DHS EdData
EDUCATION PROFILE

Bangladesh
1993, 1996, and 1999

DHS EdData
Education Data for Decision-Making

USAID

DHS EdData Education Profiles

DHS EdData Education Profiles

This series of country education profiles uses internationally comparable data from USAID's Demographic and Health Surveys (DHS) to characterize children's participation in primary and secondary schooling and adults' schooling attainment and literacy. These profiles provide information that, combined with other country-specific data, can inform education decision-making. Although the DHS began collecting education data in 1984, there was no systematic effort to analyze and present these data in a format accessible to education planners and policy-makers until the DHS EdData Activity began in 1999.

In 2000, the DHS EdData Education Profiles for Africa were produced for nine sub-Saharan African countries. The current set of profiles updates those original profiles with data from recent DHS surveys, and adds to the number of countries profiled. In addition to the thirteen country profiles for sub-Saharan Africa (Benin, Ethiopia, Ghana, Guinea, Kenya, Malawi, Mali, Namibia, Nigeria, Rwanda, South Africa, Uganda, and Zambia), the current series includes profiles for countries in the ANE (Bangladesh, Cambodia, Egypt, India, and Nepal), LAC (Guatemala, Haiti, Nicaragua, and Peru), and E&E (Kazakhstan and Uzbekistan) regions.

Data Presented in the Profiles

These profiles present data from nationally representative household surveys, which provide data at the household and individual levels. The data include educational attainment and schooling status of household members, which allow for the calculation of net and gross attendance ratios (disaggregated by sex, urban/rural residence, and region); the percentage of students under age, on time, and over age, by grade; age-specific schooling status of youth (attending, dropped out, never attended); and adult primary and secondary school completion rates and educational attainment. Recent surveys provide data on repetition, dropout, and survival rates by primary school grade. The DHS also provides information on men's and women's literacy rates for a selected age range.

A Supplement to Other Sources of Education Data

The DHS measures of children's school attendance rates differ from, and supplement, traditional sources of international statistics, such as those produced by ministries of education or UNESCO. Statistics on children's participation in schooling usually are derived from country data on children's school enrollment, which are collected from school records and used to produce net and gross enrollment ratios (NER and GER).

DHS, on the other hand, measures children's participation in schooling using data on school attendance, collected from a representative sample of households. Net and gross attendance ratios (NAR and GAR) are calculated based on questions about whether children attend (or go to) school. While the NAR and GAR may be seen as proxies for the more commonly used NER and GER, discrepancies between attendance and enrollment ratios can be expected.

DHS EdData

The DHS EdData Activity is supported primarily by USAID's Office of Education in the Bureau for Economic Growth, Agriculture and Trade, with additional support from USAID's Africa Bureau. DHS EdData is closely linked to the population and health sector DHS. In addition to analyzing the education data collected by the DHS, DHS EdData conducts various data collection activities, including in-depth household education surveys in a subset of DHS households.

The DHS EdData household survey focuses on issues surrounding the household demand for schooling in order to provide information about the decisions households make about how much of what kind of education to invest in for household members. Specific topics in the core survey include: the reasons for school-age children never having attended school or having dropped out of school, household expenditures on schooling, parent/guardians' perceptions of the benefits of schooling and of school quality, distances and travel times to schools, and the frequency of and reasons for student absenteeism.

Data on these topics, together with the information from the DHS, provide information useful for education policy and program planning and for monitoring USAID basic education activities. The linkage between the DHS EdData and the DHS surveys allows for an analysis of the relationships between education and health, nutrition, family planning, and other individual and household characteristics.

Bangladesh
DHS EdData Education Profile: 1993, 1996, and 1999

The Bangladesh Demographic and Health Surveys (DHS) were conducted in 1993, 1996, and 1999.[1] Having data from three surveys allows for an analysis of changes in the educational setting over time.

Key Findings

Rates of primary school attendance were moderate, with a slight increase from 1993 to 1999.

- In 1999, 76% of children age 6-10 in Bangladesh attended primary school, up slightly from 72% in 1993.
- At all three points in time, school-age males and females were almost equally likely to attend primary school.

At the secondary level, rates of attendance among youth age 11-17 remained low, but increased over time.

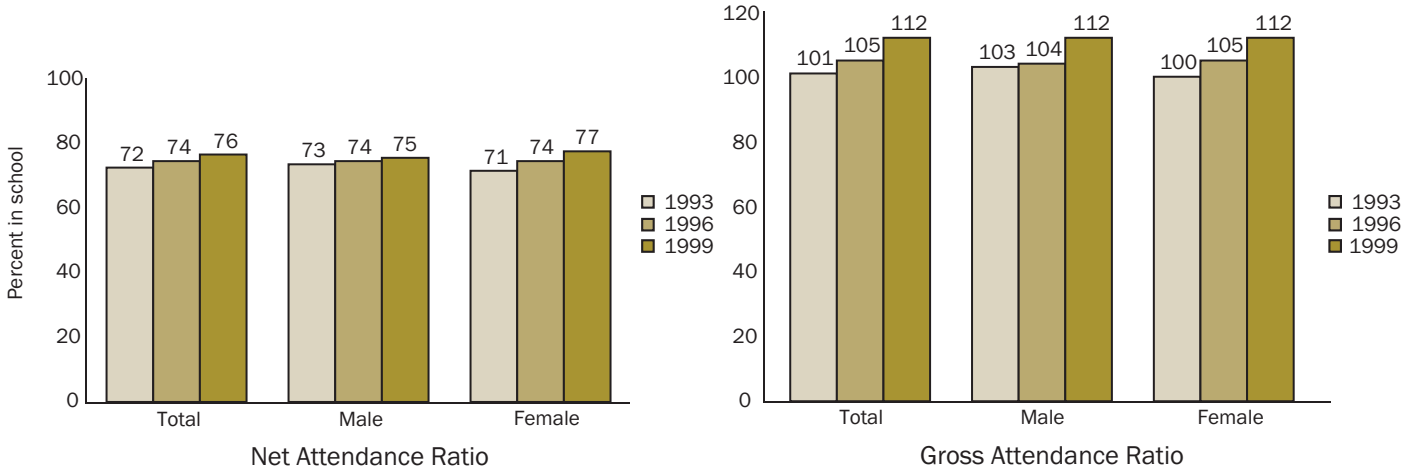
- In 1999, 37% of secondary school-age youth attended secondary school, up from 27% in 1993.
- At all three points in time, school-age males and females were roughly equally likely to attend secondary school.

Adult educational attainment and literacy have increased over time. However, gender disparities remain.

- In 1999, 44% of the population age 15 and older had completed primary school, up from 33% in 1993. In 1999, 51% of men had completed primary school, compared with 37% of women.
- 44% of women age 15-49 were literate in 1999, compared with 53% of men age 15-59.

[1] The 1993 survey was administered to 9,174 households and 9,640 ever-married women age 15-49 from those households. The 1996 survey was administered to 8,682 households and 9,127 ever-married women age 10-49 and 3,346 currently-married men age 15-59. The 1999 survey was administered to 9,854 households, 10,544 ever-married women age 10-49, and 2,556 currently-married men age 15-59.

Primary School Attendance Ratios: 1993, 1996, and 1999



Source: BDHS 1993, 1996, and 1999

The net attendance ratio (NAR) is the percentage of the official primary school-age population (age 6-10 in Bangladesh) that attends primary school. The gross attendance ratio (GAR) is the total number of students attending primary school—regardless of age—expressed as a percentage of the official primary school-age population.

Primary Net Attendance Ratio (NAR)

From 1993 to 1999, the percentage of children age 6-10 attending primary school increased by 4 percentage points.

- In 1999, 76% of school-age children in Bangladesh attended primary school, up from 72% in 1993.

School-age males and females were almost equally likely to attend primary school in 1993, 1996, and 1999.

Primary Gross Attendance Ratio (GAR)

In 1999, many children attending primary school were outside of the official age range (as reflected in the difference between net and gross attendance ratios). This can have tremendous impact on the educational infrastructure, the experience in the classroom, and education planning.

In all three surveys, 1 in 3 primary school students was found to be outside the official school age range (either younger than 6 or older than 10).

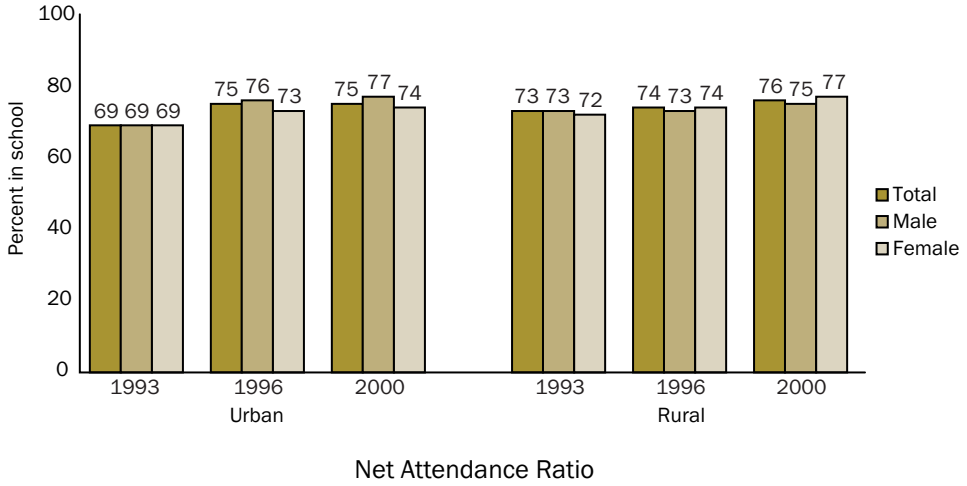
- In 1999, students over or under the official primary school age range made up 32% ([GAR 112 – NAR 76]/GAR 112) of the primary school population.

In 1993, 1996, and 1999, male and female youth of all ages were equally likely to attend primary school.

- In 1999, the gross attendance ratio (GAR) was 112 for both males and females.

Primary School Net Attendance Ratio (NAR) by Urban/Rural: 1993, 1996, and 1999

In 1993, 1996, and 1999, children age 6-10 in urban and rural areas were almost equally likely to attend primary school.



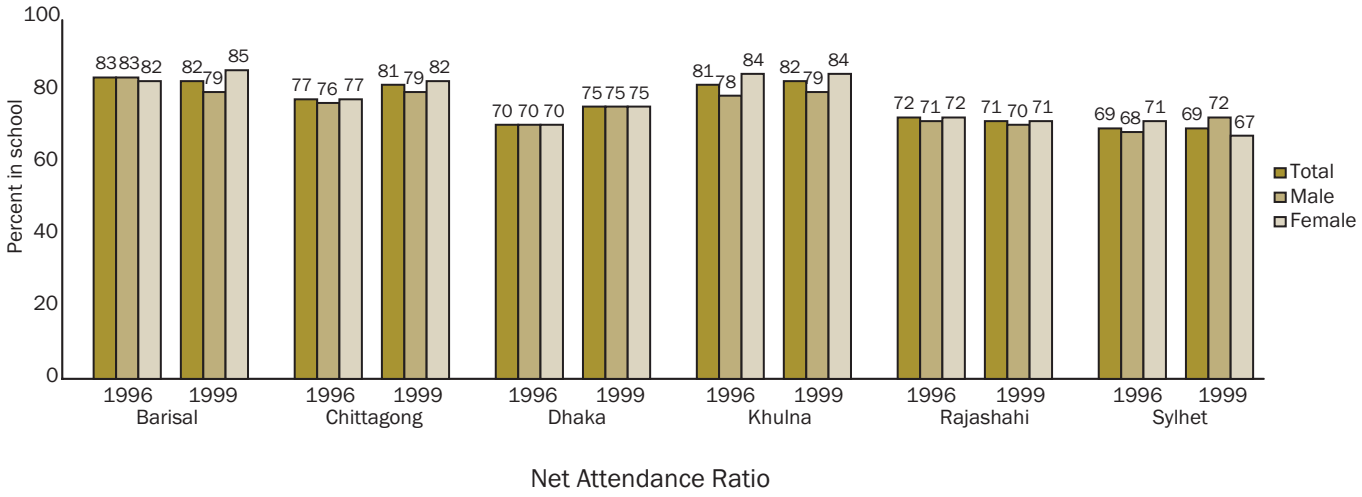
Source: BDHS 1993, 1996, and 1999

Primary School Net Attendance Ratio (NAR) by Region: 1996 and 1999[2]

In 1999 and 1996, there were slight disparities in the NAR by region.

- In 1999, the highest NAR was in the Barisal and Khulna regions (82%) while the lowest NAR was in Sylhet (69%).
- Regional differences were similar in 1996, with the highest NAR in Barisal (83%) and the lowest in Sylhet (69%).

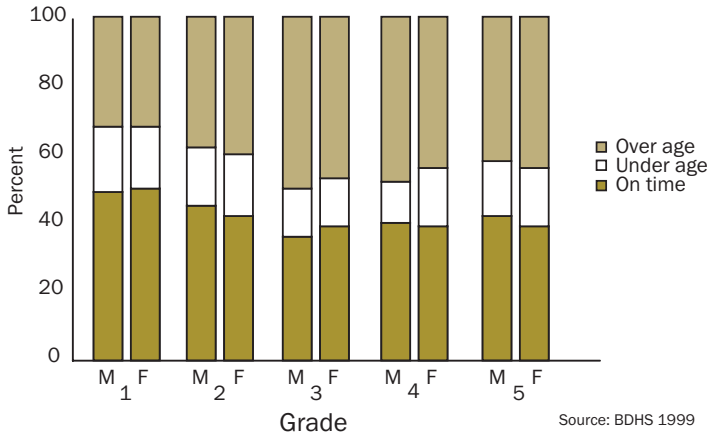
In 1999, the percentage of school-age children attending primary school was slightly higher for females than for males in Barisal, Chittagong and Khulna.



Source: BDHS 1996 and 1999

[2] At the time of the 1993 survey, Sylhet was part of the Chittagong region. As a consequence, this profile compares only 1996 and 1999 data by region.

Over-Age, Under-Age, and On-time Students in Primary School: 1999



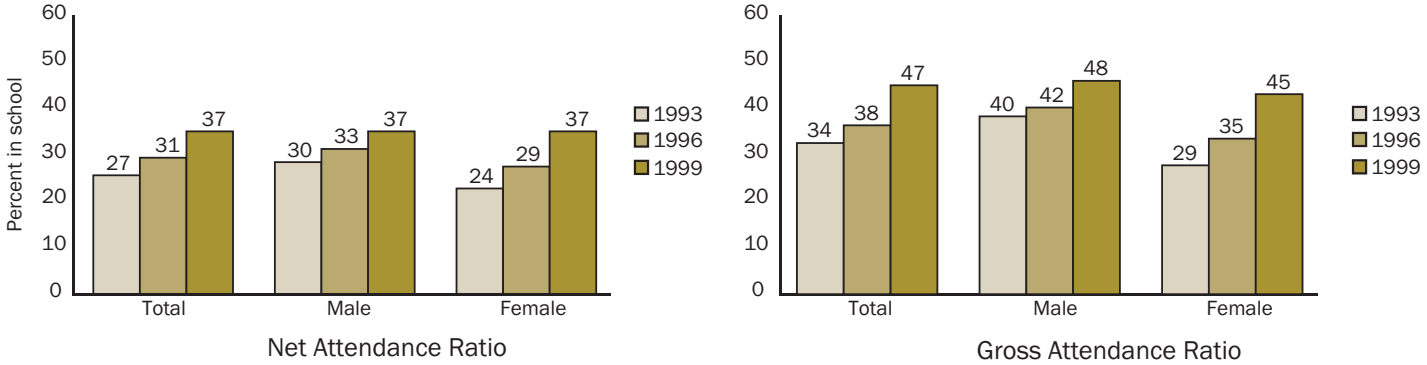
Source: BDHS 1999

In 1999, 32% of grade 1 and 43% of grade 5 students were over age for the grade attended.

- In 1999, males and females were equally likely to be over age for the grade attended.
- From 1993 to 1999, the percentage of students over age for each grade has declined. In 1993, for instance, 57% of grade 5 students were over age, compared with 43% in 1999 (data from 1993 and 1996 not shown).

Students are considered to be over age if they are two or more years older, and under age if they are one or more years younger, than the official age for their grade. Students are considered to be on time if they are of the official age, or are one year older than the official age for their grade. Since the official age of entry to grade 1 is age 6 in Bangladesh, a grade 1 student who is age 6 or 7 is considered to be on time, a student age 8 or older is over age, and a student age 5 or younger is under age. This indicator—under age, on time, or over age for grade—differs from the percentage of primary school students outside the primary school age range (see page 2) in that the proportion of students over age, on time, and under age is calculated for each primary school grade, rather than for primary school overall.

Secondary School Attendance Ratios: 1993, 1996, and 1999



Source: BDHS 1993, 1996, and 1999

The net attendance ratio (NAR) is the percentage of the official secondary school-age population (age 11-17 in Bangladesh) that attends secondary school. The gross attendance ratio (GAR) is the total number of students attending secondary school—regardless of age—expressed as a percentage of the official secondary school-age population.

Secondary Net Attendance Ratio (NAR)

The percentage of youth age 11-17 attending secondary school increased between 1993 and 1999.

- In 1999, 37% of secondary school-age youth attended secondary school, up from 31% in 1996 and 27% in 1993.
- Similar to findings at the primary level, in 1999, there was gender parity in the NAR at the secondary level.

Secondary Gross Attendance Ratio (GAR)

Among students of all ages (gross attendance), rates of secondary attendance increased from 34 in 1993, to 38 in 1996, to 47 in 1999. Over time, the gender disparity in the GAR declined, with near gender parity in 1999.

- In 1999, the GAR among males was 48, compared with 45 among females.

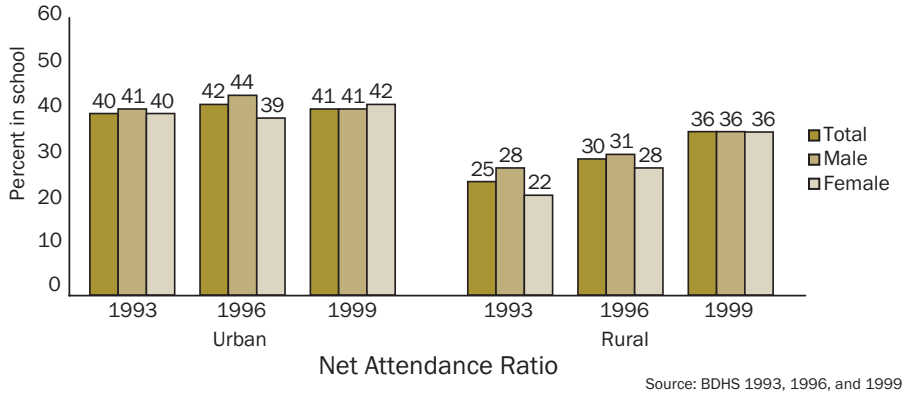
Secondary School Net Attendance Ratio (NAR) by Urban/Rural: 1993, 1996, and 1999

From 1993 to 1999, youth age 11-17 in urban areas were slightly more likely to attend secondary school than youth living in rural areas.

- In 1999, 41% of youth age 11-17 in urban areas attended secondary school, compared to 36% in rural areas.

Between 1993 and 1999, the NAR in urban areas was unchanged, while it increased substantially in rural areas.

- In urban areas, the net attendance ratio was 40% in 1993, 42% in 1996, and 41% in 1999.
- In rural areas, the NAR increased by 11 percentage points between 1993 and 1999, from 25% to 36%.



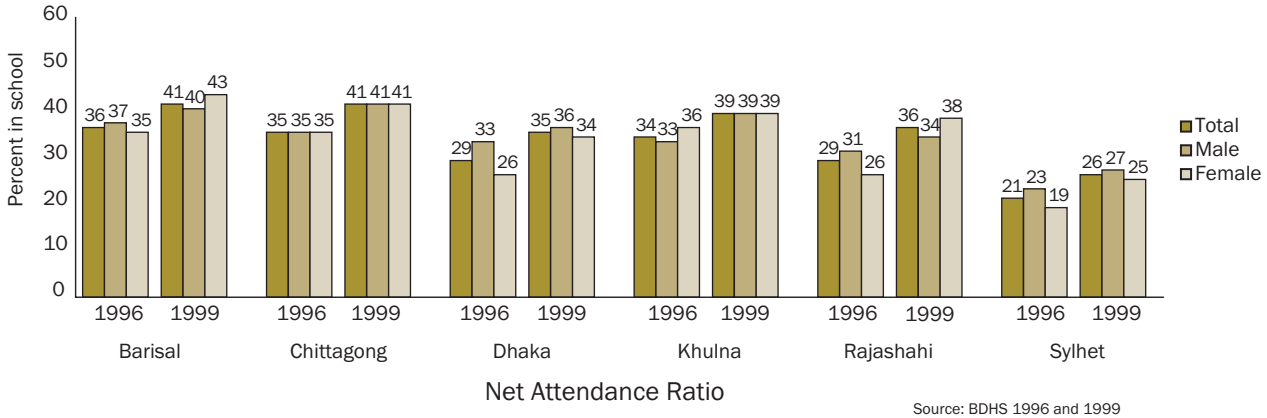
Source: BDHS 1993, 1996, and 1999

Secondary School Net Attendance Ratio (NAR) by Region: 1996 and 1999[3]

In 1999 and 1996, there were disparities in the secondary NAR by region.

- In 1999, the secondary NAR ranged from 26% in Sylhet to 41% in Barisal and Chittagong. The pattern of regional differences was similar in 1996.

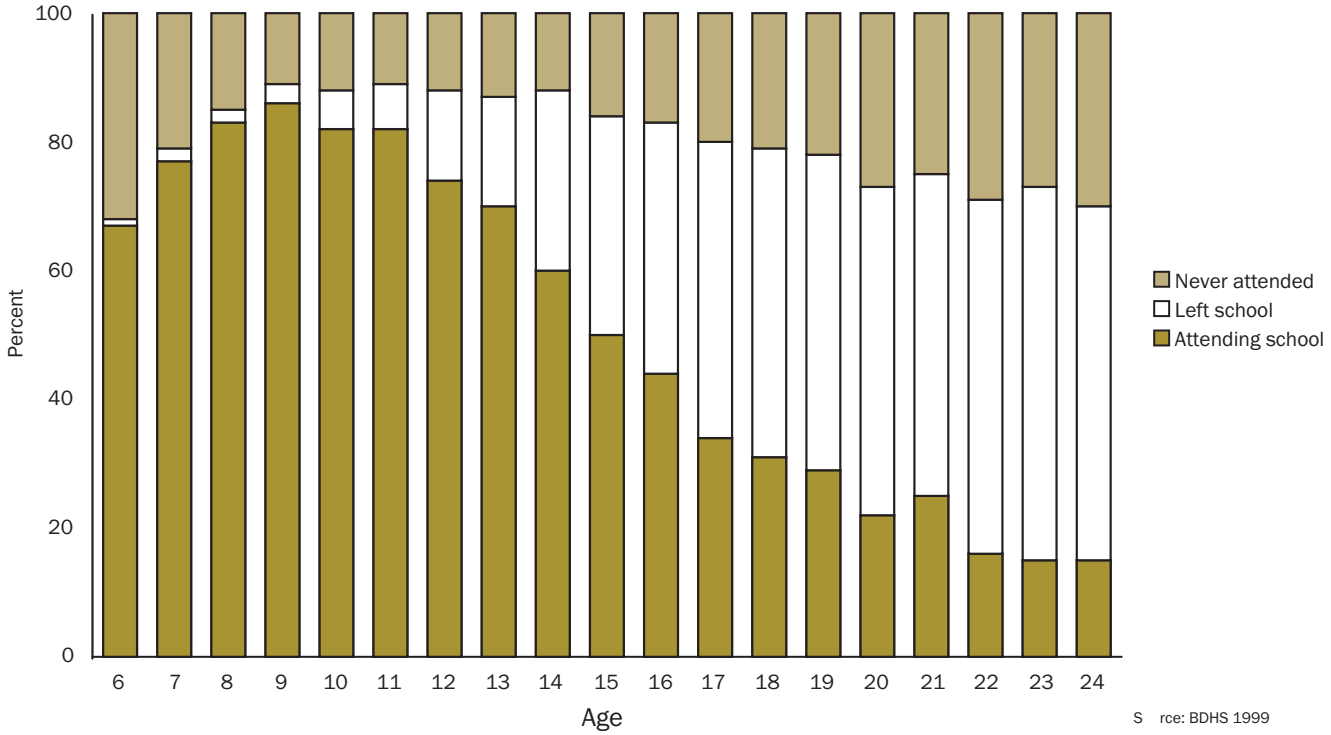
In general, in 1999, there was near gender parity in the NAR within regions.



Source: BDHS 1996 and 1999

[3] At the time of the 1993 survey, Sylhet was part of the Chittagong region. As a consequence, this profile compares only 1996 and 1999 data by region.

Schooling Status of Youth Age 6-24: 1999



Between 1993 and 1999, the percentage of youth attending school at the pre-primary, primary, secondary, or post-secondary levels increased at each age from age 6-24 (data from 1993 and 1996 not shown).

- Between 1993 and 1999 the percentage of 6-year-olds attending school increased from 59% in 1993, to 63% in 1996, to 67% in 1999.
- In 1999, the peak age of attendance was 9, with 86% of 9-year-olds attending school; the peak age range was 7-11.

During the same time period, the percentage of youth who had never attended school decreased.

- Among 17-year-olds, the percentage who had never attended school decreased by 12 percentage points (from 30% to 19%) between 1993 and 1999.

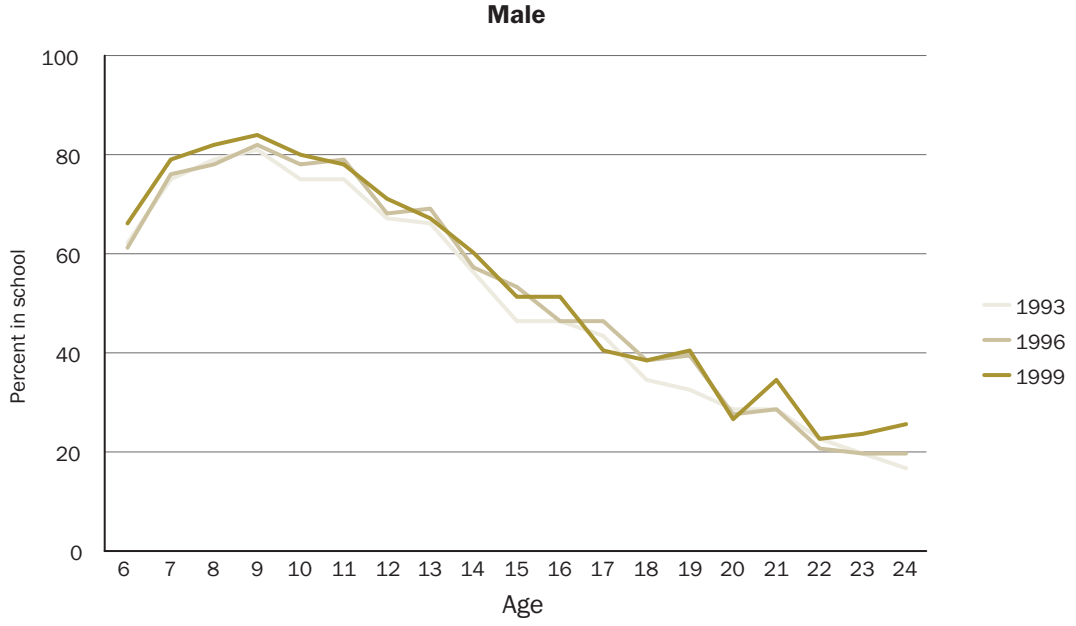
Age-Specific Attendance Rate by Sex: 1993, 1996, and 1999

In 1999, at every age from 8 to 13, a higher percentage of females than males attended school. The trend reversed between the ages of 14 and 24, where the percentage attending school was higher for male than female youth.

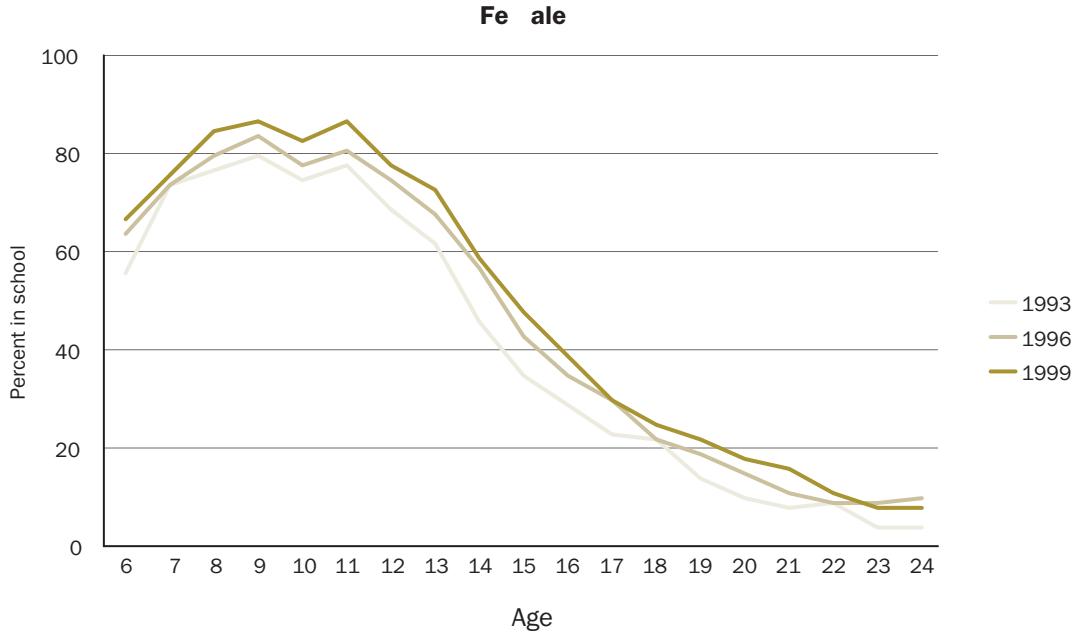
- Attendance peaked at age 9 for both females and males, at 87% and 84%, respectively.
- The largest gender gap in attendance was at age 19, with male attendance at 40% and female attendance at 22%.

Between 1993 and 1999, the age-specific attendance rate increased for youth at each age between 6 and 24.

- From 1993 to 1999, the percentage of 6-year-old children attending school increased from 62% to 66% among males and from 56% to 67% among females.



Source: BDHS 1993, 1996, and 1999

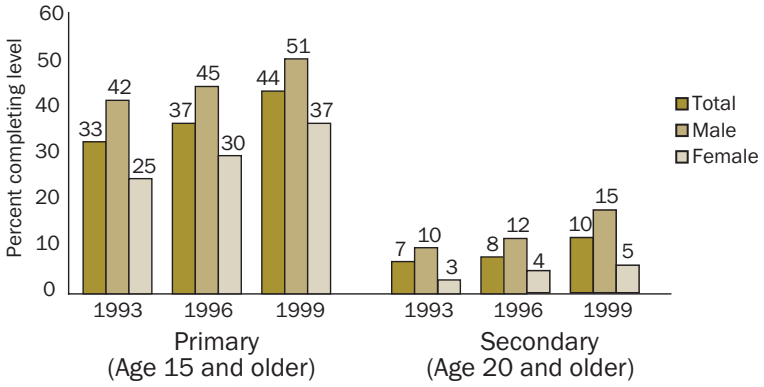


BDHS 1993, 1996, and 1999

Adult Primary and Secondary Completion Rates: 1993, 1996, and 1999

Between 1993 and 1999, the percentage of the population age 15 and older that had completed primary school increased. In spite of the increase, men remained more likely than women to have completed primary school.

- In 1999, 44% of the population age 15 and older had completed primary school, up from 33% in 1993. In 1999, 51% of men and 37% of women had completed primary school.



Source: BDHS 1993, 1996, and 1999

The percentage of the population age 20 and older that had completed secondary school increased slightly between 1993 and 1999. Again, the gender gap persisted despite the increase.

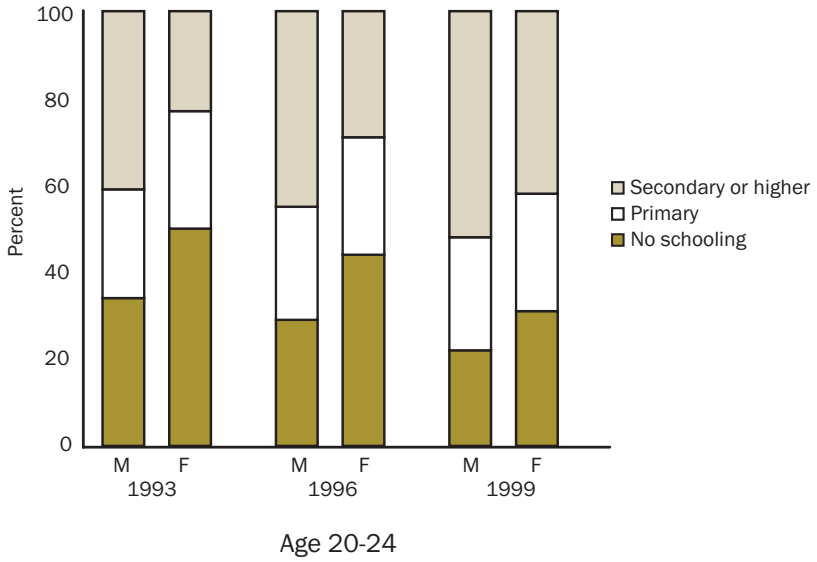
- In 1999, 10% of the population age 20 and older had completed secondary school, up from 7% in 1993.
- In 1999, 15% of men and 5% of women had completed secondary school.

Adult Educational Attainment: 1993,1996, and 1999

Between 1993 and 1999, educational attainment increased dramatically for adults age 20-24.

- In 1993, 34% of men age 20-24 had never attended school, compared with 29% in 1996, and 22% in 1999.
- In 1993, 50% of women age 20-24 had never attended school, compared with 44% in 1996, and 31% in 1999.

School attainment has increased for both men and women.

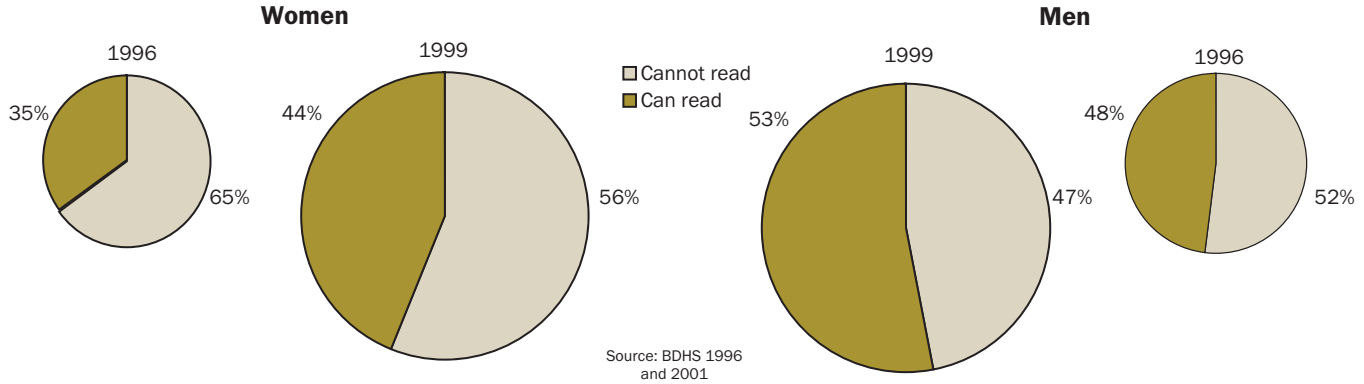


Source: BDHS 1993, 1996, and 1999

- Among women age 20 and older, in 1993, 36% had attended primary school or higher, compared with 39% in 1996, and 46% in 1999 (data not shown for all age groups). At the same points in time, 13%, 16%, and 22% of women age 20 and older had attended secondary or higher.
- Among men age 20 and older, in 1993, 57% had attended primary school or higher, compared with 58% in 1996, and 63% in 1999. At the same points in time, 31%, 33%, and 39% of men age 20 and older had attended secondary or higher.

Literacy Among Women Age 15-49 and Men Age 15-59: 1996 and 1999[4]

In 1999, 44% of women age 15-49 could read, compared to 53% of men. Between 1993 and 1999, women's literacy increased from 33% in 1993 to 35% in 1996, and to 44% in 1999 (data from 1993 not shown). Men's literacy increased from 48% in 1996, to 53% in 1999.[4]



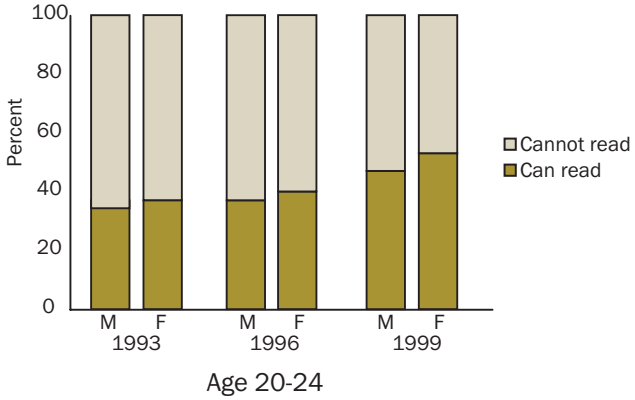
Source: BDHS 1996 and 2001

[4] The 1993 survey did not collect data on men's literacy.

Literacy by Age: 1993, 1996, and 1999[5]

Literacy has been increasing among adults.

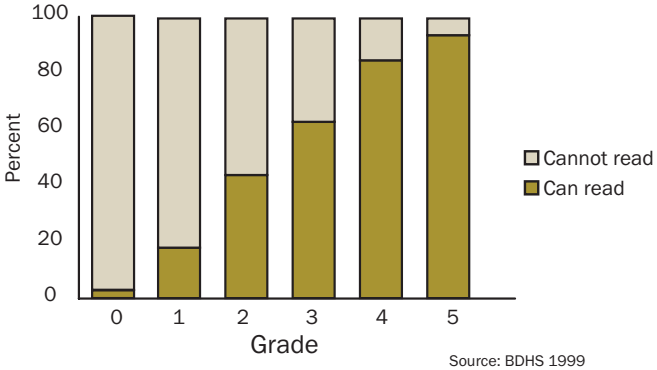
- In 1993, 37% of women age 20-24 could read, compared with 40% in 1996, and 53% in 1999.
- In 1993, 33% of men age 20-24 could read, compared with 37% in 1996, and 47% in 1999.
- In 1999, younger men and younger women were more likely to be literate than older adults. 70% of men age 15-19 could read, compared with 53% of men age 55-59 (data not shown for all age groups). Similarly, 59% of women age 15-19 could read, compared with 28% of women age 45-49.



Source: BDHS 1993, 1996, and 1999

[5] In 1993, 1996, and 1999, literacy was self-reported among adults who never attended school and those who attended primary school. Men and women who attended secondary school or higher were assumed to be literate. As a consequence, the percentage literate includes both those who attended secondary school or higher, and those who reported themselves to be literate.

Women's Literacy by Years of Primary School Completed: 1999



Source: BDHS 1999

In 1999, 85% of women who completed grade 4 could read and 94% of those who completed grade 5 could read. Between 1993 and 1999, the percentage of grade 4 and 5 completers who could read changed little (data from 1993 and 1996 not shown).

Appendix: Indicator Specifications

The methods used to calculate the indicators presented in the education profiles are described below.

Net Attendance Ratio (NAR)

Primary level:

$$\frac{\text{number of students of primary school age attending primary school}}{\text{number of people of primary school age in the population}}$$

Secondary level:

$$\frac{\text{number of students of secondary school age attending secondary school}}{\text{number of people of secondary school age in the population}}$$

The Net Attendance Ratio (NAR) is the percentage of children in the target age range for the specified level of schooling attending that level of schooling, and is calculated separately for primary and secondary school. A primary NAR of 95% would indicate that nearly all of the children of primary school age attend primary school. A primary NAR of only 38%, on the other hand, would indicate that a majority, or 62%, of the children of primary school age do not attend primary school. By definition, the NAR cannot exceed 100%.

Gross Attendance Ratio (GAR)

Primary level:

$$\frac{\text{number of students attending primary school, regardless of age}}{\text{number of people of primary school age in the population}}$$

Secondary level:

$$\frac{\text{number of students attending secondary school, regardless of age}}{\text{number of people of secondary school age in the population}}$$

The Gross Attendance Ratio (GAR) for a given school level is the total number of students attending at that level, divided by the population of the official age range for that school level. The GAR is calculated separately for primary and secondary school. Unlike the NAR, the GAR can exceed 100.

Both a GAR greater than 100 and a GAR greater than the NAR indicate the presence in the classroom of children who are either older or younger than the official age range for the school level. The magnitude of difference between the NAR and GAR indicates the extent of over-age/under-age attendance. For instance, if the primary NAR is 35% and the GAR is 65, then 54% (35/65) of the primary school students are of primary school age, while 46% are either older or younger than the official age range. In some countries, where there is a substantial difference between the GAR and the NAR, the number and proportion of over-age and/or under-age students burdens the school system, absorbing resources that might otherwise be spent on children in the official age range for the level.

Primary School Under Age, On Time, and Over Age

Students in each grade of primary school are either under age, on time, or over age for the grade attended. Students are under age for the grade if they are younger than the official target age for the grade. Students are on time if they are at the official age for the grade, or are one year older than the official age. Students are over age if they are two or more years older than the official age for the grade. For example, if the official entry age for grade 1 is 6, a student age 5 or younger is under age, a student age 6-7 is on time, and a student age 8 or older is over age.

The percentage of students on time for the grade attended is calculated as follows:

$$\frac{\text{number of grade X students who are at the target entry age for the grade or one year older}}{\text{total number of students attending grade X}}$$

Schooling Status of Youth Age 6-24

For each age, from age 6-24, the percentage attending school:

$$\frac{\text{number of people age 6 attending school, at any level}}{\text{number of people age 6 in the population}}$$

For each age, from age 6-24, the percentage who have left school:

$$\frac{\text{number of people age 6 who used to attend school, but have dropped out}}{\text{number of people age 6 in the population}}$$

For each age, from age 6-24, the percentage who have never attended school:

$$\frac{\text{number of people age 6 who have never attended school}}{\text{number of people age 6 in the population}}$$

Schooling status indicates the percentage of children and youth, by age, who attend school (at any level), have dropped out of school, or who have never attended school. Added together, these percentages total 100% for each age.

Age-Specific Attendance Rate (ASAR)

For each age, from age 6-24:

$$\frac{\text{number of people age 6 attending school, at any level}}{\text{number of people age 6 in the population}}$$

The ASAR indicates the percentage of a given age cohort attending school—regardless of the level attended (primary, secondary, or higher). The ASAR cannot exceed 100%, and the closer it is to 100%, the higher the participation of that age group in the population.

Adult Primary and Secondary School Completion Rates

Primary

$$\frac{\text{number of people age 15 or older who have completed the last grade of primary (or higher)}}{\text{number of people age 15 or older in the population}}$$

Secondary

$$\frac{\text{number of people age 20 or older who have completed the last grade of secondary (or higher)}}{\text{number of people age 20 or older in the population}}$$

The completion rates presented here are indicators of the level of primary or secondary school completion among those who are beyond primary or secondary school age. Those in the numerator have either completed the specified level of schooling or attended school at a higher level. In other words, the percentage of adults who have completed primary school includes those who have attended secondary school or a higher level of schooling. Note that the calculation of this indicator differs from the calculation of the Primary and Secondary Completion Rates.

Adult Educational Attainment by Level of Schooling Attended

For each level of attainment:

$$\frac{\text{number of people age 20 or older who never attended school}}{\text{number of people in the population age 20 or older}}$$

These indicators present the percentage of the adult population age 20 or older that has never attended school, attended primary school, or attended secondary school or higher. Results are presented in five-year age ranges, and for age 65 or older. Within each age range, the percentages, added together, total 100%. This indicator is useful in tracking changes in attainment by age group, gender, and other sub-groups.

Adult Literacy

Women (and in many countries, also men) age 15-49[1] who never attended school and those who left school before reaching secondary school were asked to assess their literacy or to demonstrate literacy. If respondents were asked to report on their literacy, the question was: "Can you read and understand a letter or newspaper easily, with difficulty, or not at all?" People who said they can read easily or with difficulty were grouped together as literate. If literacy was tested, which is the case with most recent surveys, respondents were asked to read (in a language in which they were likely to be literate) a short simple statement about everyday life. If the respondent could read part or all of the sentence, or had attended secondary school or higher, the respondent was classified as literate.

[1] The age range for men is often different from that of women, and is most commonly age 15-54 or 15-59.

Contact Information

Information about DHS EdData may be obtained from several sources, including:

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Elizabeth Appiah, USAID/EGAT/ED, 1300 Pennsylvania Ave, NW, Washington, DC 20523-4600 (Telephone: 202-712-5937; Email: eappiah@usaid.gov).

Tracy Brunette, USAID/AFR/SD, 1300 Pennsylvania Ave, NW, Washington, DC 20523-4600 (Telephone: 202-712-1847; Email: tbrunette@usaid.gov).

Additional information about DHS EdData and these country education profiles may be obtained by writing to: DHS EdData, ORC Macro, 11785 Beltsville Drive, Suite 300, Calverton, MD 20705 (Telephone: 301-572-0200; Fax: 301-572-0983; Email: reports@orcmacro.com; Website: http://www.dhseddata.com).

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