Peru
1991 and 1996
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.
Peru
DHS EdData Education Profile:
1991 and 1996

The Peru Demographic and Health Surveys (DHS) were conducted in 1991 and 1996. Having data from two surveys allows for an analysis of changes in the educational setting over time.

Key Findings

Between 1991 and 1996, rates of primary school attendance increased.

• In 1996, 87% of children age 6-11 attended primary school, compared to 77% in 1991.
• School-age males and females were equally likely to attend primary school in 1996 and 1991.

At the secondary level, rates of attendance among youth age 12-16 increased slightly between 1991 and 1996.

• In 1996, 56% of secondary school-age youth attended secondary school, compared with 53% in 1991.
• At both points in time, male and female youth were equally likely to attend secondary school.

Adult educational attainment and literacy among adults changed little between 1991 and 1996, and at both points in time, there was a gender gap in favor of men.

• 1991 and 1996, three in four adults age 15 and older had completed primary school, and men were more likely than women to have completed primary school.
• In 1996, 43% of the population age 20 and older had completed secondary school, with men more likely than women to have completed secondary school.
• In 1996, 90% women age 15-49 and 97% of men age 15-59 were literate.

1 The 1991 survey was administered to 13,479 households and 15,882 women age 15-49 from those households. The 1996 survey was administered to 28,138 households, 28,960 women age 15-49 and 2487 men age 15-59. A survey was also conducted in 2001, but this survey does not provide complete information on educational attainment and other variables of interest.
Primary School Attendance Ratios: 1991 and 1996

The net attendance ratio (NAR) is the percentage of the official primary school-age population (age 6-11 in Peru) 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)**

The percentage of children age 6-11 attending primary school increased by 10 percentage points between 1991 and 1996.

- In 1996, 87% of school-age children in Peru attended primary school, up from 77% in 1991.

School-age males and females were equally likely to attend primary school in 1996 and 1991.

**Primary Gross Attendance Ratio (GAR)**

Between 1991 and 1996, the percentage of the primary school student population outside (either younger than or older than) the official school age range of age 6-11, declined.

- In 1996, students over or under the official primary school age range made up 22% of the primary school population ([GAR 112 – NAR 87]/ GAR 112), compared with 30% in 1991 ([GAR 110 – NAR 77]/ GAR 110).

In 1996 and 1991, among youth of all ages, males and females were equally likely to attend primary school.

- In 1996, the gross attendance ratio (GAR) was 113 among males and 112 among females.
In both 1996 and 1991, comparable percentages of children age 6-11 in urban and rural areas attended primary school.

- In 1996, 88% of children age 6-11 in urban areas and 85% in rural areas attended primary school.
- In 1991, 76% of school-age children in urban areas and 78% in rural areas attended primary school.

In 1996, the rate of primary school attendance was highest in the Tumbes, Ucayali, Junin, and Arequipa departments. Disparities by department were notable.

- In 1996, the rate of primary school attendance among children age 6-11 was highest in the Tumbes department (94%) and the Ucayali, Junin, and Arequipa departments (93%). The NAR was lowest in La Libertad (77%).

In 1996, there was rough gender parity in the NAR in most departments (gender-disaggregated data not shown).

- The widest gender gap was in the Huancavelica department, with 87% of males and 82% of females attending.

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2 The 1996 Peru DHS survey provides the net attendance ratio (NAR) by department for 24 departments. In 1991, however, the survey provided estimates for 13 administrative departments, which do not correspond to the 24 departments used in 1996. As a consequence, this profile presents data by department only from 1996.
Over-Age, Under-Age, and On-time Students in Primary School: 1996

In 1996, 34% of grade 1 and 40% of grade 6 students were over age for the grade attended.

- The percentage of students over age in grade 1 increased from 22% to 34% between 1991 and 1996 (data from 1991 not shown).
- In general, in 1991 and 1996, male and female students were equally likely to be over age for the grade attended.

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 Peru, 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.

The net attendance ratio (NAR) is the percentage of the official secondary school-age population (age 12-16 in Peru) 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 12-16 attending secondary school increased slightly between 1991 and 1996.

- Male and female youth age 12-16 were equally likely to attend secondary school.

Secondary Gross Attendance Ratio (GAR)

Among students of all ages (gross attendance), the rate of secondary attendance was unchanged from 1991 to 1996, at 72. In both years, there was a slight gender disparity in favor of males.

- In 1996, the gross attendance ratio (GAR) among males was 75, compared with 70 among females.


In 1996 and 1991, youth age 12-16 in urban areas were more than twice as likely as those in rural areas to attend secondary school.

- In 1996, 68% of youth age 12-16 in urban areas attended secondary school, compared to 32% in rural areas.

From 1991 to 1996, in urban areas, the secondary school NAR increased slightly.

- In urban areas, the NAR increased from 63% in 1991 to 68% in 1996.

The NAR in rural areas changed little between 1991 and 1996.

- In rural areas, the secondary NAR was 32% in 1996 and 30% in 1991.
Secondary School Net Attendance Ratio (NAR) by Region: 1996

There are large regional disparities in secondary school attendance in Peru.

- In 1996, the secondary NAR was highest in Ica (76%).
- Only about one in three youth age 12-16 attended secondary school in the Cajamarca, Huancavelica, Amazonas, and Huanuco regions.

In 1996, in most regions, there was rough gender parity. In several regions, though, male youth age 12-16 were more likely than female youth to attend secondary school (gender-disaggregated data not shown).

- The widest gender gap was in Pasco, where 62% of males and 47% of females attended secondary school in 1996.
- The widest gender gap in favor of females was in Ica, with 80% of female and 72% of male youth attending.

<table>
<thead>
<tr>
<th>Department</th>
<th>Male Attendance</th>
<th>Female Attendance</th>
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<tbody>
<tr>
<td>Ucayali</td>
<td>42</td>
<td>61</td>
</tr>
<tr>
<td>Tumbes</td>
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<td>60</td>
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<tr>
<td>Tacna</td>
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<td>San Martin</td>
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<td>Puno</td>
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<td>Piura</td>
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</tr>
<tr>
<td>Pasco</td>
<td>43</td>
<td>50</td>
</tr>
<tr>
<td>Moquegua</td>
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<td></td>
</tr>
<tr>
<td>Madre de Dios</td>
<td>50</td>
<td></td>
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<tr>
<td>Loretto</td>
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<td></td>
</tr>
<tr>
<td>Lima</td>
<td>71</td>
<td></td>
</tr>
<tr>
<td>Lambayeque</td>
<td>45</td>
<td>57</td>
</tr>
<tr>
<td>La Libertad</td>
<td>45</td>
<td></td>
</tr>
<tr>
<td>Junin</td>
<td>64</td>
<td></td>
</tr>
<tr>
<td>Ica</td>
<td>76</td>
<td></td>
</tr>
<tr>
<td>Huanuco</td>
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<td></td>
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<tr>
<td>Hauncavelica</td>
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<td>Cusco</td>
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<td></td>
</tr>
<tr>
<td>Ancash</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>Amazonas</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

Source: PDHS 1996

Note: The 1996 Peru DHS survey provides the net attendance ratio (NAR) by department for 24 departments. In 1991, however, the survey provided estimates for 13 administrative departments, which do not correspond to the 24 departments used in 1996. As a consequence, this profile presents data by department only from 1996.
Between 1991 and 1996, the percentage of youth at each age from 6 to 24 attending school at the pre-primary, primary, secondary, or post-secondary level was comparable (data from 1991 not shown).

- In 1996, 37% of 6-year-olds had never attended school, and in 1991, 33% had never attended.

In 1996, the vast majority of youth age 8-24 had attended school at some point in time.

- The peak age of attendance was 10 with 97% of children age 10 attending school; the peak age range was 8-12.
Age-Specific Attendance Rate by Sex: 1991 and 1996

In 1996, the percentage of males and females attending school at any level was roughly the same at every age from 6 to 24.

• In 1996, attendance peaked at age 9-11 for males (97%) and at age 10 for females (96%).

Between 1991 and 1996, the rates of school attendance at younger ages changed little for both males and females (data from 1991 not shown).

• Between 1991 and 1996, attendance among 6-year-olds declined slightly for males (from 62% to 59%) and females (from 64% to 59%).
• 1996, attendance rates remained low among older youth, with attendance rates declining around age 15 for females and age 16 for males.
Adult Primary and Secondary School Completion Rates: 1991 and 1996

Between 1991 and 1996, the percent of the population age 15 and older that had completed primary school changed little. Men remained more likely than women to have completed the level.

- 1996, 75% of the population 15 and older had completed primary school, compared to 78% in 1991. In 1996, 81% of men and 69% of women had completed primary school.

The percentage of the population 20 and older that had completed secondary school remained about the same from 1991 to 1996. Again, the gender gap persisted over time.

- In 1996, 43% percent of the population age 20 and older had completed secondary school, compared to 47% in 1991.
- At both points in time, men were more likely than women to have completed secondary school. In 1996, 49% of men and 38% of women had completed the secondary level.


In 1991 and 1996, educational attainment was high among adults age 20-24.

- In 1996 and 1991, just 1% of men age 20-24 had never attended school.
- At the same points in time, 3% and 2% of women age 20-24 had never attended school.

In 1991 and 1996, educational attainment was high among both men and women, with a gender gap in favor of men.

- Among women age 20 and older, 86% had attended primary school or higher in 1991, comparable to 1996, when 84% had attended primary or higher (data not shown for all age groups). At the same points in time, 53% and 49% had attended secondary or higher.
- Among men age 20 and older, in 1991, 96% had attended primary school or higher, comparable to 1996, when 94% had attended primary or higher. At the same points in time, 64% and 62% had attended secondary or higher.
In 1996, 90% of women could read, compared to 97% of men. Between 1991 and 1996, women’s literacy was unchanged.

Literacy data were collected only for women in 1991. Among adults who never attended school and those who attended primary school, literacy was self-reported in 1991 and 1996. Adults 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.

**Literacy by Age: 1991 and 1996**

**Literacy is high among both younger and older adults.**

- Between 1991 and 1996, 95% of women age 20-24 were literate.
- However, in both 1991 and 1996, women age 15-19 were more likely to be literate than women age 45-49 (96% versus 75%; data not shown for all age groups).
- In 1996, literacy was high among men in all age groups, ranging from 92% among men age 55-59, to 99% among men age 15-19, 20-24, and 45-49.
Women’s Literacy by Years of Primary School Completed: 1991 and 1996

In 1996, 94% of women who completed grade 4 and 97% of those who completed grade 6 could read. The percentage literate by years of schooling did not change substantially between 1991 and 1996 (data from 1991 not shown).

Main Reason for Leaving School Among Women Age 15-24 by Highest Level of Schooling Attended: 1996

Women age 15-24 who no longer attended school, were asked the main reason they had left school. The most common reason women gave for leaving primary school was the inability to pay school fees (21%).

- In addition, 18% of women left primary school because they were needed to help the family and 16% because they did not like school.

The most common reason for leaving secondary school or higher was the need to earn money (20%).

- Other reasons given include the inability to pay for school fees (19%) and pregnancy (15%).

<table>
<thead>
<tr>
<th>Reason</th>
<th>Left during primary %</th>
<th>Left during secondary or higher %</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Got pregnant</td>
<td>7</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Got married</td>
<td>5</td>
<td>10</td>
<td>8</td>
</tr>
<tr>
<td>Needed to take care of children</td>
<td>5</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Family needed help</td>
<td>18</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Could not pay for schooling</td>
<td>21</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>Needed to earn money</td>
<td>11</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>Graduated/Had enough schooling</td>
<td>0.3</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Failed exams</td>
<td>0.2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Did not like school</td>
<td>16</td>
<td>7</td>
<td>10</td>
</tr>
<tr>
<td>School not accessible</td>
<td>5</td>
<td>0.2</td>
<td>2</td>
</tr>
<tr>
<td>Other/Don’t know</td>
<td>11</td>
<td>11</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: PDHS 1996
Appendix: Indicator Specifications

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

**Net Attendance Ratio (NAR)**

Primary level:

\[
\text{Net Attendance Ratio (NAR)} = \frac{\text{number of students of primary school age attending primary school}}{\text{number of people of primary school age in the population}}
\]

Secondary level:

\[
\text{Net Attendance Ratio (NAR)} = \frac{\text{number of students of secondary school age attending secondary school}}{\text{number of people of secondary school age in the population}}
\]

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:

\[
\text{Gross Attendance Ratio (GAR)} = \frac{\text{number of students attending primary school, regardless of age}}{\text{number of people of primary school age in the population}}
\]

Secondary level:

\[
\text{Gross Attendance Ratio (GAR)} = \frac{\text{number of students attending secondary school, regardless of age}}{\text{number of people of secondary school age in the population}}
\]

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:

\[
\text{Primary School Under Age, On Time, and Over Age} = \frac{\text{number of grade X students who are at the target entry age for the grade or one year older}}{\text{total number of students attending grade X}}
\]
**Schooling Status of Youth Age 6-24**

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

- number of people age 6 attending school, at any level
- number of people age 6 in the population

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

- number of people age 6 who used to attend school, but have dropped out
- number of people age 6 in the population

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

- number of people age 6 who have never attended school
- 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:

- number of people age 6 attending school, at any level
- 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**

- number of people age 15 or older who have completed the last grade of primary (or higher)
- number of people age 15 or older in the population

**Secondary**

- number of people age 20 or older who have completed the last grade of secondary (or higher)
- 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:

- number of people age 20 or older who never attended school
- 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 15-49¹ 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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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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