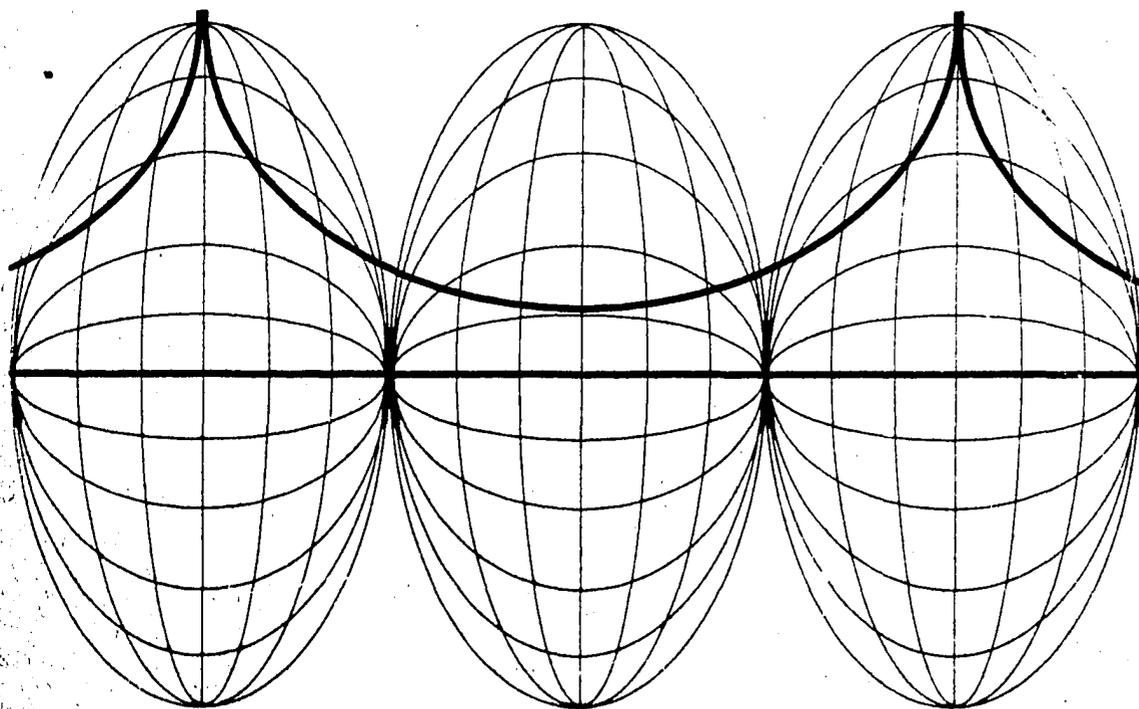


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**FEMALE ACCESS TO BASIC EDUCATION:
TRENDS, POLICIES AND STRATEGIES**

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Ernesto Cuadra
Mary Anderson
Frank Dall

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I. Executive Summary

This report presents the results of research undertaken by members of the BRIDGES/WID team. The purpose of this project was to bring together quantitative educational data on gender-access issues from pre-existing sources in 70 USAID-assisted countries, and recently obtained qualitative data from 5 pre-selected countries; the research results were used in the formation of a WID Database created in partial fulfillment of the scope of work described in the WID/PPC Agreement initiated in May of 1987.

The research undertaken for WID/PPC assesses whether the goals of universal primary education set in 1961 by nations attending the Addis Ababa Conference have been attained, and whether the issues concerning inequalities in women's access to education, discussed at the Women in Development Conference in Mexico in 1975, have been achieved.

The researchers noted that in a growing number of developing countries increasing populations, declining economies, and a worsening national debt have exacerbated the inequitable distribution of educational resources between urban and rural, males and females, and rich and poor. In most countries that are experiencing difficulties in attaining the goal of universal primary education, cultural attitudes and a scarcity of resources constrain the implementation of policies encouraging girls' access to education. Few governments have tried to implement

clear and well-defined strategies to improve women's access to education. The few that have tried deserve further mention and more study, since successful examples may provide the basis for formulating a clearer set of policies that will abolish the inequalities that still prevent many women from obtaining equal access to increasingly scarce educational resources.

A comprehensive study of the gender-access literature suggested that the database should include: male/female enrollment ratios, both gross and net; information on the type of education women receive at the secondary and higher levels; and female literacy rates, including female attrition rates from the educational system. The database reduces these main themes into the following categories: enrollment in formal education, educational attainment, educational expenditures, educational resources and socio-economic and demographic indicators. Of the 70 countries identified for inclusion in the database, adequate, if incomplete, data was forthcoming for only 64. Sixteen of the 64 countries are East African, seventeen West African, and four are North African. Only four are located in Southeast Asia, five in South Asia, and six in Southwest Asia. Eleven of the 64 are found in Latin America, and one in Oceania.

The main objective behind the construction of a database was to create a simple and easy-to-use tool for comparing gender-access information across countries, for

facilitating the posing of relevant research questions, and for helping policymakers evaluate various gender-access policy options. The two dimensions which were used to carry out this comparison were ACCESS and DISPARITY. The ACCESS dimension describes the general level of access to education within each country. The DISPARITY dimension indicates the relative access of females to males in the same country. To further facilitate comparison and isolate trends the specific ratios of ACCESS and DISPARITY are described as either High (H) or LOW (L). Any country possessing a total gross enrollment level of 70% or above has been classified as high in ACCESS; and any country having a level less than 70% is classified as low in ACCESS. Any country having a male/female gross enrollment DISPARITY category of less than 70% is classified as Low. Each country may thus receive a High/Low categorization according to separate criteria for two time periods, 1975 and 1983/84.

Preliminary analysis suggests the following tentative conclusions:

a. An analysis of gross enrollment ratios in 1975 suggests wide inequalities in educational participation across

regions and, within regions, between countries. These differences were greater for primary education than for secondary, and larger in secondary education than at the higher educational level.

b. Participation in primary education in all regions

was several times higher than participation in secondary education, and at least eight times greater than participation in higher education.

c. Gross enrollment ratios by gender and region reveal that the differences in male and female participation were greater in primary education than in secondary, and greater in secondary than in higher education. Exceptions to this generalization were noted in Latin America and the Caribbean.

d. The data indicates that the higher the educational level, the more likely it is that men will outnumber women in terms of enrollment. The differences between male and female participation in education were greater in higher education than in secondary education, and larger in secondary education than in primary education.

e. A comparison of the data for the period from 1975 to 1983/84 shows that secondary and higher education expanded at a faster rate than primary education. However, despite the apparent slowing down of primary enrollments during this period, primary numbers still represented a larger share of the total school enrollment.

f. Over the same period female enrollments for primary education increased by 49% as compared with an increase of only 37% for men. At the secondary level, for the same period, female enrollments increased by 71% as compared to a 48% increase for men.

g. In spite of a higher rate of increase in female enrollments, the disadvantaged position of women relative to men at all educational levels has barely changed. Women in the 1983/84 period continued to be underrepresented at the primary, secondary and higher education levels.

h. Using the ACCESS/DISPARITY matrix, the following country variations were noted:

- The countries improving ACCESS included Morocco, Nepal, and Guatemala.
- The countries reducing DISPARITY were Egypt, Zaire, Mozambique, Tunisia, Sudan, Malawi, Sierra Leone, and Uganda.
- The countries that reduced ACCESS were El Salvador and Bangladesh.
- The country that increased DISPARITY was Senegal.

i. Grouping the countries according to the ACCESS-DISPARITY framework revealed that:

- Countries with high ACCESS spend a greater proportion of their GNP on their educational system than do countries with low ACCESS.
- High ACCESS countries put a greater priority on primary education, relative to secondary or higher education, than do low ACCESS countries; the same is true of low DISPARITY countries relative to high DISPARITY countries.
- Countries with high ACCESS have a larger GNP per capita, a lower fertility rate, and a lower rate of infant mortality than do countries with low ACCESS.
- Within the countries with high ACCESS, those countries with low DISPARITY have a lower fertility and infant mortality rate than do countries with high DISPARITY.
- Within countries with low ACCESS, those countries with low DISPARITY have a lower infant mortality rate than do countries with high DISPARITY.

j. Qualitative data collected during the five case studies in Mali, North Yemen, Nepal, Sri Lanka and Indonesia

revealed the importance of contextual factors, such as history, culture, politics and institutional variables, in the evaluation and interpretation of the kind of statistical data contained within the BRIDGES/WID Database.

II. Statement of the Problem

In 1961 the Addis Ababa Conference on education set the year 1980 as a target for achieving universal primary education. The urgency felt by governments attending the conference was based upon the manner in which twentieth century changes in technology and production had altered traditional roles in many societies, creating a need for education in new basic skills. Primary education was perceived as a means for equipping members of society to better understand and to participate in a more productive way within their changed environments. Governments felt compelled to expand access to education because they believed that education had a positive impact on socio-economic development. Education was also seen as a goal in and of itself, a benefit resulting from development that should become a basic human right in all societies.

At the time of the Addis Ababa Conference the participants' attention was focused upon global expansion. Little consideration was given to inequalities among rural-urban regions, among social classes, or between women and men. Often, as countries began to implement policies to increase student enrollment, these disparities became more apparent. In 1975 the Mexico Conference on Women in Development helped to alert governments to the inequalities in access to education which existed between women and men. As a result of this conference,

the United Nations designated the years 1975-85 the "Decade for Women" and made an appeal to all governments to improve the situation for women in areas of development such as education, health, and employment.

Since the mid-1950s, educational facilities and student enrollment have increased dramatically in the majority of the developing countries of the world. The goal of universal primary education, however, is still far from having been achieved. UNESCO estimates that the percentage of illiterate members of developing countries will move from 57% to 39% between the years 1970 and 1990. On the other hand, the total number of illiterate people in the world will increase from 567 million in 1970, to more than 900 million persons in 1990 (Coombs, 1985). This is an indication that, in spite of enormous efforts to expand education, many governments have not been able to cope with the demands of the past, let alone meet new pressures resulting from population growth.

The expansion of educational opportunities has not been uniform among regions, rural-urban distinctions, socio-economic levels, and has not benefitted equally both women and men. In countries that are experiencing difficulties in achieving their educational goals, cultural attitudes about women have frequently led to a failure to promote women's access to education. Few governments have implemented explicit policies aimed primarily at

the increase of women's access to education. As Table One indicates, women are more likely than men to have no formal education.

TABLE 1
Percent of Population 25 Years or Older
with No Formal Education (last available census)

Region	Number of Countries	Sample	Females	
Males Size		In Database		
East Africa	16	8	78.7	59.3
West Africa	17	4	90.4	69.5
North Africa	4	2	90.9	77.1
South Asia	5	5	85.3	61.4
East & Southeast Asia	4	4	45.3	27.6
Southwest Asia	6	3	62.7	33.2
Latin America & Caribbean	11	11	43.5	34.1
Oceania	1	1	27.0	12.6

Source: WID Data Base.

While most people are now aware of this situation, the magnitude of the problem has not been clearly understood. Even in countries where a high level of access to primary education has been achieved for women, there have been difficulties in expanding access to secondary and higher education, resulting in inequalities in women's access to these levels of schooling. And, in addition to inequalities in enrollment by gender, there are often large differences in the type of training received by men and women; the few women who enroll in the higher levels of education tend to concentrate in home economics, social science, the arts, or education (Gunawardena, 1987).

Research findings have indicated the positive role women

with more education can play in creating the types of development most governments are seeking. There is a positive relationship between women's education and better nutrition and community health, declines in fertility, and decreases in infant and child mortality (Jayaweera, 1987). There is also some evidence which suggests that more educated women tend to enter and remain in the work force longer than less educated women (Wainerman, 1982). According to Gail Kelly, "withdrawal from productive labor has been one real result of women's lack of education as policies aimed at industrialization have displaced women's labor without providing them alternative paths to employment and productive labor" (1987:96). It is clear that many of governments' goals for improvement in living standards are likely to remain elusive if women are not schooled.

Generally, gains in women's access to education have been assumed to result from expansion of the educational system (Adams and Kruppenbach, 1987). Educational policies in most countries have been based on the notion that expanding access to education will equally benefit males and females. A combination of financial constraints, due to global economic recession and unstable prices for primary commodities, and increasing population pressures, due to high birth rates and a reduction in infant mortality, will make it difficult for many countries to continue their policies of expanding the number of schools and teachers as a method for increasing access to education. In

addition, a shift in international donors' interest, from school expansion to improvements in the quality of education, will further reduce available funds to finance expansion of the educational system. Clearly, countries that are already experiencing difficulties in meeting their goals for access to education are not in a position to relegate additional resources to increase women's access to education.

These factors make it apparent that new, more creative, and more efficient policies which increase women's access to education without substantial increases in overall budgets will have to be designed. To do so will require maximum use of what is already known about improving women's access to education. The comparative experiences of many Asian, African, and Latin American countries over the last decade can provide a valuable "laboratory" for examining the impact of policies, directing research, and helping to alert policy makers to problems in their countries' achievements.

The current status of women's access to education has been discussed and analyzed in a number of international conferences, articles, and books. The main information sources for these conferences and publications have been the statistical yearbooks published by UNESCO, the World Bank, and the International Labor Organization, plus population census data. These sources contain a great deal of information on the educational systems and the

socio-economic characteristics of a great many countries, but there is a need to combine this data into a single, more available form. To our knowledge, there has also been no presentation of this information in an interactive computerized database. The flexibility of a computerized database not only allows the trajectories of a great many countries to be simultaneously available for comparison, but also permits the data to be recombined according to any number of analytical perspectives.

III. Description of the Database

III.A. Methodology

III.A.1. Variables Included

The database for women's access to education has been structured according to the two basic dimensions which are seen as affecting access to education: (1) the demand for education, which is represented by participation in the educational system, and (2) the supply of educational resources, which represents the opportunity offered for education. Statistical information relevant to the issue of women's access to education has been grouped into categories of interrelated variables organized according to these two dimensions.

A review of the literature on women's access to education indicates that two types of statistics have generally been used to evaluate progress in this area. The number of male students

and the number of female students enrolled on each level of the educational system during different time periods have been used to compute percentages of increase in enrollment for women and men. The proportion of student-age males and females attending school out of the population which, according to national regulations, should be enrolled has also been used as an indication of how well the systems are reaching their target populations and how well they have reached women relative to men. Another approach to the issue of women's access has been based upon the types of education women receive in secondary and higher education. Statistics reporting the percentage of women enrolled in each field of specialization have been used to make inequalities apparent and to analyze the characteristics of those fields enrolling a disproportionate number of males or females. A third approach to the issue has focused upon the questions of what proportion of women compared to men are literate, how far women generally go in the educational system, and how long women usually stay in school. The answers for these questions have generally been sought in information on literacy and on the level of education completed. The data utilized by these approaches are relevant to women's participation in the educational system and have been included in the database as a series of variables contained under two main categories: Enrollment in Formal Education and Educational Attainment.

The second dimension affecting women's access to education focuses on the opportunities for education which exist. In order

to evaluate the opportunities available, information which reflects the efforts made by governments to supply educational resources has been included in the database. These data have been contained under two main categories, Educational Expenditures and Educational Resources, each of which is composed of a series of interrelated variables which provide information about governments' provision of educational opportunities.

The fifth category of the database, Socio-Economic and Demographic Indicators, is intended to provide background data for the countries included in the database, focusing primarily on socio-economic and demographic statistics. It provides a means for direct comparison among the countries in terms of basic characteristics which can be relevant to the issue of women's access to education.

The following is a list of the five categories that compose the structure of the database. Each dimension contains a series of variables which provide information about that analytical category.

I: Enrollment in Formal Education

- Enrollment ratios* (gross and net) by gender and level
- Total enrollment by grade and level; for second and third level by area and field¹
- Gender disparity indicator*

II: Educational Attainment

- Illiteracy* by gender (census data)
- Percentage of population by level of educational attainment* (census data)
- Completion rates* (census data)
- Number of repeaters* by grade

III: Educational Expenditures

- Current education expenditures (total)
- Current education expenditures as percentage of gross national product and as percentage of government expenditures
- Current Educational expenditures by level; by area for second level

IV: Educational Resources

- Number of first level schools
- Number of teachers by gender, by first or second level, and by area in second level

V: Socio- Economic and Demographic Indicators, 1980 and 1985

- Population 5 years old.
- Total school population by gender, ages 5-19 years.

¹. Secondary education has been divided into three areas: general education, teacher training, and vocational training. General education has been subdivided into grades; vocational education has been subdivided into eleven fields. Third level education has been subdivided into twenty-one fields.

- Age dependency ratio*
- Sex ratio
- Population growth rate*
- Percentage of population living in rural areas*
- Age specific fertility rate
- Total fertility rate*
- Infant mortality rate*
- Life expectancy* by gender
- Survival rate
- Gross national product per capita (in US dollars)
- Gross domestic product growth (1980-1986)
- Female labor force participation rate

* Definitions of terms can be found in Glossary

III.A.2. Countries Included

The database on women's education was originally conceived as a basic tool for evaluating women's access to education within 70 USAID assisted countries. The majority of these countries, 92 percent, have been classified by the World Bank as having low-income or lower middle-income economies. Of these 70 countries, we were able to collect educational information for only 64 countries. The six countries for which we are lacking information, Djibouti, Seychelles, Congo, Cyprus, Belize, and Grenada, are all small countries with populations of under 620 thousand people. Sixteen of the 64 countries included in the database are found in East Africa, seventeen are in West Africa,

four are in North Africa, four are in East and Southeast Asia, five are in South Asia, six are in Southwest Asia, eleven are in Latin America, and one is in Oceania.

TABLE 2
Countries Included in Database

EAST AFRICA	SOUTHEAST AND EAST ASIA	LATIN AMERICA AND THE CARIBBEAN
Botswana		
Burundi	Burma	Bolivia
Comoros	Indonesia	Costa Rica
Kenya	Philippines	Dominican Republic
Lesotho	Thailand	Ecuador
Madagascar		El Salvador
Malawi	SOUTH ASIA	Guatemala
Mauritius		Haiti
Mozambique	Bangladesh	Honduras
Rwanda	India	Jamaica
Somalia	Nepal	Panama
Swaziland	Pakistan	Peru
Uganda	Sri Lanka	
Zaire		
Zambia	SOUTHWEST ASIA	OCEANIA
Zimbabwe		
	Israel	Fiji
WEST AFRICA	Jordan	
	Lebanon	
Burkina Faso	Oman	
Cameroon	Turkey	
Cape Verde	Yemen	
Central African Republic		
Chad		NORTH AFRICA
Equatorial Guinea		
Gambia	Egypt	
Ghana	Morocco	
Guinea	Sudan	
Guinea Bissau	Tunisia	
Liberia		
Mali		
Mauritania		
Niger		
Senegal		
Sierra Leone		
Togo		

III.B. Data Sources

The economic, demographic, and educational statistics used to

construct the database have been collected from national governments and reported by UNESCO, The World Bank, and the US Bureau of Census. The following list includes the public sources which were consulted in compiling this information.

Center for International Research, International Data Base. Washington D.C.: Bureau of the Census. February, 1986. (Population census data collected by the governments of each country are the sources for this database; access to the database was obtained through the USAID/WID office.)

UNESCO, Statistical Year Book. Paris: UNESCO. 1976, 1977, 1982, 1983, 1984, 1985, 1986, and 1987.

United Nations, Estimates and Projections of Urban, Rural and City Populations 1950-2055: the 1982 Assessment. New York: 1986.

World Bank, World Bank World Development Report. New York: Oxford University Press. 1987.

World Bank, World Bank World Population Projections. Baltimore: Johns Hopkins University Press. 1985.

World Bank, World Bank Educational Composition of the World's Population Data Base. (The source of information for this database is UNESCO; access was obtained through the Education and Training Department of the World Bank.)

IV. Findings

IV.A. Participation in Education in 1975

The most commonly used indicators for children's access to education are the gross enrollment ratio (GER) and the net enrollment ratio (NER). Because of the availability of the data needed for computing it, the GER is the most frequently used measurement of educational participation. The GER is calculated by dividing the total number of pupils in a given level of education, regardless of age, by the population which, according to national regulations, should be enrolled at that level. For example, if an educational system in which primary schooling includes children from six to eleven years old has 84,000 students enrolled in those grades and a population of 100,000 children between the ages of six and eleven years, then the GER for primary education in that country would be 84 percent.

However, the GER figures can be extremely misleading. Philip H. Coombs has estimated that the GER overstates the reality of educational participation in developing countries by 20 percent (1985:76). The major problem with GER calculations is the inflation caused by students repeating grades and over-age students. If 20,000 of the 84,000 students enrolled in the primary education system described above are over twelve years old, either because they were over six years old when they entered the first grade or because they have repeated grades,

then there are only 64,000 students enrolled in primary education who are between the ages of six and eleven years. Instead of the 84 percent indicated by the GER, the proportion of the population of six to eleven year olds enrolled in primary school is 64 percent.

The net enrollment ratio (NER) avoids this problem. For the system described above, it would be calculated by dividing the number of children enrolled in primary education who are six to eleven years old by the total population of six to eleven year old. However, the computation of NERs requires that countries collect information on enrollment by age. As few of the countries included in the database have collected this type of information, the number of countries available for comparison is seriously reduced by using NERs. Therefore, as the GER does not require information on enrollment by age, it is still the most commonly used indicator of educational participation.

In addition to the difficulties introduced by over-age students, there is another problem associated with using GER figures as the basis for comparison among countries. Countries vary in the length of the various educational levels within the system. These variations make comparison difficult as the GERS might refer to an education period of anything from three to eight years. Chart One in the Appendix lists the entrance age of students and the duration of the primary and secondary levels of

education for the countries included in the database.

IV.A.1. Differences in Participation in Education among Regions and Countries in 1975

Table Three indicates that in 1975 there were wide differences among regions in children's participation at all levels of the educational system. A comparison of gross enrollment ratios among regions shows a difference of 37 percentage points between the region with the lowest average GER for primary education, West Africa, and the region with the highest, Latin America and the Caribbean. The data suggests that the chances of a child in West Africa being enrolled in primary education in 1975 were 40% lower than the chances of a child in Latin America and the Caribbean.

The range between the region with the highest and with the lowest GERs decreases as the level of education increases. For example, at the level of secondary education the difference between West Africa, the region with the lowest average GER, and Latin America and the Caribbean, the region with the highest, was 22 percentage points. The difference in higher education between East Africa, the region with the lowest average GER, and Latin American and the Caribbean, the region with the highest, was only 10 percentage points.

TABLE 3
Average Gross Enrollment Ratios by Region and Level: 1975

Region	Primary	Secondary	Higher
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East Africa	79.0%	12.7%	0.98%
West Africa	54.6%	10.4%	1.04%
North Africa	70.3%	23.5%	5.57%
Latin America & the Caribbean	91.6%	32.9%	11.12%
East & Southeast Asia	90.3%	30.5%	6.5%
South Asia	64.6%	24.6%	3.53%
Southwest Asia	69.5%	25.0%	5.00%

Source: Charts 7 to 12 in Appendix.

Table Three also indicates that in 1975 there were large differences in the gross enrollment ratios among primary, secondary, and higher education within all of the regions included in the database. Even in the region with the smallest differences in GERs among educational levels, participation in primary education was almost three times greater than participation in secondary education and at least eight times larger than participation in higher education. The smallest gap between GERs for primary and secondary education was found in Latin America and the Caribbean, where participation in primary education was 2.8 times greater than participation in secondary education. The widest range occurred in East Africa where the average GER for primary education was 6.3 times larger than for secondary education. There were even greater differences between the ratios of participation in primary education and higher education. In Latin America and the Caribbean, participation in primary education was eight times greater than in higher education; in East Africa the average GER for primary education was 81 times greater than for higher education.

In regions where enrollment in primary education was low, the proportion of people who attended institutions of higher education tended to be smaller than in regions where enrollment in primary education was high, with the one exception of East Africa where Kenya, Lesotho and Mozambique had exceptionally high GERs for primary school and very low GERs for higher education. Although this seems merely logical, it need not have been the case. However much countries might differ in the percentage of their school age populations enrolled in primary education, there is no reason why they could not all have had GERs for higher education in the 6% range, which was about average for all of the regions. The numbers of graduates from secondary education in all regions were much larger than 6 percent.

TABLE 4
Variations in Gross Enrollment Ratios in Primary
Education within Regions: 1975

Region	% Points		
	Highest GER	Lowest GER	Difference
West Africa	125%	16%	109
East Africa	111%	22%	89
Southwest Asia	108%	29%	79
South Asia	81%	41%	40
Latin America & the Caribbean	114%	60%	54
North Africa	97%	47%	50
East & Southeast Asia	107%	83%	24

Source: Chart 7 in Appendix.

The differences across regions, however, are sometimes smaller than the differences across countries within the same region. This is an indication that regions are not necessarily homogeneous entities. Table Four shows that in West Africa the

country with the highest GER for primary education, Cape Verde with a GER of 125%, and the country with the lowest, Burkina Faso with a GER of 16%, create a maximum difference of 109 percentage points within that region. In East and Southeast Asia, the country with the highest GER in primary education, the Philippines with a GER of 107%, and the country with the lowest, Thailand with a GER of 83%, were only 24 percentage points apart. The differences between the range of GERs found in these two regions, West Africa with the greatest internal variation and East and Southeast Asia with the least variation, is 85 percentage points, less than the range found within several regions.

Due to the enormous variation in GERs within regions, sometimes countries that are considered to have a relatively high participation in primary education in one region would be seen as having very low enrollments if located in another region. For example, in South Asia the country with the highest GER was India with 81%; in East and Southeast Asia, the country with the smallest GER was Thailand with 83%. The large differences in primary school GERs which exist both within regions and across regions are also demonstrated by the fact that the country with the highest GER, Cape Verde with 125%, and the country with the lowest GER, Burkina Faso with a GER of 16%, are both located in the same region, West Africa.

TABLE 5
Variations in Gross Enrollment Ratios in Secondary
Education within Regions: 1975

Region	Highest GER	Lowest GER	% Points Difference
Southwest Asia	61%	1%	60
Latin America & the Caribbean	58%	8%	50
East Africa	39%	2%	37
West Africa	37%	2%	35
South Asia	48%	13%	35
East & Southeast Asia	54%	20%	34
North Africa	43%	14%	29

Source: Chart 9 in Appendix.

Because the level of participation in secondary and higher education were much lower than participation in primary education in all regions, it is not surprising that regions appear to be more homogeneous when the focus of analysis is on secondary or higher education. For example, Table Five shows that the country which had the highest proportion of its school age population enrolled at the secondary education was Israel with a GER of 61% located in Southwest Asia. This can be contrasted with the largest GER for primary education, Cape Verde with a GER of 125%, which set a higher upper limit on the range of GERs found in primary education than the 61% GER in Israel did for secondary education and, therefore, created more room for variability. A comparison between Tables Four and Five confirms this point. The region with the greatest variation in primary education had an internal spread of 109 percentage points; the largest range in secondary education in any region had only a 60 percentage point spread.

TABLE 6
Variation in Gross Enrollment Ratios in Higher
Education within Regions: 1975

Region	Highest GER	Lowest GER	% Points Difference
Latin America & the Caribbean	26.9%	0.7%	26.2
East & Southeast Asia	18.4%	2.1%	16.3
North Africa	13.5%	1.5%	12.0
Southwest Asia	9.3%	0.7%	8.6
South Asia	8.6%	1.3%	7.3
West Africa	3.0%	0.1%	2.9
East Africa	2.5%	0.1%	2.4

Source: Chart 11 in Appendix.

Table Six confirms the fact that the higher the educational level, the more homogeneous are the regions in terms of their average GERs. This is due to the progressively lower values of the GERs as the level of education increases. For example, the largest difference between two countries within the same region in higher education, that between Ecuador with a GER of 26.9% and Haiti with a GER of 0.7% in Latin America and the Caribbean, is only 26.2 percentage points, compared to differences of 60 percentage points in secondary education and 109 percentage points in primary education.

IV.A.2. Differences in Participation in Education according to Gender in 1975

Participation in education can be further analyzed in terms of differences between males and females or between rural and urban locations. It has been suggested that rural females constitute

the most disadvantaged group in terms of educational participation. However, as countries rarely report their educational statistics in terms of rural and urban location, it is not presently possible to make a simultaneous comparison of participation in education by gender and by rural or urban area. The following analysis, therefore, is restricted by data limitations to examining only gender differences.

TABLE 7
Average Gross Enrollment Ratio in Primary
Education by Region and Gender: 1975

Region	Enrollment		% Points Difference	Male/Female Ratio
	Male	Female		
East Africa	86.7%	72.6%	14.1	1.19
West Africa	65.1%	40.6%	24.5	1.60
North Africa	85.5%	54.3%	31.2	1.57
Latin America & the Caribbean	94.0%	88.4%	5.6	1.06
East & Southeast Asia	89.7%	80.0%	9.7	1.12
South Asia	82.8%	46.0%	36.8	1.80
Southwest Asia	69.5%	42.7%	26.8	1.63

Source: Chart 7 in Appendix.

TABLE 8
Average Gross Enrollment Ratio in Secondary
Education by Region and Gender: 1975

Region	Enrollment		% Points Difference	Male/Female Ratio
	Male	Female		
East Africa	14.9%	9.5%	5.4	1.57
West Africa	16.3%	6.6%	9.7	2.47
North Africa	30.8%	16.5%	14.3	1.87
Latin America & the Caribbean	32.7%	32.9%	-0.2	0.99
East & Southeast Asia	25.7%	19.3%	6.4	1.33
South Asia	31.6%	17.2%	14.4	1.84
Southwest Asia	27.5%	22.9%	4.6	1.20

Source: Chart 9 in Appendix.

TABLE 9
Average Gross Enrollment Ratio in Higher
Education by Region and Gender: 1975

Region	Enrollment		% Points Difference	Male/Female Ratio
	Male	Female		
East Africa	1.3%	0.4%	0.9	3.25
West Africa	1.7%	0.3%	1.4	5.67
North Africa	8.1%	3.0%	5.1	2.70
Latin America & the Caribbean	10.3%	6.7%	3.6	1.54
East & Southeast Asia	n/d	n/d	n/d	n/d
South Asia	5.7%	2.0%	3.7	2.85
Southwest Asia	8.2%	1.6%	6.6	5.13

Source: Chart 11 in Appendix.

Tables Seven, Eight, and Nine present information about male and female gross enrollment ratios for the regions included in the databank. These tables show that male GERs were higher than female GERs in all regions and at all levels of the educational systems, with the exception of Latin America and the Caribbean. There the average female GER in secondary education was 0.2 percentage points larger than the average male gross enrollment ratio.

The figures in Tables Seven to Nine also indicate that ratios for male participation in primary and secondary education were more homogeneous among regions than were ratios for female participation. Because male gross enrollment ratios were higher than female GERs, the variation among male GERs in primary and secondary education was larger than the variation among female GERs. Data in Table Seven indicate a difference of 28.9

percentage points between the region with the highest average male GER in primary education, Latin American and the Caribbean with 94%, and the region with the lowest male GER, West Africa with 65.1%. There is a difference of 46.8 percentage points between the region with the highest average female GER in primary education, 88.8% in Latin American and the Caribbean, and that with the lowest, 40.6% in West Africa. The data for secondary education show a variation of 17.8 percentage points among regions for male GERs compared to a spread of 26.3 percentage points for female GERs. The difference between the region with the largest average female GER in higher education, Latin American and the Caribbean with 6.7%, and the region with the smallest, West Africa with 0.3%, is 6.4 percentage points; the difference between the region with the greatest average male GER in higher education, Latin America and the Caribbean with 10.3%, and the region with the lowest, East Africa with 1.3%, is 9.5 percentage points.

Within each region, the differences between male and female participation were greater in primary education than in secondary education and greater in secondary than in higher education. For example, in East Africa there was a 14.1 percentage point difference between average male and female GERs in primary education, a 5.4 percentage point difference in secondary education, and only a 0.9 percentage point difference in higher education. This is true for all of the regions, with the

exception of Latin America and the Caribbean where the gender difference in GERs was greater in higher education than the difference in secondary education. This data seems to suggest that women, when compared to men, have been at more of a disadvantage in primary education than in secondary or higher education.

However, direct comparison among the percentage point differences indicated at various levels within the educational systems is misleading. When gross enrollment ratios are high, there is greater room for variation between the highest value and the lowest value. This creates the false impression that women in levels of education with high GERs are at more of a disadvantage than women in educational levels that have lower GERs. For example, the primary education average GER for males in East Africa in 1975 was 86.7, hypothetically leaving room for a variation of 86.7 percentage points if no women had been enrolled in primary education that year. The actual difference was only 14.1 percentage points as an average of 72.6% of the school age girls in East Africa attend primary school in 1975. On the other hand, the male GER for the same region in higher education was 1.3%, leaving only the possibility of a 1.3 percentage point difference between male and female GERs if no women had enrolled in higher education that year. It is misleading to compare figures which occur within a possible range of 86.7 percentage points with those that occur within a range of

only 1.3 percentage points.

An alternative way to analyze participation according to gender among the levels of the educational systems is to measure the proportion of male GER to female GER, creating a MALE to FEMALE index (MAFE index). The MAFE index is obtained by dividing the male GER by the female GER. The advantage of this index, in addition to making comparisons among GERs which exist within the different ranges of variability possible, is that it gives an idea of the effort that will be required in order for women's participation to match men's. For example, a MAFE value of 2.00 would indicate that the female GER would have to double in order to reach the level of the male GER.

Using the MAFE index, analysis of the data indicates that the higher the educational level the more likely it is that men will outnumber women in terms of enrollment. The differences between male and female participation were larger in higher education than in secondary education, and larger in secondary education than in primary education. For example, male participation in primary education in South Asia was 1.8 times greater than female participation, the male GER in secondary education was 1.84 times larger than the female GER, and 2.85 times larger than in higher education. The pattern is similar in all of the regions except for the secondary level in Latin America and the Caribbean. Use of the MAFE index reverses the previous analysis and indicates

that, in 1975, females were more disadvantaged in higher education than in primary education. Relative to men, it was more difficult for women to get to higher education than to enter into primary education.

This conclusion does not invalidate the fact that it was more likely that both women and men would have access to primary education than to secondary education and that access to higher education was reserved for a small, privileged group of both men and women. Tables Seven to Nine show that the largest male GER in higher education, 10.3% in Latin America and the Caribbean, is only one sixth of the lowest male GER in primary education, 65.1% in West Africa. The same holds true for the difference between the greatest female GER in higher education, 6.7% in Latin America and the Caribbean, and the lowest female GER in primary education, 40.6% in West Africa. This indicates that the largest enrollment in higher education was still far short of the lowest enrollment in primary education.

IV.B. Changes in Participation in Education between 1975 and 1983/84

IV.B.1. Changes in Total Enrollment

By 1975 the formal educational systems in all regions had become pyramidal in structure.. Between 1975 and 1983/84 total enrollment in primary education expanded by 29 million. Enrollment in secondary education increased by 22 million and

enrollment in higher education by 2 million. However, as Table Ten shows higher education expanded at a greater rate, 91.7%, than did secondary education, 56.1%; secondary school enrollments increased at a higher rate than did those in primary education, 44.9%.

TABLE 10
Increase in Total Enrollment between 1975 and 1983/84
According to Educational Level

Educational Level	Total Increase	Percent Increase
Higher	2,170,170	91.7%
Secondary	22,310,503	56.1%
Primary	29,360,154	44.9%

Source: Charts 15 and 16 in Appendix.

TABLE 11
Distribution of Enrollment According to Educational Level

Educational Level	1975	1983/84
Higher	2.2%	2.8%
Secondary	37.0%	38.5%
Primary	60.8%	58.7%

Source: Charts 15 and 16 in Appendix.

In spite of the fact that secondary and higher education expanded at a higher rate than did primary education, the pattern of enrollment was still one of greater numbers at the primary level which decreased as the level of education increased. Table Eleven indicates that enrollments in both higher and secondary education increased their proportion of the total enrollment in the educational system, while enrollment in primary education was

reduced from representing 60.8% of the total enrollment to 58.7%. Primary education enrollment, however, still represented a larger share of the total school enrollment than secondary and higher education enrollments combined.

TABLE 12
Enrollment in Primary Education

TABLE 13
Enrollment in Secondary Education

An examination of the expansion of enrollment from 1975 to 1983/84 by region indicates that in some regions primary education enrollment expanded at a higher rate than did secondary education. For example, both in South Asia and in Southwest Asia primary school enrollments show a larger percent of increase than do secondary school enrollments. Enrollment in primary education increased by 71% and in secondary education by 30% in South Asia; enrollment in primary education grew by 65% and in secondary by 53% in Southwest Asia. In other regions, secondary school enrollment expanded at a faster rate than primary school enrollment, as in East Africa where the growth of primary enrollment was almost four times larger than that of secondary education enrollment, 220% compared to 53%. In Latin America and the Caribbean secondary school enrollment expanded at twice the rate of primary school enrollment, 76% compared to 29%. The rate of increase in enrollment was greater in higher education than the rate of increase in primary education in all regions. In Latin America, for example, higher education enrollment increased at a rate of more than four times the rate of primary school enrollment, 124 % compared to 29%; in South Asia enrollment in higher education grew at a rate of almost three times that of primary school enrollment, 206% compared to 71%.

Table Ten shows that the higher education enrollments of all regions combined increased by almost 92 % while the total secondary school enrollment expanded by only 56% during the same

time period. However, when the data are broken down by region, as in Table Twelve, the picture changes: four out of the seven regions indicate that secondary school enrollment had increased at a higher rate than higher education enrollments. Only in Latin America and the Caribbean, South Asia, and Southwest Asia had higher education enrollments increased at a greater rate than secondary school enrollments.

IV.B.2. Changes in Total Enrollment according to Gender

Table 14 indicates that female enrollment increased at a higher rate than male enrollment both in primary and secondary education in all regions except Southwest Asia, where male enrollment in primary education grew faster than female enrollment. The difference in male and female enrollments in higher education cannot be analyzed because very few countries report enrollments on that level of the educational system in terms of gender. One reason for the higher rate of increase in women's enrollment in primary and secondary education is simply that female enrollment was so very low in 1975. The initial low enrollment level meant that even a small increase in the total number of females enrolled in any educational level would produce a high percentage of increase. Male enrollment in primary education expanded by 7.2 million pupils between 1975 and 1983/84 while female enrollment increased by 6.8 million pupils during the same time period. However, given the lower initial

enrollment of females in 1975, women's enrollment increased by 49% compared to a 37% increase in men's enrollment. At the secondary level male enrollment increased by 12.8 million during the period from 1975 to 1983/84, while female enrollment expanded by 9.5 million. Women's enrollment increased by 71% in secondary education compared to an increase of 48% for men. Although female enrollment increased at a higher rate than male enrollment during this time period, male enrollment contributed more to the overall increase in enrollments.

TABLE 14
Percent of Women in Total Enrollment

Region	Year	Primary	Secondary
East Africa	1975	43.4%	32.8%
	1984	46.0%	34.9%
West Africa	1975	40.7%	34.3%
	1984	41.8%	35.3%
North Africa	1975	37.5%	33.9%
	1984	41.1%	38.6%
Latin America & the Caribbean	1975	47.5%	46.2%
	1984	48.2%	47.9%
East & Southeast Asia	1975	n/d	45.2%
	1984	n/d	45.3%
South Asia	1975	42.8%	30.5%
	1984	44.2%	32.8%
Southwest Asia	1975	39.3%	34.3%
	1984	37.6%	38.8%

Source: Charts 15 and 16 in Appendix.

In some regions, however, increases in female enrollment have played the larger role in the overall growth of enrollment.

Table Twelve shows that in primary education there are three regions where increases in women's enrollment contributed more to enrollment expansion than did men's increases. These regions are East Africa, where 52.4% of the increase in enrollment was due to the growth in female enrollment, North Africa, where women accounted for 52.2% of the enrollment expansion, and Latin America and the Caribbean, where female enrollment represented 50.5% of the increase in total enrollment. There were no cases in secondary education in which increases in female enrollment contributed more than male enrollment.

Only in regions that had a high level of male enrollment in 1975 were increases in female enrollment larger than male increases. This suggests the hypothesis that in most countries female enrollments begin to increase more rapidly after male enrollments have already achieved relatively high levels. For example, this seems to have been the case in Latin American and the Caribbean, which had a male GER in primary education of 94% in 1975, and in East Africa and North Africa, where male GERs in primary education were greater than 85% in 1975.

In spite of a higher rate of increase in female enrollments than in male enrollments, the disadvantaged position of women relative to men in education has changed little. In 1983/84 women were still underrepresented both in primary and secondary education. In primary education the differences between female

and male enrollments ranged from 3.6 percentage points in Latin America and the Caribbean to 24.8 percentage points in Southwest Asia. In secondary education the smallest difference between female and male enrollments was 4.2 percentage points in Latin America and the Caribbean, while the wildest separation was 34.4 percentage points in South Asia. Progress has been made, but more is still needed, especially in regions where participation in education in general is low.

IV.B.3. Changes in Gross Enrollment Ratios

In spite of the expansion of participation in education, the target of universal primary education is still far from having been achieved in all regions of the world. Data on gross enrollment ratios indicate that the regions that are closest to that goal are East and Southeast Asia, with a GER of 106% in primary education, and Latin America and the Caribbean, with a GER of 98%. The regions that are farthest from the goal are West Africa, with a GER of 63%, and South Asia, with a GER of 74%. However, caution should be used when interpreting these GERs as countries that have high repetition rates might have an inflated GER due to the number of overage students in the system.

TABLE 15
Average Gross Enrollment Ratio according to Region
and Level: 1983/84

Region	Primary	Secondary	Higher
East Africa	87.5%	23.5%	1.50%
West Africa	62.8%	14.9%	1.33%
North Africa	82.3%	36.0%	13.60%
Latin America & the Caribbean	97.9%	40.7%	15.30%
East & Southeast Asia	106.0%	40.3%	19.40%
South Asia	73.6%	30.2%	n/d
Southwest Asia	90.3%	38.0%	n/d

Source: Charts 8, 10, and 12 in Appendix.

Enrollment levels in secondary and higher education continued to be well behind the level of enrollment in primary education in all regions. In 1983/84 not even one half of the student-age population was enrolled in secondary education. And, even in the region with the highest average GER in higher education, the enrollment represented less than one fifth of the student-age population. The fact that some basic traits of the system remained unchanged between 1975 and 1983/84 does not mean that these regions have not increased participation in education. There was, in fact, an increase in GERs in all regions during this period. In some cases this expansion was considerable, as in Southwest Asia which moved from having the third lowest GERs in primary education to being only seven percentage points behind Latin America and the Caribbean due to an increase in its GER from 69% to 90%.

TABLE 16
Percent of Increase in Total Gross Enrollment Ratios
between 1975 and 1983/84

Region	Primary	Secondary	Higher
East Africa	9.20%	85.76%	54.08%
West Africa	15.05%	44.28%	27.68%
North Africa	17.08%	53.19%	142.86%
Latin America & the Caribbean	6.95%	23.76%	37.61%
East & Southeast Asia	17.91%	31.97%	194.55%
South Asia	13.93%	22.76%	n/d
Southwest Asia	29.90%	52.00%	n/d

Source: Charts 7 to 12 in Appendix.

In all of the regions the gross enrollment ratios in secondary education increased more than did GERs in primary education due, in part, to the lower initial GERs in secondary education. The region which experienced the largest gain in GERs in secondary education was East Africa with an increase of 86%. However, in spite of this effort, East Africa continued to have the second lowest GER in secondary education.

The relationship between GER increases in secondary and in higher education does not follow the same pattern as does the relationship between increases in primary and secondary education. In some regions the expansion in GER for secondary education was greater than for higher education, while in others the opposite was true. For example, in East and Southeast Asia the GERs for higher education increased more than the GERs for secondary education, 194% compared to 32%, while in East Africa

GERs for secondary education increased more than for higher education, 86% compared to 54%.

IV.B.4. Changes in Gross Enrollment Ratios according to Gender

In all of the regions and on all levels of the educational system female GERs increased more rapidly than did male GERs. Although the gap between male and female GERs was reduced, it was not eliminated. The difference between male and female GERs was the smallest in primary education. Latin America and the Caribbean and East and Southeast Asia were the regions with the smallest gender differences; the male GER was 1.03 times larger than the female GER in Latin America and the Caribbean and 1.02 times larger in the East and Southeast Asia. West Africa and South Asia are the regions where the gender gap was the largest. In west Africa the male GER was 1.54 times greater than the female GER; in South Asia the GER for men was 1.46 times bigger than the GER for women.

TABLE 17
Percent of Increases in Gross Enrollment in Primary
Education between 1975 and 1983/84 according to Gender

Region	Male	Female	Ratio M/F GER
East Africa	5.46%	5.29%	1.09
West Africa	12.19%	17.26%	1.54
North Africa	9.65%	29.03%	1.34
Latin America & the Caribbean	5.61%	9.04%	1.03
East & Southeast Asia	26.30%	28.16%	1.02
South Asia	4.83%	28.70%	1.46
Southwest Asia	49.99%	76.81%	1.38

Source: Charts 7 and 8 in Appendix.

Southwest Asia is the region with the largest increase in GER for females and males because two of the countries which have experienced the largest gain in GER are located there. These countries are Yemen and Oman.

Oman is a country that made impressive gains in total GER at the same time that it achieved a significant reduction in the gap in enrollments between women and men. In 1975, the male GER in Oman was 44% and the female GER was 24%, with a difference between male and female GERs of 20 percentage points. By 1984, the male GER had grown to 83%, an increase of almost 89%; the female had increased to 72%, a growth of 200%. The greater gains for women relative to men made possible a substantial reduction in the gap between male and female enrollment, reduced by 1983/83 to a difference of only 11 percentage points.

Yemen also showed impressive gains in participation in education for both men and women, with the female GER increasing by 21% and the male GER growing by 131%. However, a closer look at the data shows that the GER appears to have increased so greatly because its initial level was so very low. In 1975 the female GER in Yemen was only 7%, the lowest among all the countries in the database; it grew to only 22% by 1983/84, the fifth lowest in the database. In contrast, the male GER went from 50% to 112%, extending the gap between male and female GERs from 43 percentage points to 90 percentage points.

The only region in which the female GER did not increase more than the male GER was in secondary education in Southwest Asia, where the male GER increased by 58% compared to a 42% increase for women. Within this region, Oman's male GER for secondary education grew from a low 2% to 40%, while the female GER grew from 0.5% to 19%. The difference between male and female enrollments increased from 1.5 percentage points to 21 points. A similar pattern was found in secondary education in Yemen, where the female GER grew from 1% to 3% and the male GER increased from 8% to 17%. In Yemen the difference between male and female GERs for secondary education increased from 7 percentage points to 14 points.

Another exception which only applied to secondary education was the one case in which women had a higher average GER than

men. The region was Latin America and the Caribbean, where the male GER in secondary education was only 0.97 times as large as the female GER. However, in all other regions men had a larger participation in education than did women as measured by the GER. West Africa and South Asia were, once again, the regions with the widest gap between male and female participation in education. In West Africa men had a GER that was 2.29 times larger than the GER of women; in South Asia the male GER was 1.59 times greater than the female GER.

TABLE 18
Percent of Increases in Gross Enrollment in Secondary Education between 1975 and 1983/84 according to Gender

Region	Male	Female	Ratio M/F GER
East Africa	84.30%	106.96%	1.39
West Africa	35.09%	46.09%	2.29
North Africa	39.84%	77.27%	1.47
Latin America & the Caribbean	21.84%	24.66%	0.97
East & Southeast Asia	n/d	n/d	n/d
South Asia	16.46%	34.88%	1.59
Southwest Asia	58.20%	42.05%	1.33

Source: Charts 9 and 10 in Appendix.

Higher education is the educational level in which the largest number of countries have not reported data according to gender. Due to a lack of this information the data from regions such as East and Southeast Asia, South Asia, and Southwest Asia can not be analyzed in terms of differences in gender.

West Africa was the region which had not only the smallest

increase in GER in higher education, but also the widest disparity between male and female GERS, men outnumbering women more than four times. There were greater difference between male and female GERS on the level of higher education than on either of the lower levels of the educational system in all regions. For example, in Latin America and the Caribbean the male GER in higher education was 1.28 times larger than the female GER, while in primary education it was only 1.03 times larger.

TABLE 19
Percent of Increases in Gross Enrollment in Higher Education
between 1975 and 1983/84 according to Gender

Region	Male	Female	Ratio M/F GER
East Africa	31.01%	150.00%	1.79
West Africa	18.02%	28.51%	4.68
North Africa	121.50%	208.26%	1.93
Latin America & the Caribbean	101.72%	141.41%	1.28
East & Southeast Asia	n/d	n/d	n/d
South Asia	n/d	n/d	n/d
Southwest Asia	n/d	n/d	n/d

Source: Charts 11 and 12 in Appendix.

In 1984 there was no country in West Africa with a ratio between male and female GERS in higher education that was lower than 2.9. Guinea was the country with the lowest ratio, 2.91, and this was due to an decrease in the male GER from 4.9% in 1975 to 3.2% in 1983/84, while the female GER remained stable at a level of 1.1% during this time period.

IV.C. Disparity Index Framework

The previous analyses have demonstrated that there is enormous variability within regions, both in terms of general participation in education and in terms of participation according to gender. The objective in constructing the database was to create a tool for comparing the experiences of a large number of developing countries in order to better understand the access of women to education over the last decade. As one part of that goal, an analytical framework has been designed to make the data more available for rapid assessment, for posing potential research questions, and for guiding policy makers in their evaluations.

The principle that has guided the design of this framework is the desire to group countries in a more meaningful way than their classification by geographical location has allowed. As the main interest in building the database was to create a tool which would increase the understanding of female access to education, it follows that the countries should be grouped according to the dimensions of access to education for the population in general and access to education according to gender.

The access dimension refers to the total number of pupils enrolled in primary education relative to the population which, accord to national regulations, should have been enrolled at that

level. ACCESS then is a continuous variable that can be made operational by the total net enrollment ratio. Gender is a dichotomous variable, male and female GERs representing the number of men or women enrolled in primary education relative to the number who could have been enrolled. In order to convert this dichotomy into a more usable, unidimensional variable, a new variable was constructed. This variable, DISPARITY, represents the relationship between female GER to the male GER and is, therefore, a measure of differential access by gender. It can be considered to measure DISPARITY according to gender.

The use of the ACCESS and the DISPARITY dimensions permits the classification of countries into groups that are more homogeneous in terms of a focus upon differences in enrollment according to gender than the regionally based groups. It also facilitates the comparison among countries both in terms of the relative position of women's access to education and the identification of similar and dissimilar pattern of change in women's access. The identification of these patterns is the first step in the process of designing policies aimed at improving the educational status of women.

To further facilitate comparison and isolate trends, the specific values of ACCESS and DISPARITY have been replaced by ranks of either "Higher" or "Lower." The definition of what is high or low will always be open to discussion. However, since

countries have agreed, at different points in time, to some minimum goals with respect to education, these minimums can then be used as the standards to which these definitions can be related to.

Since the countries attending the 1961 Addis Ababa Conference on education agreed upon the goal of universal primary education (UPE) by 1980 the ACCESS dimension of the framework was tied to this target. To achieve UPE means that by 1980 all primary school age children should have been enrolled in primary education, which is equivalent to have a net enrollment ratio (NER) of 100%. The net enrollment ratio then can be used as the indicator to measure how close is a country to the goal of UPE. Unfortunately not all countries report NER values, therefore it is not possible to estimate exactly how many countries have reached UPE. An alternative way to get this estimate is to examine the gross enrollment ratio. However, some caution should be applied when examining the GER, since this indicator overestimates the participation of school age children in primary education, giving the false impression that there are more school age students enrolled in primary education than actually are enrolled.²

Notwithstanding that the GER overestimate the real

².- See page 20 for a discussion of why the GER overestimates participation of school age children in primary education.

participation on education, in 1983 only about 40% of the countries included in the data base had a GER of 100% or higher. This means that at least sixty percent of the countries had not reached the target of UPE, although some are close to it. There is then a need to distinguish between countries that are closer to the goal of UPE and countries that are not. The question here is what level of GER to select as the threshold to separate countries that are closer to the target from countries that are not so close.

The threshold can be defined in several different ways. One is to define the cut off point empirically, i.e. based on a criterion that is supported on empirical examination of how the countries are distributed along a specific variable, such as the proportion of children enrolled in primary education. One example of an empirical definition of a threshold would be to take the mean value of this proportion and add to it one standard deviation. This value will then be considered as the minimum value above which countries are going to be classified as belonging to the group of countries that are closer to the goal for which this proportion serves as an indicator. There are at least two problems with this way of specifying the cut off point. The first one is that independently of the how far or how close the countries are to UPE there will always be a small number of them classified as closer to the goal while the majority will be far from the goal. The second one is that the threshold value

will always change depending on the sample of countries included in the database. This runs again the idea of having a value that can serve as a stable point of reference that permits comparisons between countries and help to monitor how countries are changing over time. An alternative way to state a threshold is to choose an arbitrary cut off point that reflects a deliberate decision about a minimum value that can be accepted as a reasonable level to define when a country is getting closer to the goal of UPE. Although the cut off point is arbitrary it help both to monitor progress and to define a minimum standard that can be considered an intermediate goal before reaching UPE.

For the present analysis an arbitrary cut off point of 70% on the GER was established. Thus, any country having a GER figure of 70% or higher has been classified as "Higher" in the ACCESS category; countries with GER figures of less than 70% have been classified in the "Low" ACCESS category. The term "higher" has been chosen instead of "high" to emphasize the idea that this is a relative scale where the goal is UPE which can only be achieved with a net enrollment ratio equal to one hundred percent.

Similarly, for the DISPARITY dimension the countries were also classified along the line of an arbitrarily defined threshold. Any country having less than seven women enrolled for every ten men was classified as having "high" level of DISPARITY; countries with seven or more women enrolled for every ten men were

classified as "lower" in the DISPARITY dimension.³ The label "lower" was preferred to "low" to underline the idea that the target is complete equality, which is equivalent to having a female/male ratio equal to one.

Each country, therefore, has received a High(er) or Low(er) categorization in each one of the two dimension of the framework: ACCESS and DISPARITY. The combination of these two dimensions generates the following taxonomy of countries:

		ACCESS	
		Higher	Low
DISPARITY	High	HA-HD	LA-HD
	Lower	HA-LD	LA-LD

This classification of the data allows a comparison of the patterns of access to education in a large number of countries over an eight year time span. When the position of the countries in 1975 is compared with what was observed in 1983/4, then changes can be represented in the following ways:

TABLE 20

Scenarios to Describe Possible Evolutionary Paths

³.- In order to get a value of 0 when there is no disparity, the Disparity index is computed as one minus the ratio of female over male ($1 - \text{femaleGER}/\text{MaleGER}$). Therefore all countries having a disparity index that is higher than .30 are classified in the "High" DISPARITY category, while countries with a value of .30 or lower are classified in the "Lower" DISPARITY category.

	1975	1983/84	Paths
(1)	HA-HD	HA-HD	no change
(2)	HA-HD	HA-LD	reduce disparity
(3)	HA-HD	LA-HD	reduce access
(4)	HA-HD	LA-LD	reduce access and disparity
(5)	HA-LD	HA-HD	increase disparity
(6)	HA-LD	HA-LD	no change
(7)	HA-LD	LA-HD	reduce access, increase disparity
(8)	HA-LD	LA-LD	reduce access
(9)	LA-HD	HA-HD	increase access
(10)	LA-HD	HA-LD	increase access, reduce disparity
(11)	LA-HD	LA-HD	no change
(12)	LA-HD	LA-LD	reduce disparity
(13)	LA-LD	HA-HD	increase access, increase disparity
(14)	LA-LD	HA-LD	increase access
(15)	LA-LD	LA-HD	increase disparity
(16)	LA-LD	LA-LD	no change

These 16 scenarios describe all of the hypothetical possibilities that might occur according to the ACCESS-DISPARITY framework between two time periods. Some of them, although, are unlikely to take place, such as scenario number seven where ACCESS is reduced and DISPARITY is increased from an initial situation of higher ACCESS and lower DISPARITY.

Table 21 portrays the actual descriptions of the countries in the WID database in terms of these hypothetical scenarios. The ACCESS-DISPARITY framework, however, does not reflect changes that occur if a country does not cross either the 70% limit set for the ACCESS dimension or the .30 limit of the DISPARITY dimension. If, for example, a country increases its GER from 29% in 1975 to 67% in 1984 (as is the case of Yemen) its improvement in ACCESS will not be reflected by the framework because the country will still be under the 70% GER limit. Therefore, a

third dimension that can be added to the ACCESS-DISPARITY framework to capture the idea of incremental change is an indicator of the rate at which both ACCESS and DISPARITY are changing. When the rate of change is combined with the ACCESS-DISPARITY dimensions each country position can then be evaluated both with respect to their place in the taxonomy and in terms of how fast they are moving towards the goals of UPE and of Gender Equality.

With the addition of the RATE of change dimension to the ACCESS-DISPARITY taxonomy, progress can be described in terms of changes from one place in the taxonomy to another place (comparing among countries) and also as changes occurring (within a country) at different velocities. The former is more useful for assessing a country's position in relation to an objective norm; the latter is more useful for assessing a country's level of effort to improve ACCESS or decrease DISPARITY from its original starting point.

IV.C.1. Changes in ACCESS and DISPARITY in the relation to a predefined norm.

The information on table 21 only presents information on the number of countries that have moved from one category of the taxonomy to another. It does not include the dimension of rate of change which will be introduced later on in the analysis.

TABLE 21

Changes in ACCESS and DISPARITY between

1975 and 1983/84

		1975					Total
		HA-HD	HA-LD	LA-HD	LA-LD	n/d	
1983/	HA-HD	3	0	4	0	0	7
	HA-LD	4	21	1	1	5	32
1984	LA-HD	1	0	11	1	0	13
	LA-LD	0	1	4	1	0	6
	n/d	0	2	0	0	3	5
Total		8	24	20	3	8	63

 Source: Charts 7 and 8 in Appendix.

According to table 21, between 1975 and 1983/84 four of the sixteen hypothetical scenarios did not take place in the sample of countries included in the database. These four scenarios are: simultaneous reduction in access and disparity from an initial situation of higher access and high disparity; increase in disparity from an initial situation of higher access and lower disparity; reduce access and increase disparity from an initial situation of higher access and lower disparity; increase both access and disparity from an initial situation of low access and high disparity (i.e. scenarios four, five, seven and thirteen). Also table 21 shows that there are 36 countries that have not changed their position in the classification between the two time periods. Of these 36 countries, the majority (21) were in the higher ACCESS/lower DISPARITY (HA-LD) category in 1975; most (11) of the remaining countries were in the low ACCESS/high DISPARITY (LA-HD) category.

Of the eight countries in the higher ACCESS/high DISPARITY

(HA-HD) category in 1975, three did not change status, four improved female access, maintaining higher ACCESS while moving to lower DISPARITY (HA-LD), and one, Bangladesh, experienced a deterioration of its level of general access to education while maintaining high DISPARITY (LA-HD). Out of the 24 countries that had higher ACCESS/lower DISPARITY (HA-LD) in 1975, only one, Ghana moved to a different category (LA-LD), having experienced a reduction in the indicator of general access to education that put the country under the 70% GER limit. Of the 20 countries categorized as low ACCESS/high DISPARITY (LA-HD) in 1975, ten remained in the same category, two showed an improvement in access that put them over the 70% GER limit and in the groups of countries classified as having higher ACCESS/high DISPARITY (HA-HD). One country, Oman, experienced an improvement in both indicators, moving to the higher ACCESS/lower DISPARITY (HA-LD) category, and four improved the relative access of women to education, moving into the lower DISPARITY (LA-LD) category, without improving their general access to education. In the group of countries that in 1975 had low ACCESS/lower DISPARITY (LA-LD), the group with the fewest number of cases, one country moved to the category of higher ACCESS/lower DISPARITY (HA-LD), indicating progress in terms of improved general access to education. Another country moved from lower to high DISPARITY (LA-HD), implying a deterioration in the relative access of women to education.

Chart 17 in the Appendix, Change in the ACCESS-DISPARITY Status of the Countries between 1975 and 1983, arranges the same countries represented in Charts 7 and 8 according to their High or Low status in ACCESS and DISPARITY in each year. Chart 17 presents the ACCESS and DISPARITY data for each country in such a manner that shifts in categories between the two time periods can be quickly recognized. If the countries in which no such changes occurred are eliminated, then specific patterns of improvement or deterioration can be isolated. Table twenty two presents the countries that experienced a change in categories between 1975 and 1983/84 and describes the types of shifts in ACCESS and DISPARITY which happened in those countries.

TABLE 22

Classification of Countries According to Improvement or Deterioration in the Indicator of ACCESS and DISPARITY

	1975	1983/84
1: Countries that Improved ACCESS:		
Morocco	LA-HD	HA-HD
Nepal	LA-HD	HA-HD
Guatemala	LA-LD	HA-LD
2: Countries that Reduced DISPARITY:		
Egypt	HA-HD	HA-LD
Zaire	HA-HD	HA-LD
Mozambique	HA-HD	HA-LD
Tunisia	HA-HD	HA-LD
Sudan	LA-HD	LA-LD
Malawi	LA-HD	LA-LD
Sierra Leone	LA-HD	LA-LD
Uganda	LA-HD	LA-LD

3: Countries that Improved ACCESS and Reduced DISPARITY:		
Oman	LA-HD	HA-LD
4: Countries that Reduced ACCESS:		
El Salvador	HA-LD	LA-LD
Bangladesh	HA-HD	LA-HD
5: Countries that Increased DISPARITY:		
Senegal	LA-LD	LA-HD

IV.C.2. Countries' Level of Effort to Improve ACCESS or Decrease DISPARITY.

As we said before, the ACCESS-DISPARITY framework is a useful analytical system to assess the situation of countries with respect to a predefined minimum standard, it does not, however, provide a fair picture of how much a country has improved its relative situation over time. For example, according to our definitions, a country that experienced an increase in its GER from 29% in 1975 to 67% in 1983 (such as the Yemen Arab Republic) remains classified in the LOW ACCESS group. This classification puts Yemen in the same group as Mali, which started with a very low GER of 24% and experienced no improvement in the same period of time.

There is then a need to have another dimension in the framework that captures changes that occur over a period of time in ACCESS and/or in DISPARITY. A simple and easy to understand indicator that serves this purpose is the annual growth rate. The annual growth rate is an indicator of the speed to which opportunities for education and disparity have moved. In the case

of ACCESS this rate is an average of how much has the GER increased from year to year over a period of time. In the case of DISPARITY it indicates how much the ratio of female GER to male GER has decreased from year to year.

Table 23 presents the annual growth rate of total gross enrollment ratio (ACCESS), of male and female GER, and of the DISPARITY index for the four base groups of our analytical framework. These figures show that ACCESS increased in almost all the countries in the database between 1975 and 1983-84, and that DISPARITY went down. They also show that in the majority of the countries the female GER increased faster than the male GER.

There are, however, some exemptions to the general trend of expansion of ACCESS. A few higher ACCESS countries, as well as in two low ACCESS countries, saw their GER reduced from year to year. It is very likely that the reduction observed in the higher ACCESS countries was to a decrease on the number of overage students that were enrolled in primary education, rather than by a real decline in overall ACCESS. In the case of both Somalia where the GER went down at an average rate of 9.6% (from 56% in 1975 to 25% in 1983) and of Guinea Bissau where the GER declined 0.4% annually (from 64% in 1975 to 62% in 1983) the reduction can only be explained as a combination of factors that lead to incapacity of the country to keep up with the pressures of population growth, and to failure to retain the student

already in the school system and to attract new one.

As expected, the countries with the highest annual growth rate in GER were countries with low ACCESS in 1975, such as Yemen (11% annual growth rate), Mauritania (9.9%), Burundi (9.3%), Gambia (9.2%), and Burkina Fasso (6.8%). It is true that these countries can have a higher rate of increase because they have more room for improvement than countries in the higher ACCESS group, but it is worth to point out that not all the countries in the bottom part of the scale expanded their ACCESS as fast as this group of countries. Another country that deserve special attention is Zimbabwe which achieved a very high annual rate of growth in its GER (6.7%) in spite of the fact that it had already an initial high starting point in 1975. Of the countries of the database Zimbabwe is perhaps the country that is in the top in terms of effort to achieve the goal of universal primary education.

There is not a one to one relationship between being classified in the low ACCESS group in 1975 and having a high annual growth rate in the GER indicator. There are countries in the low ACCESS group that did not expand or expand very little their educational opportunities in the last ten years. Together with Somalia and Guinea Bissau, that were mentioned earlier, these countries are: Mali whose GER in 1984 was 24%, the same as in 1975; Chad that increased ACCESS by only three percent from

35% to 38%; Pakistan with an expansion of only one percent from 41% to 42%; and Sudan which increased ACCESS by two percent from 47% to 49%.

In the majority of the countries the female gross enrollment ratio grew at a faster rate than the male GER. As a consequence, DISPARITY went down in almost all the 70 countries included in the database. The countries with the fastest increase in female GER belonged to the low ACCESS and high DISPARITY group in 1975. However, despite the growth rate in the female GER these countries did not move to the category of low DISPARITY, which means that men access to education still outnumber by a significant margin female access to education. Lets examine the case of Yemen where female GER grew at an annual rate of 15.4% while male GER grew at a rate of 10.6%. In Yemen, the rate of growth of GER by gender hide the fact that by 1983 the female GER (22%) was still far behind the male GER (112%), and that the level of participation of women into primary education was still below the level that men had almost ten years ago. Another example is Nepal where female GER grew at a rate of 13.2% annually while male GER grew at a rate of only 1.9%, however in 1983 the female GER was 43%, less than half the male GER (100%) and exactly a half of the GER that men had ten years ago (86%). A third example is the case of Mauritania where female GER grew at an annual rate of 12% while male GER expanded at an annual rate of 9.4%, but where the female GER in 1982 was 16% lower than

the male GER (29% versus 45%) and only 5% higher than what male had achieved in 1975.

There is only one country that had both male and female GER move from below 70% to above 70%, and that, at the same time, show a much higher annual growth rate of female GER (13%) than of male GER (4.4%). This country is Oman. Another important characteristic of this country is that the speed of reduction in DISPARITY is similar to that observed in countries that in 1975 were in the lower DISPARITY group.

Table 23

Disparity Country	Access-Disparity		Annual Growth Rate on Gross Enrollment Ratios			
	1975	1984	Total	Male	Female	Index

India	HA-HD	HA-HD	1.33	1.13	1.66	
-1.11						
Central African Rep	HA-HD	HA-HD	0.19	0.29	0.00	
0.33						
Togo	HA-HD	HA-HD	-0.23	-1.07	1.09	
-2.95						
Tunisia	HA-HD	HA-LD	2.01	1.01	3.36	
-6.83						
Egypt	HA-HD	HA-LD	1.43	0.69	2.31	
-4.05						
Zaire	HA-HD	HA-LD	0.00	-0.54	0.93	
-3.53						
Mozambique	HA-HD	HA-LD	-3.57	-4.25	-2.92	
-3.42						
Bangladesh	HA-HD	LA-LD	-1.94	-3.01	-0.20	
-4.72						

Equatorial Guinea	HA	HA	3.35			
Dominican Republic	HA	HA-LD	0.93			
Peru	HA	HA-LD	0.77			
Turkey	HA	HA-LD	0.50	0.00	0.00	
0.00						
Philippines	HA	HA-LD	0.00			
Burma	HA-LD	HA	2.31			
Thailand	HA-LD	HA	1.97			
Zimbabwe	HA-LD	HA-LD	6.71	6.13	7.36	
-9.93						
Indonesia	HA-LD	HA-LD	3.58	2.85	4.51	
-14.55						
Sri Lanka	HA-LD	HA-LD	3.29	2.93	3.52	
-8.70						
Botswana	HA-LD	HA-LD	3.24	3.76	2.79	
-6.81						
Madagascar	HA-LD	HA-LD	1.92	0.74	3.44	
-15.55						

Ecuador (down)	HA-LD	HA-LD	1.96	1.61	2.11
Honduras -12.82	HA-LD	HA-LD	1.65	1.53	1.80
Swaziland -5.60	HA-LD	HA-LD	1.28	1.27	1.41
Jamaica -1.10	HA-LD	HA-LD	1.12	1.12	1.10
Cameroon -1.89	HA-LD	HA-LD	1.10	0.80	1.22
Bolivia -5.55	HA-LD	HA-LD	0.76	0.23	1.25
Lesotho -3.98	HA-LD	HA-LD	0.70	1.37	0.30
Zambia -6.42	HA-LD	HA-LD	0.38	0.00	0.96
Kenya -8.58	HA-LD	HA-LD	0.23	-0.22	0.86
Israel 8.91	HA-LD	HA-LD	0.13	0.13	0.26
Mauritius -7.12	HA-LD	HA-LD	-0.10	-0.31	0.00
Fiji (up)	HA-LD	HA-LD	-0.49	-0.39	-0.59
Costa Rica 0.64	HA-LD	HA-LD	-0.64	-0.63	-0.65
El Salvador -6.41	HA-LD	HA-LD	-0.76	-1.07	-0.62
Panama 0.90	HA-LD	HA-LD	-0.91	-0.89	-0.94
Cape Verde -4.53	HA-LD	HA-LD	-1.59	-1.74	-1.42
Ghana -0.59	HA-LD	LA-LD	-0.64	-0.71	-0.55

Disparity Country	Access-Disparity		Annual Growth Rate on Gross Enrollment Ratios			
	1975	1984	Total	Male	Female	Index

Haiti	LA	HA-LD	3.00			
Gambia	LA-HD	HA-HD	9.22	8.41	11.29	
-3.05						
Nepal	LA-HD	HA-HD	4.58	1.90	13.15	
-4.36						
Morocco	LA-HD	HA-HD	2.87	2.45	3.62	
-1.75						
Liberia	LA-HD	HA-HD	2.46	3.50	4.84	
-1.78						
Oman	LA-HD	HA-LD	7.31	4.42	12.98	
-10.60						
Yemen	LA-HD	LA-HD	11.03	10.61	15.39	
-0.84						
Mauritania	LA-HD	LA-HD	9.99	9.40	12.14	
-3.56						
Burundi	LA-HD	LA-HD	9.31	8.43	9.97	
-2.59						
Burkina Faso	LA-HD	LA-HD	6.83	6.50	6.97	
-0.62						
Niger	LA-HD	LA-HD	5.13	5.26	5.22	
0.04						
Guinea	LA-HD	LA-HD	1.91	2.25	1.18	
0.97						
Chad	LA-HD	LA-HD	0.92	0.84	1.73	
-0.51						
Pakistan	LA-HD	LA-HD	0.30	-0.45	1.87	
-2.21						
Mali	LA-HD	LA-HD	0.00	-0.80	0.00	
-0.98						
Guinea Bissau	LA-HD	LA-HD	-0.40	-0.86	0.32	
-0.98						
Somalia	LA-HD	LA-HD	-9.59	-9.80	-9.50	
-0.41						
Sierra Leone	LA-HD	LA-LD	5.83	5.42	6.94	
-2.91						
Uganda	LA-HD	LA-LD	3.51	2.78	4.56	
-4.13						
Malawi	LA-HD	LA-LD	0.94	0.00	2.09	

-4.41					
Sudan	LA-HD	LA-LD	0.52	-0.43	2.37
-5.02					

Guatemala	LA-LD	HA-LD	2.20	1.87	2.42
-2.89					
Senegal	LA-LD	LA-HD	3.32	3.60	2.91
1.49					
Rwanda	LA-LD	LA-LD	1.28	0.60	2.05
-11.36					

The group of countries that were in the higher ACCESS/lower DISPARITY group in 1975 had the highest annual percent reduction in DISPARITY between 1975 and 1983/84. This is explained by the high participation rate that men had at the beginning of the period, leaving little room for any further improvement in this group, therefore almost any increase in access can only take place by an increase in women's access. The countries that in 1975 were in the lower DISPARITY group had an average annual reduction in disparity of 5.32 percent between 1975 and 1983/84, while the countries that were in the high DISPARITY group had an average annual reduction of 2.7 percent. The majority of the countries in the high DISPARITY group in 1975 had also a low level of male access, therefore there was still room open to continue with the expansion of men participation in education. This is the reason why despite that women's access increased at a faster rate than men the disparity between female and male was

not reduced at a faster speed as in the case of the countries that were in the lower DISPARITY group. It will required an even faster grow of female participation in education, than the one observed between 1975 and 1983/84, to achieve a more rapid reduction in disparity.

Another way to examine the data to answer the question of how much had female opportunities to education increased on the last ten years, is to compare where are women now to where were men ten years ago. The data in the database show that 37 out of 54 countries (i.e. almost 70%) had female participation rates in 1983/84 that were under the level that men had achieved in 1975. These 54 countries are all the countries for which data was available on male and female GER for 1975 as well as 1983/84. This finding shows that after ten years of the international acknowledgment that female access to education is one of the preconditions for development (Mexico 1975; International Conference on Women in Development), and after ten years of the call to governments to increase female access to primary education, women still do not even reach the level of access that men had ten years before. An indication that despite the progress achieved by some countries, there is still much that needs to be done to speed up the process.

IV.C.3. Relationship of the ACCESS-DISPARITY Taxonomy to other Socioeconomic Indicators.

The ACCESS-DISPARITY framework allows countries to be grouped in terms of common educational profiles; these groups of countries can then be compared for other educational or socio-economic similarities. An important area for such analysis lies in the relationship between groups of countries with similar ACCESS-DISPARITY patterns in primary education and indicators of participation in secondary or higher education and proportions of women found in secondary or higher education. The expectation is generally that the levels of an educational system will be similar, countries with relatively higher access to primary education, for example, also having relatively higher access to secondary and higher educations. This need not be the case nor is there reason to assume that a country in which a high percentage of women attend primary school will also have a high percentage of women enrolled on other levels of the system, as women might not have any incentive to continue with education if job opportunities do not exist for them after completing their education.

An analysis of the GER and proportion of women in secondary education indicates that countries which have higher ACCESS and lower DISPARITY (HA-LD) in primary education have the highest GER in secondary education. There is not, however, much difference in secondary education GERs between countries that have low ACCESS and lower DISPARITY (LA-LD) and countries with low ACCESS and high DISPARITY (LA-HD) in primary education. In both of

these groups the average GER for secondary education is close to 12%, as compared to an average GER of 40% for countries that have higher ACCESS and lower DISPARITY (HA-LD) in primary education.

The countries with higher ACCESS and lower DISPARITY (HA-LD) in primary education are also the countries that have a high proportion of female enrollment in secondary education, 87 female student for every 100 male students. The countries with high DISPARITY in primary education are the countries with the lowest proportion of female to male enrollment in secondary education, regardless of ACCESS level in primary school or GER in secondary school. In these countries there are only from 42 to 47 women enrolled in secondary education for every 100 males enrolled.

TABLE 24

Average Gross Enrollment Ratios in Secondary Education according to Disparity Index: 1983

DISPARITY in Primary School	ACCESS in Primary School		
	Higher	Low	Total
High	29.7	12.3	17.3
Lower	40.0	12.3	36.9
Total	38.3	11.9	30.8

TABLE 25

Average Proportion of Female to Male Enrollments in Secondary Education according to Disparity Index: 1983

DISPARITY in Primary School	ACCESS in Primary School		
	Higher	Low	Total
High	.47	.42	.44
Lower	.87	.62	.84
Total	.83	.48	.73

The average GER in higher education are much lower than the GERs in secondary education for all patterns of ACCESS-DISPARITY. Again, the countries with higher ACCESS and lower DISPARITY (HA-LD) in primary education are the countries with the largest GERs in higher education. In higher education the group of countries with low ACCESS and high DISPARITY (LA-HD) are the countries with the lowest GERs in higher education.

The countries with the highest proportion of women compared to men enrolled in higher education, averaging 71 women for every 100 men, are the countries that have higher ACCESS and lower DISPARITY in primary education. The countries with the lowest proportion of women, averaging 27 women for every 100 men, are the countries that have high DISPARITY in primary education regardless of their level of ACCESS.

TABLE 26

Average Gross Enrollment Ratios in Higher Education
according to Disparity Index: 1983

DISPARITY in Primary School	ACCESS in Primary School		
	Higher	Low	Total
High	4.4	2.1	2.9
Lower	10.5	8.2	10.1
Total	9.9	4.4	8.3

TABLE 27

Average Proportion of Female to Male Enrollments in
Higher Education according to Disparity Index; 1983

DISPARITY in Primary School	ACCESS in Primary School		
	Higher	Low	Total
High	.27	.28	.28
Lower	.71	.48	.67
Total	.62	.37	.55

It is apparent from the previous data that primary education is a good predictor of both GERs and the proportion of women in secondary and higher education. It is more likely that a country with low ACCESS in primary education will have a lower GER in secondary and higher education than a country with higher ACCESS to primary education. It is also more likely that a country with lower DISPARITY in primary education will have a higher proportion of women in secondary and higher education than a country with high DISPARITY in primary education.

Trends related to other socio-economic indicators can also be revealed by grouping countries according to their Disparity index. A series of interesting relationships between the ACCESS-DISPARITY framework and expenditures on education are indicated in Charts 18 to 20 in the Appendix. Countries with higher ACCESS spend a higher proportion of their GNP (4.0%) on their educational systems than do countries with low ACCESS (2.7%). There is a small difference in the proportion of the GNP allocated to education between high DISPARITY (3.8%) and lower DISPARITY (3.5%) countries. As a group the countries with higher ACCESS and high DISPARITY spent the highest proportion of their GNP on education. However, within the higher ACCESS and lower DISPARITY group there are some countries which allocate more than 6% of their GNP to education and even one country, Zimbabwe, that spends 8% of its GNP on education. Within the group of low

ACCESS and high DISPARITY countries there is one country that allocated to education at the same rate as higher ACCESS countries, Mauritania which spent 7.4% of its GNP on education. None of the other low ACCESS and high DISPARITY countries spent more than 3.5% on education, being the countries which allocated the smallest proportion of their GNP to education.

Countries with low ACCESS tend to allocate a higher proportion of their government expenditures to education than do higher ACCESS countries. The countries with high DISPARITY are the countries that spend the highest proportion of their government expenditures on education. Once again, the group of countries with higher ACCESS and high DISPARITY are the countries which allocate the highest proportion of their government expenditures to education. However, caution should be used in drawing conclusions from these figures due to the number of countries that did not report information about this indicator.

The data in Charts 18 to 20 also indicate that higher ACCESS countries put a higher priority on primary education relative to secondary or higher education than do low ACCESS countries. The same is true for lower DISPARITY countries when compared to high DISPARITY countries. The proportion of expenditures on education that goes to primary education in higher ACCESS countries is 47%, compared to 40% in low ACCESS countries. The proportion that

goes to primary education within the lower DISPARITY countries is 46%, compared to 41% in high DISPARITY countries. Low ACCESS countries allocate proportionally more money to secondary education, 28%, than do higher ACCESS countries, 26%, and also allocate relatively less to higher education, 21% compared to 17%.

Finally, the analysis of the socio-economic characteristics of the countries grouped by the variables of ACCESS and DISPARITY shows that countries with higher ACCESS have a higher GNP per capita, a lower proportion of rural population, and lower fertility and infant mortality rates than countries with low ACCESS. Within the countries with higher ACCESS, the countries with lower DISPARITY have a larger GNP per capita, lower fertility rates, and significantly lower infant mortality rates than countries with high DISPARITY. Within the group of countries with low ACCESS, the countries with high DISPARITY have a GNP per capita, US\$ 298, that is slightly larger than that of countries with lower DISPARITY, US\$ 266, and a fertility rate that is a little smaller, 6.4 compared to 6.8. The lower DISPARITY countries have lower infant mortality rates, 121.2, than the high DISPARITY countries, 135.3.

V. Case Studies

V.A. Methodology

As already mentioned, a number of problems were encountered with the data used in the construction of the database. The statistics gathered by each country's government varied in their reliability and validity and there was no means for evaluating the degree of accuracy based on the data alone. Also, due to variation among the countries in the ages of students enrolled and duration of each level in their educational system, the data available from different countries were not necessarily comparable. In addition to these inadequacies, the data were often incomplete, figures only being available for a portion of the variables used in the database. Even when data were available for all of the measurements included in the database, there were many unreported factors for which it would have been important to have information.

Because of the problems of incompleteness, incompatibility, and inadequacy in the quantitative data used in the construction of the database, a better understanding of the context within which the data were collected is needed. Without qualitative data to support the statistics, questions of interpretation also emerge. For example, it is difficult to estimate the degree to which similar patterns of changes in ACCESS and DISPARITY in different countries can be interpreted as meaning the same thing.

On the other hand, comparative information about the contexts within which different patterns of ACCESS and DISPARITY have occurred provides a means for generating hypotheses about what factors might play a significant role in promoting or hindering change. In addition, qualitative information, which provides the reasons behind the statistics used in the database, allows an evaluation of the effectiveness of the quantitative database as a tool for understanding women's access to education.

For these reasons more detailed studies of five of the countries included in the database were undertaken. The initial objectives included an attempt to evaluate and augment the information in the database, investigating how statistics about the educational system had been gathered and securing additional data relevant to the variables. Given the short time available for each of these case studies, the most accessible and direct factors which could be investigated for impact on women's enrollment were seen as the policies related to the issue that had been enacted in each country. Beyond the government's role, the actual experiences of women within those educational systems and the beliefs, values, and traditional roles which influenced women's access to education were seen as the most important items of information to collect.

The interrelationship between the analysis of the information in the database and the case studies is evident in

the manner by which the countries to be studied were selected. Rather than a random selection or choosing a representative from each region, the countries were chosen because of the pattern of ACCESS and DISPARITY variables which had been established. The five countries and their ACCESS/DISPARITY patterns are:

TABLE 28
Evolution of the Gross Enrollment Ratios and Disparity Index for the Five Selected Countries

Country	1975		1983/84	
	GER	DISPARITY	GER	DISPARITY
Mali	24	0.47	24	0.43
Yemen	29	0.86	67	0.80
Nepal	51	0.81	73	0.57
Sri Lanka	77	0.09	103	0.04
Indonesia	86	0.17	118	0.04

Source: Charts 7 and 8 in Appendix.

The five cases include one country, Mali, in which access to education has remained very low from 1975 to 1983/84 and women's access to education relative to men's has improved very little. The sample also includes two other countries, Yemen and Nepal, in which access to education in general has improved, but female enrollment relative to male enrollment has not. One of these countries, Yemen, experienced a dramatic increase in gross enrollment ratios, but only a modest reduction in the disparity between female and male participation in education. This is an important example because it offers an opportunity to investigate the hypothesis that women are the beneficiaries of a general expansion in the education system. The remaining two countries

studied, Indonesia and Sri Lanka, have both improved their access to education in general, while, at the same time reduced the disparity between male and female enrollments. Their success invites questions about how it had been achieved, while the comparison of such dissimilar countries allows the interaction between factors assumed to influence access and cultural contexts to be examined and evaluated.

The countries studied differ not only in their educational profile, but also in their achievements in terms of other socio-economic indicators. The countries with the lowest access and the highest disparity levels are the countries with the highest total fertility rates and the highest infant mortality rates. The country with the lowest disparity in 1975, Sri Lanka, had the lowest total fertility rate and also the lowest infant mortality rate.

TABLE 29
Basic Socioeconomic Indicators for Five Selected Countries: 1985

	GNP (US\$)	Tot Fert Rate	Inf Mort Rate (.000)
Mali	150	6.5	175.0
Yemen	550	6.8	149.9
Nepal	160	6.3	133.3
Sri Lanka	380	3.1	26.8
Indonesia	530	3.9	89.3

Source: Charts 4 and 5 in Appendix.

The underlying scheme dictating what data would be sought in each country was provided by the role that the case studies were seen as playing in the total research project. Data was collected with the objectives of:

- augmenting and evaluating the quantitative data used in the database
- supplying the meanings behind the statistics and offering interpretations of why things have happened as they have
- allowing comparison on a deeper level than the incompleteness and inadequacy of presently available data will permit
- isolating similar factors in dissimilar contexts and dissimilar factors in similar contexts
- examining the role of policies related to access to education which have been enacted by government's
- learning about new policies to increase women's access that governments are implementing or are planning to implement

The significance of context is evident in the fact that strictly comparable bits of information cannot be expected for each case study. Factors which played a major role in the evolution of the educational system in one country might be totally absent in another. In some countries the short duration of the research was adequate to secure a great deal of information relevant to one, two, or even all of these aspects; in others the information available was rich in some aspects but meager in others.

V.B. Data Sources

In order to secure information about these aspects of women's access to education in each country within relatively short time periods, specific sources of information were targeted. Government offices responsible for census data and school statistics were visited to gather additional data and to investigate the data collection techniques which had been used. Talks were also scheduled with government policy makers. One method for securing a great deal of information rapidly, involved contacting any researchers in the country who were currently involved in collecting and analyzing relevant data. Visits to schools and conversations with headmasters and teachers provided more direct information about the educational system. Direct information about women's educational experiences was obtained through interviews with women who had moved through the school system of their country. The sources in each country were not strictly comparable as different types of informants were available in each context.

V.C. MALI

V.C.1. Background

Mali is a landlocked country covering 1,240,000 square kilometers of arid or semi-arid desert, that is contained by Algeria to the north, Niger to the east and Senegal and Mauritania to the west; the Ivory Coast to the south is the most prosperous of these Francophone countries. Sixty percent of Mali's land mass is classified as desert, 10% of which is under agricultural production. A limited area, only about 11% of the existing surface area, is capable of sustaining some form of cultivation. Mali's principal food crops are cereals such as rice, maize, sorghum and millet. Her main cash crop is cotton, which accounts for 50% of all export earnings. However, these earnings were seriously depleted by two recent bouts of severe drought which affected the Sahalian region from 1973-1978 and, more recently, during the 1983-1985 period.

Mali's population is 8,232,000 people, 78% of whom live and work in rural areas. Its rapidly expanding population was estimated at having an annual growth rate of about 2.8% in 1986. Forty four percent of Mali's current population is below 15 years of age, while an estimated 20% are under the age of five. Forty eight percent of the population earn their living in the agricultural sector. Fifteen percent are employed in the industrial sector which consists mainly of the mining, building and energy industries. Of this group, about 37% are employed in

business, administration, and other service-related occupations. With a per capita income of only US\$150 per year, Mali is classified by the World Bank as one of the world's ten poorest countries. A corollary of low per capita income is an average food intake of about 2100 calories per day per person. Only about 23% of the population have regular access to a fresh water supply while only 15% of the population have access to health services. Consequently, the infant mortality rate runs at a high level of about 175 deaths per thousand births (1987). Average life expectancy is only about 46 years. Male life expectancy is about 47 years, while that for females is about 49 years (1984).

The history of the Saharo-Sudanese zone that encompasses much of what is now the modern nation-state of Mali is complex and turbulent. During the Middle Ages, a succession of powerful African kingdoms influenced the cultural and economic growth of the region. One of the most impressive and influential empires to leave a mark in this area was the 16th-century Empire of Ghana, which was later superceded by the kingdom of Goa. Under the Empire of Ghana, vast areas of difficult-to-access semi-arid desert lands were brought under the control of a single feudal ruler.

In the 17th and 18th centuries, the dominant influence in this area was exerted by the powerful Empire of Mali, after which the present independent state was named. Under Malian hegemony

the region developed a rich trade in gold and agricultural produce with the Maghreb, rulers of the powerful Arab-African kingdoms to the north. The same period saw the penetration of Islam and the consequent establishment of a military elite who shared power with a growing merchant class. Out of the militarization of Malian society in the 18th century grew the practice of taking slaves as a reward for prowess in battle against neighboring tribes. Together with the strong trade links with the Maghreb, among whom slavery was well established, this practice helped to institutionalize slavery in Mali and later contributed to the social and cultural destruction of the victimized local communities. However, slavery also brought with it the Moslem religion, reading and writing, and the wearing of clothing. The opening trade links with the desert coast to the north heightened the demand for agricultural produce and locally-made crafts (Meillasoux, 1986).

By the middle of the 16th century the practice of slavery, which up until then had been the sole preserve of the military elite, began to be practiced widely by feuding local communities throughout the region. The forced breakup of families through slavery scattered communities, divided tribes and generally turned the relatively stable Malian society into a vulnerable and less cohesive whole. A growing elite of local landowners and merchants bought and sold slaves, captured in the hinterland, for use as cheap labor on their prospering estates. Trade with

Europe began late in the 18th century and increased the demand for slaves. Male slaves were exported to Europe and eventually to the New World, where they were exchanged for weapons and ammunition. Female slaves were bartered inland as cheap labor for the expanding agricultural market. The scars left by slavery's ravages are still being felt in modern Mali, where women and children are still perceived as a convenient source of cheap labor.

With the arrival of the French and the eventual abolition of slavery, freed slaves were put to work on commercial plantations that produced cotton and cereals for exportation. The expansion of the French colonial period at the end of the 19th century brought military pacification of the region. Forts were built and manned by the French Foreign Legion; a railway was constructed to integrate a vast hinterland from Dakar in the west to Niger in the east. French rule brought with it cultural dominance, external economic controls and an authoritarian administration.

When Mali gained its independence from the French in 1960 the country had a highly centralized administrative infrastructure which largely served a small elite in Bamako, the capital. The few Francophone European schools which existed were concentrated in and around the capital and access to formal Western education was restricted mainly to Europeans and a small assimilated African elite. The majority of the indigenous

population, especially in the rural areas, could only receive a basic education through the Medersas schools, privately operated Islamic schools, where they learned how to read and write in Arabic. Partly to ward off the growing demands for independence from an increasingly restive and assertive local population, the French rapidly expanded access to their formal education system from 1959 until independence. Upon gaining independence in 1962, a strong nationalist party (USRDA) with socialist aspirations emerged, and produced the first attempts at planning the provision of social services using a centralized planning model. For the first time, the concepts of state control, nationalized industry and cooperative production in rural areas were introduced in an attempt to address the long-standing inequalities within Malian society.

V.C.2. History of the Educational System

Despite the lack of universal access to education in Mali during most of the colonial era, the period on record showing the most dramatic increase in school enrollments was that from 1959 to 1963. During this period, formal school attendance jumped from 54,000 to about 125,000. However, from 1964 the rate of school enrollment began to decline, due in part to an acute shortage of qualified teachers and a lack of school facilities (UNICEF, 1987). By 1973, the rate of increase in school enrollment was 4.3% per annum, while population was growing at an unprecedented rate of 2.5% per annum. During the 1970's

school enrollments increased at the appreciable rate of roughly 10-20% per annum, but began to decline by 1978. With school enrollments stagnating and the school-age population steadily increasing, supply was unable to meet the growing demand for schooling especially in the urban areas. The less politically influential rural areas continued to be neglected even under a reform-minded socialist government. In fact, net overall attendance levels dropped from 18% in 1983 to 15.5% in 1986 for the 5-14 age group. Enrollment levels for the primary level (grades 1-6) have not increased for six years. A lack of accurate statistical information inhibits a more insightful assessment of the situation. Comparative data highlighting the disparities between the urban and rural sectors are also not available.

For the second cycle in the educational system (grades 7-9), net enrollments fell below 15% after 1979. Only in the capital, Bamako, have enrollment levels been consistently maintained. This may be explained by evidence provided by informants that seems to suggest that in the more modernized urban capital, parents are more willing to invest time and scarce family resources to provide their children with a basic formal education. In Bamako, Mali's only modern job market, formal education is perceived to be more useful for gaining employment; the schools that exist are better equipped with educational facilities and trained teachers.

Mali's Westernized education system is patterned on the French model left by the departing colonial administration. The post-independence educational reform of 1962 made primary, or "fundamental education" compulsory for both boys and girls nationwide. A mass-education model was chosen by the incumbent socialist government; human-capital development was considered to be of top priority in helping Mali cope with the demands of independence and national self-sufficiency.

At the primary level, nine years were set aside to provide Malian children with a basic education. The nine-year cycle was divided into two spans, six years for the first level, and three years for the second. This basic, or "fundamental" education begins for the average child at seven or eight years of age. Secondary education is divided into two separate tracks. For those who do well on the Primary School Leavers' Examination, entry into a Lycee, an academic high school, may provide eventual access to higher education. Those less successful have access to technical and professional secondary schools which do not, as a rule, provide graduates with the opportunity to continue at a higher level.

Mali's few institutions of higher learning are located in Bamako; they consist of "les Grandes Ecoles" and other professional institutes of higher learning. Mali does not yet have its own multidisciplinary university. Pedagogy and the

preparation of Mali's secondary and higher level teaching force, for example, are the sole responsibility of the "Institute Pedagogique National" in Bamako. Teachers must pursue four years of training before they are allowed to teach at the secondary or higher education level.

Primary-teacher training in Mali is carried out in two distinctive types of state-financed institutions. Teachers who are being prepared for teaching at the primary level (grades 1-6) are trained in four State Colleges (IPEG) in Bamako, Kayes, Sikasso and Dire. In 1985 there were only 504 teachers being trained at IPEG centers. This reduced number of trainees represents only about half of the total who were being trained in 1980. Second cycle teachers (grades 7-9) are trained at four ENSec centers in Badala, Banenkoro, San and Koutiala. In 1985 only 1465 teachers were being trained at the ENSECs which suggests a 40% drop from the numbers who were being trained during the 1982/83 period.

Medersas schools were first licenced by the colonial authorities to provide an alternative private system of education for the indigenous Moslem community, which comprises ninety percent of the population. These were, and are, privately funded and provide nine years of elementary education, divided into two cycles; they also prepare children to take the equivalent of the national Primary School Leavers Examination (CEP). In 1947,

there were about 10 registered Medersas throughout Mali. After 1975, and mainly in the south and other areas where the economy encouraged private expenditure on education, the Medersas schools flourished. By 1983, 370 Medersas were registered with 1344 teachers and an enrollment of about 60,000 children. Much of the money used to build these schools and provide facilities is being donated by rich Arab families and Arab leaders interested in promoting Islamic culture in Mali. Many of the trained teachers are from Egypt, or from the United Arab Emirates. The increase in enrollments in Medersas contrasts with the apparent stagnation in enrollments throughout the Malian national school system. 16% of Malian school-going children of both sexes are now enrolled in Mali's Medersas schools (UNICEF, 1987). Parents seem to prefer the Medersas because they promote Islamic religious and traditional values, in contrast to the alien French values and curriculum imposed by the state system. The success of the Medersas has forced the Malian government to recognize their contribution; the Minister of Education is in the process of trying to establish a separate inspectorate to supervise Mali's traditional, private-sector schools. So far, there has been a reluctance on the part of the state to give Medersas graduates the same level of certification as children graduating from the state-run primary school system.

Education in Mali is financed through the state budget, donations from international donors and agencies, and from

parental contributions. Very little change has occurred in the level of resources allocated to education by the state in recent years. Primary education accommodates about 90% of the school-going population yet still only gets about 47% of what is allocated to the education sector. Of this amount, 83% goes toward maintenance and recurrent expenditure, and only 16% to capital investment (UNICEF, 1987). 74% of what is allocated to teaching resources goes toward paying teachers' salaries, while 15% is spent on scholarships and grants to pupils. Only 11% is actually spent on the purchase of books and other essential educational resources. Currently 83% of the financial support given to the primary-school sector derives from international sources.

The World Bank estimated that the annual cost per pupil attending the first primary cycle in Mali in 1985 was 15,000 CFA, or US\$50. The cost per year of putting a child through the second cycle during the same period was 49,000 CFA, or US\$160 (World Bank, 1985). They suggest that the apparently high cost per pupil-year (for Malian standards) probably reflects the high level of repetition within the system. The high wastage of scarce resources produced by these inefficiencies bodes ill for the future of Mali's public sector education system.

In recent years parental contributions to supporting the educational system in Mali have increased dramatically. A survey

carried out by the Ministry of Education suggested that in many rural areas, and in some urban areas, parents are responsible for providing labor and funds for the construction of new classrooms, the maintenance of existing buildings, purchasing furniture, textbooks and exercise books, and providing dining facilities for their children. In return the state provides teachers' salaries. The state further exacts a national development tax from each parent, which is supposed to be channeled through the local Parent-Pupil Associations for spending on the construction and improvement of schools both in urban and rural areas. Currently each parent has to pay about 1,500 CFAs per child per year, into this fund (UNICEF, 1987). On top of all the other contributions they have to make to keep their local schools running, many parents find this tax burdensome. The World Bank estimates parental contributions to be in the region of 7% of the total costs of maintaining an educational system per annum. Table 30 compares this against other sources of financing.

TABLE 30
Sources of Finance for Mali's Education

State	55.0%
Foreign Aid	38.0%
Parental	7.0%

Distribution of the Education Budget

Primary Education	47.0%
Secondary Education	15.0%
Teacher Training	8.0%
Higher Education	21.0%
Literacy	0.5%

Source: Ministry of Education Statistics

The acute shortage of educational resources, including books, chalk, desks, chairs and other essential classroom materials, is a major cause for concern. In one area, Koulikoro, a recent survey revealed that over 50% of all pupils in the first cycle were without a book of any sort (World Bank, 1985). After the 4th grade only one out of six pupils had access to a mathematics book. In another survey recently taken in the Kayes region, it was discovered that the average class of forty pupils had access to only about 2.5 books. Out of 24 schools visited 7 had no books at all and 4 had no chalk. In the rural areas the absence of books is exacerbated by the almost total absence of desks and chairs. Many schools are open-air schools; if it were not for parental contributions, many schools would be without classrooms, furniture, kitchens and other basic facilities.

V.C.3. Current Participation and Opportunities

Contemporary Malian education is characterized by very low educational standards, a disproportionately low number of children accessing the system, and an apparently low level of efficiency as measured in terms of the limited numbers that graduate successfully from the system (UNICEF, 1987). Among the many factors contributing to this sad state of affairs are inadequate numbers of trained teachers, inappropriate curricula, poor teacher training, and the low socio-economic status of the average Malian family. When we add to this the state's inability

to provide sufficient resources to support the existing education system, and the average Malian parent's disenchantment with the French model of formal education, the search for ways to improve and expand formal education becomes problematic (World Bank, 1985).

Primary-school enrollments in the towns are almost double those of the rural areas. 35% of all children enrolled in the primary-education system come from the urban areas despite the fact that the urban areas contain less than 20% of the total population. Bamako, which encompasses only 9% of the total population, provides 20% of the nation's primary school places. If these statistics are broken down to show girls' access to primary education for both cycles, even greater inequalities between the large urban centers and the rural areas can be seen. Bamako provides 27% of all female first-cycle primary school places and 47% of all second-cycle female places. Because of the growing demand for primary school places in the capital, class size in Bamako averages 60 per class as compared to an average of 40 per class in most of the rest of the country (UNICEF, 1987).

Recently, new entrants coming into the primary level totalled about 50,000 pupils. Of these only about a quarter stayed to complete the seventh grade. 40% of all pupils at this level failed to gain promotion to the next grade. 30% repeated a year, while 10% dropped out of school altogether. The only

statistical data available for repetition and drop-out for the primary level are from the years 1980-81 and 1983-84. They are not, however, clearly disaggregated by gender.

TABLE 31
Repetition and Drop-Out Rates

		1980/81	1983/84
First Cycle	Repetition	30%	33%
	Drop-out	8%	10%
Second Cycle	Repetition	35%	33%
	Drop-out	14%	24%

Source: Ministry of Education, Educational Statistics

UNICEF's estimates of the drop-out rates contrast with the Ministry of Education's assessment; UNICEF claims that it takes an average of 23 pupil-years for the average entrant to get through the first six years of his/her primary education. The estimated pupil-years required to complete three years of the second cycle is about 13 pupil-years. Both of these estimates are based on calculations which take into consideration the excessively high repetition rates that have been observed at the primary level. The highest levels of dropout at the primary level seem to occur between the 3rd and 4th years of the first cycle, while the highest repetition rates occur at the 6th grade level. Statistics giving the number of children who successfully complete 6 years, or the first cycle of primary education, do not, unfortunately, exist. Many children drop out of school in Mali without completing their basic education. A large proportion

of ^R

female drop-outs complete only 4 years or less of their primary education. It is doubtful whether the majority leave with sufficient reading, writing and numeracy skills to place them in a competitive position for a job in Mali's limited job market. Accurate data showing how primary graduates fare in gaining employment in the limited job market do not yet exist.

VI.C.4. Disparity between Male and Female Access to Education

Literacy levels in Mali are among the lowest in Africa. At independence, 90% of Mali's population was classified illiterate. Today only 13% of Mali's adult population are functionally literate. Of this group, only 9% are urban women, and only 5% represent women living in the rural areas (UNICEF, 1987). A breakdown of urban and rural statistics estimates the illiteracy rate among rural dwellers at 92%, and that for the urban population at 64%. Illiteracy rates among women, both urban and rural, are dramatically higher. 91% of all Malian women have never received any kind of education and 72% living in the towns are illiterate; while 95% of women living in the rural areas are unable to read or write (1987). Unfortunately, the most up-to-date statistics on Malian literacy rates are still only those available from the 1976 census, or from difficult-to-access data collected by independent sources. No official literacy data from the 1987 census have so far been released.

At the primary-education level girls are disproportionately represented. In the primary level (grades 1-6) girls only represent 37% of the total enrollment (1986). In the second cycle (grades 7-9) girls represent only 31% of the total enrollment. By secondary school there is a further attrition in female enrollment to only 22% of the total (UNICEF, 1987). The highest enrollment rates for girls are found in Mopti (31%) and Bamako (47%). Both are large urban centers. The only other available set of data giving comprehensive enrollment rates by sex is for 1978-79. During this period enrollment into the first cycle of primary school by sex was 29% for boys and only 13% for girls. During the same period second-cycle enrollments showed a 6% level for boys and only 2% for girls. Gender bias in favor of boys is still most marked in the rural areas. In Bamako gender biases are least apparent. However, since little or no official statistical data can be found to lend more than intuitive support to these conclusions, independently-sponsored surveys are often the only way to ascertain what is happening in Mali's schools. An attempt below to give an historical view of what may be happening shows little or no change in female gross enrollment rates over a seven-year period, but does show a drop for males. The reason for the apparent improvement in 1980 in female enrollments is not clear, but may reflect a brief improvement in the national economic performance during that year. Informants have stressed the positive link between girls' access to education and the

economic well-being of the family.

TABLE 32
Gross Enrollment Rates by Gender for the Primary Level

Year	% Total Gross	% Male	% Female
1975	24	32	17
1980	25	32	18
1982	24	30	17

Source: WID Database.

TABLE 33
Female Enrollment at the First Cycle Primary Level.

Year	Total Enroll	Female Enrollment by Grade:					
		1	2	3	4	5	6
1970	72658	2403	18150	16716	12521	10852	7757
1983	107214	27848	21914	19206	15453	12792	10001

Source: WID Database.

The above female enrollments for grades 1-6 suggest a very high level of attrition commencing during the transition between grades one and two and continuing right through to the end of the primary level. This trend does not seem to have been ameliorated over the 13-year period shown above. If more recent data were available, informants suggest, the current female attrition rate would be even higher still. Some claim that the worsening economic situation is forcing parents to withdraw their daughters from school to help with domestic chores while both parents try to provide enough to keep the family alive.

The only statistics available on the number of female teachers undergoing training as primary teachers were recorded in 1975. The more recent 1982 totals do not give a breakdown by gender.

TABLE 34
Female Teachers Being Trained for the Primary Level

Year	Total in Training	Female	% of Total
1975	2567	452	17.61
1982	3870	n/d	n/d

Source: WID Database.

The total number of female teachers in Malian primary schools has always been low. Those who do manage to complete their teacher training prefer to seek employment in the cities and towns. High concentrations of female teachers in the urban areas give the false impression that a large proportion of Mali's primary teaching force is made up of women teachers.

TABLE 35
Number of Primary Schools and Numbers of Female Teachers

Year	Total # Pri Sch	Total # Teach	Female Teach	% Female Teach
1975	1063	6213	1148	18.48%
1980	1248	6862	1368	19.94%
1982	1301	7932	1598	20.15%

Source: WID Database.

V.C.5. Quality of the Data

Much of the data which is being used in Mali is deficient in that it is inaccessible, poorly organized, incomplete and collected

by poorly trained or untrained field staff who work for a variety of competing public-sector agencies, each collecting similar data separately. Little or no attempt has been made within the Ministries of Planning and Education, the two principal actors, to coordinate the data collection and analysis process. Discussions with officials in charge of data collection and analysis revealed that due to an acute shortage of public funds the data-collection process in Mali was now at a standstill. Currently no progress has been made in processing and analyzing the national census data which was collected in 1987. Seven tons of completed questionnaires are lying and rotting in Ministry warehouses while waiting to be processed. Apparently a lack of funds, trained personnel and computers to begin processing this has produced the delays. Much of the demographic and socio-economic data missing from our WID database will only be available after the 1987 census results are analyzed and published. This is unlikely to happen in the near future.

At the Ministry of Education the last full set of educational statistics, and the only complete set still in use, was collected during the 1976 census. Consequently all, or nearly all references made to Malian educational data refer back to that period. Some data is being collected, and has been collected, by international agencies like UNICEF and the World Bank, and any reference to educational data in recent years emanates from independent non-government sources; this is of necessity limited and does not have the breadth of scope required for the kind of data bank being proposed as part of this

scope of work. In fact, little or no Malian data is disaggregated by gender. Gender-disaggregated data of the kind needed here only began to be collected in a non-systematic way after 1983.

V.C.6. Explanations for Disparity

The observation that Malian politicians and voters do not think that the provision of more places in schools for girls is an urgent priority is contradicted by statistical and documentary evidence which suggests that the demand for formal education in the urban areas is growing. Male and female enrollments in the Medersas have reached impressive proportions; this demonstrates that the demand for formal education has still to be satisfied and that, perhaps, other factors may help to explain the high female drop-out and pull-out rates being observed at the primary level. Such factors may include the high opportunity cost of sending a cheap and convenient source of domestic labor to school, the tendency in an Islamic society like Mali to marry young, and the perception, held by a majority of traditionally-minded parents, that the Westernized syllabus being disseminated through the state educational system is undermining cherished traditional religious and cultural values. In the rural areas, where parents by and large still expect their daughters to stay at home and marry early, the demand for female access may be high in the first grades, but trails off steeply after the first two years in response to the traditional custom of withdrawing prepubescent or pubescent girls from the public environment into the

protection of the home in preparation for marriage. Another burden imposed on women in the rural areas is the additional workload left by absent males who have migrated to the towns in search of work. The highest demand for girls' access to education seems limited mainly to the socio-economically well-off urban population. Little or no opportunity, or incentive, seems to exist in the rural areas for girls to enter, let alone remain in school. With very little public pressure to deal with the inequalities of gender access in Malian schools from Mali's rural voting majority, politicians and policymakers have scarcely made an effort to distribute Mali's scant educational resources between the sexes in a more equitable way.

A glint of hope is apparent, however. During the last five years, the growing conviction among some women leaders in Mali of the role education could play in liberating women from some of the more oppressive traits of their society, such as female circumcision that is still commonly practiced, is beginning to make an impact. According to four informants, the group advocating feminist reforms is still in the minority, but its influence seems to be quickly growing among a younger urban elite actively looking to break with oppressive traditions. Unfortunately, the male-dominated power structure is attempting to brand this group radical "malcontents" who are trying to subvert the traditional values of Malian society with alien notions and values. One informant, an outspoken leader in the struggle against oppressive traditions, told the researchers that the government had recently removed her passport to prevent her going to

Sweden to deliver a paper on the practice of female circumcision in Mali!

V.C.7. Policies to Increase Women's Access to Education

At the policymaking level there exists a high level of ambiguity concerning women's access to education. If there is an official policy, it can best be described as one favoring a laissez faire approach to the whole problem. While the 1972 Reforms made primary education compulsory for both sexes, very little seems to have been done to implement the ideal of universal basic education for all. Attempts to reach Mali's neglected female population with educational services have been left almost entirely to the initiative of international agencies and bilateral donors. UN agencies, USAID, the EEC, France, Britain and other donors have provided the funding and ideas necessary for the implementation of projects that attempt to reach Malian women in both rural and urban areas. Such projects mainly employ out-of-school or nonformal strategies to reach illiterate women who have either dropped out of school too early to acquire literacy skills, or who have never had access to schooling.

UNESCO and UNICEF have incorporated literacy and numeracy components into their nutrition and primary health care programs with some degree of success. Through the rapidly expanding cooperative movement, uneducated girls and women are being given the chance to learn basic literacy skills and other skills necessary for them to meet the challenges of the growing informal economic sector.

The only policies being implemented to provide girls with access to basic education seem to relate to out-of-school programs. These are so heavily dependent on foreign aid that they are unlikely to survive beyond the lifespan of any project responsible for their implementation. Their nonsustainability in the Malian context should give cause for concern. Unfortunately, Mali's acute economic problems, rapidly expanding population, and traditional attitudes toward women's role in society have clouded over gender-access issues at the decision-making level.

V.C.8. Interviews with Policymakers and Researchers

During June of 1988, the researchers visited Mali to try to interview government officials and WID researchers in order to obtain background information on the collection, analysis distribution, and use of gender-related data by decision-makers in Mali. Eleven institutions were visited and 24 informants interviewed. The following is a summary of these meetings.

a. At The Ministry of Education, officials were quick to point out that while the Party's overall policy was to encourage the education of girls, very little had actually been done to achieve this objective. The little statistical data that was available was generally out of date and unreliable. No real attempt had been made to disaggregate school data by gender until the late 1970's. We were only able to obtain, from the MOE bookshop, publications containing

information from the 1976 census. No relevant publications with recent statistical information were forthcoming.

The Director of Primary Education did claim to have a study giving recent data about gender access, but refused to allow us to see this information without written consent from the Minister. The same official drew attention to the tendency for policymakers at the Party level to ignore statistical information when making important decisions about Mali's educational future. He said few if any of Mali's leaders were of a sufficiently high educational background to really appreciate the need for statistical data to inform their decision-making process. The only unit within the MOE which was collecting data on women's education in a systematic way was the Division of Nonformal Education and Literacy (DNAFLA). The Division's Planning and Evaluation Unit regularly carried out surveys to establish the success of their literacy programs, which were being targeted at girls and women in the rural areas. However, owing to the narrow scope of DNAFLA's literacy projects, the data available only covered a limited number of cases, about 4,000 in four provinces.

b. Discussions with the Ministry of Planning were equally discouraging. The Director of Statistics at the Ministry of Planning quickly pointed out that the census-data collection process in Mali is difficult because of the lack of trained census-takers and the acute shortage of funds. The recent census, completed in 1987, had

not yet been processed and analyzed. So far only a rushed version of provincial population statistics had been made available to the public at the request of the Cabinet Office. No other data was available for want of computers to process the seven tons of data which was now lying in storage waiting to be analyzed. The Director also confirmed that data disaggregated by gender was scarce and unreliable. He thought, perhaps, the Ministry of Education might be able to help!

c. The Director of UNICEF's Regional Sahalian program stated that reliable data on women and development was practically nonexistent in Mali; a recently completed publication put out by UNICEF dealing with WID issues in Mali was probably the best information available to date. He saw the main problems limiting women's access to education in Mali were economic and cultural, and enumerated them as follows: only 25% of the girls in the school-going population go to private and state schools in Mali. Hard-to-come-by resources are spent by the state on formal education, but to no avail. Standards are low and very few children emerge from the system with useful skills. Parents have begun to withdraw their children from school because tangible results are not forthcoming. The need now is to devise alternative strategies to reach out-of-school men and women who need to be numerate and literate, but don't see the point of spending time in school. Several strategies are now being devised by the UN, USAID, and other donors to reach learners in a cheaper and more appropriate way. Women and out-of-school girls are

now being reached through nutrition and primary health-care programs, and through the cooperatives. The high unemployment levels in both the public and private sectors also contribute to the educational crisis. Parents are reluctant to send their children to school, if, after a great deal of sacrifice, they are still unable to find jobs.

The senior UNICEF researcher who compiled the recent WID Report confirmed the lack of WID data in Mali. She thought that the small amount of data that there was, was inaccurate. She had also had problems accessing data, since each public institution responsible for data collection was reluctant to share what they had. Few institutions coordinated their data-gathering efforts, which also inhibited the research process. She thought the best source of information on women, education and work were the cooperatives. These are nearly all run by women. Women in charge of the coops organize their own numeracy and literacy classes and are motivated by their need to learn to read and write in order to manage their businesses. She confirmed an earlier observation that senior policymakers don't use statistics to inform their decision-making. She thought decisions in Mali were made largely in reaction to a crisis or political pressure from organized special interest groups such as a tribe, trade union, or the business community. Women still failed to impress their needs on the system because they were still only at the margin of the power-brokering process. The recent formation of a women's union may begin to change this political reality.

The following anecdote may help to make explicit the cultural attitudes, prevalent in many parts of Africa, that support the notion that women are second-class citizens and as such not deserving of an education.

To Africa's Women

Once upon a time very long ago, God needed someone to help him with something he wanted done. He turned to the women who already had their hands full, even in those days. Just then they were making milk jugs and water basins and mats to cover the huts. God summoned them: "Come here. I shall send you out on an important mission." The women replied: "Yes we are coming but wait a moment, we shall finish our work here." After a while, God summoned them again, and the women responded once more: "Wait a moment we are nearly done. Let us finish our mats and jugs."

Men at that time did not have to milk the cows, build houses, fetch wood and water as the women did. Their only duty was now and again to put up a fence to protect the livestock. So, since at that moment they had nothing else to do, they came running at God's call and said, "Send us instead, Father." Then God turned to the women and said: "Henceforth, women, your chores will never be done; when one is completed, the next will be waiting for you. Hence the men may rest since they came at once when I called, but you, women, will have to work and toil with neither pause nor rest till the day you die."

(Christine Obbo, 1980:11.)

V.D. NEPAL

V.D.1. Background

The fascination with the exotic, with mysticism, and with adventure which swept through Europe and the United States in the 1960s coincided neatly with the "opening" of Nepal. The tiny kingdom, which includes both the highest mountains in the world and a rhinoceros- and tiger-filled jungle, presented the perfect end for the famed "overland route" traveled by thousands of adventure-seekers in the 1960s and early 1970s. Not only had Nepal never been colonized, but its government had kept its borders closed to foreigners for almost two hundred years, sealing it against the modernization which seemed to have spread into all but a few isolated pockets of the world. In the Kathmandu Valley, with its neatly terraced fields, small villages, and three ancient cities set against the backdrop of the snow-topped Himalayas, the hidden paradise long promised in myth seemed found. It was not, of course, paradise, as the travelers soon learned when they encountered the illness and poverty which today make Nepal one of the poorest countries in the world.

The isolation of Nepal extended so far into the twentieth century partly because of its geography, a factor which continues to dominate the country today. Nepal is of the few totally landlocked countries in the world. It has a narrow rectangular shape with a width, from north to south, of only about 100 miles;

its long northern border is comprised of the Himalaya, the highest mountain range in the world, and its long southern border was once almost impenetrable because of a dense malarial jungle. The ancient trade route between India and China passed through the Kathmandu Valley; travellers needed to spend a lay-over period in the valley as the jungles in the south could only be crossed during the winter, when malaria was less of a danger, and the mountain passes in the north could only be crossed in the summer, when there was less snow. While the trade traffic made the Kathmandu Valley wealthy and cosmopolitan, the barrier which malaria created along the southern border helped to protect Nepal from the extension of British colonial control northward from India.

Any attempt to imagine the type of terrain that changes from 26,000-foot peaks to jungles at an altitude of 400 feet, within 100 miles of each other, will provide immediate explanations for some of the difficulties for Nepal's educational system. The so-called "hilly region" of Nepal consists of a constant series of valleys and hills which can create climbs and descents of thousands of feet within a few miles; the mountains drop to the jungles in a series of ripples, like corrugated cardboard. A gradual process of deforestation and the ravages of the annual monsoon season have hindered attempts to develop a road system which can interconnect the country. Roads and footpaths carved into the hillsides are washed away each year during the monsoon,

together with entire villages which perch along these trade arteries. For much of Nepal, the only communication with the government in the Kathmandu Valley involves physically travelling there on a footpath. Supplies such as kerosene and rice, as well as school textbooks, can only move on these paths during certain seasons of the year. And, most of the time, they move on someone's back.

The history of Nepal has been, in part, shaped by this geography. The ancient Newar rulers of the rich Kathmandu Valley were conquered in 1769 by Rajputs, who migrated from northern India and settled in the small kingdom of Gorkha, located about 40 miles west of the Kathmandu Valley. The Gorkha king's descendants were displaced as rulers by the prime minister's Rana clan, who kept the successive kings in captivity as symbolic heads of state from 1846 to 1951. The Ranas, through a rapid expansion of their domain and a series of border wars with India and China, defined the present boundaries of Nepal. Those borders were closed by the Ranas to any outside influence until, in the early 1950s, the king was able to overthrow Rana rule and open the country to the outside world.

In 1951 the newly reinstated king of Nepal was confronted with an extensive domain in which there was no notion of a nation-state. The part of Nepal that stands for the whole political, cultural entity is really only the Kathmandu Valley.

The isolation of the steep mountain valleys of Nepal had encouraged the existence of totally independent cultural and linguistic traditions that had few reminders of their relationship to the Rana government in Kathmandu. Most of these cultural groups spoke Tibeto-Burmese languages; the Nepali spoken by the Gorkha government was an Indo-Aryan language that resembled Hindi. The Ranas had not only ignored education for the people of Nepal, they had actively discouraged it, and actually made it illegal in some cases. When the king took back the power to rule from his Rana oppressors in the 1950s, he was faced with a country in which there was no formal educational system, extreme ethnic and linguistic diversity, and no sense of national unity. He was, however, backed by a great deal of foreign support, generated by both the strategic location of Nepal between India and China and the romantic fascination which Nepal had conjured up in the Western world.

Education became a major focus in the king's development plans, and served as a vehicle for his political goals to unify the country and legitimize his rule. By making Nepali not only the lingua franca of his government, but also the language of instruction in the formal educational system, he was able to provide a basis for integrating the wide diversity of cultures in Nepal. The political interests of the king combined with the interests of Western donors and provided a great impetus to expand the educational system.

Most sources on the history of Nepal's educational system quote the same dismal statistics for 1951: only a little over two percent of the population were literate, and only 321 primary school and 11 secondary schools existed in the entire kingdom (Singh, 1986:51). What these data overlook are the other types of educational systems which had been serving the society for many generations. The Buddhist priests in the northern communities of Nepal educated boys in Buddhist ritual and tradition in their Gombas. Sanskrit Pathachala Gurkul schools were run by Hindu Brahmins, and educated boys in Sanskrit and academic subjects in the Kathmandu Valley and many of the southern communities of the country. Newar artisan castes of the Kathmandu Valley utilized an apprentice-style form of instruction to educate almost all of the boys in the crafts which had made these groups so well known. While dissimilar to the academic training which is today associated with formalized education, these forms of instruction were rigorous and generally included levels of mastery in each specialization.

There is anecdotal evidence suggesting that these older systems of education are seen as comparable to modern educational systems. Boys' parents formerly listed the number of rituals which a male of the priest caste could perform when attempting to arrange a marriage for their sons. Today, the level of education completed within the formal educational system plays the same

role in the petition for a bride. The significance of this translation between the traditional and the modern forms of education is that there is a continuity of perception between them. Under both systems, education was understood, valued and respected; but formal education was only for males.

V.D.2. History of the Educational System

In 1954 a National Education Planning Commission was established to design an educational system for Nepal. It issued a comprehensive report which became the key policy document for the development of the country's educational system until 1971. This report, Education in Nepal, called for the establishment of a single system of free, tax-supported, public education from the primary grades through college. It recommended numerous laws to support this new educational system, including tax and land reform, as these were prerequisites for financing such a large scale undertaking. The report proposed the establishment of curriculum development and a textbook publishing and distribution center to develop primary, secondary, and vocational school curricula appropriate to Nepal. This report also recommended establishing a national university and teacher-training facilities. The United States Operations Mission (USOM) was deeply involved in these early efforts to build an educational infrastructure in Nepal.

In 1951 only 4.3% of the Nepali population was literate.

Females had a literacy rate of only 0.7%, while the literacy rate for the male population was 7.7%. After the isolation of Nepal ended, the educational system expanded dramatically. Between 1951 and 1960 the number of schools increased at an annual growth rate of 25% from 431 to 4001; the teaching force expanded from 642 teachers to 7281 during the same time period, with a growth rate of 10%; and the number of students grew from 8505 to 182,533 in those nine years, increasing at a rate of 36%. This data indicates that not only was there an increase in the number of educational resources, but also a better use of them. In fact the student-teacher ratio increased by 92% between 1951 and 1960, from 13 students per teacher to 25 students per teacher. Since 1960, both school resources and student enrollment have continued to expand, with the number of students increasing at a faster pace than the resources. By 1980 the student-teacher ratio had grown to 38 students per teacher.

The expansion of the new educational system was dynamic. By 1970, 8505 primary schools serving 449,141 students existed in Nepal (Singh, 1986:51). During this period of rapid expansion, Nepali educators were being trained in other countries as well as Nepal. In 1970, this group of educated elites was given an opportunity to express their new ideas and theories concerning educational planning and development. Armed with generous funds from USAID and reports on the state of education in Nepal, Nepali and Western advisors developed a new National Education

System Plan (NESP). The NESP called for a major structural reform of the school system in order to better meet national education goals.

Among other structural reforms generated by the NESP was a reduction of the primary level of the school system from five to three years. The three-year primary education was seen as the period necessary for students to achieve literacy, a major educational goal in Nepal. After many years of vigorous effort, only 13% of the population of Nepal were literate in 1970. Ten years later an investigation indicated that, under the teaching conditions throughout most of Nepal, three years were insufficient for students to achieve a level of literacy that could be sustained once they left school. In light of these findings, in 1981 the government changed the period of primary education to five years. The current organization of the educational system consists of a primary level of five years, with an entrance age of six years old, a lower secondary level of two grades for eleven and twelve year olds, and an upper secondary level of four grades; students are expected to graduate at the age of fifteen years. This structural change dramatically affected gross enrollment figures; primary school enrollment dropped from 80% under the three-year program to 60% in the five-year program (Shrestha, 1986:100.)

Initially the government of Nepal realized that, in order to

rapidly build and expand its educational system, it would have to rely heavily on local financial contributions. Local villages and parents were, therefore, required to pay substantial amounts for school construction, teachers' salaries, textbooks, and school supplies. In 1970 the NESP reversed these policies, placing the major financial burden for the school system on the central government. Later investigation of this policy uncovered difficulties, primarily that the schools were now perceived as the government's responsibility rather than the community's, which lowered local involvement; teachers who were formerly accountable to a local school board were now only accountable to a remote and seldom-seen government supervisor. An attempt to return some control and responsibility to local communities without a serious loss of equity led to further policy changes. Since 1984 the government of Nepal has been committed to financing 100%, 75%, and 50% of teachers' salaries at the primary, lower secondary, and upper secondary levels respectively. However, for remote areas the government meets the full expenses of teachers' salaries for all levels of education. Since the 1970 NESP reforms, textbooks have been free for all student through the third grade. This scheme was subsequently extended to provide free textbooks for grades four and five under certain circumstances, namely for female students, and in eighteen remote areas of the country. The government finances the free distribution of the textbooks with the partial assistance of UNICEF. In spite of government support, primary

education is not necessarily free for most Nepali students as there are often fees, such as entrance fees, building maintenance fees, and furniture fees, collected in much of the country (Mainali, 1986:123).

**V.D.3. Current Participation and Disparity between
Male and Female Access to Education**

The effort to educate the population of Nepal has produced positive results which are reflected in the increasing number of Nepalis who are literate. A comparison of census information on literacy for the age group from 10 to 19 years and from 20 to 29 years illustrates the rapid growth in the proportion of children who have attended school. The group that entered school between 1968 and 1978 increased its literacy rate by 47% as compared to the group that had attended school between 1957 and 1968. The number of literate females in that age group increased by 78%, while the number of literate males increased by 27%.

TABLE 35
Nepali Literacy Rates for Two Selected Age Groups: 1981

Age	Total	Male	Female
10-19	36.4%	49.7%	21.5%
20-29	24.8%	39.1%	11.5%

Source: Central Bureau of Statistics, Nepal Population Census 1981, vol.II, Kathmandu, 1984.

The growth in the literacy rate in Nepal should continue due to the current constant expansion of enrollment in primary education. The number of students enrolled in grades 1 to 5 has increased each year between 1975 and 1985. However, the rate of growth of enrollment has begun to slow. Between 1975 and 1980, enrollment in the first five grades grew at an impressive annual growth rate of 22%; between 1981 and 1986, the annual growth rate declined to an average of only 6%. One possible explanation for this reduction is that the system may have already absorbed most of the easy to attract students and must now face the more difficult task of bringing into the schools harder-to-reach students, such as girls in rural areas.

TABLE 36
Nepali Enrollment Ratios for Primary Education: 1986

Region	Total	Female	Male	Disparity Index
Nepal				
Gross	82.0%	51.7%	109.8%	0.53
Net	59.5%	38.2%	79.0%	0.52
Eastern				
Gross	77.8%	54.7%	99.1%	0.45
Net	54.7%	39.8%	71.1%	0.44
Central				
Gross	75.9%	46.9%	101.6%	0.54
Net	56.3%	35.4%	74.9%	0.53
Western				
Gross	108.8%	79.7%	135.7%	0.41
Net	78.5%	58.7%	96.8%	0.39
Midwestern				
Gross	73.4%	31.5%	113.2%	0.72
Net	52.0%	23.2%	79.3%	0.71
Far Western				
Gross	68.3%	25.0%	108.7%	0.77
Net	48.7%	18.8%	76.8%	0.76

Source: Planning Division, Ministry of Education.

The data for 1986 indicates that the educational system is not only failing to reach women at the same rate as men, but that some regions of the country have less participation in the system than others. For the midwestern and the far western regions, the data shows a relatively greater educational disadvantage compared to the rest of the country. In these regions less than one-fourth of the female school-age population is enrolled in primary education. The female net enrollment ratio in the midwestern region is 23% and in the far western region only 19%, both well below the male enrollments for those regions. The western region is the area with the highest student participation in education, with only 3% of the male school-age population not enrolled. But the percent of females who are not enrolled in this region is

still very high, reaching 41%. For Nepal as a whole, 41% of the school-age population was still not attending school in 1986. Of that population, 62% of the females were not enrolled, as compared to only 21% of the males.

TABLE 37
Illiteracy Rates: 1981

Area	Total	Male	Female
Nepal	76.7%	66.0%	88.0%
Mountain	82.0%	72.4%	92.2%
Hill	75.1%	63.1%	87.1%
Terai	77.5%	67.9%	88.1%
Mountain			
Eastern	73.5%	59.4%	87.9%
Central	84.4%	76.4%	93.1%
Western	77.7%	68.6%	87.6%
Midwestern	87.7%	80.7%	95.3%
Far Western	84.5%	75.1%	93.8%
Hill			
Eastern	74.7%	61.3%	88.3%
Central	71.4%	60.7%	82.9%
Western	72.5%	58.7%	85.9%
Midwestern	83.9%	74.2%	93.4%
Far Western	86.2%	73.1%	92.4%
Terai			
Eastern	71.2%	60.3%	83.2%
Central	81.2%	72.5%	90.7%
Western	77.9%	67.8%	89.0%
Midwestern	81.7%	73.5%	90.7%
Far Western	80.9%	72.0%	91.3%
Nepal			
Eastern	72.6%	60.5%	85.5%
Central	77.3%	67.7%	87.5%
Western	74.2%	61.7%	86.8%
Midwestern	83.6%	74.8%	92.7%
Far Western	84.1%	73.2%	92.4%

Source: Central Bureau of Statistics, Nepal Population Census 1981, vol. II, Kathmandu, 1984.

Given the geography of Nepal, it is important to examine the information according to the natural areas in which the country is divided: mountain, hill, and terai. Using the data desegregated in this manner might make it easier to identify the disadvantaged groups in Nepal. Unfortunately the educational statistics from Nepal are not presented in this format and the information provided by the 1981 population census provides the only basis for such an analysis.

Examined in terms of the geographic divisions, women who live in the mountain areas form the most disadvantaged group, with an illiteracy rate of 92% in 1981. Within the mountain areas, the women from the midwestern region were in the worst situation; in all three geographic areas, women in the midwestern and far western regions had the highest illiteracy rates. Compared to other Nepali men, the men of the mountain areas were the most disadvantaged and the men in the midwestern region showed the highest illiteracy rate. The illiteracy level of the men from the midwestern mountains was lower than the highest literacy rate for females, those who live in the eastern hill region.

TABLE 38
Distribution of Enrollment according to Gender and Area: 1986

Region	Urban		Rural	
	Female	Male	Female	Male
Nepal	39.8%	60.2%	31.4%	68.6%
Eastern	41.5%	58.2%	35.2%	64.8%
Central	39.5%	60.5%	29.2%	70.8%
Western	44.0%	56.0%	37.9%	62.1%
Midwest	38.9%	61.1%	22.6%	77.4%
Far West	31.5%	58.5%	19.4%	80.6%

Source: Planning Division, Ministry of Education.

Compared to women in urban areas of Nepal and to men in both rural and urban areas, the Nepali women in rural areas have been at a disadvantage in terms of formal education. However, contrary to what has been seen in many other countries, in Nepal there does not seem to have been a general differential demand for education according to rural or urban location. The proportion of urban enrollment compared to total enrollment for the country was the same as the proportion of the urban population to the total population; 7% of the enrollment was urban and 7% of the population was urban. Females in urban areas were only slightly overrepresented, constituting 8.7% of the female enrollment. The places with the smallest difference between male and female enrollment were the western urban areas and the eastern urban areas; the place with the largest difference was the rural far western area, where male enrollment outnumbered female enrollment by four to one.

TABLE 39
Distribution of Teachers in Primary Education

Region	Total	Female	Percent Female
Nepal	53405	5496	10.3%
Urban	4303	2039	47.4%
Rural	49102	3457	7.0%
Eastern	12762	1260	9.9%
Urban	244	85	34.8%
Rural	12518	1175	9.4%
Central	15304	2325	15.2%
Urban	2505	1288	51.4%
Rural	12799	1037	8.1%
Western	13526	1154	8.5%
Urban	518	222	42.9%
Rural	13008	932	7.2%
Midwestern	7291	518	7.1%
Urban	216	101	46.8%
Rural	7075	417	5.9%
Far Western	4522	239	5.3%
Urban	280	69	24.6%
Rural	4242	170	4.0%

Source: Planning Division, Ministry of Education.

One of the explanations that has been given for the low female enrollment in Nepal has been the shortage of female teachers. Data indicating the distribution of teachers according to rural and urban areas followed roughly the same pattern as the distribution of students, with 92% of the teachers employed by schools in rural areas. Although the female teachers represented only 10% of the teaching force in the urban areas, more than 47% of the teachers in urban areas were women, as opposed to only 7% of the teachers in rural areas. If the gender of the teacher influences the percentage of female student enrollments, then

there should be a higher proportion of girls enrolled in urban areas, where the proportion of female teachers is so much greater. As Table 34 and 35 show, this is far from being the case. In all regions of Nepal the proportion of urban female teachers outnumber the proportion of rural female teachers by a wide margin; however the proportion of female students did not vary according to the same rural-urban pattern.

V.D.4. Quality of Data

Dr. Madhup Dhungana, Director of New ERA, a nonprofit organization that has been commissioned by the government to assess the quality of data being collected, was interviewed. He reported that the quality of information varies tremendously. Some schools keep enrollment record books, others do not. As there is no standard form for data collection, the information collected varies from school to school. In several schools, the only information recorded is the name of the student. In general, schools have attendance records for students, but there is no filing system for preserving these records, which makes it difficult to study the evolution of enrollment. Very few schools keep records on the status of students, such as recording repetitions and promotions; this makes it extremely difficult to study the efficiency of the system.

There is also a tendency for schools to inflate the number of students enrolled because the number of teachers that are assigned to the school is dependent upon the size of the student

population. Information from urban schools is generally more reliable than information from remote areas. In remote areas the supervisor has frequently not visited the school for several months or sometimes more than a year. Data is also often not accurate simply because, at the school level, there is little awareness of how important the data is; data collection and reporting are considered a time-consuming obligation of little benefit to the school.

V.D.5. Explanations for Disparity

The reasons most often given to explain the low access to education of Nepali women relative to men are Hindu notions about the position of women in society. Official reports offer explanations such as: "the age-old prejudice that God created women for doing duties inside the four walls of the home and for playing a part subservient to men was, and to a large extent still is, embedded deeply in the minds of most of the people of Nepal" (National Education Committee, Centre for Educational Research, 1978:1) or "a girl by many parents is still considered to be a liability rather than an asset. Anyway, she will one day go to her would-be groom's house and as such any investment in her education by keeping her away from work is regarded as sheer waste" (Singh, 1986:54). While there is little doubt that these beliefs have played an important role in determining women's access to education in Nepal, they may have been overemphasized.

Traditionally, researchers have dealt with the cultural diversity of Nepal by dividing the country into three areas that are somewhat socially and geographically homogeneous. In the north, in the Himalayan region, most ethnic groups resemble the Tibetans; they are primarily Buddhist and they speak Tibeto-Burmese languages. The Tibetan culture was one of the few in the world in which polyandry (a woman having multiple husbands) was practiced; women living in these northern communities play an active role both in the economic sphere and in family decision-making. In what is generally called the "middle hill" region of Nepal, most of the ethnic groups speak a Tibeto-Burmese language and their cultures are characterized by a mixture of Tibetan-Buddhist and Indian-Hindu notions reworked according to unique cultural schemes. The Terai, the southern belt of lowland formerly only sparsely settled due to malaria, has been cleared of jungle in many areas and now supports agricultural communities. Settlers in this area have come from the hill regions of Nepal and from India to the south. Due to the lack of strong older traditions in these communities, the nature of the immigrant population, and the proximity to India, these communities are culturally close to the Indian-Hindu model. Their very newness also tends to cause them to emulate the values of the government. The government of Nepal tends to be closer to the Indian-Hindu model, both in its laws and in the ethnic background of most of the people who have government positions.

The Brahmins and Chhetris from Gorkha, who conquered and unified the country, descended from immigrants from north India who had been displaced by the Muslim invasions.

When considering the cultural beliefs and values that affect women's access to education in Nepal, it is important not to make generalizations for all of the country based on reports from the government personnel with whom foreigners most frequently have contact. The Hindu government tends to offer cultural reasons for families' unwillingness to send daughters to school, that do not represent dominant values throughout the country. Field studies in eight villages for the Rural Women in Nepal series (Acharya and Bennett, 1981:xxxiv) have characterized the women according to their participation in the wider market economy and the overall household decision-making process. They found that the Maithili women of the Terai and the Brahmin and Chhetri Gorkhali women of the Kathmandu Valley had considerably less decision-making responsibility than the women in the other communities studied. The women who played the greatest role in the spheres of politics, commerce, and public concerns were the Lohorung Rai in northeast Nepal, Tibetan-speaking women in northwest Nepal, and Kham Magar women of far western Nepal. The Newar women of the Kathmandu Valley, the Tamang women of the middle hill region north of the Valley, and the women of the Tharu, tribal groups found in western Nepal, were between the other two groups in terms of community status.

If the cultural reasons for the disparity in women's access to education are only powerful forces in certain areas and cultures of Nepal, other reasons for the disparities must be found. An analysis of enrollment figures by gender for each of the local areas of the educational system, rather than the east-west regions which cut across the three more homogeneous three geographical regions, would be extremely helpful. It is important to understand what the reasons behind the gender disparity are if the policy solutions which are offered are to be directed at the correct obstacles. Given the cultural diversity of Nepal, different policies might be needed in different parts of the country.

The Rural Women of Nepal series isolated some characteristics of rural women's lives in eight communities which may limit their access to education. Based upon data gathered in those eight villages, women's work was estimated at 10.81 hours per day, compared to 7.51 hours for men. The authors state that "findings from all communities studied suggest that neither the cost of education nor the conservatism of the parents is the main cause for the significantly lower percentages of female enrollment encountered in the sample villages. Rather it is the family's dependence on girls' labor at home and in the fields that is the primary reason given for keeping girls out of school. This is supported by the time allocation data which show that girls begin

working longer hours than boys from age five and that by the time they reach the 10-14 age group, their work burden is 7.31 hours per day -- nearly equal to that of an adult male. However, because much of their time is spent in the relatively unproductive task of animal herding, children in this age group contribute only six percent of the household incomes" (1981: xxxiv-xxxv).

V.D.6. Policies to Increase Women's Access to Education

The Equal Access of Education to Girls Programme was initiated in 1971, at the time of the other sweeping NESP changes. Its primary objective was to train female primary school teachers. The training of female teachers was seen as a method for both offering additional education to girls and providing sympathetic role-models for future female students. A secondary objective of the program was to recruit these teacher-trainees from what had been classified as disadvantaged groups of Nepal. The criteria for being disadvantaged included membership in ethnic groups located in remote regions of Nepal, such as the Tharu or Thakali; membership in castes traditionally classified as untouchable, such as Damai, Kami, or Sarki; or economically poor members of the Gorkhali group, Brahmins and Chhetris, and the ethnic group which had formerly controlled the Kathmandu Valley, the Newars.

UNICEF played a major role in initiating and facilitating this

program, providing technical and financial assistance. Campuses were established in three locations, Pokhara, Dhankuta, and Nepalgunj, where trainees could live in hostels while earning B-level teaching certificates. Quotas were established for the number of students who could be accepted into the program from each region of the country. Due to the lack of opportunity for girls in remote areas of Nepal to attend secondary schools, an "upgrading" program was added to the project. It offered younger girls the opportunity to stay in hostels while completing their secondary education in order to become eligible for entrance into the B-level program.

The Equal Access of Education to Girls Programme was first reviewed in 1978. At that point, out of 453 students who had enrolled, 340 had graduated (National Education Committee Centre for Educational Research, 1978:13). One of the problem areas identified at that time was the quota system; many student slots had not been filled due to a lack of qualified applicants from specific regions. The second and more serious problem involved the distribution of students in terms of the criteria for being disadvantaged. Brahmin and Chhetri girls made up half of the students enrolled the program; Newar girls made up another 19% of the trainees (1978:11). The review of the program concluded that the project was not successful in reaching the girls of the remote ethnic groups or disadvantaged cultures of Nepal whom it had been designed, in part, to attract.

A second review of the program was conducted in 1986. This report states that, in the 1979-1984 period, 603 graduate B-level certificates had been awarded out of a total enrollment of 1024 students. The dropout rate for the program was only 4%. It was difficult to assess the efficiency of the upgrading program since many of the girls enrolled had not yet had time to move through secondary and B-level training. The most serious problem identified by this review was the failure of the 1,091 past graduates to finding employment as teachers. Female teachers constituted only 8.2% of the total teaching staff in Nepali primary schools in 1984; of those female teachers, 36% were graduates of this program (Research Center for Educational Innovation and Development, 1986:80). Nearly one-third of the graduates of the program were not teaching at the time of the review, in spite of research results indicating their desire to teach (1986:83-84). The major reasons given for the failure to place these graduates in schools were that there were no vacancies in schools in their native villages, and that the local school management was unwilling to appoint B-level teachers, since this certificate is frequently viewed as inferior to the standard SLC teacher certification.

In addition to this problem, the 1986 review of the program indicated that the ethnic-caste distributions of the students continued to show extreme inequalities. Brahmin and Chhetri

girls had filled 55% of the student places during the 1981-1984 period (1986:112). Newar girls, however, had dropped to only 8% of student enrollment. Since the king of Nepal, the Rana clans that ruled the country for so long, and a high percentage of the government personnel are Brahmin or Chhetri, it is difficult to see this cultural group as disadvantaged, however poor the specific girls in the program might have been. In spite of recognition of this problem in the 1978 review, the percentage of Brahmin and Chhetri enrollments had increased since that time to over half of the total trainees. The next largest enrollment of an ethnic or caste group was only 8%. Many cultural groups in Nepal have never had a single student enrolled in the Education of Girls and Women in Nepal Program, as the project is now titled.

While this is the only program in Nepal that has explicitly focused upon female access to the formal educational system, there have been a number of other projects directed at increasing female literacy and nonformal education. One such program, the Literacy and Civic Education for Women Project, has developed post-literacy learning materials to convey functional messages to women about health, nutrition, population control, income generation, and their civic rights and duties. Another program established in 1961, the Women's Training Centre, offers training in population control, skill development, and income-generating programs.

One of the most important projects, and the one which offers an avenue into the formal educational system, is the Cheli-Beti Program. This is a project for girls who are not currently enrolled in the educational system. Its objective is to teach reading and writing to girls during their "leisure hours." It has been implemented in three of the districts of the Seti Zone and the Far Western Development Region. A part-time female teacher, usually a high school girl from the same area, is paid a small salary to hold classes for the girls from near-by households during the morning hours when they are most frequently free. The girls attending these classes may come and go from the classroom as they are needed to perform duties in their homes. There is growing evidence that, once introduced to education in this flexible manner, these girls later tend to become students in the formal educational system. Considering the reasons examined in the previous section for why women lack access to education, this program appears to offer the best alternative for overcoming the major obstacles to female access in rural areas of Nepal.

V.E. YEMEN**V.E.1. Background**

Nestled on the southwest corner of the Arabian Peninsula, the Yemen Arab Republic is a country where ancient values and modern concerns coexist in the traditions and lifestyles of the people. Turbans and veils safeguard tribal and religious values as decision-makers struggle to incorporate the machinery and mentality of a modern world into the daily regimen of one of the most underdeveloped nations on earth. The establishment of the Yemen Arab Republic (North Yemen) in 1962 brought an end to the isolation and oppression that characterized the country in the early part of this century. However, the removal of the traditional religious ruler, the Imam, did not immediately open the door to social and economic change; a subsequent civil war engaged and divided the energies of the people for another decade. Thus, it was not until the early 1970s that Yemenis began to address the task of building the infrastructure needed for a modern nation state. Viewed from this perspective, their accomplishments have been impressive, but the magnitude of the work still to be done is overwhelming.

Chronic malnutrition, pervasive disease, rampant illiteracy, and limited resources are only a few of the problems that limit the government's ability to modernize the country. Yet the Yemenis face the challenge of development with vigor and enthusiasm. A strong sense of identity, enhanced by the fact that North Yemen was never subjected to colonial rule, and the consciousness of a

glorious history help fortify their spirits for the work ahead.

Geography is a major stumbling-block to any kind of development, with special implications for education. Mountains running north-south along the center of the country constitute a formidable obstacle to road construction, and consequently hinder the transportation of building materials, supplies, and personnel to the school sites. Isolation and the lack of services in many rural areas make it undesirable for qualified teachers to seek employment in the rural schools. Yemen has been described as a "capital-surplus, labor-short economy" (Cohen and Lewis, 1979) because of the remittances produced by the migration of a large percentage of the labor force to Saudi Arabia and the Gulf States. Despite the availability of capital, the strain caused by the division of available funds to cover all types of development at once affects the pace of school construction.

From ancient times the Yemeni economy has depended on agriculture and international commerce. Over the centuries, periods of grandeur and cultural efflorescence have been interspersed with decades of anarchy, when the fiercely independent tribesmen withdrew into the rugged mountain terrain to resist incorporation into a centralized state. Agricultural production is concentrated in the terraced cultivation in the high central plateau, and the fertile rain-fed fields of the Red Sea Coastal

plain. Yemen's location at the entrance to the Red Sea, literally at the crossroads of Asia, Africa, and Europe, favors international trade; it has always stood to profit from the passage of commercial vessels through its port, Mocha. Throughout its history, Yemen has also been famous as a center for the manufacture of fine cloth, pottery, and exquisite swords.

The land of the Queen of Sheba in ancient times, Yemen prospered from a lucrative trade in incense and spices. The five-mile Marib Dam bears testimony to the ingenuity and engineering expertise of early Yemeni cultures, which transformed the eastern desert region into a prosperous agricultural area. The destruction of the dam in the early sixth century A.D. gave rise to a period of fragmentation and decline, but Yemen was later incorporated into the dynamic Islamic empire founded in the Arabian Peninsula by the Prophet Muhammad in 622. Yemeni tribesmen formed the bulk of the Islamic armies as they expanded into Iraq, Iran, North Africa, and southern Spain. The Islamic heritage is still a major component of the Yemeni national identity. A concern for maintaining religious values and traditions dictates the parameters within which modern social and economic transformation may proceed.

In the Middle Ages Yemen experienced the rise and fall of many petty states; two powerful dynasties arose which unified the country, at its largest extension, from Mekkah to Adan, and as far east as Oman. The Sulayhid dynasty (11th - 12th centuries) and the

Rasulid dynasty (13th - 15th centuries) each managed to control both the mountain fastness of the central plateau, and the fertile agricultural lands of the coastal plain along the Red Sea. Culture and learning flourished under royal support for scholars and institutions devoted to the advancement of mathematics, political philosophy, and the religious sciences. The long distance maritime trade between China and Europe was so prosperous that it inspired the explorations of the fifteenth century, as the Europeans searched for an alternative route to India that would bypass the Red Sea.

The Portuguese rounded the Cape of Good Hope in 1498, and an era of European expansion into the Indian Ocean began. British, French, and Dutch ships battled one another in an effort to gain a foothold in the area. The British established a colonial empire in India in the eighteenth century, and captured the port of Aden in 1839. Yemen thus became divided between north and south; the south passed out of the sphere of indigenous political control.

Yet the Europeans were not the only foreign powers to meddle in the political affairs of South Arabia in this period. As the Ottoman Empire expanded into the Fertile Crescent, Egypt, and Arabia, Yemen became incorporated into its hegemony. From the early sixth century onward the Ottomans competed with the local Imams for control of the country. There were two major periods of Ottoman occupation in Yemen: 1536-1635 and 1870-1918. The Ottomans

employed one strategem after another to bring the tribesmen to submission, but they were forced to settle for a modicum of administrative control and tax-collection as tokens of their authority in Yemen.

In the period between the occupations, the Imams were consumed with their own struggles for succession, as well as with expelling the invaders and pacifying local rebels. The weakness of the central government exposed the coastline to attacks by marauders from Islamic and Christian countries alike. Normal agricultural and commercial production was interrupted. Excessive taxes levied on the local population and at the ports further increased the difficulties of the country. Under such conditions, internal rebellions and power struggles multiplied. The second Ottoman occupation brought an end to the pretense of local rule, but political and economic instability continued to characterize the country.

With the fall of the Ottoman Empire in 1918 an Imam of the Hamid al-Din family, Imam Yahya, took control of the country. He ousted the Turks and established a dynasty which lasted until the 1962 revolution. Adopting a policy of isolation and oppression to insure their continued sovereignty, the rulers of this line lost sight of the benefits of international exchange and cultural interaction. As modern technological development transformed the planet, Yemen was left behind. The dawn of the machine age and the

establishment of a world economic system changed the nature of government's role in modern society; a reliance on submission and taxation could no longer ensure the solvency of a given national economy. Thus, a country which throughout its history has occupied a pivotal position in international trade and cultural interaction suddenly found itself incapable of participating in the modern international arena.

V.E.2 History of the Educational System

Once the civil war ended in the early 1970s, the Republican government of Yemen set about to transform the society and diversify the economy. The major focus of the first decade of development was on the construction - schools, hospitals, water supply systems and roads - that would sustain life and provide a means of communication to all parts of the country. Financing was arranged by combining income generated from taxation with international funds and local contributions. In the virtual absence of a local cadre of education functionaries, the manpower necessary to organize and supervise the work was provided by foreign experts and international donor agencies. The Confederation of Yemen Development Associations (CYDA) was established in 1973 and assumed a major role in this process. The basic financing scheme anticipated an equal sharing of the cost of school construction: 1/3 by the local residents, 1/3 by the national government (Ministry of Education in the case of schools), and 1/3 by CYDA. In fact the contributions from the Ministry and

CYDA were frequently delayed and sometimes never arrived, leaving many rural schools in a stage of partial construction for prolonged periods of time. Communities, through the Local Councils for Cooperative Development, have had a very active role in financing the expansion of educational opportunities, both through direct monetary and in kind contributions to school construction and through sharing the cost of teachers' expenses and housing. Another important source of financial resources has been other countries, such as the United Arab Emirate and Saudi Arabia, which, in 1983, were paying the salaries of almost 15% of the total number of primary school teachers in Yemen.

Among the stated goals of the revolution of 1962 was a commitment to provide free and equal access to education to all citizens, in all parts of the Republic. It is estimated that by the mid-1940s only 500 schools existed in the entire country (IEES, 1986:1-5). These were mostly Koranic schools and did not offer a complete course of study in elementary reading and mathematical skills. They were almost exclusively for males and located only in the major cities. The Education Law of 1974 defined the current academic system of primary, intermediary, and secondary schools; it also articulated basic requirements for establishing institutes for technical education, teacher training, and the elimination of illiteracy. Between 1962 and 1970 the first modern schools were built, and the most promising graduates were sent abroad for higher training. Teachers were recruited from the neighboring Arab

states, notably Egypt and the Sudan. In the early 1970s San'a University was founded; it included a Faculty of Education designed to train educational planners and top-level administrators.

The lack of attention to education during the Imam period is reflected in the low rate of literacy in the population. According to census figures, in 1971 only 12% of the population was literate. The female literacy rate was only 1.9% compared to a male literacy of 25%. The highest literacy rates were found in the former capital city, Taiz, 18% overall, with 37% for males and 4.6% for females, and in the present capital, San'a, with 16% overall, 31% for males and 2.5% for females.

After 1970, educational opportunities in primary education expanded very rapidly. Between 1970 and 1975 the number of schools grew from 700 to 1,952; in those five years Yemen built more schools than in all of its previous history. The system has continued to expand and, in 1983, it included approximately 4,000 schools. Enrollment expanded even more rapidly; it climbed from 72 thousand students in 1970 to 233 thousand in 1975, and 602 thousand in 1983. The explosive growth of enrollment generated an enormous demand for new teachers that could not be satisfied with Yemeni teachers. Through the support of donor nations, Yemen was able to increase its teaching force from 1,780 teachers in 1970 to 5,773 in 1975, to 13 thousand in 1983. In 1970 the non-Yemeni teachers represented only 3% of the teaching force; in 1983 they represented

almost 85% of all teachers, the majority of them, 79%, being Egyptians.

The First Five Year Plan (1976-81) gave high priority to developing the educational system in all provinces and at all levels simultaneously (Central Planning Organization, 1977). As a stop-gap measure aimed at upgrading the qualifications of the adult work force, training in a wide variety of professional and technical fields was offered in a series of specialized secondary schools, as well as in extracurricular training programs throughout the country. Adult education centers were founded to provide training in basic reading and mathematical skills. Teacher training institutes were reorganized and upgraded. Teaching materials for use at all educational levels were developed, and a special government agency was established to produce educational maps, books, and other media.

Under the Second Five Year Plan (1982-86) expansion and refinement of the existing system was the primary goal (Ministry of Education, n.d.:16). Greater emphasis was placed on the construction of specialized secondary schools, rural schools at all levels, and on increasing female access to the educational system. The curriculum for teacher training institutes was standardized according to a five year course of study after intermediary school, and the older system of a three year course of study was abandoned. Special training programs were also developed to upgrade the skills

of teachers already employed in the system.

V.E.3. Current Participation and Disparity between Male and Female Access to Education

According to the 1982 demographic survey, 25.7% of the population of Yemen was literate, which represents an increase of more than 13 percentage points in ten years. Women's literacy also increased, but still remained very low, at 6.8%; this represents an increase of 5 percentage points since 1971. Male enrollment gained most during that decade; male literacy increasing by more than 20 percentage points to reach a level of 46.2%. These figures hide a large disparity between urban and rural areas. The literacy rate for rural areas was only 17.9% compared to 39.9% for urban areas. Within the urban and rural areas there were wide disparities between women and men. In urban areas, women had a literacy rate of 15.4%, while the literacy for men was 63.7%; in rural areas, 35.9% of the men were literate, compared to only 1.8% of the women.

Comparison of the literacy level of the 10-14 year old group with the 15-19 year olds shows that in the last years the gap between men and women has started to decrease, especially in urban areas. Sixteen percent more urban women between the ages of 10 to 14 were literate than in the 15-19 year old group. This means that in the last ten years this group has experienced an increase in its literacy of almost 50%. Due to this increase the gap between women and men in urban areas has been reduced from a 51 percentage point

difference to a 34 point difference. However, in rural areas women are still far behind men and the gap between them has increased from 42 to 48 percentage points.

TABLE 40
Literacy Levels according to Gender
and Rural-Urban Location: 1982

Age Group	Rural			Urban			Total		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
10-14	54.1	6.5	33.2	80.5	45.0	65.2	64.4	22.2	45.7
15-19	45.0	3.3	23.3	81.8	30.3	57.1	60.2	13.5	36.6

Source: Demographic Survey, 1982, Yemen Central Planning Office, 1984.

Between 1975 and 1983, participation in primary education in Yemen grew from a GER of 29% to a GER of 69%. These figures, however, hide a large inequality between women's and men's participation in primary education. In 1983, only 22% of the female school-age population was enrolled in primary schools, compared to 105% of the male school-age population; there were nearly six times the number of males as females. The male GER at the secondary level was 10%, while the female GER was only 3%. In 1985-86 there were 9,044,487 students enrolled in primary education in Yemen. Of these only 19% were female. At the intermediate level there were 96,587 students, of which only 9.7% were female, and in secondary education there were 25,335 students, only 10.6% of them women.

Sixty-three percent of the students enrolled in primary education lived in three governorates: Taiz, Ibb and San'a. Fifty-four percent of the female enrollment belonged to these three cities, another indication that urban women benefit more from education than rural women do. The places with the highest proportion of females enrolled in primary education were also Taiz, with 26.5% female enrollment, Ibb, with 21.3%, and San'a with 20.5%. Ibb was the governorate with the highest increase in the proportion of female students. In general, between 1982-83 and 1985-86 women increased their representation in primary education from 17% to 19.4%. The governorates with the largest increase were Dhamar, which went from 7.7% female enrollment to 13.8%, and Sada, which went from 4% to 11.7%.

V.E.4. Quality of the Data

A recent evaluation conducted by IEES on the quality of education finance statistics from Yemen concluded that: "the current Ministry of Education accounting process is outdated, inadequate and staffed with insufficiently trained personnel" (IEES, 1986). A comparison of the school records with the figures submitted by schools to the MOE for the annual school survey found that there were substantial discrepancies between the sources of information. According to the report, one of the reasons for the discrepancies is that "school officials had to manually add up the number of boys and girls in each grade." This error is sometimes

magnified when the data are transferred at the Ministry to the tally sheets. One example quoted by the report was a school where 141 girls were recorded in the column for boys.

During the visit of the BRIDGES team to rural and urban schools it was verified that few schools keep accurate records of the academic history of the students. In general the information only refers to basic student characteristics such as name, address, and parents' names. Although the schools are required to keep records of their students' age and whether they are promoted or repeat a grade, this is rarely done. Each school that we visited had a different form for student records. The lack of a standardized school bookkeeping system forced each headmaster to design the school forms according to his/her understanding and experience.

V.E.5. Explanations for Disparity

Cultural constraints such as segregation of the sexes, which requires the construction of separate schools for boys and girls whenever possible, and early marriage, further hinder the use of the educational resources that do exist. The custom of an exorbitant bride-price, \$3,000 to \$45,000 or more, forces many boys to drop out of school in order to generate the income to obtain a wife. Females face particular difficulty in gaining access to education in Yemen.

A field study conducted by BRIDGES in seven rural and urban schools in Yemen revealed that in mixed schools in urban areas, the number of female students dropped to practically zero after grade 3. In rural schools this was also the case. An examination of the records in one rural school showed that two years before our visit, in February 1988, there had been more girls enrolled in grades 4 to 6 than at any time before or since. According to the headmaster, during that period two Egyptian teachers, a married couple, were assigned to the school and the woman taught the higher grades. The presence of a female teacher brought back female students who had stopped coming to school for more than two years. During that time there was also a high enrollment of women in the literacy program, which was run by the same woman teacher. The year after the couple left the school, female enrollment in grades 4 to 6 dropped again.

In urban areas it is common for girls' schools to have a higher enrollment in grades 4 to 6 because parents prefer to send their daughters to a single-sex school only after they have reached the age to attend grade 4. Some girls' schools allow boys to attend up to grade three, at which time they are asked to move to a boys' school.

Conservative religious traditions hold that a woman's place is in the home, and that to protect her purity she should go out only rarely and then be completely veiled. The circulation of females in society is so limited that men, whenever possible, do all the

shopping and household errands. Low marriage age and a high fertility rate restrict educational opportunity for many girls to the primary school level. At the onset of menarche the traditional restrictions imposed on mature women apply, and the girl is "grounded". In major cities and in rural areas alike, permission to attend further schooling or to seek employment outside the home is generally cause for a major family struggle. The most conservative families will not even allow their primary-level daughters to attend mixed schools with boys; this demands the construction of separate schools for girls and boys, especially at the advanced levels. Access to the university is often denied to women purely on the grounds that it constitutes a threat to their morality. Since there are no dormitories, university access is restricted to those students who either live in the capital, or who have relatives there with whom they may reside (Myntti, 1979).

With the support of the national government women are assuming an ever greater role in public affairs in Yemen, but progress is slow and fraught with difficulty at every stage. Ironically, the prevalence of divorce affords an opportunity for further education and employment to a large number of women; families of divorced women permit them greater mobility, often for purely financial reasons, once they return to the parental home.

**V.E.6 Policies to Increase Women's Access
to Education**

According to the Second Five Year Plan of 1982-86, the educational system of Yemen "is unable to meet, in the near future, the need for qualified and skilled manpower. Primary education must play a key role in meeting the challenge of the future." The Ministry of Education designed three main strategies in order to face this challenge: the construction of new schools, the upgrading of the curriculum through the development of a syllabi for primary education, and the "Yemenization" of the teaching force through the increase in the number of newly qualified Yemeni teachers.

One policy related to the issue of women's access to education that was implemented a few years ago was the Open Separate Facilities Program. This policy had been initially pushed by the Women's Section Office of the Ministry of Education under the belief that segregated schools in rural areas would attract more girls to primary education. An evaluation of the program showed that girls were not attending these special schools because they were frequently too far from where they lived. Consequently, several of the segregated schools were almost empty, wasting scarce resources. After this evaluation, the Women's Section of the MOE changed their position; they now favor coeducational facilities for primary education, especially in rural areas. However, for preparatory and secondary levels of education they still favor segregated schools.

A lack of qualified teachers has already been mentioned as a

bottleneck that limits the expansion of the school system. One relevant policy recently implemented by the government created a program called the Voluntary National Service for all who have completed their secondary and/or higher education. According to this program, all women who complete secondary school must serve for one year as primary school teachers; all who finish a university education must serve for another year as teachers at the secondary level. The purpose of the program is to increase the number of female teachers in order to attract more girls to schools. The best male students also have the opportunity to serve in the Voluntary Service; if they choose not to, they must serve in the military. Before beginning to teach, the volunteers are given an intensive, fifteen-day training course on the basic principles of teaching. After the instruction is completed, the volunteers are assigned to schools where they work as teachers for one academic year.

In our visit to schools we had the opportunity to observe two volunteers while teaching. Both of them were very good and appeared hardly different from the permanent teachers. However, in many other schools the volunteers have been filling administrative positions which involve little work. In our visit to rural schools we did not encounter any volunteers, yet we did see some of the volunteers working in the central office of the MOE. Some of the critiques of the program have been that the volunteers don't know how to teach and that they have little commitment to either the

pupils or the school because they leave after one year. The high turnover has also been criticized by headmasters because it interferes with the development of a school identity, which they see as significant in keeping children in school. It has been suggested that students receive instruction in teaching methods as they are completing their education, better preparing them to teach after graduation.

UNICEF has just begun another program designed to train women to become elementary school teachers in rural areas. This program trains rural female students who have completed primary or intermediate education to become primary school teachers. As the teacher trainees must live in a rural area, they are taken by bus every day from their village to the teacher-training facility, generally located in a small, nearby city. At the end of the school day the students are returned to their villages. UNICEF pays a small monthly stipend to the trainees as a form of incentive. After two years of instruction the students are expected to be qualified as primary school teachers.

This program began during 1987 with a total enrollment of 80 students at three different sites. After two years the program will be moved to new sites in order to bring the training to potential teachers, rather than trying to bring the students to the training facilities. The criteria for the selection of students are a good evaluation from the principal of the school where the

student graduated, the student's parents' permission for her to become a teacher who will work in their village, and a desire on the part of the student to become a teacher.

V.F. INDONESIA

V.F.1. Background.

Indonesia is the largest archipelagic nation in the world; seventy percent of its population lives on the islands of Java, Bali and Madura. It is the fifth most populous country, with 150 million people, 85% of whom live in rural areas. Its location at one of the world's major crossroads has made Indonesia an active trade center and a place where different cultures coexist with only relatively minor confrontations.

Over 90% of Indonesia's population is Moslem, which gives Indonesia the world's largest concentration of Muslims. Prior to the introduction of Islam, the dominant religions in Indonesia were Hinduism and Buddhism; however, both were confined to the ruling elite and were not widely propagated among the people. During the fourteenth century Islam was first introduced in the coastal areas of Sumatra and Java, from which it gradually spread to the rest of the country. The accession of an Islamic sultan, Demak, in 1527 gave impetus to the expansion of Islam. An important role was also played by the pesantrem, centers of religious learning, which served as the predominant institutions for education, especially in rural areas.

Java's strategic location on the spice route between Europe and Asia brought the Portuguese in the fifteenth century, followed by the Dutch. The Dutch established a colonial

domination over Indonesia that lasted from the end of the sixteenth century until the declaration of independence in 1945. The struggle for independence lasted from 1945 until 1959 when the Dutch finally acknowledged Indonesian independence.

V.F.2. History of the Educational System

Education did not receive much attention under Dutch domination. The government maintained a segregated system under which Indonesian children were not allowed to attend European schools. By 1900 there were about 1500 primary schools to serve a population of 32 million. In 1906 the colonial government established a system of village schools; the government's main responsibility in this project was only to subsidize the school construction. The responsibility for maintaining the buildings and paying teachers' salaries was left to the villagers. Nevertheless, by 1913 there were some 3500 village schools, and by 1940 the number had increased to 18,000.

By the time of its declaration of independence in 1945, Indonesia had 2.5 million children enrolled in primary education, out of a school-age population of 9.5 million, in 18,000 schools. This means that only about 47% of the school-aged population was attending primary school in 1945. Five years later, after the Dutch finally acknowledged Indonesian independence, the numbers of students in primary schools had increased to almost 5 million and the number of schools was 25,000. In spite of this phenomenal

expansion of the educational system, the rate of increase was not enough to keep pace with population growth. The population enrolled in primary education still represented only 46% of the school-age population. The system lacked the resources, especially school buildings and trained teachers, to expand at the necessary rate.

Since Indonesia gained its independence, the education system has been organized according to the Western model. Primary education has six grades. During the first three years of primary education, at least part of the instruction may take place in the local vernacular language, but from the fourth grade on, all instruction is supposed to take place in Bahasa Indonesian, the national language. Secondary education is divided in two sections, three grades for junior secondary and another three grades for senior secondary. At the junior secondary level, schools are divided into areas of specialization: general, economics, home economics, or technical training. At the senior level, schools are divided into general, economics, home economics, technical training, teacher training, and sports-teacher training categories.

Primary education in Indonesia is compulsory and free. The government also provides free textbooks for all primary school grades. The books are not given directly to the pupils, but are made available in every school for the students to use in the

school and occasionally to take home.

V.F.3. Current Participation and Opportunities

According to the 1971 population census, only 56% of the females and 62% of the males in the 10-to-12 year age group were attending school. In 1980, that proportion had increased to 83.5% of the females and 83.9% of the males. It was a tremendous accomplishment for such a short time period; Indonesia not only increased enrollment to a high rate, but simultaneously reduced the gap between male and female enrollment to practically zero. Measured by the net enrollment ratio, participation in the Indonesian educational system reached an even higher level in 1984 - 96% for females and 100% for males.

One of the reasons for the rapid expansion of educational participation was a 1973 decision made by the Indonesian government to increase the number of primary schools on a large scale. Between 1974 and 1987 the total number of public primary schools increased from 56,054 to 134,660, an increase of 140%. This means that the number of public primary schools has been increasing in the last 14 years at a rate of 6.4%. As the number of public schools in primary education has expanded, the number of private schools has been reduced. While the size of the private sector has been reduced at the primary level, it has increased in both junior and senior secondary education. Between 1974 and 1987 the number of private junior-secondary schools

increased at a rate of 7% a year, compared to a 6.7% rate of increase in public junior-secondary schools; the number of private senior-secondary schools increased by 11% a year, compared to only 5.8% for public senior-secondary schools.

TABLE 41
Distribution of Schools By Ownership

	1974		1987	
	Percent of Schools Public	Percent of Schools Private	Percent of Schools Public	Percent of Schools Private
Primary	84%	16%	93%	7%
Junior 2nd	38%	62%	36%	64%
Senior 2nd	38%	62%	24%	76%

Source: OECD, Internal Report, 1988.

V.F.4. Disparity between Male and Female Access to Education

A comparison of illiteracy rates for males and females and for rural and urban areas for the 10 to 14 year age group shows that more women were receiving an education in 1980, both in rural and in urban areas, than did so in 1961, and that the gap between women and men, consequently, was significantly reduced. The comparison of illiteracy rates between urban females and urban males indicates that the gender gap was reduced from five percentage points to less than one percentage point during that time period, while the gap between rural women and rural men had been reduced from ten percentage points to less than two percentage points. The difference between urban and rural areas was also reduced, but still remains high; rural women have fewer

educational opportunities than urban women or urban men.

TABLE 42
Illiteracy Rates in 1961 and 1980 in Rural
and Urban Areas

	10 to 14 years in 1961		10 to 14 years in 1980	
	Male	Female	Male	Female
Urban	10.2	15.3	3.60	4.45
Rural	26.5	36.0	10.88	12.58

Source: Bureau of Statistics, 1961 and 1980 Population
Census.

Given the small differences in literacy levels in the 10 to 14 year group, one explanation for the difference which does exist might be a reflection of the past. Traditional values that see women's role as working in the household still exist. In secondary school, gender differences are explained by a lack of jobs for women after they finish their education. What still remains to be explained is the gap in literacy between rural and urban areas, which, combined with the lower literacy rate of girls in general, makes rural girls the most disadvantaged group. A comparison of the 1961 population census with more current data makes the enormous progress in reducing the gender gap more apparent.

TABLE 43
Percent of Illiterates: 1980

	Male	Female
Urban	8%	21%
Rural	24%	42%

Source: Bureau of Statistics, Population Census 1980.
Jakarta, 1983.

Not only do a smaller proportion of rural women enroll in school, but they are also the group that is least likely to complete primary education. Data from the 1980 population census show that only one-third of the rural women who attended primary schools were able to complete their primary education, as compared to two-thirds of urban men, and more than one-half of urban women.

TABLE 44
Primary School Completion Rates: 1980

	Male	Female
Urban	66%	59%
Rural	39%	33%

Source: Bureau of Statistics, Population Census, 1980.
Jakarta, 1983.

Table 44 also suggests that area of residence is more important than gender in explaining a pupil's probability of completing primary school.

There is a higher proportion of male teachers than female teachers in the Indonesian educational system. The reasons given by a variety of informants is that, although the number of women who enter teacher-training institutions is nearly equal to the number of men, it is difficult to find women who are willing to teach in rural or remote areas, where the majority of the schools are located. The proportion of women who teach in rural areas is not very high. Unfortunately, the Ministry of Education does not have data available on the gender of teachers in urban and rural areas. The fact that when women in Indonesia marry they usually quit their jobs offers another explanation for the proportionally lower rate of female teachers.

V.F.5. Quality of the Data

In a system with more than 150,000 schools, data collection presents a number of problems which pose a serious threat to the integrity, validity and accuracy of the data. But in Indonesia the problem is not only volume but also the complex way in which education is managed. In the case of primary education, for example, data collection depends on two main government agencies: the Ministry of Education and Culture, and the Ministry of Home Affairs. The information flows through several data collection points before it reaches the processing stage. Typically, data flows from the school to the kecamatan (sub-district level for both Ministries), then to the kabupaten (district level), and to the kanwil (province level), and finally to the central office.

Evaluations done by the Improving the Efficiency of Educational Systems (IEES) project and the Office of Education and Cultural Research and Development of the Indonesian MOE have concluded that one of the major problems with educational data collection in Indonesia is data duplication. Time and again different governmental offices collect similar data independently, which imposes an unnecessary burden on school administrations. The main consequence of this is that the people who collect data lose motivation and have no clear sense of the usefulness of the data; the result is tardiness and lack of response.

Our interviews with researchers and people working in Pusat Informatika confirm this impression. They told us that it is very difficult to obtain basic and reliable information about costs and subsidies, student enrollments by grade and age, and number of teaching staff and their qualifications because the variety of agencies collecting this information render the data internally inconsistent.

V.F.6. Policies to Increase Women's Access to Education

Several policymakers who were interviewed in Indonesia suggested that the issue of women's access to education has not received special attention there. The explanation offered for Indonesia's success in this area was that "women and men have the same rights and opportunities in Indonesia, and this comes from a long tradition of women being very active in all kinds of activities since ancient times." This lack of attention to the issue is reflected on the political level by the absence of special policies aimed at women as a disadvantaged group. In terms of educational planning, this attitude is reflected in how educational data is collected; a breakdown according to gender receives little attention. In fact, in an annual report on the situation of women and children in Indonesia produced by the National Bureau of Statistics, the information on enrollment and teachers is not disaggregated by gender. The reason for this is that the Information Center does not always ask schools to report this information. According to the Director of the Primary

Education Section of the Department of Informatica, the Ministry of Education does not collect data by sex because there is little interest in it. They report that "nobody has asked for that information in the last two years," BRIDGES being the first group to request information desaggregated by gender.

According to Mr. Wesley Simanjuntakthere, Director of the Research Unit of the Office of Educational and Cultural Research and Development (OECRD), the Indonesian government has had no explicit policies to increase girls' access to education. What the government has done, however, is increase opportunities for everybody.

The present situation in education can be attributed to a series of policies implemented by the Indonesian government since the second five-year plan, 1973-74 - 1977-78. In the early 1970s, the government began a very aggressive policy to build new primary schools. Later primary education was declared free and textbooks were distributed without charge. These policies were facilitated, in part, by the increase in state revenues due to the surge in oil prices during that period. An illustration of this is the 500% increase in the development fund for education which occurred at the beginning of the second five-year plan.

As a complement to these initiatives, and as a way to overcome teacher shortages, two types of non-traditional teaching

strategies have been promoted. One approach has been the PAMONG Program. PAMONG is an acronym for "Education of Children by Community, Parents, and Teachers." It stands for a type of school that was established in central Java in 1974 to overcome the acute teacher shortage in remote areas; later it spread to Bali, and from there to other parts of Indonesia. The idea behind PAMONG was to provide education by having parents, teachers, and the community all participate in the teaching and learning process and to change the notion that schooling has to take place in a special kind of building and be provided by a teacher. PAMONG is a school-based program, but students learn at their own pace and only occasionally have contact with the teacher. This practice is structured to allow a single teacher, using community resources, to reach an average of 200 students. The PAMONG schools are set up in locations where there are children 7-to-12 year olds who have dropped out of school or are not attending for socio-economic reasons.

PAMONG's educational strategy has the following characteristics:

- Presentation of learning materials in the form of modules for programmed teaching and learning. Students can learn by themselves either individually or in groups, with some sort of indirect supervision by teachers. The speed of the learning depends on the student's characteristics. Teaching is done mainly through tutoring by senior schoolmates, parents or members of the community.
- Students who cannot attend school regularly can go to group study sessions. There is no fixed schedule for these sessions and they are arranged according to demand.

- The teaching materials are based on the curriculum of the formal primary school, but have been designed as self-study guides.
- Teachers are not held solely responsible for the teaching and learning process; parents and the community are also required to play an active role.

Today the PAMONG strategy is no longer being promoted and is slowly being replaced by small schools.

Another strategy, targeted at both children and adults who are not attending primary school either because they have dropped out, live in sparsely populated areas, or are constantly moving, is the Kejar Program begun in 1979. Similar to PAMONG, this program is conducted in the form of learning groups and requires the active involvement of the community with the government. Institutional location is temporary in the Kejar Program because teaching/learning activities can take place in various locations, such as students' homes. The program consists of a series of 100 learning units, divided into three major sections: (1) basic reading and writing, arithmetic, and Indonesian language; (2) first consecutive readers, and basic science; (3) second consecutive readers, and more advanced science. Each unit is planned to require 15 hours' study and is designed so that it is relevant to every-day life. The formal content of the instruction contains practical skills, such as agriculture, auto mechanics, bicycle repair, and sewing.

The Kejar program is administered by the Ministry of

Education, but other institutions, such as the Ministry of Interior, are also involved in its organization and implementation. The Ministry of Education provides teacher training, books, and supervision and monitoring. At the village level the instructors are voluntary workers, usually teachers. The Kejar program accepts students from 10 to 45 years old; the majority of the students enrolled in the program are women. While there has been no explicit educational policy to discriminate in favor of women in Indonesia, some programs, such as the Kejar, do favor women over men because their flexibility allows women to receive an education while they are working.

V.G. SRI LANKA**V.G.1. Background.**

Sri Lanka is an island in the Indian Ocean located less than 60 miles off the southeastern part of the Indian Peninsula. Because of its location, Sri Lanka has always played a strategic role in the sea trade between East and West.

Historical Ceylon was comprised of two major population groups: the Singhalese, who came from the northern part of the Indian peninsula, and the Tamils who came from the southern part of India. The Singhalese represent almost 74% of the 15.3 million people living in Sri Lanka today. They are largely Buddhist and their language is Sinhala. The Tamils constitute 17% of the population; they are predominantly Hindus and their language is Tamil. Other distinctive groups are the Moors, who constitute 8% of the population, and the Malays and Burghers (Christian) who represent only 0.5% of the population. People living in rural areas make up 73% of the population, 21% live in urban areas, and 6% on large agricultural estates.

Foreigners ruled Sri Lanka from 1505 to 1948, when the country gained peaceful independence from Britain. The first colonial power to forcefully rule the country was Portugal in 1505. In 1658 the Portuguese were displaced by the Dutch who ruled the country until 1796, when Great Britain established its dominance over the island. With the British came the

establishment of large-scale estates for coffee, tea, rubber and coconut cultivation, thus shifting the local economy toward the world market. The British also introduced English as the medium of instruction and, from 1831 to 1846, banned both Singhala and Tamil schools. These changes led to a profound transformation of the traditional culture and to changes in the political, social and economic structure of the country.

In 1985 agriculture was still the main source of revenue; 53% of the employed population worked in this sector. The service sector came next, with 33% of the employed population, and then the industrial sector, with only 14% of the labor force. The service sector's share of the gross domestic product was 46%, while industry controlled 41% and agriculture only 27%. Agriculture, however, was responsible for almost 60% of the country's total export during that year (World Bank, 1986).

Sri Lanka has had a serious unemployment problem for the last twenty years. According to the Department of Census, 19% of the labor force was out of work in 1971; in 1985 the Labor Force and Socio-Economic Survey reported that the unemployment rate was 14%, with a larger proportion of women out of work (21%) than men (11%). Unemployment is higher among the better-educated groups.

Table 45
Unemployment Rates by Level of Education and Gender: 1985

Unemployment Rate

Level of Education	Total	Male	Female
All Levels	14.1	10.8	20.8
No Schooling	6.1	7.7	4.8
Passed Grade 0-4	7.7	7.0	9.4
Passed Grade 5-7	11.2	9.5	16.5
Passed Grade 8-9	20.8	15.4	34.9
Passed G.C.E. (O/L)	22.3	14.4	35.6
Passed G.C.E. (A/L)	32.0	18.7	44.9
Passed Univ. Degree	6.3	3.3	10.2
Post-Grad. Degree	3.9	4.2	3.2

 Source: Dept. of Census and Statistics, Labor Force and Socio-Economic Survey: 1985/86. Sri Lanka, 1987

V.G.2. History of the Educational System.

One of the oldest educational institutions in Sri Lanka is the temple school. Temple schools were established by Buddhist monks throughout the island beginning in 307 BC. These institutions were learning centers for the community and served as such until 1865, when they were closed by the British colonial government. During the period of foreign rule (1505 to 1948) the temple schools were the strongholds of religion and literature and were constantly challenged by more individualistic approaches brought by the Portuguese, the Dutch and the British.

The first Western schools were introduced by the Portuguese in 1505 with the explicit purpose of converting the Sri Lankans to Catholicism. These schools were financed by the Portuguese government and administered and organized by Catholic priests. The Dutch continued the policies initiated by the Portuguese but, although the schools remained under the direction of missionary bodies, they gave education a more secular content (UNESCO,

1972).

The British colonial government took a more active role in education than the Portuguese or the Dutch. It actively promoted English education and discouraged Singhala and Tamil schools. People with an English education gained access to government jobs and the professions. Because of this, an English education was in great demand and mission schools were very popular.

A second type of school developed under British rule was the vernacular school. These schools used either Singhala or Tamil as medium of instruction and primarily served the children of the lower social groups. The vernacular schools were considered inferior and of little value in increasing social mobility or job opportunities.

V.G.3. Current Participation and Opportunities

The literacy rate of the population aged 10 years and over for both males and females rose from 63% in 1946 to 87.2% in 1981. During the same period, the female literacy rate rose from 55.6% in 1953 to 83.2% in 1981. The literacy rate for men increased from 80.7% to 91.1% in the same period. These figures show that although the literacy rate for women increased by 27.6 percent points between 1953 and 1981, that only brought it to the same level that men had reached 27 years ago.

Table 46
Sri-Lanka: Literacy Rate of the Population 10 years of Age and
Over by Gender (1946-1981)

Census Year	Percentage Literate		
	Male	Female	Total
1946	76.5	46.2	62.8
1953	80.7	55.6	69.0
1963	85.6	67.3	77.0
1971	85.6	70.9	78.5
1981	91.1	83.2	87.2

Source: Sri Lankan Dept. of Census and Statistics

A closer look at the literacy rates of the youngest age groups (i.e. 10-14, 15-19 and 20-24) shows that the difference in educational attainment between women and men has been reduced dramatically in the last two decades. This reduction has taken place in all sectors; however, in the estate sector it has not been large enough to eliminate the still prevailing inequalities between women and men. According to the 1981 census, women in the estate sector have very low literacy rates and lag behind men by 15 to 20 percentage points.

School enrollment in primary education rose from 1.33 million in 1950 to 2.1 million in 1984, and in secondary education from 65,000 in 1950 to 1.4 million in 1984. One reason for the continuing trend of increasing enrollment has been the permanent effort to make school easily accessible. During the 1950s and the 1960s the country witnessed a massive expansion of the school system. Schools were opened in different parts of the country to meet the rising demand for education. The number of

schools rose from 4573 in 1945, to 8937 in 1963, to 9494 in 1971, and to 9470 in 1978. The supply of teachers increased accordingly from 45,470 in 1953, to 81,206 in 1963, to 90,625 in 1971 and to 113,379 in 1977 (Jayaweera, 1986). In 1984 the school density was estimated at one school for every 1.7 sq.m., a very high rate for a developing country.

Table 47
Literacy Rates for the Youngest Age Groups by Sector: 1981

Age Group	Urban		Rural		Estate	
	Male	Female	Male	Female	Male	Female
10-14	90.5	90.4	90.4	89.9	68.4	54.7
15-19	92.8	89.6	90.0	90.5	68.4	51.7
20-24	94.6	92.5	90.5	89.1	70.3	51.9

Source: Sri Lankan Dept. of Census and Statistics

Under the conditions produced by the repetition and drop-out rates prevailing in 1971, the completion rate for primary education for the cohort was 57 percent, while in 1981 this rate increased to 70 percent (Ministry of Education, Sri Lanka, 1982). This explains in part the spectacular increase in secondary school enrollments. The increased demand at the secondary level resulted in a rising demand for higher education.

The emphasis on education has slowed down with the rise of economic and political problems in the last years. In 1985 education represented only 6.4% of the government's total expenditures, and was down from 13% in 1972, and from an average

of 15% during the 1960s.

V.F.4. Policies to Increase Access to Education

Since the last century the government has been active in promoting education in Sri Lanka. The Ceylon Education Act of 1870 laid the earliest foundations for government-sponsored education; however, this was never an obstacle for the existence of denominational schools, which played a mayor role in educating the elite and government bureaucrats.

The Ceylonese population began to put pressure on the British to make education available for everyone, and to expand access. Many factors prevented this from happening under colonial rule, but a few important steps were taken. Among them were the 1939 plan to transfer responsibility for providing local education to urban and rural local authorities according to the needs and demands of the population; the abolition of religion as a factor that could be used to bar admission to schools; and the introduction of regulations to promote compulsory education (Green, 1965).

Later on, in 1945, teaching in the mother tongue (Singhala, Tamil and English) was made compulsory in primary schools, education was made free, and financial assistance was given to schools to ensure free education for their pupils.

Although educational provisions were widely expanded after independence in 1948, expansion was based on policies initiated in the early 1940s. One of the first policies enacted by the new national government was to increase government assistance to schools. This act had the clear intention of expanding access by increasing the number of teachers and schools that provided free education.

In 1961 a nationally unified system of education was established by taking over assisted schools, and by vesting of plantation sector schools in the state. This ended the dual system of education that may have acted as a barrier to equal educational access.

In order to remove some of the remaining obstacles that keep children from attending school the government decided, in 1979, to provide free textbooks to students in grade 1 to 10 in all schools and to award scholarships to needy children from the grade 5 level. In 1984 the Ministry of Education initiated a policy clustering schools with the purpose of reducing inter-district disparities and achieving better utilization of school facilities and resources (de Silva and Gunawardena, 1986).

VI. Glossary

VI.A. Educational Indicators

1. **GROSS ENROLLMENT RATIO.** The gross enrollment ratio for a given level of education is calculated by dividing the total number of pupils enrolled at this level, regardless of age, by the population that, according to national regulations, should be enrolled at that level (i.e., official school ages). While many countries consider primary-school age to be 6 to 11 years, others use a different age group. At secondary level the age group is usually 12 to 17 (see chart 1, Appendix A for country specific information).

2. **NET ENROLLMENT RATIO.** The net enrollment ratio for a given level of education is calculated by dividing the number of pupils enrolled at this level, whose ages fall into the specific age-group of that level of education, by the population which, according to national regulations, should be enrolled at that level.

Enrollment ratios for the second level are based on the total enrollment including general education, teacher training and technical and vocational education.

Chart 1 presents the national regulations with respect to the duration of each level of education and the entrance age to education.

3. **NO SCHOOLING.** This term applies to those who have completed less than one year of schooling.

4. **INCOMPLETE FIRST LEVEL.** This category includes all those who completed at least one year of education at the first level but who did not complete the final year at this level. Chart 1 presents the duration of each level of education for both first and second levels.

5. **COMPLETED FIRST LEVEL.** This category includes all those who completed the final year of education at the first level but did not go on to second level.

6. **ENTERED SECOND LEVEL, FIRST STAGE.** This category comprises those who entered the lower stage of education at the second level (S1) as defined in table 1.

7. **ENTERED SECOND LEVEL, SECOND STAGE.** This category comprises those who moved to the higher stage of second level education (S2) from the lower stage, but did not proceed to studies at the third level, as defined in chart 1.

8. **THIRD LEVEL.** This category comprises those who undertook third level studies, regardless of whether or not they completed the full course.

9. **CURRENT EDUCATIONAL EXPENDITURES.** Current expenditure refers to expenditures on administration, emoluments of teachers and supporting teaching staff, school books and other teaching materials, scholarships, welfare services, and maintenance of school buildings. The data presented in this database refers only to public expenditures on education.

The statistics on educational expenditures do not take into account foreign aid received for education. Data are expressed in national currency at current market prices.

10. **PRIMARY SCHOOL COMPLETION RATE.** The primary school completion rate is the ratio of the number of students who completed primary education to the number of children who entered school.

11. **SEX DISPARITY INDEX.** The sex disparity index is equal to one minus the ratio of female gross enrollment ratio to male gross enrollment ratio. A value equal to zero indicates no disparity. A positive value indicates disparity in favor of males, whereas a negative value indicates disparity in favor of women.

IV.B. Demographic Indicators

10. **INFANT MORTALITY RATE.** The infant mortality rate is the number of deaths of infants under one year of age which occurred during a given calendar year, per 100 births reported in the same year.

11. **FERTILITY RATES.** The total fertility rate is the average number of children a women will have if, throughout her childbearing years, she were to bear children in accordance with the prevailing age-specific fertility rates. Age-specific fertility rates are the number of births to women in a given age group, during a calendar year, per 1,000 women in that age group in the same year.

12. **LIFE EXPECTANCY.** The life expectancy indicates the number of years a newborn (male, female or both) is expected to live if patterns of mortality prevailing for each gender, at the time of birth, were to stay the same throughout his/her life.

13. **SEX RATIO.** The sex ratio is the ratio of the male to the female population, or number of males per one hundred females.

VI.C. Economic Indicators

13. **GROSS NATIONAL PRODUCT PER CAPITA.** The gross national product (GNP) measures the total domestic and foreign output produced by residents. It is calculated without making deductions for depreciation. The GNP comprises gross domestic product adjusted by net factor income from abroad. This income includes the income residents receive from abroad for factor services (labor and capital) less similar payments made to nonresidents who contributed to the domestic economy. The GNP per capita figures that are presented in this database have been calculated according to the World Bank Atlas method.

14. **AGE DEPENDENCY RATIO.** The age dependency ratio is the proportion of population under 15 and over 65, to the working-age population (age 15-64).

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