Bale		Welaita		S. Gondar		Tigray		Tot Gps	# Part
	Gps	No. Part	Gps	No. Part	Gps	No. Part	Gps	No. Part		
Fathers	5	50	5	27	5	42	3	27	18	146
Mothers	5	50	5	27	5	38	1*	4	16	119
Mixed groups in Tigray							2	19	2	
Fathers								10		10
Mothers								9		9
										284

Total no. of parents with never schooled children: 284 (Fathers = 156, Mothers = 128)

\* The one small group of mothers with non-schooled children that met was only partially recorded.

### **Implementation**

Focus groups were arranged for parents in five of the ten communities in each locality. Originally it was planned that female researchers would facilitate mothers' and non-schooled

girls' group interviews, and male researchers would facilitate male-specific sessions. In reality, due to the few number of women on the research teams, their facilitation of the women's groups did not occur and female-specific focus groups were facilitated by men. Without direct observation, it is difficult to know the extent to which male facilitation of female focus groups may have influenced the internal dynamics and responses of the group. Male research team members maintain that it had no effect.

In the case of each focus group session, a recorder was assigned to summarize the discussion, including the number of participants, differences of opinions that emerged between participants in the session, and any other observations made of the dynamics of the discussion—for instance, if one or two participants dominated the discussion, whether community leaders were present, and the level of comfort of participants in discussing the issues related to educational demand. The reports that resulted were largely consensus reports with little record, in many cases, of differences of opinion within groups except on gender issues. Fortunately, two or three sessions in each locality were audio-taped; translation and transcription of these tapes later enabled the team to separate voices and opinions within groups, and also to validate the accuracy of the initial report.

### *Analytic Process*

Two team members reviewed focus group records as well as the translated tape transcriptions, noting various factors and issues related to educational demand. Once the content analysis was completed, the major and minor factors related to a particular aspect of demand were synthesized into 6-10 selected key factors derived from the data. Where there were few differences between the participants and the recorder had noted consensus, the group's responses were counted as one on each item. Where there were differences between participants, individual responses of participants were tabulated.

A gender comparative matrix of key factors, or variables, was designed for mothers and fathers within the same category—parents of schooled children or parents of non-schooled children—for each community. Once the matrix had been completed, the frequency of responses by group, or by participant where appropriate, were tabulated for each regional locality, noting differences and similarities between communities within regions. The variables and frequency of responses for groups were comparatively analyzed across regions. A similar process was pursued for the data on non-schooled girls with cross-community and cross-regional comparisons of the 16 focus groups. In addition to cross-tabulations, responses of rural parents and children that amplified particular issues of demand were noted for later use. One of the advantages of such qualitative analysis is that it allows rural voices to be heard.

### *Organization of the Findings*

The analysis of the qualitative data is divided into four parts:

Parental perceptions and expectations of schooling by gender and region, including a brief assessment of the extent of parental preference for other educational options (e.g., priest schools and koranic schools).

Obstacles to school enrollment perceived by parents of schooled and non-schooled children and by non-schooled children, including suggestions for overcoming such obstacles.

Parental perceptions of the school's role in the community and parents' support for the school in terms of committee involvement and labor contributions.

Conclusions related to the gender-specific demand for educating girls versus boys, and for local community support of government schools.

## **Analysis**

### ***Parental Perceptions and Expectations of Schooling***

#### **Increased knowledge and employment**

When parent groups of both schooled and non-schooled children were asked why people in their community send their children to school, the most frequent response, not surprisingly, was to increase knowledge (Table 5.2). The second most frequently identified reason for educating children was related to securing skills that would lead to employment or opportunities for a "good job." This confirms the findings of the household survey in which parents named future employment as a primary reason for going to school. In some cases, parents in the focus groups were more specific naming teaching, government administrative jobs, nursing or being a scientist as examples of "good jobs."

#### **Literacy acquisition**

Few gender differences exist between fathers' and mothers' groups for the top two most frequently cited reasons for sending a child to school. However, ten groups of fathers with non-schooled children in three regions identified acquisition of literacy with schooling whereas only seven groups of mothers named literacy. For the groups with children enrolled in school, the greatest gender difference exists between fathers and mothers in Tigray with three times as many mothers' groups as fathers' groups naming acquisition of literacy as a primary reason for sending a child to school. Children's literacy is important to non-literate parents because they often depend on their literate children to read and write letters, and to read notices for them, as more than one mother in Tigray observed, and the household survey results confirm.

Table 5.2 Parental Expectations—Comparisons of Frequency of Responses for Parents' Groups with Non-schooled Children and Parents' Groups with at Least One Child Enrolled in School by Region and by Gender

What Learned?	Parents w/ non-schooled children						Parents w/ schooled children						Total				
	Bale		Welaita		Gondar		Tigray		Bale		Welaita			Gondar		Tigray	
	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	
Parental Expects of Schooling																	
Increased knowledge	4	5	5	5	5	4	5	—	5	5	5	4	5	4	5	3.3	69.3
Skills for a job	5	4	3	1	3	3	5	—	2	3	4	3	3	4	—	1.6	44.6
Literacy	5	4	1	—	4	3	—	—	2	3	—	—	4	2	1.6	5	34.6
Good Hygiene	5	4	1	3	—	—	—	—	2	1	1	2	—	3	—	—	22
Knowledge of world, Africa	—	—	1	—	1	1	1.6	—	2	—	—	—	4	2	—	1.6	14.2
Use of tech/sci better farming	2	1	—	—	1	1	5	—	2	—	—	—	—	—	—	—	12
How to care for home & children	2	1	—	—	—	—	2	5	—	—	—	—	—	—	—	—	10
Another Lang	1	—	2	1	—	—	1.6	—	—	—	—	—	—	—	—	—	5.6
Prot fr disease	2	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	5
Ability to make moral judgements	1	—	—	—	—	1	—	—	1	—	—	—	1	1	—	—	5
Leadership skills	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Handcrafts	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
Prestige	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	0
Attributes & Character of Educ Ch/Adults																	
Has job/helps self, parents, nation	2	2	3	3	—	—	5	—	3	4	3	3	2	—	1.6	5	36.6
Knowledgeable, teaches/gives advice to others	3	3	3	1	3	—	5	—	4	3	1	1	2	2	1.6	1.6	34.2
Neat, clean & "civilized"	3	4	1	3	1	3	—	—	2	1	—	—	—	1.6	—	—	19.6
Is literate	2	3	—	—	—	—	—	—	—	3	—	1	—	—	—	—	9
Doesn't get cheated	—	—	—	—	—	—	—	—	3	—	—	—	—	—	—	1.6	4.6
Expected Returns on Education																	
Gets job, help parents/fam/com	3	3	3	4	4	2	5	—	4	5	3	2	3	5	5	5	56
Get job, help self	2	2	2	1	3	3	3.3	—	3	2	2	3	2	4	5	5	42.3

\* In Tigray only 3 groups of fathers with non-schooled children were included; the responses are weighted. No mother-specific groups with non-schooled children were included in Tigray. In the other three regions, five gendered groups of each type were the norm with a range of from 5 participants in Welaita to between 9-11 participants in Bale.

**Table 5.3 Obstacles to Schooling and Suggestions for Overcoming the Obstacles  
Parents' Groups Responses (non-schooled & schooled children) by Region and Gender  
in School by Region and by Gender**

Obstacles Why not enrolled	Parents w/ non-schooled children								Parents w/ schooled children								Total
	Bale		Welaita		Gondar		Tigray		Bale		Welaita		Gondar		Tigray		
	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	Father	Mother	
Poverty-lack of cash for fees, etc.	5	5	5	5	5	5	5	-	3	5	5	4	5	5	3.3	5	70.3
Hunger/insuf. food	4	4	2	2	-	-	5	-	4	4	1	-	-	-	3.3	5	34.3
Lack of dothing	5	5	-	1	-	1	5	-	4	4	-	-	-	-	3.3	5	33.3
Demand for child's labor- oppor. costs**	5	2	-	-	4	3	1.6	-	2	2	4	3	1	-	1.6	3.3	32.5
Don't value school	1	1	1	-	1	-	-	-	3	3	1	-	3	1	3.3	3.3	21.6
Paent fear of labor obligation to school	4	1	-	-	1	-	1	-	1	2	-	-	-	-	1.6	3.3	14.9
No job opportunities	1	-	-	-	-	-	-	-	2	-	-	-	2	-	-	-	5

Suggestions/Solutions	Parents w/ non-schooled children								Parents w/ schooled children								Total
	Bale		Welaita		Gondar		Tigray		Bale		Welaita		Gondar		Tigray		
State fin. of ed.	4	4	4	4	2	2	5	-	3	1	2	2	4	1	1.6	5	44.6
Sch. fees paid after harvest (Nov-Feb)	-	-	-	1	-	-	-	-	5	5	5	5	4	4	5	5	39
Aid for dothing or uniform provided	3	4	-	2	-	2	5	-	3	4	-	4	1	4	1.6	5	38.6
Food prob solved	5	4	1	1	-	-	5	-	3	5	-	-	-	-	1.6	5	30.6
Motivate parents to send childr. to sch.	4	4	-	-	-	-	5	-	-	-	-	4	-	3	-	-	20
Establish shift system	-	-	-	-	3	3	1.6	-	-	-	-	-	4	3	-	1.6	16.2
Provide help to parents at home	2	1	-	-	-	1	1.6	-	2	1	-	-	2	-	1.6	3.3	15.5
Better sch manag/teachers resid sch.	-	-	1	-	1	-	-	-	-	-	1	-	2	-	1.6	3.3	9.9
Get chairs/tables...	2	-	-	-	-	-	1.6	-	-	-	-	-	-	-	1.6	1.6	6.8

\* Tigray groups' frequency weighted: only 3 fathers' groups instead of 5 and no mothers' groups of non-schooled were included.

\*\* Includes child laborers who are sent to other households to live and earn income for their natal families.

## Cleanliness, good hygiene and health

Cleanliness and good hygiene were nearly tied with literacy in being identified with education particularly by parents with non-enrolled children of both sexes in Bale and Welaita. Stated a Bale father, "Those who have gone to school know the benefits of using clean water, keeping oneself and the environment clean, having a balanced diet and caring for plants and animals."

A slight gender difference on parental perceptions of schooling exists in Welaita with three groups of mothers to one group of fathers with non-enrolled children naming good hygiene as a reason for sending children to school. Bale parents with non-schooled children go even further, with two groups of mothers and two groups of fathers identifying school with information and knowledge that lead to protection against diseases—better health care. That parents of both sexes named good hygiene as a benefit associated with schooling and that four groups out of ten in Bale—40 percent—identified education with protection against diseases is not surprising given the range of diseases that Bale communities face. For Bale parents, and to a lesser extent for Welaita parents, education that meets the communities' needs for better sanitation and health care, and the eradication of some of the diseases that plague them, will have a higher value than education that is not relevant to their immediate health needs.

## Knowledge of the world

Knowledge of the world, Africa and Ethiopia, mentioned more often by parents of school-going children than parents of non-enrolled children was the fifth most often mentioned expectation of schooling. That such knowledge was among the top five is consistent with the findings of the household survey in which learning about the world was among the three major reasons parents gave for sending their children to school. Yet it is notable that in focus groups, fathers more frequently than mothers named global knowledge as a valuable reason for enrolling children in school. A similar gender discrepancy exists for knowledge of how to use technology and scientific knowledge, especially identified with improved farming methods; fathers more than mothers identified these types of knowledge as critical outcomes of schooling.

## Better care of home and children

Interestingly, five of the fathers' groups and only three of the mother's groups with non-enrolled children identified schooling with better care of home and children. It appears from the discussions in the fathers' groups that men are concerned that their daughters learn skills that will lead to better care of home rather than that their sons learn such skills. This finding is consistent with the household survey results: fathers rather than mothers were more concerned that their daughters learn skills in school associated with being a better wife/mother. In asking mothers of non-schooled children about skills and knowledge learned outside of schools, mothers agreed that household management and child-rearing skills are acquired from mothers and older women in the community. As a result, it is not surprising that few mothers' groups mentioned school as being associated with learning such skills.

### Learning another language

Parents concerned about learning another language were mainly limited to Welaita where children in the past learned Amharic, and in some cases, English, in schools. Parents in one community were disappointed that Amharic would no longer be taught in the primary school, and one father related that he had withdrawn his children from school because they were no longer learning in a language other than their mother tongue.

### Expectations of religious schooling

Parents in Bale, Semen Gondar and Tigray, where religious schooling is available, do not appear, on the whole, to prefer the education provided by religious schools—koranic schools and priest schools. Only one group of fathers in Barisa village brought up koranic schooling as an alternative to government primary education. Rather, among Muslims the education provided in koranic schools works in tandem with education provided by government schools. According to local informants in Bale, because the primary school is on a shift system, Muslim children may attend the primary school in the morning and attend koranic school in the afternoon. Certainly the interface in households, if any, between government schooling and koranic education deserves greater attention but was beyond the scope of this study.

With regard to priest schools in the northern regions, it appears that priest schools provide basic literacy in Amharic and that in some priest schools children may learn basic numeracy. However, priest schools are not viewed as an alternative to government schooling, but rather as a means of achieving basic literacy. In some cases, children who learn basic literacy in priest schools are able to accelerate once they enroll in primary school, reducing the number of years of attendance. In answer to the research question related to parental preference for religious schools, evidence from this study suggests that a discernable preference for religious education over primary schooling does not exist in the vast majority of cases.

### Expected returns to schooling

Parents' responses to a question about what distinguishes children and adults who have gone to school from children and adults who have never attended school are consistent with their expectations of schooling. A schooled person is one who is knowledgeable, has a job and supports him/herself financially as well as helping his/her family and the nation. Secondly, this person signals that s/he is educated by being "neat, clean and civilized."

The expected returns to schooling are employment, especially a job that not only improves the livelihood of the educated, but assists the parents, the family and the community. In other words, parents expect an economic return on their investment in their children's education—one that ensures them security in their old age, and one that trickles down to younger siblings. This was an often repeated message.

## ***Obstacles to Participation in Schooling***

Included in the analysis of obstacles to schooling are critical economic factors and sociocultural factors. Related to the former is an analysis of parental and non-schooled children's perceptions of economic constraints and the family's demand for labor as a significant variable determining why children do not participate in school. In addition, drought and its related outcome—cyclical hunger—are together analyzed as a factor that impinges on parents' willingness to enroll and keep their children in school.

### **Poverty**

Overwhelmingly, the most frequently mentioned obstacle to demand for schooling is overall poverty, including lack of cash for school fees, materials and clothing (Table 5.3, also Table 5.8 for non-schooled girls). Over 70 focus groups reached consensus on this issue. A woman in Tigray voiced the consensus of others when she explained in the focus group for parents of non-enrolled children, "It is not that we parents are against education—we don't want our children to remain illiterate as we are. But economically we are poor. Poverty is always against our wishes, discouraging us from sending our children [to school]."

Economic constraints stem from reduced agricultural productivity, according to many parents in the focus groups—fathers and mothers alike. Parents with less arable land, fewer cattle and other material resources are less likely to send children to school. A few parents with never-enrolled children in Semen Gondar and Tigray summed up the difference between parents with children enrolled in school and those with children not enrolled as attributable to income differences—"The ones who are rich send their children to school."

Even where Bale and Welaita parents have the resources to send their children to school, they may depend on their school-going children to supplement household income through local market activities. For example, in the village of Gido-Homba in Welaita on a market day in December, 1993, 60 percent of the pupils in the primary school's grade 3 were absent because they were selling goods and produce to supplement family income. Compounding the problem is lack of jobs for school leavers who complete grade 12, a reality that deters some fathers in Bale, Welaita and Semen Gondar from sending their children to school (Table 5.3).

### **Hunger/Insufficient Food**

The second most frequently cited obstacle to enrollment was hunger or insufficient food. The exception is Semen Gondar where only one group of mothers with non-schooled children mentioned lack of food as being a reason for non-enrollment (Table 5.3). Hunger and lack of sufficient food were a major concern among both sets of parents in Bale and Tigray, and to a lesser extent in Welaita.

Drought and cyclical hunger impinge on educational demand as parents tend not to enroll or to withdraw their children from school when hunger becomes acute so that they can forage for other sources of food. To illustrate, a group of Tigray fathers with children enrolled were discussing the positive role of the TPLF in mobilizing parents to enroll their children in school,

but then the discussion turned to the conflict they experience between the desire to keep their children in school and the reality of hunger they face from drought and the resulting shortfalls in production. "Until recently there was little or no problem of school enrollment," one father maintained, "but now due to the prevalence of drought, we are afraid that our children may be forced to migrate." Another father stated that he was planning on taking his children out of school so they could migrate with him in search of work and food. Still another agreed that this was probably the best solution. It was an issue that was discussed in several groups in Tigray and one that became an issue between parents in some families. "When you send your children to school there are some problems," related one mother. "Some parents say they must migrate in search of food because of the drought. And others say they do not want to migrate—children must learn. In the process, husband and wife usually quarrel. The father argues, 'I will take my children with me to where I can get work and food.' The mother argues, 'I will not let my child go and I will do here whatever I can to support my child to attend school.' This is the kind of problem we have in our village...it is caused by the drought."

Drought has affected villagers in other ways with water sources close to some villages in Welaita becoming depleted so that villagers have to go further for water. One mother of a daughter attending school in Achura explained that water scarcity has imposed a constraint on daughters' participation in school, "Water is our biggest problem because there is no one at home to fetch it from the spring which is very far away. I have to leave the home for a long time while I am going for water and everything else waits to be done." Water scarcity was acutely felt in other villages in Welaita, especially in Legama, Suke-Bakala, Yukara and Woibo.

Most Costly Item	Bale		Welaita		S. Gondar		Tigray *		Total No. of Groups
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	
Clothing	5	5	3	5	5	5	3.3	5	36.3
School Fees	2	--	5	4	2	2	--	1.6	16.6
Exercise Books, pen/pencils, etc.	--	3	4	--	2	1	1.6	1.6	13.2
Food	2	--	--	1	--	--	3.3	3.3	9.6
Textbooks (rentals/purchase)	--	--	--	3	2	2	--	--	7.0
House rental	--	--	--	3	--	4	--	--	7.0

\* As there were only 3 gender-specific groups for mothers and fathers in Tigray, figures are weighted.

Note: Number of participants in fathers' focus groups with at least one child enrolled was 148. Total number mothers' focus groups for the same category was 136. There was general consensus within each group.

Table 5.5 Who Costs More to Educate—a Boy or a Girl? Opinions of Parents with at Least One Child in School by Region and Gender (total number of participants)										
Who Costs More to Educate	Bale		Welaita		S. Gondar		Tigray		Total no.	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Parents	%
Boys cost more	30	7	--	11	15	23	17	5	108	37.5
Girls cost more	20	20	15	5	19	--	--	20	99	34.4
The same for both	--	3	10	10	1	6	25	9	64	22.2
Don't know: no girls in school	--	1	--	--	--	--	--	--	10	3.5
Don't know: father pays	--	--	--	--	--	7	--	--	7	2.4
Total participants	50	40	25	26	35	36	42	34	288	100.0

### Lack of clothing

Lack of clothing was named nearly as frequently as hunger as an obstacle to enrolling children in school, especially by parents of non-schooled children in Bale and one group of mothers each in Semen Gondar and Welaita. Yet even parents with children enrolled have a difficult time clothing their children for school. A father in Adamancho village in Welaita observed, "School children demand more than parents have the capacity to provide. They want better clothes, shoes, and good shirts so as to be accepted. But we parents are becoming poorer and poorer. The school also demands good, neat clothes, but doesn't know about our problems."

When parents of enrolled children were asked which was the most costly part of educating their children, the most frequently mentioned by groups was the cost of clothing—by all groups in Bale and Semen Gondar and by over two-thirds of the fathers' groups in Welaita and Tigray and all of the mothers' groups in the latter two regions (Table 5.4). The cost of school fees, exercise books and other materials ranks second, with food third.

When asked who costs more to educate, a boy or a girl?, parents differed within groups and between gender groups on the answer (Table 5.5). Because differences emerged, participants' responses were enumerated rather than group consensus responses. Of the 288 parental responses, 37.5 percent of parents related that boys cost more to educate while 34.4 percent stated that girls were more costly to educate—a difference of less than five percentage points. However, discernable differences between fathers and mothers by region are evident. Two-thirds of fathers in Bale and over 40 percent of fathers in Tigray think boys are more costly to educate while no fathers in Welaita agree. Few mothers in either Tigray or Bale think boys are more costly to educate. On the contrary, mothers in these regions agree that girls are more costly to educate, while mothers in Welaita disagree. Mothers in Semen Gondar state that boys require the greater investment. It appears, then, that little definitive agreement exists between parents of the same sex, or between fathers and mothers in the same region with the exception

of Bale—where equal numbers think girls are more costly—and Welaita where equal numbers think both sexes are equally costly to educate. Likewise, differences of opinion emerge between mothers and between fathers across regions. The opinion differences may be more indicative of *who*, within households, is most responsible for paying the overall costs of educating a child rather than the gender of the child.

More Intelligent	Bale		Welaita		Gondar		Tigray		Total	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Parents	%
Equal	5	5	9	16	34	26	27	7	129	47.9
Boys	45	40	19	11	3	4	3	3	128	47.6
Girls	--	5	--	--	3	2	1	1	12	4.5
Total	50	50	28	27	40	32	31	11	269	100

#### Gender Biases in Parental Attitudes about Intellectual Capacity

Parental decisions to send a child to school are governed by their assessment of the child's intellectual capacity and by their economic circumstances, including the need for children's labor. Whereas parents of enrolled children have already made gendered choices about who in the family should go to school and how long they remain in school, as demonstrated by the study site statistics in chapter 3, the attitudes of parents of never-schooled children are examined here as a means of evaluating the extent to which gender bias is an underlying factor in the family selection of who first enrolls in school. To assess the gender attitudes of parents with never-enrolled children toward enrolling a child in school, we first asked them who they thought was more intelligent, boys or girls? Intellectual capacity was used as a proxy for parents' attitudes about the academic potential of boys and girls.

That 47.9 percent of parents for all regions believe that girls and boys have equal intellectual capacity while a slightly lower percentage find boys to be more intelligent, masks regional variations (Table 5.6). More regional differences than gender differences between parents exist regarding the intellectual capacity of boys versus girls. The vast majority of parents with no schooled children in Bale agreed (90 percent of fathers and 80 percent of mothers) that boys are more intelligent than girls. Only ten percent of mothers in Bale indicated that girls are more intelligent.

In Welaita no parents believe that girls are more intelligent; the split is between mothers and fathers who believe that boys are more intelligent and those that think that boys and girls have equal intellectual capacity. In Welaita, just over 59 percent of mothers but only 32 percent of fathers think that intelligence is equally distributed by gender. In Semen Gondar, the results are quite different with a nearly equal proportion of mothers and fathers (81.3% and 85%) stating that intellectual capacity is equal, while a higher percentage of mothers thinks that boys are more

intelligent though in actual numbers the difference is one. In Tigray, where gender inequities have become an issue to be addressed politically and socially, 81 percent of fathers but a lesser percentage of mothers (64.6%) believe that intelligence is gender equal. Yet over 27 percent of mothers think that boys are more intelligent while less than 10 percent of fathers believe similarly. In Tigray and Semen Gondar, where gender inequities are less visible than they are in Welaita and Bale, and where the gender gap in education is slowly closing in Tigray while it favors girls in Semen Gondar, it is instructive that a quarter of the mothers with non-schooled children in Tigray, in particular, still believe that boys are more intelligent than girls.

### Gender Biases in Parental Choices to Enroll a Child

How do the parental perceptions about gendered intelligence translate into choices about who should go to school? Even though the number of parents believing that children have equal intelligence—regardless of gender—is nearly equal to the number believing that boys are more intelligent, when the decision to enroll comes around, the majority of parents of both sexes (61 percent of mothers and 65 percent of fathers) opt to educate their sons. In Bale, the choice is overwhelmingly in favor of boys' education. What are the reasons for this choice in this particular region?

Parents of both sexes related that the return on the investment in a son's education is more tangible because he remains at home when he marries while a daughter marries away, virilocally, and thus the investment in her education is lost to her family. Non-schooled girls in Bale confirmed this attitude when they were asked who they would send to school, a son or a daughter? All the girls in Bale said they would send a son to school because a daughter marries away (Table 5.8). If we recall that the enrollment rate for girls in the Bale communities is only 18 percent of those enrolled in primary school in 1993/94, it appears that the attitudes of parents with non-enrolled children reflect enrollment behavior in the locale (Table 3.8). Culturally derived marital patterns in Bale are a critical factor in determining who will be sent to school and who stays home.

In Welaita, half as many mothers as fathers would send a boy to school before a girl. A little over a third of mothers and over 78 percent of fathers would send a boy to school before they would send a girl, and 22 percent of mothers preferred to send their daughters. The highest percentage of mothers (40%) would send the oldest child, regardless of sex, whereas less than a quarter of fathers would follow the same pattern. If we recall school enrollment statistics for Welaita, the enrollment rate for girls is just over 20 percent. It appears that fathers may have greater influence over the decision to send a child to school in Welaita, even though in three of the five focus groups for non-schooled girls in that region, girls stated that if they were to go to school, it would be both their parents who made the decision. The probability that a girl will drop out before she completes primary school to marry was the reason most often cited by non-schooled girls in Welaita (over 80 percent) for not enrolling a daughter in school (Table 5.8). Parents, especially fathers, equally cited the probability of drop out due to marriage as a reason for why they would prefer to invest in a son's education.

Leaving aside Semen Gondar for the moment, a much higher percentage of Tigray fathers than mothers would prefer to educate sons. Whereas nearly 42 percent of fathers reflect a gender

bias in educating sons, no mothers prefer to educate sons. In contrast, 27 percent of mothers and only 16 percent of fathers would give preference to a daughter. Just under half the mothers and 19 percent of fathers would educate the oldest child regardless of sex if they had a chance to send a child to school. Further, 23 percent of fathers and 18 percent of mothers would educate both or a child of either sex. When non-schooled girls were asked who they would educate if they could send only one child to school nearly 24 percent said that they would enroll a child of either sex, most often the oldest, although the majority (71%) said that they would educate a son. That attitudes vary so widely in Tigray is indicative of change. If we recall female enrollment rates for the Tigray communities, currently girls account for 32 percent of enrollments and the rate has increased from two years ago by five percentage points, indicating that changes in attitudes may be translating into changes in school enrollment behavior. Reasons for not enrolling a girl given by non-enrolled girls include girls dropping out to marry before completing school and the need for a daughter's labor at home.

**Table 5.7 Preferences of Parents of Non-schooled Children for Educating Children by Gender and Region**

Education Preference	Bale		Welaita		S. Gondar		Tigray		Total no.	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Parents	%
Boy	50	49	22	10	10	5	13	--	159	63.3
Girl	--	--	--	6	18	9	5	3	41	16.3
Oldest, first born, regardless of sex	--	--	6	11	--	--	6	5	28	11.2
The most intelligent, creative, regardless of sex	--	--	--	--	10	2	--	--	12	4.8
Either one, both	--	--	--	--	--	2	7	2	11	4.4
Total	50	49	28	27	38	18	31	11	251	100

#### Semen Gondar's Bias toward Educating Boys

The case of Gondar is unique. This is the only region where fathers outnumbered mothers two to one in stating that, if they had the chance, they would prefer to educate a girl. Yet proportionally parents' attitudes are nearly equal, with 47 percent of fathers and 50 percent of mothers giving preference to daughters. Behavior reflects gender attitudes, and in the Gondar case, positive attitudes toward educating girls translates into high enrollment rates for girls over the past three years (nearly 61 percent of the total enrollment in the Semen Gondar study communities in 1993/94). Trailing far behind was parental preference for educating sons. Of the fathers with non-schooled children, 27 percent related that they would educate the most intelligent, creative of their children regardless of sex. Only 11 percent of mothers agreed.

Why do parents prefer to send their daughters to school? When asked, fathers varied in their answers. Some said that girls are weak-minded or physically weak and thus need education so they can get a job to support themselves, whereas boys are strong "naturally" and can survive anywhere under almost any conditions. Other fathers said that boys tend to "run around" or stray and get into trouble whereas girls are more obedient. Observed one father, "The girl is more intelligent because her total attention is on her studies and not on different activities like drinking local drinks and paying visits here and there as boys do." School serves as a means for boys to get away from home and disappear into the towns, some fathers (and mothers) believe. Consequently, fathers prefer to keep their sons at home, under their thumb, until the sons marry.

Another reason given for not sending boys to school is that parents with non-schooled children have observed that school-going boys demand more in the way of clothing and food than school-going girls. Mothers of enrolled children, and some fathers, observed that girls are happy with one dress and a bar of soap whereas boys demand several shirts and shoes, and a variety of food when they attend school. However, there are contradictions—54 percent of fathers with enrolled children stated that girls cost more to educate than boys because they need oil for their hair, soap, clothes and jewelry. A final, but not insignificant, reason given for daughter preference in education is that sons are needed to help with herding and farm chores. However, this is not unique to Gondar—sons in Bale and Tigray also are needed for herding and farming tasks, and yet their preference is to send boys to school.

The non-schooled boys in Semen Gondar cited different reasons why their parents won't send them to school. In two groups, poverty and labor obligations were cited, while in a third group the desire of fathers to control their sons' behavior was the primary reason for non-enrollment. In the fourth group, the fear that boys will meet a girl at school precluding the marital arrangements that their parents have made for them, was given as the primary reason boys believe that their parents refuse to send them to school.

**Table 5.8 Non-schooled Girls' Perceptions of Education, Obstacles to School and Suggestions for Change to Enroll in School—Ages 10-15 years. (Percentages)**

Non-school girls' Perceptions	Bale (N=50)	Welaita (N=26)	Tigray (N=21)	S.Gondar* (N=7)
<b>Purpose of School</b>				
Education/learn	100	19.2	85.7	--
Live better	20	--	42.9	100
Get knowledge	40	80.8	--	--
Get job/money	40	--	33.3	--
Literacy	40	--	--	--
<b>Effect of girls' school participation on family</b>				
More work for parents	40	42.3	100	100
Conflict over work/study	20	19.2	--	--
Doesn't affect family	--	38.5	--	--
<b>Expected outcomes of school</b>				
Get job, help family	50	61.5	57.1	100
Help parents/community	20	--	85.7	--
Clean, neat	--	42.3	--	--
<b>Which would you send to school—son or daughter?</b>				
Son	100	100	71.4	100
Reasons:				
Need daughter's help	--	19.2	28.6	--
Girls drop out to marry	--	80.8	42.9	--
Daughters marry away	--	--	--	--
Either one—oldest	--	--	23.8	--
Daughter (no reason)	--	--	4.8	--

\* Only one group of girls was included in Semen Gondar. Boys were the gender disadvantaged group in Gondar.

**Table 5.8 Non-schooled Girls' Perceptions of Education, Obstacles to School and Suggestions for Change to Enroll in School—Ages 10-15 years (Percentages)**  
CONTINUED

Non-school girls' Perceptions	Bale (N=50)	Welaita (N=26)	Tigray (N=21)	S.Gondar* (N=7)
<b>Obstacles to schooling</b>				
Poverty/lack fees	100	61.5	85.7	100
Work obligations	60	19.2	28.6	--
Early marriage	--	--	42.9	100
Lack Birr for clothes	20	23.1	--	--
Insufficient food	20	19.2	--	--
<b>Needed change to enroll in schools</b>				
Improvement in parents' financial situation	20	100	71.4	100
Household labor burden lifted	30	46.2	14.3	100
Willingness/cooperation of parents	40	38.5	14.3	--
End family harassment/undervaluation	--	19.2	--	--

\* Only one group of girls was included in Semen Gondar. Boys were the gender disadvantaged group in Gondar.

#### Demand for Children's Labor: A Critical Factor

As demand for children's labor, or opportunity costs, was one of the most frequently cited obstacles to schooling by all parent groups (except parents of non-schooled children in Welaita), and was cited by 39.4 percent of the non-schooled girls (Table 5.8) and by 58 percent of the 31 boys in Semen Gondar, to what extent is the decision to keep a child home because of labor needs motivated by gender considerations? Most often, parents' demand for the labor of either girls or boys depends on the nature of the work.

Data from the non-schooled girls' focus groups indicates that girls work on average 14-16 hours a day fulfilling a variety of tasks. Girls maintain that they do most of the household tasks. Fetching water was the most frequently cited task followed by boiling coffee and preparing meals (Table 5.9). A third most frequently cited task was winnowing and pounding grains. For the 31 boys in Semen Gondar, all cited plowing, herding cattle and collecting firewood (Table 5.10), while 80 percent cited cutting grass for cattle and feeding cattle. For girls in all four study sites, cleaning animal manure and spreading it on the farm, and in Gondar, milking cows, were cited by 35.6 percent of girls. Yet regional variations exist. In Welaita 77 percent of girls were involved in cleaning animal manure and spreading it in the fields, whereas in Tigray and Gondar only 25 percent were involved in such tasks and in Bale, 20 percent were involved in the same tasks. House maintenance was cited as frequently as collecting manure (by 35.6%).

Collecting firewood was cited by nearly 32 percent of the girls, but again regional variations exist. In Semen Gondar and Tigray, over 64 percent of girls were involved in collecting firewood, while all the boys in Semen Gondar cited this as a task they performed. It appears, then, that collecting firewood is a task performed by both girls and boys in these areas. In contrast, in Bale and Welaita only 20 percent named collecting firewood as a task. Another task shared by both sexes is fetching water. In Semen Gondar and Tigray communities nearly 54 percent of girls mentioned fetching water, while in Semen Gondar 58 percent of boys included fetching water as among their family duties.

Trading is a task performed more often by girls in Bale (20%), and especially Welaita (38.4%), whereas in the Semen Gondar and Tigray communities, no girls were involved in trade and neither were boys in Semen Gondar. Families in Welaita depend more on children's trading activities than in the other three localities.

In summary, it is difficult to know how the allocation of labor tasks is distributed by gender without doing a systematic time allocation study. However from the qualitative data, it appears that girls perform a greater range of tasks that have the potential of precluding their participation in school, and once in school may act as a constraint on their study time. Boys in Semen Gondar have a narrower range of tasks than girls in Semen Gondar, but they observe that they are equally preoccupied with the tasks and that they act as a major constraint to enrollment in schooling.

Table 5.9 Frequency of Responses for Labor Tasks Non-schooled Girls (ages 10-15)								
Girls' Labor Tasks	Bale (N=50)		Welaita (N=26)		Tigray/S. Gondar* (N=28)		Total no. of girls % 104	
	Number of Girls/(Number of Groups)							
Fetching water	50	(5)	26	(5)	15	(4)	91	87.5
Boil coffee & prepare meals	50	(5)	10	(2)	28	(6)	88	84.6
Winnowing & pounding grains	50	(5)	5	(1)	15	(3)	70	67.3
Cleaning animal manure & spread on farm; milking cows	10	(1)	20	(4)	7	(1)	37	35.6
Clean, maintain house	20	(2)	10	(2)	7	(1)	37	35.6
Fetching firewood	10	(1)	5	(1)	18	(4)	33	31.7
Handcrafts and Embroidery	10	(1)	--		21	(5)	31	29.8
Cut grass for cattle & feed them	10	(1)	20	(4)	--		30	28.8
Take cattle to be watered, herd them	10	(1)	6	(1)	7	(1)	23	22.1
Trading	10		10		--		20	19.2
Weeding	10	(1)	--		9	(3)	19	18.3
Harvesting	10	(1)	--		9	(3)	19	18.3
Threshing grains	10	(1)	--		--		10	9.6

\* Tigray girls (21) and S. Gondar (7) have the same work culture.

**Table 5.10 Frequency of Responses for Labor Tasks—Non-schooled Boys in Semen Gondar**

Boys' Labor Tasks	No. of Focus Groups	Total No. of Boys	%
Ploughing	4	31	100
Herding cattle/goats	4	31	100
Collecting firewood	4	31	100
Cutting grass for cattle and feeding them	3	25	80.6
Fetching water	2	18	58.1
Clean animal manure, spread	--	--	--
Trade	--	--	--

**Parental Conflicts with Children: Labor Obligations versus Study**

Of the parents with enrolled children, 72.5 percent of the focus groups, with little difference between mothers' and fathers' groups, stated that they had conflicts with their enrolled children over labor obligations and the children's need to study (Table 5.11). Little variation exists between regions. A quarter of parents' groups, excluding Tigray, said they did not have conflicts with their enrolled children and one group of fathers in Semen Gondar gave no response. Although parents were not asked whether they have more conflicts with daughters or sons, the data does demonstrate that conflicts exist and may be a constraint to children's full participation in schooling.

**Table 5.11 Frequency that Parents Related Having Conflicts with Schooling Children over Labor Obligation/Study by Region and Gender (Number of Groups & Percentage of Groups)**

Conflict/ No Conflict	Bale		Welaita		S. Gondar		Tigray		No. of groups	% of groups
	Fa	Mo	Fa	Mo*	Fa	Mo	Fa	Mo		
Conflict over labor tasks	4	2	4	4	3	4	5	5	29	72.5
No conflict	1	3	1	2	1	2	--	--	10	25.0
No Answer	--	--	--	--	1	--	--	--	1	2.5
Total:									40	100.0

\* Half of mothers in one group in Welaita and one group in Semen Gondar disagreed, so that group was counted in both places. Otherwise there was consensus within the groups.

## Early Marriage as an Obstacle or Constraint to Schooling

Early marriage is an obstacle to education that girls in Semen Gondar and Tigray are more apt to face than girls in the southern localities. In the one focus group for girls in Semen Gondar, a girl observed, "We girls would like to go to school, but our marriage keeps us from it—our parents decide. In this village [Abtera], marriage is arranged at an early age. Once promised, school becomes unlikely." Early marriage was named as an obstacle to schooling by 42.9 percent of the girls in Tigray and all of the girls in Semen Gondar. To what extent this cultural factor actually influences parental decisions to enroll a girl is less apparent. Obviously, Semen Gondar parents are sending more of their girls than their boys to school, despite early marriage practices. To some extent early marriage was a consideration when parents were asked whom they would enroll in school—a boy or a girl? In the northern localities, and to a certain extent in Welaita, parents named early marriage for girls as a factor in their preference for enrolling boys; they felt that girls are less apt to complete school. One group of non-schooled boys in Semen Gondar agreed. However, when all the obstacles named are taken into consideration, early marriage falls far behind economic factors—lack of resources and need for children's labor.

### *Suggestions for overcoming Obstacles to Schooling*

State financing of education, including the waiver of school fees and subsidies for school materials and exercise books was the most often cited solution suggested by parents for overcoming the constraint to demand (Table 5.3). Related to this suggestion was that the time for paying school fees be moved from September to a period when the harvest season is completed so that parents have cash to pay the fees. Aid for clothing came third, followed by the need to solve food shortages.

Twenty groups observed that motivating parents to send their children to school might help and over 15 mentioned getting help at home might ease the constraints caused by children's obligatory labor. In Semen Gondar, there was keen interest on the part of parents with schooled and non-schooled children to initiate a shift system so that some of their children might stay home to help their parents while others attended school. A minority of groups in Tigray also expressed interest in a shift system, but did not give reasons. Parents in Semen Gondar suggested that there was a need for more qualified teachers.

### *Parental Perceptions of the School's Role in the Community*

Educating children is the most obvious task of the school in the community, according to over 55 percent of parents (Table 5.12). However, a higher percentage of fathers than mothers in Bale named this role and in Semen Gondar, almost half as many fathers as mothers believe in this role. When asked what the school did for the community, just over a fifth of the parents said that it did nothing good for the community other than teaching children. Nearly 81 percent of these parents were from Semen Gondar communities with the remainder coming from Welaita. What accounts for Gondar parents' low opinion of government schools?

According to parents in one community, school management is a problem. As the parents view it, teachers are not dedicated to their work and even where parents have constructed houses for teachers within the school compound, the teachers prefer to live in the town of Dabat. Because the village is some distance from Dabat, the teachers must walk over ten kilometers to get to the school each day with the result that they spend only two to three hours at the school teaching, according to the disgruntled parents. Moreover, that the teachers prefer living in Dabat even though the community has made housing available at the school, separates teachers from the villagers. In another village, fathers related that part of the land belonging to the school was taken away by "some people", and that the school administration must know but was not telling. In making suggestions for increasing demand, three groups of fathers in Semen Gondar offered that better school management—including teacher attendance and stricter budgetary control—would improve demand.

Of the parents in the focus groups, 13.7 percent of parents felt that the school had an advocacy role in the community and that parents ought to be motivated to send their children to school—this was particularly true of parents in Bale and Tigray (Table 5.12). Mothers in these same localities felt that the school had an advisory role to play in the community. Four percent of parents—all in Tigray—felt that the school's role included organizing parents for school maintenance.

School's Role in Community	Bale		Welaita		S. Gondar		Tigray		Total	
	Fa	Mo	Fa	Mo	Fa	Mo	Fa	Mo	Parents	%
Educating the Children	80	62	36	37	18	32	22	21	308	55.6
Nothing good for community except teaching children	--	--	12	11	49	47	--	--	119	21.5
Advocating schooling	20	20	--	--	--	7	35	24	76	13.7
Organizing parents for school maintenance	--	--	--	--	--	--	13	8	22	4.0
Advising and counseling parents	--	20	--	--	--	--	--	--	20	3.6
Health care information	--	5	--	--	--	--	--	4	9	1.6
<b>Total:</b>									<b>554</b>	<b>100.0</b>

## Parental Support for the School

Parental support for the school was assessed first by asking if parents contributed time to the school's parents' committee and second by asking how they contributed to the school. Three groups of fathers and no groups of mothers in Bale knew about parents' associations, but indicated that they were not currently active in Bale. In Welaita, three groups of fathers knew about the parents' association, but most were not involved and although two groups of mothers had heard of them, they were not involved. Three groups of mothers didn't know what they were.

In Semen Gondar, four out of five groups of father said they were not involved in the local school's parents' association and in one group, two said they were involved and the rest said they were not. Mothers in four groups knew of the parent associations but were not active and one group had never heard of them. In Tigray, where parents associations supposedly exist in all communities, fathers in four communities said that they did not exist and the mothers in these communities concurred. Only in Welaita did fathers have some idea when the parents' association met, but their opinions differed as to how often. It appears, then, that from the parents' perspective the organizational link between home and school is very weak.

In terms of financial and other support, on average parents in three groups in each area provided cash support, but were not specific, except in Semen Gondar about what it was used for. In this area, cash most often was donated to pay for the school guard. Most often parents contributed materials for building and maintenance and labor. Materials contributed ranged from wood and lumber in Semen Gondar to rocks and wood in Tigray. Parents in Welaita provided fencing material, and in Semen Gondar, one group said they provided land.

Labor contributions form the bulk of parents' contributions to the school. Parents help plow the school's land in Welaita and harvest crops in both Welaita and Semen Gondar. They provide labor for construction in Semen Gondar and Tigray. They build and maintain fences for school compounds in Welaita. When asked if they might be able to increase their support of the schools, fathers in Welaita said they might help by repairing benches and tables in the classrooms, but mothers said they were too poor and too busy to contribute much more. Two groups of mothers said they could contribute only labor. Fathers in Semen Gondar said they could make security fences for the school compounds and plant trees. Mothers said they could help with maintenance and the construction of classrooms if a junior secondary school were to be built. It is noteworthy that in two villages in Bale, parents were afraid to enroll their children for fear of school-related labor obligations.

In summary, the greatest support that parents can give to a school is through their labor and secondarily, through the in-kind contributions that they make. All parents appear to be cash-poor.

### *Conclusions*

Parents believe that schooling enhances their children's lives and indirectly their own lives through the knowledge and skills that children learn and through their earning capacity. In Bale

and Welaita, and to a lesser extent, Tigray, parents prefer sending boys to school because girls either marry away, as in Bale, or they are apt to drop out before they complete school (Welaita, Tigray). Boys are perceived as returning parents' investment in schooling in most communities. In Semen Gondar, girls are favored for enrollment over boys for a multitude of reasons, but most often because parents need boys' labor at home and because boys are more apt to wander and require a higher investment, according to some parents.

Parents' need for labor and children's obligations to provide it hinder both girls and boys from participating in school. It is a dilemma that is not easy to overcome. In Tigray, drought and cyclical hunger periodically work against children's enrollment. Overall poverty is the single most frequently cited obstacle to demand for schooling.

Finally, parents of school-going children are the community members who support the school. They feel that their contributions are great in terms of labor and materials but limited in terms of cash contributions. Most feel that they can do no more.

## Chapter 6

### School Financing and Support

The issue of school finance and support is an important one in all countries. Embedded in the questions of who pays? and how much? are more global concerns of social good, political control, educational system effectiveness, and—not least—equity. In countries such as Ethiopia—where national educational systems are still developing, where educational demand and supply are low, where consumer preferences are not articulated and where resources for education at both national and household levels are scarce—school financing and support takes on added significance.

In Ethiopia, the current educational system is underfinanced, with public education budgeted expenditures in 1993/94 representing about 13.1 percent of the government budget (compared with African norms of 15-20 percent) and a significant reduction from its 1970's high point of 17 percent. A high percentage of the primary education recurrent budget is allocated to salaries (98.9 percent), leaving a negligible 1.1 percent of the recurrent budget to fund all primary school operating costs.<sup>14</sup> While 1991/92 recurrent unit costs were estimated at 128 birr for primary school, only 1.4 birr per student was available from the government education budget to cover non-salary expenditures. This means that the schools themselves must raise operational budgets through a combination of activities and in partnership with parents and communities, a formula developed in the 1970s during the movement for mass education.

While the recent policy of regionalization for education (and all other sectors) raises fundamental questions about educational finance and control at central and regional levels, it presently appears that schools, parents and the communities which choose to support them will continue to be responsible for covering—either in cash or in kind—operational costs. These, typically, include infrastructural improvements, maintenance and other non-salary expenditures, such as utilities, student services, school equipment and teacher supplies.

Revenues to cover these expenditures are generally thought to derive from (1) parents, in terms of school fees and charges and contributed labor, (2) internal sources of revenue generation, such as crop production on school land, land rental, crop-sharing, etc., and (3) communities, in terms of "special", non-routine collections and contributed labor. While MOE officials have indicated that school revenues and sources of revenue have been documented, we have not seen the reports. Consequently, one of the purposes of the demand study is to determine the

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<sup>14</sup> World Bank, *Ethiopia: Education Sector Public Expenditure Review*, 1993. While the PER indicates education's share of the national budget increase from 9.5 percent in 1991/92, it also notes that this is due to increased capital expenditures. Consequently, we can assume that the allocation of recurrent expenditures between salary and non-salary expenditures is little changed since 1991/92.

revenues, sources and operating expenditures of rural schools and their interaction with parents and the community—to open the "black box" of school-level finance and support.

A more important, but related, objective is to assess, to the extent possible, the scope for policy change in school finance and support, and to test the feasibility—under the present circumstances—of some preliminary policy recommendations. These are: (1) that school fees and charges be eliminated; (2) that school operating costs be passed to the community at large (including those without children in school); and (3) that the policy of endowing schools with up to 10 hectares of land be discontinued.

This chapter will examine the size and sources of revenues, expenditures, school charges and fees, and the extent and type of parental and community support received by the school.

### **Research Questions**

The following research questions are addressed:

- What are the implications of proposed school financing policy for rural schools? (i.e., no fees, no land)
- To what extent can voluntary (and involuntary) increases in (1) parental and (2) community support of schools be expected?
- How will this affect demand for primary schooling?
- To what extent do schools depend on the community for support?
- To what extent do communities meet schools' needs?
- What are rural communities attitudes toward school support (financial, management, labor, other)?

### **Methodology**

The data in this chapter was primarily derived from the school survey, with some data on educational expenditures from households. Collecting accurate information in a comprehensible format is a challenge faced by all studies attempting to measure school revenues and expenditures in a developing country context. The potential for imprecise and incorrect data is great, especially in schools where the director has not had a long experience, where record-keeping is sketchy and records evanescent, or where funds may be diverted and misreported. In order to ensure school cooperation in answering the finance-related question in the survey, we did not ask for direct access to financial records and accounts, although many schools offered them freely. Instead we relied on the school director and/or the school accountant to provide the information verbally, without verification. In addition, there were indications that not all the questions were understood by the school personnel. While most anomalies have been caught

at the data clean-up stage and explanations sought, we must caution that the school finance data—as in most similar studies—is best interpreted in terms of relative magnitudes, rather than exact figures.

We have collected data on total cash revenues and expenditures handled by the school (for 1992/93) in order to better understand how the schools handle their operational budgets, given that they have primary responsibility for raising and spending the receipts. This is not intended to imply that the schools do not receive resources from the central government. They do—for teacher salaries, some books and, we are told, for some supplies (i.e., "stationary"). However, these items are purchased and distributed by the central ministry and its various offices in the regions. The calculation of school operating expenditures adds the second of three pieces needed to calculate overall educational expenditure (per unit) in rural areas: the first being MOE expenditures per student, the second, school expenditures per student, and the third, parental expenditure per student.

## Analysis

### *School revenues*

There is a wide range in the amounts of total cash revenues received by the schools, from 100 birr per year for a school in Bale to 6,664 birr per year for a school in Welaita.<sup>15</sup> (Table 6.1). While the average total revenue per school is 1749 birr for the entire sample, nearly 50 percent of the schools operate on less than 1000 birr a year, and half of those on less than 700 per year.

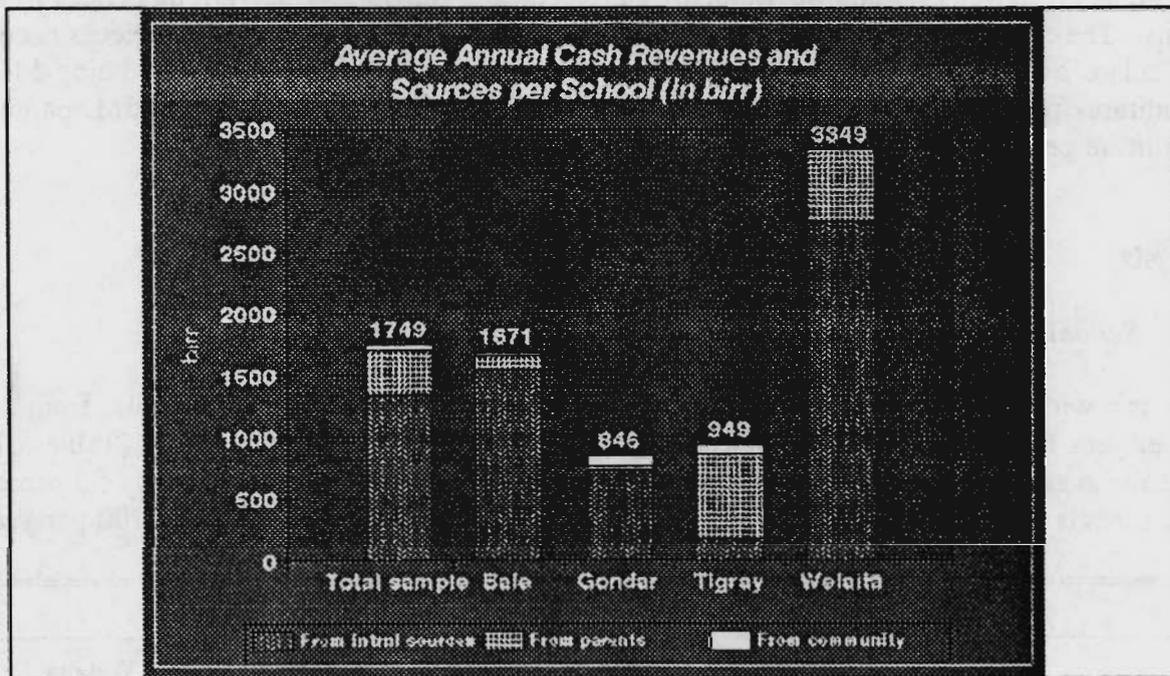
	Total Sample	Bale	Gondar	Tigray	Welaita
<i>(In Birr)</i>	<i>Amount (%)</i>				
Total Revenues	1,749 (100)	1,671 (100)	846 (100)	949 (100)	3,349 (100)
From Government	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
From Community	44 (3)	31 (2)	73 (9)	79 (8)	0 (0)
From Parents	373 (21)	111 (6)	37 (4)	684 (72)	594 (18)
From Internal Sources	1,337 (76)	1,549 (92)	736 (87)	186 (20)	2,755 (82)

Four sources of school cash revenue were identified for the survey based on instrument pre-tests. They are (1) government sources, (2) charges and fees paid by parents for their children, (3) cash contributions from the community (those other than parents who have their children in

<sup>15</sup> We reiterate that for the purposes of this analysis we are looking solely at the discretionary cash funds received by the school. This does not take into account the resources received from the MOE, such as teacher salaries or other materials/supplies.

school), and (4) school means of income generation. Although there is some variation among regions, on average internal sources and parent charges account for 97 percent of the revenues received by the school.<sup>16</sup> And, between these, "internal sources" is over four times more important. Not surprisingly, no cash funds are received from the government; as noted above, government support is received in kind, not cash. Community cash contributions account for only 3 percent of operating revenues, demonstrating that, at present, community support—at least in terms of cash—is weak.

Figure 6.1 Average Annual Cash Revenues and Sources per School



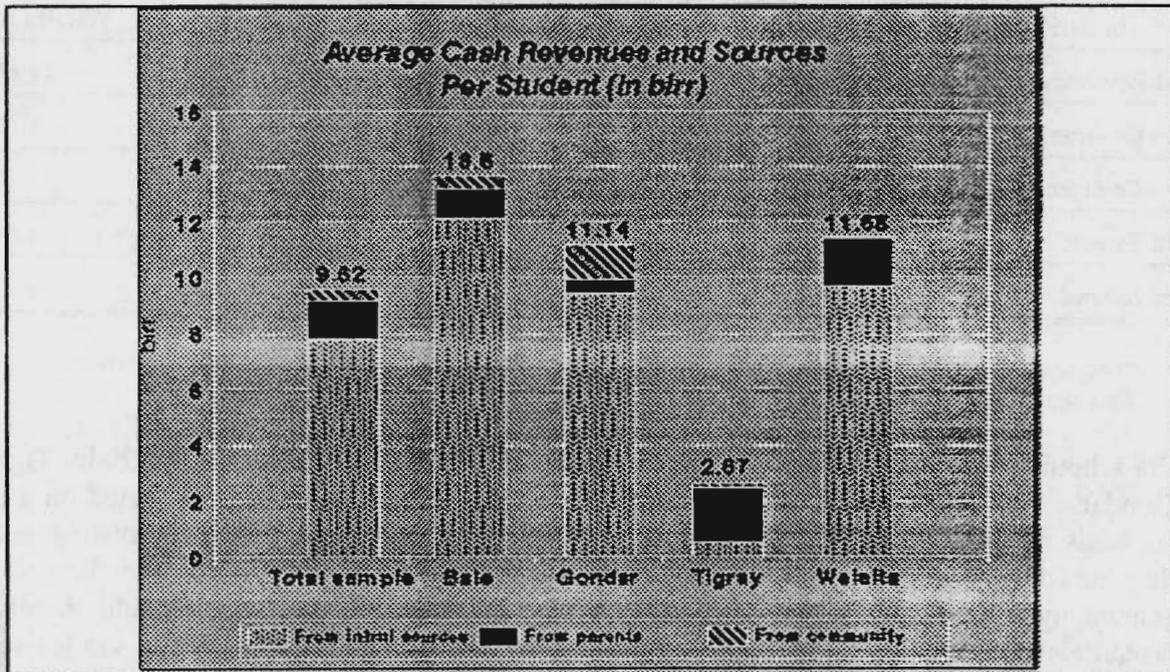
<sup>16</sup> It should be noted that parental charges may account for a larger proportion of school revenues than indicated. There is some discrepancy between what schools claim to charge as fees, etc. for students, and what they receive in revenues. However, even if parental charges increase, it will not alter the fact that they, along with internal sources, account for most of the school revenue.

<b>Table 6.2 Average Cash Revenues and Sources Per Student*</b>					
<b>(In Birr)</b>	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<b>Total Revenues</b>	9.62	13.50	11.14	2.67	11.68
<b>From Government</b>	0	0	0	0	0
<b>From Community</b>	.44	.48	1.25	.20	0
<b>From Parents</b>	1.39	1.07	.49	1.98	1.84
<b>From Internal Sources</b>	7.79	12.13	9.41	.49	9.64

\*Because the amounts per student are small, we have presented the data in two decimal places. This should not be interpreted as indicative of a high level of accuracy.

Welaita schools enjoy, on average, the largest cash operating budgets, followed by Bale, Tigray and Gondar. This order changes, though, when average cash revenues are calculated on a per student basis. Bale schools lead the way at 13.50 birr per student, which is interesting given that demand for schooling appears to be lowest in this region. Certainly it raises questions about the general hypothesis that greater expenditure equates with improved quality and therefore increased demand. Welaita and Gondar, at 11.68 birr and 11.14 birr respectively, vie for second place. The schools in Tigray are a distant last, functioning on a minimal 2.67 birr per student per year, less than a quarter of the Gondar school operating budgets. This corresponds to the low level of infrastructure and other school endowments prevalent in Tigray rural schools. Consequently, we must question the quality of instruction that these schools can achieve. (Low cash revenues per student are not limited to Tigray schools alone, however. The lowest—at 1.09 per student—is found in a Bale school.)

Figure 6.2 Average Annual Cash Revenues and Sources per Student



What accounts for these large discrepancies between regions? The answer is that Bale, Welaita and Gondar supplement their total revenues with income generated from internal sources, from 82-92 percent of their budgets. Tigray, however, relies almost exclusively on parental fees and charges. The next section pursues this issue.

### *Internal Sources of Revenue*

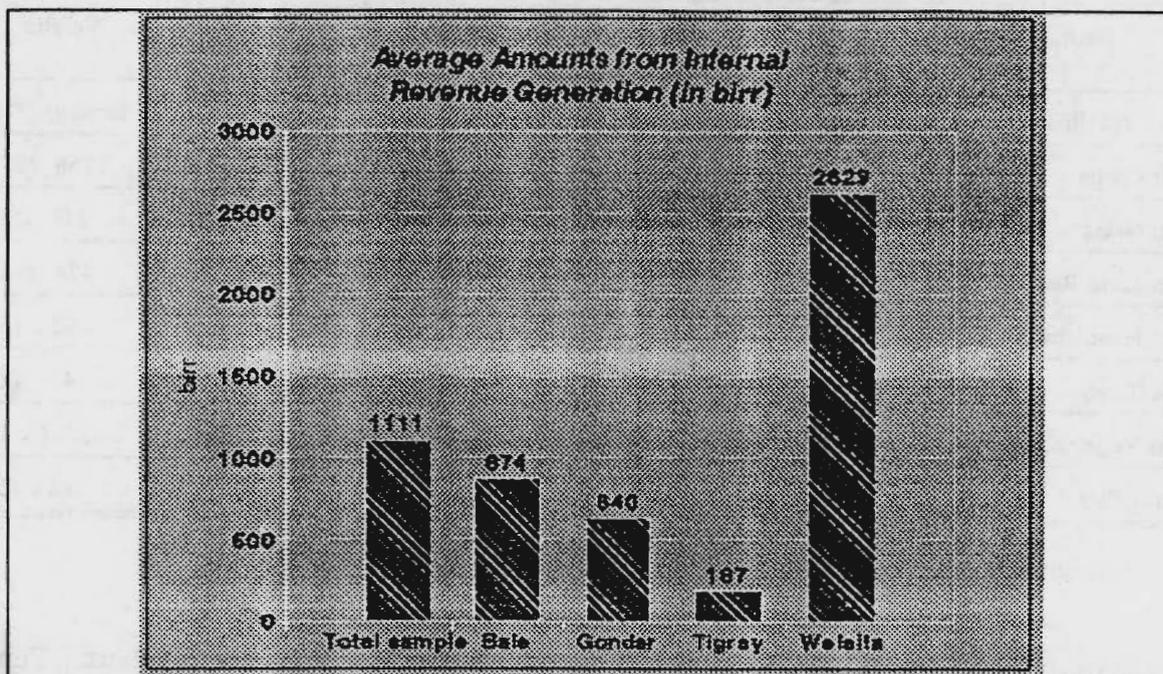
Examination of the different ways schools generate income provides a ready answer to why Tigray lags so far behind in unit revenue. Table 6.3 demonstrates that the preponderance of internally-generated revenue derives from either agricultural produce (crops, grass, trees, vegetables) or land rental. The sine qua non of agricultural production is having land available to cultivate or lease for cultivation. The Tigray schools stand out amongst the four areas as having the least amount of land (and, as pointed out in Chapter 2, the region has the least fertile and productive soil).

<b>Table 6.3 Types of and Average Amounts from Internal Revenue Generation*</b>					
<b>Item:</b>	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<i>(In Birr)</i>	<i>Amount (%)</i>	<i>Amount (%)</i>	<i>Amount (%)</i>	<i>Amount (%)</i>	<i>Amount (%)</i>
From Crops	666 (60)	440 (51)	244 (38)	127 (68)	1768 (67)
From Grass	194 (18)	177 (21)	389 (61)	0 (0)	248 (9)
From Land Rental	183 (17)	243 (26)	0 (0)	9 (5)	424 (16)
From Handicrafts	26 (2)	4 (<1)	5 (1)	0 (0)	92 (3)
From Trees	16 (1)	10 (1)	2 (0)	0 (0)	49 (2)
From Vegetables	6 (<1)	0 (0)	8 (1)	0 (0)	15 (<1)
From Other	26 (2)	0 (0)	0 (0)	51 (27)	48 (2)

\*amounts and percentages are rounded and may not add up to 100 percent.

The relationship between amount of land and internally generated revenues is robust. Tigray simply has very little available land for cultivation or lease compared with the other regions. (Table 6.4) It cultivates less than 0.5 hectares, compared with the approximately four hectares in Bale, Gondar and Welaita. Of the cultivated hectareage, the majority is used for crops and grass, distantly followed by trees and vegetables.

Figure 6.3 Average Amounts from Internal Revenue Generation



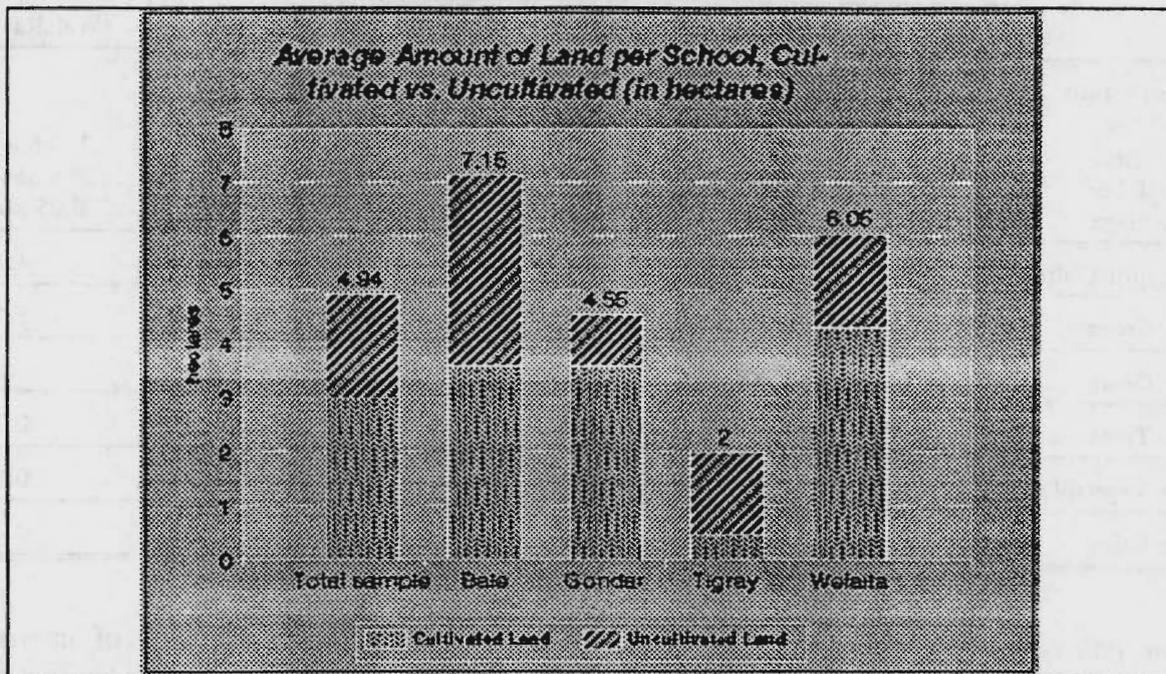
As would be expected, the amount of land "belonging" to the school and the amount of land cultivate correlate very highly with the amount generated by the school from internal sources (.7630) and, ultimately, with the amount of total cash revenues (.6818).<sup>17</sup> In those few cases where the school revenues from land are not commensurate with the amount of revenues, the schools have indicated that land use and resulting produce are used to pay non-teaching staff, namely guards, and have not been included in the bookkeeping. In short, 73 percent of school cash revenue is derived, on average, from land—either its cultivation or rental. The implications of the proposed MOE policy of eliminating land endowments to schools in the future are obvious: unless there is a major structural change in the system of school finance, schools will have lost their greatest asset in terms of income generation, and the expenditures per student will be even less adequate than they are currently.

<sup>17</sup> The issue of the land rights of the schools should be further explored to determine how strong their claim to usage is. In Welaita, one school reportedly had lost approximately half its land endowment when the local authorities confiscated it in favor of a local man to cultivate as a means of supporting a fourth wife.

<b>Table 6.4 Amount of Land, Average Hectares Cultivated and Land Use by Schools</b>					
	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<b>Total Land:</b>					
• 1-3 hec.	16 schools	1 school	5 schools	10 schools	--
• 4-6 hec.	11 schools	2 schools	2 schools	--	7 schools
• 7-10 hec.	13 schools	7 schools	3 schools	--	3 schools
• Average	4.94 hec.	7.15 hec.	4.55 hec.	2.00 hec.	6.05 hec.
<b>Amount Cultivated:</b>	<b>3.09 hec.</b>	<b>3.89</b>	<b>3.59</b>	<b>0.45</b>	<b>4.42</b>
For Crops	1.97 hec.	2.13	2.20	0.45	3.10
For Grass	.88 hec.	1.27	1.38	0.00	.86
For Trees	.13 hec.	0.18	0.01	0.00	0.33
For Vegetables	.02 hec.	0.00	0.00	0.00	0.09
For Other	0.00 hec.	0.00	0.00	0.00	0.00

Crops (such as tef, ensete, etc.), grass and land rental account for the bulk of internally generated income for the schools. Trees, vegetable gardens and handicrafts produce less than 5 percent of internally-generated school income, with the exception of Welaita (5 percent). The vegetables produced in the school gardens in Welaita are said to be consumed at the school, by the headmaster and teachers. Although frequently cited as a significant source of school income, "handicrafts" do not figure predominately in rural school revenues. Such income represents less than 2 percent of internally-generated income for the total sample. In Tigray, handicrafts do not exist as a source; in Welaita, they account for 3 percent of funds generated by the school, the highest in the sample. While not directly addressed by the survey, field enumerators indicate that handicrafts primary consist of decorative items at the primary school level; at junior and secondary levels they may include the products of industrial arts courses, such as furniture, etc. Where schools have identified "other" sources of income, they are limited to the sale of old books in a Welaita school and the operation of a tea shop in a Tigray school.

Figure 6.4 Average Amount of Land per School, Cultivated vs. Uncultivated



Diversification of internal sources of income generation is most apparent in Welaita, where 90 percent of the schools derive income from three or more sources simultaneously. In Gondar, twenty percent of the schools derive income from three or more sources; in Bale, only 10 percent, and in Tigray, zero percent.

#### *Parent Charges and Fees*

Charges and fees paid by the parents of primary school students ranks second in importance at 21 percent—behind internal sources—as a source of total school revenue, on average. By region, it ranges from a low of 4 percent in Gondar to a high of 72 percent in Tigray. In Gondar, a greater percentage of total revenue comes from the community than parents; and, in Tigray, it far surpasses the amount generated from internal sources.

On a per student basis, Tigray schools average about 0.50 birr, at the extreme low end, followed by Gondar at 1.07 birr, and then Welaita and Bale at 1.84 birr and 1.94 birr respectively. This is at some variance with what schools purportedly charge and the number of students for whom they report receiving payment.

Table 6.5 presents the types of fees charged parents for their children and the average amount. It should be noted that these are averaged over the sample and regions and therefore do not reflect the actual amounts charged most frequently (see Table 6.6). However, it permits a comparison by region and among fees. Five different fees were found to be levied by the schools: registration fees, book rent, sports fees, club fee, and report card fee. Despite initial information to the contrary, no school charged parents a construction fee, gifts for teachers or

political party fee. It is possible that these fees are manifestations of the different political climate of the former government or are not admitted to as part of the regular fee structure.

<b>Average Charge/Fee</b>	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
<b>1. Registration Fee:</b>					
a. grade 1-2:	1.34 birr	0.50	0.44	3.00	1.33
b. grade 3-6:	1.94 birr	0.70	0.66	4.03	1.94
<b>2. Construction Fee</b>	0.00	0.00	0.00	0.00	0.00
<b>3. Book Rent:</b>					
a. grade 1-2:	0.07 birr	0.10	0.17	0.00	0.00
b. grade 3-6:	0.70 birr	1.00	0.83	0.00	1.00
<b>4. Sports Fee</b>	0.38 birr	0.50	0.44	0.00	.50
<b>5. Other Club Fees</b>	0.01 birr	0.10	0.00	0.00	0.00
<b>6. Report Card</b>	0.26 birr	0.41	0.08	0.02	0.55
<b>7. Gifts for Teachers</b>	0.00	0.00	0.00	0.00	0.00
<b>8. Political Party Dues</b>	0.00	0.00	0.00	0.00	0.00
<b>9. Other</b>	0.00	0.00	0.00	0.00	0.00

Registration fees and book rents are rated according to grade of the student, uniformly dividing between grades 1-2 and grades 3-6 (or 3-4, if the higher grades are not offered by the school), with the lower amounts being charged first and second grade students or even waived in order to attract new enrollments, as indicated by the school directors. Sports fees are for equipment and activities (e.g., travel to sports matches), and along with club fees and report card fees, are not differentiated by grade.

There is some regional variation in the both the types of fees schools charge and the amounts. The Tigray schools charge the highest registration fees by far and average 3.02 birr for Grades 1-2 and 4.05 birr for Grades 3-6.<sup>18</sup> However, the schools charge nearly nothing else. As parental charges are their major source of revenue, this is not surprising. Welaita schools charge registration fees, book rent, sports and report card fees, averaging 2.38 birr and 4.04 birr for the lower and upper primary grades respectively. They uniformly do charge the lower grades book rent. Parental fees and charges in Bale add club fees to the roster, and average 2.06 birr for Grades 1-2 and 3.29 birr for Grades 3-6. Gondar charges the least, at 1.13 birr and 2.01. Grades 1-2 cost about 1 birr less than Grades 3-6.

Actual registration fees for Grade 1 and 2 range from 0.50 birr to 3.00 birr, with 37 percent of the schools not charging the lower grades. Registration fees for the upper grade are between

<sup>18</sup> The reader should keep in mind that these are averages and do not reflect the actual amounts charged.

0.50 birr and 4.75 birr, with 32 percent of the schools not charging at all. The high end fees are almost exclusively limited to schools in Tigray, which—as noted previously—must finance their operational budget mainly from parent charges, as they have little "hectarage" to cultivate. Eleven (29 percent) of the schools do not charge for pupils at either level. They are located primarily in Bale (60 percent of schools) and Gondar (52 percent of schools).

Book rent fees are more standardized in the schools, due to government policy guidelines. They are set at either .050 birr to 1.00 birr. The majority of schools (92 percent) do not levy this charge at the Grade 1-2 level, but do at the higher levels. Only one school outside of Tigray—in Gondar—did not charge either level for book rents. If the percentage of students having books is an indication of the revenue received from book rents, it can hardly be a large amount. Over 50 percent (median = 52.9%) of the children surveyed in the schools did not have math and reading books. Not a single child in Tigray claimed to have both math and reading books.

Seventy-one percent of the schools levied a uniform sports fee of 0.50 birr. Again Tigray was the exception, not charging a sports fee. Club fees were not common: 97 percent of the schools did charge the fee, the exception being one school in Gondar. Report card fees were more customary: 45 percent of the schools charged between 0.40 birr and 0.50 birr, while 39 percent did not charge at all.

Table 6.6 Actual Charges and Numbers of Cases					
	Total Sample (38 Schools)	Bale	Gondar	Tigray	Welaita
<i>Registration Fees:</i>	#Schools %	#Schools %	#Schools %	#Schools %	#Schools %
<b>Grades 1-2:</b>					
No Charge	14 (37)	7 (70)	5 (55)	--	2 (22)
0.50	1 (3)	--	4 (44)	--	1 (11)
1.00	7 (18)	1 (10)	--	--	2 (22)
2.00	4 (11)	2 (20)	--	--	2 (22)
2.50	1 (3)	--	--	--	1 (11)
3.00	11 (29)	--	--	10 (10)	1 (11)
<b>Grades 3-6:</b>					
No Charge	12 (32)	6 (60)	4 (44)	--	2 (22)
0.50-1.00	6 (15)	3 (30)	4 (44)	--	1 (11)
2.00-2.50	6 (15)	1 (10)	1 (11)	--	2 (22)
3.00-3.75	5 (13)	--	--	3 (30)	2 (22)
4.00-4.75	9 (24)	--	--	7 (70)	2 (22)
<b>Book Rent:</b>					
<b>Grades 1-2:</b>					
No Charge	35 (92)	9 (90)	7 (77)	10 (100)	9 (100)
0.50	1 (3)	--	1 (11)	0	0
1.00	2 (5)	1 (10)	1 (11)	0	0
<b>Grades 3-6:</b>					
No Charge	11 (29)	--	1 (11)	10 (100)	--
0.50	1 (3)	--	1 (11)	--	--
1.00	26 (67)	10 (100)	7 (77)	--	9 (100)
<b>Sports Fee:</b>					
No Charge	11 (29)	--	1 (11)	10 (100)	0
0.50	27 (71)	10 (100)	8 (88)	--	9 (100)
<b>Club Fee:</b>					
No Charge	37 (97)	9 (100)	9 (90)	9 (100)	10 (100)
0.40	1 (3)	--	1 (10)	--	--
<b>Report Card Fee:</b>					
No Charge	15 (39)	1 (10)	6 (66)	8 (80)	--
0.10-0.25	5 (13)	--	--	2 (20)	--
0.40-0.50	17 (45)	9 (90)	3 (34)	--	8 (88)
1.00	1 (3)	--	--	--	1 (12)

Fees are generally one-time charges, and most schools expect payment of fees at the beginning of the school year, although six schools (16 percent)—one in Gondar and 5 in Welaita—will allow payment of registration fees over the school year and after harvest.

Three—one in Gondar and two in Welaita—will apply this latitude in payment due dates to book rents, but it is not common, possibly because schools are responsible for remitting these funds to the weredas. We are told the same remittance requirement applies to sports fees, which only two schools will allow later payment—one in Gondar and one in Welaita. The prevailing practice of payment allows little manoeuvring space for parents, although in an earlier chapter we saw that many suggested changing when school fees must be paid, claiming it was a factor in their decision to school their children.

Although the reported revenues from parental charges does not reflect it, nearly 72 percent of the schools received payment for 100 percent of the eligible students. There are many exceptions to "eligibility", i.e., those students who are not required to pay, though we do not have reliable data on what percent of the student population they represent. The schools report several exemptions (Table 6.7). They are: for children of ex-soldiers, for children from very poor families, for orphans, for children from displaced families, and "other." The responses in this latter category were uniquely for children of teachers and MOE personnel. Sixty percent of the schools give fee exemptions of one sort or another, with fourteen giving one exemption and 10 giving multiple exemptions. Welaita and Gondar schools are most likely to give exemptions; Bale and Tigray the least. Tigray schools can least afford to waive fees as they derive most of their income from them. Fees are most often waived for children from very poor families (50 percent) and children of teachers and MOE personnel (25 percent). Refugee children and orphans follow. Only one school—in Gondar—provides fee waivers for children of former soldiers, although this type of exemption was said to be common in that area.

	Total Sample	Bale	Gondar	Tigray	Welaita
Schools with Exemptions, # and (%)	24 (60)	2 (20)	8 (80)	5 (40)	9 (90)
Type of Exemption, # and (%):					
Children of Ex-soldiers	1 (4)	--	1 (13)	--	--
From Poor Families	12 (50)	1 (50)	5 (63)	2 (40)	4 (44)
Orphans	3 (13)	1 (50)	2 (25)	2 (40)	1 (11)
From Refugee Families	4 (17)	--	1 (13)	2 (40)	1 (11)
Children of Teachers or MOE Personnel	6 (25)	1 (50)	5 (63)	2 (40)	7 (77)

\* Percentages will exceed 100 percent, as many schools offer more than one exemption.

Parents, of course, must also assume the burden other out-of-pocket or other direct costs, in addition to the relatively modest school fees. These include such expenses as clothing and shoes, books (not provided by the school), supplies (exercise books, etc.), lunches and transport. Table 6.8 presents what parents—both of enrolled and non-enrolled children say the out-of-pocket expenses are. At this initial stage of analysis, the data should be regarded with some

caution. Some extreme values or outliers in responses require further investigation, although given their distorting effect they have been removed from averages. In the case of transport and lunches, the responses are too few on which to base real estimates of cost and are included for interest only.

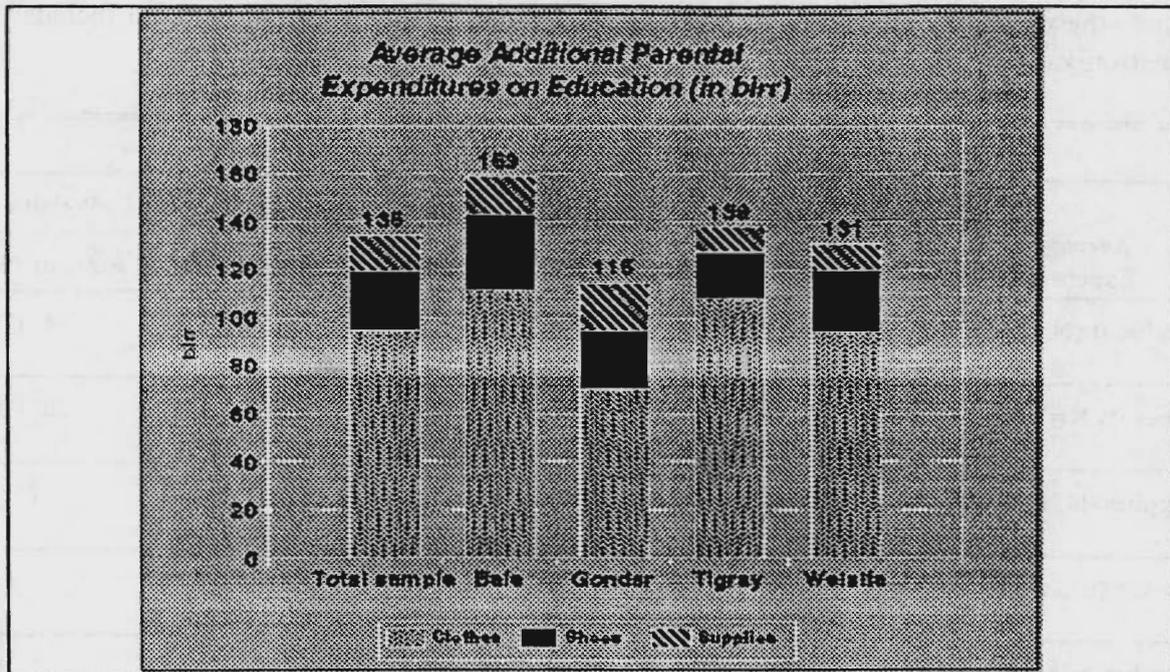
<b>Average Expense:</b>	<b>Total Sample</b>	<b>Bale</b>	<b>Gondar</b>	<b>Tigray</b>	<b>Welaita</b>
	<b>Amount (%)**</b>	<b>Amount (%)</b>	<b>Amount (%)</b>	<b>Amount (%)</b>	<b>Amount (%)</b>
Clothes (ts N=318)	95 (70) median=75	111 (70)	70 (61)	108 (78)	94 (72)
Shoes (ts N=277)	25 (19) median=20	32 (20)	25 (22)	20 (14)	26 (20)
Supplies (ts N=255)	15 (11) median=10	16 (10)	20 (17)	11 (8)	11 (8)
Books* (ts N=51)	10 median=6	13	3	9	8
Lunches (ts N=39)	20 median=5	nd	nd	15	6
Transport (ts N=5)	54 median=50	54	nd	nd	nd
Estimated Total Cost***	135 birr	159 birr	115 birr	139 birr	131 birr

\* Books do not include those obtained through book rental

\*\* Estimated total costs and percentages includes clothes, shoes and supplies only.

Table 6.8 presents averages expenditures on school-related costs, as named and enumerated by parents. The amounts for clothes, shoes and supplies have been used to derive an exemplary total for other direct costs, because these items were based on a robust number of responses. The average total cost for the sample was 135 birr. This amount is high compared to the 50 birr estimated earlier in the USAID Education Sector Assessment analysis. The discrepancy could be attributable to an inflation of costs by parents of enrolled children who would ideally like to spend that amount and/or to parents of out-of-school children who have an unrealistic assessment of the costs associated with schooling. As discussed in Chapter 5, parents have revealed that they hold high standards of how children should be equipped for school in terms of clothing, etc. This, in itself, should not be discounted, as clothing, shoes, and other school-related items have been observed to hold high symbolic value for parents and students alike in other developing countries. Furthermore, the totals and item percentages are not different that the figures should be dismissed as completely unreliable.

Figure 6.5 Average Additional Parental Expenditures on Education



Regional averages for total costs ranged from a high of 159 birr in Bale to a low of 115 birr in Gondar, with Tigray (139 birr) and Welaita (131 birr) in between. That the total costs for school associated expenses is not lower for Tigray, which is distinguished by the low revenue per student, indicates that the latter is not a function of a different cost-of-living, but rather inability of the schools to obtain greater levels of resources.

The most costly item named by parents was clothes, which accounted for 70 percent of the total costs. Parent estimates of clothing costs in Gondar were the lowest and in Bale the highest. With used clothing having been priced at 75 birr in Gondar previously, the 70 birr estimated does not seem out-of-line. What is the difference in cost between clothes for school and clothes for life at home? Unfortunately, we do not have data on this. It would be interesting to determine to what extent clothing is a sunk cost.

Shoes followed as the second most significant cost item, at 19 percent of total costs. The estimates given apparently are for "real" shoes, not sandals which cost no more than three birr. As many school children (perhaps the majority) in the sample areas have been observed in class without shoes, it seems that this item may be more desirable than essential.

Supplies were the least expensive, representing 11 percent of total outlays. However, in Gondar, the parental estimate for this item was the highest of the regions.

The paucity of responses naming expenditures for books is significant in that it implies that parents do not give high priority to this item. As most children are ill-equipped with textbooks, it is unlikely that this is because they have already been provided with books at school.

Ironically, books appear to be the least costly and most affordable item of all the expenditures named. It appears that they are considered expendable—the least important cost of schooling.

Data on the costs of lunches and transport were included for interest only. The lack of responses for these items probably indicate that they do not figure significantly in household outlays for schooling or are not considered in monetary terms. Children may well do without lunch, if the school hours extend over this period of time (which is unusual). Few transportation options exist in rural villages for school children. It is likely that if the distance is too far the child will not go to school at all. Traveling to school is not without its costs, it is just that parents probably do not assess the travel time to school in birr. It is folded into opportunity cost.

This section does not address another important parental outlay for schooling their children—that of opportunity costs. These have been identified as an important factor in the decision to send children to school in earlier chapters. That they are not calculated here does not mean that their significance is ignored, but rather that we have no data on which to base estimates.

### *Community Cash Contributions*

Community (i.e., adults in the village not having children enrolled in school) support of schools is weak throughout the sample. Only 3 percent of the total school cash revenues were obtained from the community in 1992/93, and of this, only 25 percent of the schools' revenues were augmented by cash from the community. In no region of the sample could the schools account for more than 9 percent of their revenues through community contributions. The highest were in Gondar (9 percent) and Tigray (8 percent); the lowest in Bale (2 percent) and Welaita (0 percent). This is somewhat surprising in Tigray where self-help and social action seem to characterize society. This may indicate that few people in any region see schooling as a social good, but rather an individual responsibility and consumption choice of parents who wish to school their children. Again, the consequences for shifting from a user fee basis to a community basis for school financing appear negative.

Even taking a longer time period, the three years from 1991/92 to 1993/94, does not alter the relatively meager community support received by the schools in terms of cash contributions. (A later section will examine the in kind contributions.) Although 63 percent of the schools asked the community for assistance over the past three years, only 3 percent in 1993/94, 26 percent and 6 percent in 1991/92 indicated that they received cash support from the community. The schools in Bale were the most likely to ask for assistance (90 percent requested help), and the most likely to receive it (a 55 percent success rate). Conversely, Welaita asked the least, and its requests met with success the fewest times (0 percent success rate). Gondar (70 percent) ask more than Tigray (60 percent), but was successful less often (14 percent) than Tigray (33 percent).

Of the 20 percent of the schools which had benefitted from a community cash contribution through a "special collection", the receipts were most often used for maintenance (50 percent), sports equipment (13 percent), and other (38 percent)—the most frequently cited uses under this

category being school guards (two schools) and stationary (one school). Other types of community support will be examined in a later section.

### *Expenditures*

Average annual school expenditures in 1992/93 ranged from 541 birr in Tigray to 3277 birr in Welaita. In terms of per student expenditures Bale ranks highest (18 birr/student), Welaita (12 birr), Gondar (9 birr) and Tigray (2 birr). The lowest average per student expenditure, Tigray, represents only 18 percent of the next lowest amount in Gondar.

In comparing total expenditures with total revenues, we find that 89 percent of the schools have either balanced or underspent their total revenue. In the few (4) schools where this occurred, it appears that they had accumulated funds from previous years to effect major repairs. Saving for major expenditures is also the reason given for some of the annual surpluses which appear in the data. Because we look only at the intake and outflow of revenues for one year, it is impossible to know whether schools consistently underspend. Also, there is the possibility of under-reporting expenditures which schools have not chosen to put on the books. However most underexpenditures are within a few birr of total revenues, especially in Tigray where fiscal responsibility seem to be the norm—perhaps given the small per student amount they have to deal with. The largest gaps appear in Bale.

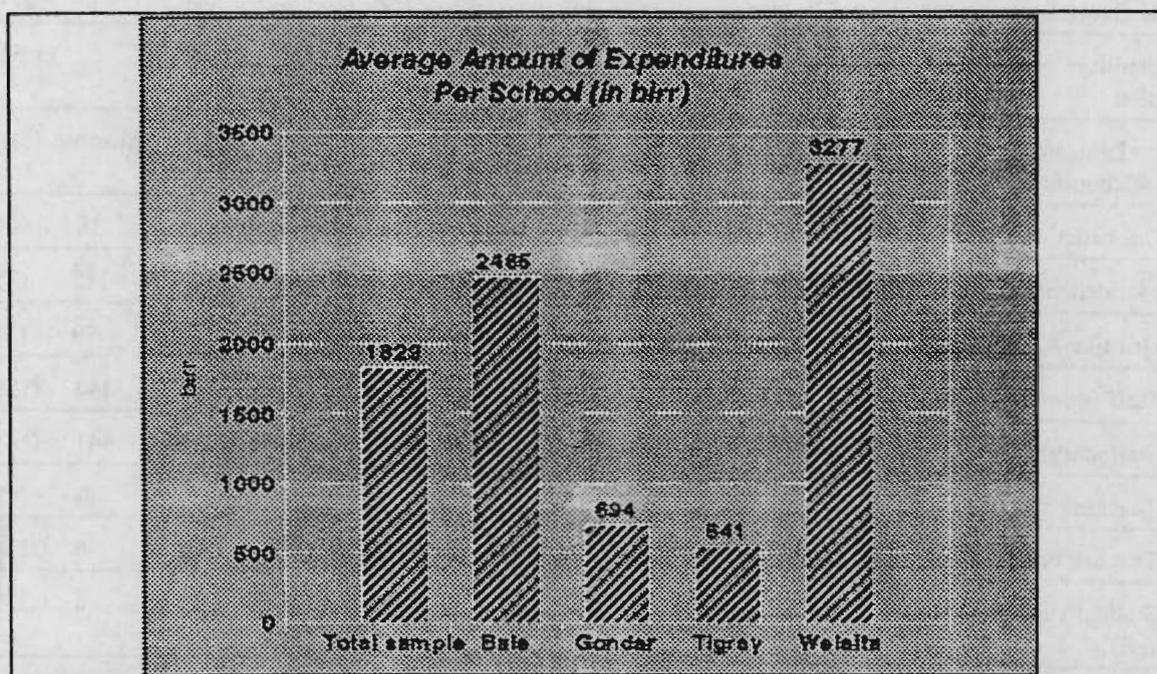
**Table 6.9 Average Amount of Expenditures and Percentage Per Student (Total Sample)**

(In Birr)	Total Sample	Bale	Gondar	Tigray	Welaita
Total Expenditure	1,829 birr	2,465	694	541	3,277
Expenditure per Student	10.11 birr	17.94	9.24	1.62	11.51
Line Item Expenditure:	Amount (%)	Amount (%)	Amount (%)	Amount (%)	Amount (%)
1. Construction	10 (.70)	0 (0)	0 (0)	20 (2)	18 (.40)
2. Maintenance	429 (16)	1,240 (24)	205 (28)	90 (13)	115 (3)
3. Utilities	66 (4)	100 (.60)	66 (16)	0 (0)	99 (3)
4. Staff (non-teaching)	178 (10)	222 (17)	130 (12)	0 (0)	340 (12)
5. Stationary	286 (27)	334 (32)	125 (18)	99 (42)	441 (14)
6. Teaching materials	36 (2)	36 (3)	8 (1)	44 (7)	48 (2)
7. Teacher bonuses	2 (.30)	0 (0)	0 (0)	0 (0)	6 (.13)
8. Student supplies/ material	4 (.50)	0 (0)	0 (0)	6 (2)	8 (.17)
9. Sports	66 (4)	150 (1)	0 (0)	51 (10)	44 (1)
10. Clubs	24 (.15)	90 (.50)	0 (0)	0 (0)	0 (0)
11. Ceremonies	28 (1)	0 (0)	13 (2)	5 (1)	90 (2)
12. Teacher travel	193 (12)	82 (15)	0 (17)	0 (0)	557 (16)
13. Crop inputs	104 (4)	121 (4)	7 (1)	6 (1)	253 (9)
14. Ploughing	318 (9)	90 (3)	0 (0)	0 (0)	1,085 (32)
15. Remittance to werada	56 (7)	0 (0)	11 (2)	99 (20)	100 (3)
16. Other	34 (3)	0 (0)	38 (5)	25 (4)	74 (2)

A review of expenditures reveals some interesting patterns. On average, across the sample, the largest percentage of expenditures is on stationery (27 percent). This holds true in Bale (32 percent) and Tigray (42 percent), although it was less significant in Gondar (18 percent) and Welaita (14 percent). While visits to school administrative offices show large sheets of paper plastered to the walls with school attendance records, school enrollments, budgets, etc., informants have indicated that this line item may be an acceptable catch-all for other less acceptable expenses, such as covert salary supplements, fees, etc. We chose not to probe into sensitive issues, in order to obtain as much on-record data as possible. The largest percentage

expenditures for Gondar schools was maintenance (28 percent) and, for Welaita schools, ploughing and harvesting (32 percent).

Figure 6.6 Average Amount of Expenditures Per School



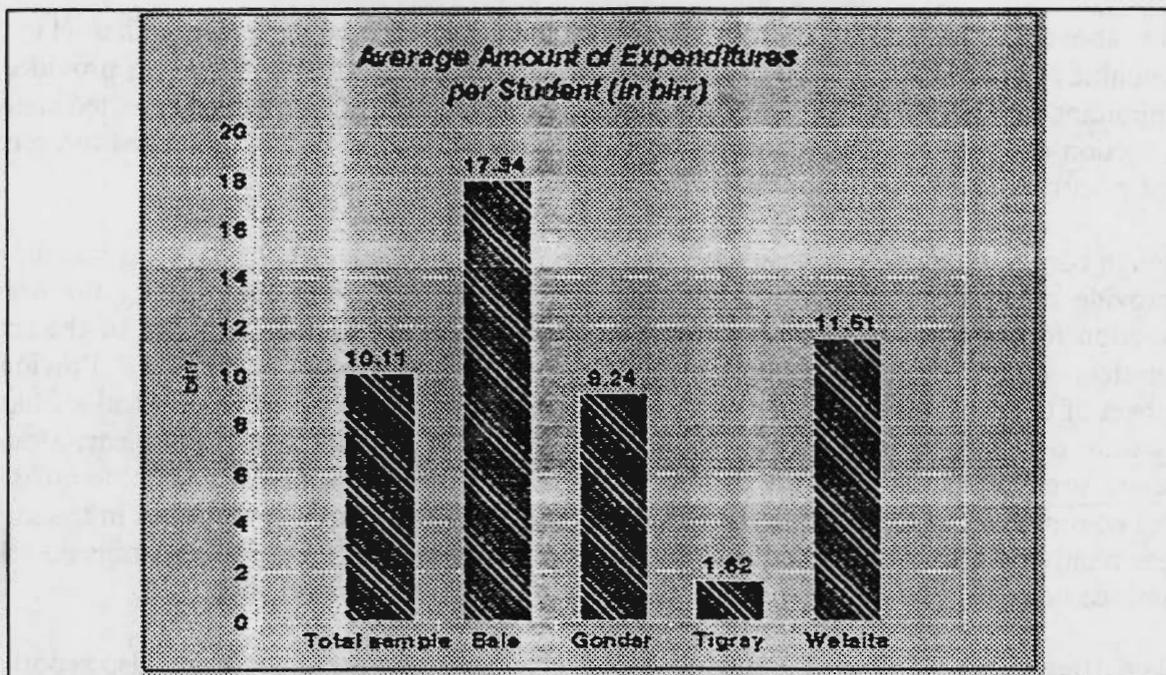
Together maintenance, stationary and teacher travel account for roughly 55 percent of total average expenditures for the entire sample. This holds more or less for the regions—Bale (57 percent), Gondar (63 percent), Tigray (45 percent)—but only 33 percent in Welaita.

A strikingly small percentage is spent on learning materials or school quality-enhancing materials to benefit students. Combined teaching materials and student materials account for only 3 percent of the budget in Bale, 1 percent in Gondar, and 2 percent in Welaita. Tigray schools spend, on average, about 9 percent of their budget on quality-enhancing materials, but given the small size of the Tigray school budgets, this can hardly afford much impact in terms of learning improvements. That students lack learning materials, there can be no doubt. As noted previously, many students do not have books. The low expenditure on learning materials may not necessarily indicate the schools' deliberate neglect of this aspect, but rather a prioritization of school operational needs given a limited budget. Other expenditures which directly benefit students are sports equipment and activities and school clubs. Again the percentages are meager: less than two percent in Bale and Welaita schools, and nothing in Gondar. In Tigray, however, these expenditures surpass learning materials at 10 percent. In some schools, sports activities may be considered an investment in future community support.

In contrast with the small percentages spent on students directly, it must be noted that in Gondar, Welaita and Bale, 12-17 percent of total expenditures were allocated to pay for guard service to protect the school from vandalism and looting. Schools in Tigray either do not have this

problem to the same degree that those in Gondar and Bale do or (probably) cannot afford to pay a guard in any case.

Figure 6.7 Average Amount of Expenditures per Student



Remittance to weredas from the schools are generally for book rents and sports fees, and in Gondar and Welaita account for only 2 and 3 percent of expenditures. Bale schools report remitting nothing to the werada. But Tigray schools return a hefty 20 percent of their small total expenditures, yet these schools charge neither book rent or sports fees nor do their students have any books. On the surface, at least, it appears that in Tigray the schools support the weredas to a certain extent.

Because schools must generate most of their own operating budgets, they can be considered small enterprises. Therefore, it is not surprising to see that schools must expend some of their funds on inputs for a major source of revenue—agricultural production. The schools in Welaita cultivate the largest amounts of land (4 hectares) and, by far, spent the greatest percentage on inputs at 41 percent. Bale schools, which cultivate an average of 3 hectares, spend only 3 percent of expenditures on agricultural inputs. The difference may be explained by the type of crops cultivated. Grass, for example, which comprises a large share of Bale and Gondar schools' cultivated hectareage, takes no effort to grow and can be stored. In Welaita, relatively less hectareage is allocated to grass, and more to crops which may be more labor and fertilizer intensive. For the sixteen schools in the sample where all the necessary data is available, the average return on a schools investment is about 1.9, meaning that the return is nearly two times greater than the input. In Welaita where the data is complete, the return is about 1.75 times the investment, possibly because—as previously noted—the crops are more labor intensive as

indicated by the relatively high amount spent on ploughing and harvesting. By contrast, in Bale the return is 2.30 times the annual inputs.

### *Community, Parental and Student Support of the School*

In the above discussion on sources of school revenue, it became evident that (1) few communities were a major source of cash income and (2) parental fees and charges provided for an important source of cash funds for the school, albeit far behind internally-generated sources. This section explores the non-monetary contributions and in kind support afforded the schools by their "constituency"—communities, parents and students.

Although communities only occasionally responded to school requests for cash assistance, they do provide other types of support, with the headmaster most often approaching the peasant association for assistance, but in half the schools accompanied by the chairman of the school committee. (School committees are tantamount to the school boards in the U.S. Previously, members of the peasants association were appointed to committees based on political affiliation. They were not selected by parents. The current practice of appointment is not clear, although there are some signs that with the disintegration of the peasant associations in some areas, the school committees may meld with the parent committees. The school committees in the sample appear relatively active and intact, unlike the parent committees. In only two schools do school committee not exist and of those that do, only four (10 percent) never meet.)

Table 6.10 presents the type of community support received by the schools and also reports the percentage of "incidences" of assistance out of potential incidences. This should not be confused with the percentage of schools receiving community assistance, as many schools are double counted. It does indicate, however, the relative magnitude of types of assistance overtime. We will focus on the year 1992/93, as it represents a completed academic year and is not too far distant in respondents' memories.

The contribution of the community in labor is the greatest area of support; it occurred seven times more frequently as a means of assistance to the school in 1992/93 than did contributions of materials and supplies, which are undoubtedly in shorter supply in rural areas. Labor was most often (77 percent of the time) used for maintenance and construction.

	Total Sample			Bale			Gondar			Tigray			Welaita		
	93	92	91	93	92	91	93	92	91	93	92	91	93	92	91
<b>Labor For:</b>															
Construction	5	8	3	--	--	--	--	2	1	4	5	2	1	1	--
Maintenance	7	13	5	2	3	2	1	1	1	2	7	1	2	2	1
Agriculture	2	3	--	1	1	--	--	--	--	1	2	--	--	--	--
School Garden	2	3	1	0	--	--	--	--	--	2	3	1	--	--	--
<b>In Kind:</b>															
Materials & Supplies	4	4	2	0	--	--	1	2	--	2	1	1	1	1	1
Column %*	10	16	6	6	8	4	4	9	5	24	36	11	8	8	4

\*this indicates the percentage incidences of assistance out of a potential number of incidences; often the same school may benefit more than once.

Assistance from the community for agriculture (e.g., ploughing and harvesting) figured only in Bale and Tigray. Tigray schools also received some assistance with school gardens.

The frequency of community support is low: out of a potential of 195 incidences or opportunities for assistance, only 31—16 percent—occurred.<sup>19</sup> In terms of schools, only 15 (of 39)—or 38 percent—received any form of community support in 1992/93. The schools in Tigray received the highest level of support from the community: 36 percent of potential incidences. This is a tendency exhibited in 1993/94 and 1991/92, as well. In comparison, Bale, Gondar and Welaita schools were aided only 8-9 percent of potential incidences for assistance from the community.

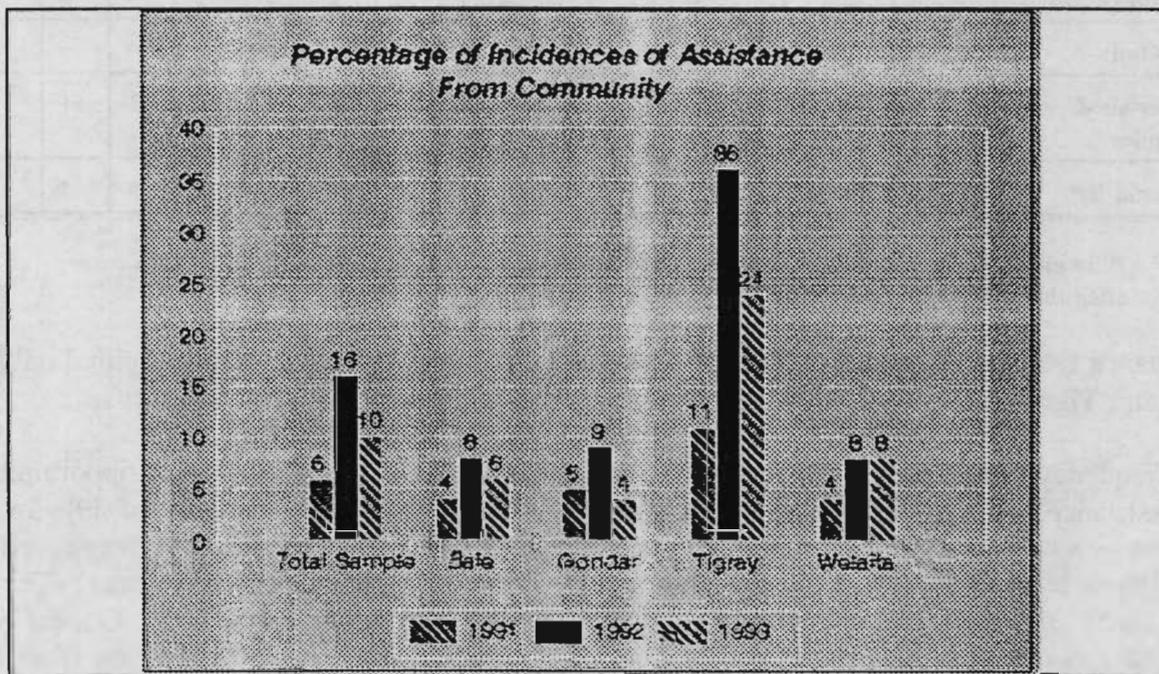
With the exception of Tigray schools, these low levels of community support accord with another indicator of possible community indifference or—perhaps—hostility. Since 1988, eighty-five percent of the schools have been looted, most of them more than once. One hundred percent of the schools have been looted in Bale and Gondar and 70 percent in Tigray and Welaita. While this is often attributed to war and soldiers, only 22 percent of the schools named soldiers as the culprits and over half these cases occurred in Tigray. More significantly, 47 percent of the schools named members of the community as the looters. Looting by some community members was most prevalent in Gondar (70 percent), then Welaita and Bale (40 percent) and, finally, Tigray (29 percent). That many schools have hired or are using resources to pay guards attest to the fact that many school face ongoing security problems from some

<sup>19</sup> "Incidences" refers to the number of times a school has indicated assistance received. For example, there are five categories of assistance (e.g., construction, maintenance, etc.), or potential "incidences." If a school indicates it has received assistance in this category, then it is counted as an incidence for the year. The shortcoming of this approach is that the amount of assistance received per category cannot be weighed.

people close at hand. It must be noted, of course, that looting may be done by only a few miscreants in the community, and cannot simply be interpreted as blanket hostility.

In addition to paying the various school fees, charges and other direct out-of-pocket expenses associated with schooling, parents are expected to contribute time, labor and occasionally special cash contributions to the school. The following paragraphs examine the extent of support the school receives from parents.

Figure 6.8 Percentage of Incidences of Assistance From Community



As shown in Table 6.11, special cash contributions to the school are rare. Only two schools—one in Gondar and one in Bale in our focus year, 1992 '93, received cash support from parents (other than regular fees and charges). With the exception of the one occurrence in Gondar, cash contributions appear to be unprecedented in Gondar, Tigray and Welaita, having never occurred in a single school over the three years for which we have data. In Bale, cash contributions are not unheard of, but they are not frequent, occurring in one school per year.

Table 6.11 Type Of Assistance and Number Of Schools Receiving Assistance by Year From Parents, 1991/92-1993/94															
	Total Sample			Bale			Gondar			Tigray			Welaita		
	93	92	91	93	92	91	93	92	91	93	92	91	93	92	91
Special Cash	1	2	1	1	1	1	--	1	--	--	--	--	--	--	--
<b>Labor For:</b>															
Construction	4	7	6	--	--	1	1	3	2	3	4	3	--	--	--
Maintenance	4	8	7	--	1	1	--	2	2	2	4	3	2	1	1
Agriculture	1	2	1	1	1	--	--	1	1	--	--	--	--	--	--
School Garden	2	2	--	--	--	--	1	2	--	1	--	--	--	--	--
<b>In Kind:</b>															
Materials & Supplies	2	3	1	--	1	--	--	1	--	1	--	--	1	1	1
Other:	4	3	2	1	1	--	1	--	--	1	1	1	2	1	1
Column %*	8	12	8	5	8	5	4	19	7	13	15	12	8	5	5

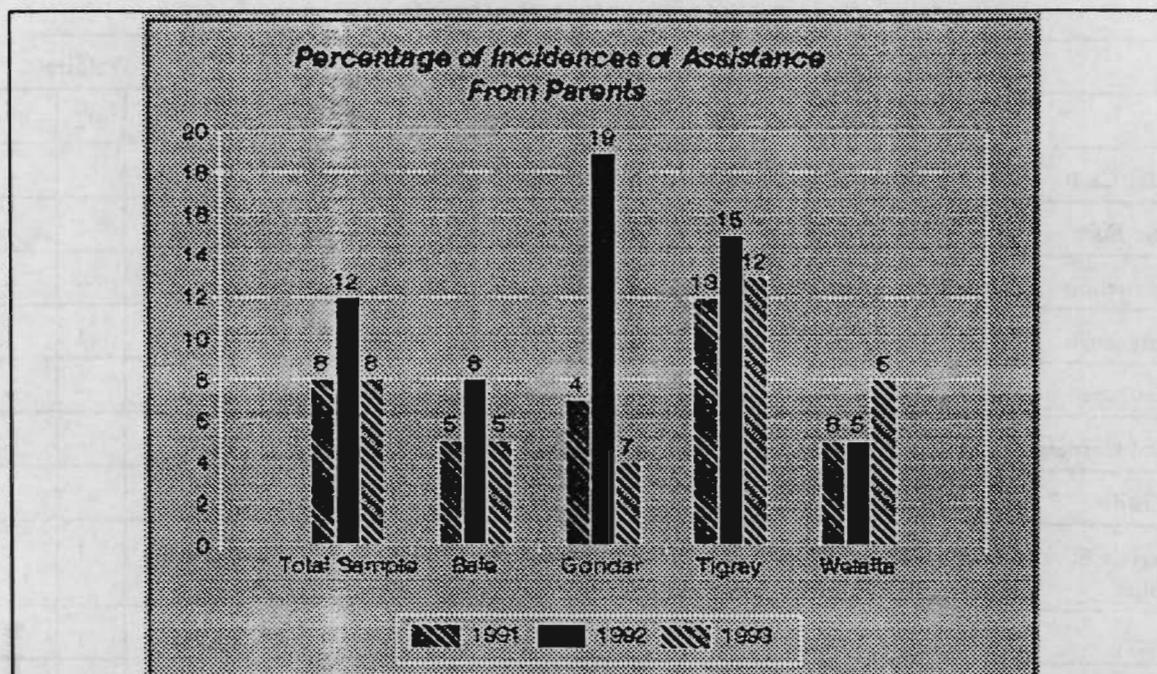
\*this indicates the percentage incidences of assistance out of a potential number of incidences; often the same school may benefit more than once.

The rarity of special cash contributions is not surprising, given the scarcity of cash in rural areas.

Labor is the main type of parental support provided the schools. As in the case of the community, maintenance and construction are the predominate forms parental assistance takes. Over half of the identified parental contributions are in terms of labor for construction and maintenance. Where "other" is indicated, it mainly consists of general references to labor and specific references to building fencing for the school. This pattern also prevails in each of the regions.

The parents provide some materials as assistance to the schools. Three schools in 1992/93 received materials and supplies from parents, although they were not specified. This appears more prevalent, though again not frequent, in Tigray and Welaita.

Figure 6.9 Percentage of Incidences of Assistance From Parents



For the entire sample, only 12 percent of the potential incidences for support by parent were provided in 1992/93. This is less than the 16 percent for the community for during the same time period. However, the data can not show whether parental support is more intense or extensive, which may well be the case. Community-parent comparisons should, therefore, be regarded with some caution.

At the regional level, Gondar and Tigray schools enjoy the highest incidences of parental support, at 19 and 15 percent respectively. Interestingly, whereas Gondar schools received about twice as much assistance from parents than from the community, the inverse was the case in Tigray, which received half as much from parent than from the community. The incidences of assistance remained the same in Bale (8 percent), and a bit lower in Welaita. Only in Gondar, were there reports of parental assistance in all categories.

Parental support does not appear to be high in the rural schools examined. Only twelve schools of the forty received any form of parental assistance in 1992/93, about 30 percent. If we expand the time period to three years, the total number of schools receiving assistance from parents increases to sixteen, or 40 percent. This does not necessarily mean low levels of parental interest in the school, but may be indicative of both their time availability and the parental attitude that coming up with fee payment and occasional assistance every few years is the most that can be expected.

Another measure of parental interest in the school, if not actual support, is participation in the parents' committee at the school. The committees are, in principle, comparable to parent-teacher associations ("PTA") in the U.S. Seventeen of the schools—43 percent—indicated that

they either did not have a parents' committee or that it never meets. The schools in Bale and Welaita account for 80 percent of these cases. The schools in Gondar are distinguished by relatively active parent committees, as accords with the incidences of parental support in Table 6.11. Not only is there a parent committee at every school, but they meet frequently, 80 percent meeting more than six times a year, one meeting up to twenty times last year. With the exception of Tigray, most schools indicated that the most recent meeting was attended by less than ten parents. In the Tigray schools, the number of parents is generally more than forty.

**Table 6.12 Average Frequency and Attendance at Parent Committee Meetings**

	Total Sample	Bale	Gondar	Tigray	Welaita
Active Committees	23 (57%)	4 (40%)	10 (100%)	6 (60%)	3 (30%)
Non-active Committees	17 (43%)	6 (60%)	--	4 (40%)	7 (70%)
Meetings per Year	5	2.5	8.4	2.3	3.6
# Parents at Meeting	19	<10	<10	38	27

Schools receive assistance from students in terms of labor at the school. It has occasionally been suggested that schools abuse student labor at the expense of the academic program, which may be a factor in parental distaste for school. Table 6.13 shows that the labor reported required by most schools is minimal, although even this may not meet with parental approval. Ninety-five percent—all but two schools—require non-academic work from their students. The majority (over 78 percent) of schools ask for 1-2 hours a week, although some indicated that this fluctuates over the year and may increase during the planting and harvest season. Fewer schools (about 14 percent) require 3-4 hours per week. In Welaita, 100 percent of the schools do not require more than 1-2 hours a week in non-academic work. In contrast, in Bale one school requires an astounding ten (or more) hours per week for children in all grades. This is highly unusual.

**Table 6.13 Frequency and Amount of Student Labor Required by Schools**

	Total Sample		Bale		Gondar		Tigray		Welaita	
Requires student labor	37 (95%)		9 (90%)		9 (100%)		9 (90%)		10 (100%)	
Amount of labor required:	Gr. 1-3	Gr. 4-6	Gr. 1-3	Gr. 4-6	Gr. 1-3	Gr. 4-6	Gr. 1-3	Gr. 4-6	Gr. 1-3	Gr. 4-6
1-2 hrs/wk	28 (78)	25 (81)	3	2	8	7	7	6	10	10
3-4 hrs/wk	6 (16)	4 (13)	2	2	2	2	1	1	--	--
5-10 hrs/wk	1 (3)	--	1	--	--	--	--	--	--	--
>10 hrs/wk	1 (3)	2 (6)	1	1	--	--	--	--	--	--

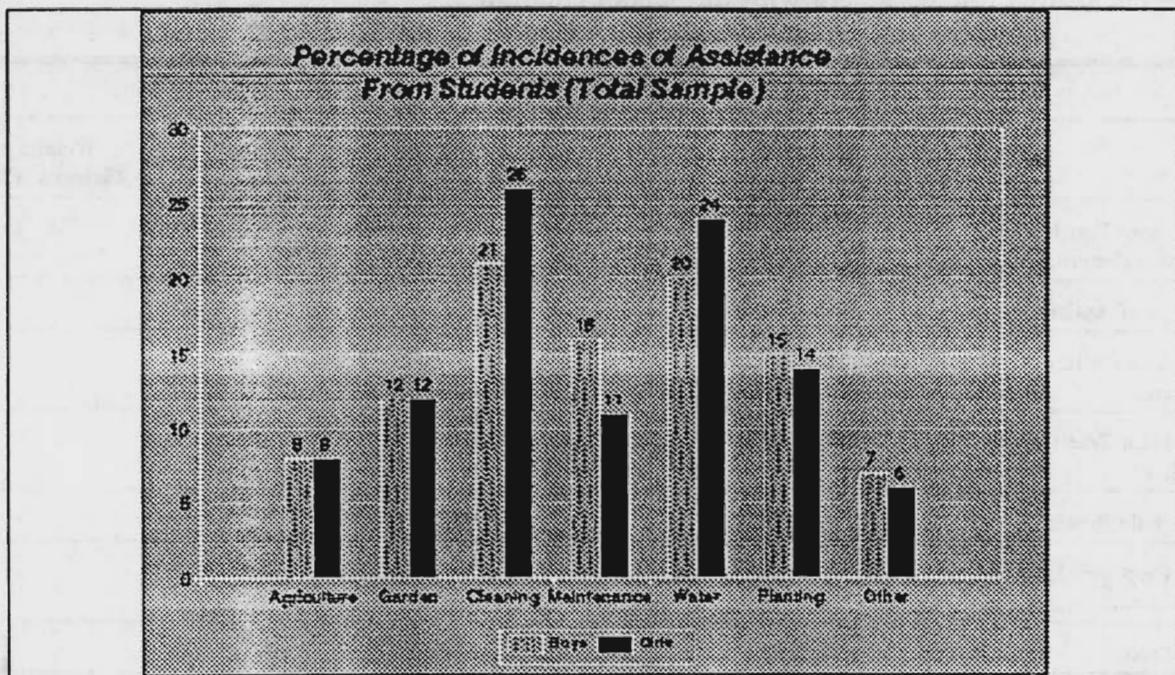
While students are asked to do different types of work (Table 6.14), the tasks most often undertaken by school children are (1) cleaning the classrooms and offices and (2) bringing water to the school. These two jobs account for between 40 and 50 percent of the work done by students to support the school.

The gender differences are evident, albeit slight. First, two schools—both in Bale—do not required labor from girl students, although they do from boy students. Second, girls are more likely to clean classrooms and fetch water than boys, and boys are more likely to undertake maintenance tasks. But in no task is there a spread of more than five percentage points. Boys and girls contribute equally to agricultural, garden and tree planting tasks. This is a pattern which is repeated among the regions, with the exception of Bale. There is greater gender differentiation in tasks there than elsewhere. Boys work primarily on maintenance tasks, while girls are responsible for bringing water and cleaning.

There are other regional differences. The Gondar (92 percent) and Welaita (82 percent) schools ask and receive more from their students than either Bale (58 percent) or Tigray (74 percent). The percentage figures in parentheses refer to potential incidences of assistance. More emphasis is place on school gardens in Gondar and Tigray, while agriculture receives more attention in Welaita. "Other" tasks are mainly building fences.

	Total Sample		Bale		Gondar		Tigray		Welaita	
	G	B	G	B	G	B	G	B	G	B
Girls/Boys, # (%)										
1. Agriculture	11 (8)	12 (8)	1	2	3	3	2	2	5	5
2. School Garden	17 (12)	19 (12)	3	3	6	6	6	6	2	3
3. Cleaning Classrooms	37 (26)	34 (21)	9	6	9	9	9	9	10	9
4. Maintenance	16 (11)	25 (16)	2	9	7	8	4	4	3	4
5. Bringing Water	34 (24)	31 (20)	9	5	9	9	7	7	10	10
6. Planting Trees	20 (14)	23 (15)	2	3	9	9	6	6	3	5
7. Other	9 (6)	11 (7)	1	1	2	2	1	3	5	5

Figure 6.10 Percentage of Incidences of Assistance By Students



### *Role of the School in the Community*

Interaction between the school and the community goes two ways, and is often thought to be factor in school support. The previous sections addressed the support received by the schools, from the community, parents and students. This section examines whether and the extent to which schools support or give back to the community.

Fifty-eight percent of the schools responded that the school had helped the community in 1992/93 or 1993/94. The Tigray schools stand out in terms of support of the community, having all done something. School assistance to the community is less apparent in Gondar, Bale and Welaita. No more than half the schools in these areas helped the community.

The types of assistance provided by the school to the community were spread more-or less evenly between (1) cleaning the water source or spring, (2) planting trees, (3) building roads and (4) "other", with the latter two predominating. The "other" category consist of different reasons, such as growing seedlings (Gondar), conducting a sanitation campaign (Welaita), constructing dams and irrigation systems and helping weak and disabled people to harvest their crops (Tigray). The schools in Tigray do not undertake a single activity, but multiple ones. Half the schools participated in three or more community assistance activities.

Forty percent of the communities have participated in some school event over the last two years. The schools claiming the highest participation are in Tigray, followed by Welaita, Bale and lastly Gondar. The types of school events that the communities participated in were Parents' day (54 percent), sports events (21 percent) and "other." In Welaita, this means attending the

ceremony the last day of school when report cards are given; in Tigray, it means constructing stone enclosures for the school with the school children.

	Total Sample #Schools (%)	Bale #Schools (%)	Gondar #Schools (%)	Tigray #Schools (%)	Welaita #Schools (%)
<b>School Has Helped the Community:</b>	23 (58)	4 (40)	5 (50)	10 (100)	4 (40)
<b>Type of Assistance:</b>					
1. Clean Water Source	8 (20)	1	2	4	1
2. Plant Tree Outside School	8 (20)	—	2	6	—
3. Build Roads	9 (23)	1	—	6	3
4. Help with Literacy Program	4 (10)	—	1	3	—
5. Other	10 (26)	2	1	6	5
<b>Community Has Participated in School Events</b>	17 (42)	2 (40)	1 (10)	8 (80)	6 (60)
<b>Types of Events:</b>					
1. Sports Event	5 (21)	2	—	1	1
2. Recital	2 (8)	—	—	—	2
3. Parents' Day	13 (54)	2	1	8	2
4. Play	—	—	—	—	—
5. Other	4 (17)	—	—	5	3

Do headmasters and teachers participate in community events? Seventy-seven percent claim they do, but less than 50 percent attended a meeting last month. Furthermore, the majority belong to the Teachers' Cooperative, rather than an integrated organization like the peasants' association. Only 10 percent of the headmasters belonged to the peasants association, while 72 percent belong to the teachers' cooperative. Similarly, most teachers (88 percent of schools) belong to the teachers' cooperative, but only a few (20 percent) to the peasants association. All headmasters and teachers claim to participate in local events, such as weddings, funerals, etc., with the Tigray schools listing the largest numbers of events.

## **Conclusions and Implications for Policy**

Rural village schools in Bale, Gondar, Tigray and Welaita operate on extremely low cash budgets. On little more than the cost of a set of exercise books per student, they must cover nearly all costs other than teacher salaries, such as maintenance/repair, stationary, student services, and internal investments. In Tigray, the school unit revenue (2.69 birr) is only half the cost of an exercise book (5 birr). However, to single out the Tigray schools as under endowed is somewhat misleading; it is doubtful whether any of the schools' operational revenues are sufficient to cover even minimal acceptable standards of school expenditures.

While the schools receive no cash revenue from the government, they are not without means of raising their own revenues. They can and do turn to parents and the community for assistance. But more important is that rural schools are autonomous, small enterprises, and many are quite successful by measure of their annual returns on their investment in terms of internally-generated revenues. School director training should take note of the fact that a major part of the job—and arguably the most important—is to turn a profit for the benefit of school operations.

In all regions but Tigray, the schools are also farms. Land is a critical and essential component of school revenue generation. Without adequate amounts of land, the rural schools could be hardly expected to survive and grow, as the school finance system is currently structured. When schools are not provided land or when the school land is confiscated, it is not simply just a question of the children losing a playground (not risible in itself), but a very real issue of school survival. In real terms, the schools lose income, not just space.

Parents are the second largest source of income for the schools in three of the four regions. Although the data show a considerable "distance" (liable to error) between the major source of revenues—internally-generated sources—and the amount parents pay to the school in fees and charges, these amounts are not inconsiderable when overall operating revenues are so small. The fees charged to parents are modest and constitute the least (3 percent) of all the direct expenses parents indicate they must spend annually to school their children. It appears that the elimination of school fees without guaranteed replacement from some other source would hurt schools more than help parents. While parents' costs would fall 3 percentage points, school revenues would fall, on average, 21 percentage points. Consequently, the trade-offs associated with eliminating school fees should be carefully considered.

The other direct costs faced by parents are so high, that relieving their burden significantly may not be possible or feasible under the present MOE budget scenarios. The largest expense to parents is clothing, the smallest books. Consequently, providing free books—while they are essential to learning quality—may not prove attractive as an incentive to parents to enroll their children. (Improved school quality could improve parental demand, but analysis shows that "employment" is a major goal of parents, not academic achievement.) Providing material for clothing is a possibility, as is providing certain school supplies, such as exercise books, pencils, etc. This latter category ranks among the significant and essential costs named by parents, and is in itself not large. Assuming with economies of scale, an additional 5 birr could be added to MOE unit budgeted expenditures for primary education, raising them from 128 birr to 132 birr, a 4 percent increase.

Parental fees also could possibly be restructured so that parents feel their are getting more tangible service for money. It is general axiom that user fees—i.e., school fees—should go to the observable use for which they are named. It is doubtful that this happens in the rural village schools, with the exception of registration and report card fees. Books rent fees appear to be uniformly levied on all students in a school regardless of whether they have books or not. And most do not have books. Similarly, sports fees seldom appear to be associated with the purchase of sports equipment and are said to be remitted to the wereda. Certainly, schools need flexibility and latitude to determine expenditures, given the small operating budgets. But parents should also receive assurance that they are getting what they are paying for. This suggests that the current fee structure, not their existence, should be re-examined.

Likewise, the payment schedule deserves consideration for modification. A few schools have flexible payment schedules, and household have indicated that matching the payment schedule with harvest when cash resources are more readily available would influence their decision to school their children. There are some practical limitations—schools do not operate with large carry-overs of funds from previous years in most cases and may need beginning-of-the-school-year infusion of funds to start operations. Nonetheless, this option should be explored. Further, remittances to the weredas should also be scrutinized and, possibly, eliminated, used instead as a resource transfer to the schools, although financial benefit would be small in some cases. But, it is notable that the poorest schools—in Tigray—must remit 10 percent of their budgeted expenditures to the wereda.

Increased community assistance and support features in many of the suggestions for alternative means of school financing, the thought being to shift the cost burden from the direct user to the community at large. This is predicated on the idea that the community will appreciate the social good and benefits accruing to a schooled populace. However, the data are not encouraging. There is little evidence found by this study that the community presents a viable option for assuming the major burden of school finance. We have found that community support both in cash and in kind is low. Communities, at present, are either unwilling or unable to take responsibility for greater amounts of financing. The schools in Tigray present a good natural experiment. They have little land and the parents must provide the majority of operating budget through higher than average parental fees and charges. Although community support has been shown to be comparatively higher in Tigray than elsewhere, it has provided little in cash to the schools and can not be relied on to assume all non-cash resource burdens. Tigray communities are distinguished in Ethiopia by their high cohesion and communality. If community support is limited in Tigray, under the best of circumstances, it is unlikely to be adequate in other regions currently distinguished by low support, such as Welaita and Bale. Communities provide a low level of assistance to the schools presently, and—in many cases—increase school operating costs through repeated looting or threats of vandalism. Numerous schools indicated outlays for guards (and even guns) to protect the school from theft by the community. Further, the majority of the community is made up of people who have chosen not to send their children to school. In places where discretionary income is limited, it is questionable whether they would be willing to finance others' children's education. If, as later analysis might show, it is the wealthier children who go to school, then such a scheme could be regressive and have negative equity implications, unless poor children were provided special subsidies.

Based on the above discussion, if a policy of shifting the school finance burden to the community is to be pursued, it can not be left to chance or goodwill. The evidence suggests that communities will not propose themselves and are not responsive to requests from schools. A formalized and enforced system of tax collection appears to be the only option if this policy is selected.

Many schools do "give back" to or help the community, but it appears that these bridges are tenuous and not sufficient to ensure community support. There is little community participation in school events, possibly because there are not many school events. Headmaster and teacher training should comprise instruction of how to build community-school linkages.

If unit cash revenues are low, unit expenditures are even lower. Given the evidence on percentage expenditures it appears that learning quality is the last priority of schooling in expending their cash resources. Of course, the small operating budgets in many schools leave little latitude for choice, and other expenditures can understandably take higher priority if the school is even to open its doors. Given the size of school budgets and the operational cost responsibilities that the schools must meet, it does not appear feasible that schools be considered a source of material quality inputs. This of course does not mean that teachers and headmasters do not or can not have major impact on the quality of instruction, but that the schools may not be able to finance significantly materials and supplies that improve the learning process. Funds for adequate learning materials must come from elsewhere.

Finally, the regional variations revealed in the above analysis show that there are discernable differences in the levels of finance and support received by the schools. At opposite poles are the schools in Tigray and in Bale. In Tigray the schools suffer from strikingly low unit revenues, while they enjoy the highest level of community support in non-monetary terms and the best school-community interaction—and exhibit the highest level of demand. Conversely, in Bale, the schools have the highest unit revenues, coupled with the some of the lowest levels of community support and school-community interaction. This suggests that the policies, strategies and interventions must be different among the regions in term of school finance and support.

## Chapter 7

### Recommendations and Conclusion

#### Recommendations

Based on the research findings, the following presents some recommendations for village and school-level strategies and interventions to increase enrollment, which address demand-side (household) and supply-side (school) constraints in rural villages. These suggestions arise uniquely from the research and have not been examined for implementation practicality either in the field or within the policy and budgetary parameters of the Ministry of Education. Following a brief discussion of the interventions, we indicate which next steps should be taken, should the Mission wish to pursue them. In some cases, these recommendations are specific to a particular region. The guiding principle for this chapter is that we do not exceed in our suggestions the knowledge and findings revealed by the research study.

#### *Economic (Monetary and Non-monetary) Incentives for Households*

The net benefit that parents expect of schooling is wage employment. There is little the education sector can do to improve the external return to education in terms of greater opportunity and remuneration in the wage sector; this is a function of macro-economic growth and policy. However, within the education sector, it is possible to consider ways of (1) decreasing the net cost of schooling to parents through the use of subsidies and incentives and (2) increasing the returns to the household in terms of non-monetary benefits.

The following recommendations are based on perceived needs of parents and magnitudes of expenditure revealed by the research. The guiding principal is that incentives must respond to a demand or "perceived" need of the consumer, not educators. From the research, for example, it appears that school books fall into this latter category. While no one can argue the importance of textbooks for learning, these do not seem to figure in parental calculations of school costs and expenditures, and therefore are not likely to serve as sufficient inducement for parents to send their children to school. It is also important to structure incentives so that the benefits accrue to the household/family and not just the child. It is, after all, the family who is sacrificing to send a child to school, and many parents mention a reluctance to invest in schooling if they perceive that the benefits will not return to them (as in the case of girls marrying away from their families.)

In addition to the problems of financial feasibility of the suggested interventions, the reader should be aware that incentive and subsidy programs can have negative, in addition to positive, impacts. In particular, they can create new dependencies and expectations which can limit future policy flexibility and result in resentment if the subsidies are withdrawn. Further, there are often equity dilemmas—for example, if the poorest families still can not afford to meet even

reduced educational costs, they will be unable to benefit from programs aimed at enrolled children. Similarly, if subsidies are uniquely aimed at girls in areas of low educational participation for all children, there arise equity questions. And finally, there are implementation challenges, such as structuring programs so that those who benefit also conform to the educational goals of the incentive program (i.e., that children are not enrolled and then withdrawn as soon as the incentive is provided, etc.). Although it may appear obvious, careful monitoring and evaluation of incentive programs once they are in effect are essential to ascertain whether the intended impacts have been achieved, and to identify and understand the inevitable unanticipated and unintended impacts. (The equity pilot projects supported by USAID in Ghana provide an example of the pitfalls of not establishing an adequate M&E system.)

Clothing (including shoes) is the most often cited expense and most expensive school-related item parents must purchase for their children. According to our data, clothing expenditures account for approximately 70 percent of parental cash outlay. Defraying the cost of clothing would alleviate a large part of the cost burden. Given the expense, of course, full provision of clothing to enrolled students may well prove infeasible. However, there are other options, such as:

- provision of material (to be made into clothing) to parents
- provision of materials and assistance to form the creation of school cooperative to fabricate clothing, so that the school could also benefit from a small profit margin
- similar to above through the formation of women's cooperatives

Several issues must be looked into and questions answered:

- what is the difference in expenditure between parental outlays for clothing children who are not in school and for those who are? It is this difference which would provide an idea of the outside parameter for the amount of expenditure.
- from the issue of clothing, it is an easy conceptual leap to consider the provision of uniforms or a uniform allowance. However, there are several negative consequences associated with school uniforms. These are: (1) institutionalizing and concretizing the uniform as a symbol and necessity for school participation which can be used as means of keeping children from school or discouraging parents and demoralizing students without uniforms; and (2) creating an obvious and possibly deleterious distinction between children who do go to school and those who do not. This may or may not be the case in rural Ethiopia.
- provision of subsidies of any type—clothing, feeding programs, etc.—can have negative ramifications for local businesses, and result in displacement in the local economy and resentment toward the institutions/organization involved in the subsidy program. Can the program be devised in such a way that there is a multiplier effect for the community—that the school, local enterprise, etc. benefit in addition to families of students?

School supplies—exercise books, pencils, erasers, etc.—represent another frequently mentioned category of expense that parents find essential to school participation and do purchase. They

have also indicated that they feel this expense onerous. Consequently, a standardized supply kit provided through the schools to students would alleviate parental burden and, simultaneously, ensure that students have the rudimentary materials with which to start the learning process. There are different options for providing these supplies:

- through government or contracted mass production (realizing economies of scale) and selling through the schools at cost, with the schools retaining the receipts for operational budgets (or, better, for specific types of expenditure);
- through the provision of subsidies to purchase from local enterprises.

Most of the caveats and constraints discussed above also apply to the provision of school supplies. Next steps include:

- identifying the items comprising a school supply kit;
- determining the production capacity of the government (EMPDA) and private enterprise, and relative advantages of both (including the price of supply kits).

In certain areas, improved health and hygiene practices are considered a primary and immediate benefit of schooling (e.g., Welaita). There are a few options in this area which could constitute an income transfer, as well as a positive benefit, to parents. They are:

- the provision of "health kits" to enrolled students. Ideally, these could include items such as laundry and antiseptic soap, shampoo, toothbrush, etc. for children and their families. The kits, instructional in their usage, and other practical health skills/practices could be provided to both the children and their mothers in a special school program. The additional benefit of this approach would be to get mothers into the school, as they appear to have less contact with the institution and highly value the health benefits associated with schooling. This approach of combining a small supply kit with practical instruction for parents and students could be applied to areas other than health, such as nutrition and agriculture. For example, depending on the region and nutritional needs, small packets of seeds for immediate family use could be provided with instruction on how to cultivate and prepare. Or, mothers could be instructed in soap-making, etc. as part of the school program. The essential point is that these activities must have an immediate pay-off to households, related to their perceived—as well as actual—needs, and provide them with new and useful knowledge. We understand that Action-Aid is trying this approach in rural areas.
- the provision of medical services and treatment to students at the school was mentioned by several headmasters and teachers as a needed incentive. This idea has several obvious limitations: specifically, the school may not be the appropriate means of providing health care, it could well be overwhelmed by the health needs of its constituency, it could set up new dependencies and unrealistic expectations of the school which could lead to resentment toward the institution, and there is the moral issue of inevitably turning away non-enrolled children. We mention it here only to signal that, although we do not second this suggestion, in rural villages health care is seen as both needed and a powerful incentive to households.

- the provision of a voucher for school children usable at the local clinic (if one exists) could eliminate some of the difficulties mentioned above, but still does not address the equity issues of favoring some with medical care.

The next steps in pursuing the first idea presented are:

- determine the contents of a "health kit," geared to different regional needs;
- determine the price and sources of supply of the contents;
- determine who would and how the instructional aspects of the program would be undertaken (i.e., in collaboration with the health ministry, through ICDR, etc.)

Poverty, hunger and starvation are frequently mentioned—in the school, household and focus group surveys—as the reason parents do not enroll, withdraw, or absent their children from school. Surprisingly, school feeding programs were seldom mentioned by school personnel and parents as a possible incentive for enrollment. The focus group interviews revealed that households have developed other strategies for coping with hunger—such as migration in search of work. Nonetheless, such programs do directly address the problem of hunger, and can also constitute—to some extent—a means of income transfer to the household. However, they directly and immediately benefit the household only so far as they defray the food expenditures consumed by the student at home, which could mitigate improved student nutrition. The benefits of school feeding—no matter how intuitively appealing—have proved variable around the world, and their success seems to be context- and program-specific.

We recommend that further exploration of this option take place, starting with examination of the USAID program currently in effect in Tigray in order to gain information on the costs of implementation, food preferences, reactions of local farmers/food suppliers, and availability of capable distribution and monitoring organizations. Future considerations should include the costs to the schools themselves—for the construction of school "canteens" or cooking facilities, cooking equipment and utensils, and food preparation staff—and potential sources of funds.

Other economic household incentives have either been mentioned by parents or tried by different schools, programs and donors. They include the provision of soap, seeds and some used clothing for parents. Of particular interest due to the relative simplicity of its implementation is the small cash stipend provided to families of church school-going children by the Ethiopian Catholic Church. This approach reduces the administrative costs and burden to both fabricate and distribute material resources, although it does not ensure that the funds will be spent on educational items for students.

Although this study initiated a cursory examination of incentive strategies used by other organizations (primarily local NGOs, churches, etc. rather than international donors), more work remains to be done by investigating both the successes and challenges of implementing such programs. We recommend that a detailed investigation be conducted in order to glean a better idea of what actually seems to work in the field and test some of the more "hypothetical" ideas suggested above.

Many parents indicated that changing the schedule for the payment of school fees would assist them in meeting their obligations, and few schools indicated much flexibility in payment dates. Rescheduling payments to either take place over time or following a period of general cash availability (e.g., after harvest) could alleviate some of the struggles households confront in paying school fees and charges. Because we do not know on what basis the current fee payment schedule originated or the ramifications of altering the schedule for the schools, we recommend that further explanation be sought before considering the incorporation of this policy change into the USAID education program.

The opportunity costs of schooling children are almost so overwhelming that they defy solution. Virtually every parent indicated that the need for child labor at home was a major factor in their decisions to school their children. Furthermore, it would be extremely difficult—although possible—to shadow price the cost of replacing child labor, given the economic structure of most rural areas. Nonetheless, there are means of reducing the opportunity costs associated with school, suggested by parents and school personnel, and inferred from the data. They are:

- changing the school calendar to accord with the varying agricultural calendars prevailing in the different regions. We found that in few places did the schools' long and short vacation coincide with the rhythms of ploughing and planting, reaping and harvesting. While the current academic calendar was undoubtedly based on compelling reasons and while we appreciate the complications linked to changing the school calendar, it does appear that the trade-offs are worth it. As the education system decentralizes to the regions, it may prove less cumbersome to administer different school calendars than in the previously centralized system. This policy change could be incorporated as part of the policy conditions under consideration for the USAID education program.
- assisting the development and implementation of school projects aimed at reducing opportunity costs of students and their families, such as the creation of a water supply on the school compound, the provision of milling facilities on the school compound, or constructing fences to reduce herding responsibilities, etc.

### **Strengthening School-Community Interaction**

Community support and interest are essential to school well being. The research found that the links between the community and schools could be strengthened, and that the schools themselves could improve and expand their efforts to integrate themselves into the community. There are several ways to address this issue:

- conduct an "action-research" program with the school and community which is aimed at joint problem identification and solving through unconventional and not threatening methods, such as inspirational songs, dramatization and spoofs. The results are a better understanding of the dynamics affecting school-community interaction and of respective needs by the participants themselves. This approach has been tried with some success in Malawi and Zimbabwe;
- headmaster and teacher training should include instruction and templates for forging better relationships, including emphasizing the entertainment value of the school and its

students, as well as its usefulness. In addition to parents' day, school staff should be given the capacity to expand the number of "events" the school offers to the community. According to the practices and tastes of the region, sports, theater, recitals, etc. should be encouraged as a means of integrating the school into village life;

- school projects to benefit the community need not be limited to building fences, cleaning waterholes, etc. Teacher and headmaster training could incorporate means of basing academic lessons on the community, which result in some "product" of benefit to the community. This model is used in the successful "Escuela nueva" program in Colombia. For example, primary school student can participate in making a map of the community and its households, interviewing community members on topics of interest, transcribing/illustrating local stories, etc. for presentation and use by the community, etc.

### School Finance Issues

While the research revealed for the first time (to our knowledge), a detailed picture of school revenue intake and outflow, our understanding of school financial issues is not complete. Although strong patterns emerge in both the source of revenues and in their expenditure, these are not sufficient to establish minimum financial criteria. We must also know the cost of operating a fully functional school according to quality criteria and guidelines which must be established by the MOE. Consequently, any comprehensive reform of the school finance structure/system which is currently in place depends on initiating work of this sort. (USAID may wish to consider supporting a study of this sort as part of a management support program to the regions.) Nonetheless, the preliminary research findings do suggest activities at both the policy- and program-levels. They are:

- small (no more than \$100 US) annual grants for schools could serve multiple purposes: (1) to supplement school operating budgets and supply the means to purchase needed materials and services, (2) to motivate schools (and parents) to think about priority needs of the schools and students in a more considered fashion than is evident at present, and (3) serve as means on which to base real discussion between the school staff (headmaster and teachers), the school committee and parents of students in the school. Based on a more indepth look at school needs, a "menu" of selected inputs to the school could be offered for their choice. Based on USAID experience in Haiti, it may be decided to limit choices for infrastructure improvement (big ticket items) and to emphasize different quality-enhancing inputs, which appear sorely lacking in terms of student endowments and school expenditure allocations in the schools studied.<sup>20</sup> The small grant program should not serve as an income transfer to offset the need for parental and community support, but rather as a stimulus to thinking about innovative and realistic approaches to learning that can be achieved by the schools under adverse circumstances. Experience has demonstrated that successful small grant programs have several major requirements, of which three are: (1) assistance in and facilitation of the communal decision process of identifying and prioritizing needs; (2) tangible proof (not necessarily receipts or

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<sup>20</sup> Experience in Haiti showed that rural schools are "money-pits" when it comes to infrastructure improvements—the needs are unending, as schools strive to replicate modern, urban schools, with little reflection of the returns to learning. Further, infrastructural improvements are costly and soon deplete small grant funds.

invoices) from the school that the need they identified was addressed with the grant resources; and (3) flexibility on the part of the donor in terms of accounting exactitude, placing the emphasis on performance, not to-the-penny accounting.

- the land rights of schools were a constantly recurring issue, with several schools indicating that land allocated for school usage had been confiscated by the authorities. Given that land appears to be major source of operational income for the schools, the loss is not negligible. Clear policy guidelines about schools' land rights should be established, with instructions for compensation to school operational budgets should land confiscation become a necessity.
- not all schools have sufficient land to generate supplemental income for the school budget, nor are all likely to in the future. If, as the research clearly shows, school are to be expected to be self-sufficient in terms of generating operational revenues, it could be important that both headmasters and teachers received training in small business management and entrepreneurship, aimed at both improving their accounting/management skills to maximize returns on existing school ventures and increasing their capacity to diversify school income-generating activities.
- exploration of other revenue-producing or business ventures for the schools should, at least, be explored, although experience elsewhere shows the implementation challenges associated with these type of activities are numerous and success is not always assured. In the previous section, we mentioned the possibility of linking some of the household/student subsidies and incentives with cooperative ventures that could benefit the schools as well as the families. For example, mothers taught soap-making could be assisted in a cooperative which produces and sells soap, with profit divided between the school and the individual entrepreneurs. There may, in fact, be products that could be fabricated by school-affiliated ventures for which the MOE or regional education offices could guarantee a market. The production of clothing for students also offers an opportunity for ventures which could benefit the school.
- the policy of remittances from schools to the weredas should be discontinued, based on the preliminary findings of this report.

Once again, we reiterate that the above recommendations are limited and incomplete. We have avoided making suggestions about school structure practices and quality, as well as about gender-equity enhancing interventions, as our analysis has not yet addressed these issues. Because of interest in gender issues, a brief note is in order. As noted, we have found that with the exception of Gondar, girls do not enjoy equal participation in schools with boys. In fact, in the rural areas we studied, girls' enrollment are well below the regional and zonal averages reported by the MOE. However, given that boys' enrollments are also low, we do not feel that at this point in the research we can recommend special incentives or subsidies to encourage girls to attend school. Nevertheless, we expect that when the school and household data are fully analyzed, we will have more specific information on parental preferences for the types of schooling for girls (and boys), in addition to information on the relative endowment of boys and girls in the classroom. These anticipated results will readily translate in to policy and program recommendations.

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**Primary School Education Demand Study-- Ethiopia  
Time Schedule for Study**

- Nov. 18: Orientation meeting for field supervisors and research team leaders. Random selection of 40 communities
- Nov. 20-
- Dec. 1st: Team leaders translate instruments into relevant language.
- Dec. 1st-
- Dec. 8 : Supervisors in field sites to interview/recruit research assistants (hereafter RAs, also enumerators).
- Dec. 8-10 Supervisors and RAs travel to Addas for training.
- Dec. 11-
- 14th: Training sessions for all teams at ICDR led by Benson.
- 15-16th: Teams travel to their respective field sites.
- Dec. 17-
- 25th: Teams carry out household interviews, school survey, and focused interviews. Supervisors conduct community profile observation and data collection, and at end of week collect data from each team for transfer to Benson. Note: 5 focused interviews, which are time consuming, will be carried out in half the 40 communities.
- Dec. 26: Teams move to next village.
- Dec. 27-
- Jan. 1/94: Second week of research in villages. Benson will collect data from supervisors in each area and transport to Addas to ICDR for data entering. Two data processors to be hired. (Office at ICDR has been secured after request to Ato Ambesu in writing submitted and meeting with Head of Institute on Monday, November 15th.)
- Jan. 3-
- 9th: Third week of research with household interviews, school survey and focused interviews continuing.
- Jan. 10-
- 14th: Final week of research and data collection.
- Jan. 15 Debriefing of team supervisors and leaders on Jan. 13th. (Benson leaves for U.S.)
- Jan. 17-
- 20th: Debriefing from fieldwork: observations and evaluation. To be facilitated by Jean at ICDR. Data entry continues.
- Jan. 21: Jean leaves for U.S. or Nairobi.
- Jan. 24: Karen arrives to coordinate data entry/ initial analysis.
- Feb. 1st: Jean and Benson arrive. Data analysis continues.
- Feb. 8-
- 27th: Writing of preliminary report.
- Feb. 28: Preliminary report due to U.S.AID/Ethiopia.
- Mar. 4th: Seminar to present preliminary findings to Ministry of Education, ICDR, IER and other interested parties.

**List of Communities in Research Locales and  
Percentage of Households Sampled in each Community**

Community	Number of Households	Percentage Sampled
<b><u>Bale</u></b>		
Alawanso	1,278	1.02
Baka	171	7.60
Barisa	357	3.64
Bura Chale	1,800	0.72
Dobado-Ileensa	371	3.50
Ganata	429	3.03
Holle Amba (Negele Metama)	152	8.55
KaChama	886	1.46
Holle Washaribi	214	6.07
Wabe Barqitu	500	2.60
Total HH:6,158		Percent sampled:2.1
<b><u>Welaita</u></b>		
Achura	860	1.51
Admancho	1,085	1.12
Afama Bancha	2,500	0.52
Doola	763	1.70
Gido-Homba	1,100	1.18
Gudicho	594	2.19
Legama	1,307	0.99
Suke-Bakala	1,667	0.78
Woibo	689	1.89
Yukara	863	1.51
Total HH:11,428		Percent sampled:1.4
<b><u>Semen Gondar</u></b>		
Abayminch	300	4.33
Abtera	400	3.25
Benker	350	3.71
Dara	200	6.50
Deque	310	4.19
Gebriel	343	3.79
Kegawonz	279	4.66
Mikara	450	2.88
Shimelako	407	3.19
Tensiye	200	6.50
Total HH:3,239		Percent sampled:4.01
<b><u>Central Tigray</u></b>		
Adi-Chilo	121	10.74
Agbe	429	3.03
Adi-Ha	429	3.03
Bega-Sheka	390	3.33
Enda-Mariam	286	4.55
Getski-Mieslay	296	4.39
Guya	406	3.20
Shilum-Emni	287	4.52
Taget	286	4.55
Work-Amba	595	2.18
Total HH:3,525		Percent sampled:3.69