GIRLS' AND WOMEN'S EDUCATION POLICY RESEARCH ACTIVITY

Girls' and Women's Education, Office of Women in Development
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BASELINE REPORT: YEAR 1 NEPAL
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Karen Rowe
Shirley Burchfield, Ph.D.

with

Tika Ram Subedy
Haiyan Hua, Ph.D.
Cristine Smith, Ph.D.

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AID/Washington Office of Women in Development		Dr. Susie Clay
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GWE III Principal Investigator/ Project Director		Dr. Shirley Burchfield
GWE III Research Director		Dr. Haiyan Hua
GWE III Literacy Specialist		Dr. Cristine Smith
Technical Advisors		Dr. John Comings and Dr. David Kahler
The Nepal GWE III Research Team		
Research Coordinator		Ms. Karen Rowe
Research Officer		Mr. Tika Ram Subedy
Research/Administrative Assistants		Mr. Rajan Pant and Ms. Luni Shakya
Instrument Design and Survey Tools		Dr. Shirley Burchfield, Ms. Karen Rowe, and Mr. Tika Ram Subedy
Literacy Skills Test		Dr. Cristine Smith, Ms. Karen Rowe, Mr. Rajan Pant, Mr. Bal Bahadur Bhandari, Mr. Tika Ram Subedy, and Ms. Luni Shakya
Field Researchers		
Jhapa	Supervisor	Ms. Roshani Shrestha
	Enumerators	Ms. Shanti Shrestha, Ms. Bindu Prasai, Mr. Sanjib Kumar Joshi, and Mr. Suk Bahadur Gurung
Dhanusha	Supervisor	Mr. Krishna Hari Bhattarai
	Enumerators	Ms. Sabita Mahaju, Ms. Sunita Giri, Ms. Anjana Thapa, Mr. Dipak Katuwal, and Mr. Paras Bhatta
Chitwan	Supervisor	Mr. Ratna Kaji Kayastha
	Enumerators	Ms. Pratibha Aryal, Ms. Madhu Kunwor,

		Mr. Raju Aryal, and Mr. Krishna Giri
Nawalparasi	Supervisor Enumerators	Mr. Dilip Upretti Ms. Sony Shrestha, Ms. Rajani Shrestha, Mr. Sudhir Adhikary, and Mr. Ram Prasad Belbase
Banke	Supervisor Enumerators	Mr. Dharma Raj Pantha Ms. Anita Joshi, Ms. Bina Shrestha, Mr. Rajesh Chand, and Mr. Ram Chandra Tharu
Kailali	Supervisor Enumerators	Mr. Shanker Bimali Ms. Sapana Sharma, Ms. Urmila Rana Tharu, Ms. Minakshi Chaudhary, Mr. Dharma Raj Pandey, and Mr. Radhey Shayam Chaudhary
Data Coding and Data Entry		Mr. Tika Ram Subedy, Ms. Anita Joshi, and Mr. Ram Chandra Tharu
Data Analysis		Ms. Karen Rowe and Mr. Tika Ram Subedy in consultation with Dr. Haiyan Hua and Dr. Yenhong Zhang
Report Writing		Ms. Karen Rowe Mr. Tika Ram Subedy, Mr. Rajan Pant, Ms. Luni Shakya, and input and assistance from Dr. Cristine Smith, Dr. Shirley Burchfield, and Dr. Haiyan Hua
Final Editing		Ms. Pamela Civins and Dr. Shirley Burchfield

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LIST OF ABBREVIATIONS

BPEP:	Basic and Primary Education Project
CBS:	Central Bureau of Statistics
CERID:	Center for Educational Research Innovation and Development
GER:	Gross Enrollment Rates
GWE:	Girls' and Women's Education
HEAL:	Health Education and Adult Literacy
HIID:	Harvard Institute for International Development
ICIMOD:	International Center for Integrated Mountain Development
INGO:	International Nongovernmental Organization
LEA:	Language Experience Approach
MP:	Minister of Parliament
NESP:	National Education System Plan
NFHS:	Nepal Family Health Survey
NGO:	Nongovernmental Organization
NMIS:	Nepal Multiple Indicator Surveillance
PRA:	Participatory Rural Appraisal
REFLECT:	Regenerated Freirean Literacy through Empowering Community Techniques
SES:	Socio-Economic status
SOWN:	Status of Women in Nepal
UNESCO:	United Nations Educational Scientific and Cultural Organization
UNICEF:	United Nations Children's Fund
USAID:	United States Agency for International Development
VDC:	Village Development Committee
WDD:	Women's Development Democracy

EXECUTIVE SUMMARY

Previous studies carried out in Nepal have examined the effects of adult literacy programs and provided valuable information for improving them. Little research, however, has been conducted to assess the longer-term impact of the programs on the country's social and economic development. Evidence documenting the relationship between girls' education and development is abundant. However, there is insufficient evidence on whether women's literacy training has the same effect on social and economic development. While investments in literacy training over the past 30 years have increased, few studies have been conducted to assess the effects of these programs on social and economic development or to identify and evaluate what kinds of specific integrated literacy program interventions are cost-effective and work best for women. Without this information, governments and multilateral and bilateral donors cannot fully justify investments of scarce resources on women's integrated literacy programs.

This research, funded by the U.S. Agency for International Development, Office for Women and Development, is part of a three-country study that includes Honduras, Bolivia, and Nepal, which examines the effects of women's integrated adult basic education programs on the country's social and economic development. These studies seek to determine whether a relationship similar to that found between girls' primary school education and development also exists between women's literacy training and development. In addition, they attempt to identify cost-effective elements of literacy programs.

The Nepal study is being undertaken by assessing the impact of two programs (the Health Education and Adult Literacy program and the Basic and Primary Education Project) on the country's development by studying their effects on specific socio-economic indicators, including economic participation, community participation, community awareness and participation, health knowledge and practice, and children's education.

The GWE III Nepal research design consists of both quantitative and qualitative data collection. Quantitative data are being collected once a year for a period of three to five years through surveys from 1,072 women, 843 of whom are from the experimental group (women who entered a basic literacy class within one month of the survey visit). Two hundred and twenty-nine women are from a control group (women who have not entered any literacy class to date). All the 1,072 women were chosen from the Terai (the southern flatlands of Nepal). A sub-sample of 20 women (16 from the experimental group and four from the control group) has been selected for a more in-depth, qualitative part of the study. The in-depth data are being collected from these 20 women, their families, and their communities, for a minimum of three years. This report describes only the quantitative methodology and analysis of data collected in year one of the study.

Cost effectiveness data will be collected during year three of the study. This will be measured by the findings on the participants' surveys for years one, two and three, with respect to the indicators of impact. Additionally, measurement will consist of an analysis of the elements of the programs including: 1) facilitator characteristics (qualifications,

sex, age, education, native language, and experience); 2) program length/class schedule (number of months of instruction, number of days per week of instruction); 3) availability and use of textbooks; 4) facilities (type of facility, lighting, furniture); 5) class schedule (number of times per week, number of months of instruction) in relation to participant survey responses and literacy test performance. These data will be analyzed in conjunction with program cost data in order to obtain a measure of the cost effectiveness of various elements of the program. Analysis will include both investment for program development and startup and annual recurrent costs.

Survey results of the year one baseline study indicate that while the two groups under examination (experimental and control) appeared similar on most demographic characteristics, significant differences were found on their overall socio-economic status (SES) as measured by a 13-point scale, on their literacy skill levels as measured on a 49-point scale, and on several of the impact indicator variables. Overall, experimental group women had a slightly higher SES and higher literacy skills than control group women. Experimental group women also showed greater knowledge, and reported more positive attitudes and practices on many of the variables than women in the control group. More specifically, experimental group women were found to be more politically aware and to participate more in social or political activities, to demonstrate more health knowledge and healthy practices, and to have more positive attitudes toward both educating and assisting with the education of their children. Finally, the experimental group women were more likely than the control group women to send their children to school (the control group had a much higher percentage of children who had never attended school).

In a longitudinal study, one expects to see no or minimal differences between the identified experimental and control group women in the initial baseline data collection (before the intervention). However, as the results of this study have shown, a number of statistically significant differences existed between the experimental and control groups. It is not surprising that literacy levels of the two groups were already different, since 24% of the experimental group women had some previous exposure to literacy classes. It is, however, less clear why the experimental and control group women are different on one of the key background variables (socio-economic status), and why the experimental group women already show "better" results than the control group women on a number of the impact indicators.

It is likely that women who decide to participate in literacy classes are already very different from women who do not join literacy classes. This explanation is plausible given the fact that there is a long history of literacy programs in Nepal, and women in the communities where the research has been conducted have had several opportunities to join classes, yet there are still some women who have not participated in any literacy program. No statistics are available on the exact proportion of women in the communities in the study participating or not participating in a literacy course. However, literacy classes have been offered at one time or another in most communities in Nepal during the past two decades. It is not yet clear why these women have not participated in literacy classes.

The first year data do, however, suggest that women with certain characteristics (different from women who join classes) may be less likely to join literacy classes. For example, the women in the sample who have not participated in any literacy programs are less likely to be a native Nepali speaker, are poorer, are less active in community activities, are less knowledgeable about several health and political issues, and are less likely to send their children to school. What is not clear is whether or to what extent they have not participated in literacy programs because they are too poor--and thus have no time or energy to devote to literacy--or because they are simply not interested. This question cannot be answered until more data have been collected, over time, on their reasons for not joining literacy classes.

Finally, two key factors, a woman's socio-economic status and her literacy level, appear to be predictors of outcomes on several indicators of an individual's socio-economic development. Comparing the women who do not join a literacy class in the future (and thus remain in the control group) to those who complete various levels of the integrated literacy programs in this study will help us to understand the extent to which literacy skills versus the indicators (individual characteristics or SES variables) contribute to their overall empowerment or advancement in six areas of their lives.

1. INTRODUCTION

1.1 The Goals and Purposes of Girls' and Women's Education Initiative and the GWE III Research Activity

The relationship between basic education and long-term economic growth is well documented. Numerous studies report a strong correlation between the education of girls and a country's sustainable economic development. Research findings show those investments in primary schooling that benefit girls in turn promote long-lasting gains. Female literacy and schooling have been shown to be key variables in development gains in agriculture, family planning, child survival, economic participation, and economic growth (King and Hill, 1993; King, 1990; Subbarao and Ramey, 1992; Floro and Wolf, 1990; Psacharopoulos, 1989; Benavot, 1989; and Cochrane, 1979). The World Bank has stated that investing in the education of girls may well yield the highest return available in developing countries, considering individual benefits, returns to other family members, and community development (World Bank, 1995).

Findings have shown that educating girls has important social and environmental benefits and increases the duration of their own lives and the human potential of the children that they bear. Educating girls has been shown to increase the education of succeeding generations; educated mothers are more likely to send both girls and boys to school and keep them in school longer. Educating girls increases a country's economic growth, improves participation in wage employment and in-home and non-market production, and contributes to reduced fertility rates and decreased child mortality.

There have been and continue to be notable gains in the arena of girls' education. During the period from 1960 to 1990-94, primary gross enrollment ratios (GER) for girls increased in every geographic region of the developing world. In Sub-Saharan Africa, the GER for girls increased from 24% to 66%; in Latin America and the Caribbean from 71% to 103%; in East Asia and the Pacific from 85% to 112%; in South Asia from 39% to 80%; and in the Middle East and Africa from 35% to 84% (UNICEF, 1997). Despite progress in enrollments, girls lag behind boys with many school-age girls still lacking access to the educational system. Girls represent more than two-thirds of the children who never go to school or who drop out before completing school.

When girls do not attend or complete primary school, they join an estimated one billion illiterate adults worldwide, a group in which there are twice as many women as men. While there was an estimated overall increase in female literacy, with the female-to-male literacy ratio increasing from 54% of the male rate in 1970 to 74% in 1990, female illiteracy remains serious. In 1995, the estimated female illiteracy rates in four Asian countries were over 60%: Nepal (86%), Pakistan (75%), Bangladesh (74%), and India (62%). The estimated rates in several African countries were similar: Burkina Faso (90%), Sudan (89%), Mali (82%), and Egypt (70%).

Evidence documenting the relationship between girls' education and development is abundant. However, there is insufficient evidence on whether women's literacy training

has the same effect on social and economic development. International donors have sought cost-effective investments that will make a significant impact on educational quality. While investments in literacy training over the past 30 years have increased, few studies have been conducted to assess the effects of these programs on social and economic development or to identify and evaluate what kinds of specific integrated literacy program interventions are cost-effective and work best for women. Without this information, governments and multilateral and bilateral donors cannot fully justify investments of scarce resources on women's integrated literacy programs.

Based on the substantial body of evidence that primary school completion by girls has a significant impact on developing countries' long-term social and economic development, USAID launched the Girls' and Women's Education Initiative in 1995 to spur rapid further advances in girls' and women's education. The end goal of the Initiative is to increase girls' primary school completion rates by 20% in selected countries by mobilizing developing country decision-makers--from religious leaders to government officials to the private sector and the media--to work with each other to create their own solutions with their own resources.

The primary objective of the research component of the Girls' and Women's Education Activity, which is implemented by World Education in collaboration with the Harvard Institute for International Development and the Education Development Center, is to determine whether women's participation in adult basic education programming advances development. This is being done through analytical studies of the impact of women's participation in adult basic education programs;[1] the identification of cost-effective elements of those programs; and the sharing of research findings with a broad stakeholder audience, including key decision-makers. Findings from this research will help planners at the national level and in international assistance agencies make more informed decisions about the allocation of resources for programs that affect countries' development. In addition, findings from the research may help the private and the public sectors develop more appropriate programs tailored to women's social and economic development needs.

The specific purpose of the Girls' and Women's Education Activity in Bolivia, Honduras and Nepal is to determine the effects of women's integrated basic education programs on the country's development. The research examines the programs' effects on indicators of social and economic development, including economic participation, community awareness and participation, political awareness and participation, health knowledge and practice, and children's education. In Benin and Peru, GWE III studies focus on specific

[1] The terms "adult basic education programs" and "adult literacy programs" are used in this report interchangeably. In Nepal, programs are referred to as "integrated adult literacy programs;" in Bolivia and Honduras, they are called "integrated adult education programs." The use of the term "integrated" implies that basic reading, writing and numeracy skills are not taught in isolation but are a part of an integrated approach that incorporates functional information on topics such as health, income-generating, agriculture, family planning , etc. with basic literacy skills. An integrated literacy program can be defined as one that "attempts to provide a comprehensive education over a longer time frame than a program or campaign" (Comings, et al., 1995). An integrated literacy program offers literacy training and also provides the participants with skills and knowledge in one or more areas.

constraints to girls' education and on delivering recommendations for policy reforms to overcome these constraints.

The GWE III research will offer important information on the effects of women's integrated literacy programs for those involved in decision making about future strategies and the use of resources to promote educational opportunities for girls and women. To have lasting impact, research on girls' and women's education must be linked to concrete actions. These actions must take place at several levels, involve a wide range of stakeholders, and be implemented in tandem with national strategies for girls' and women's education. Effecting change is a long-term and incremental process, necessitating innovative approaches that provide stakeholders a genuine role in the process and give them a sense of ownership of the solutions.

Achieving the full participation of girls and women in educational activities requires a fundamental shift in how decisions are made and resources are allocated. It is not just a question of how parents view their children's education but also the way teachers and literacy facilitators relate to both females and males in an educational setting. It also requires a shift in the way that policymakers, including governments, the private sector, religious leaders and other agencies, allocate resources and assume responsibility for educating all citizens. Effective educational activities for girls and women require collaboration between the formal and nonformal education sectors as well as between the private and the public sectors. Sustainable educational activities for girls and women are dependent on the development of local ownership of the activities. Implicit in local ownership are the active involvement, commitment, and coordination of a wide range of stakeholders, including decision-makers in government, local community and religious leaders, and community members themselves--both women and men.

1.2 Girls' and Women's Education Activity: Component III in Nepal

The GWE III research design for Nepal entails carrying out a longitudinal (three to five-year) study to measure the developmental impact of the literacy programs. The purpose of the study is to determine the impact of integrated women's literacy programs on the country's development by studying these programs' effects on indicators of social and economic development, such as women's productivity, income-generating, community and democratic participation, and their participation in decision making, family health, family nutrition, and children's education.

The GWE III Nepal research design consists of both quantitative and qualitative data collection. Quantitative data are to be collected once a year for three years from experimental and control groups chosen from the Terai (the southern flatlands of Nepal). Survey data will be collected from more than 1,000 women entering one of two integrated literacy programs. The same women will be followed for three years through an annual survey. A sub-sample of 20 women (16 from the experimental group and four from the control group) will be interviewed at intervals over the three-year period to provide more in-depth, qualitative information about the women, their families, and the communities in which they reside.

1.3 Nepal Country Profile

Nepal is a small, landlocked Hindu kingdom about 884 kilometers long from east to west and 145 to 241 kilometers wide from north to south (about 500 miles long and 100-200 miles wide). The country is bordered by the autonomous region of Tibet to the north and India to the east, west, and south. The country is divided into three ecological zones on the basis of altitude, north to south. Nepal is a country of physical extremes, from the mountainous belt of the Himalayas in the north to the subtropical plains in the south. Politically, the country is divided into five development regions, subdivided into 14 zones, and further divided into 75 districts. Nepal has a population of over 21 million people of varying ethnic, cultural, and linguistic backgrounds. The 1991 census recorded 35 languages and 59 ethnic groups. Nepali is the official language, while the next two most commonly spoken languages are Maithali and Bhojpuri, both found in the southern part of the country, which is more densely populated. The majority of the people are Hindus (86.5%), followed by Buddhists (7.8%), Muslims (3.5%), and others (2.2%). Generally in Nepal, a hierarchical social structure with a strong caste system dictates one's place in society, and a strong patriarchal system dictates roles for women.

Nepal is one of the least developed nations and has one of the lowest per capita incomes in the world (GNP = $190). The country's rapidly increasing population exacerbates the deterioration of its natural resources, principally through deforestation. Infrastructure, such as transportation and communication, is very limited. Nepal has relied heavily on foreign aid for its development and its foreign debt has increased considerably over the last 20 years.

The political situation in Nepal is currently very unstable. Prior to 1990 Nepal was governed by an absolute monarchy. In 1990, a "people's" democracy movement was launched, resulting in an interim government that was formed under a new multiparty democracy system. Eight years later, Nepal's power struggles are still fostering popular dissatisfaction with government decisions. General elections were held in 1991, 1994, and recently in May 1999. Since 1994, five different governments have been in power. Moreover, there is a widespread perception that corruption and violence are on the rise. Finally, a nascent, underground Maoist terrorist movement is causing fear and violence in many areas of the country.

2. LITERACY IN NEPAL: ITS LINKS TO SOCIAL AND ECONOMIC INDICATORS

2.1 Brief History

Until 1951 the country's literacy rate was limited to 1% of the total population. In 1952, with U.S. assistance, the Nepali government launched a program in adult education. In that year Nepal, a country that had recently opened its doors to foreigners, appointed Dr. Frank Laubach of the World Literacy Foundation to assist in designing and preparing literacy materials. Initial three-month courses were designed in the early 1950s.

By the late 1950s and early 1960s, courses were extended to six months, with more emphasis on providing training in social education, and rural libraries were established. Later, the program was extended to nine months to include six months of reading, writing, and mathematics, and three months of health, agriculture, and social sciences. In 1971, the government implemented a National Education System Plan (NESP). NESP focused on making literacy and education more functional in order to provide knowledge and skills to adults to solve problems in their daily lives. With the efforts of the government and volunteers to eliminate illiteracy, by 1961 the literacy rate had increased to almost 9%, and by 1971, the overall literacy rate was at 13.9% (Basnyat, 1984).

In 1977 the Ministry of Education, the Center for Educational Research Innovation and Development (CERID, a division of Tribhuvan University), and World Education, an international nongovernmental organization (INGO), teamed up to explore more effective ways to provide nonformal education to rural areas of Nepal. Over the next three to five years, the team developed, piloted, and continuously revised a set of materials. The result of these efforts was the creation of the Nepal National Literacy Program, a six-month curriculum using a text called *Naya Goreto* (*New Trail*), designed to teach reading, writing, and math skills while also providing a number of relevant social messages. Many INGOs and local nongovernmental organizations (NGOs) involved in rural development subsequently adopted the materials and the approach used, with literacy becoming an "entry point" for development work in the villages.

Throughout the 1980s literacy efforts continued to grow, and the number of participants in literacy programs multiplied. In 1988, the Basic and Primary Education Project (BPEP), under the Ministry of Education's Nonformal Education Unit, initiated its own Women's Education Program. The objective of this program was to provide literacy skills and knowledge to women and to help them become self-reliant by providing skills training to run income-generating activities. (For more details on BPEP, see Appendix I). While there are two main literacy programs, the six-month National Literacy Program and BPEP's 18-month Women's Education Program, a number of other INGOs and NGOs continue to develop new materials and to provide post-literacy programs on specific topics, such as health and credit.

As Table 2.1 shows, literacy rates have continued to increase over the last 30 years. Most noticeable, however, is that there is still a large discrepancy in the literacy rates between males and females and the gap does not seem to be getting any narrower. Although the rate of female literacy increased from 3.9% in 1971 to 25% in 1991, it remains less than half that of the male literacy rate.

Table 2.1: Literacy Status in Nepal
Percent of Literate Population Over Six Years Old

	1971			*1981*			*1991*		
	Male	***Female***	***Total***	***Male***	***Female***	***Total***	***Male***	***Female***	***Total***
Nepal	23.6	3.9	13.9	33.9	12.1	23.3	54.5	25.0	39.6
Terai	22.1	4.4	13.7	32.1	11.9	22.5	49.8	22.7	36.5
Hill	25.8	3.9	14.8	36.9	12.9	24.9	60.2	28.5	43.9
Mountain	17.6	2.1	9.9	27.6	7.8	17.9	50.2	16.5	33.2

Sources: CBS, Population Monograph of Nepal 1987
CBS, Population Monograph of Nepal 1995
NRA, Nepal District Profile, 1994

By 1995, over 500,000 people a year were participating in literacy programs (Comings, Smith, and Shrestha, 1995). According to the Nonformal Education Council's official records, as of 1997, literacy rates in Nepal were 48%. This indicates that there is still much work to be accomplished in education and literacy in Nepal.

2.2 Literacy Approaches in Nepal

Three main teaching and learning approaches in nonformal education have been used in Nepal: Keyword Approach, Language Experience Approach, and REFLECT.

2.2.1 Keyword Approach

The Keyword Approach is based on the Freirean concept of education. It was introduced to Nepal with the development of *Naya Goreto,* the textbook for basic literacy learners widely used throughout the country in both governmental and nongovernmental education programs. Using the Keyword Approach, learners are expected to gain skill and knowledge in reading, writing, and mathematics within a six-month period. A keyword is introduced in each lesson. Each keyword is meant to introduce new letters to the participant while at the same time introducing a familiar topic or idea that is relevant to the learners' daily lives. Each lesson begins with a discussion based on a picture. The picture, presented to the participants, depicts the idea of the keyword. After the picture discussion and presentation of the new word in writing, the class facilitator separates the letters and syllables used in the word and then teaches reading and writing of the individual letters and syllables found in that word. *Naya Goreto* is not the only text to use this approach. A number of other organizations, including BPEP's Women's Education Program, have developed their own materials in both Nepali and other local languages that use the Keyword Approach.

2.2.2 Language Experience Approach

The Language Experience Approach (LEA) was introduced in Nepal during the 1990s. In 1991, a workshop entitled "Literacy Programs in a Multilingual Society" was organized by Save the Children/US and Redd Barna/Nepal. The aim of the workshop was to identify alternative approaches to delivering literacy training in a multilingual society such as Nepal. The Language Experience Approach is a reading technique that helps participants to first become literate in their native language, after which they can use another approach to learn the Nepali language and Devanagari script. In this technique, participants are encouraged to talk about experiences, problems, and events in their lives. Their words are transcribed and used as text for reading and writing practice. Save the Children/US, as well as a number of other literacy providers, are using LEA for basic literacy learners.

2.2.3 REFLECT Approach

REFLECT (Regenerated Freirean Literacy through Empowering Community Techniques), developed by Action Aid, an INGO, was first introduced to Nepal in 1995. This approach emphasizes the empowerment of villagers and increases their literacy skills. It aims to bring changes on three levels: individual, institutional, and structural. Participatory Rural Appraisal (PRA) methods are used for the most part. There is no fixed curriculum, instead, locally produced materials are used. The literacy class begins with the participants' experiences and a keyword is generated from this discussion. A facilitator develops lessons using this keyword. A facilitator helps participants to prepare materials such as social resource maps and other tools used in PRA. There is no predetermined duration of the literacy class. In REFLECT, the literacy class is viewed as part of a larger, overall effort to raise awareness and to ultimately lead to community action. The REFLECT method is growing in popularity in Nepal, and a number of organizations are starting to implement integrated development programs using this approach.

2.3 Previous Research

Throughout the world there are approximately 950 million illiterates, of whom 70% are women (UNESCO, 1997). Female illiteracy rates in four countries in south Asia are among the highest in the world: Nepal (76%), Pakistan (75%), Bangladesh (74%), and India (62%). High rates of female illiteracy have severe consequences for women, their families, and their communities. Many researchers have noted a correlation between low rates of literacy and other indicators of underdevelopment, such as poverty, illness, malnutrition, high infant mortality, and unemployment (Malmquist, 1992; Psacharopoulos, 1995). Low levels of educational attainment and poor nutrition exacerbate poor living conditions and diminish an individual's ability to work productively (World Bank, 1995c; Subbarao and Raney, 1993; Summers, 1994).

According to Psacharopoulos (1994) the impact of social and economic loss is even more damaging when women are denied access to basic education and health care. He further

notes that evidence from around the world shows that private returns from investments are at least as great for women as for men, and may, in fact be marginally higher. However, the total benefits to society from investments in women's education are significantly greater than the same investments for men, as evidenced by the strong correlation between women's education and their health, nutritional status, and fertility levels, as well as the education, health and productivity of future generations. These correlations are even stronger when women have control over the way household resources are allocated (World Bank, 1995c).

Moreover, findings from studies carried out in a number of developing countries suggest that "educated women are more likely to stand up for themselves, participate in the labor force, and seek health care for themselves and their children" (Acharya, 1997: 50). The Plan of Action adopted at the Jomtien Conference on Education for All in 1990 signaled the need to address women's social and economic needs through basic education. The Program of Action adopted at the 1994 International Conference on Population and Development in Cairo recognized the importance of providing women with educational opportunities in declaring "education as a key factor in women's empowerment," and terming the eradication of illiteracy as "one of the prerequisites for human development" (International Conference on Population and Development, 1994: 51). The rhetoric was similar at the 1995 Beijing Conference on Women.

In Nepal the rate of female illiteracy, at 76%, is one of the highest among low-income countries. In some districts of Nepal, the female illiteracy rates are as high as 89% (ICIMOD, 1997). This is so despite efforts by the government and many nongovernmental organizations to implement literacy programs for women. Literacy attainment among women in Nepal has potential far-reaching implications for individual, family, community, and national development.

The increased knowledge, skills, attitudes, and self-confidence that come with acquisition of literacy skills have been demonstrated to help women in many ways: they more effectively pursue income-generating activities (World Bank, 1995) and become more active in community groups and organizations (Archer and Cottingham, 1996). Additionally, literate adults better understand the legal system so that they are able to protect themselves from abuse and exploitation (Lind, 1995); they more effectively pursue their individual and family health needs and they provide better support for their children's schooling (Burchfield, 1997; McNelly and Dunford, 1996; Sandiford, et. al. 1995); World Bank, 1995; Smith, Shrestha and Comings, 1995; Griffiths 1992).

The sections that follow highlight recent literature in Nepal and other countries on some of the key factors that are known to contribute to a country's social and economic development. This discussion is intended to provide a brief update on existing information about many of the indicators examined in the GWE III study in Nepal, and highlight key research findings on the impacts of women's participation in nonformal adult literacy courses on their lives and their country's development. The areas discussed include: economic participation, community and political participation, health, and children's education.

2.4 Economic Participation

Women contribute to economic growth in numerous ways. Two types of contributions are most notable. First, women participate in the work force in activities that can be conventionally measured. Second, they contribute through unpaid work such as subsistence production, volunteer work in the community and domestic activities. However, work in the informal sector is rarely measured or taken into account in development plans. Market wage calculations do not take into consideration the social benefits of educating and hiring women (World Bank, 1995c). Yet, it is widely recognized that in rural areas women play significant economic roles, and in some countries (particularly those in war-torn areas or countries with high migration rates) women often have the primary responsibility for the support of their families (Inter-American Development Bank, 1995b).

Because of the large number of women participating in the informal sector in developing countries, interpreting trends in women's labor force participation is extremely difficult, especially since many of informal sector activities overlap with subsistence-oriented household activities or community-based activities (World Bank, 1995b). Throughout the world women earn substantially less from labor than men. In a study in six developing countries (Brazil, Colombia, Cote d'Ivoire, Indonesia, Philippines and Thailand) it was found that women's wages relative to men's in recent years have increased by about one percent per year (Tzannatos, 1995 in World Bank, 1995c). However, it is estimated that on average women make 30 to 40 percent less than men (World Bank, 1995c). Such disparities are closely associated with differences in education levels and work experience. These inequities are further perpetuated by discriminatory institutional practices and norms that influence household distribution of resources. The decision for a woman to stay out of the work force may not be the optimum use of household resources and may not necessarily reflect a woman's own choice.

A cross-country study in the cities of Lusaka, Zambia; Guayaquil, Ecuador; Metro Manila, Philippines; and Budapest, Hungary found that during times of economic reform, women rely more on the informal sector than men. However, women are more restricted in the types of activities they pursue and their competitiveness is limited due to limited mobility and lack of financial and public services. They also tend to specialize in nontraded goods and services that produce relatively low average returns to labor. Women's earnings relative to men's in those countries ranged from 46 to 68 percent of men (Moser, 1994 in World Bank, 1995c).

Despite substantial inputs from women's labor, women's contributions to the Nepali economy have been significantly undervalued by Nepali society. *The Status of Women in Nepal* (*SOWN*) study completed in 1981 showed that women contributed to more than half (53%) of household income in rural areas. Almost 52% of the labor contributed to farms is that of women (Acharya and Bennett, 1981). Yet 1991 census data showed that 48.1% of rural women versus 69.8% of rural men were reported to be economically

active. This means that much of women's labor activities goes unreported and unrecognized (Acharya, 1997).

Illiteracy contributes to women's difficulties in competing in the larger labor force. Women are easily displaced and unable to find attractive alternatives because of their lack of formal education. Women's literacy programs fill a vital need to provide women with educational skills they can use in order to generate income. USAID/Nepal determined that women who can read and write and earn money can create more social change through organized and collective actions (Dhakal and Sheikh, 1997). However, further research linking the effects of literacy programs on women to her earning potential and ability to enter the local market economy in Nepal is still needed.

Shtrii Shakti reported in 1995 that the rural workload of women had increased since the time of the *SOWN* study. In fact, a number of important trends in women's labor patterns have resulted in their low level of empowerment (Acharya, 1997). Today 23% of the labor force in manufacturing is female, a figure that increased six-fold in the 1980s. Home-based industries are disappearing in the face of the internationalizing economy. Competition for imported goods or replacement by "organized formal units" has led to their decline. This has disproportionately affected women, whose lack of education and mobility often means they are the first employees to go.

"Economic security, including the right to own property and have cash savings, enables women to negotiate household decisions…When women have control over purchases, they will invest more of their income on their children, their household needs, and their own health needs…[Furthermore,] shared household decision-making strengthens a family's capacity to improve the well-being of all its members" (Acharya, 1997, p 48).

Access to financial services are important to economic growth and development. Savings provide a safety net, and credit helps households survive when their incomes fluctuate temporarily. Credit can also help to fund investments in capital or other inputs that yield relatively high returns to production when households do not have sufficient savings to finance such investments. Additionally, savings and credit increase options for household members outside the home (World Bank, 1995c).

However, inequalities between men and women in access to financial services, especially credit, are widespread. "Collateral requirements, high transaction costs, limited mobility and education, and other social and cultural barriers contribute to women's inability to obtain credit" (Holt and Ribe, 1991 in World Bank, 1995c, p. 35).

A World Bank study of credit programs in Bangladesh (Pitt and Khandker, 1995) found that providing credit directly to women has a positive effect on indicators of household and individual welfare and gender equality. Findings indicated a correlation between such programs and increases in per capita expenditures on both boys' and girls' schooling and a reduction in fertility. They also found that female borrowing has a greater effect on girls' schooling and per capita expenditure than does male borrowing and that male borrowing has a greater effect on boys' schooling and fertility than does female

borrowing. Additionally, it was shown that female borrowing also results in more female ownership of nonland assets and an increased supply of female labor to cash-income earning activities.

The World Bank (1995c) warns against the dangers of overgeneralizing about the benefits of providing women with access to credit, purporting that credit alone is insufficient to spur development. Nevertheless, they conclude that credit or working for wages may give women greater bargaining power within the household that can be used to improve child health and nutrition and may increase the likelihood that children will attend school.

As noted in the preceding discussion there are many aspects of economic participation, including participation in the formal and informal sectors. Few women in Nepal are actively engaged in the labor force. Consequently, for the purposes of this study indicators of economic participation include: 1) increased involvement in income-generating activities, whether individual or group; 2) use of credit; 3) use of improved agricultural or production techniques which result in increased productivity; and 4) making local resources more productive than they were before.

2.5 Community and Political Participation

A study conducted in Nepal in 1997 found that women who have learned to read and understand their legal rights are much more likely to initiate action for social change (Dhakal and Sheikh, 1997). Also, Robinson-Pant's investigation of women who completed literacy courses (in one district, Dhanusha, in the Terai) and had received Tin Trunk libraries in their communities found that women were "particularly keen to read women's law books to know more about their rights in society" (1997: 44).

USAID/Nepal has recognized the connection between women's literacy and legal rights and has been working to strengthen their empowerment with its Women's Empowerment Program. The program works to increase "women's participation in basic literacy, legal literacy and economic participation activities" so that they may "initiate collective social actions" and "increase the influence they have in household decision making, and participate in decisions over the allocation of their own income" (Dhakal and Sheikh, 1997). The impact of literacy programs like these on women's lives and their communities is the subject of investigation in this study.

Bown (1990) reviewed a number of case studies of literacy programs from different countries and concluded that women who attain literacy through nonformal adult literacy programs may be more likely to participate in community organizations than women who have attained literacy through formal schooling. Furthermore, a number of literacy program evaluations from Nepal report an increase of women's involvement in community organizations and activities as a result of attending literacy courses (CERID, 1997; Reinhold, 1993; Save the Children/US, 1997). This may be due to the group formation and social cohesion that often result from women's literacy courses. Evidence from Nepal suggests that, regardless of their actual literacy skill acquisition, women's participation in local literacy classes can help them establish a support network of other

women; many women express the desire to continue meeting as a group even after the course ends (Smith, 1995). Robinson-Pant's (1997) study, however, concluded that the literacy class strengthened women's organizations (groups) that already existed rather than that the literacy class had helped to form the groups.

Women's participation in politics in Nepal is very limited. In 1995, figures showed that of the total number of village development committee (VDC) seats occupied, only 0.59% were filled by women. Moreover, surveys conducted in 1993 indicated that only 17.6% of women in rural households would even be willing to serve as representatives in the VDC, if elected. When asked why they did not want to participate, 32.8% said they were not capable of performing the duties required of the position, and 29.7% gave illiteracy as the main reason for their hesitancy (Shtrii Shakti, 1995).

Evidence in Nepal indicates that women are often unaware of their own legal rights in such areas as divorce, discrimination, and sexual and reproductive health (Acharya, 1997; Shtrii Shakti, 1995). One reason for this low level of awareness, as well as for the general absence of female participation in legal affairs, is the perception that women belong in the private sphere of Nepali society and not in the public sphere where legal affairs take place (Shtrii Shakti, 1995). Perhaps as a result of limited female participation in Nepalese legal affairs, women's legal rights are still lacking. On the surface, this does not appear to be the case. Each of Nepal's three constitutions since 1951 claim to protect women from gender discrimination because they have laws against discrimination "based on sex." But as the Shtrii Shakti report pointed out, "…the general laws themselves are based on Hindu patriarchal ideology and still reflect male domination" (1995: 85). Specifically, women remain extremely vulnerable with regard to their property rights, divorce rights, and personal rights in the event of rape (Upreti, 1991; Thapaliya, 1996; Shtrii Shakti, 1995), and even in their rights to adoption (*Kathmandu Post*, March 14, 1997).

2.6 Health

Evidence from around the world demonstrates that women in developing countries are often marginalized in terms of family health needs. Several studies have noted changes in health knowledge and behaviors of some participants in literacy and basic education programs but were unable to verify long-term adoption of safer practices. Santow writes that modern health care in developing countries is often allocated "along the lines of sex, age and familial role" (1995: 154). Consequently, women are less likely than other family members to be allocated proper medical care in the event of illness.

Lack of decision-making power is one factor that may discourage women from seeking proper health care. In Nepal, Acharya and Bennett (1981) found that not only health care itself but the actual decision-making process surrounding the utilization of health care is male dominated. For both traditional and western health care, only 22.1% of the women surveyed, compared to 46.8% of the men, decided on their own to spend their household's resources on medical treatment for someone in their family.

There are also cultural norms and values that inhibit women from seeking health care. Particularly in South Asia, women's modesty or shyness may hinder them from going to a medical facility where, for example, there are only male doctors. Their own perceived inability to understand or interpret a given message may restrain them from seeking advice from trained medical personnel. Thapa (1995) observed that there are few social mechanisms in place in Nepal to encourage women to seek out treatment for health problems. He quotes Dixon-Meuller and Wasserheit (1991) in referring to this phenomenon as a "culture of silence." Reasons for this silence include a fear of being ostracized by fellow villagers, a lack of awareness concerning where to turn for help or treatment, and the generally low priority given by Nepalese to women's health needs compared to those of their husbands and children.

It has been found in a number of studies carried out in Nepal that attending literacy classes can break this culture of silence. Research shows that participation in literacy classes can increase women's knowledge of health-related issues, increase their decision-making power within the family regarding health-related needs, and increase their tendency to seek modern medical treatment (Reinhold, 1993; Comings, et al., 1994; Save the Children/US, 1997; Smith, 1997). Some program evaluations discovered that female participation in literacy courses can improve the health of the whole family by leading to better sanitation and nutrition practices and increasing the likelihood that children will be immunized (Save the Children/US, 1997; Smith, 1997). It should be noted, however, that female participation in literacy classes might not always be the sole cause of positive trends in health practices as reported by some evaluations. Studies cannot always tease out and isolate possible factors that may lead to desired behavioral change. It is logical then that positive changes in health practices among literacy class participants may result from a combination of literacy and other development interventions, such as health classes (Save the Children/US, 1994; Smith, 1997).

Another area in which research has demonstrated that nonformal education and literacy courses can have an impact is reproductive health. In Tanzania, participants in adult education programs were found to know more about family planning and to hold more positive attitudes toward contraceptives and use them more frequently than their peers who had not participated in classes (Carr-Hill, 1991). In Nepal, Burchfield (1997) found that women who attended literacy classes had greater control over decisions regarding family size and child spacing than women who did not attend classes. CEDPA (1995) reported that literacy course participants were more likely than other women who did not attend literacy class to discuss family planning with their spouses, more likely to utilize contraceptives, and more likely to participate in decisions concerning the desired number of children. Finally, research suggests that integrated programs that combine literacy instruction with a health curriculum have a greater impact on women's health practices than literacy courses without the specific health component (Smith, 1997).

2.7 Children's Education

Studies in Nepal have reported that often when parents want to send their children to school, certain key factors prevent them from doing so. A number of child-, household-,

and school-related characteristics individually and collectively affect children's participation in school. In Nepal, two reasons why families do not send their children to school were identified: the work burden a family places on the children and the lack of financial resources to send them to school. Nepalese children are expected to help with household chores, and many children are also involved in labor (wage-earning) activities. Not surprisingly, a negative correlation has been found between involvement in household activities and going to school. One study found that more than 90% of the children who were engaged in earning activities did not go to school (CERID, 1984: 48). A more recent study, which included both surveys and focus group discussions, concluded that the two main reasons parents report for not sending their children (aged 6-10) to school were they were either too poor to pay registration and other fees or their children had to do household chores. The number of girls not going to school because of household chores was a bit higher than for boys (*Nepal Multiple Indicator Surveillance*, 1996).

In addition, a third critical factor inhibiting children from going to school is parental attitudes toward education. Parents' attitudes toward their child's education can be measured by examining: 1) efforts they have undertaken to send their child to school, even if they have limited resources; 2) their interest in participating in the child's education; and 3) their own ability to help the child with his/her studies. The *Nepal Multiple Indicator Surveillance (NMIS)* study (1996) reported that, in general, parents value education for their children and they "have good intentions about sending their children to school, recognizing the importance of education." However, parents' attitudes regarding school participation were often different for sons and daughters, with some parents believing education for girls is not worthwhile, is inappropriate, or is even harmful (in terms of marriage prospects).

Two major studies examining the status of women in Nepal have also shed light on parental attitudes toward sending girls to school. The first major study was on the status of women in Nepal (often referred to as *SOWN*[2]) (Acharya and Bennett, 1981). The second study examined the changes in women's status in Nepal from 1981 to 1993 (known as the *Women's Development Democracy* (WDD)[3] study) (Shtri Shakti, 1995). Both of these studies asked the question , "Should girls go to school?" and examined the various reasons given by those who responded negatively. In the former study it was found that 29% of respondents felt girls should not go to school, mainly because they were needed to work. A much smaller percentage of respondents reported that education for girls was not a good investment since, after girls were married, they would leave and thus not benefit the household. In the more recent *WDD* status of women study, 91% of respondents expressed the view that girls should go to school. Of the 9% who felt it was not worth sending girls to school, the most common reason stated was that it is difficult to find husbands for highly educated girls.

One study in Nepal has shown that children who do not receive help at home with their studies are more likely to repeat a grade or drop out of school (NMIS, 1996). This same

[2] *SOWN* was published in 1981.

[3] *WDD* was published in 1995.

study reported teachers' views about how to lower class repetition and dropout rates. The two most common suggestions were to educate the parents through nonformal education and to get parents to help their children study at home (the latter being influenced by the former). Furthermore, study results suggest that "literacy programs (and other developmental programs) aimed at modifying the attitude of rural adults would have a salutary effect on rural children's participation in education" (CERID, 1984: 48). The NMIS study also found that school dropout and class repetition rates were negatively correlated with the amount of help a child receives at home on his/her studies. However, this study did not examine whether or not those students whose parents were literate were receiving more help at home. Previous studies, on the other hand, have reported that the average educational status of the adults in the family is significantly correlated with the child's participation in school (CERID, 1984: 48).

A retrospective study conducted by Save the Children/US found that while both literate (participants in Save the Children/US' literacy program) and illiterate women valued their children's education, literate women reported more involvement in their children's school activities, including discussions about school progress with children and meeting with children's teachers (Save the Children/US, 1997).

Burchfield (1997) carried out one of the most recent studies examining women's literacy programs and their impacts in Nepal. Women who attended nonformal literacy classes (basic and post-literacy) were compared with women who did not attend literacy classes and had no formal schooling. Burchfield used the following measures to assess the effects of literacy courses on children's schooling: 1) the percentage of participants with children enrolled in school before and after the literacy course; 2) the proportion of women who talked to their children about their progress in school; and 3) the proportion of women who made sure their children attended school. On all three measures, women who had participated in literacy programs reported positive changes (increases) in control to the women who had not participated in literacy classes. As Burchfield points out, however, because the self-selection of literacy participants might have an effect on the data, it is difficult to be sure how much of the increased positive impact of the mothers on their children's education can be attributed to the literacy classes.

The majority of the existing information regarding the effects of women's literacy programs on children's schooling comes from program evaluation reports produced by international agencies for the purposes of evaluating their own literacy programs (Robinson-Pant, 1994). These project evaluation reports are informative, but as Robinson-Pant has observed, "until recent years, there has been a tendency to be protective about project information, [and] to be positive rather than negative in public"[4] (1994: 2). It should be remembered that these are generally evaluation reports to be provided to donors, written by organizations themselves about their own literacy programs.

Based on this review of literature and on discussions with a wide range of literacy and development practitioners, GWE III staff developed indicators for measuring changes in

[4] Robinson-Pant does, however, say that in recent years the atmosphere surrounding literacy projects is more open.

respondents in the following areas: economic participation, community participation, political awareness and participation, health knowledge and practice, and children's education.[5] These indicators are defined in greater detail in Section 3, which describes the research methodology.

3. METHODOLOGY

Previous studies carried out in Nepal have examined the effects of adult literacy programs and provided valuable information for improving them. Little research, however, has been conducted to assess the longer-term impact of the programs on women's socio-economic development. This study, funded by the U.S. Agency for International Development, Office for Women and Development, is part of a three-country study in Honduras, Bolivia and Nepal to examine the effects of women's integrated adult basic education programs on each country's social and economic development.

The goal of the analytical studies is to provide information and assistance that will enable host country governments and private sector/nongovernmental organizations to formulate, institutionalize, and implement country-level initiatives that will ensure substantially increased educational opportunities for girls and women. Although activities in each of these countries have different modes of delivery and different target audiences and are at different stages of development, they share a commonality of purpose. All three programs aim at increasing the literacy skills of women through nonformal education. Additionally, decision-makers in each country are interested in assessing program impact on socio-economic development.

The purpose of the GWE III Activity in Nepal is to determine the impact of integrated women's literacy programs on the country's development by studying their effects on specific indicators of socio-economic development, including the following:

1) Literacy/Education Level
- Use of literacy skills
- Skills achievement
- Persistence in literacy training

2) Economic Participation
- Economic group membership
- Income-generating activities
- Savings
- Borrowing (especially for income-generating)

3) Community Participation
- Community groups

[5] Originally decision-making was included as one of the indicators. Questions were included in the survey. Survey results, however, are not included in this report. Further analysis of the data still needs to be done before the results can be reported.

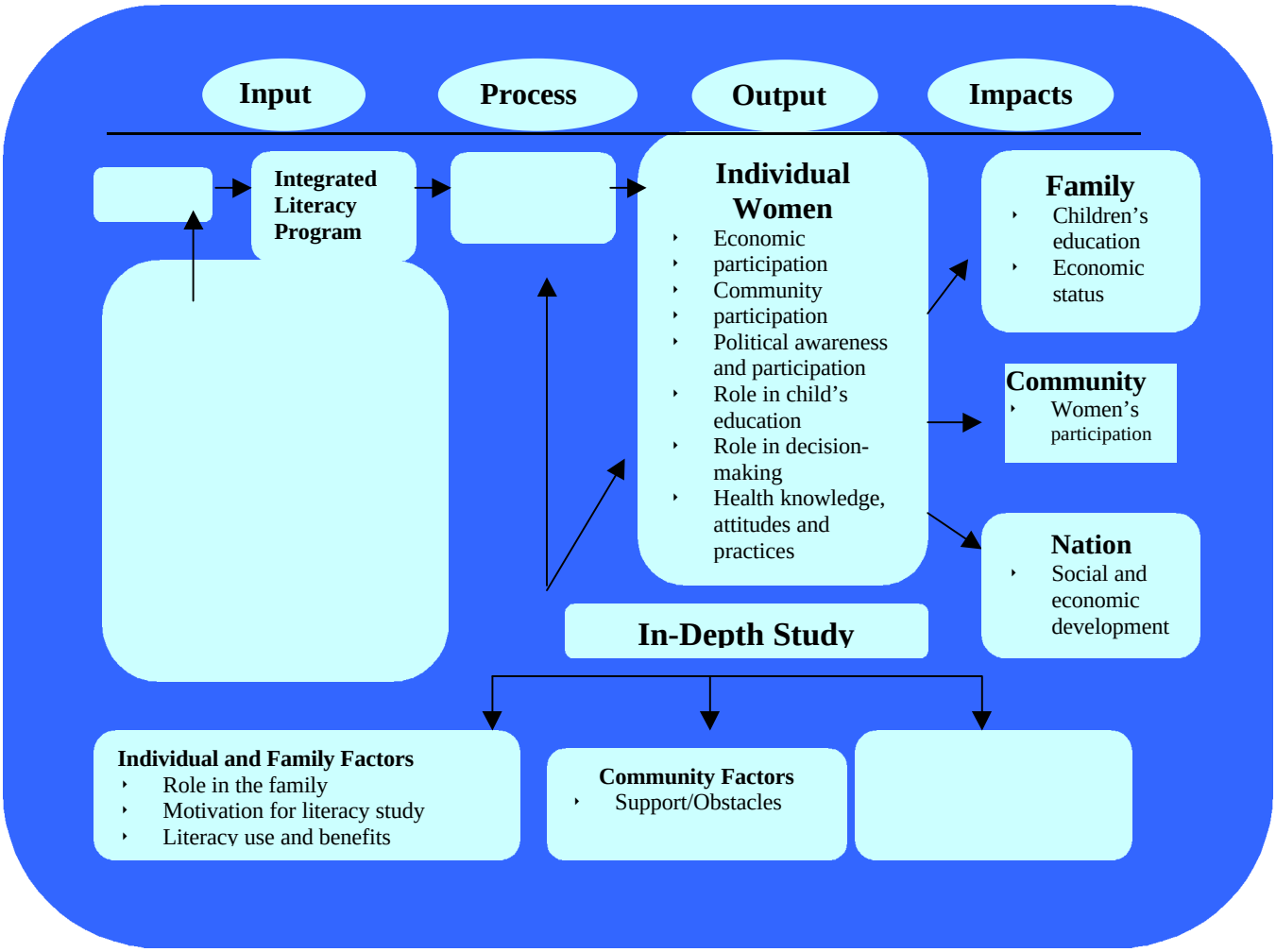
- Community development
- Social activities
- Awareness of legal rights
- Participation in women's rights activities

4) Political Awareness and Participation
- Political awareness/participation
- Attitudes toward politics

5) Health Knowledge and Practice
- Health-seeking behavior
- Maternal and child health
- Childcare
- Nutrition
- Family planning and STDs and HIV/AIDS

6) Children's Education
- Level of children's educational attainment
- Parents' attitudes about importance of education
- Parents' involvement in children's education

Figure 3.1: GWE III Nepal: Literacy Study Model



It should be noted that assignment of indicators into categories is not always clear-cut, and there is some overlap among areas. For example, measures of community participation include women's participation in economic groups as well as in health groups. Hence, participation in an economic group might also be viewed as an indicator of economic participation; participation in a health group could also be linked with indicators of health practices. Similarly, participation in women's rights activities could be considered both a community activity (a measure of community participation) and a political activity (a measure of political participation).

3.1 Research Design

The research employs a quasi-experimental design using experimental and control groups with pre- and post-testing. It is a "quasi-experimental" design, since participation in the intervention or experimental group (the literacy program) is voluntary, and hence it is not possible to "control" whether or not respondents enroll in or drop out of the program. In the strict sense, the non-participant group is technically a "comparison" group rather than

"control" group. However, throughout this study we use the conventional term "control" group.

To gauge changes associated with the program, respondents in the experimental and control groups, as well as other family and community members, are interviewed at the beginning of the program and every year over a period of at least three years. The research design consists of both quantitative and qualitative data collection. Quantitative survey data are being collected once a year for three years from experimental and control groups of women chosen from the *Terai*. The qualitative data are more ethnographic in nature and are being gathered from a small sub-sample of the women surveyed. This in-depth information will complement the survey data and allow researchers to probe further into the factors contributing to or hindering women's participation in literacy training. It will also identify additional factors related to the impacts of literacy on women's lives. This report describes only the quantitative methodology and analysis of data collected in year one of the study.

The study is being conducted in the Terai region of Nepal. One reason for choosing to conduct the research only in the Terai is that USAID/Nepal has planned to locate almost all its literacy programs from 1997 onward in the Terai. The following map illustrates the survey study areas.

Figure 3.2: Nepal Map of Survey Data Collection Sites

As the majority of literacy programs in Nepal are now "integrated," this study includes women in the experimental group who are participants in literacy programs that use an

integrated model. Three of the largest integrated literacy programs in Nepal were selected for this study, of which two are USAID-funded and one is run by the government (with funding from the Royal Danish Embassy). One of the USAID-funded programs, the Women's Empowerment Program, was unable to begin its literacy classes during the 1997/98 research cycle. The start-up of their program was delayed by several months and, therefore, the program was not included in the data collection for year one. Thus, two large integrated literacy programs were included in the first year of the study. The specific activities and timing of each integrated program is described below.

3.1.1 Experimental Groups

3.1.1.1 BPEP: Basic and Primary Education Project, Women's Education Program (18 months)

The Basic and Primary Education Project (BPEP) under the Ministry of Education (MOE/N) of Nepal has adopted various policies to increase female participation in both formal and nonformal education programs. For girls 6-10 years of age, the project attempts to increase their enrollment in primary schools. For out-of-school children 8-14 years of age and illiterate women between the ages of 15-45, it conducts nonformal education programs.

The Women's Education Program (WEP), under the Nonformal Education (NFE) Unit of the BPEP was initiated in 1988 to supplement the Primary Education Project (PEP). This WEP project recognized that unless mothers are literate, children's enrollment to primary school won't increase to a satisfactory level *(Women's Education Program: A Critical Review and Recommendation for Future Direction*, BPEP, 1998). In 1988, WEP was piloted in six districts: Jhapa, Tanahun, Dhankuta, Kaski, Dang, and Surkhet. It ran 12 classes in each district. By 1996/97, 40 districts (out of a total of 75 districts in Nepal) were running WEP classes.

The WEP objective is to provide literacy skills and knowledge to women and to help them become self-reliant by providing skill training to run income-generating activities. The 18-month integrated program is divided into three levels. The first level, WEP I, aims to provide the skills of the three R's (reading, writing, arithmetic) to women 15-45 years of age. This basic literacy course uses two textbooks, *Mahila Sakshyarato Pustika (Women Literacy Book)* and *Ghar Aangan (House and Courtyard*) and runs for nine months. *Mahila Sakshyarto Pustika* aims to provide basic literacy skills. It is based on the keyword approach to learning. WEP II is a six-month course offered to completers of the basic literacy level (I). The objective of this level is to help women maintain their acquired literacy skills. The text used, *Gaonbesi (Village and Valleys)* parts I and II, focus on providing functional skills and knowledge in the areas of health and nutrition, agriculture, women and development, political awareness and income-generating activities. WEP III is a three-month course and it uses the text *Hamro Ilam* (*Our Occupation*). It aims to provide knowledge and skills in agriculture, environment, health, group formation, and income-generating activities. After the three-month *Hamro Ilam* class, the women participants are provided skills training through the related training

centers, after which the linkage is supposed to be established with micro-enterprise activities.

WEP is implemented through the BPEP unit in the District Education Office. The Program Coordinator, employed by BPEP under the District Education Officer, leads the unit. S/he is responsible for the district level program, including hiring local supervisors and facilitators at the community level. The responsibilities of different persons/organizations involved in the BPEP program are found in Appendix I.

3.1.1.2 HEAL: Health Education and Adult Literacy Program (nine months)

The HEAL program was developed in 1991 by World Education, with assistance from USAID, through John Snow Inc. (JSI). The course was designed for Female Community Health Volunteers (FCHVs), Traditional Birth Attendants (TBAs) and the mothers they work with in various rural communities throughout Nepal. The pilot program was launched from 1991 through 1993 in Makwanpur district of Nepal. After the completion of the pilot program, the HEAL model was continued by World Education in a number of districts throughout Nepal. Through 1997, HEAL provided a three-month post literacy course followed by 12 months of continuing education to participants who had already completed at least a six-month basic literacy course.

In 1998 a new HEAL model was developed. The program now offers six-month basic literacy classes, as well as its original three-month post literacy courses. This new cycle, funded by USAID, offers basic and post literacy HEAL classes to 65,625 women of reproductive age. It is funded for a five-year period from 1998 to 2002. To meet this target, approximately 525 basic and 500 post literacy classes will be conducted annually over the project period. It is now being implemented by World Education in collaboration with other USAID-funded INGOs, namely the Centre for Education and Development Population Activities (CEDPA), The Asia Foundation and the local, non-governmental organizations supported by these two INGOs.

The overall goal of the project is to "reduce fertility and to improve maternal and child health in Nepal through the provision of integrated literacy and health education courses for rural women" (HEAL proposal). The HEAL package is designed to provide knowledge to the participating women on using, sanitation and health care practices for themselves, their children and the family, and family planning services, STD/HIV preventive and controlling practices.

Under the current HEAL mode, the program begins with a six-month basic literacy class using the textbook *Naya Goreto: Steps I and II (New Trail: Steps I and II). Naya Goreto*, the widely used six-month basic literacy textbook in Nepal, uses the keyword approach. Each lesson begins with a small group discussion led by the participants themselves on the situation shown in a poster. The facilitator facilitates the discussion leading to the introduction of keywords. The female participants of *Naya Goreto* classes are expected to gain knowledge and skills in reading, writing and simple arithmetic. Additional health messages are also provided twice a month by class supervisors who use supplementary

health materials. Twelve supplementary lessons on health and family planning issues are included.

Participants who complete the basic literacy class are offered a three-month post literacy course using the text *Diyalo*. This text and class focus on continuing to improve literacy skills and delivering health, sanitation, and family planning messages.
The responsibilities of different persons/organizations involved in the HEAL program are found in Appendix I.

3.1.2 Control Group

The control group is comprised of women who have never attended any of the integrated literacy programs (about 25% of the total sample). These women will be followed for the same period of time as the experimental group women.

3.2 Sampling Procedure

3.2.1 District Selection

From 20 Terai districts, six were selected. Districts were chosen on the basis of five main criteria: 1) both integrated literacy programs were running basic literacy classes in the district that started in 1997; 2) each of the five development regions in Nepal are represented; 3) the major languages spoken in the Terai region are represented; 4) districts with both high and low literacy rates are included; and 5) districts with varying degrees of an economically-active population are represented. Brief descriptions of the six GWE III survey districts can be found in Appendix II. The following table illustrates the district selections based on these criteria.

Table 3.1: GWE III District Selection Criteria

District Name	*# of VDCs*	*Major Languages*	*Literacy Rate*	*Integrated Literacy Program*
Kailali	44	Tharu Nepali Local language	31.2%	BPEP HEAL
Banke	47	Abadhi Nepali Tharu	34.6%	BPEP HEAL
Nawalparasi	77	Nepali Bhojpuri Magar	41.2%	BPEP HEAL
Chitwan	38	Nepali Tharu Tamang	55.7%	BPEP HEAL
Dhanusha	103	Maithali Nepali Others	18.4%⊕	BPEP HEAL
Jhapa	50	Nepali Rajbanshi Limbu	57.3%⊕⊕	BPEP HEAL

⊕ One of the lowest literacy rates among the Terai districts
⊕⊕ One of the highest literacy rates among the Terai districts
Source, National Research Associates, Nepal District Profile, 1987

3.2.2 Village Development Committee (VDC) Selection

The Village Development Committee is a geographical area and a political unit within the district that is further subdivided into nine wards. Information about the number of classes being conducted in each VDC was collected from each program's main office in Kathmandu. Both HEAL and BPEP have the potential to run nine classes in each VDC. They may both choose to run classes in each of the nine wards, although generally this sort of overlap is avoided. Only VDCs with five or more classes run by either program were selected to be included in the sample. A total of 38 VDCs were selected from all six districts for the study. A total of 22 VDCs were selected from the BPEP program and 21 VDCs were selected from the HEAL program. There was overlap among VDCs, since some VDCs had both HEAL and BPEP programs.

At the time BPEP data were collected from BPEP experimental group participants, complete VDC-level information regarding where HEAL classes were to be implemented was not available. When HEAL VDC class information was available, classes in VDCs either with or nearby to BPEP sites were identified and selected. An effort was made to select clusters of VDCs. Appendix III contains maps of the districts and VDCs included in the survey. VDC selection was done in the World Education office in Kathmandu, and a list of selected VDCs was provided to the field survey team.

3.2.3 Class Selection

As mentioned above, one literacy program may decide to run up to nine classes in a VDC. The two programs, HEAL and BPEP, overlapped in several VDCs (although generally each did not run nine classes in the VDC). In one VDC, the GWE III

researchers selected up to five classes run by each program. Field supervisors were instructed to meet with the class facilitators and check the registers to be sure the class to be included in the sample was actually running. The classes that were not operating (either they had not started yet or class had been held on only one or two days over a two-week period) were not included in the study simply because it was likely that these classes might never really start up.

3.2.4 Selection of Women for the Sample

A maximum of six women from a class were chosen. The rationale for this was twofold. First, if the class itself collapsed in the near future, less data would be lost due to participant dropout. Second, the research team could survey six women in two days, thus reducing the likelihood that women might discuss their survey responses with classmates and/or other villagers. Control groups were selected from the same areas as the experimental groups (again, limited to six in one area). These were women who had not studied in school or literacy classes.

A random sampling method was used for selecting six women per class. Specific criteria were given to the supervisors and enumerators to select only six women from one class. The respondents had to be married and at least 15 years old. Only married women were chosen because the study will follow them over time. Unmarried women are more likely to leave the area and would thus be difficult to track. Women who were chosen had to be at least 15 years old, since that is the criterion for participation in the two integrated literacy programs in this study. Finally, field staff members were instructed not to interview women who resided in their natal home and to select only one woman per household.

Supervisors were also requested to use a lottery method and to make the selection process participatory. In the field, supervisors obtained the list of class participants from the facilitator. With the help of the facilitator, (s)he prepared a list of the names of the women who fit the above criteria. Their names were written on pieces of paper (one per piece) and folded into small pieces so the names were not visible. Where possible, the participants themselves chose pieces of paper on which woman's names had been written. They then read the names aloud to the class. Involving the participants in the selection procedure helped to demystify it. It enabled women to understand that they were not specially picked for some unknown reason. When it was not possible for the research supervisor to attend the class, the facilitator met with the class facilitator who selected the names from among the small pieces of paper. Two alternate names were also selected in case a woman who had been randomly selected either refused to participate or could not be reached. Finally, enumerators were instructed not to force women to participate.

Once a woman was selected, the enumerators explained the purpose for coming and requested her permission to be interviewed for one to two hours. Women generally agreed to be interviewed, although some more enthusiastically than others. Only in two cases did problems necessitate choosing alternates. In one case, the selected woman was mute. In the other case, the interview began, but the woman was barely responding to

any of the questions. After several attempts by the enumerator to elicit answers, she thanked the respondent for her time, stopped the interview, and selected an alternate. Other alternates were used in cases where the selected woman was out of the village for a few days and could not be reached.

3.2.5 Sample Size

A total of 843 married women who started basic literacy classes in 1997 were interviewed from the two experimental groups. Additionally, 229 women in the control group were interviewed. The total sample size was 1,072. The following charts show a breakdown of the individuals interviewed by program and district. For a complete sample size list by District, VDC, number of classes and number of villages, see Appendix IV.

Table 3.2: Sample of Surveyed Women by Program and District

District	*Woman*			*Husband*			*HH leader Å*		
	BPEP	*HEAL*	*Control*	*BPEP*	*HEAL*	*Control*	*BPEP*	*HEAL*	*Control*
Jhapa	71	75	34	47	61	27	11	3	2
Dhanusha	73	75	38	41	48	29	25	14	4
Chitwan	71	72	39	56	42	25	3	7	1
Nawalparasi	75	72	40	43	44	21	17	10	0
Banke	74	41	39	51	20	30	16	4	2
Kailali	72	72	39	35	42	30	21	16	2
Total	436	407	229	273	257	162	93	54	11

⊕ HH leader here is the person other than the husband who reported the demographic and economic information on the survey.

3.3 Data Collection Instruments

3.3.1 Surveys

3.3.1.1 Women's Survey

Female enumerators administered this survey to 843 women who had participated in literacy classes for 30 to 45 days at the time of data collection. The survey included information about individual characteristics of the women and five main impact areas, including women's: 1) participation in economic activities; 2) community participation; 3) political awareness; 4) involvement in family decision making; 5) health knowledge and practice attitudes; and 6) behavior regarding children's education.

The survey was also administered to 229 women who were not currently participating in a literacy program, had not participated in any literacy class in the past, and had not studied in school (control group). Only two questions, one regarding the women's views on joining a literacy class, and the other on their views on using their skills learned in the literacy class in the future, were deleted from the control group survey. See Appendix V for a copy of this instrument.

3.3.1.2 Husband/Household Leaders Survey

Male enumerators conducted a separate survey of the women's husbands. If husbands were not present, household leaders were interviewed. Husbands of women in the control group were also interviewed. If the woman's husband was not living with her and she was the head of the household, then these questions were asked of the woman herself. The husband/household leader survey included questions about demographic status, economic status, and access to facilities. Some basic demographic information and economic status questions were collected from the husband or household leader in order to reduce the length of the women's survey and to obtain accurate household information.

Two sections of the survey that matched the women's survey were also included for all husbands interviewed (not household leaders). Questions about the husbands' attitudes and behaviors regarding children's education were included so that controls could be made between husbands' and wives' attitudes toward their children's education.

Finally, the husband's survey served as both a source of information and a research tool. Experience with other studies has shown that conducting an interview with a woman in a Nepali village often attracts a crowd around her as she is interviewed. Some of these people may include her spouse and/or other family members who are interested, curious, or concerned and, therefore, want to be present during the interview. In some instances these individuals attempt to respond on behalf of the woman. In this study, interviewing husbands simultaneously helped physically separate them from the women, and, as far as possible, eliminate the influence of the husband/household leader on the woman's responses. See Appendix VI for a copy of this instrument.

3.3.1.3 Key Informants/Community Leaders Survey

Survey supervisors carried out 89 interviews with key informants and community leaders. Key informants were individuals from different organizations and institutions within the community, including VDC chairmen, teachers, community health workers, social workers, and respected persons who had lived in the community for a long time. The main purpose of these interviews was to gain information about the communities in which data were collected. This data helped develop district and VDC-level profiles. Information was collected about the general socio-economic conditions of the VDC, the main development activities in the area, the main problems facing the community, community attitudes toward women in general, and women's participation in community activities. See Appendix VII for a copy of this instrument. These interviews are reported in a separate document.

3.3.1.4 Facilitator's Survey

Survey supervisors conducted a short interview with 122 class facilitators. Information was collected on the facilitators' education level, their previous facilitation experience, their expectations of the participants, and their opinions about women's literacy programs. See Appendix XI for a copy of the questions.

3.3.2 Literacy Skills Test

A literacy skills test, designed by World Education staff, was administered by female and male enumerators, and in some cases by supervisors, to all the women surveyed. The test was functional in nature, using real objects or pictures and posters found in Nepali villages. The test allowed for separating reading skills into decoding and comprehension, and writing skills into dictation and composition. This assessment was administered one-on-one, rather than in a classroom or group format. It was administered orally using respondents' first language when Nepali speaking and comprehension skills were poor or nonexistent. For reading and math portions participants were allowed to answer orally, rather than in writing, to ensure that obtaining a correct answer on reading, and math was not dependent on the respondents' writing skills. The entire test was designed to take a maximum of an hour and a half. See Appendix IX for a copy of the literacy test.

3.3.3 Field Researcher's Diary

GWE III field researchers were given a notebook in which to record important information about the villages, the women, and the programs. Specifically, they were requested to write: 1) their thoughts and perceptions about the particular women they interviewed, including anything they thought was interesting, sad, or amazing about the respondent's life or her community; and 2) their thoughts about this particular field work and their experience in using the data collection instruments. They were to note frustrations, difficulties, and exciting experiences. The information written by the enumerators in their diaries was categorized (for a list of categories see Appendix X) and prepared for analysis. Diary analysis was mainly used to provide specific examples or supporting data for some of the more qualitative survey questions and to identify some limitations of the survey work as viewed through the enumerators' eyes and experiences.

3.4 Field Preparation

3.4.1 Field Testing of Survey Tools

After the development of the survey instruments, a pilot test was conducted in Siraha and Bardiya districts. These districts were chosen for testing the materials because they were similar to the selected study districts, and because World Education had contacts in those two districts that facilitated the process of finding women to pilot the instruments. The instruments were piloted with 36 women in late August 1997 for one week. A team of three World Education staff and two field researchers were sent to test the instruments in the field. Changes, including the deletion of some questions and the translations of several words, were made based on the pilot test results. The survey tools were finalized by the end of September 1997.

3.4.2 Recruiting Field Staff

A total of 30 field research staff (24 enumerators and 6 supervisors) were hired. The average age of enumerators was 26 years old, with a range of 19 to 38 years old. One-third of them were born in Kathmandu, one-third were from the Terai, and one-third were from the hills. Based on their own reports of their research experience, more than half of the enumerators had "a lot" of experience, another third had "some" experience, and only four enumerators had no previous research experience. The four enumerators with no previous experience were selected for their language abilities and were matched with team members who had more field experience.

Teams of five enumerators, including one supervisor, two male and two female enumerators, were sent to each district. The major responsibilities of the supervisors were to contact the key people in the districts and villages, arrange for local transportation, supervise the enumerators, check responses and coding daily, complete the supervisor's tracking sheet, interview key informants, write in their daily diaries, and report any difficulties or concerns to the project coordinator.

The major responsibilities of the enumerators were to interview the selected women/men, enter the responses correctly, code responses, report daily to the supervisor, conduct the literacy skills test, work with team members, write in his/her daily diary, submit the completed survey forms to his/her supervisor daily, and if required, do call-backs as assigned by the supervisor.

3.4.3 Training and Data Collection

An eight-day training session was conducted to prepare the enumerators for the field. Activities were designed to provide the researchers with an opportunity to get to know one another, to learn to work together in teams, to understand the purpose and goal of the GWE Research Activity, and to become very familiar with all of the data collection instruments. For a detailed outline of the training schedule, see Appendix VIII.

Data were collected in three different phases because of the different starting times of the classes. BPEP started classes on October 17, 1997, and HEAL started classes in December 1997. All baseline data from women who were literacy class participants were collected within the first 45 days of the class.

The following data collection schedule was carried out:

Phase One: BPEP data were collected from the second week of November to the first week of December 1997.

Phase Two: HEAL data were collected from the third week of December 1997 to the first week of January 1998.

Phase Three: Control Group data were collected in the first two weeks of March 1998.

Since the data were collected in three phases, debriefing and refresher training sessions were held between each phase of data collection. After Phase One, a one-day debriefing session was held with the field supervisors. The supervisors shared some of the difficulties experienced during the first phase of data collection, including problems related to survey administration and logistics. Following the one-day debriefing with the supervisors, a two-day refresher training was held for all the enumerators. Problems were discussed and solutions were decided upon before returning to the field for Phase Two data collection. Before Phase Three data collection, a brief orientation was held to review the criteria for collecting data from the women in the control group. Only 15 enumerators (out of the original 30) were sent to the field for control group data collection, since there were fewer women in that group.

3.4.4 Data Coding/Entry and Processing

The research was designed so that most portions of the surveys could be coded by the enumerators in the field. Enumerators were to code their surveys daily and then give them to the field supervisors, who were responsible for the final check. The collected and coded data were then brought to the World Education Kathmandu office. World Education staff developed a codebook for the open-ended and "other" responses, and eight enumerators were responsible for the remaining coding work. After completion of the coding, data screens were designed using the statistical package EPI_INFO. The data were entered into EPI_INFO and then transferred into SPSS for data analysis. Data were then checked, cleaned, and re-coded in preparation for the data analysis. Data analysis, including general descriptive statistics, composite measures, and other statistical analyses, was carried out at World Education in Kathmandu and at the Harvard Institute for International Development (HIID) in Cambridge, Massachusetts.

3.5 Study Limitations

All studies encounter certain unexpected difficulties or limitations. Despite efforts to minimize or eliminate some of the more commonly anticipated problems, a few limiting factors were identified before, during, and after the GWE III baseline data collection process. Most of these survey limitations were detected by either the GWE III World Education staff during their field visits to supervise the enumerators or by the enumerators themselves. Enumerators' thoughts were noted in their field diaries and that information was analyzed by GWE III World Education staff. These limitations are discussed in the sections that follow.

3.5.1 World Education's Role in the Development of Literacy Programs in Nepal

For more than two decades World Education has worked with the Government of Nepal and a wide range of local NGOs in the development and implementation of adult literacy programs in Nepal. The *Naya Goreto* curriculum that World Education helped to develop

has been used in various literacy programs throughout the country. To carry out a study of literacy programs in Nepal that World Education has not influenced in one way or another would be extremely difficult. However, this fact should not impinge on the validity of the study for a variety of reasons.

First, the primary responsibility for the research design and data analysis of the study rests with the Harvard Institute for International Development (HIID). The HIID Research Director has worked closely in collaboration with World Education staff and NGOs in Nepal to ensure that the research is free of bias. A scientific methodology (as described in the methodology section) was adopted and rigorously adhered to throughout the study.

Second, while World Education is the prime contractor for the HEAL program, this project, as well as other programs in which World Education has played a role, is not implemented directly by World Education but through local NGOs in various regions of Nepal. Enumerators and local research staff were carefully selected to ensure that they had no prior affiliation with either of the literacy programs (HEAL or BPEP) under examination.

Finally, it was made clear from the outset that this study is not an evaluation of the literacy programs per se but rather was initiated to determine whether literacy programs of this type have an effect on the country's social and economic development. The study does not attempt to assess program performance, make judgments about the extent to which the programs meet their objectives, or attempt to draw comparisons between the two programs.

3.5.2 Use of Proxy Measures

The indicators of social and economic development employed in this study (described earlier) are "proxy" indicators, in that they serve as substitute measures for assessing actual changes in economic productivity, fertility, nutrition, agricultural production, etc. Ideally one would wish to measure these variables directly. However, studies utilizing techniques that allow for direct measurement are extremely time consuming, costly, and ethically questionable. For example, to directly assess program impact on fertility, it would be necessary to track birth rates of respondents over their reproductive life span (10 to 20 years) as well as to have direct knowledge of their reproductive practices. To assess changes in health and nutritional status would require access to medical records, height and weight charts, etc. Assessing changes in economic status would require direct knowledge of salaries, savings account balances, and other personal financial information. Because of the need for confidentiality (of medical, school, and financial records), the rights of respondents to privacy and the costs associated with collecting such information, it was simply not feasible to obtain these direct measures.

Hence, this study employed the use of "proxy" measures that rely primarily on self-reporting to estimate changes in behaviors and practices. While such measures provide an estimate of changes, and the pre- and post-experimental and control group research

design allows for making reasonable inferences about the attribution of changes to the programs under examination, the constraints posed by the use of self-reporting measures must be borne in mind. The limitations associated with all survey research of this type apply to this study as well. That is, there is always some uncertainty associated with self-reporting due to unknown factors such as the adequacy of respondents' memories, the extent to which they respond to questions honestly, their understanding of the questions, and their willingness to provide the information.

3.5.3 Language Considerations

3.5.3.1 Language Abilities of Enumerators and Field Supervisors

Substantial efforts were made to recruit enumerators from the particular regions where data would be collected. The goal was to send a male-female enumerator team fluent in the language/dialect of the designated area. The male enumerator was to administer the household head/husband's survey and the female was to interview the women. Similarly, efforts were made to select a team composed of some interviewers who had more experience but less familiarity with the areas and others who had less experience but were fluent in the language and very familiar with the areas to be visited.

However, it proved difficult to find this combination of enumerators and even more difficult to recruit individuals who were truly fluent in some of the Terai languages needed (Tharu, Maithali, Abadhi, Bhojpuri, and Rajbanshi). Many candidates applied, claiming they were fluent in these languages, but in reality their language skills were actually conversational at best. Instead, individuals with more experience in conducting surveys and field interviews, and researchers, who had previously traveled to the desired areas, were selected.

The result was that not every member of each team was fluent in the Terai languages of the area where they collected data. For example, on the team that went to Kailali, where the majority of the people speak Tharu, three out of the five team members were fluent in the language (these three were from Tharu-speaking areas of the country as well). One of the researchers, however, did not speak Tharu. On the team sent to Dhanusha, where the primary language is Maithali, all four of the researchers spoke Maithali; however, differences in the local dialect spoken in the particular areas where data were collected made communication difficult. Two of the researchers spoke a slightly different Maithali dialect because they were from a neighboring district.

Additionally, a complete team was not always available. Sometimes either a male or a female enumerator could be recruited but not both. In such cases, it was necessary to obtain assistance from locals (including, at times, facilitators) as translators or field supervisors.

Enumerators articulated some of these language concerns in their diaries. One enumerator claimed that "some interviews were conducted in half Tharu, half Nepali, and it was very frustrating and difficult because I had to ask everything twice to confirm their answers." Another enumerator commented that she was surprised that "many of the

Tharu women could not understand Nepali, and even the literacy class was taught in Tharu." One female enumerator pointed out that "interpreters were used with the Bhojpuri-speaking respondents because they could understand Nepali, but they could not give answers in Nepali, and we did not understand enough Bhojpuri." Very few Bhojpuri speakers were interviewed in this study; only one of the male enumerators spoke the language fluently.

Respondents in the sample who might have been affected by these language difficulties were from the non-Nepali speaking areas in two of the six districts, namely Kailali (128 women) and Dhanusha (180 women). Language problems also occurred to a lesser extent in two non-Nepali speaking villages outside the above two districts--Sukrouli in Nawalparasi district (24 women) and Gaurigunj in Jhapa (7 women). Altogether, the sample consisted of 239 women whose mother tongue was not Nepali.

The research team did not deem that the language and translation problems seriously compromised the survey results for several reasons. First, many of the non-Nepali speaking women were actually able to *understand* Nepali even if they could not *converse* in it. They had been attending literacy classes where the medium of instruction is Nepali or were exposed to Nepali through market visits, conversation with neighbors, etc. It only took them a little longer than Nepali speakers to comprehend the survey questions. Second, even though these non-Nepali speaking women responded in their own dialect or language, enumerators were either able to speak and understand the women's mother tongue or could at least understand their responses that were not in Nepali. Oftentimes, even women who said their mother tongue was not Nepali actually could speak Nepali and spoke it at home more than their mother tongue.

Third, to minimize the possibility of interviewer bias or respondents' misinterpretation of the questions, field supervisors and enumerators received extensive training in data collection procedures and interviewing techniques. During this training they were taught how to assess respondents' level of understanding of the questions. They were instructed not to "reword or revise the questions." To gauge whether the respondent understood the question, they were to ask respondents to say, in their own words, what they thought the question was about. If the question was not understood, local supervisors/enumerators were to ask the question again in the language the women would understand. Supervisors and enumerators were also trained to be consistent in their use of terms when translating the question.

3.5.3.2 Involvement of Facilitators/Local Community Members

When translations were needed, efforts were made to recruit people from outside the village. A total of seven women in Gaurigunj could not understand Nepali and required a translator. In other areas, about 75% of the women could understand some Nepali, and translators were not extensively used (except in Kailali which required the use of slightly more translators than in the other areas). It was estimated that of the approximately 25% (239) of the women in the sample (n=1,022) who reported being non-Nepali speakers, less than 5% could actually not understand Nepali at all and/or needed translators.

In a few cases, the literacy class facilitator was the only reliable person available to serve as the translator. The addition of a translator, particularly a local facilitator, may have had some effect on these participants' answers. In theory, facilitators might have a vested interested in ensuring that participants answer the questions "appropriately," since an "inappropriate" response might reflect badly on the ability of the facilitator. However, because this was a baseline study, and the literacy class participants had, at the time of their interview, received very little exposure to the literacy class, the probability that facilitators might influence their responses seems negligible. Furthermore, the proportion of respondents requiring a translator was small, and thus should have had little effect.

3.5.3.3 Language of the Written Survey

Another possible limitation was the language of the written survey itself. The surveys were designed in English and translated in-house (by World Education staff) into Nepali. The surveys were not translated into the other Terai languages so the enumerators had to translate the surveys into the local languages during the interviews. While this increased the possibility of translation error, the research team did not think it presented a major problem or threatened the validity of the responses.

3.5.3.4 Duration of Interviews

Finally, because of the problems with communication between enumerator and respondent (due to either a language barrier or the addition of a translator), the interview process was lengthened considerably in some cases. The survey was designed to take up to an hour and a half, but these added barriers extended the length of the interviews to up to three hours. An interview of this duration is not optimal: respondents may grow weary of the questions and women who have very little time to spare may be burdened by the additional time required. However, in almost all cases enumerators were able to complete the interviews. While interviews took longer than envisioned, there was no indication that the length of the interviews affected responses.

3.5.4 Timing of Data Collection for Phase One (November 1997)

The timing of the data collection for Phase One was less than optimal. The goal was to collect data from women as they attended their first month of basic literacy class. In order to meet this criterion, it was necessary to collect BPEP data during November 1997 because their classes were scheduled to begin in October. November is also the peak rice-harvesting season in the data collection area. Thus, November is one of the busiest months for both female and male farmers in the Terai, making it especially difficult for them to make time to be interviewed. Most potential respondents were working in the fields from 6:00 A.M. to 7:00 P.M. As witnessed by GWE III staff who visited the field and as reported by the enumerators many times, it became extremely difficult to meet the selected survey respondents during that month. The survey became an extra burden for the respondents, who were already engaged in hard physical labor for more than 12 hours a day. Interviews during this phase of the data collection were often collected at 6:00

A.M. or after 9:00 P.M. (after the women had attended their literacy class from 7:00 to 9:00 P.M.). In some cases, the interviews were held during the workday. One enumerator pointed out that "women didn't have any leisure time for an interview. Instead of interviewing them in their homes, we went to the fields to meet them." Other enumerators also commented on the difficulty of conducting interviews during that time.

3.5.5 Expectations of the Community/Respondents/Family

The expectations of respondents, their families and, in some cases, other community members may not necessarily have affected the baseline data but may affect data collection efforts in future years. It is worth noting that the false expectations of villagers were a concern in a few villages. The enumerators and the GWE III staff tried hard to ensure that the participants, as well as other villagers, understood the goals of the research and the specific tasks the survey was to accomplish in the village. Research teams stated clearly that they were not there to offer any further literacy programs or any other development programs. Moreover, they informed the selected women that they had a choice as to whether or not they participated in the interview. Women were also told before the interview that they would receive *only* a small token of the team's appreciation (a notebook and pencil) and the team's sincere thanks for their time.

Despite these efforts, some respondents expected much more from the research teams. As some enumerators wrote, "Respondents asked for money for the interview, and they asked for economic support in order to establish a tea shop," and "They gave us time in expectation that we will give them something," and "Some of them asked about the benefits they will get from this interview." Also, "When we asked about whether they had access to toilet facilities, they asked us if we would help them build a toilet." These expectations or demands from some of the women made it difficult for the enumerators, and they are apprehensive about returning to a few sites.

However, because of the pre- and post-testing element of the research design, such underreporting does not pose a major threat to the validity of the results. While we may not be absolutely certain about exactly how much literacy training a given individual has undergone prior to the literacy course, the level of each participant's literacy skills at the beginning of the study is known, thus making it possible to assess the impact of varying degrees of literacy instruction participants received subsequent to that point.

3.5.6 Underreporting of Women's Previous Literacy Instruction

As noted earlier, methods of "triangulation" and cross-checking revealed that there may be considerable underreporting of respondents' prior participation in literacy classes. While this makes it difficult to determine the amount of literacy instruction required to achieve a given level of literacy, it does not pose a major threat to the study validity because of the pre- and post-testing element of the research design. Since the level of each participant's literacy skills at the beginning of the study is known, it is possible to assess the impact of varying degrees of literacy instruction participants received after the

initial assessment. This allows researchers to gauge the changes in impact indicators associated with a given number of instructional hours.

3.6 Study Validity

As previously noted, this study employs a variety of qualitative and quantitative techniques for assessing program impacts on Nepal's social and economic development. To address the limitations posed by self-reporting, the design incorporates a number of methods of "triangulation." For example, to verify respondents' claims concerning their children's immunization, interviewers asked to see immunization cards. Similarly, responses to selected questions, such as whether the women had previously participated in a literacy class, were cross-checked by asking other family members and members of the community the same questions. Discrepancies between sources were reported, thus providing the reader with additional information on which to assess the validity of the responses.

Additionally, in-depth interviews were conducted with a small number of respondents to gain greater insight into responses to survey questions. Focus group discussions were also conducted with program participants and their families. (This report describes only the results of the survey portion of the research.)

As described earlier, a number of language-related difficulties were encountered in conducting the baseline survey. While these problems slowed the data collection process, they do not appear to have seriously compromised the validity of the results. However, the magnitude of this problem will become more apparent after analyzing data from the second year of the study. If the respondents were unable to understand many of the questions, one can expect to find wide variation in their responses from one year to the next. While one would expect to see changes in answers to questions about respondents' attitudes and behaviors, certain other responses, such as background information, are not expected to change. A comparison of year one and year two responses on key variables will serve as a crosscheck on the validity of responses.

Many of the problems encountered in year one data collection have been reduced in the second phase by more rigorously testing and screening enumerators. Additionally, information collected during the first year about the respondents' language capabilities helped to identify Nepali-speaking individuals in the sample who could only converse in a particular language. This has enabled the research team to better target recruitment efforts and to more effectively match respondents' needs with enumerator language capabilities.

3.7 Characteristics of the Women in the Sample

As previously noted, the sample consisted of a total of 1,072 women: 843 were in the experimental groups (436 BPEP and 407 HEAL) and 229 were in the control group. The women were from six districts of the Terai region: Jhapa, Dhanusha, Chitwan, Nawalparasi, Banke, and Kailali. Table 3.3 provides a breakdown of the number of women from each district and program.

Table 3.3: Women in the Sample by District

District	*Experimental Groups*		*Control Group*	*Total*
	BPEP	*HEAL*		
Jhapa	71	75	34	180
Dhanusha	73	75	38	186
Chitwan	71	72	39	182
Nawalparasi	75	72	40	187
Banke	74	41	39	154
Kailali	72	72	39	183
Total	436	407	229	1072

3.7.1 Individual Characteristics of the Women in the Sample

Table 3.4 presents the individual characteristics of the women in the sample. Their ages ranged from 15 to 71 years old, with a mean age of 31. Women in the sample in the eastern district of Jhapa were older on average (mean=35) than women in the sample in the western and far-western districts of Banke (mean=29) and Kailali (mean=27). A possible reason for the mean age of women in the sample being higher in Jhapa is because the district has the fifth highest literacy rate in the country and many of the younger women (under 35) may have attended primary school.

The sample only included women who were or had been married. Less than 5% of the women were widowed, separated, or divorced. The majority of the women were living with their husbands (73.8%), while one-quarter of the women's husbands were away from home (22.8%). Among those husbands who were away from home, only a few resided with second wives. Most of them were away from home looking for work in Kathmandu or other places in Nepal or India.

The mean age at marriage of the respondents was 15 years, and the mean age at first child was 18.5 years. National data from a 1991 census showed that the mean age at marriage for females was 17.8 years, which is slightly higher than the study sample. These figures may differ because of the existence of traditional marriage systems in which females marry at an early age.[6] Some of the districts included a number of women from ethnic groups that follow this traditional marriage system. For example, the mean age at marriage in Dhanusha was 12.7 years, which was somewhat lower than other districts. The average number of children of the women in the sample was three.

[6] In some of the Terai castes/ethnic groups, including *Yadav/Ahir* and other Terai natives such as *Mandal/Dhanuk, Teli, Musahar, Mukhiya, Dhobi, Sonar, Kewat, Kahar, and Sundi*, a traditional marriage system includes three stages: 1) *Gauna* (below age eight)–an engagement with a boy; 2) *Thauna* (age 10–14)–girl goes to her husband's home and stays one night and then comes back to her natal home; and 3) *Biha* (three to five years after *Thauna*) when she starts living with her husband permanently. Most women consider their first engagement, *Gauna*, as their age at marriage and therefore reported anywhere from age two to nine as their age at first marriage.

Women reported what language they usually spoke at home. The sample consisted of nearly equal percentages (50%) of Nepali and non-Nepali speakers in the two experimental groups (BPEP and HEAL), but only 38% of the control group women were Nepali speakers. The researchers reported difficulty in finding Nepali speakers for the control group; therefore, they chose more non-Nepali speakers. Though the percentage of Nepali speakers in the control group was lower than in the experimental group, the percentage of non-Nepali speakers in the control group who understood Nepali was greater than among the non-Nepali speakers in the experimental group.

Table 3.4: Individual Characteristics of Women in the Sample (n=1,072)

Individual Characteristic	*Experimental group*		*Control Group*	*Total*
	BPEP	*HEAL*		
Mean age of women	31.26	30.92	30.73	31.02
Mean age at marriage	14.60	15.24	15.64	15.06*
Mean age at first child	18.44	18.49	18.82	18.54
Mean number of children	2.84	3.02	3.18	2.98
Marital status (%)				
Married and living with husband	73.80	69.0	81.2	73.60
Married and husband is away⊕	21.60	27.8	16.2	22.80
Widowed or divorced/separated	4.60	3.20	2.60	3.60
Language spoken at home (%)				
Nepali	47.02	52.33	37.99	47.11*
Tharu	16.97	21.87	26.20	20.80
Maithali	16.97	18.43	16.59	17.44
Hindi	6.19	0.25	3.06	3.26
Bhojpuri/Abadhi	5.28	0.00	3.06	2.80
Others	6.19	3.44	11.79	6.34

⊕ Husband is away more than 50% of the time.
* Indicates that experimental and control groups are statistically significantly different, p#< .05.

3.7.2 Household Characteristics

Information about household characteristics, access to facilities and economic status was collected primarily from the household heads. A list of the major household characteristics can be found in Table 3.5. Among the total sample, 84.3% of households were headed by males and 15.7% were headed by females. Most of the female-headed households were in the experimental group (14% out of the 15.7%). The percentage of women heading a household was lower in the control group (9.6%) than the experimental group.

The family size of the sample households varied from one to 39 people. Slightly more than half of the households were nuclear families. On average, 6.6 persons lived in a household. The average national household size from a 1991 census was 5.6. The household size in the GWE III study was one point higher because two out of the six districts consist mainly of *Tharus* who mostly live in joint families. Since the average

family size of *Tharus* was generally higher than other groups, the average household size in the sample was slightly higher than the national average.

Nepal is a Hindu kingdom, and officially over 86% of its population follow the Hindu religion. The next largest religious groups are Buddhists (8%) and Muslims (4%) (Central Bureau of Statistics 1995). Of the total study sample, 92.7% were Hindu, and about 3.3% were Muslims. The others were Kirati (1.9%), Buddhists (1.1%), and Christian (1.0%).

Heads of households were also asked to report their caste. The three castes/ethnic groups most represented in the sample were *Tharu* (22%), *Brahmin* (17%) and *Chhetri* (12%). More than 30 castes/ethnic groups were identified in the survey. For analysis purposes, some castes were grouped into categories similar to those used by the 1991 National Census.

The categories used in this data set included hill and Terai occupational castes, and hill and Terai natives. The hill occupational castes were made up of those castes whose origin was in the hill regions of Nepal and who had specific occupations, such as making iron tools, sewing clothes and making shoes. About 9% of the sample were in this category, which included *Kami, Damai* or *Sarki*. Similarly, Terai occupational castes made up about 9% of the sample and included the following castes: *Mandal, Dhanuk, Teli, Musahar, Mukhiya, Dhobi, Sonar, Kewat, Kahar*, and *Sundi*.

Hill natives were made up of ethnic groups whose origins were in the hills and who had migrated to the Terai region. Thirteen percent of the sample were in this category, which included *Tamang, Gurung, Magar, Rai, Limbu, Chepang, Newar,* and *Sanyasi*. Terai natives, those groups who were indigenous to the Terai (identified as *Rajbanshi, Rajput, Gupta/Baniya/Shah, Satar, Meche, Tajpuriya,* and *Kumhar*) made up another 9% of the sample. Finally, 5% were identified as *Yadav* or *Ahir*. These two groups were also Terai native castes, but because they consider themselves to be very high caste and have different behaviors from other Terai castes, they were not classified as a Terai native caste. The remaining 3% were Muslims. Although Muslims have their own particular castes, in Nepal they are not usually identified by any particular caste or ethnic group.

Table 3.5: Household Characteristics of Women in the Sample (n=1,072)

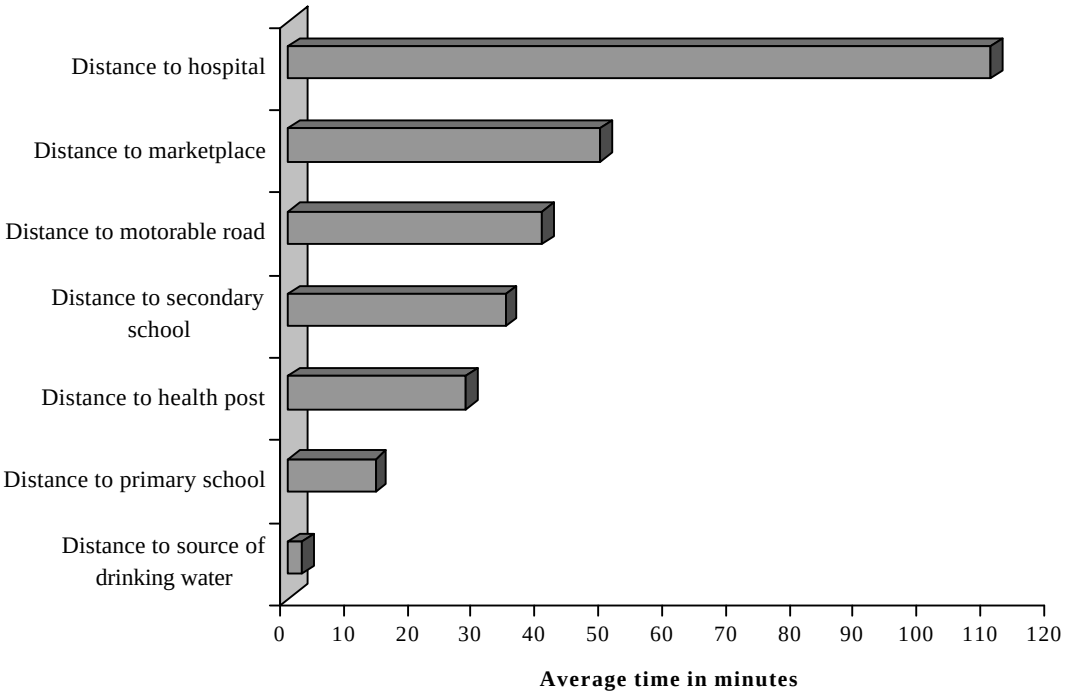
Household Characteristic	*Experimental Groups*		*Control Group*	*Total*
	BPEP	***HEAL***		
Family size (mean)				
Average number of people living in HH	6.81	6.51	6.53	6.63
Average number of females living in HH	3.44	3.32	3.18	3.34
Average number of males living in HH	3.36	3.19	3.35	3.29
Household head (%)				
Male HH head	83.0	82.3	90.4	84.3
Female HH head	17.0	17.7	9.6	15.7
Family type (%)				
Nuclear	56.19	54.55	61.14	56.62
Joint	43.81	45.45	38.86	43.38
Religion (%)				
Hindu	88.99	96.31	93.45	92.72
Muslim	4.36	2.46	2.62	3.26
Kirati	4.36	0.25	0	1.87
Buddhist	1.15	0.74	1.75	1.12
Christian	1.15	0.25	2.18	1.03
Castes/Ethnic groups (%)				
Tharu	18.81	22.36	27.51	22.01
Brahmin	20.64	20.15	5.68	17.26
Chhetri	10.55	14.99	9.17	11.94
Other hill natives	14.45	7.86	20.09	13.15
Hill occupational	8.03	11.06	8.73	9.33
Other Terai natives	8.26	8.85	12.23	9.33
Terai occupational	9.40	8.85	9.17	9.14
Yadav/Ahir	5.50	3.44	5.24	4.66
Muslims	4.36	2.46	2.18	3.17
Educational level of husband/HH leader (%)				
Illiterate	49.3	45.2	52.4	48.4
Some education/primary level education	32.6	33.9	34.5	33.5
Secondary level education	12.8	15.2	11.4	13.4
Higher level education	5.3	5.7	1.7	4.7

About half of the household heads identified themselves as illiterate. One-third of them had some education, which was defined as having participated in a nonformal education program or attended school up to class five. About 18% of the household heads reported that they had more than a primary level school education, while 48.4% stated they were illiterate.

3.7.3 Access to Facilities

The household heads were asked to report the distance (in terms of time) to various facilities from their home. Reported times were estimated in walking time. Figure 3.3 shows the average walking times reported. Since BPEP, HEAL, and control groups were sampled from the same or nearby areas, there was little variation in the reported times by program.

Figure 3.3: Access to Facilities (in Minutes)



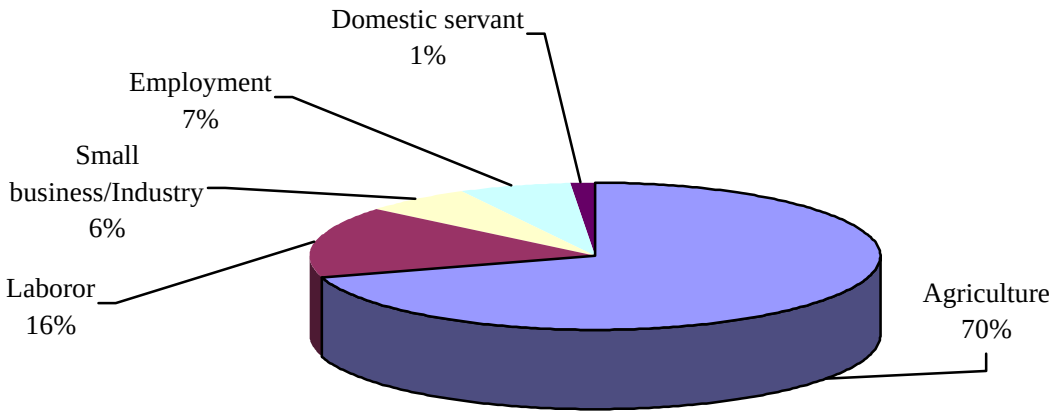
A wide range of times was reported. Respondents in the most remote or inaccessible villages included in this sample reported living up to six hours from the nearest hospital, six hours from the nearest market, four hours from a motorable road, and three hours from the nearest health post. About 35.5% of the households have their own drinking water source in their yard, about 63% have to walk up to ten minutes, and about 2% have to walk for more than ten minutes to get water.

3.7.4 Economic Status

3.7.4.1 Major Source of Income

Household heads were asked to report their major source of income. Figure 3.4 shows the percentages of the major income sources identified by respondents. The overwhelming majority of the households (70%) were involved in agriculture as their major source of income. Approximately 16% reported their main income source to come from work as a daily wage or transport laborer, and another 6.5% were employed in either a government or NGO/private sector job. One individual in the "employment" category reported a pension from his former employment as the main income source. Six percent were involved in small-scale businesses or industries, which included milksellers, shopkeepers, craftsmen, and local contractors. Even fewer respondents identified themselves as domestic servants (*Kamaiya* or *Hali)*. Finally, three people's major income source was money earned from being a priest. (These three individuals were not included in the pie chart.)

Figure 3.4: Major Income Sources of Sampled Households



3.7.4.2 Assets

The data related to assets were grouped into two categories: household assets and agricultural assets. Table 3.6 shows the ownership of various household and agricultural assets for both experimental and control group women. As shown below, household assets included radio, television, and bicycle ownership, a drinking water source at home, electricity in the household, and a woman's *pewa* (a gift of land, money, jewelry, or livestock given to a daughter by her parents upon getting married). Agricultural assets included ownership of farmland, ownership of livestock, a kitchen garden, use of another person's farmland, and food sufficiency.

Table 3.6: Household and Agricultural Assets by Program

Assets	*Experimental*		*Control*	*Total*
	BPEP	*HEAL*		
Household Assets (%)				
Have radio in the household (%)	43.12	50.86	37.99	44.96*
Have bicycle in the household (%)	52.06	45.95	49.34	49.16
Drinking water source at home (%)	38.80	38.30	23.60	35.40**
Have *pewa* (%)	33.70	35.10	22.70	31.90**
Have television (%)	6.70	3.20	2.60	4.50
Have electricity (%)	10.80	11.30	4.40	9.60*
Agriculture-Related Assets (means)				
Land owned (average in *kattha* »)	18.21	21.45	17.83	19.36
Land used (average in *kattha*)	26.57	28.72	25.45	27.15
Food sufficiency (average # of months per year)	7.54	7.47	7.24	7.45
Possession of livestock (average #):				
Cattle (average #)	1.59	1.84	1.93	1.76 *
Buffalo (average #)	1.04	1.16	0.96	1.07
Have kitchen garden (%)	76.80	85.50	81.20	81.10

≈ 30 *kattha* = 1 hectare

Note: Chi-square tests were done to determine statistical differences between experiment and control group women.

* Indicates that experimental and control group differences are statistically significantly, $p < .05$.

** Indicates that experimental and control group differences are statistically significantly, $p < .001$.

About half (49%) of the total women had a bicycle in their household and about 45% had a radio in their household. More experimental group women than control group women were likely to have a radio in their households ($\chi^2 = 5.72$, $p < .05$). Only about one-third of the total women had drinking water sources at their home, and more experimental group than control group women had a water source at their home ($\chi^2 = 17.66$, $p < .001$). A very small percentage, less than 5%, of the total women had televisions in their homes. This was not surprising since most homes in Nepal do not have electricity. Access to electricity, however, was not controlled entirely by the family, because it was only possible for them to have electricity in their homes if the electric lines had come to their village. Since much of rural Nepal has not been electrified, it was not surprising that just 10% of the total sample had electricity at their homes.

The percentage of the experimental group women with *pewa* assets was greater than the percentage in the control group. The concept of having *pewa* is generally found among the *Brahmin*, *Chhetri* and other hill caste women. It is less common among *Tharus* and other *Terai* native castes. The control group had fewer *Brahmin* and *Chhetri* women than the experimental group, which may explain the statistically significant difference found between the experimental and control group women with regard to *pewa*.

The average size of land owned among respondents in the total sample was nearly two-thirds of a hectare (one *bigaha* or 20 *kattha*), and the average amount of land used was

about one hectare. This implies that, on average, one-third of a hectare of land was leased from others. Although on average, control group women had and used less land than experimental group women, no statistical differences were found between the two groups. However, average cattle ownership (excluding buffalo), was greater for control than experimental group women.

3.7.4.3 Socio-Economic Status (SES) Measurement

In examining the overall socio-economic status of the women in the study, a composite measure was created to rank the status of each woman on a common scale. The SES measure included household and agricultural assets, access to facilities, and the educational level of women and husbands or household leaders. The SES measure was a 13-point scale (ranging from 0-13 points). It included the following dichotomous variables, with one point for each response of "yes" and zero points for each response of "o." The maximum possible score for each woman in the sample was 13.

Household assets:
1. Have a radio in the household
2. Have a television in the household
3. Have a bicycle in the household
4. Have drinking water source in own yard

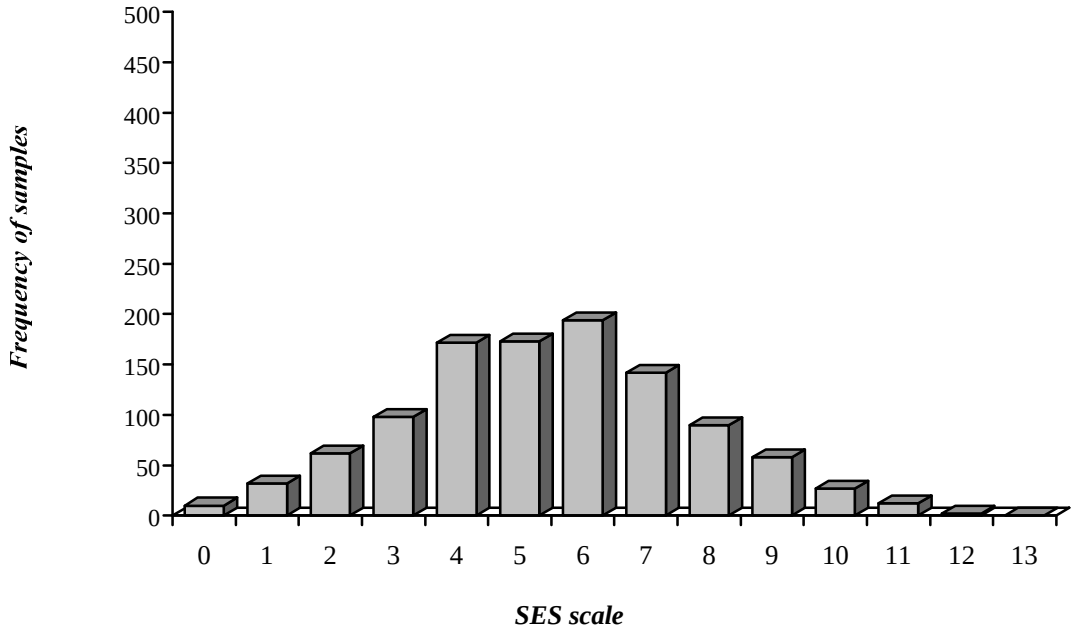
Agricultural assets:
5. Family has own kitchen garden
6. Family owns land
7. Family owns livestock (cattle or buffaloes)
8. Woman has *pewa* (cash, land, livestock, or jewelry)

Access to facilities:
9. Have electricity in the household
10. Have access to toilet facilities

Educational level of family members:
11. Woman has received previous training
12. Husband/household head is literate (has had some schooling)
13. Woman speaks Nepali language at home

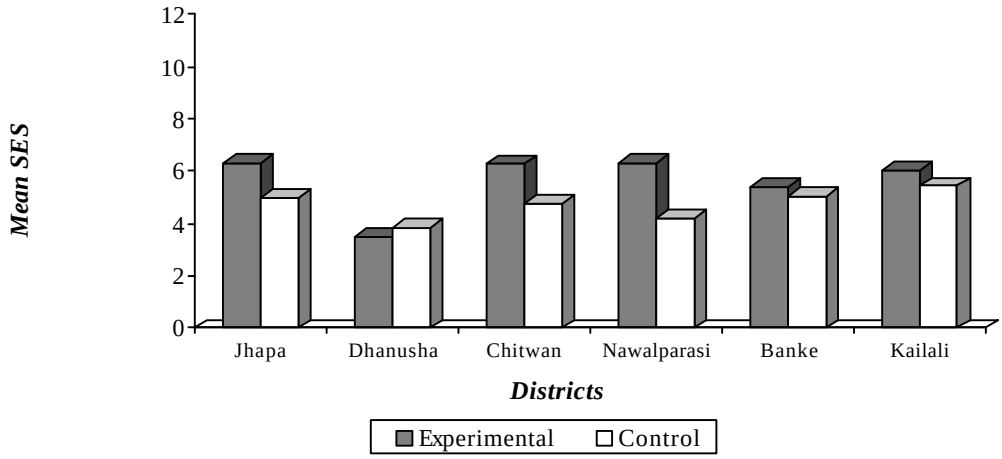
Figure 3.5 shows the number of respondents at each level of the SES measure. As the figure depicts, the distribution of SES for women in the baseline study was normally distributed, with a mean score of 5.4 and standard deviation of 2.24. The SES scores ranged from 0-12 (a score of zero is n=10, and a score of 12 is n=12).

Figure 3.5: Distribution of Women in the Sample's Socio-Economic Status



The baseline data indicate that the SES of the experimental group women (mean SES = 5.63) was statistically significantly higher than the mean for the control group women (mean SES = 4.71) ($F = 31.37$, $p < .001$). Among the districts, Dhanusha was found to have the lowest SES on average. National data revealed that Dhanusha ranked lowest among the six sampled districts on a number of development indicators (ICIMOD, 1997). Women in the sample in Banke district, in the mid-western region of Nepal, had a slightly higher SES mean score than women in Dhanusha. The average SES scores of the other four districts were all higher than these two districts and had nearly equal mean scores. Figure 3.6 presents the mean SES score of districts by experimental and control group.

Figure 3.6: SES by District and Group

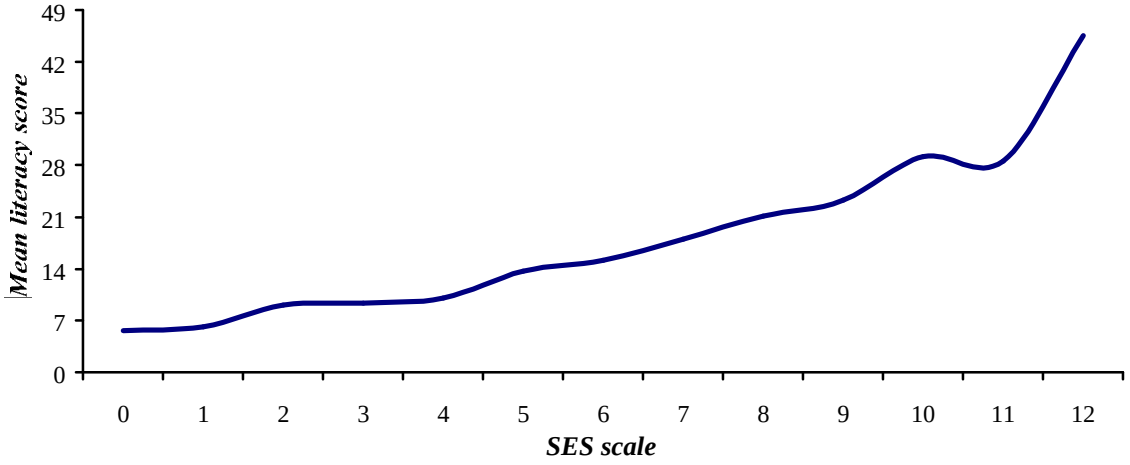


In all districts the mean SES for control group women was found to be lower than for experimental group women, except in Dhanusha district where the opposite was true; the average SES for experimental group women was lower than for the control group. The biggest differences, however, between control and experimental groups on SES were in only three districts; in other districts, the differences were minimal.

3.7.4.4 Relationship of Women's SES and Literacy Skill Level

A comparison of the two continuous measures of women's SES and women's literacy test scores revealed that a significant positive correlation exists between SES and literacy level. The relationship between SES and the literacy level of the women (as measured by their score on the literacy test) is shown in Figure 3.7. This figure includes both experimental and control group women.

Figure 3.7: Women's Mean Literacy Score by Level of SES



Furthermore, simple linear regression showed the magnitude of this positive relationship. With each one point increase in SES score (on a 0-13 point scale), a woman's literacy test score was, on average, 2.33 points higher (on a 0-49 point scale).

3.7.5 Women and Literacy Class

3.7.5.1 Women's Educational Experiences

Table 3.7 presents the data on the previous educational experiences of the experimental and control group women. An average of 24.3% (n=205) of the experimental group women reported they had attended a literacy class before. For those who said that they had attended literacy class before, the average length of attendance was about 76 days. Only 3.3% of the women in BPEP and HEAL reported that they had attended primary school. The criterion for inclusion in the control group was that respondents should not have participated in any formal schooling or in a literacy class.

However, 2.6% (n=6) of the control group women reported some participation in a previous literacy class. The average length of their participation in a literacy class was much shorter than for the experimental group women, averaging only four days. Only 5.8% (n=62) of the total sample of women reported having participated in some form of training. HEAL participants reported participating in more training over a longer time period than women in either the BPEP or the control group. Overall, the exposure to training programs was much shorter for the control group than for the experimental group.

Table 3.7: Previous Literacy and Educational Experience of Women in the Sample

Type of Education	*Women's Participation*			*Average Length of Participation*		
	Experimental		*Control*	*Experimental*		*Control*
	BPEP	*HEAL*		*BPEP*	*HEAL*	
Literacy class (days)	22.0% (n=100)	25.8% (n=105)	2.6% (n=6)	72.51 (sd =58.9)	82.89 (sd=74.2)	4.30 (sd=2.9)
Primary school (years)	3.4% (n=15)	3.2% (n=13)	0.4% (n=1)	3.00 (1.73)	2.38 (1.6)	-----
Training (days)	(3.4%) (n=15)	10.6% (n=43)	1.7% (n=4)	19.60 (44.5)	38.02 (58.4)	12.00 (12.1)

The reported figures for previous literacy class experience and primary schooling may be fairly conservative. The assumption is that a number of women were afraid to report that they had previously attended a literacy class because they were currently enrolled in a basic literacy class designed for women with no previous literacy experience.

The in-depth case study data from women support this assumption. One case study subject from Jhapa reported on the survey that she had participated in a literacy class before, but that she had never attended primary school. Researchers who resided in the area for six weeks discovered that she had also attended primary school for two years. After many informal visits to her home and much time spent with her and other family members, she finally admitted that she had been to school, stating, "Well, my parents sent me to school but I was not interested, and I ran off to play with my friends, so I really never studied or attended school." Additionally, an older woman, also from Jhapa, reported on the survey and still insisted in the in-depth study that this current class was her first literacy class. However, discussions with her daughter-in-law and husband revealed that she had actually participated in two literacy classes over the past three years. According to her family, this was the third time she had participated in a basic literacy course. Although it was unclear whether she actually completed either of the previous courses, it seems very likely that she had participated in them.

Field enumerators provided evidence of this underreporting of respondents' previous literacy and/or school attendance. A number of the enumerators commented verbally and wrote in their field diaries that they were surprised to learn how many women stated that they had not participated in a literacy program previously, yet other family members, villagers, and/or local literacy class program personnel stated otherwise. Furthermore, facilitators and NGO staff were asked why they felt women would not reveal to the enumerators that they had participated in literacy classes in the past.

The most common response was that the women were probably afraid that the program would "disappear" if they admitted to having already participated. The notion was that

everyone knew these literacy classes were supposed to be comprised of women who have "never studied" before.

A second speculation by some villagers, program personnel, and field researchers (yet not confirmed by any of the women themselves) was that some women did not want to admit they had participated in a literacy class before because they still could not read or write. They felt that if they revealed that they had participated in a class before, they would be expected to be able to read and write, and were embarrassed to admit that they still could not do so. In the case of the older woman in Jhapa, she constantly made comments to the researchers about how poor she was at writing and how it would take her more than two years to master writing her name. Yet from the enumerators' observations, she could write her name quite well. It is possible, however, that it *had* taken her two years to accomplish this task.

It is also possible that some women repeat literacy classes simply because they enjoy the companionship of other women and are seeking opportunities for relief from the drudgery of their everyday routines of household chores and family responsibilities. It is not known whether they would participate in such gatherings regardless of whether it is a literacy class or some other type of community activity.

A possible implication of this underreporting is that the time required to reach a certain level of literacy may be underestimated. However, this is difficult to assess, since for those women who previously attended a literacy class but failed to report it, there is no way of knowing the actual circumstances of their prior participation. For example, it is not known how often these women may have attended or for how long. Additionally, we do not know what circumstances (e.g., a death in the family, illness) may have led to their dropping out of the class.

However, because of the pre- and post-testing element of the research design, such underreporting does not pose a major threat to the validity of the results. While it may not be possible to determine with absolute certainty exactly how much literacy training a given individual has undergone prior to the literacy course, the level of each participant's literacy skills at the beginning of the study is known. Thus it is possible to make inferences about the impact of varying degrees of literacy instruction participants received subsequent to the initial measurement.

3.7.5.2 Level of Literacy Skills

As detailed in the methodology section of this paper, a literacy test was administered to measure the women's literacy skills. The test consisted of five sections, including 1) picture analysis, 2) functional reading with the aid of pictures containing a message, 3) reading passage and comprehension check, 4) math, and 5) writing. A copy of the literacy test can be found in Appendix IX. Table 3.8 depicts the mean test scores by section for BPEP, HEAL, and control group women. As the table shows, BPEP and HEAL participants had very similar scores, with no statistically significant differences found between these two groups. However, scores of women in the control group were

much lower than those of women in the experimental group. T-test analysis showed statistically significant differences between the scores of the control and experimental groups for all sections of the test.

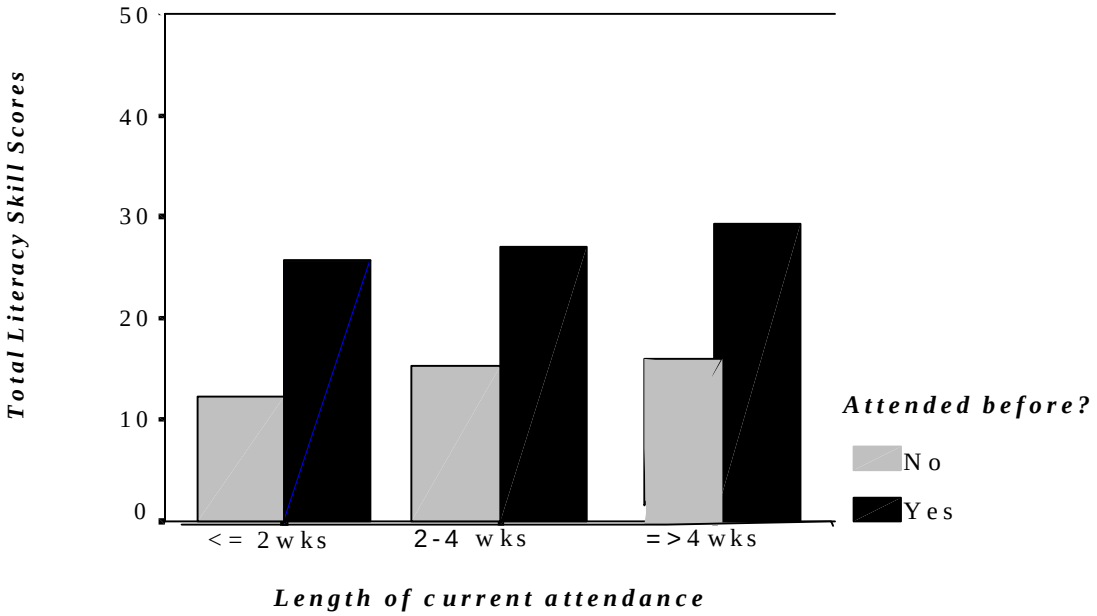
Table 3.8: Average Scores on Literacy Skills Test for Women in Experimental (BPEP and HEAL) and Control Groups

Literacy Skill Test Section	*Experimental*		*Control*
	BPEP	***HEAL***	
Picture analysis (full score 5)	4.30	4.32	3.79*
	(.96)	(.89)	(1.06)
Functional reading comprehension (full score 10)	3.63	3.33	0.13*
	(4.25)	(4.25)	(1.01)
Reading comprehension paragraph (full score 14)	4.39	3.95	0.14*
	(5.88)	(5.69)	(1.33)
Math (full score 14)	3.86	3.63	0.31*
	(4.15)	(3.91)	(1.09)
Writing (full score 6)	1.84	1.81	0.07*
	(2.07)	(2.15)	(.48)
Total literacy skill scores (full score 49)	17.79	16.81	3.65*
	(15.56)	(15.24)	(3.96)

Note: Standard deviations are in the parentheses.
* Indicates that control group mean test scores are statistically significantly different than the experimental group mean scores, p <. 001.

Although this is a baseline study designed to include women who have just entered a literacy program, almost half of the experimental women scored more than 10 points out of a possible 49 points on the literacy skills test. Only 2% of the control group women scored more than 10 points. Figure 3.8 clearly illustrates a linear relationship: as the exposure to literacy increases, the test score goes up. Those experimental group women who had previously participated in a literacy class and had currently attended literacy class for up to 45 days had the highest literacy test scores, while those women who had not attended literacy class before and had only been in their current class for a few days had lower literacy scores. Since the experimental group women already had more exposure to literacy than the control group women, it is not surprising that even in the baseline study, differences existed between the literacy skills of the two groups.

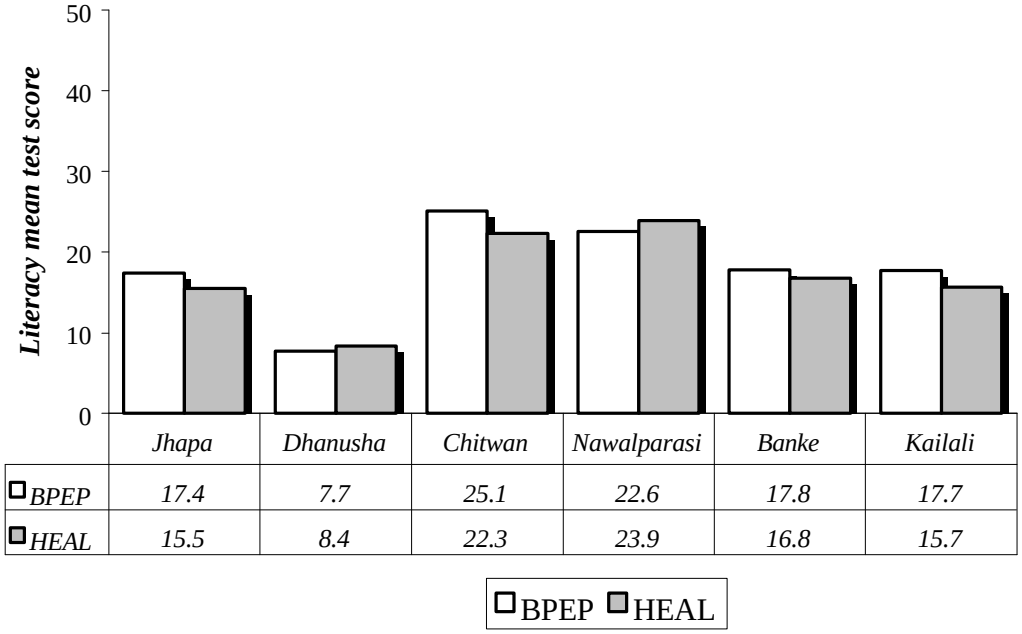
Figure 3.8: Literacy Scores by Length of Current Literacy Class Attendance and Previous Literacy Class Participation for Women in BPEP and HEAL



Two demographic variables that may affect literacy test scores–women's ages and the districts where they reside–were also examined. Some studies have shown that it is more difficult for older women to learn and retain literacy skills (Abadzi, 1994). The baseline data showed no great differences on the test scores of women by their age. However, 5% of the sample was over age 45 and these women generally scored lower on the test than women under 45 years of age. For women under 30 years old (52% of the sample) and women between the ages of 30 and 45 years (43% of the sample), no differences in test scores were found. On average, women over 45 years of age scored two points lower than women under 45; however, no statistically significant differences among the test scores were found for any of the age groups.

When literacy test scores were examined by district, statistical differences among the districts were found. Figure 3.9 presents the average experimental group test scores by district and program. Although differences in overall test scores by district were found, no differences by program within a district existed. These data indicate that the women in the different districts may have had varying starting points for their levels of literacy, but literacy scores were consistent within districts.

Figure 3.9: Average Literacy Test Score by District and Program



	Jhapa	Dhanusha	Chitwan	Nawalparasi	Banke	Kailali
BPEP	17.4	7.7	25.1	22.6	17.8	17.7
HEAL	15.5	8.4	22.3	23.9	16.8	15.7

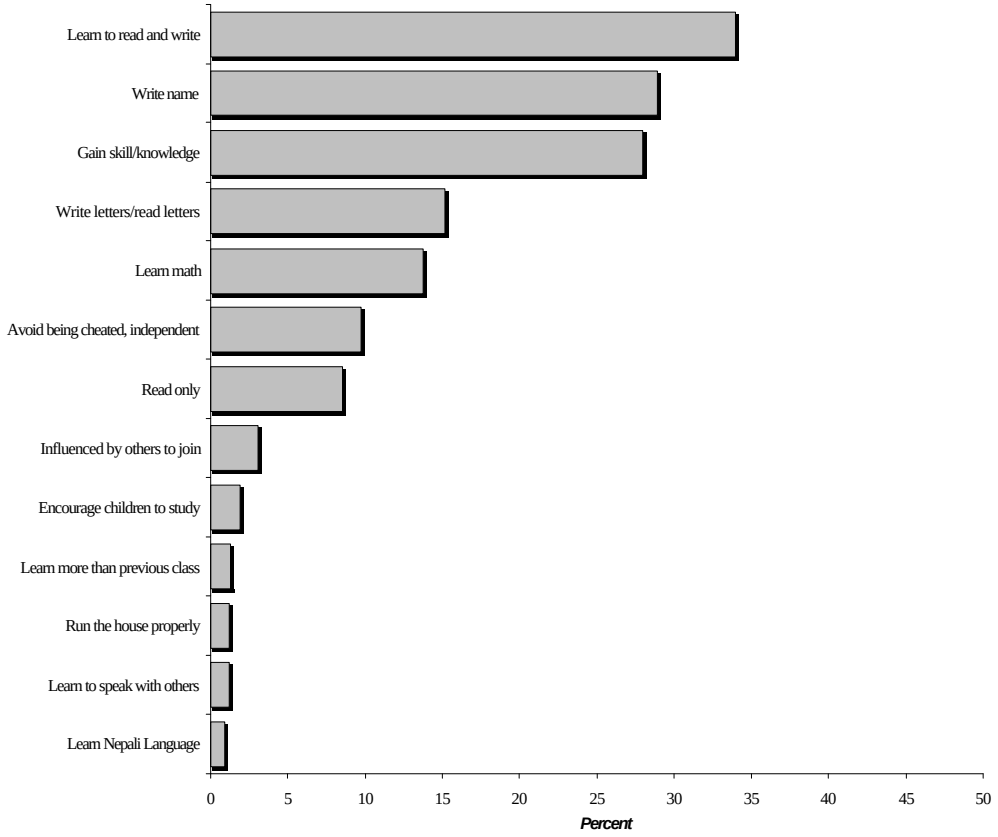
Women from Dhanusha District on average scored much lower on the test than women from the other five districts. Women from Chitwan and Nawalparasi showed relatively high average literacy scores compared to the other districts. Several factors may have contributed to low test scores in Dhanusha, including: 1) overall literacy levels in that district were lower than all the other survey districts; 2) all of the women in the sample from that district were non-Nepali speakers; and 3) only 1.7% of the 20% literacy class repeaters in the sample were from that district. It is not surprising that Chitwan and Nawalparasi both have higher literacy test scores, since they both have a long history of literacy programs in the districts, and both districts had a higher percentage of women who reported previous participation in literacy class (4.7% in each) compared to the other districts (2.7% in Jhapa and 1.9% in Kailali).

3.7.5.3 Women's Views about Literacy Class

Women were asked a series of questions to assess their views about literacy classes. The women reported that their main reason for participating in the literacy program was to acquire basic reading, writing, and computational skills. Women who were not participating in a literacy class claimed that the major obstacle to their participation was work burden.

Participants of the current literacy programs–BPEP and HEAL–were asked, "Why have you decided to join the literacy class?" This was an open-ended, multiple response question. As can be seen from Figure 3.10, most women reported that they joined the literacy class to gain a literacy-related skill, giving somewhat vague responses such as "to learn to read and write" or "to gain new knowledge." A smaller percentage of women articulated more specific reasons for joining the literacy class. Close to 10% of the women also said that they joined in order "to avoid being cheated" and/or "to become independent."

Figure 3.10: Why Did Women Join Literacy Class? (n=843)



Note: Multiple responses were given.

Women were also asked how they planned to use their literacy skills in the future. The most common answer was to "teach others" (19%). Other common answers included "read and write when needed" (18%), "write and read letters" (17.5%), and "do math" (17%). Another 15% said they did not know how they would use their literacy skills in the future. Thirteen percent said they hoped their literacy skill would lead to "participation in a training."

When control group women were asked why they did not participate in the literacy classes, the majority of them explained that "too much work" was the major hindrance. Out of the 229 control group women, 67% (n=153) of the women cited work burden as a reason for not participating in the program. Another 13% reported that they were not informed about the class or that the literacy class was too far from their home. Seven percent (n=15) of the women also claimed that their husbands did not allow them to attend a class. Only 6% (n=14) stated that they had "no desire" to participate in literacy classes.

3.7.5.4 Husbands' Views about Literacy Class

Husbands of women from the experimental and control groups were queried on their opinions about the literacy classes. They were asked if they thought their wives should join a literacy class. The majority replied affirmatively. However, over 98% of the husbands of experimental group women said that their wives should join, while only 81% of the husbands of control group women said their wives should join. A chi-square test showed a significant difference between these two groups of husbands on their attitudes towards their wives participating in literacy class (χ^2=69.3, $p < .001$). Husbands' responses were similar to women's in that the majority of husbands suggested that women should join "to become literate" (59%) and/or "to gain knowledge" (18%).

Husbands were also asked about their expectations of their wives after they had participated in a literacy class and what they viewed as the goal or purpose of these literacy classes. When specifically asked what they thought the purpose of the literacy class was, somewhat broad responses were given, including: "to provide education," "to make women forward and intelligent," and "to make women stand on their own feet." Yet when husbands were asked, "What do you expect your wife to get out of the class?" the top three responses were more specifically related to achieving actual literacy skills, including: for her "to be able to read and write," "to do math," and "to get employment."

3.8 Cost Effectiveness Data

In year three, this study will include an analysis of program *costs* in relation to the *effectiveness* of the programs under examination. Two aspects of *effectiveness* will be assessed. The first will be expressed as a ratio of the incremental performance measures of effectiveness for the experimental group over the same measures for the control group. This will be measured by the findings on the participants' surveys for years one, two and three, with respect to the indicators of impact, including individual and composite measures of economic participation, community participation, political awareness and participation, health knowledge and practices, and children's education, as well as participants' performance on the literacy test. As the ratio increases over time, we expect increased effectiveness.

The second *effectiveness* measure will consist of an analysis of the elements of the programs including: 1) facilitator characteristics (qualifications, sex, age, education, native language, and experience); 2) program length/class schedule (number of months of

instruction, number of days per week of instruction; 3) availability and use of textbooks; 4) facilities (type of facility, lighting, furniture); 5) class schedule (number of times per week, number of months of instruction) in relation to participant survey responses and literacy test performance. Information on program elements will be obtained from facilitator surveys and classroom observations conducted during year one of the program and matched with participants' survey and literacy test information.

These data will be analyzed in conjunction with program cost data in order to obtain a measure of the *cost effectiveness* of various elements of the program. Analyses will include both investment for program development and startup and annual recurrent costs.

Cost data to be collected include[7]:

1) *Program start up costs*, which include one-time development costs;

2) *Class operation costs*, which include the recurrent costs associated immediately with class operations, such as facilitator remuneration, materials, maintenance, and class management functions;

3) *Class support and supervision costs*, which include training, inspection, review, and audit services;

4) *PVO/NGO management and operation costs*, which include costs incurred to administer and manage the program.

A per student cost will be calculated for each program, and a cost effectiveness ratio will be calculated, using this ratio in conjunction with effectiveness measures. We expect that through this methodology and analysis we will be able to determine the varying effects of the program elements and their associated costs on the outcome measure of social and economic development.

4. SURVEY RESULTS

Survey results for the baseline data on five key areas of impact indicators are examined in this section, including: 1) women's participation in economic activities; 2) women's participation in community activities; 3) women's knowledge of political issues and participation in political activities; 4) women's knowledge of and practice in key health areas; and 5) women's and their husbands' attitudes and practices concerning their children's education. For each of these areas, a brief introduction is provided to the topic, and the key research questions of this study are identified. Descriptive data on the current status of the respondents are given, based on the baseline survey results and simple comparisons between groups on key variables are made. Most of the comparative analysis is limited to identifying experimental and control group differences. Finally,

[7] This list was adapted from a list of variables compiled by Karen Tietjen in *Community Schools in Mali: A Comparative Cost Study*, USAID, and Bureau for Africa, June, 1999.

each section concludes with an analysis of women's SES and literacy level related to key variables for that indicator.

4.1 Economic Participation[8]

4.1.1 Introduction

One of the key indicators of women's socio-economic development status is their participation in economic activities. As noted in the methodology discussion, for the purpose of this study, indicators of economic participation include whether the respondent: 1) is a member of an economic group; 2) is participating in an income-generating activity; 3) has savings; and 4) has taken advantage of a loan (particularly for use with an income-generating activity). Several studies carried out in Nepal have attempted to assess the contribution women make to Nepal's economy and, more specifically, the amount women contribute to their own families' economic well being. As highlighted in the literature review section of this report, it has been established that women contribute significantly to the national economy, despite the fact that their access to knowledge, skills, and resources remains low (UNICEF, 1996). Also, women's participation (or the accurate reporting thereof) in agriculture-related activities has been increasing (from 30% in 1971 to 45% in 1991) (Shtri Shakti, 1995) and their involvement in the local market economy has been steadily rising.

The definition of economic participation in this study is limited to women who participate in an activity to earn money for themselves or their family. This definition was chosen because the goal is not to explore the overall status of illiterate women's economic contributions, but rather to examine whether women who increase their literacy skills seek opportunities to participate in economic activities or plan to expand their already initiated economic activities.

4.1.2 Research Questions

Three main questions guide this inquiry into how actively a woman participates in economic activities. These are: 1) Are the women participating in economic activities and if so in what areas? 2) To what extent do women participate in economic activities? (i.e., what is their level of involvement? To what extent are women in the literacy programs involved in economic groups compared to women who are not in the literacy programs? and 3) What is women's capacity for expansion of economic activities? Answers to these questions should provide information about the different levels of women's participation in economic activities and identify the factors that might explain the varying levels of economic participation found in the baseline data.

[8] For the purposes of this study, economic participation for women has been defined as "participation in an activity to earn money for themselves or their family." The research team acknowledges the relevance of women who do not earn a cash income yet play a critical role in maintaining the economic well-being of the household. However, these women are not included in this study.

4.1.3 Descriptions and Comparisons

Box 1: Survey Results--Economic Participation

A significantly higher proportion of women in the control group reported their reasons for not being involved in economic activities as "lack of knowledge" and "lack of money."

	Percent of Respondents		
❑ Involved in economic activities (earned money for themselves or their families)			40%
❑ Of those not participating:			
- Reported that *no time/work burden* was reason for not participating in economic activities			53%
- Reported that *no knowledge* was reason for not participating in economic activities**			28%
- Experimental group		42%	
- Control Group (**p < .001)	24%		
- Reported that *no money* was reason for not participating in economic activities*			24%
- Experimental Group		32%	
- Control Group (*p < .05)	22%		
- Reported that *illiteracy* was reason for not participating in economic activities			2%
❑ Engaged in agricultural activities for money			56%
❑ Initiated economic activities by themselves			58%
❑ Reported that their husband or other family members had already initiated the activities in which they were involved			39%
❑ Started the activity with the help of a group			3%
❑ Had already been involved in economic activity			73%
❑ Reported illiteracy as one of the reasons for not being involved in economic activities			2%
❑ Received individual loans			16%
❑ Received family loans (not in own name)			38%
❑ Of the women who had received individual loans (n=167):			
- used it to start an income-generating activity			37%
- used it to expand their income-generating activity			14%
❑ Reported having savings			21%

4.1.4 Women's Participation in Economic Activities

Forty percent (n=419) of the women reported being engaged in at least one type of economic activity, that is, they earned money for themselves or their families. These activities were categorized into five major types of work, including: agriculture-related (e.g., goat raising, farming vegetables, fisheries, etc.); cottage industries (e.g., making

handicrafts, sewing clothes, etc.); small business (e.g., tea shop or other shops); outside employment (e.g., factory worker, office worker, government or non-government employee, etc.); and daily wage labor. Survey results showed that most of the women who were involved in economic activities participated in only one earning activity, and less than one-fifth of these women were involved in two activities. Experimental and control group women participated in economic activities at equal rates.

The women who were not involved in any economic activities (60%, n=652) were asked to report reasons why they were not involved. Table 4.1 shows the range of responses given. The more common reasons given were work burden or no time, lack of knowledge to initiate income-generating activities, and lack of money. Only about 2.5% of the women reported illiteracy as one of the reasons for not being involved in economic activities. Chi-square tests were conducted to determine statistically significant differences between experimental and control group women.

Table 4.1: Women's Reasons for Not Being Involved in Economic Activities (n=652)

Reason for Not Being Involved in Economic Activities	***Groups (%)***		***Total (%)***
	Control	***Experimental***	
No time/work burden	52.4	52.7	52.61
No knowledge	42.1	24.3	28.22**
No money	32.4	21.9	24.23*
No interest	5.5	8.5	7.80
Husband doesn't allow	6.9	7.5	7.36
Lack of manpower	4.8	7.3	6.75
Others (illiteracy, no market, family obstacles, failure in the past, and illness)	11.7	8.9	9.50

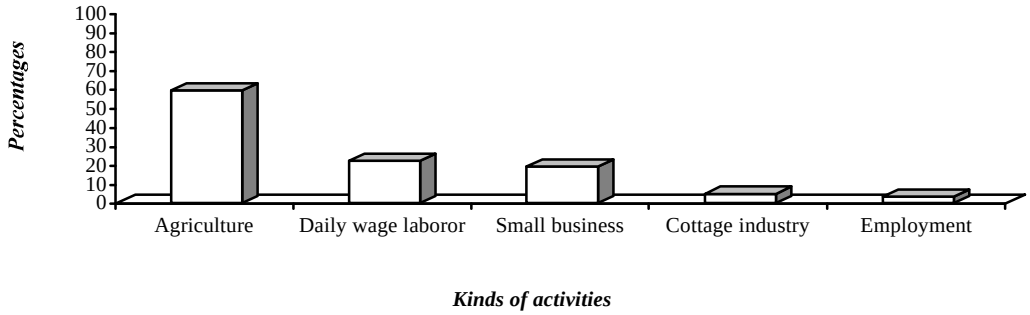
* Indicates that experimental and control group are statistically significantly different, $p < .05$.
** $p < .001$

The above table indicates that women perceived "work burden" to be the factor that most hindered them from participating in earning activities. This is not surprising, and at least one study of the status of women has shown that women's work burden has been increasing over the years and stands currently at 10.9 hours per day (compared to men's at 7.8 hours) (Shtri Shakti, 1995). Two other factors identified by the women as obstacles to earning money differed significantly between the experimental and control groups. Women in the control group were more likely than those in the experimental group to report their reasons for not being involved in economic activities such as "lack of knowledge" and "lack of money," and this difference is statistically significant. This survey result is plausible because the data show that less than 2% of the control group women have been to any skill development training, compared to 7% of the experimental group women. On average, women in the control group seem to have fewer household assets, which may be an indication of their lack of access to cash (see SES measurement section on page 23 for detailed experimental and control group differences on household assets).

4.1.5 Types of Economic Activity in Which Women Participate

Agriculture in rural areas is the main source of income, followed by business/trade, the service industry, and wage labor (Shtri Shakti, 1995). Survey results in this study reflect the general trend, since almost two-thirds of the women participating in earning activities were engaged in agricultural activities. Figure 4.1 shows the types of economic activity engaged in by economically active women.

Figure 4.1: Percentage of Women Involved in Various Economic Activities (n=419)



The survey results revealed no difference between the experimental and control groups on overall participation in economic activities. Experimental group women (61.5%) were more involved in agricultural activities than control group women (51.2%), but this 10% difference was not statistically significant. However, control group women (31%) were more involved in small business activities compared to experimental group women (14.9%), and this difference was statistically significant ($\chi^2 = 11.68$, $p < .05$).

4.1.6 Level of Women's Participation in Economic Activities

Three measures of a woman's level of participation in economic activities were included: her self-initiation of the economic activity; her length of involvement in the activity; and her annual income from the activity. This information allows an examination of each woman's current level of involvement and whether her involvement in economic activities changes positively over time.

Of the 342 women involved in economic activities (daily wage laborers were excluded from these analyses[9]), the majority of the women participants (58%) initiated economic activities by themselves. Another 39% of the women who participated in economic activities reported that their husband or other family members had already initiated the

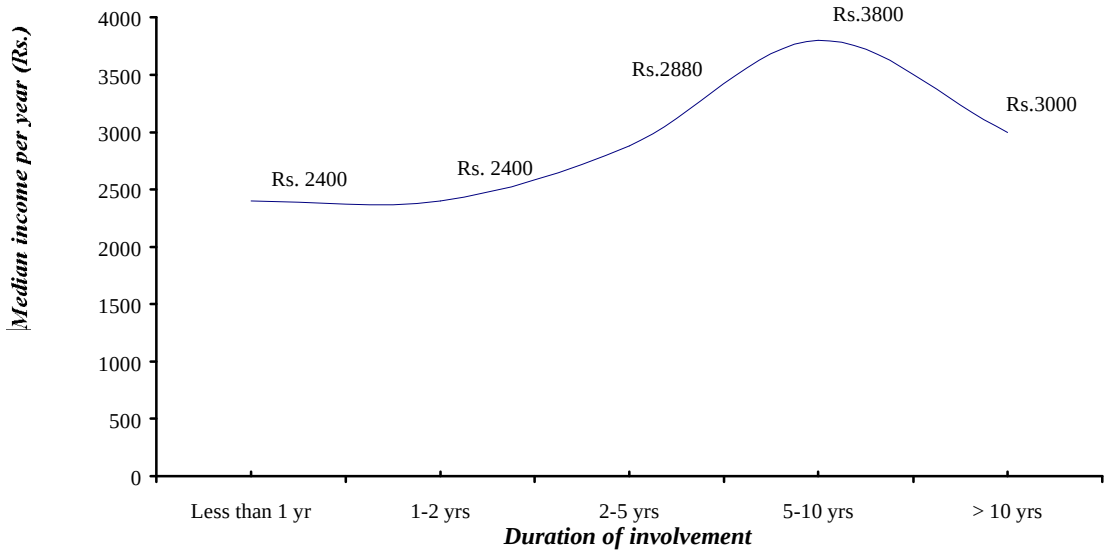
[9] Daily wage laborers were not included in these calculations because it is not considered an income-generating activity that is started with an investment of resources. The earnings were also irregular and there is seasonal variation in the income from daily wage labor.

activities in which they were involved. The remaining 3% started the activity with the help of a group.

Figure 4.2 shows the annual median income by duration of involvement in the activity. Of the 342 women involved in at least one activity, about 20% had been involved for less than one year. Another 13% had been involved for one to two years; 28% had been involved for two to five years; 23.5% had been involved for five to ten years; and 15.5% of them had been involved for more than ten years.

The median annual income of those involved in an economic activity ranged from Rs. 2,400 to Rs. 3,800, depending on length of involvement in the activity. The median annual incomes for both the experimental group women and the control group women were nearly equal. As Figure 4.2 shows, annual income tended to increase with the number of years involved in the activity. After ten years, however, the amount tended to decrease again. This decrease in annual income after ten years might be explained by the fact that at least one-third of the women involved in an activity for more than ten years became involved in a second activity, and the total earnings from those involved in more than one activity were not reflected in Figure 4.1.

Figure 4.2: Median Income from Economic Activity (Years of Involvement) (n=342)



Statistical tests indicated that no significant differences exist between experimental and control group women in either their length of involvement in activities or in their mean and median incomes.

4.1.7 Capacity to Initiate or Expand Economic Activities

Several questions were included to measure both women's attitudes toward expanding their activities and their actual expansion capacity. First, the women were asked to report what kinds of resources they used or training they received to initiate economic activities. About 8.5% of the women had received training to initiate their activities. About half of the women who were involved in at least one economic activity initiated their activities using household resources; 25% used their *pewa* and 20% used a loan.
The women who had already been involved in income-generating activities (n=342) were then asked to report if they were considering expanding their activities in the future. The majority of these women (73%, n=250) stated that they were planning to expand their activities in the future.

In addition to asking about their attitudes towards expansion, women were asked to report what resources they needed to expand their activities. The purpose of this open-ended question was to examine specifically what women recognized as a *need* for expanding their activities. Do illiterate women, for example, see the need for reading and writing skills in relation to earning money? Among the 250 women who were thinking of expanding their activities, more than 80% reported they needed money to do so. About 8% reported they needed literacy skills and training in order to expand, and only 5% identified access to a market as the major factor necessary to expand their activities. Reading and writing skills were not identified by most of the women as essential components to expansion of their economic activity. However, this survey result does not necessarily mean that they did not recognize the value of literacy for success in these activities. It merely suggests that most women recognize that the more immediate factor is the need for capital (money). This helps to explain the survey result that more women in the control group were engaged in business (i.e., they did not see literacy as a necessary skill to running a business).

Women who were not currently involved in any economic activities (60%) were asked whether they were planning to initiate any activities in the next year. Of these women, 49.6% claimed that they were planning to initiate some sort of income-generating activity. Thus, many women seemed to be interested in starting income-generating activities. Follow-up data collected in the coming year will reveal how many women actually followed through with their desire and became involved in income-generating activities.

4.1.8 Loans

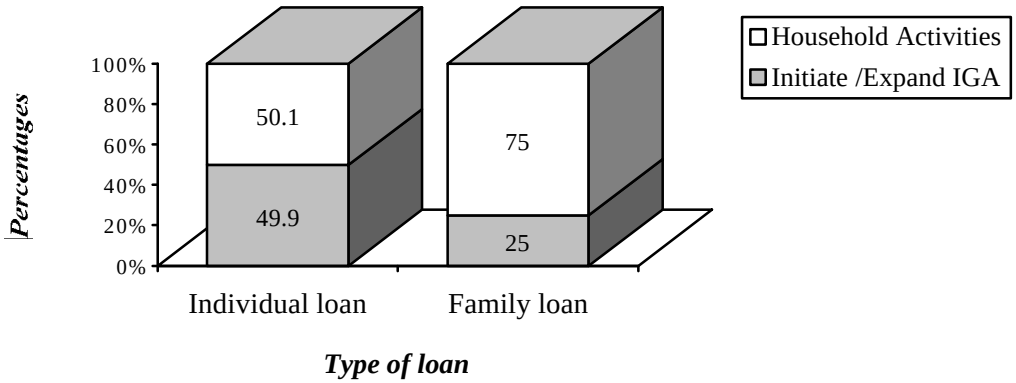
To assess the capacity for initiation or expansion of activities, all women in the sample were asked to report if they had received an individual or family loan. Those who took loans were then asked to report on the use of the loans to determine what percentage of the women actually used them for income-generating purposes. The data showed that about 16% of the women reported that they had received individual loans, and about 38% of them had received family loans (any loan taken by another family member, not in the woman's own name). Of the individual loans, most came from banks (as opposed to

friends or moneylenders), while most family loans were taken from friends/relatives/ villagers or local moneylenders.

The Grameen Bank is included in the definition of a bank. Grameen focuses on providing loans to poor, rural women and is found in all the surveyed areas. This may help to explain why more women reported taking loans from banks. Taking loans from friends/relatives/villagers or from local moneylenders is a more traditional way of taking loans in Nepali society. Yet, with the introduction of several NGOs working with rural women to form savings and credit groups, and with the spread of the Grameen Bank (and several Grameen Bank clones) in the Terai, individuals are beginning to move away from taking loans from local moneylenders. As these baseline data illustrate, women are currently taking advantage of these newer methods of receiving loans and family loans, generally taken by males in the household.

Of the women who had received individual loans (n=167), about half either used the loan to start an income-generating activity (36.5%) or expand their income-generating activity (14.4%). The other half of the women used their loans for a variety of needs, including paying for the marriage of a son or daughter, paying back a moneylender, making daily purchases, paying for medical treatment for a family member, or buying land or a house. Among the women who had received family loans (n=404), about one-fourth had used it in the initiation or expansion of their income-generating activities. Figure 4.3 below shows that the proportion of loans used for women's economic activities was greater when women took individual loans than when the family took a loan.

Figure 4.3: Use of Individual and Family Loans



Of the women who had not taken an individual loan (n=905), about 25% said they were interested in taking a loan in the future. Women gave various reasons for why they had not taken out a loan. The most common was that it was difficult to pay back the loan (43%). About one-third of these women reported they did not need loans. The reasons given for not yet haven taken a loan were classified into three categories and listed in Table 4.2.

Table 4.2: Reasons for Not Taking Individual Loans

Reason for Not Taking a Loan In the Past	*Percent of Women (n=905)*
Not needed	
Don't need a loan	31.0%
Economic reasons	
Difficult to pay back	43.0%
Interest rates are high	11.0%
No collateral	11.0%
Other reasons	
Don't know	13.0%
Afraid of being cheated	7.0%
Husband doesn't allow	5.5 %
No group membership	5.0%
Increases work burden	5.0%

4.1.9 Women's Savings

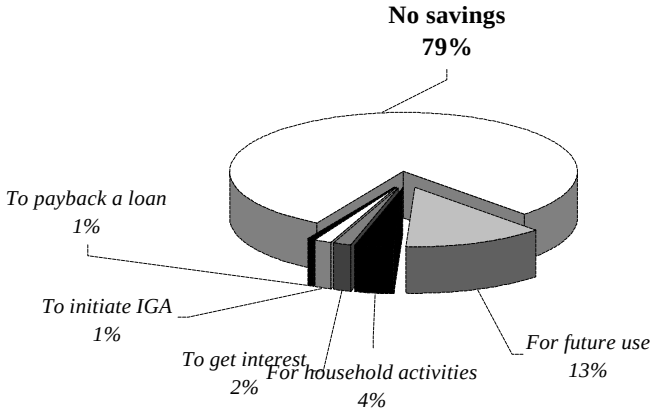
The women were asked to report if they had any savings. One assumption is that a woman's savings may be indirectly related to her potential for either initiating or expanding an economic activity. However, it was decided that it was inappropriate to ask more specifically about the quantity or the whereabouts of her savings since that line of questioning becomes very personal. Many rural Nepalese families keep their savings on their person, even if it is a large amount of money. Thus "savings" in this study was loosely defined, and the amounts varied considerably. However, follow-up information on their main reasons for saving can provide some idea about their abilities to assess and plan for future financial needs.

Of the total sample, only 21% reported they had savings. Most of these women reported that they had saved money to use in the future for themselves or for their children. Figure 4.4 provides the data on women's reasons for saving.

As the pie chart indicates, not many women (only 1%) claimed to save money with the goal of either starting or expanding their economic activities. The majority of the women who saved money simply stated that they may need the money in the future but even after probing did not identify any specific reasons for their savings. This is not unusual, since many people may save money for a variety of reasons, but may not necessarily have one particular goal in mind.

Figure 4.4: Percentage of Women in the Sample Who Save Money and Their Reasons

No savings (n=873) and Have savings (n=219)



4.1.10 Relationship to SES and Literacy Levels

Table 4.3: Women's Economic Participation and its Relationship to SES and Literacy Level

Variables		***SES Mean Score*** (0-13 points)	***Literacy Skill Mean Score*** (0-49 points)
Participate in economic activities	*Yes*	5.43	14.78
	No	5.44	14.74
Received individual loan	*Yes*	5.73	16.76
	No	5.38	14.38
Have savings	*Yes*	6.25**	19.46**
	No	5.23	13.55

Note: ANOVA tests were done on all three variables.
** Indicates statistically significant differences between positive and negative responses for mean SES and mean literacy test score, $p < .001$.

Women in the study will be followed over time to detect changes in these two areas to see if any changes relate to one's literacy skills. It is hypothesized that literacy skills may enhance women's abilities to increase their earning power. There is no significant difference in SES or literacy level between women who participate in economic activities

or take individual loans and those who do not. This indicates that literacy is not a barrier to participation in economic activities and taking loans. Those who have savings, however, are also those with higher SES and higher literacy levels. It now remains to be determined whether women who save are doing so individually or as part of a savings and credit group, and whether the formation of such groups is also linked to literacy class participation and higher SES.

4.2 Community Participation

4.2.1 Introduction

Another key indicator in socio-economic development is a woman's contribution to and participation in her community. A woman can contribute to the development of her community by involving herself in community groups and activities. Indicators of community participation include the proportion of respondents who: 1) participate in community groups (e.g., health groups, agriculture groups, economic groups); 2) are involved in community development activities; 3) participate in social or political activities; and/or 4) are aware of their legal rights or participate in women's rights activities.

It has been hypothesized that women who increase their literacy skills become more active in community groups and community activities, including social, political, and infrastructure-related activities. Social and political activities include advocacy-related activities such as action taken against alcoholism and gambling, and against caste and other forms of discrimination. Infrastructure/development activities include things such as road construction, toilet construction, drinking water supply, irrigation system, and forest conservation activities.

4.2.2 Research Questions

This section of the report explores women's current participation in community groups and activities, their motivations for participating or not, and the extent to which they participate. More specifically, it addresses the following research questions: 1) To what extent are women in the literacy programs (experimental group) involved in community groups compared to women who are not in literacy programs (control group)? 2) To what extent are women in the experimental group involved in community development, social, or legal activities compared to women in the control group? and 3) What is the relationship between community participation of women, their socio-economic status, and their literacy level?

4.2.3 Descriptions and Comparisons

Box 2: Survey Results – Community/Group Participation

Women in the experimental group were significantly more likely to be members of an economic group than women in the control group.

		Percent of Respondents
❑	Were members of economic groups (total)	12%
	- Experimental Group	13%
	- Control Group	8%
❑	Participated in community groups	18%
❑	Belonged to health groups	5%
❑	Did not believe that any groups existed in their areas	24%
❑	Did not know whether any kind of group existed in their area	21%
❑	Stated that illiteracy was the reason for not participating in a group	4%
❑	Were "not allowed by a family member" to join a group	2%

4.2.4 Women's Participation in Community Groups

Overall, the respondents reported little participation in community groups. Only about 17.5% of the women reported that they were members of at least one community group. Economic and health groups attract the most women. About 12% of the women in the sample were members of economic groups, and 5% belonged to health groups. Women also participated in advocacy, women's development, agriculture, drinking water, and forest users groups, but the respondents' participation in these groups combined was less than 1%.

Chi-square tests were conducted to compare the participation in community groups of women in the experimental and control groups. Since such small percentages of women were involved in most of the groups, only the economic group data were analyzed. Statistically significant differences were found between the groups. About 13% (n=109) of the experimental group women were involved in economic groups compared to only 7.9% (n=18) of the control group women ($\chi = 4.43$, $p < .05$).

Open-ended, follow-up questions were asked to further assess reasons for women's participation or lack of participation in community group activities. Baseline data suggest that women's main motivation for participating in community groups was to benefit themselves. Of the women who were members of groups (n=202), the primary reason they said they joined was to "save money" or "to get a loan." These responses were logical, since most women responding to this question were members of economic groups. Women also said that they participated in community groups for other individual benefits, including "to gain knowledge and skills" and "to get training." Very few

women claimed to participate in community groups for more altruistic reasons such as "to solve community problems."

Women who were not participating in any groups (n=870) were asked to report the reasons for not joining a group. Multiple reasons were noted. The following chart shows the percentages of women and their purported reasons for not participating in a group. The data reveal that lack of access to groups, lack of awareness of groups in the area, and work burden were the main obstacles preventing the women from participating in groups. When asked the question, "Is there a (kind of group) in your area?" 24% responded that they believed that such groups did not exist in their area. About 21% of the women reported that they were not aware of any groups in their area ("don't know"). Follow-up information verifying whether particular community groups existed in areas where women reported either that they did not know if a group existed or they did not believe there were any groups in the area was not collected. However, the data suggest that illiteracy was not one of the primary reasons that women did not participate in groups. Only 3.5% of the women claimed that illiteracy was the reason for not participating.

Table 4.4: Reasons for Not Joining a Group

Reason	***Percent of Women (n=870)***
No groups in the area	24 %
Don't know	21 %
No time	20 %
Don't meet the criteria	12 %
No interest	12 %
Illiterate	3 %
Others	3 %
Not allowed by family	2 %
Not informed	2 %
No money	1 %

As shown on the above table, only 2% of the women reported that they were actually "not allowed by a family member" to join a group (responding to the open-ended question, "Why have you not participated in a group?"). Additional detailed, closed-ended questions, however, indicated that while family members did not necessarily prevent women from participating, they might have negatively influenced women's desires to participate. The women were asked to report whether they needed permission from their family members (husband, or the household head, or mother-in-law) to join a group. They were also asked if family members discouraged or tried to prevent them from participating in groups. Of the total women, 87% said that they needed permission from a family member. About 15.5% of the total women reported that their family members discouraged (but not absolutely prevented) them from joining a group. Women reported that they were discouraged from participating because one or more of their

family members believed that women "shouldn't go out," women had "too much work to do around the house," and women who did go out would "be cheated."

These survey results indicate that, although the vast majority of the women stated that they needed permission to join a group, very few were actually prevented from joining one (only 2% stated they were not allowed). Yet almost 16% were discouraged from joining groups. Following these same women over the next four years will tease out the degree to which family-related factors (such as encouragement/discouragement) influence women's sustained participation in groups.

4.2.5 Women's Participation in Community Development, Social, or Legal Activities

Women were also asked to report their involvement in community development and social, legal, and advocacy-related activities in the past year. Even fewer women than those who participated in community groups reported that they had participated in some type of community activity in the past year. As Table 4.5 below illustrates, of the women in the total sample, only about 8% reported that they were involved in community development activities (5% of the women were involved in only one kind of community development activity, 3% reported being involved in two or more kinds of community development activities), and 9% were involved in a social or political activity in the past year.

Table 4.5: Participation in Community Development and Social or Political Activities

	Experimental Group (n=843)	***Control Group (n=229)***	***Total (n=1,072)***
Participated in community development activity	9.0%	5.2%	8.2%*
Involved in social or political activity	10.7%	3.1%	9.0%**

Note: Chi-square tests were done to determine statistically significant differences.
* Indicates that experimental and control groups were statistically significantly different, $p < 0.05$.
** $p < .001$.

As with community group participation, statistically significant differences existed between experimental and control group women in their involvement in community activities. Experimental group women were more likely than control group women ($\chi = 3.4$, $p = .065$) to have been engaged in a community development activity in the past year, and experimental group women participated in more social and political activities than control group women ($\chi = 12.7$, $p < .001$). These data indicate that, in general, the control group women were simply less active in their communities than the experimental group women. However, since rates of participation among both groups were low, it is difficult to draw strong conclusions at this time. Follow-up over time with

these women should make it possible to determine whether literacy skills play a role in women's participation in their communities.

4.2.6 Relationship of Community Participation to Literacy Level and SES

Two other factors thought to influence a woman's participation in community activities or groups, a woman's literacy level and her SES, were examined. The survey results are presented in Table 4.6.

Table 4.6: Community Activities by SES and Literacy Skill Level

Variables		*SES Mean Score (scale: 0-13)*	*Literacy Mean Score (scale: 0-49)*
Member in economic group	*Yes*	6.17**	19.88**
	No	5.34	14.00
Involved in community development activity	*Yes*	6.28**	21.80**
	No	5.36	14.12
Involved in social or political activity	*Yes*	6.31**	22.00**
	No	5.35	14.03

Note: ANOVA tests were conducted to determine whether statistically significant differences existed between those who responded 'yes' and those who said 'no' to their involvement in the three kinds of activities.
** Indicates that experimental and control groups had statistically significant differences, $p < .001$.

The table illustrates that both SES and a woman's literacy level (as indicated by her score on our literacy skills test) appear to be related to her participation in community groups and community development activities. ANOVA test results confirmed that those women who scored higher on the literacy test were much more likely to participate in a community activity ($F = 22.84$, $p < .001$). Women who participated in either community infrastructure or social and political activities in the past year scored an average of eight points higher than women who had not participated in these activities. Furthermore, the higher a woman's SES, the more likely she was to participate in community activities ($F = 13.83$, $p < .001$).

4.2.7 Awareness of and Participation in Women's Rights Issues

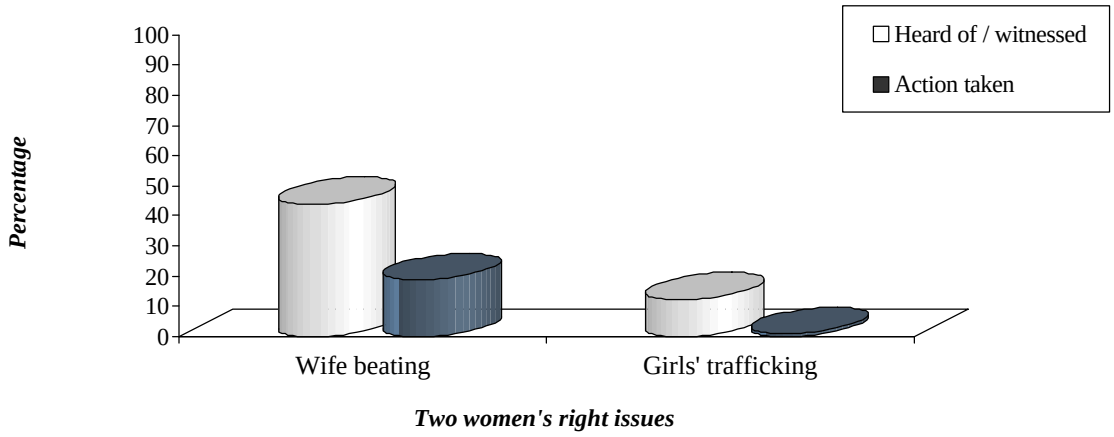
Wife beating and girls' trafficking are two specific examples of violations of women's rights. Nepal experiences high numbers of both. These human rights violations have severe negative impacts on the lives of many women and children. Although no specific data showing rates of such violence could be found, wife beating in Nepal is an issue that many women's groups have tried to address recently. One can often find articles in the newspaper explaining recent actions against wife beating taken by women (and women's groups) in various districts. Trafficking of girls is another issue gaining increasing attention in South Asia. While no precise statistics on girls' trafficking in and out of

Nepal are available, it is estimated from unofficial data that 100,000 to 200,000 Nepali girls have been subjected to such violations (*The Rising Nepal*, July 15, 1997).

The women were asked to report whether they had heard of or witnessed either of these two practices. The data showed that 44% of the total number of women had heard of or witnessed wife beating and about 12% had heard of or witnessed girls' trafficking. It is believed that wife beating is fairly common throughout the entire country among most castes and ethnic groups. Trafficking of girls has been identified to be most prevalent in six districts of Nepal. None of these six districts where girls' trafficking is known to be the heaviest (Nuwakot, Kavre, Dhading, Sindupalchowk, Makwanpur, and Ramechhap) were among the districts in this study, which may explain why far fewer women said they had heard of cases of this violation compared to wife beating.

The women were also asked to report whether they had taken any individual or collective actions against the practices of wife beating or girls' trafficking. The data clearly show that less than half of the women who had heard of or witnessed wife beating had taken individual or collective action against it. Furthermore, less than 1% of the total women who had heard of or witnessed girls' trafficking had taken individual or collective action against it. Figure 4.5 below shows the percentage of women who had heard of or witnessed both these problems in proportion to the percentage of women who took some sort of action against such activities.

Figure 4.5: Percentage of Women Who Had Heard of, Witnessed, or Taken Action Against Wife Beating or Girls' Trafficking



4.3 Political Awareness and Participation

4.3.1 Introduction

As mentioned earlier, previous studies in Nepal revealed that women's participation in politics is rather limited. Traditionally, politics has been a male-dominated arena in Nepal. Since 1990, the Nepali government has played a role in increasing opportunities for women to enter local and national politics. The new Constitution, adopted in 1990, states that at least 5% of the nominees from all parties in parliamentary elections must be women. In 1991, the VDC Act was passed by Parliament, making it compulsory to elect at least one female ward member from each of the nine wards of one VDC. However, despite such government efforts, data show that the proportion of women in elected local government institutions and in parliament has actually decreased from the 1980s to 1992 (Acharya, 1997). Furthermore, women largely remain absent from any policy decisions in the executive, judiciary and legislative branches (Shtri Shakti, 1995).

Foreign aid programs have also played a role in enhancing women's involvement in politics in Nepal. One example is a large, USAID-funded program started in 1996 that focuses on educating women about their legal rights and getting them involved in advocacy-related activities. The program, entitled "(Legal) Rights, Responsibility and Advocacy," is implemented by The Asia Foundation (and their local partner NGOs) and includes a post-literacy course with an emphasis on increasing women's legal and political knowledge and awareness, as well as the formation of advocacy groups.

These two factors-the government policy changes and strong rural programs focused on educating women about their legal rights-should affect women's attitudes and behavior toward politics. In this study, it is hypothesized that, as women increase their literacy skills, they will not only be more likely to want to engage in politics, they will begin to take more action. Thus, the study examines women's changes in political knowledge and behavior over time and assesses that change in relation to their literacy skills. Indicators of political awareness and participation include the proportion of respondents who: 1) have knowledge of political issues and processes; and 2) participate in the political process by voting or holding political office.

4.3.2 Research Questions

The following research questions were addressed. 1) to what extent are women in the experimental group aware of their legal rights and government policies compared to women in the control group? and 2) to what extent do women in the experimental group participate in the political process compared to women in the control group?

To answer these questions, women were asked about legal policies and about their political surroundings to examine their current political knowledge. They were also asked to report on their current involvement in politics. The assessment of their involvement was limited to questions about whether they had registered to vote, whether

they voted in the most recent elections, and how they decided for whom to vote. To assess their attitudes toward politics and the extent to which they wanted to be involved, they were asked to state their interest in and willingness to engage in politics. Additionally they were asked to articulate possible obstacles to participation.

4.3.3 Descriptions and Comparisons

Box 3: Survey Results-Political Awareness and Participation

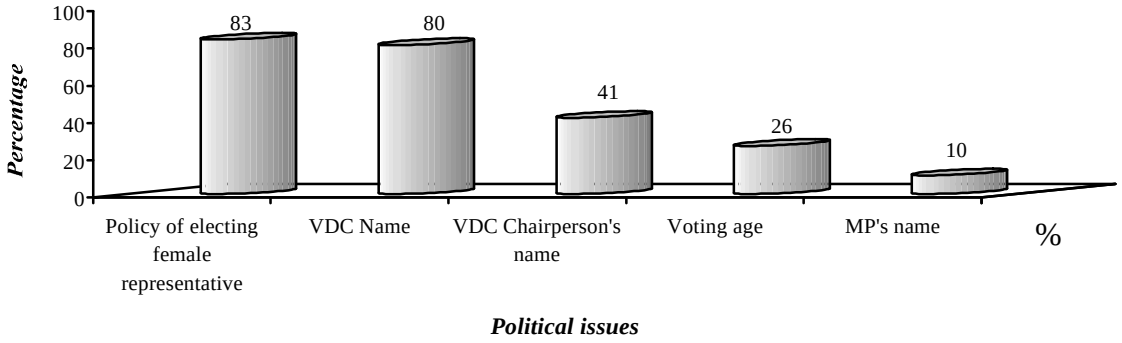
- ***Statistically significant differences were found between the experimental and control group women. Women in the experimental group were much more likely to be knowledgeable and aware of political issues and questions than women in the control group.***
- ***Experimental group women were twice as willing to participate in politics ($c^2 = 19.025$, $p < .001$) and were more likely to state that it is possible for them to actually become a local representative ($c^2 = 29.008$, $p < .001$).***

	Percent of Respondents
❑ Thought it was important to have a female representative "to further the development of women"	72%
❑ Thought it was important to enhance community development and to help solve social problems	17%
❑ Stated that women candidates only utilize the policy to have female representatives to increase their own personal popularity or for financial gain, rather than to benefit the public	2%
❑ Were unable to articulate the value of having female representatives from each ward	9%
❑ Knew their VDC name	80%
❑ Knew their VDC chairperson's name	41%
❑ Could state the correct name of the Minister of Parliament from their area	10%
❑ Voted in the last election	89%
❑ Of those who voted:	
- Decided by themselves on a candidate	43%
❑ Of the women who did not decide by themselves	
- Were told whom to vote for by another family member	47%
- Were told whom to vote for by a politician	10%
❑ Of the women who were not willing to be a local representative (n=798):	
- Thought they were "not capable of such work"	70%
- Thought it would "increase their work"	9%
- Said they "dislike politics"	7%
- Could not read or write	6%

4.3.4 Political Awareness

Five questions related to women's knowledge of political issues were asked. Figure 4.6 below shows the percentage of the total women in the sample that correctly responded to each question.

Figure 4.6: Level of Women's Knowledge of Political Issues



Two questions related to women's knowledge of legal rights and government policies were asked. The first, a policy-related question, was "What is the correct age at which an adult is legally able to vote?" The voting age changed in 1990 after the introduction of the new constitution (prior to 1990 the voting age was 21 and after 1990 the voting age was 18). The second policy question was whether women were aware of the rule that one female ward representative must be elected. This policy was established in 1991. Most of the women were aware of the policy of electing a female ward representative (83%), yet, only one-quarter of the women in the sample gave the correct voting age (26%). These survey results are not surprising, since more than 90% of the women in the sample were already registered to vote and therefore may not have needed to be concerned with remembering the policy change in the voting age because it did not directly affect them. Another reason for this survey result regarding the legal voting age may be the lack of knowledge in general about age-related issues in Nepal. Many women in rural Nepal, if asked their own or another person's age, will not be able to respond with an exact age, but typically report a range ("about 25 or 30").

In contrast, electing a female ward representative is a policy that directly affects all the women, and it is to their advantage to be aware of this issue. The policy of electing female ward representatives is viewed by the government as a step toward increasing women's involvement in politics. Women were asked their views on this issue as well. About 82% of the women (84% in the experimental group and 77% in the control group)

had heard about the new policy. Almost all the women who had heard of this new policy believe it is important to have female representatives from each ward. A multiple response, open-ended question showed that the majority of the women (72%) thought it was important to have a female representative simply "to further the development of women." Another 17% thought it was important to enhance community development and to help solve social problems. About 2% viewed the policy negatively, claiming that women candidates only utilize this policy to increase their own personal popularity or for financial gain, rather than to benefit the public. Another 9% were unable to articulate the value of having female representatives from each ward at all.

The responses to the other three questions shown in Figure 4.6 above are meant to assess women's knowledge of their political surroundings, including their knowledge of the name of the VDC in which they reside, their VDC chairperson's name, and the name of the Minister of Parliament (MP) elected from their area. Out of the total sample, about 80% knew their VDC name, 40% knew their VDC chairperson's name, but only 10% of the women could state the correct name of the MP from their area.

For all five questions presented in Figure 4.6, statistically significant differences were found between the experimental and control group women. Chi-square test results confirm that experimental group women are much more likely to be knowledgeable and aware of these political issues and questions than the control group women. Table 4.7 below shows the sample size and percentages for both groups of women.

Table 4.7: Political Awareness of Women, by Group

Political knowledge	***Experimental Group (n=843)***	***Control Group (n=229)***	***Total (n=1,072)***
Know VDC name	83.5%	66.4%	79.9%*
Know VDC chairperson's name	44.8%	26.2%	40.9%*
Know MP's name	12.3%	1.7%	10.1%*
Know correct voting age	29.3%	14.4%	26.1%*
Know new policy of electing female member from each ward	84.3%	77.3%	82.8%*

Note: Chi-square tests were done to determine statistically significant differences.
* Indicates that experimental and control groups were statistically significantly different, $p < .05$.

4.3.5 Women's Attitudes toward Politics

Despite the efforts by government and NGOs to involve women in politics, some evidence suggests that women are still not especially interested in becoming involved in formal politics (Shtri Shakti, 1995). Instead, more women are engaging in "informal" individual and group activities aimed at addressing social and political change in their communities. It is still very difficult for women to enter the formal political arena on a large scale, and it is unclear at this point whether they actually want to enter this male-dominated arena.

Women's voting participation and willingness or desire to participate in local politics were measured. Women were asked if they voted in the last local election and how they decided for whom to vote. There was no statistically significant difference between the number of women from the experimental and control groups who voted. About 89% of the total women in the experimental group reported that they voted in the last local election. Of the women who voted, only 43% decided by themselves on a candidate. Of the 57% women who did not decide by themselves, 46.7% reported that they were told whom to vote for by another family member, while 10.5% were told by a politician. This survey result helps to indicate that although high percentages of women were participating in the political system (at least by casting their votes), at least half of them may have been unaware of the issues, since they were not deciding by themselves how to vote. Though this phenomenon is not unique to Nepal, this survey result highlights the extent to which women in Nepal may be subject to political manipulation through others' influence on their voting choices.

The women were asked to report their willingness to be a candidate for a local representative and whether they thought it was possible to become a local representative themselves. These two questions measured women's actual desire to participate and how feasible they thought it was for them to do so (self-efficacy and identified obstacles). Table 4.8 shows the attitudes of the women in response to these two questions, by experimental and control group.

Table 4.8: Women's Attitudes toward Becoming a Local Representative

	Experimental Group (n=843)	***Control Group (n=229)***	***Total (n=1,072)***
Willing to become a representative	28.6%	14.4%	26.0%*
Think it is possible to become a representative	35.2%	16.6%	31.2%*

Note: Chi-square tests were done to determine statistically significant differences.
* Indicates that experimental and control groups were statistically significantly different, $p. < 0.05$.

Similar to the political knowledge variables, large differences can be seen between experimental and control group women in their attitudes toward politics. Experimental group women were twice as willing to participate in politics ($\chi^2 = 19.025$, $p < .001$) and were more likely to state that it is possible for them to actually become a local representative **(**$\chi^2 = 29.008$, $p < .001$). More qualitative open-ended follow-up questions were asked to try to better understand women's attitudes toward participating in politics. The women who responded negatively to these two questions were asked why they were not willing to be a local representative and why they think it is not possible for them to be a local representative. Of the women who were not willing to be a local representative (n=798), about 70% thought they were "not capable of such work" (not able to perform the duties required), about 9% thought it would "increase their work," about 7% said they

"disliked politics," and about 6% claimed "not being able to read or write" was the reason they could not be a local representative. Detailed probing was insufficient to determine what percentage of the 70% who said they were incapable of performing the desired duties felt this was due to their inability to read and write.

As with the community participation question, women may not consciously make the link between being able to read and write and political participation. It is not often a stated reason for lack of participation. It is, however, possible that as women become more literate, they become more confident in their own abilities, see greater potential for participation, and are exposed to more ideas. Hence, they may begin to participate more. Also, as they become more literate they begin to see things in new ways that they could not conceptualize before. The GWE III team will know more about the relationship over time as more data are examined to determine whether the level of participation increases for the experimental group.

4.3.6 Relationship of Political Awareness and Participation to SES and Literacy Level

Table 4.9: Political Knowledge, Attitude, and Practices by SES and Literacy Level

Variable		*SES Mean score (scale: 0-13)*	*Literacy Mean Score (scale: 0-49)*
Knowledge			
Know VDC name	*Yes*	5.44	15.85**
	No	5.42	10.43
Know VDC chairperson's name	*Yes*	5.69*	17.45**
	No	5.26	12.89
Know MP's name	*Yes*	6.54**	25.22**
	No	5.31	13.58
Know correct voting age	*Yes*	6.31**	21.76**
	No	5.12	12.27
Know the policy of electing female member from each ward	*Yes*	5.56**	15.63**
	No	4.80	10.53
Attitude			
Willing to become local representative	*Yes*	5.41	14.81
	No	5.44	14.73
Think possible to be representative	*Yes*	5.71*	17.61**
	No	5.30	13.43
Behavior			
Self decided for whom to vote	*Yes*	5.47	15.71
	No	5.41	14.17

Note: ANOVA tests were done to determine statistically significant differences.
* Indicates statistically significant differences between positive and negative responses for mean SES and mean literacy test score, $p < .05$
** $p < .001$.

It was shown earlier that experimental group women scored higher on the literacy test than control group women. Since experimental and control group differences were already identified for several of the above political knowledge variables, it is logical that statistically significant differences would exist between literacy mean scores. Since SES is also related to literacy level, there appears to be a connection between literacy and/or SES and political awareness.

However, no similar differences were found in SES or literacy test scores for the questions related to a woman's action or potential action. Differences in SES or literacy levels were seen between women who responded positively or negatively to either "willing to become a local representative" or "self decided for whom to vote."

4.4 Health Knowledge and Practice

4.4.1 Introduction

Extensive health surveys have been carried out in Nepal in the past and updated data on the health status of women in Nepal can be found in several research documents. Three recent examples that provide fairly detailed information about several health-related issues are: 1) the 1996 *Nepal Family Health Survey (NFHS)*, which included a nationally representative sample of over 8,000 ever-married women aged 15-49 (a continuation of a series of demographic and health surveys conducted in Nepal since 1976); 2) the 1995 *Nepal Multiple Indicator Surveillance, Health and Nutrition–Cycle 1 Study; and 3) the 1998 Nepal Multiple Indicator Surveillance, Care During Pregnancy and Delivery.* Most of these large health studies examined various health indicators and presented findings for literate women (defined as women who had some schooling) and illiterate women (women who had no formal schooling). They did not test women on their level of literacy skills, and therefore the data were not examined in relation to whether respondents had actual reading and writing skills. These studies are helpful, however, in understanding the health conditions of rural women in Nepal.

Some smaller studies have focused more specifically on gathering data from women who have been involved in literacy programs. These studies have clearly illustrated that women who participate in literacy programs (especially those with a health emphasis in the curriculum) have increased health knowledge when compared to women who have not participated in literacy programs and who have not had any formal schooling (see Smith, 1997).

Although the health section of the GWE III survey is not comprehensive, it does explore some of the key health-related issues that are believed to be influenced by a woman's educational status. One hypothesis is that women who increase their literacy skills will demonstrate greater knowledge of appropriate health care (compared to their knowledge before attending literacy class and compared to women who have no literacy skills). Also, it is hypothesized that women who increase their literacy skills will take actions to ensure that their own and their children's health needs are met. This second hypothesis is rather difficult to test because of other variables known to affect whether a woman

receives appropriate health care (e.g., access to health facilities, economic status). Nevertheless, in Years Two and Three the study will determine whether differences in women's health-seeking behaviors exist, based on their participation in a literacy program, and if actual literacy skills are influencing that behavior. Indicators of health knowledge and practice include the proportion of respondents who: 1) engage in health-seeking behavior (i.e., seek medical treatment for themselves and their children); 2) have knowledge of and engage in good maternal and child health practices, as defined by having check-ups during pregnancy, having a medical person present during delivery, engaging in positive nutritional practices during pregnancy, feeding colostrum to newborns, providing Vitamin A capsules to children, and immunizing babies; 3) engage in family planning practices; and 4) have knowledge of STDs and HIV/AIDS, including their causes and methods of prevention.

4.4.2 Research Questions

The questions addressed in this baseline study regarding respondents' health practices include: 1) To what extent do women in the experimental group have knowledge of appropriate health care compared to women in the control group? and 2) To what extent do women in the experimental group take actions to ensure that their own and their children's health needs are met, compared to women in the control group?

4.4.3 Descriptions and Comparisons

Box 4: Survey Results–Women's Health Knowledge and Practice

The higher a woman's literacy test score, the more knowledge she has and the more positive her attitude is regarding health care practices.

	Percent of Respondents
❑ Of those who were sick, sought medical treatment for major and minor illnesses in last year	85%
❑ Sought medical treatment for their sick children for major and minor illnesses	95%
❑ Had a check-up during pregnancy	
- Experimental Group	35%
- Control Group	22%
❑ Thought a medical person should assist with the delivery	
- Experimental Group	68%
- Control Group	58%
❑ Nutrition during pregnancy (Experimental and Control)	
- Ate green leafy vegetables during pregnancy	93%
- Ate fruit during pregnancy	77%
- Increased the number of times they ate in a day during pregnancy	34%
❑ Immunized youngest child (total)	92%
- Experimental Group	94%
- Control Group	86.5%
❑ Had heard the word "family planning (*pariwar niyojan*)" (total)	92%
❑ When asked, "Why would someone use family planning?"	
gave at least one correct response	90%
"to avoid pregnancy"	68%
"birth spacing"	54%
"to prevent diseases"	5%

4.4.4 Health-Seeking Behavior

Women were asked how often, from whom (or where), and for what kinds of problems they sought treatment for themselves and their children in the past year. Table 4.10 shows the health-seeking behaviors of women in the sample who reported that they themselves were ill or that at least one of their children was ill during the past year. The table classifies the types of illness into three categories. For mothers, the categories of responses were major illness, minor illness, and complications during pregnancy. For children, the categories were major illness, minor illness, and emergency situations (broken bones, burns, and unconsciousness). This table also shows the percentage of women who sought or did not seek treatment for each illness category. Finally, it reveals the main reason given by mothers for not seeking health care for each type of illness. Major illness was defined as severe diarrhea, respiratory problems, or other long-lasting illnesses. Minor illness was defined as general aches or pains, fever, or diarrhea.

Table 4.10: Health-Seeking Behavior of the Women in the Sample

For Women (Self):	***Health Seeking***		***Main Reason for Not Seeking Care***
Type of Illness	*Sought*	*Not Sought*	
Major illness (n=218)	90% (n=196)	10% (n=22)	No money
Minor illness (n=339)	78% (n=263)	22% (n=76)	Self treated
Complications during pregnancy (n=20)	100%	0%	Not applicable

For Children:	***Health Seeking***		**Main Reason for**
Type of Illness	Sought	Not Sought	**Not Seeking Care**
Major illness (n=246)	97.2% (n=239)	2.8% (n=7)	No money
Minor illness (n=340)	92.4% (n=314)	7.6% (n=26)	Self treated
Emergency problems (n=6)	100%	0%	Not applicable

Overall, a high percentage of the women who reported that they were sick stated they sought some kind of treatment for an illness (84.5% average of major and minor illnesses). An even higher percentage of the women reported that they sought treatment for their sick children (94.8% average of major and minor illnesses). These data suggest that women were more likely to seek medical treatment for their children than themselves; the difference between seeking care for self and children was statistically significant ($\chi^2 = 41.04$, $p < .001$). It was not possible, however, to verify the accuracy of these self-reported responses.

The main reason reported by mothers for not seeking medical help for major illnesses was that they felt they could not afford it. Generally, for a more serious illness, one would have to go to a hospital, which represents a major expense just for travel arrangements. The main reason given by women for not seeking medical assistance for some of the minor illnesses was that they were able to take care of the medical problem by themselves. Women were more likely to say they could self-treat their own illness; and were more likely to seek treatment for an illness their children suffered.

Women were also queried about whom they sought medical care from. Table 4.11 shows that in most cases women reported that they sought medical care from a doctor or a nurse, even for minor illnesses. This survey result is somewhat suspect, since in most rural villages, including those in which the survey was conducted, the presence of a doctor or a nurse is not common. It is likely that many women stated that they went to the "doctor" when in reality they went to the local health post worker, who in that village or community is known or referred to as the "doctor (*doctor saab)*."

Table 4.11: From Whom Women Sought Treatment for Major and Minor Illnesses

From Whom Sought Treatment	For Woman (self)		For Child	
	Major (n=216)	***Minor (n=263)***	***Major (n=245)***	***Minor (n=314)***
Doctor or Nurse	69.9%	49.8%	66.12%	41.1%
Health workers (MCHW,* ANM*)	17.1%	22.4%	19.2%	32.5%
Health volunteers (TBA,* FCHV,* VHW*)	0.05%	2.7%	0.8%	2.2%
Traditional healers (*Dhami*, *Jhakri*)	0.9%	4.6%	0.04%	1.9%
Medical shop/pharmacy	9.7%	19.8%	12.6%	21.0%

Note: MCHW = Maternal and Child Health Worker, ANM = Assistant Nurse Midwife, TBA = Traditional Birth Attendant, FCHV = Female Community Health Volunteer, and VHW = Village Health Worker

As the data show, among those women who sought treatment, the majority (80%) reported that they went to trained medical personnel for themselves and for their children. Another 15-17% of the women went to local private pharmacies. About 2% of the women went to traditional healers only, and even fewer women reported that they went to both traditional healers and trained medical personnel for the treatment.

4.4.5 Maternal and Child Health

Information about women's knowledge and behavior during pregnancy and delivery and data on their childcare practices were collected from women having at least one child (91% of the total sample). Women were asked to report, "Who gave you a check-up during your most recent pregnancy?" Sixty-eight percent of the women who have at least one child reported that they did not have a check-up at all during their pregnancy. About 32% of the women stated that they were checked by a medical person (this question was not broken down into trained medical personnel[10] or other medical persons, including health volunteers).

[10] Trained medical personnel in this study were defined as doctors, nurses, nurse-midwives, and trained traditional birth attendants.

About two-thirds of the women (62%) stated that a medical person should be present during the delivery of a child; however, only 29% of the women responded "yes" to the question "Did any trained medical personnel assist you with your most recent delivery?" While the enumerators were clear on the definition of who were considered to be trained medical persons, it was not spelled out to the respondents. Thus, it is possible that some women may have said "yes" to the question and actually included medical personnel outside of the definition of trained medical personnel used in the study. Further follow-up data were not collected on who actually assisted them with their most recent delivery, and therefore it was not possible to verify whether or not assistance with the delivery was actually provided by trained medical personnel.

These maternal health data suggest that although a number of women were aware of the importance of having trained medical personnel assist them with their delivery, village realities often render this kind of medical attention inaccessible. Moreover, since more than two-thirds of the women reported that they had no check-up during pregnancy, it may be concluded that either women did not understand the importance of having a check-up or they did not have easy access to medical personnel. Only one-third of the women reported that they had at least one check-up by a trained medical person during pregnancy. On average, these women had three check-ups during pregnancy.

The data also show some differences between experimental and control group women. Table 4.12 shows the percentages of the women from HEAL, BPEP and the control group who responded to the three maternal health questions.

Table 4.12: Responses to Maternal Health Questions, by Group

	Experimental Groups		***Average of Experimental Groups***	***Control Group***
	HEAL (%)	***BPEP (%)***	***(%)***	***(%)***
Attitude				
Think a medical person should assist with delivery	70.4%	65.4%	67.9%	57.8%**
Practice				
Medical person assisted with most recent delivery	27.8%	28.8%	28.3%	31.2%
Had a check-up during most recent pregnancy	35.5%	34.3%	35.0%	22.3%**

** Chi-square test shows statistical significant differences, $p < .001$

The data revealed very little difference between HEAL and BPEP women on all three variables. However, on two out of the three variables, statistically significant differences were found between the experimental and control group women. Experimental group women were more likely to report that a medical person should assist with a delivery of a baby ($\chi = 7.09$, $p < .001$), but this positive attitude did not translate into actually having a

medical person assist with their most recent delivery. No differences were found between the two groups of women with regard to this practice. However, there were significant differences between the experimental and control groups in their reported behavior toward prenatal care. Experimental group women were more likely than control group women to have had a check-up during pregnancy (χ = 12.1, p < .001).

Women were also asked to report their nutritional habits during pregnancy. Both positive and negative practices were reported. Only about one-third of the total women reported that they altered their diet during pregnancy. Most of the women said they ate green leafy vegetables during pregnancy (93%). More than three-quarters of the women reported that they ate fruit (77%). Only about one-third of the women increased the number of times they ate in a day during pregnancy (34%). Some unhealthy habits such as smoking cigarettes and drinking alcohol during pregnancy were also reported. The women were not asked whether they smoked cigarettes or drank alcohol before they were pregnant, but nearly 30% reported they smoked cigarettes and 17% said they drank alcohol during pregnancy.

4.4.6 Childcare

Women reported their behavior on three childcare practices: feeding colostrum to newborns, providing Vitamin A capsules to children, and immunizing babies. Data showed that 60% of the women reported that they fed colostrum to their newborns. Historically in Nepal, mothers were told not to feed colostrum to their newborn babies because it was bad for the baby. No differences between the experimental and control group women on this variable were found.

Women were asked whether they gave their children Vitamin A capsules when they were between the age of six months and five years old. Overall, 78% of the women reported that they had provided Vitamin A capsules to their children during this period. Experimental group women were more likely to report that they had provided capsules to their young children (83%) than control group women (64%). A chi-square test showed a statistically significant difference between the two groups (χ = 20.1, p < .001).

Finally, women who had a child under five years of age at the time of the survey were asked the question, "Has your youngest baby been immunized?" About 92% of all women in the sample responded affirmatively. There was a significant difference on this measure between experimental and control groups: 94% of the experimental group women and 86.5% of the control group women answered "yes" to the question (χ = 8.3, p=0.004). Although more experimental than control group women reported that their youngest baby had been immunized, overall the numbers seemed high for both groups. This question, however, only provides data on whether children have been at least partially immunized. A follow-up question was then asked to try to determine what percentage of the children were actually immunized correctly according to their age.

During the field testing of the study it was found that many women were unable to name the disease for which their child had received a shot. Hence, the process of determining

whether a baby had received shots according to his/her age was determined by a two-step process. First, the enumerator asked the mother for the immunization card. If she had the immunization card, then the enumerator checked to see if it was updated according to the baby's age.[11] If the mother was unable to present an immunization card, then she was asked how many times she had taken her child to receive shots (see footnote). The following table presents the survey choices and the percentage of respondents who answered accordingly.

Table 4.13: Immunization Status of the Youngest Baby of the Women in the Sample (n=487)

	Immunization	***Percentages***
Card shown:	Updated (based on child's age)	26%
Card shown:	Not updated (based on child's age) but when mother was asked she reported the correct number of times according to child's age.	3%
No card:	Mother said updated according to the child's age (reported correct number of times)	58%
No card:	Woman couldn't say how many times child had been taken for immunization	13%

Of the women who reported that their youngest baby had been immunized, 26% of the mothers showed updated cards and 3% showed cards but reported that the child had received shots that were not recorded on the card. Another 57% were able to state accurately (according to the child's age) the number of times the child had been taken for shots (as determined by the enumerator, based on the criteria described in the previous footnote). Thus, overall, 87% of the women claimed to have at least partially immunized their youngest children.

The Ministry of Health used a similar procedure (requesting that women present immunization cards in conducting its 1996 *Nepali Family Health Survey (NFHS*)) in an effort to determine the number of children over the age of 12 months who had been fully immunized. However, the immunization questions were asked in such a way that it was not possible to determine what percentage of the children had been fully immunized.

The *NFHS* health data showed that, overall, more than half of the women engaged in healthy childcare practices. It revealed that most women's children have been at least partially immunized and that their children have received Vitamin A capsules. These data suggest that women are aware of the importance of immunization and Vitamin A

[11] If the baby was more than one year old, then the baby should be fully immunized. Fully immunized is defined as having received all five shots as shown on immunization cards or as reported by the mother that the child was brought four times to receive five shots. If the baby was less than a year old, the enumerator had to calculate whether the number of shots remaining could be received by the child's first birthday. For example, a baby up to nine months old could have made only one visit (two shots in the first visit) and still be considered updated because he/she still had time to complete the remaining shots within one year.

and that the Ministry of Health's National Immunization Campaign and National Vitamin A Program are reaching people throughout the country. However, the survey does not illuminate whether or not these programs are effective in fully immunizing these women's children and providing them the correct dosage of Vitamin A. Previous studies have shown rather disappointing numbers regarding these two health care problems. Data from 1991 show that only 19% of the children were fully immunized; in 1995, another study showed that 45% of the children in the study had been fully vaccinated (NMIS, 1996). The *NFHS*, conducted in 1996, showed that 43% of all children aged 12-23 months were fully vaccinated, and that one in five children in that age group did not receive any vaccinations.

4.4.7 Nutrition

In order to examine women's knowledge and behavior regarding good nutrition, they were asked to report the sources of Vitamin A they knew about. They were also asked to report their access to a kitchen garden, whether they had actually planted green leafy vegetables, and whether they consumed these green vegetables. Finally, they were asked to state the nutritional value of green vegetables.

Of the total sample, 39% (34% in the experimental group and 57% in the control group) reported they didn't know any sources of Vitamin A. The difference between the experimental and control group are statistically significant ($\chi = 60.32$, $p = 0.000$). Sixty-one percent of the women gave multiple correct answers, including green leafy vegetables, bright yellow fruits, meat/fish, mothers' breast milk, eggs, liver, and milk and milk products. The most common answers given as the sources of Vitamin A were green leafy vegetables (55%) and bright yellow fruits (38.5%). All other correct answers including milk and milk products (16.5%), meat/fish (16.3%), eggs (4.8%), mother's breast milk (1%), and liver (0.75%) were reported. It is logical that the most common sources of Vitamin A cited were green leafy vegetables and bright yellow fruits because the National Vitamin A Program emphasizes these two products as the major sources of Vitamin A. These are the two most common sources of Vitamin A in Nepal.

A very high percentage of the women have their own kitchen gardens (81%), and a slightly higher percentage (83%) have planted green vegetables in either their own kitchen garden or on others' land. There were no differences between the experimental and control groups. Almost all the women who reported planting green vegetables claimed that their families consume the planted vegetables. Only 1% reported that they sell all their planted green vegetables. Furthermore, most women (95% of the total sample) could articulate at least one nutritional value of green vegetables. Various responses to the question "What is the importance of planting green vegetables?" were accepted as correct, including "to keep the body healthy and strong" (59%), "to get vitamins" (52%), "for better eyes" (22%), and "to prevent diseases" (3%).

Women also described how they learned the importance of green vegetables. The most common response was from friends or relatives (35%). Another 27% said they learned about it from radio messages. Very few women reported that they learned from

agriculture-related persons, such as agriculture extension workers and farmers. Twenty-two percent of the women could not articulate where they had learned about green vegetables, although they were able to state correct responses regarding the importance of them. Moreover, approximately 11% reported that they learned the importance of green vegetables from literacy class, yet only one-third of those women had said that they had attended a previous literacy class. Thus the remaining two-thirds probably either learned about them in the current literacy class (within six weeks of class period) or they were not correct in their assertion that they had never attended literacy class. Overall, these data suggest that maintaining kitchen gardens and understanding the importance or nutritional value of green vegetables were generally understood by women before they entered literacy class.

4.4.8 Family Planning and STDs and HIV/AIDS

Family planning services have been available in Nepal since 1968. The Nepali government has been actively involved in both information and contraception dissemination. Furthermore, a number of INGOs and NGOs have played a role in spreading family planning messages and services. The focus of family planning programs has been primarily on contraceptive use. Female sterilization is still common, and the percentage increase of the use of this method is higher than any other method over the past 20 years. However, the use of modern methods has been steadily increasing as well (NFHS, 1996). Furthermore, the *Nepal Family Health Survey* (1996) data show that knowledge of contraception in Nepal is quite high. Ninety-eight percent of ever-married women knew at least one method of family planning.

When women in the GWE III study were asked if they had "ever heard of ways or methods a couple could use to avoid or delay pregnancy," 76% said that they had. When asked if they had "heard about family planning (*pariwar niyojan*)," 92% of the women said they had heard the word *pariwar niyojan*. In response to the question, "Why would someone use family planning?" 90% gave at least one appropriate response, including "to avoid pregnancy" (68%), "birth spacing" (54%), or "to prevent diseases" (5%). Ten percent said they did not know why one would use family planning.

Table 4.14 presents the current status of family planning use by the women in the sample. For about half of the women, the use of temporary methods was not applicable (i.e., they were permanently sterilized, not living with their husband, post menopausal, widowed, or currently pregnant). Of the total women, 11.2% were currently using temporary methods of family planning (e.g., pills, condoms, injections, Norplant, IUD, copper-t, diaphragm, foam, and jelly). About one-fifth of the total women were not using any temporary methods because they desired more children. Another one-fifth responded with various reasons, including "don't know," "afraid of side effects," "family doesn't allow," "lack of knowledge of how to use the methods," and "not available." Very few women said they were using other methods not included in the survey options (e.g., periodic charts, withdrawal, and herbal medicine). No experimental and control group differences were found for either knowledge of family planning or use of temporary methods.

Table 4.14: Current Status of Family Planning Use of the Women in the Sample (n=1,072)

Family Planning Status	*% of Total Sample*
Not applicable	**46.9%**
Female sterilized	*23.2%*
Male sterilized	*12.2%*
Husband away/divorced	*5.1%*
Widowed	*3.2%*
Post menopause	*2.7%*
Currently pregnant	*0.5%*
Currently using temporary methods	**11.2%**
Currently not using temporary methods	**41.6%**
Desire more children	***19.8%***
Other reasons for not using temporary methods	***21.8%***
Don't know	*5.8%*
Afraid of side effects	*5.7%*
Family doesn't allow	*4.0%*
Others (using periodic chart, self control, herbal medicine, shy)	*2.7%*
No knowledge of use	*2.4%*
Not available	*1.2%*

Note: percentages in italics give the breakdown of sub-total given in bold face.

Women were asked to report on their attitudes toward teenage pregnancy and birth spacing. They also reported their desired number of children, the minimum age they thought a woman should reach before getting pregnant, and the minimum number of years one should wait between births. Of the total sample, the average number of children desired was three, and the mean minimum age a woman should reach before she gets pregnant was 19 years old. Women generally felt that one should wait at least four years between births. A follow-up question on birth spacing was asked in order to assess their understanding of the need for birth spacing. About 60% of the total women in the sample reported women should wait between births in order to "make it easier to take care of a baby" and about 25% of them reported spacing is needed to ensure the mother's health.

4.4.9 Knowledge of STDs and HIV/AIDS

Questions about STDs and HIV/AIDS were included in the survey to assess the women's knowledge of relevant health messages. From the women in the sample, it appears that the term HIV/AIDS was more known than the term for STDs (*Yaunrog* in Nepali). Overall, about one-fourth of the women had heard about sexually transmitted diseases (STDs); whereas almost half of the women had heard about HIV/AIDS. Experimental group women were much more likely to report that they had heard about both STDs and HIV/AIDS than control group women, and the difference between groups was

significant. Only 16% of the control group women, compared to 28% of the experimental group women, had heard of STDs ($\chi = 12.6$, $p < .001$), and 31% of the control group versus 51% of the experimental group women had heard of HIV/AIDS ($\chi = 28.9$, $p < .001$).

Their awareness of possible prevention methods for either STDs or HIV/AIDS was relatively low. Only about one-third of the women who had heard of STDs or HIV/AIDS knew at least one correct method of prevention. Table 4.15 shows the percentage of women who had heard the terms HIV/AIDS or STDs and knew at least one correct method of prevention.

Table 4.15: Women's Knowledge about Methods of Prevention of STDs and HIV/AIDS

Methods of prevention	***STDs (n=265)***	***HIV/ AIDS (n=496)***
Correct method of prevention*:*		
Have only one sex partner	32.1%	29.6%
Abstain from sex	29.8%	25.2%
Use condom	28.3%	28.4%
Avoid sex with prostitutes	13.6%	19.8%
Be cautious while receiving blood transfusion	NA	3.8%
Be cautious while receiving injection/vaccination	NA	5.8%
Incorrect answers and don't know		
Incorrect answers	11.0%	10.7%
Don't know	27.9%	32.0%

NA = Not applicable.

Relationship of Health Knowledge and Practice to SES and Literacy Level

As noted in the above discussion, there were statistically significant differences between experimental and control group women on several of the knowledge, attitude, and practices health variables. Results of the surveys on health-related questions indicate that there is an association between the respondents' scores on the literacy test and their knowledge and attitudes toward health care practices. As shown in Table 4.16, the higher a woman's literacy test score, the more knowledge she has and the more positive attitude she has regarding health-care practices. The table highlights a few selected variables and examines the relationship of women's literacy level and SES to a number of health indicators. These survey results also reveal that both women's SES and literacy level are related to women's health variables, possibly because SES and literacy are related to each other.

Table 4.16: Health-Related Variables by SES and Literacy Level

Variables		*Mean SES (0-13 point scale)*	*Mean literacy Score (0-49 point scale)*
Health knowledge and awareness			
Heard of family planning	Yes	5.50**	15.14*
	No	4.69	10.67
Heard of STDs	Yes	6.49**	20.98**
	No	5.08	12.66
Heard of AIDS	Yes	6.34**	21.16**
	No	4.66	9.24
Healthy practices			
Had check-up from trained medical personnel during pregnancy	Yes	5.79*	18.84**
	No	5.31	12.54
Assisted by trained medical personnel	Yes	5.55	15.25
	No	5.43	14.25
Immunized youngest baby	Yes	5.08**	14.46*
	No	3.90	7.70
Have kitchen garden	Yes	5.97**	15.61**
	No	3.15	11.07
Planted green vegetables	Yes	5.99**	15.93**
	No	3.78	8.81
Attitudes			
Should trained medical personnel assist during delivery	Yes	5.81**	16.68**
	No	4.87	10.63

Note: ANOVA tests were done to determine statistically significant differences.
* Indicates statistically significant differences between positive and negative responses for mean SES and mean literacy test score, $p < 0.05$
** $p < .001$.

4.5 Children's Education-Attitudes and Practices

4.5.1 Introduction

Parents' attitudes toward children's education largely reflect their thoughts and opinions about the value or importance of education in general. In this study, it was hypothesized that parents who think children (boys and girls) should go to school have attached a certain value to education, and this value exceeds foreseeable opportunity costs. Moreover, parents' opinions on the amount of schooling needed for girls and boys may be an indicator of the actual value they place on education. Indicators of respondents'

attitudes and behavior regarding the education of their children (both girls and boys) include the proportion of respondents: 1) who believe that their children should attain at least secondary level of education or above; 2) whose children who are enrolled in school; 3) who are involved in their children's education by reading with them or helping them with their homework; and 4) who are willing to pay for their children's education.

4.5.2 Research Questions

This section analyzes attitudes and practices of the women in the sample and their husbands concerning their children's education. The primary research questions for this portion of the research are: 1) To what extent do women in the experimental group think that it is important as well as practical for their children to go to school, compared to women in the control group? 2) What differences exist in attitudes and practices between women and their husbands on boys' and girls' educational attainment? and 3) Does any gender bias exist among the women and their husbands in their attitudes and practices regarding sending their children to school? This information will help discern, over time, changes in the attitudes and practices of women who participated in literacy compared to women who did not participate, and to identify policy options and interventions for improving women's attitudes toward children's education in general and girls' education in particular.

4.5.3 Descriptions and Comparisons

Box 5: Survey Results-Children's Education: Attitudes and Practices

- ***All parents see the value in educating both boys and girls at least up to the primary level.***
- ***Far more parents perceived employment opportunity to be a value associated with education for boys than for girls.***
- ***The most common reason mothers reported that their daughters were not in school was that they must stay home to do work in the house and on the farm.***

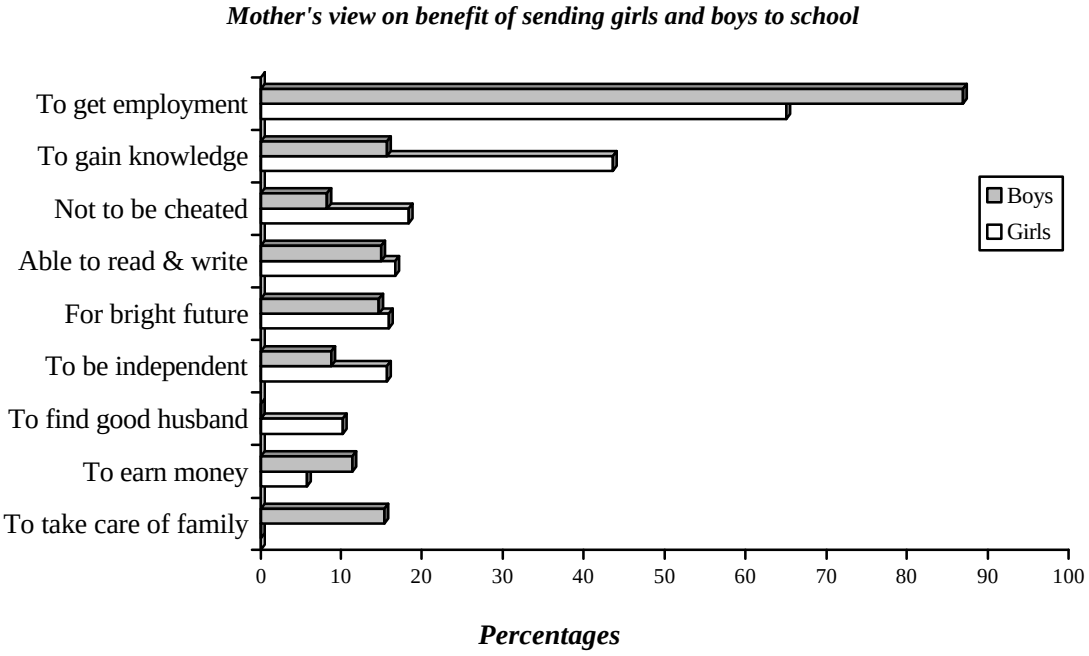
		Percent of Respondents
❑ Young children of women in the sample (aged 5-11) currently attending school		
Boys		76.5%
Girls		67.2%
❑ Young children of women in the sample (aged 12-15) currently attending school		
Boys		83.6%
Girls		69.1%
❑ Mothers' views of level of education for boys and girls (Experimental Group)		
Boys:	Primary Level	1.4%
	Secondary Level	7.0%
	SLC Pass	17.2%
	Higher Level	74.3%
Girls:	Primary Level	6.1%
	Secondary Level	19.2%
	SLC Pass	28.0%
	Higher Level	46.7%
❑ Mothers' views of level of education for boys and girls (Control Group)		
Boys:	Primary Level	2.2%
	Secondary Level	6.6%
	SLC Pass	30.1%
	Higher Level	61.1%
Girls:	Primary Level	7.9%
	Secondary Level	30.0%
	SLC Pass	36.1%
	Higher Level	26.0%

4.5.4 General Attitudes toward Sending Children to School

When asked whether boys and girls should go to school, 99% of the women said that girls should go to school, 100% of the women said that boys should go to school, and 100% of husbands said that both boys and girls should go to school. However, it is not surprising that almost all the rural women and men answered the question positively, given the number of literacy and education campaigns in Nepal.

Parents indicated that they think their children should go to school primarily because they believe that certain benefits are associated with schooling. When mothers were asked to give reasons why children should go to school, more than half of them said that schooling might bring about a better prospect for employment. Figure 4.7 shows the main reasons women cited as to why boys and girls should go to school. Respondents were not given a predetermined list of responses, rather they were asked to provide as many reasons as they thought were applicable. As the figure illustrates, "to gain employment opportunities" was the most common response given for both girls and boys. However, women's views on why boys and girls should go to school differed somewhat for boys and girls. The value that parents placed on schooling as an employment opportunity was far more pronounced for boys than for girls. Twenty percent more women believed that employment opportunities from schooling would benefit boys than those who thought it would benefit girls. Since deeply rooted traditions in Nepal state that girls are to get married and stay at home to work in the house or field, it is not surprising that fewer mothers could envision education serving as a foundation for employment for their daughters.

Figure 4.7: Major Benefits of Sending Boys and Girls to School as Viewed by Mothers



Note: Responses reported by less than 5% of the women are not included in this figure.

4.5.5 Different Levels of Schooling and Gender Discrimination

Women and their husbands were asked to state the highest grade in school that girls and boys should attend. The data were organized into four categories including: 1) primary level, 2) secondary level, 3) SLC pass,[12] and 4) higher education (bachelors or masters). The table of cumulative percentages shows parents who believe their children should go to school and to what level.

[12] School Leaving Certificate means that students passed the SLC exam and became eligible for higher study.

Table 4.17: To What Level Should Girls and Boys Go to School? (Experimental and Control Groups' Cumulative Percentages)

Mother's view on	*Primary level*	*Secondary level*	*SLC pass*	*Higher level*
Boys				
Should go to school	100%	98.2%	91.4%	67.7%
Girls				
Should go to school	100%	93%	68.4%	36.4%
Father's view on				
Boys				
Should go to school	100%	98.6%	93.6%	65.9%
Girls				
Should go to school	100%	93.6%	67%	33.8%

These data indicate that all parents see the value in educating both boys and girls at least to the primary level. Parents may recognize that, with a primary level education, individuals can at least develop basic reading and writing skills. It is also possible that many of the respondents view sending their children to primary school as more realistic because primary level education in Nepal is free (through class seven). Although they were asked the question, "Until what level do you think boys/girls should go to school?" they may have answered in a way that reflected the realities of their own children and lives.

Among all ethnic groups in Nepal there is a preference to educate sons rather than daughters. Historically, there has been discrimination against girls in all sectors of development, especially in education. This is evidenced by the fact that in Nepal the adult female literacy rate is only half that of that of adult male literacy rate. The net enrollment of girls in primary school (61%) is significantly lower than that of boys (80%). Also, the dropout rates among girls in school is much higher (UNICEF, 1996). Furthermore, in 1991 the proportion of girls in rural areas who completed secondary school was only 17% (CBS, 1995).

However, access to schools (both primary and secondary) has improved dramatically over the last twenty years, and net enrollment rates reached 72% in 1995 (UNICEF, 1996). Furthermore, in response to gender discrepancies in the education system, the government has taken actions to increase female enrollment at the primary and the secondary levels. Beginning in the late 1970s, primary education became free for all

children, and in 1996, education became free through the secondary level (class ten).[13] Textbooks for primary school girls are now free, and efforts to recruit female teachers are ongoing. Also, out-of-school programs (for children who cannot enter the formal school system) have been introduced by both the government and nongovernmental organizations. At least one of the government programs (*Chelibeti*) was designed specifically for out-of-school girls.

All of the women in the sample, as well as their husbands, reported that they believe both boys and girls should go to primary school. Over 95% of women and their husbands stated that boys and girls should go up to the secondary level. However, parents placed considerably less importance on ensuring that their sons and daughters graduate from high school or go on to higher education, and there was even less interest in seeing their daughters attain this level of education. Approximately 80% thought their children should obtain an SLC pass, while only 52% thought they should attend an institution of higher education.

In analyzing the data on children's education, a dichotomous variable for level of schooling for boys and girls was created. One category included those parents who reported that their children should go to school up to the secondary level (but not necessarily receive a high school diploma equivalent), and a second category included those parents who believed that their children should continue their studies through diploma or higher levels. Tables 4.18 and 4.19 are broken down by experimental and control group according to the level of education they think their children should attain.

Table 4.18: Mothers' (by Control and Experimental Groups) Views on Level of Education for Sons and Daughters

	Control (%)				***Experimental (%)***			
	Primary	***Secondary***	***SLC***	***Higher***	***Primary***	***Secondary***	***SLC***	***Higher***
Boys (n=1,071)	2.2%	6.6%	30.1%	61.1%	1.4%	7.0%	17.2%	74.3%
Girls (n=1,064)	7.9%	30.0%	36.1%	26.0%	6.1%	19.2%	28.0%	46.7%

SLC: Equivalent to a high school diploma

Table 4.19: Fathers' (by Control and Experimental Groups) Views on Level of Education for Sons and Daughters

	Control (%)				***Experimental (%)***			
	Primary	*Secondary*	*SLC*	*Higher*	*Primary*	*Secondary*	*SLC*	*Higher*
Boys (n=692)	1.9%	3.7%	29.0%	65.4%	0.8%	6.4%	26.4%	66.4%
Girls (n=689)	6.8%	30.2%	32.7%	30.2%	7.2%	21.6%	33.8%	37.4%

SLC: Equivalent to a high school diploma

[13] This policy simply means that no admission fees should be collected from schools. However, other school fees imposed by schools (e.g., exam, school maintenance) still make it difficult for many poor children to attend.

These tables reveal that both women and their husbands in the experimental group versus those in the control group were more likely to state that girls should go on to higher levels of education. About 21% more experimental than control group women thought girls should go to higher levels of education; about 7% more of the experimental group women's husbands than husbands of women in the control group thought that girls should go to higher levels. These experimental and control group differences were statistically significant for the women but not for their husbands. This pattern was also evident (to a lesser extent for boys), with 13% more mothers in the experimental than the control group expressing the belief that boys should go on to higher levels of education. However, the percentage difference between experimental and control group fathers was only 1% on the question of whether boys should attain a higher level of education.

It is clear that many women and their husbands do not see much value in educating their girls beyond secondary school. Given that such little emphasis is placed on higher education in Nepal, and access to higher institutions for rural individuals is extremely limited, this survey result is not completely surprising. However, it does illustrate that bias exists against educating females. As a result of this bias, both parents may provide fewer opportunities for keeping girls in school. In most of Nepal, girls are the major helpers in the household and remain so through their lives. The opportunity cost in a household for girls to go to school then is quite high, particularly for higher levels of schooling. In future years of this research, the study will examine whether and to what extent women's participation in literacy programs affects their attitudes toward girls' schooling.

4.5.6 Parents' Involvement in Children's Education

Previous studies have shown that parental involvement in children's studies is critical to the children's overall abilities to learn and maintain an interest in their studies. Research has also revealed that the more educated the mother, the more likely she is to be involved in her child's studies (NMIS, 1996). The GWE III study, then, looked at three key measures of parental involvement in children's studies: 1) their attitudes and behaviors concerning reading with children; 2) the extent to which they help children with their studies; and 3) the extent to which they are willing to invest in their children's education. Over time, this study will examine the changes in women's attitudes and practices regarding involvement in children's education and the role the mother's literacy may play.

4.5.7 Reading with Children

Mothers were asked if they felt that it was necessary to read with their children and if anybody actually did read with them. They were also asked if *they* read with their children. Table 4.20 shows the survey results on women's attitudes and behaviors toward reading with children, by experimental and control group.

Table 4.20: What Is the Involvement of Mothers in Their Children's Reading?

Attitude		*Behavior*				
Necessary to read with children (n=657)		*Anybody reads with the children (n=657)*		*Mother reads with the children (n=399)*		
Control	*Experimental*	*Control*	*Experimental*	*Control*	*Experimental*	
49.3%	89.6%**	54.7%	62.9%	8.6%	35.5%**	

Note: Chi-square tests were done to determine statistically significant differences.
** Indicates statistically significant differences between experimental and control group women, $p < .001$

As the percentages in the table indicate, great differences can be seen between women in the experimental and control groups both in the value they place on reading with children and in their own involvement. It is not so surprising that most of the control group women (who had no reading skills at all) reported that they do not read with their children. Yet it is somewhat surprising that only 49% compared to about 90% of the experimental group women felt that it was even necessary to read with children. On average, 60% of the households in the study had someone who read with their children.

4.5.8 Helping with Children's Homework

Parents also reported the extent to which they help their children with their homework. No statistically significant differences were found between the experimental and control group parents on this variable. Figures 4.8.a. and b. illustrate how often parents claimed to help their children with their homework.

Figure 4.8.a: Parental Involvement in Children's Homework

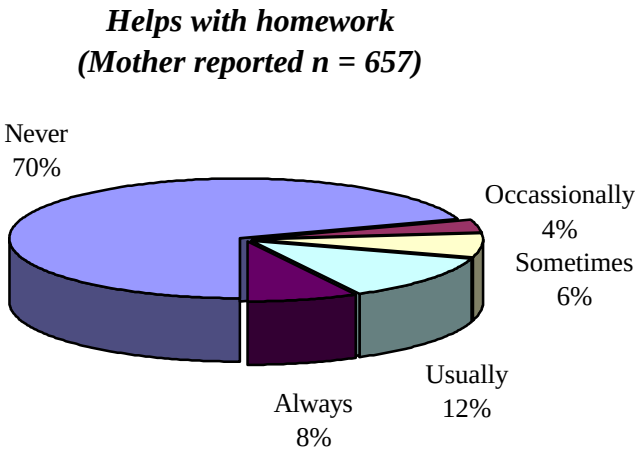
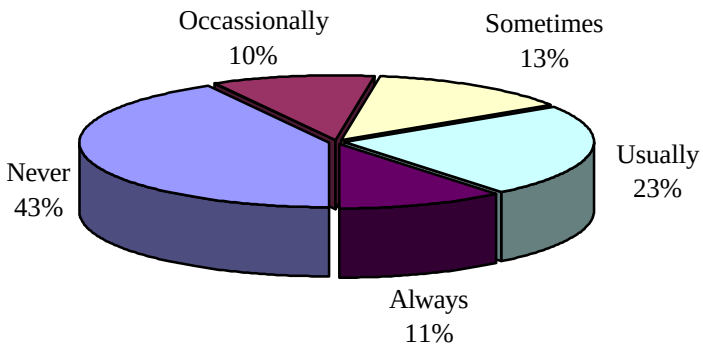


Figure 4.8.b: Parental Involvement in Children's Homework



Fathers claimed to help their children with their studies more than did mothers. A definition of "help" was purposely not provided to the respondents in order to see what they classified as helping behaviors (i.e., is help limited to assistance that requires reading and writing skills, or is it other types of help?). The respondents identified a wide variety of helping behaviors. The following table depicts the major kinds of help offered by parents to their children.

Table 4.21: How Do Parents Help Their Children with Their Studies?

Kind of Help Provided	*Mothers (n=199)*	*Fathers (n=262)*
Teach them	11.0%	58.0%
Tell them to study	48.0%	33.0%
Watch them study	4.5%	8.4%
Help with household chores	36.2%	5.0%
Buy school supplies (notebooks, pencils)	1.0%	2.0%
Send them to tuition/Send them to others	5.0%	9.0% ⊕
Convince/yell or beat	8.5%	0.0%
Provide lighting	2.0%	0.8%

⊕ Five percent of the mothers reported that they send their children to *paid* private lessons after school, while 9% of the fathers reported that they send their children to friends' and relatives' houses to study with other children or older relatives.

Interesting differences in the kinds of help identified by mothers and fathers can be seen. It is clear that fathers reported much more direct involvement in their children's studies. They tended to teach their children and to make sure their children were studying (watch them) more than women. Mothers were more involved in directing their children to study (even in forceful ways: 8.5% reported that they yelled or beat their children in an effort to convince them to study) and 36.2% created an opportunity for their children to study by taking on some of their household duties. This kind of help offered by mothers and fathers makes sense in rural Nepal, since women tend to be less educated than their husbands, and therefore cannot provide direct assistance with their children's studies. The women also do much more of the household chores than their husbands. As the women in this study gain literacy skills, it will be interesting to note changes in the type of help they offer their children.

Finally, mothers were asked to state how often they talked to their children about their studies. This question was asked as a five-point scale, ranging from "never" to "always." About 36% of the women whose children were in school said they never engaged in any discussions about their children's education. Another 10% said they engaged occasionally, 24.6% sometimes, 18.7% usually, and the remaining 10.7% said they always had discussions with their children about their studies. This survey result is encouraging because it shows that at least 64% of the women in the sample were involved in their children's studies on a very basic level.

4.5.9 Investment in Children's Education

Both mothers and fathers were asked to answer the question "Are you willing to pay for your daughter's/son's [asked separately] education?" About 125 women either had no child or no daughter and, therefore, the question was not applicable. Of the women who responded (n=948), about 96.3% reported that they were willing to pay for their daughter's education, compared to 99.3% of the women who said they were willing to pay for their son's education. More experimental group women (97%) than control group

women (93.7%) reported a willingness to pay for their daughter's education. This difference was statistically significant (χ 2 = 5.16, p = .024). Of the husbands who responded to this question (n=630), 97.6% reported their willingness to pay for their daughter's education, whereas 99.2% said they were ready to pay for their son's education. No experimental and control group differences were found among the fathers. There were only slight differences in parents' attitudes toward paying for sons' versus daughters' education, but for both mothers and fathers, the willingness to pay for daughters' education was lower, illustrating again this bias against providing educational opportunities for girls.

4.5.10 Children's Educational Status

Detailed data on children's educational status was also collected. The women in the sample were asked to report on the schooling status (ever enrolled, currently enrolled, dropped out, or repeated) of their children between the ages of 5 and 15. A total of 768 women (the total sample) reported on the educational status of each of their children aged 5-15. A total of 1,716 children in this age group were included in the study. Of these, 78.4% were ever enrolled in schools, and 73.5% were currently in school (as reported by their mothers). Just over 6% of the children ever enrolled had dropped out of school, and 35% had ever repeated a grade.

Tables 4.22 and 4.23 show the educational status data for both girls and boys in the sample. The data are also grouped into two age categories. Five to 11 year olds are considered to be of primary school age, and 12 to 15 year olds are more likely to be in secondary school (but the data were analyzed by age rather than grade).[14]

Table 4.22: Enrollment Status of Boys and Girls Aged 5-15 (n=1,716)

Age	***Total***		***Ever Enrolled***		***% Ever Enrolled***		***Currently in School***		***% Currently in School***	
	Boy	*Girl*	*Boy*	*Girl*	*Boy*	*Girl*	*Boy*	*Girl*	*Boy*	*Girl*
5-11	621	576	488	406	0.0%	84.72%	475	387	97.3%	67.2%
12-15	286	233	268	184	0.0%	115.02 %	239	161	89.2%	69.1%
Total	**907**	**809**	**756**	**590**	**0.0%**	**93.45%**	**714**	**548**	**78.7%**	**67.7%**

[14] Specific data on child's grade and age was collected. But this report did not examine overage and underage attendance. Overage attendance in Nepal is common.

Table 4.23: Dropout and Repetition Rates of Ever-Enrolled Girls and Boys Aged 5-15

Age	*Ever enrolled*		*Dropout*		*% Dropout*		*Ever Repeated*		*% Ever Repeated*	
	Boy	*Girl*	*Boy*	*Girl*	*Boy*	*Girl*	*Boy*	*Girl*	*Boy*	*Girl*
5-11	488	406	13	19	2.6%	4.7%	142	123	29.1%	30.3%
12-15	268	184	29	23	10.8%	12.5%	116	91	43.3%	49.5%
Total	**756**	**590**	**42**	**42**	**5.5%**	**7.2%**	**258**	**214**	**34.1%**	**36.3%**

The data depicted in the above tables reveal that, among the young children (aged 5-11), the difference between girls and boys currently attending school was approximately 9.3%. Girls were less likely to be in school than boys were, and this discrepancy grew larger as girls and boys got older (aged 12-15), when 14.5% fewer girls were in school. Given the discrepancy between boys' and girls' school enrollment rates at the national level, the fact that a higher percentage of girls in this small sample was not attending school is not that surprising. Nor is it surprising to find that the dropout and repetition rates were higher for girls than boys in this sample. Dropout rates in the sample appear to be quite low. Mothers reported that only 5.5% of their sons and 7.2% of their daughters had dropped out. Repetition rates, though, were relatively high, at 35% overall.

4.5.11 Why Children Never Go to School, Drop Out of School or Repeat Grades

Mothers were asked to provide reasons (multiple reasons were accepted) for each child who had never attended school, had dropped out of school, or had repeated a grade.

4.5.11.1 Never Attended School

Of the 768 women who provided information on schooling status of their school age children, 313 had at least one child who had never attended school. This means that up to 41% of the women were not sending all their children to school. Of the women not sending all their school age children to school, the majority was from the control group (51.4%), whereas only 37.7% were in the experimental group ($\chi 2 = 10.46$, $p < .001$). These baseline data indicate that those women who had joined literacy classes were already more likely to have sent their children to school than women who had not joined literacy class.

A total of 388 school age children had never attended school. Of the total boys in the sample (n=907), 13% or 117 boys had never attended school, whereas out of the total girls in the sample (n=809), 33.5% or 271 girls had never attended school. The main reasons why these children did not go to school also differed significantly for boys and girls. Table 4.24 presents the top five reasons reported by the women who had at least one child who had never attended school. Multiple responses were provided by some of

the women. No significant difference between experimental and control group women was found in the reasons given by mothers for their children not attending school.

Table 4.24: Most Common Reasons Reported by Mothers for Why Their Sons and Daughters Do Not Attend School

Reasons	***Boys (n=117)***	***Girls (n=271)***
Child is needed to work: at home or outside home to earn money	21.4%	32.1%
Child doesn't want to go	36.8%	18.5%
Parents do not have money to pay school fees	16.2%	17.7%
School is too far	6.0%	6.6%
Husband /HH leader does not allow	4.3%	6.3%

As the table clearly illustrates, the most common reason mothers reported that their daughters were not in school was because they must stay home to work in the house and on the farm. This is not at all unexpected. It is well understood in Nepal that a main hindrance to girls attending school in rural areas is that they provide one of the main sources of labor in the family. The data show that girls were much more likely to be kept out of school for work reasons than were boys. The main reasons that boys in this study did not go to school (as reported by their mothers) was simply because they (sons) did not want to go. Approximately 37% of the mothers reported that their sons had never gone to school before because they were not interested. This survey result is interesting, as it has not been identified as a main reason for children not going to school in previous studies in Nepal.

4.5.11.2 Dropouts

As indicated in Table 4.23, the dropout rates of the children in this study were fairly low. Only 75 out of 767 mothers (10%) reported that any of their children had dropped out of school. No differences in the experimental and control group women on the dropout status of their children were found. The most common answer to why their daughters had dropped out was that they were needed to work at home. Thirty percent of the mothers said their daughters had dropped out for that reason, while only 10% of the mothers said that their sons had dropped out for work purposes. Twenty-seven percent of the mothers reported that their children (both boys and girls) had dropped out because they did not want to be in school anymore. There was no significant difference between control and experimental groups.

4.5.11.3 Repeaters

A total of 298 mothers out of 767 (39%) reported that one or more of their children had repeated a class. Experimental group women were more likely to report that their children had repeated a class than control group women. About 45% of the experimental group women reported that at least one of their children had ever repeated a class, and only 18% of the control group women reported their children had ever repeated a class. This survey result was to be expected, as more of the women in the experimental group had actually enrolled their children in school. This may suggest that women in the experimental group make more of an effort to keep their children in school then women in the control group. However, an analysis of the repetition rates and dropout rates of all the women in the sample over time is needed to make any conclusive statements.

A total of 472 children have repeated classes. As Table 4.23 above has illustrated, very little difference can be seen in repetition rates for boys and girls. Mothers were asked to articulate the reasons they thought their children had repeated classes. By far the most common response, given by about half the women, was that "the child can't learn very quickly." Another common response (11% of mothers) was that the child was in poor health. Both these responses were given equally for boys and girls. More mothers, though, claimed that their sons (18%) compared to their daughters (11%) did not want to go to school and therefore were often absent (increasing the likelihood of repeating the grade). Finally, about 12% of the women blamed themselves for their children's repetition, stating that their children repeated because they (the mothers) were uneducated and therefore unable to help their children with their studies.

Detailed data on the educational status of these children will be collected over the next two years. These data will then be linked to some of the other key education variables in this study to determine if a relationship exists between a mother's involvement in and attitude toward her child's education and the child's educational achievement.

4.5.12 Relationship of Children's Education Attitudes and Practices to SES and Literacy Level

Table 4.25 depicts several key child education variables included in the analysis of this section. As in other impact areas, most of the key variables show a positive relationship to a woman's SES and her literacy level at the beginning of the basic literacy class.

Table 4.25: Child Education by SES and Literacy Level

Child Education Variables		*Mean of SES Level (0-13 scale)*	*Mean of literacy Scores (0-49 scale)*
Mother's view			
Attitude			
Girls should go to SLC or higher level of education	Should	5.86**	16.87**
	Should not	4.39	4.55
Boys should go to SLC or higher level of education	Should	5.57**	15.30**
	Should not	4.03	8.70
Necessary to read with the children	Yes	5.90**	17.06**
	No	5.10	8.75
Practice			
Anybody in the family reads with the child	Yes	5.99**	16.77**
	No	5.40	13.36
Child's Education Status			
At least one child has/hasn't repeated	Yes	6.30**	19.12**
	No	4.96	11.52
Have a child who has never attended school	Yes	4.77**	11.00**
	No	5.97	16.87
Have a child who has dropped out of school	Yes	5.10	9.60*
	No	5.50	15.00

Note: ANOVA tests were done to determine statistically significant differences.
* Indicates statistically significant differences between positive and negative responses for mean SES and mean literacy test score, $p < 0.05$
** $p < .001$.

4.6 Summary of Survey Results

Two key factors, a woman's socio-economic status and a woman's literacy level, appear to be predictors directly related to indicators of social and economic development. That is, women who entered the literacy programs with higher socio-economic status and higher levels of literacy were more likely to report having practices associated with social and economic development. Comparison of the women who do not join a literacy class in

the future (and thus remain in our control group) to women who complete varying degrees of one of the two integrated literacy programs in this study will help us to understand the extent to which literacy skill versus other indicators (individual characteristics or SES variables) contribute to a woman's overall empowerment or advancement in five areas of her life.

Ideally, in a longitudinal study, one would hope to see no or minimal differences between the experimental and control group women in the initial baseline data collected (before the intervention). However, as the results of this report have identified, a number of statistically significant differences exist between the two groups of women. It is not surprising that the two groups' literacy levels are already different, since 24% of the experimental group women have had previous exposure to literacy classes. It is, however, less understood why the experimental and control group women are different on one of the key background variables (socio-economic status), and why the experimental group women already show "better" results than the control group women on a number of the impact indicators.

There is a long history of literacy programs in Nepal, and several opportunities have existed for women to join classes in the communities where the research was conducted. No statistics are available on the exact proportion of women in the communities in the study participating or not participating in a literacy course. However, literacy classes have been offered at one time or another in most communities in Nepal during the past two decades. Yet there are still some women who have not participated in any literacy program.[15]

The main reasons why these women have not participated in literacy classes are not yet clear; however, these first year data suggest that women with certain characteristics (different from women who join classes) may be less likely to join literacy classes. Those joining the classes may already have a base of knowledge that the non-joiners do not have, that may help them decide they need to further improve their lives by gaining literacy skills.

Some women, more than others, could be influenced by the multitude of other development programs offered in their communities. Many development programs operate to spread positive health and child education messages, as well as motivate women to join various community activities; these programs exist in varying degrees throughout the communities where the survey was implemented. Such development messages have probably affected the women of these communities to some extent. It is possible that the same women who absorbed and responded to such development messages from other programs are also the ones who are more eager to participate in literacy programs.

[15] It is possible that some of the women who have never participated in any literacy classes have been taught by other women who have attended. However, further research would be needed to determine whether non-participants have received such residual benefits from the literacy class participants. In this study there is little evidence that the non-participants have received such instruction since only 2% of the women in the control group scored more than 10 out of 49 points on the literacy test.

The women in the sample who have not participated in any literacy programs until now are less likely to be a native Nepali speaker, are poorer, are less active in community activities, are less knowledgeable about several health and political related issues, and are less likely to send their children to school. What is not clear is whether or to what extent their not participating in literacy programs is because they are too poor--and thus have no time or energy to devote to literacy--or because they are simply not interested. This is a question that cannot yet be answered. More data over time on their reasons for not joining literacy classes are needed.

5. CONCLUSION

This impact study will attempt to track the same women for a minimum of three to five years. The study will measure the impact of varying amounts of literacy, in terms of skill and time studied, on women's lives over time. The data emerging from this research will be very useful for assessing changes with respect to the indicators that have a positive impact on social and economic development. In years two and three data will also be collected on the costs of each program, and efforts will be made to identify which elements of the programs are most cost-effective.

No efforts were made to control the amount of literacy the women would receive. In other words, the GWE III research team did not attempt to ensure that either the HEAL or the BPEP program would, in fact, offer follow-up (post-literacy) classes in the areas where the research was carried out. Thus, it is possible that some of the women will not have access to post-literacy classes if the literacy programs do not offer follow-up programs in some areas. Different levels of literacy skills among the women and different exposure to learning (literacy classes) will emerge over time. Each of the experimental group women included in the study entered a basic literacy class in the 1997/98 class cycle (either a six-month HEAL class or a nine-month BPEP class). Since they have entered an "integrated literacy" program, it is presumed that they all will have an opportunity (access) to join the next level or post-literacy class.

Furthermore, even if all the women were offered a post-literacy class, a certain percentage of individuals would undoubtedly choose not to join the next level literacy class. The research team chose not to control the input (the amount of literacy given or received) so that there will be a better understanding of the reality and the full range of impacts that literacy may have on women with varying levels of exposure to literacy classes. These data should make it possible to determine to what extent access (follow-up program offered or not) or other factors (individual's choice, SES, ethnic group, etc.) hinder women from continuing their studies.

It is clear then, that as respondents in the study are tracked over time, they will participate in literacy classes for different amounts of time and will acquire different levels of literacy. After three years, the sample will not be composed of 1,000 women who have all studied literacy for the maximum length of time allowed in the integrated programs. It is more likely that the sample will consist of women with a wide range of literacy skills and varying degrees of literacy class participation.

This research focuses on two of the three largest integrated literacy programs in Nepal. As mentioned in the methodology section of this report, the initial plan was to include all three of the largest integrated literacy programs running in the country (including two USAID-funded programs and one government program). However, since one of the USAID-funded programs experienced a one-year delay in starting its literacy classes, it was not possible to include participants in that program in the baseline data collection, and therefore, the program cannot be included in this longitudinal study.

While it is tempting to make comparisons between the two literacy programs; it should be remembered that this is not meant to be a comparative study of the strengths and weaknesses of these two individual programs. The programs examined differ in length of program delivery and materials and resources used. But more importantly, they are similar in that they both offer an integrated literacy package on a large scale (across the country), and they both use the same literacy methodology (keyword approach).

An examination of the two programs will be included in later reports to help determine what program elements may affect the impact of literacy on women's lives. However, the critical variable in this study is a woman's individual literacy skill or achievement. It is presumed that women who enter either program have the opportunity to gain new literacy skills. The level to which women acquire and retain these literacy skills may be due to individual and/or program factors. In other words, the program type or features may affect literacy level gained, and literacy level gained may determine impact on women's lives, but this study will not directly attempt to connect program features to impact.

Two additional variables that have not been included in this initial baseline data but that will provide important information in subsequent years' analyses are: 1) dropout of women from literacy classes, and 2) literacy use and retention. It is hypothesized that those women who either drop out of the literacy courses or do not use their newly acquired skills will either gain very minimal literacy skills or lose their skills over time. In the year two survey, detailed information on who dropped out and why they dropped out will be collected. This will provide more insight into the relationship between the amount of time a woman studies (participates in the program) to her literacy level achievement. Also in year two, information on the women's literacy use will be collected. These data will help to determine who uses their literacy skills, how they use their skills, and whether literacy use is related to either continued literacy achievement or retention (measured through the literacy skills test). Specific measurements of literacy achievement and use can then be examined in relation to the various impact indicators in this study.

Finally, it is recognized that survey data can be limiting in many ways. Survey research provides a report of the women's perceptions but does not allow the exploration of some additional classroom and community factors that may affect a woman's ability or desire to participate in literacy programs. Therefore, the GWE III activity in Nepal has included an in-depth qualitative component of the research to investigate some of the potential factors that influence the ultimate impact of literacy on women's lives. Sixteen women from the experimental group and four women from the control group from two of the survey districts (Kailali and Jhapa) were selected. Detailed baseline information was collected from these women, their families, the classes they attended, and the communities in which they reside.

The in-depth data will complement the survey data and permit further probing into the factors contributing to or constraining women's participation in literacy training. This in-depth work will also enable the GWE III research team to explore new aspects,

particularly the nature of women's experience in literacy training. In addition to explicating factors contributing to increased literacy skills, GWE III researchers will explore what factors allow women to continue their participation in literacy class, since persistence is a prerequisite to literacy acquisition. It is possible that changes will be evidenced in women who persist through literacy training but do not acquire literacy by the end of the course. The in-depth study will help explain what elements of the participation process contribute to change, even when literacy is not attained.

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