

Guide to the Analysis and Use of Household Survey and Census Education Data

May 2002

FASAF
Ouagadougou,
Burkina Faso



UNESCO
Quebec, Canada



UNICEF
New York, New York
USA



USAID
Washington, DC USA



ORC Macro
Calverton, MD USA



FASAF (Network on Family and Schooling in Africa), created in 1997, is a network of researchers, statisticians and education planners dedicated to using secondary data sources on the demand for schooling, and to strengthening national research capacities and collaborative research between institutions, and national statistics and education offices. FASAF operates under the purview of UAPS.

UERD, BP 7118, Ouagadougou 03, Burkina Faso
Telephone: (226) 362115 Fax: (226) 362138 Email: pilon@ird.bf; yacoubay@yahoo.com

UAPS (Union for African Population Study), created in 1984, is a non-profit pan-African scientific organization composed of African specialists and Africanists working on population issues. UEPA publishes scientific reviews, supports young researchers, offers technical assistance, and organizes the seven thematic networks of research, which is a collaborative effort to study the family determinants of schooling.

UAPS, BP 21007, Dakar Ponty – Dakar, Sénégal
Telephone: (221) 8-25.59.51 Fax: (221) 8-25.59.55 Email: uepa@cyg.sn

UNESCO (United Nations Education, Scientific and Cultural Organization) is an agency within the United Nations that aims to “contribute to the maintenance of peace and security by fostering collaboration between nations through education, science and culture.” Within UNESCO, the Institute for Statistics has as its principal missions: the worldwide collection and dissemination of viable and useful statistics and indicators; the establishment of international statistical norms; and assisting member states in the development of skills in data analysis.

UNESCO Institute of Statistics, C.P. 6128, Succursale Centre-ville, Montreal, Quebec, H3C 3J7 Canada.
Telephone: (514) 343 6880 Fax (514) 343-6882 Email: uis@unesco.org
Web site: <http://www.unesco.org/statistics>

UNICEF (the United Nations Children’s Fund) is an agency within the United Nations that aims “to help children living in poverty in developing countries,” including “the care and stimulation they need in the early years of life,” and protection from illness, war and natural disasters.

UNICEF
3 UN Plaza
New York, NY 10017 USA
Tel. 212 824-6745

USAID’s Office for Human Capacity Development in the Bureau for Economic Growth, Agriculture, and Trade is responsible for implementing the U.S. Agency for International Development’s goal of “building human capacity through education and training.” The office provides field support, technical leadership and research to help nations and USAID field missions improve education and training and to help develop stable, democratic countries with thriving market economies and healthy, well educated families.

USAID/G/HCD (Attn.: DHS EdData Manager); 1300 Pennsylvania Avenue, NW, Washington, DC 20523-3901.
Telephone: 202 712-4273 Fax: 202 216-3229
Website: http://www.usaid.gov/educ_training

ORC Macro is an international research, management consulting and information technology firm, which provides survey research, policy analysis, evaluation, training, and other services. ORC Macro

implements MEASURE *DHS* + with the Population Council and the East-West Center, and the DHS EdData Activity, a USAID Office for Human Capacity Development activity. DHS EdData provides accurate and timely information for education policy and program planning through the collection and dissemination of education data.

ORC Macro (Attn: DHS EdData), 11785 Beltsville Drive, Calverton, MD 21202 USA.

Telephone: 301 572-0200 Fax: 301 572-0999 Email: measure@macroint.com

Web site: <http://www.dhseddata.com>

Suggested citation: FASAF, UNESCO, UNICEF, USAID, and ORC Macro. 2002. *Guide to the Analysis and Use of Household Survey and Census Education Data*. Montreal, Quebec Canada: UNESCO Institute of Statistics.

CONTENTS

	Page
List of Tables and Figures	v
Preface.....	vi
CHAPTER 1 INTRODUCTION.....	1
1.1 Rationale for and objectives of the Guide.....	1
1.2 Education statistics from administrative information.....	2
1.3 The usefulness of household survey and census education data as a complement to MOE data	3
1.4 Comparing Ministry of Education household census and survey data on children’s school participation	3
1.5 Overview of the Guide.....	4
CHAPTER 2 EDUCATION DATA AND INDICATORS FROM NATIONAL POPULATION CENSUSES AND SELECTED HOUSEHOLD SURVEYS	5
2.1 Introduction	5
2.2 Literacy	7
2.3 Educational attainment.....	8
2.4 School attendance rates.....	9
2.5 Student flow rates	12
2.6 Indicators at the household level	13
CHAPTER 3 NATIONAL POPULATION CENSUSES AND SELECTED HOUSEHOLD SURVEYS.....	5
3.1 National population censuses	15
3.2 Selected household surveys.....	15
CHAPTER 4 SURVEY METHODOLOGY AND ITS EFFECTS ON THE USE OF EDUCATION DATA	21
4.1 Defining the household and the limitations of that definition.....	21
4.2 Variation in questions about educational attainment and attendance.....	22
4.3 Timing and duration of survey fieldwork	23
4.4 Survey samples and representativeness of data.....	24
4.5 General guidance in data analysis	25

CHAPTER 5	PRESENTATION OF HOUSEHOLD SURVEY DATA	27
5.1	Selecting and presenting standard education indicators	27
5.2	Presenting clear and complete information.....	32
5.3	Using figures to present data.....	34
CHAPTER 6	CONCLUDING COMMENTS.....	39
REFERENCES	40
<i>APPENDIX A</i>	CALCULATION OF EDUCATION INDICATORS	43
<i>APPENDIX B</i>	SURVEY AND CENSUS CONTACT INFORMATION	49
<i>APPENDIX C</i>	SURVEYS BY TYPE AND COUNTRY	53
<i>APPENDIX D</i>	SAMPLE TABLES	69

TABLES AND FIGURES

	Page
Table 1	Percentage of children of primary school age attending primary school, Azerbaijan, 2000 MICS 28
Table 2	School attendance ratios, Guinea, 1999 DHS 29
Table 3	Percentage of children entering first grade of primary school who eventually reach grade 5, Azerbaijan, 2000 MICS..... 30
Table 4	Percentage of children age 36-59 months who are attending some form of organized early childhood education program, Cote d'Ivoire, 2000 MICS..... 31
Table 5	Percentage of the population age 15 years and older that is literate, Cote d'Ivoire, 2000 MICS..... 32
Table 6	School attendance rate by location, sex, and expenditure quintile, Ghana, 1996 LSMS 33
Table 7	School attendance, Namibia, 1992 DHS..... 34
Figure A	Analytical framework for analyzing education data from household surveys and censuses 7
Figure 1	Literacy among men age 15-59 and women age 15-49, Guinea DHS-II 1999..... 35
Figure 2	Attendance rates among boys and girls in rural areas Algeria, MICS 2000..... 35
Figure 3	Age-specific attendance rates, Cambodia, 2000 DHS 36
Figure 4	Percentage of children age 7-12 in Ougadougou who are enrolled in school, by sex and relationship to household head, Burkina Faso, 1996 Census 36
Figure 5	Proportion of primary school students under-age, over-age, and on-time, by grade and sex, Zambia, 1996 DHS 37
Figure 6	Distribution of students, by age, according to schooling level at the time of survey, Burkina Faso, 1994 EPM..... 37
Figure 7	Percentage of boys and girls who attend school, according to the gender of the head of the household, Burkina Faso, EP94-95..... 38
Figure 8	Percentage of households with all children 6-14 years old attending school, by urban and rural residence 38

PREFACE

There is a growing awareness of demographic censuses and surveys' tremendous potential to provide information about household and individual characteristics and their multiple interactions. An increasing number of countries in the world are organizing multiple-topic household surveys, and on a regular basis. These surveys collect large quantities of data which, when properly exploited and analyzed, can provide information and insights that can be derived from no other information sources. It is with the aim of facilitating and encouraging proper analysis and utilization of these demographic census and survey data, in particular those related to education, that this Guide is compiled.

This Guide provides recommendations for the analysis and use of education data from multiple-topic household surveys and censuses, in relation to household and individual characteristics. The Guide was first conceived and produced in French by the Research Thematic Network, "Family and Schooling in Africa" (FASAF) of the Union for the African Population Study (UAPS), a working group of researchers, statisticians and education planners from eight countries (Benin, Burkina Faso, Cameroon, Democratic Congo, Cote d'Ivoire, Mali, Niger, and Togo) as well as researchers from the North and members of the Institute of Statistics, UNESCO. The Guide was published by the French Center for Population and Development (CEPED) in collaboration with UAPS and UNESCO.

This English version is the result of a collaboration between FASAF, the Institute of Statistics of UNESCO, UNICEF, the United States Agency for International Development (USAID), and ORC Macro. This version is not simply a translation of the French version, but rather an extension of the original document, refining the main tenants of the original version and adding new insights regarding education data.

Within each contributing organization, the following staff collaborated on the English version of the Guide:

- Jean-Francois Kobiane and Marc Pilon (FASAF)
- S.K. Chu, Albert Motivans, Bertrand Tchatchoua, and Nghin Bui-Quang (UNESCO)
- Edilberto Loaiza (UNICEF)
- Linda Padgett and Kimberly Bolyard (USAID)
- Kristi Fair and Anne Genereux (ORC Macro)

We hope the readers of this Guide find in it the kind of information and ideas that will enable them to carry out meaningful and useful analysis of data from demographic censuses and surveys. We invite them to share with us their salient experiences and findings so that we could further enrich and upgrade this Guide into a more substantive and practical reference.

We welcome questions, feedback, comments and suggestions. Please contact S.K. Chu at sk.chu@unesco.org.

1.1 RATIONALE FOR AND OBJECTIVES OF THE GUIDE

This document aims to promote the use of education data from multiple-topic household surveys and national censuses, and to provide guidance on the analysis and use of these data. In many countries, large-scale household surveys are conducted regularly to provide information about population, health, education, household income and expenditures, employment, and other critical areas of study. In many instances, the education information from these data collection efforts is underutilized either because potential data users are unaware of the education data collected by these censuses and surveys, or because reports of the findings present education data primarily as a background characteristic rather than focusing on education as an object of study in and of itself. For example, reports may discuss data on adults' educational attainment mainly as a background characteristic associated with household expenditures or as a factor in women's fertility, rather than presenting data on differences in educational attainment by sex, age, urban/rural residence, and other characteristics.

In addition, census and survey reports may not present education data in ways of most use to educationists. For instance, data on children's school participation may be presented for age ranges that do not necessarily correspond to those relevant to the education system.¹ If school attendance rates are presented for children age 6-10, 11-15, 15-19, etc., rather than by the official age range and level of schooling in the country (say age 6-12 for primary school and 13-18 for secondary school), these data on school participation are not of optimal use to educationists because they cannot be compared easily with school-based data collected by Ministries of Education.

This Guide is intended primarily for:

- Ministry of Education (MOE) staff conversant with education indicators produced by the MOE, including education trainers and planners;
- Education researchers;
- Staff from national statistics offices responsible for conducting large-scale household surveys and census operations; and
- International agencies involved in education issues.

It is hoped that this Guide will help familiarize education data users with some sources of existing education data, and describe for statistics staff some standard education indicators and educationists' approaches to data analysis and presentation of results. It is also expected that the Guide may be of use to staff from Ministries of Education and the organizations that implement censuses and household surveys collaborating in survey design and data analysis. Such collaboration allows experts in education and those in survey methodology to confer on what data are of most interest, how best to collect those education data, and how to analyze the data

¹ This Guide uses 'participation' to refer to both children's enrollment in school and children's school attendance.

and present results. In addition, MOE staff collaborating with survey implementing organizations are likely to make use of the data set to conduct ongoing analyses, possibly in conjunction with MOE data.

Specifically, this Guide intends to:

- Provide an overview of household-level education data that are available from various sources and to describe the usefulness of these data;
- Provide guidance on the analysis and presentation of descriptive data so that they are most useful to Ministries of Education and to educationists;
- Contribute to the standardization of indicators and calculation methods based on household-level education data.

This Guide endeavors to raise awareness of the data available from household censuses and multiple-topic surveys, in hopes that the data may be accessed by MOEs, in collaboration with survey implementing organizations, and that the resulting analyses may contribute to education policy and program planning within countries. It is hoped that the collaboration between organizations may also result in the design of future multiple-topic surveys of increasing relevance to the education sector.

1.2 EDUCATION STATISTICS FROM ADMINISTRATIVE INFORMATION

National Ministries of Education regularly collect education statistics to monitor and manage the education system. Schools and other educational institutions report data on students, teachers, expenditures, physical facilities, etc. These data and the derived indicators are then used to gauge the capacity and performance of schools in relation to national education goals and plans, and to determine future development policies, plans and management arrangements.

However, data collected through such administrative channels often have limitations in terms of data scope, coverage and reliability. In many countries, there is less than 100 percent reporting, necessitating the estimation of various data points for the missing schools. Also, in most countries, education statistics focus on the number of schools, teachers and students, and do not provide other information on the quality and effectiveness of teaching/learning processes and outcomes. Moreover, available education statistics in some countries cover only to formal government and public schools that receive government funding. Private educational institutions and non-formal educational programs managed by non-governmental organizations and local communities generally are not covered by MOE statistics.

There are also questions about the reliability of data reported by government and public schools, particularly when resource allocation from the government is tied to enrolment and the number of teachers or classrooms. Schools may report higher enrolment figures in order to obtain greater resources, producing distortions in the estimates of student enrolments. There are also reports of private schools underreporting income and expenditure in order to derive greater government benefits. In summary, other sources of data on education statistics are most welcome as a complement to the data collected by Ministries of Education.

1.3 THE USEFULNESS OF HOUSEHOLD SURVEY AND CENSUS EDUCATION DATA AS A COMPLEMENT TO MOE DATA

School-based data, however complete and reliable, provide limited information on student's characteristics (usually just age and sex), and no information about the characteristics of students' households. Also, since school surveys and censuses are school-based and focus on children who attend school, information is not collected about children who do not attend school.

Data from household surveys and censuses can supplement the school-based data collected by Ministries of Education by providing information about children's background characteristics that may influence household decisions about schooling. Censuses and multi-topic household surveys provide considerable information about household and individual household member characteristics, generally including data on children's current school participation. These data on children's school enrollment or school attendance can then be analyzed according to household and child characteristics. For example, depending on the data collected by the given survey, the percentages of school-age children attending school can be compared by urban-rural residence, by household wealth, by children's sex, and other critical characteristics. Knowing that only 33 percent of poor rural girls of primary school age currently attend school, compared with 57 percent of wealthier rural girls, for example, provides insight into the relationship between household wealth and school participation. By contrast, school-level statistics are not designed to provide indicators of children's school participation by household and individual characteristics.

Censuses and household surveys also provide data on adults' educational attainment and often, on literacy. These surveys and censuses provide one of the few national-level sources of data on adults' attainment and literacy, and allow for the comparison of adult attainment and literacy rates by household characteristics.

Household surveys and censuses provide important education data that can be analyzed according to household and individual characteristics. Furthermore, the availability of multiple censuses and surveys done over many years allows for the tracking of changes over time.

1.4 COMPARING MINISTRY OF EDUCATION AND HOUSEHOLD CENSUS AND SURVEY DATA ON CHILDREN'S SCHOOL PARTICIPATION

The differences between MOE and household-level data sources should be noted: MOEs collect data on student enrollment from school records and produce enrollment ratios using population estimates (generally taken from national censuses) and the numbers of children enrolled in school. By contrast, household surveys/national censuses collect data on children's enrollment and/or school attendance among either a representative sample of children or the population of children.

Estimates of children's participation from these two sources may differ significantly for a number of reasons. One major source of difference is that in the household surveys querying children's school attendance, the question differs from that answered by school censuses: Attending school is not necessarily the same as being enrolled in school. Children may be recorded in school enrollment records, and yet not actually be attending school at all. Other

factors that contribute to the calculation of different rates of participation include the timing of data collection relative to the school year. A school census conducted at the beginning of the school year and a household survey collecting data at the end of the school year will likely find different rates of participation in schooling, as some children will have enrolled in school but never actually attended regularly, and others will have dropped out of school during the school year. In addition, the accuracy of the population estimate and the completeness of school-level data can affect the calculation of participation rates from MOE data. Similarly, the completeness of the census enumeration and the sample design for the household survey can also affect the accuracy of estimates produced by censuses and surveys.

In short, a host of factors may contribute to the variation between these estimates of enrollment and attendance rates. Analysis of these estimates might illuminate the reasons for similarities or differences; this Guide, however, does not focus on these contrasts. Instead, the Guide promotes the access and use of census and household survey data on education as a complement to data collected by MOEs.

The authors of this Guide would like to emphasize that this version of the Guide, which is predicated on an earlier version of the Guide, is not seen as a final product. Rather, it is a document that seeks to raise awareness of underutilized education data sources, to suggest various approaches to the use and presentation of these data, and to point the way forward to further development of these ideas over time.

1.5 OVERVIEW OF THE GUIDE

The remaining chapters of the Guide address the topics outlined in Chapter 1, starting with Chapter 2, which describes some of the major international household survey programs recently and currently underway and discusses some of the education indicators that can be produced using these data sources. Chapter 3 describes national population censuses and selected household surveys. Chapter 4 discusses survey methodology and its effects on the use of education data, while Chapter 5 addresses various ways of presenting education survey data and offers recommendations for preferred presentation. Chapter 6 summarizes the major points of the preceding chapters.

EDUCATION DATA INDICATORS FROM NATIONAL POPULATION CENSUSES AND SELECTED HOUSEHOLD SURVEYS 2

2.1 INTRODUCTION

National censuses and multiple-topic household surveys collect data on the characteristics of both households and individuals within those households. Below is a discussion of selected variables that are commonly available in data sets or that can be constructed using existing variables.

Most surveys and censuses collect information on household characteristics, including location-related variables (urban-rural residence, region, etc.), household composition and characteristics (household size, sex of the household head, etc.), and socio-economic characteristics (household wealth, dwelling quality and type, and so on).

Wealth Index: Variables in data sets typically must be combined to construct a wealth indicator. Many surveys collect data on household income, expenditures, or assets, from which a wealth or assets index can be calculated. An asset index, for example, measures socioeconomic status by household access to amenities or ownership of items. The composition of an asset index varies by survey, but assets commonly included in the index include electricity, radio, television, refrigerator, bicycle, motorcycle, car, telephone, number of persons per sleeping room, water source, sanitation facilities, and type of flooring. Each household asset used for the index is assigned a weight generated through an analysis of principal components, which calculates the importance of each element of the index.¹

For each household member, data generally are collected on variables such as: sex, age, relationship to the household head, marital status, schooling attainment by level and grade at that level (and sometimes the highest degree completed). Data may also be collected on household members' employment, and on other characteristics.

For children in the household (usually those under age 15), data are often collected on parental survivorship (whether each child's mother and father is alive, and whether each parent lives in the household). Data on current school participation (whether currently attending, and if so, at what level and grade) are collected for youth.¹ Some surveys also collect literacy data for adults and youth, whether it is self-assessed literacy or tested. Many surveys also collect time-use data or labor data (unemployed or employed, working unpaid/paid in kind/paid in cash, etc.).

As discussed briefly in Chapter 1, having access to background information about children and their households allows for the analysis of data by various characteristics and groups. The analytical framework below illustrates the kinds of data often available from national censuses

¹ The age ranges for data on current education participation vary widely, and may include children of preschool age, those of primary and secondary school age, youth in their 20s and even people in their 30s, in some cases.

and household surveys, and their relationships to one another. The square denotes the larger context in which households are situated: urban or rural areas, villages or towns, districts, and so on. Within that square is situated the household, with its characteristics, such as wealth, size, and number of school-age children. And within the circle of the household are household members, with their characteristics, such as age, sex, educational attainment and literacy, and employment status. In the rounded rectangle with the dashed outline, is the schooling status of children (attending school, dropped out of school, and never attended school).

One example of applying this analytical framework would be to analyze data on children's current school attendance by urban-rural location, region, household wealth, parents' educational attainment, children's sex and age, and other household and individual characteristics. Discussing these correlations and their presentation is the focus of this Guide.²

Given the often sizeable differences in education indicators by sex and urban-rural residence, and the wide availability of data on these characteristics, all indicators discussed below should be disaggregated by sex and residence, in addition to looking at totals.

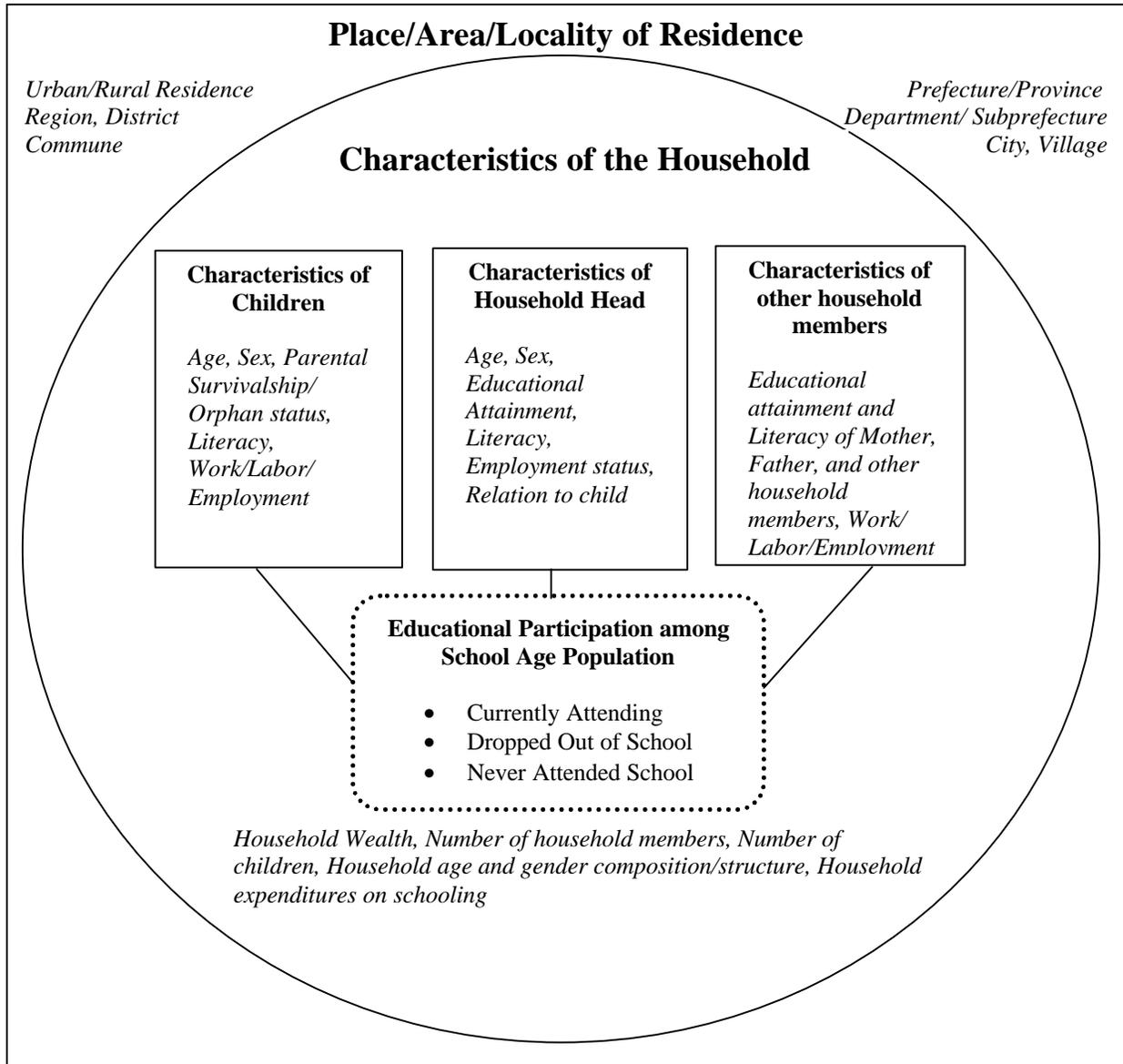
Depending on the data collected by the given survey or census, various education indicators can be calculated. The following section defines a selected set of education indicators and explains briefly how they are calculated.³ The discussion includes both indicators that have been established through many years of use in the international education community and those that are emerging as possible additions to the established indicators.

Before discussing each indicator in turn, it must be emphasized more broadly that statistics and indicators—which are data organized and presented as information—must be interpreted before being used to inform policy-making or program planning. Indicators do not explain anything, but rather they point to achievements or change (Bottani, 1990). Indicators must be interpreted and placed in context, which includes the socioeconomic, cultural, and demographic characteristics of the population; the conditions in the Ministry of Education; programs and reforms underway; the quality of the curriculum, of teachers, school management, school facilities; etc. In summary, the indicators discussed in the remainder of this chapter can be used in conjunction with other available data, set in context, to permit inferences about changes in education.

² Another way of studying these differences in educational participation is to attribute causation, through statistical analysis. This more advanced analysis is not the topic of this Guide, though a general introduction to statistical analysis is provided in Chapter IV.

³ Appendix A provides technical specifications for these indicators.

Figure A: Analytical Framework for Analyzing Education Data from Household Surveys and Censuses



Note: Not all of the indicators listed in the framework will be available in all household surveys. This analytical framework is meant only to be indicative of the types of information available and suggestive of possible analyses.

2.2 LITERACY

Literacy denotes in general the ability to read and write and to use written words (in any written language) in everyday life. Literacy is one of the intended outcomes of schooling, as well as a measure of a person’s ability to function in civil society and to continue to learn regardless of whether the person has ever attended school.

Literacy is measured in different ways across national censuses and household surveys. One approach is to ask whether each person within a household can read and write, with understanding, a simple statement on his/her everyday life. A person who can do so is considered to be literate, while one who cannot is classified as illiterate. Some surveys classify a person as ‘semi-illiterate’ if he/she can read but cannot write, or can read and write only figures or his/her own name; but this category is not used in international comparisons.

Some critics of self-reported literacy suggest that literacy estimates based on these declarations may not be reliable, as some illiterate persons may be reluctant to admit to their illiteracy. In addition, if one household respondent, such as the household head, reports on literacy for all household members, he or she may be mistaken in estimating the reading and writing ability of other household members. It is therefore recommended that literacy tests be administered either as part of national censuses or household surveys, or as part of a post-enumeration evaluation survey. Tests may be simple reading tests using newspaper cuttings or a standard text, or more elaborate literacy tests using multiple criteria-based and norm-based methods that gauge people’s literacy ability based on different literacy, numeracy and information-use scales.

Indicators of literacy can be structured in various ways. Typically, the age range is set to cover some or all adults, partly because children’s literacy is less commonly tested in household surveys. Whenever possible, these indicators should be compared for men and women and for men and women in urban and rural areas, to illustrate literacy gaps by sex and residence.

The adult literacy rate is the percentage of the adult population (generally defined as those age 15 and older) that is literate.

The literacy rate of the population age 15-24 is the percentage of the 15-24 year old population that is literate. Assuming that the vast majority of youth have attended school, the literacy rate among adults age 15-24 provides a gross measure of literacy among youth who have never attended school, still attend school, or who recently left school. In the absence of more specific data, this indicator can be used as a rough proxy for learning achievement among youth.

A key policy issue is the illiteracy rate and the number of illiterates who form the target group for literacy programs. Literacy rates among population groups by age range can also be a useful way to discern the change in literacy rates over time. For example, rates can be compared, by sex, among those age 15-24, 25-34, 35-44, 45-54, 55-64, and 65 and older, to see whether literacy rates are increasing among younger age cohorts.

2.3 EDUCATIONAL ATTAINMENT

Educational attainment is used as an indicator of a country’s human resource base, and is measured according to the percentage distribution of the adult population (generally those age 15 and older) by the highest level of schooling attended, or in some surveys, completed. For example, perhaps 22 percent of the adult population has never attended school, with 58 percent having attended primary school, 17 percent secondary, and 3 percent post-secondary school. These indicators of attainment are generally presented by age range and sex to illustrate how patterns of school attainment and completion have changed over time.

These data can also be standardized for ease of interpretation across countries and within countries where the education system has changed over time. The standard international approach to level of education is as follows:

- No schooling (persons with less than one year of primary education)
- Incomplete primary education (persons who have not reached grade 5 of primary education)
- Completed primary education (persons who have attended grade 5 and higher or successfully completed primary education)
- Attended lower secondary education but not upper secondary education
- Attended upper secondary education
- Attended post-secondary and tertiary education

If deemed necessary, a separate category can be added for persons who have attended or completed only pre-primary school. Similarly, the category of post-secondary and tertiary education can be further sub-classified in accordance with both the national education system as well as with levels 4, 5 and 6 of the International Standard Classification of Education (ISCED).

Using the same data on the highest level of schooling attended and highest grade completed at that level, *adult primary and secondary school completion rates* can also be calculated. The primary school completion rate is the percentage of the adult population (age 15 and older) that has either successfully completed primary school, or has attended a higher level of schooling. The secondary school completion rate is the percentage of the adult population (age 20 and older) that has either successfully completed secondary school, or has attended a higher level of schooling.⁴ In contrast with the indicators of educational attainment, these indicators depict the educational composition of the adult population in terms of levels of schooling completed.

In calculating both attendance and completion rates for adult populations, it is important to bear in mind the official age range of primary school and the frequency of over-age attendance. If the official age range for primary school is 6-12, for example, but there is a significant overage primary school population, the primary school completion rate among adults age 15-24 will be affected by the fact that a sizeable proportion of these young adults currently attends primary school. The same principle applies at the secondary level.

2.4 SCHOOL ATTENDANCE RATES

As discussed briefly in Chapter 1, indicators of current school participation produced by household surveys and national censuses generally are based on questions about a child's attendance, as opposed to enrollment, at school. Selected surveys may ask about enrollment rather than attendance, but given that most surveys and censuses inquire about attendance, the

⁴ The age range used to calculate the secondary school completion rate among adults typically is age 20 and older to allow for the fact that the official age range for secondary school ends in the late teenage years.

emphasis in this Guide is on indicators of attendance.⁵ Data users interested in obtaining enrolment rates may consult related technical specifications in relevant methodological documents and the UNESCO website.

To allow for the calculation of net and gross attendance ratios, the national census or household survey must provide information on children's ages, whether children currently attend school, and if so, what level and grade the children attend. The *net attendance ratio (NAR)* usually is calculated separately for primary school and secondary school. The primary school NAR is the percentage of the official primary school age population that attends primary school. If there are 6 primary school grades and the official entry age is age 6, the official primary school age range would be 6-11. The secondary school NAR is the percentage of the official secondary school age population that attends secondary school. These indicators show the extent of participation in primary/secondary schooling among children of primary/secondary school age.

The NAR is an important indicator in countries, as it indicates the percentage of children of primary or secondary school age currently attending the age-appropriate level of schooling. However, in terms of cross-country comparisons, there are different opinions about the usefulness of comparing NARs for countries with differently-structured school systems. For example, in Angola, there are only 4 years of primary school, with the official primary school age range being 6-9. In neighboring Namibia, by contrast, there are 7 years of primary school, with the official primary school age range being 7-13. Whether it is meaningful to compare NARs for two such countries is open to question.

An alternative, or perhaps a complement, to comparing NARs across countries is to compare attendance rates for an age range of children that approximates primary school age ranges across the world. The UNICEF World Summit for Children Indicators takes this approach, measuring the percentage of children age 6-12 attending school, by sex. This approach offers the advantage of comparing attendance among children of the same age, although by definition, this indicator does not take into account the variation in school structure across countries.

The *gross attendance ratio (GAR)* usually is calculated separately for primary school and secondary school. The primary school GAR is the total number of students attending primary school—regardless of age—expressed as a percentage of the official primary school age population. The secondary school GAR is the total number of students attending secondary school—regardless of age—expressed as a percentage of the official secondary school age population. The GAR indicates the level of participation in primary/secondary schooling by people of any age, and when compared with the NAR, indicates the extent of over- and under-age participation in primary/secondary schooling. In countries with high rates of primary/secondary school attendance, the GAR can exceed 100 if there are significant numbers of overage (or underage) students in school.

The *gender parity index (GPI)* for primary or secondary schooling measures sex-related differences in school attendance ratios: It is calculated by dividing the gross attendance/enrollment ratio for females by the gross attendance/enrollment ratio for males. Using

⁵ The indicators of attendance can also be calculated for enrollment (for example, the net enrollment ratio), depending on the questions asked in the census or survey.

an example cited in the 1999 UNESCO Statistical Yearbook, in Malawi in 1995, the female primary school gross enrollment ratio (GER) was 127 and the male GER was 140, and so the GPI was about .91. In contrast, in Guinea, where the gender gap in school participation is much wider than in Malawi, in 1997 the female primary school GER was 41 and the male GER was 68, producing a GPI of about .60. As these examples illustrate, the closer the GPI is to 0, the greater is the gender disparity in favor of males. A GPI of 1.0, on the other hand, indicates gender parity. A GPI greater than 1.0 indicates a gender disparity in favor of females, meaning that a higher proportion of females than males attend school. It should be noted that the GPI is only one measure comparing male and female participation rates in schooling, and that other measures can also be quite useful, particularly when data are available for more than one point in time.⁶

In addition to the data requirements for the NAR and GAR, the calculation of the *gross and net intake rates* requires information about children's school attendance over a two-year period. The net intake rate is the number of new entrants to the first year of primary school who are of the official school starting age, divided by the total number of children in the population who are of the official school entry age. The net intake rate for Guinea, for example, is calculated as follows: (number of 7-year-old children who did not attend the first year of primary school last year, but did attend the first year of primary school this year) / (number of children who are age 7). Note that the indicator does not estimate the number of 7-year-olds currently attending the first year of primary school now, but those who are in the first year of primary school for the first time.

The gross intake rate is the number of new entrants to the first year of primary school who are of any age, divided by the total number of children of the official school entry age. The gross intake rate is calculated as follows: (number of children of any age who did not attend the first year of primary school last year, but did attend the first year of primary school this year) / (number of children who are of official school entry age). The gross intake rate cannot be lower than the net intake rate, and can exceed 100 if participation in the first year of primary school is high and if there is significant over-age or under-age attendance.

The *proportion of students over-age, under-age and on-time, by grade* can be calculated at both the primary and secondary school levels. Based on the official target age for each grade of schooling, it can be useful to calculate, for each year of study, the proportion of children in that grade who are at the target age, or older or younger than the target age for the grade.⁷ Overage among primary school students, in particular, is a sizeable and growing problem in many developing countries. Over-age children occupy places in school which might have been given to children at the target age for the grade. In addition, over-age children may be more likely to

⁶ There are several different approaches to measuring change in the gender gap over time. The absolute gender gap, for example, is the male GAR (or the gross enrollment ratio) minus the female GAR (or the gross enrollment ratio). Comparing the absolute gender gap at two points in time for a given country illustrates whether the absolute gender gap is narrowing.

⁷ Students are considered 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. For example, if the official entry age for grade 1 is 7, a student age 7 or 8 is considered on time in grade 1, a student age 9 or older is considered over-age, and a student age 6 or younger is considered under-age.

drop out of primary school, in particular, before completing that level of schooling. Information about the extent of overage by grade suggests the magnitude of the overage problem in a school system.

The *age-specific attendance ratio* (ASAR) indicates the percentage of youth of a given age that currently attends school, regardless of the level of participation (primary, secondary, or higher). This indicator is an important complement to the NAR and GAR, as the ASAR captures current school attendance at any level of schooling, rather than at the intended level for the child's age. The ASAR cannot exceed 100%, and the closer it is to 100%, the higher the school participation of youth of that age.

2.5 STUDENT FLOW RATES

Student flow rates describe the movement of students through the school system, including students leaving the system. The *promotion rate, by grade*, is the percentage of students in a grade in a given school year who are promoted to the next grade in the following school year.

The *repetition rate, by grade*, is the proportion of students in a grade in a given school year who also attend that same grade in the following school year. The repetition rate, along with the dropout rate, helps to describe the flow of students through a school system, and suggests where problems with student flow rates are most acute. For instance, repetition rates at the primary school level are often highest at the first and last grades of the cycle. Students may repeat the first grade at high rates because of perceived or actual unreadiness to proceed, and may repeat the last grade of primary school in an effort to perform well enough to progress to secondary school.

The *dropout rate, by grade*, is the proportion of students in a grade in a given school year who no longer attend school the following year. Both of these rates are calculated from data on children's school participation during two consecutive school years.

Household survey data on dropout, in particular, may be quite useful to MOEs as a point of comparison with Ministry data. Many MOEs estimate dropout rates by assuming that those students who, from one year to the next, are not promoted to the next grade and who are not repeating the grade, dropped out of school. MOEs typically do not have records of whether students who left a particular school went to another school elsewhere or left school altogether, and so as a consequence, inevitably count some student transfers as dropouts. Under these circumstances, it is particularly helpful for MOEs to have another source of data on dropout that is unaffected by student transfer from school to school.

Survival rates estimate the percentage of students who start grade 1 of primary school who will eventually attain a given grade, with or without grade repetition. Often, survival rates are calculated to grade 5, as a proxy for attaining literacy, and to the final grade of primary school. The survival rate to grade 5 estimates the percentage of grade 1 students in year t that will 'survive' or persist in schooling through the beginning of grade 5, at time $t + X$.

Ideally, survival rates are calculated using the true cohort method, involving either longitudinal study of a cohort of students moving through the school system, or a retrospective study of

students using existing school records.⁸ National census and household survey data, however, do not allow for the true cohort method approach. Instead, the survival rate is estimated using the reconstructed cohort method, which requires a series of assumptions.⁹ The survival rate is calculated using rates of promotion, dropout, and repetition, with the projection based on several assumptions, including: a) that there are no new entrants to the school system (including dropouts returning to school); b) that at any grade, the same promotion, repetition, and dropout rates will apply to students, regardless of whether a student is in the grade for the first time or is repeating; c) and that the same promotion, repetition, and dropout rates observed apply for students while they are in that cycle of schooling; d) that the number of times students are allowed to repeat is defined. Using the reconstructed cohort method, survival rates are linked most closely to dropout rates—the lower the dropout rate, grade by grade, the higher the estimated survival rate.

The *transition rate from primary to secondary school* is the proportion of students attending the final grade of primary school in a given year, who attend the first grade of secondary school in the following school year. Note that this indicator does not project the proportion of students from a particular cohort that eventually may make the transition to the first grade of secondary school, but rather those who made the transition in a given school year.

2.6 INDICATORS AT THE HOUSEHOLD LEVEL

The foregoing discussion focuses on indicators calculated at the individual level—either the child or adult level. It is also possible to examine education indicators at the household level. One interesting question to address is the percentage of households with children of school age. This calculation can be made according to schooling level (including preprimary, primary, secondary, tertiary).

With that information in hand, one can calculate the percentage of those households with one or more children attending school, as well as the percentage of households with one or more school-age children with none of the children attending school. More detailed analyses are possible, such as the percentage of school-age children in school among households with one or more school-age children. These calculations provide information about children's school participation at the household level, which can be used to supplement data on participation at the individual level.

⁸ UNESCO. Use of cohort Analysis Models for Assessing Educational Internal Efficiency. Lkd. UNESCO. <<http://unesco.org/en/stats/stats0.htm>>.

⁹ For a detailed description of the calculation of this indicator using the reconstructed cohort method, see the “Education for All: The Year 2000 Assessment Technical Guidelines” published by UNESCO for the International Consecutive Forum on Education for All (email: efa@unesco.org; website www.education.unesco.org).

3.1 NATIONAL POPULATION CENSUSES

A population census is a complete enumeration of the entire population. As a comprehensive source of data on demographic, social, and economic data on a population, a national census is a primary source of data for policies and the planning of socio-economic development from the national to the local level. A national census also provides the frame for drawing household and population samples for more in-depth surveys.

National population censuses are large-scale statistical operations requiring considerable resources, organization and preparation, and are carried out every 5 or 10 years over the entire national territory, involving all identifiable households and individuals. Some national population censuses also cover nationals living abroad at the time of the census. Because census data provide information on the entire population, the data can be disaggregated to smaller levels (such as the village or district level or specific subpopulations) than survey data.

The main focus of national population censuses is to collect data on the demographic and household characteristics such as the age, gender and relationship among household members, the geographical location of population groups, migration, and a range of other social and economic characteristics such as wealth, language, religion, education, employment, occupation, disability, etc.

The latest *Principles and Recommendations for Population and Housing Censuses* published by the United Nations provides guidelines for collecting data on literacy, school attendance, educational attainment, field of education and educational qualifications¹. These guidelines recommend that a literate person be defined as one who can both read and write, with understanding, a short simple statement on his/her everyday life. Literacy may be in any written language. It should not be assumed, of course, that persons who attended school are literate and that those who did not attend are not literate. Data on school attendance should be collected from persons aged 5 to 29 years old, although the age-range may vary by country. Educational attainment is defined as the highest level and grade of education attended or completed, and takes into account all types of education and training as far as they are measurable in terms of level-grade equivalence. Population censuses may also include a question on the field of education for persons 15 years of age and over who attended at least one grade in secondary school or in equivalent training. Some countries include a separate question on educational certificates, diplomas, and professional titles and degrees obtained.

3.2 SELECTED HOUSEHOLD SURVEYS

The use of education indicators from international multi-topic survey programs in less developed countries has grown markedly since the mid-1990s, thanks in part to the efforts of multi-lateral

¹ United Nations. Statistical Office. *Principles and Recommendations for Population and Housing Censuses*. New York, 1998. Series M No. 67, Rev. 1.

and bi-lateral institutions that fund survey programs, such as UNICEF, the World Bank, USAID and others. Generally, these surveys have collected data on a wide range of development issues and provide information on population, health, education, household income and expenditure, employment, and other critical public policy domains.

This Guide encourages greater use of the education data available from these survey programs, as well as from national censuses and from smaller household surveys. The Guide's emphasis is on surveys that cover multiple topics, including education, rather than on surveys that collect data primarily on education, as the latter are more likely already to be used by education constituents in country than are data from multiple-topic surveys. These surveys may have been conducted once or multiple times over a period of years.

In addition to the larger multi-topic international household surveys mentioned above, there are other useful national household survey data collection efforts undertaken by country statistical offices and other agencies. These efforts typically include labor force, and income and expenditure surveys that provide some education data.

This Guide focuses on several widely-implemented multiple-topic household surveys in order to familiarize potential data users with the kinds of data collected by each survey, and where possible, to provide specifics about the limitations of each type of survey. One caveat, however, is that while many surveys use core sets of questions across countries, there are often country-specific variations that make it difficult to generalize about survey content and available data. Furthermore, the core instruments used often evolve over time so that the data collected early on in a program changes over time, which also makes generalization difficult. Under these circumstances, while the Guide considers specific surveys, it does not methodically list all variables available from each type of survey, but instead focuses on general survey characteristics and approaches.

Another important note regarding data sets is the question of access to the data. Generally, survey implementing organizations determine how data sets may be accessed and by which individuals or organizations. Some programs disseminate data sets via the internet (see Appendix B).

Demographic and Health Surveys (DHS)

The Demographic and Health Surveys (DHS) program is an international survey program designed to provide current and reliable information on key indicators of social development, including fertility levels and trends, family planning knowledge and use, infant and child mortality, and maternal and child health. Since 1984, DHS has conducted a total of over 140 surveys in 70 countries, with many countries having conducted multiple surveys at 5-year intervals. Sample size varies greatly across surveys, with a trend toward larger sample sizes over time in response to the need to disaggregate the data to lower levels. For example, in Malawi in 1992, the DHS sample included about 5,000 households, compared with 15,000 households in the 2000 DHS. The sample size of 15,000 households allowed for the disaggregation of data on key indicators to the district level for priority districts, whereas the smaller sample did not permit analysis at the sub-regional level.

The DHS includes a household questionnaire, which provides data on household and individual characteristics, and a women's questionnaire that is asked of women of child-bearing age, usually those 15-49.² Often, an individual questionnaire for men age 15-59 is also included.

Surveys from phase I of the DHS program (those conducted through 1989) include few questions on education. Subsequent phases of the DHS include an increasing number of questions about educational attainment among the household population, literacy among adults, and school participation among youth. In the latest phase of the DHS, MEASURE DHS+ (1997-2002), women and men are asked to demonstrate literacy by reading from a sentence provided them. This approach is an improvement on the self-assessed literacy measurement previously used.³ In addition, the latest DHS includes a question on adults' exposure to literacy-fostering programs. The household questionnaire was also revised to include questions about school participation among youth over a two-year period, in order to allow for not only the calculation of school attendance rates, but also for the calculation of student repetition and dropout rates.

Two other data collection activities bear mention: The Service Provision Assessment (SPA) and the DHS EdData Survey. Either in conjunction with the DHS or separately, some countries conduct a SPA, which collects data from health providers and communities on the characteristics of health services and family planning services available in a given country, as well as information about nearby schools. A new USAID activity, DHS EdData, conducts education surveys that are statistically linked to the DHS. DHS EdData Surveys provide data on factors affecting the household demand for schooling, with the intent of providing information about the decisions households make about how much of what kind of education to invest in for household members.⁴

Living Standards Measurement Studies (LSMS)

The Living Standards Measurement Study⁵ (LSMS) was initiated by the World Bank in 1980 to assist national statistics institutes improve their ability to collect good data, and to use those data for policymaking. An LSMS survey collects comprehensive data on most aspects of household welfare: consumption; income from activities in the labor market, household enterprises or agriculture; asset ownership; migration; health; education; nutrition; fertility; savings and credit; and anthropometrics. Typical LSMS survey sample sizes range from 2,000 to 5,000 households.⁶ A typical LSMS survey includes three different kinds of questionnaires: the household questionnaire to collect information on all household members; a community questionnaire to gather information on local conditions that are common to all households in the

² Some surveys include all women in this age range; others include only currently-married or ever-married women.

³ In this instance, 'adults' refers to those women and men interviewed individually through t questionnaires, rather than referring to all adults in the household.

⁴ Specific topics in the DHS EdData core survey include: the reasons for school-age children never having attended school or having dropped out of school, reasons for overage first-time school enrollment, household expenditures on schooling and other contributions to schooling, parents'/guardians' perceptions of the benefits of schooling and of school quality, distances and travel times to schools, age of children's first school attendance and dropout, and the frequency of and reasons for student absenteeism.

⁵ Additional information on the Living Standards Measurement Study can be obtained at <http://www.worldbank.org/lsm/lsmshome.html>

⁶ LSMS survey samples are designed to represent the population of the country as a whole as well as that of certain subgroups of the population, and are small to balance sampling and non-sampling errors.

area; and a price questionnaire to permit adjustments in countries where prices vary considerably among regions. Facilities questionnaires are sometimes used to gather detailed information on schools or health facilities. LSMS surveys are often administered over the course of an entire year to be able to adjust for seasonal variations.

The standard education module of an LSMS survey collects data for all household members who are primary school aged or older. Most LSMS surveys also solicit information on pre-school age children regarding their participation in various programs such as government provided early childhood or school feeding programs. The standard education module includes questions on self-reported literacy and numeracy, ever attended school, current school attendance, school completion, current enrollment, current grade/level, repetition, highest degree/diploma received, attendance at private/public/religious school, distance to school, and transportation method used to go to school.⁷ For those who attended school in the past 12 months, data are collected on household expenditures on schooling and receipt of scholarships. In a few countries, children were given brief tests of literacy and numeracy. Of the household surveys discussed in this Guide, the LSMS provides the most comprehensive amount of education information.

In 1987 the World Bank also implemented another program called the Social Dimensions of Adjustment (SDA) in Sub-Saharan Africa. Under this program several different types of surveys were developed. The Integrated Survey is identical to the LSMS survey. The Priority Survey is a relatively simple household survey to provide: a quick identification of policy target groups; and a mechanism whereby key socio-economic variables can be easily and regularly produced to describe and monitor the well-being of different groups of households. The Core Welfare Indicators Questionnaire (CWIQ) uses simple indicators to identify who is, or is not, benefiting from social programs. In the case of education, the indicators included in a CWIQ are usually limited to distance to the nearest school, number of children enrolled in school by age and gender, and whether the household is satisfied with the quality of the schooling.

Multiple Indicators Cluster Surveys (MICS)

The Multiple Indicator Cluster Survey (MICS) methodology was developed by UNICEF to support governments and other partners, in measuring progress for children and women at the end of the decade. UNICEF has conducted two rounds of the Multiple Indicator Cluster Surveys (MICS), first in 1995-1996, as part of the mid-decade review, and again in 1999-2000 (called MICS2), as part of the end-of-decade review of progress toward the goals of the 1990 World Summit for Children. In addition, to assessing progress over the last decade, the data can be used for setting the baseline for the next decade and for monitoring programs.

The MICS studies also provide data on additional child rights measures and on other UNICEF priority topics, including children rights, IMCI initiative and malaria, and HIV/AIDS. Under MICS, about 60 surveys were conducted and under MICS2, close to 70 surveys has been conducted to date, with sample sizes varying from about 2,000 to 20,000 households.

The MICS2 include a household questionnaire, a questionnaire for women aged 15-49, and a questionnaire to collect data on children under age 5. MICS2 includes questions on literacy and early childhood education. The education questions in MICS2 include self-reported literacy and

⁷ The actual content of the module varies by country.

educational attainment for household members age 5 and older, and school attendance for children 5-17.

Centers for Disease Control and Prevention (CDC) Surveys

The Centers for Disease Control and Prevention (CDC) conducts Reproductive Health Surveys focusing on females and males of reproductive age. Since 1990, the CDC has conducted about 20 surveys in Eastern Europe and Latin America. Sample sizes vary from 6,000 to 20,000 respondents, depending on a country's data needs. The CDC surveys do not employ a core questionnaire that is used in each country, but rather, the questionnaires are individually tailored to the needs and interests of each country.

The household questionnaire does not include education questions. Education data are collected only for individual men and women of reproductive age and/or youth (15-24), depending on the particular survey design. As a consequence, indicators on children's school attendance generally are not available, although recently, some surveys have included questions asked of women about the school attendance of their children age 5-14. In most CDC surveys, the only education information collected is men's and women's educational attainment, although in some countries additional questions regarding women's education are asked.

The Network of Migration and Urbanization Surveys in West Africa/le réseau d'enquêtes migration et urbanisation en Afrique de l'Ouest (REMUAO)

The Migration and Urbanization in West Africa Network (REMUAO) conducted eight migration surveys in 1993. Surveys were conducted in Burkina Faso, Cote d'Ivoire, Guinea, Mali, Mauritania, Niger, Nigeria, and Senegal. The surveys aimed to measure the flux, characteristics, attitudes and aspirations of migrants; the determinants and consequences of migration; and the degree of societal integration. In Burkina Faso, a module on reproductive behavior was included and in Cote D'Ivoire, modules on agricultural operations and utilization of revenues were added. The surveys addressed migration both within and across countries. Sample sizes ranged from about 7,000 to 13,000 households. The age range of interest among respondents varied by country, with some surveys interviewing migrants age 6 and older and some migrants age 15 and older. The surveys collected information on the level of education attained, literacy, and current schooling status. The surveys also collected data on education as a factor in the decision to migrate. The data are nationally representative and can be disaggregated by urban-rural residence.

Other household surveys

The surveys above are not an exhaustive list of household surveys offering data on education. There are a number of other household surveys and survey programs offer data on education. In Appendix B, these surveys are described briefly and information about how to access data sets is provided. Appendix B also gives contact information of several organizations have useful links to smaller household survey datasets or databanks.

This chapter discusses how selected methodological limitations of multiple-topic household surveys and national censuses affect the ways in which the data should be analyzed. While this chapter discusses these constraints in general, it must be emphasized that in the use of data from survey reports and in the secondary analysis of those data, it is important to become familiar with the particular survey being considered. Familiarity with the questions asked about education, the timing of survey fieldwork, and the sampling frame, is vital to the use of survey results and to the further manipulation of the data set. Data users should access not only the data set and the report of results, but also the supporting documentation, which includes the survey questionnaires and interviewer manuals used for a particular survey.

4.1 DEFINING THE HOUSEHOLD AND THE LIMITATIONS OF THAT DEFINITION

Of necessity, national censuses and household surveys define what constitutes a household. Generally, a household is defined as a person or group of persons that usually lives and eats together. A household is not the same as a family, as a family only includes people who are related. Rather, a household includes any people who live together, whether they are related or unrelated. For example, three unrelated men who live and cook meals together would not be considered as one family, but they would be considered to be one household. A member of the household is any person who usually lives in the household. Likewise, national censuses and surveys specify what constitutes a visitor: A visitor is someone who is not a usual member of the household, but did sleep in the household the night before the day of the interview.¹

As discussed in Chapter 2, it is common to analyze children's education participation by various household characteristics, including the sex of the household head, parents' educational attainment, household wealth, and so on. It must be recognized, however, that the approach to defining the household, described above, may not capture important information about other familial influences on schooling outcomes. For example, the head of the household may be identified as a woman who is the mother of the children in the household. At the same time, it may be that the children's father, who lives elsewhere, has considerable influence over whether the children ever attend school, how much money is spent on schooling, and other decisions within the household. In addition, perhaps an uncle (living in another household) provides significant support for the schooling of his nieces and nephews. In such a case, the wealth or asset measure may underestimate the resources available to support the children of the household, and the classification of the household as female-headed will not capture the influence of the children's father on decision-making processes.

Another example of the difficulty of capturing and interpreting familial relationships is the practice of fostering children: Children may be sent to live with relatives or non-relatives primarily so that they can be educated, whereas others are sent to provide domestic and/or agricultural labor in those households. It is reasonable to assume that children who are fostered to households as maids or to provide other kinds of labor, are less likely to enroll and persist in

¹ These specific definitions are adapted from the DHS Interviewer's Manual.

school than children living with their own parents or living with other households for the primary purpose of attending school. Large-scale household surveys, which provide information about the relationships between children and the household head and about whether the child lives with his/her parents, do not provide any information about the reasons for fostering children.

In short, the typical approach to defining the household does not capture the complexities of kinship and extended family structures operating in many countries, and as a consequence, variables included in household survey and national census data sets may not completely capture the various influences on schooling decisions made within those households. In spite of these limitations, national census and household survey data in the aggregate allow for the examination of differences in children's school participation according to important household and individual characteristics.

4.2 VARIATION IN QUESTIONS ABOUT EDUCATIONAL ATTAINMENT AND ATTENDANCE

Questions collecting data on educational attainment and current school attendance/enrollment may be phrased quite differently across, and sometimes within, survey programs. A survey may ask “What is the highest grade that (name of person) has completed?” or “What is the highest grade that (name of person) has attended?” Attending a particular grade is not the same thing as having passed or successfully completed a particular grade, and in analyzing data, such differences in the kind of data collected should be taken into account. Selected surveys, notably many of the LSMS surveys, may also provide data on household members' credentials by asking about the highest diploma received.

Some surveys collect information on the grade household members attend currently or attended in the last school year. It should be noted that “currently” attending or “still” attending school typically refers to whether a child generally attends school, and not to attendance on that particular day or even during that particular week. Other surveys—notably the early DHS surveys—inquire as to the highest level/grade completed by household members, followed by a question about whether the person still or currently attends school. In the latter case, in order to create current attendance indicators such as NAR and GAR, an assumption is required about the level/grade currently attended by the household member. For example, if a child has completed grade 4 and currently attends school, it is assumed that the child currently attends grade 5.²

It must be stressed that, in order to calculate the NAR and GAR from this set of questions, certain assumptions must be made, which may not hold. One may assume, for instance, that a child age 13 who completed grade 6 and still attends school currently attends grade 7. It is possible, however, that the child is repeating grade 6. If the age range for primary school is age 7 to 12, and for secondary school is age 13 to 18, by assuming the child is now in the first year of secondary school, we would overestimate the NAR at the secondary level (and underestimate the GAR at the primary level), particularly in countries where repetition is common in the last year of primary school.

² In surveys such as those in the previous rounds of the DHS, interviewers were instructed that completion of a grade refers to successful completion of that grade, rather than unsuccessful attendance of that grade. These instructions were intended to permit the assumption that the child, if he/she ‘currently’ attended school, attended the next grade beyond the highest grade completed.

As mentioned in Chapter 2, in recent years, both the DHS and MICS surveys ask about household members' school attendance over a two-year period, which allows the calculation of not only net and gross attendance ratios, but also of dropout and repetition rates over a one-year period. These revised DHS and MICS questions specify the school year and ask about attendance during that year, and as a consequence, this approach does not require assumptions about the level/grade currently attended.

As described above, surveys take various approaches to collecting data on education. Questions may be worded differently across surveys, while collecting essentially the same information. In other cases, surveys collect different kinds of information about attainment or participation. Knowing how questionnaires were designed and what kind of information is collected is important to the use of those data.

4.3 TIMING AND DURATION OF SURVEY FIELDWORK

At what time of year, and over how long a period of time, data are collected, is an important issue in the consideration of education data from multiple-topic surveys—particularly data on children's school attendance or enrollment. A national census generally is implemented over a short period of time, and so household respondents are likely to answer questions about schooling during one given school term. Household surveys, on the other hand, may take three to five months or longer to implement, and as a consequence, data on “current” school attendance may be collected during two school terms or years, over school vacations, or some combination thereof.

Under these conditions, questions arise as to how to interpret data on current attendance: Do data on attendance (or non attendance) refer to the school year which was just completed or to the coming school year? The DHS survey conducted in Madagascar in 1992 is a case in point: According to the Malagasy school calendar, the between-year school vacation runs from July through August. Because the DHS was in the field from May to November, the survey covered two school years and the vacation between years. As a consequence, it is impossible to know whether children in households surveyed before the beginning of the 1992-1993 school year (surveyed from May to the end of August) were going to attend school in the next school year. For children whose households were surveyed from September to the end of November, it is not known whether they attended school during the previous school year (1991-1992). As in the case of Madagascar, survey reports generally present data on school attendance as though they were from a single school year even though that may not be the case. Under the circumstances, the school attendance data presented in this report must be interpreted cautiously.³ In using the data set, of course, data on school attendance might be studied separately for households surveyed during the 1991-1992 school year, over the vacation, and during the 1992-1993 school year.

A more serious problem in the calculation of children's school attendance rates is the fact that a national census or household survey collects data on children's school attendance during the
ny months before the data were collected. By

³ In recent years, DHS and MICS have made more explicit the instructions on handling questions about education participation when some of the survey fieldwork is conducted between two school years.

contrast, data on age usually are collected in completed years as of the time of the national census or household survey. As a result, the net attendance rate, for example, is calculated for children who were of primary school age, say 6-12 at the time the national census or household survey data were collected, rather than for those who were age 6-12 at the time the school year began. In other words, the estimate of NAR includes some children who were actually age 5 (not 6) at the time the school year began. The NAR calculation also excludes some children who were 12 (not 13), at the time the school year began. If school attendance rates are low among children who are underage (in this case, age 5 or younger) and high among those age 12, it is likely that the NAR will be underestimated. The longer the time between the beginning of the school year and the data collection, and the longer the duration of the survey, the greater this problem is likely to be.

Furthermore, in national censuses and household surveys, there may also be significant variation in children's attendance rates depending on the point at which the survey is conducted. Very early in a school year, attendance rates may be low in countries in which children may not start attending school in the first few weeks of the school year. In countries with significant within-year school dropout, attendance rates near the end of the year may also be noticeably lower than at earlier points in the school year. In some instances, if the question asked is about current attendance, it is also possible that attendance rates will be lower than at other points in the year if there are seasonal variations in children's school attendance because of the demand for agricultural and herding work, for example.

In summary, two identical surveys conducted in the same year in the same country over two periods of time might produce markedly different school attendance rates. It cannot be assumed that one set of results is less valid than the other. In comparing within-country data at different points in time or comparing data across countries, the timing of the survey relative to the timing of the school year must be taken into account.

4.4 SURVEY SAMPLES AND REPRESENTATIVENESS OF DATA

A national census is designed to collect information from all households in a country. As a consequence, the entire household population is included, at least in theory, in the data collection activity. In practice, of course, not every single household provides information in a national census.

By contrast, a household survey is designed to provide data on a representative sample of households. What constitutes a representative sample depends on the survey design, which is influenced by the level of accuracy sought in the estimates for various indicators and on the levels to which the data are to be disaggregated. Many surveys, for instance, provide estimates of indicators (such as adult educational attainment) at the national level, for urban and rural areas, and for regions of the country. The lower the level of disaggregation—for example, if sub-regional estimates are sought—the larger is the sample size required.

In doing secondary analysis of existing data sets, it is critical to understand the design of the survey sampling frame. If a survey is designed to produce estimates only down to the regional level, for example, the data cannot then be analyzed at the sub-regional level because the

households interviewed from various provinces or cities are not representative of those provinces or cities.

Many multiple-topic surveys are not specifically designed to study education, which may complicate the analysis of education data. For example, in addition to the standard education questions that allow the production of the NAR and GAR, the 1999 Guinea DHS included a set of questions about why children do not attend school, how much money is spent on schooling, and other similar questions, for children age 6-15 who lived with their mothers who were age 15-49.⁴ As a consequence, data on some questions were not collected for children who were not living with their mothers or who lived with their mothers who happened to be age 50 or older. The data on reasons for not attending school, then, are not representative of all children age 6-15 in Guinea, but only of those children age 6-15 living with their mothers who were age 15-49 at the time of the survey. The analysis of these data is complicated by the limitations of the sub-sample of children for whom data were collected.⁵

For further discussion of sampling and for information about the sampling frame and other issues with bearing on the use of data sets (such as the use of survey weights) for a given survey, data users should consult survey reports and/or contact representatives of survey organizations (see Appendix B).

4.5 GENERAL GUIDANCE IN DATA ANALYSIS⁶

Data manipulation and analysis can be demanding and complex. This brief section of the Guide does not provide a comprehensive set of guidelines for the use of data sets. Rather, this section provides several reminders of key issues to be considered by data users as they access data files.

The first step in using a data set is to become familiar with the structure and nature of the particular data set, the variables contained therein, the circumstances of data collection, and any limitations on the use of the data set. The documentation for a national census or household survey, such as reports and a codebook, will provide important background information about the survey (such as sample size and data quality indicators) and information about the structure of the data set and the variables contained therein.

Generally speaking, data files made available to you should be ‘clean’ data files. These files will have been checked for structural and range errors and edited for internal consistency.

- *As you begin using a data set, be clear about how the data set is structured and how the data are intended to be used.* For example, find out whether records within the data files are at the household or individual level; whether there is a household or individual weight that is meant to be applied to calculations (to compensate for oversampling in urban areas, for instance); and so on.

⁴ The 1998 National Family Health Survey conducted by the CDC in El Salvador included a similar education module which was asked only of women age 15-49 who had children age 7-14, and so suffers from the same limitations.

⁵ For further discussion of this issue, see the report of survey results: *Schooling in Guinea: Findings from the GDHS-II 1999*.

⁶ A substantial part of this discussion is adapted from the MICS documentation on analysis of data.

- *Before using variables in calculations, become familiar with them.* If possible, check the questionnaires used in the national census/household survey to see which questions variables come from so that you understand better how to use these data. Be sure you understand how the variable is coded (ie. male=1, female=2 for a variable on sex) and how it may and may not be used.
- *Replicate published results before proceeding with additional calculations.* If there are reports of results from the data collection activity, try to replicate these results before calculating any new indicators. Sorting out the difficulties with calculations already done will bolster your confidence in producing new results.
- *Frequency of missing values.* Some variables may have a low incidence of missing values, such as the age of each household member. Other variables, such as whether a youth attends school during the current school year, may have large numbers of missing values because the question was not asked for all household members.
- *Handling missing values.* National census and survey efforts may handle missing values in different ways. For example, in calculating the NAR, there may be children of primary school age for whom there is no information on current school attendance. In calculating the NAR, you must choose between including these children in the denominator and excluding them from the calculation. One reason for including children with missing values is for the sake of consistency: If there are 5,246 children age 6-12 in the sample, and other calculations you use include that number of children, you may wish to maintain consistency across tables. On the other hand, if information is missing on schooling for 5 percent of the children, you may not want to include them in the calculation, because including them will bias downward the estimate of NAR. Decisions about handling missing values will need to be made on a case-by-case basis.
- *Decide on basic background variables of interest and their groupings.* In the tables that you produce, you may want to look at indicators for the nation as a whole, for urban and rural areas, by sex, and by age group, for instance. The tables and figures presented in Chapter 5 present some options for your consideration. Be sure, however, when you choose these characteristics, that the data are representative at that level.
- *Decide on minimum sample sizes for displaying results.* Depending on the overall size of your sample, some tabulations may yield cells that are based on very small numbers of cases. This may happen, for example, when you are tabulating results by categories of background variables in which relatively few respondents fall (e.g., women with higher education). These estimates will not be reliable and should not be shown. In general, it is not advisable to present results based on (i.e., with a denominator) fewer than 25 unweighted cases.

This chapter focuses on issues that might be of greatest interest to MOE and survey implementing organization staff in their consideration of how to organize and present data from surveys in ways that are most useful to educationists. The focus of this chapter, as throughout this Guide, is on descriptive data presented in cross tabulations, which illustrate correlations between variables.

The data presented in these tables and figures show correlations between variables. For instance, children living in urban areas may attend primary school at a higher rate than do children living in rural areas. This means that there is a correlation, or a relationship, between urban-rural residence and the likelihood of attending school. The data do not provide information about causation or quantify the effect of living in an urban or rural area on the likelihood of a child attending primary school. Cross tabulations do not control for, or take into account, other variables that may also affect the likelihood of attending primary school—such as household wealth, region of residence, parents' education, and other factors. In order to quantify the effect of a particular factor on an outcome of interest, other statistical methods (not addressed in this Guide) are required.

Correlations between variables, such as wealth and school participation, however, are important and interpretable. Knowing that poor children are less likely than wealthier children to attend school, for instance, suggests the importance of reviewing policies affecting the costs of schooling to households.

In the illustrative tables and figures below, no attempt is made to cover the wide range of indicators discussed earlier in this Guide, but rather, general guidance is given on the presentation of relevant data in user-friendly formats. It should also be noted that because not all household surveys provide data on the variables used below, examining indicators—such as net attendance ratios by household wealth or assets—will not be possible for all surveys.

5.1 SELECTING AND PRESENTING STANDARD EDUCATION INDICATORS

Attendance

All of the data sources discussed in this Guide include data on school attendance. As illustrated by Tables 1 and 2, the audience and the intent of the table or figure should determine the background characteristics to be presented. Table 1 presents the percentage of primary school age attending primary school in Azerbaijan, based on the 2000 MICS. The data are disaggregated by age, region, area, household status and household wealth. Note that the household status of interest in Azerbaijan is whether children are residents or refugees, whereas in other countries this may not be of interest.

Table 1
Percentage of children of primary school age attending primary school,
Azerbaijan, 2000 MICS

		Male		Female		Total	
		Percent	Number	Percent	Number	Percent	Number
		Attending		Attending		Attending	
Age	7	71.5	284	72.2	241	71.8	525
	8	94.8	328	93.5	277	94.2	605
	9	96.0	328	96.1	305	96.1	633
	10	88.7	337	89.0	317	88.8	654
Region	Baku area	92.5	322	90.6	287	91.6	609
	Nakhcivan	95.0	40	94.0	50	94.4	90
	Center, North	87.8	483	88.8	445	88.3	928
	West, Southwest	84.8	250	85.5	207	85.1	457
	South	85.7	182	85.4	151	85.6	333
Area	Urban	89.4	634	90.5	598	89.9	1232
	Rural	87.2	643	86.2	542	86.8	1185
Household Status	Resident	88.4	1145	88.2	1031	88.3	2176
	IDP or Refugee	87.9	132	90.8	109	89.2	241
Household Wealth	Poor	85.2	318	86.2	239	85.6	557
	Middle	88.5	793	88.6	735	88.5	1528
	Rich	93.4	166	91.0	166	92.2	332
Total		88.3	1277	88.4	1140	88.4	2417

Table 2, produced using data from the 1999 Guinea Demographic and Health Survey, presents information similar to that presented in the Azerbaijan table. In contrast to Table 1, Table 2 presents data on both net and gross attendance ratios (NAR and GAR) at the primary and secondary school levels, as well as the gender parity index. Data are presented according to male and female children's background characteristics—residence, wealth (asset index), and mother's education—which allows the indicators to be compared across groups.

This table provides a good example of country-specific emphasis. In Guinea, school participation is relatively low and so, it is useful to see what the participation rates are among children of all ages. As is shown in the table, while only 46 percent of boys age 7-12 attend primary school, the gross attendance ratio is 74, suggesting that for every 46 boys of primary school age attending primary school, 28 boys over the age of 13 attend primary school. Both the net and gross attendance rates are shown to emphasize the large numbers of overage children attending school. In addition, in Guinea, unlike in Azerbaijan, there is a substantial gender gap in primary school participation. Presenting the gender parity index in the table emphasizes the gender gap.

Table 2
School attendance ratios, Guinea, 1999 DHS

Net attendance ratios (NAR) and gross attendance ratios (GAR) for the de facto household population age 6-24, by sex and selected background characteristics

Characteristic	Net attendance ratio (NAR) ¹			Gross attendance ratio (GAR) ²			Gender parity index	Number of children
	Sex		Total	Sex		Total		
	Male	Female		Male	Female			
PRIMARY								
Residence								
Urban	77.0	63.7	70.1	129.7	95.0	111.6	0.7	1,869
Rural	33.6	20.5	27.1	52.2	27.5	40.0	0.5	4,629
Region								
Lower Guinea	47.7	36.4	42.3	73.0	51.9	62.9	0.7	1,325
Middle Guinea	27.5	19.4	23.3	43.4	26.0	34.5	0.6	1,776
Upper Guinea	28.0	18.6	23.4	49.1	26.2	38.1	0.5	1,069
Forest Guinea	54.2	33.2	43.5	89.5	43.7	66.1	0.5	1,397
Conakry	86.2	71.7	78.6	139.7	111.0	124.7	0.8	931
Asset index								
Lowest quintile	23.7	11.8	17.6	38.4	15.7	26.8	0.4	1,289
Second quintile	26.7	11.3	19.3	39.3	14.5	27.3	0.4	1,305
Middle quintile	37.4	23.9	31.0	58.0	31.0	45.1	0.5	1,285
Fourth quintile	59.8	44.4	52.2	99.3	62.0	80.8	0.6	1,345
Highest quintile	83.3	72.1	77.3	138.7	109.6	123.0	0.8	1,277
Mother's education³								
No education	42.1	27.7	35.1	60.6	38.0	49.5	0.6	4,018
Some education	80.4	72.1	76.2	118.3	98.3	108.2	0.8	579
Mother not in household	42.9	33.7	38.1	91.0	52.6	70.9	0.6	1,802
Total	45.5	33.4	39.5	73.6	47.7	60.6	0.6	6,499
SECONDARY								
Residence								
Urban	32.1	17.4	24.9	52.2	24.3	38.5	0.5	1,700
Rural	8.7	2.3	5.7	11.4	2.9	7.4	0.2	2,847
Region								
Lower Guinea	23.5	5.0	14.3	29.0	6.3	17.8	0.2	895
Middle Guinea	10.8	5.9	8.5	14.9	6.6	11.1	0.4	1,057
Upper Guinea	6.5	4.4	5.6	11.0	5.7	8.7	0.5	728
Forest Guinea	16.1	4.6	10.8	24.9	7.2	16.7	0.3	1,012
Conakry	32.3	19.3	25.3	57.7	28.0	41.6	0.5	856
Asset index								
Lowest quintile	4.4	0.3	2.4	7.0	0.3	3.6	0.0	778
Second quintile	5.2	0.6	3.1	6.8	0.6	3.9	0.1	730
Middle quintile	10.0	2.6	6.7	13.3	2.9	8.6	0.2	854
Fourth quintile	19.9	9.4	15.0	31.0	12.9	22.5	0.4	994
Highest quintile	36.8	19.9	28.4	57.9	28.0	42.9	0.5	1,191
Mother's education⁴								
No education	5.4	3.0	4.3	5.8	3.3	4.7	0.6	1,740
Some education	19.6	18.0	18.8	24.4	21.0	22.8	0.9	193
Mother not in household	23.1	9.5	16.4	36.7	13.6	25.2	0.4	2,978
Total	17.2	8.1	12.9	26.3	11.1	19.0	0.4	4,547

Note: "Some" education includes people who attended one or more years of primary school, through higher education.
¹ The NAR for primary school is the percentage of the population of primary school age (7-12 years) that is attending primary school. The NAR for secondary school is the percentage of the population of secondary school age (13-19 years) that is attending secondary school. By definition, the NAR cannot exceed 100 percent.
² The GAR for primary school is the total number of students attending primary school—regardless of age—expressed as a percentage of the official primary school-age population. The GAR for secondary school is the total number of students attending secondary school—regardless of age—expressed as a percentage of the official secondary school-age population. If there are significant numbers of over-age or under-age students at a given level of schooling, the GAR can exceed 100 percent.
³ A total of 102 primary school students have missing data on mother's education level.
⁴ A total of 86 secondary school students have missing data on mother's education level.

Often, the completion of fourth grade is considered to be a proxy for literacy. Therefore, the persistence or ‘survival’ of grade 1 students to grade 5 becomes critically important.¹ Table 3 provides educational persistence data for Azerbaijan. Because each cell has a different denominator, they are not presented in this particular table. Clearly, in Azerbaijan, the vast majority of children starting grade 1 reach grade 5 (99 percent).

Table 3
Percentage of children entering first grade of primary school who eventually reach grade 5, Azerbaijan, 2000 MICS

		Percent attending 2 nd grade who were in 1 st grade last year	Percent attending 3 rd grade who were in 2 nd grade last year	Percent attending 4 th grade who were in 3 rd grade last year	Percent attending 5 th grade who were in 4 th grade last year	Percent who reach grade 5 of those who enter 1 st grade
Sex	Male	99.7	100.0	99.4	100.0	99.1
	Female	99.0	99.7	100.0	99.3	98.0
Region	Baku area	100.0	100.0	100.0	100.0	100.0
	Nakhcivan	94.1	100.0	100.0	100.0	94.1
	Center, North	99.2	99.6	99.6	99.1	97.5
	West,					
	Southwest	99.2	100.0	99.2	100.0	98.4
	South	100.0	100.0	100.0	100.0	100.0
Area	Urban	99.7	100.0	99.4	99.7	98.8
	Rural	99.0	99.7	100.0	100.0	100.0
Household Status	Resident	99.3	99.8	99.7	99.6	98.4
	IDP or	100.0	100.0	100.0	100.0	100.0
	Refugee					
Household Wealth	Poor	98.6	99.3	100.0	100.0	97.9
	Middle	99.5	100.0	99.8	99.5	98.8
	Rich	100.0	100.0	99.0	100.0	99.0
Total	Total	99.4	99.8	99.7	99.7	98.6

¹ See Appendix A for further explanation of the calculation of this indicator.

Some surveys include data on early childhood education programs, in recognition of the importance of these types of programs. Table 4 presents data on early childhood education for Côte d'Ivoire from the 2000 MICS. The table presents the distribution by sex, region, age and mother's education. Note that the more education the child's mother has completed, the more likely the child is to attend an early childhood program.

Table 4
Percentage of children aged 36-59 months who are attending some form of organized early childhood education program, Côte d'Ivoire, 2000 MICS

		Attending programme	Number of children
Sex	Male	6.8	1,422
	Female	5.7	1,412
Region	Central	3.4	152
	North Central	7.6	251
	North East	4.8	94
	Centre East	3.5	74
	South (without Abidjan)	4.4	478
	South West	6.5	258
	West Central	1.8	397
	West	7	334
	North West	6.8	118
	North	1.7	198
	Abidjan	13.7	480
Area	Urban	12.6	1,228
	Rural	1.4	1,606
Age	36-47 months	4.2	1,586
	48-59 months	8.8	1,248
Mother's Education	None	3	1,985
	Primary	7.1	565
	Secondary	23.1	241
	Tertiary	64.7	26
	Non-formal Training	25	15
	Missing/Don't Know	16.8	2
Total		6.2	2,834

The numerator includes children for whom the mother/caretaker indicated that the child was attending some form of organized early childhood education program. The denominator is children age 36-59 months.

Literacy

Questions on literacy are also frequently asked in household surveys and censuses. These data can also be presented in different ways, depending on the objectives of the researcher and the available data. Table 5, taken from the 2000 MICS in Côte d'Ivoire, presents data on literacy among men and women age 15 or older by region, area, and age. The text accompanying this table should define literacy as measured by the survey, and explain how the percentage literate is calculated.

Table 5
Percentage of the population aged 15 years and older that is literate,
Côte d'Ivoire, 2000 MICS

		Sex					
		Male		Female		Total	
		Literate	Number	Literate	Number	Literate	Number
Regions	Central	44.8	790	21.8	962	32.1	1,752
	North Central	56.2	1,254	36.5	1,504	45.5	2,758
	North East	42.5	390	17	645	26.6	1,035
	Centre East	57.8	312	32.9	347	44.7	660
	South (without Abidjan)	59.2	2,153	36.2	2,528	46.8	4,681
	South West	46.7	1,072	32.5	1,130	39.4	2,202
	West Central	53.9	1,599	25.6	1,833	38.8	3,432
	West	66.4	810	34.6	1,124	48	1,934
	North West	26	427	9.7	475	17.4	902
	North	39.4	754	21	891	29.4	1,645
	Abidjan	83.5	3,262	64	3,912	72.9	7,174
Area	Urban	74.1	7,098	53.2	8,395	62.8	15,493
	Rural	42.8	5,717	20.1	6,956	30.3	12,672
Age	15-24	69.6	5,164	51.5	6,042	59.9	11,206
	25-34	67.6	2,613	41.2	3,714	52.1	6,327
	35-44	60.7	1,987	32.3	2,759	44.2	4,747
	45-54	52	1,540	17.9	1,464	35.4	3,004
	55-64	26.6	879	5.2	837	16.1	1,715
	65+	17.1	638	3.6	536	11	1,173
Total		60.1	12,821	38.2	15,351	48.2	28,173

5.2 PRESENTING CLEAR AND COMPLETE INFORMATION

Tables and figures can be powerful tools for communicating survey results. In presenting data, it is critical that the table or figure be clear, internally consistent, and complete. Tables should be complete in and of themselves, meaning that they should contain all relevant information about the data presented and the population concerned, including, as applicable, the age ranges, the background characteristics, and so on. When applicable, tables should also include sample sizes.

Table 6, taken from the report on the 1996 LSMS in Ghana, defines the indicator presented, school attendance, and presents data by expenditure quintile. Two additions would improve the presentation in this table: Namely, adding ‘expenditure quintile’ to the top left column, to clarify that ‘first’ through ‘fifth’ and ‘all’ refers to expenditure quintile; and specifying in the title or below it that the table includes youth age 6-25.

Table 6¹
School Attendance Rate by Location, Sex and Expenditure Quintile (Percent),
Ghana, 1996 LSMS

	ACCRA		OTHER URBAN		RURAL		COUNTRY		
	Male	Female	Male	Female	Male	Female	Male	Female	All
FIRST	37.5	42.9	59.8	43.4	54.9	32.8	55.5	35.5	45.6
SECOND	65.6	58.1	73.5	50.0	69.2	46.0	70.0	47.7	59.1
THIRD	68.0	64.3	72.9	56.3	63.5	40.1	66.0	45.5	55.6
FOURTH	90.0	62.2	72.6	53.0	59.3	38.2	66.9	45.1	55.9
FIFTH	72.2	64.6	39.4	47.1	44.4	20.3	50.4	41.8	46.1
ALL	73.0	60.8	67.0	49.9	60.5	38.2	63.0	42.9	53.0

Note: School attendance rate is the percent of children currently enrolled in school or having attended school (at any level) during the last twelve months.

The table in the LSMS Ghana report that comes before Table 6, above, presents attendance rates by location, sex, and age group, and includes ages 6-25, so the reader assumes that Table 6 includes the same age groups. Making information about the age group explicit in each table, however, would remove any doubt as to the population included.

Whereas Table 6 presents data on children’s school attendance rates in terms of net and gross attendance ratios, not all tables are similarly configured. For example, as shown in Table 7 below, the report on the 1992 Namibia Demographic and Health Survey, like many DHS reports at that time, presents data on children’s school participation according to age groups of interest to demographers: Age 6-10, 11-15, 6-15, 16-20, and 21-24 (see Table 3).² Notice that the table presents data on whether youth attended school at the time of the survey, without reference to the level of schooling attended. For instance, the table makes clear that about 80 percent of children age 6-15 attended school, but does not specify whether they attended primary or secondary school.

² The table (2.4 in the original DHS report) reports data on ‘enrolment,’ although technically speaking, the table should report data on attendance, since the data are based on the question: “Is

Table 7³
School Attendance
Percentage of the de facto household population age 6-24 years attending school, by age group, sex, and urban-rural residence, Namibia, 1992 DHS

Age group	Male			Female			Total		
	Urban	Rural	Total	Urban	Rural	Total	Urban	Rural	Total
6-10	73.4	74.4	74.2	76.8	79.3	78.7	75.0	76.9	76.5
11-15	88.0	87.6	87.7	90.8	89.4	89.8	89.4	88.5	88.7
6-15	80.4	80.5	80.5	83.5	84.0	83.9	81.9	82.3	82.2
16-20	61.8	69.0	67.1	46.5	59.2	55.1	53.2	64.2	60.9
21-24	14.8	32.0	25.6	15.7	23.6	20.3	15.3	27.4	22.7

From the perspective of the educationist, Table 7 does not present particularly useful data on children's school attendance. The reader of this report will not find data on the net attendance ratio at the primary or secondary school level (for which the appropriate age ranges are 7-13 and 14-18), and has no information about what level of schooling these youth attended. Further examination of the 1992 DHS Namibia data indicates that over one-third of the primary school learners were overage for that level of schooling (age 14 or older), so it would not be safe to assume, for example, that those children age 16-20 who attended school attended at the secondary level. In summary, based on Table 3 in the report on the 1992 Namibia DHS, it is impossible to estimate the primary and secondary school NAR.

One particular disadvantage of not presenting data on school attendance according to established education indicators and definitions is that report users may use data on the available age range in place of data on the appropriate age range. For instance, in UNICEF's *The State of the World's Children 1999* report, which uses the results presented in many DHS survey reports, including that from the 1992 Namibia DHS, the primary school NAR in Namibia is cited as 74 percent for males and 79 percent for females—which correspond to the rates of school attendance reported for children age 6-10 (see Table 3). In the UNICEF report, these estimates are footnoted as differing from the standard definition of NAR. Based on data from the 1992 Namibia DHS, the actual primary school NAR estimates (for children age 7-13) are 88 percent for males (not 74 percent) and 91 percent for females (rather than 79 percent). Had the DHS reports presented data on the NAR in addition to attendance rates and for the appropriate age ranges, the estimates of NAR presented in the UNICEF report would have been more accurate.

5.3 USING FIGURES TO PRESENT DATA

One way of emphasizing a particular finding is to present information visually in a graph or figure. Using figures is particularly advantageous when disseminating the data to the informed public, but is equally useful with researchers and decision makers. Figures distill and synthesize the most pertinent and interesting findings. They emphasize the relationship between indicators.

³ Ministry of Health and Social Services [Namibia] and Macro International Inc., 1993

Therefore, the choices made must be done with care and the figures made must be legible and easy to interpret.

Pie charts are among the simplest and most easily understood figures. This type of figure requires that the categories equal 100 percent. Figure 1 presents literacy data for men and women in Guinea, based on the results of the 1999 Guinea DHS. Note that the age ranges for men and women differ, as literacy data were collected for different age ranges.

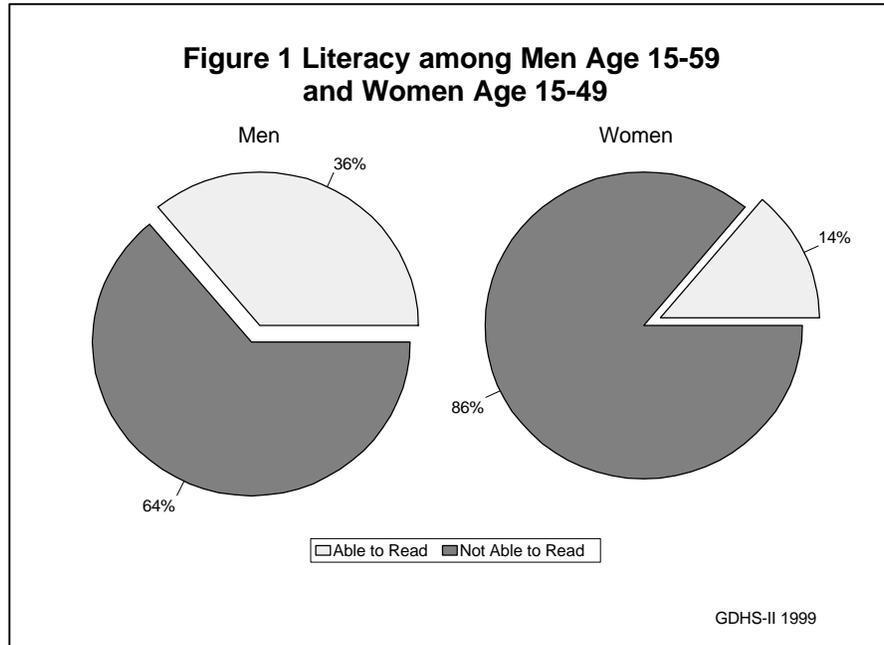
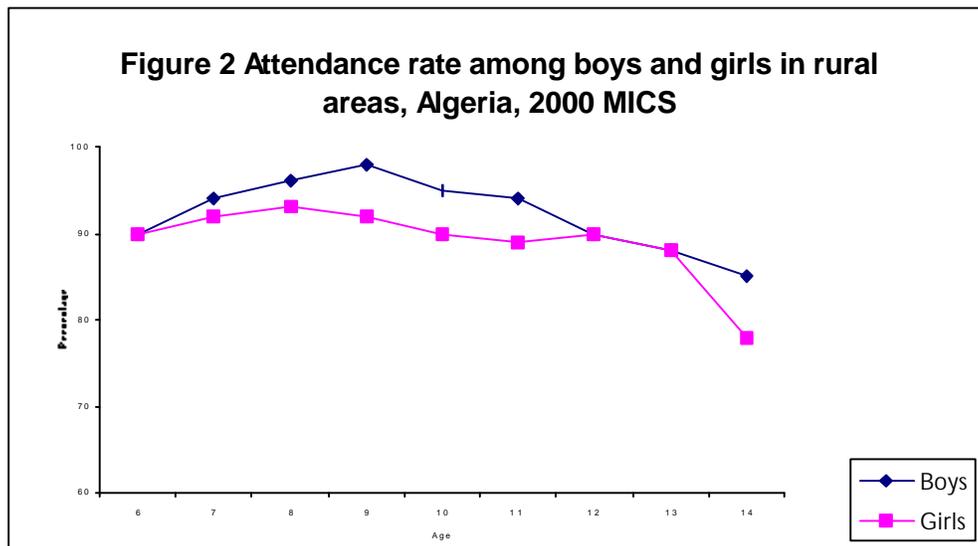


Figure 2 below presents information from the MICS on the attendance rates of boys and girls in rural Algeria. Among children in rural areas, there is a noticeable gender difference in attendance rates between the ages of 9 and 12. Attendance rates decline for both boys and girls from age 12 to 14.



Another way to present similar data graphically is to create a bar graph that shows the percentage of children of each age attending school. Figure 3 presents the ASAR for youth in Cambodia. There is rough gender parity from age 7 to 9, but from age 10 onward, male youth attend school at much higher rates than do female youth, and the gap widens among older youth.

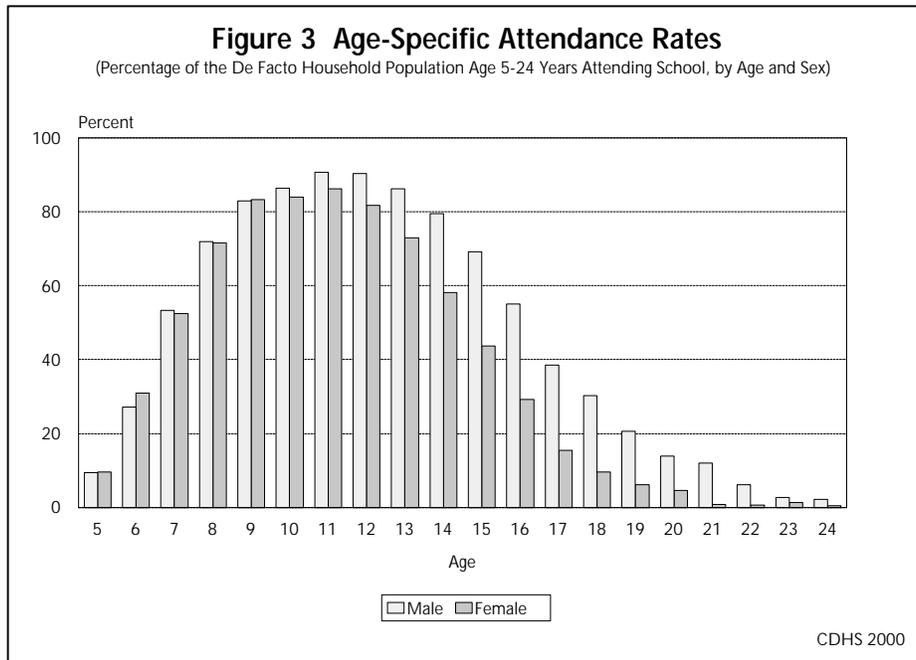
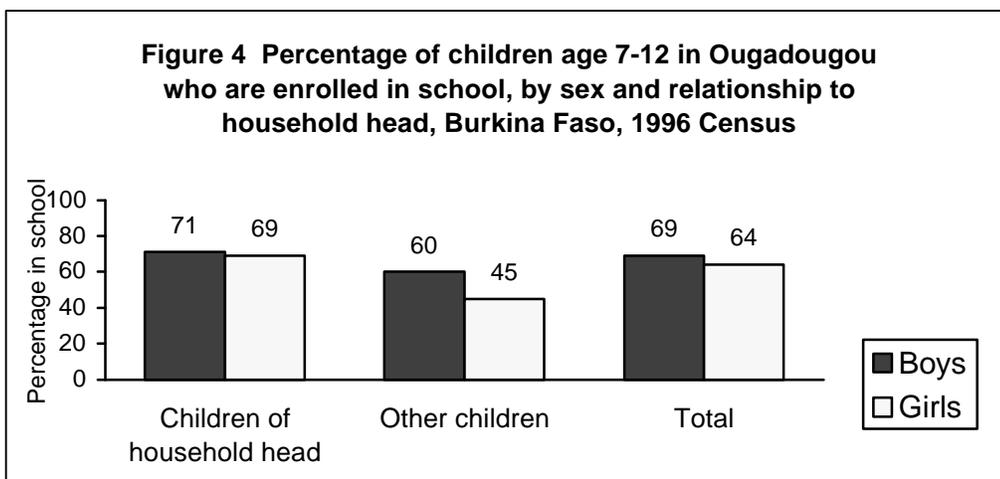
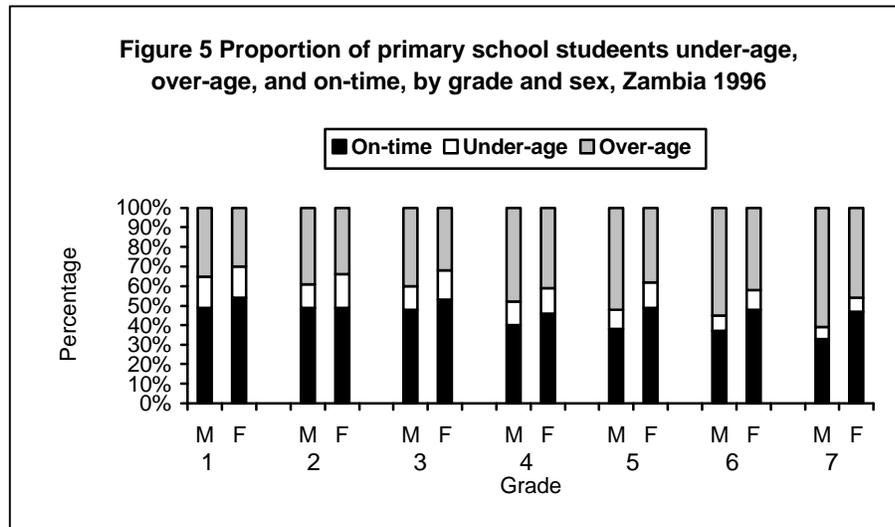


Figure 4, which is based on the 1996 census in Burkina Faso, presents enrollment ratios for children age 7-12 by sex and according to their relationship to the head of the household. Male and female children of the household head are almost equally likely to be enrolled in school. By comparison, both male and female children who are not the children of the household head are considerably less likely to be enrolled in school, and among these children, girls are far less likely than boys to be enrolled in school. There is evidence that many of the children in Ouagadougou who are not children of the household head work in households in domestic service; children in domestic service, as might be expected, are unlikely to attend school in addition to working.



In Figure 5, which is based on data from the 1996 Zambia DHS, the bars depict the proportion of students, by grade, who are over age, under age, and on time, by sex. The bars illustrate graphically the increasing proportion of overage students up through the primary school grades in Zambia.



This type of bar chart can be a useful way of illustrating adults' educational attainment as well, using categories such as: no schooling, primary, secondary, and higher.

Figure 6 illustrates yet another chart format for presenting data. This chart uses data from the 1994 in Burkina Faso to illustrate the distribution of students age 6 to 29 across schooling levels. The target age range for primary school is age 7 to 12, and as the chart shows, among children in that age range attending school, most children are in primary. Generally speaking, youth of secondary school age (13 to 19) attend secondary school, although a sizeable percentage of youth up through age 15 attend primary, suggesting that a notable percentage of students are over-age for the level of schooling attended.

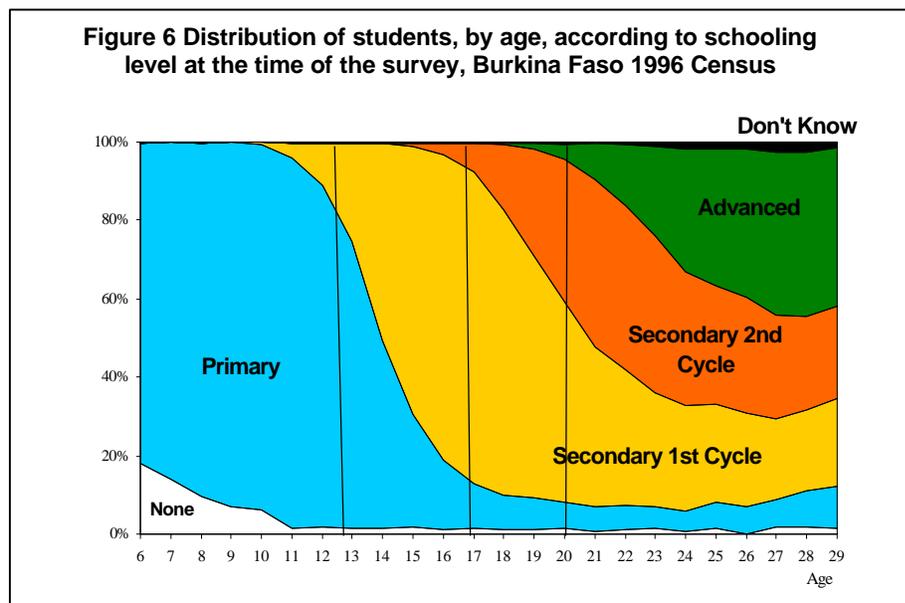
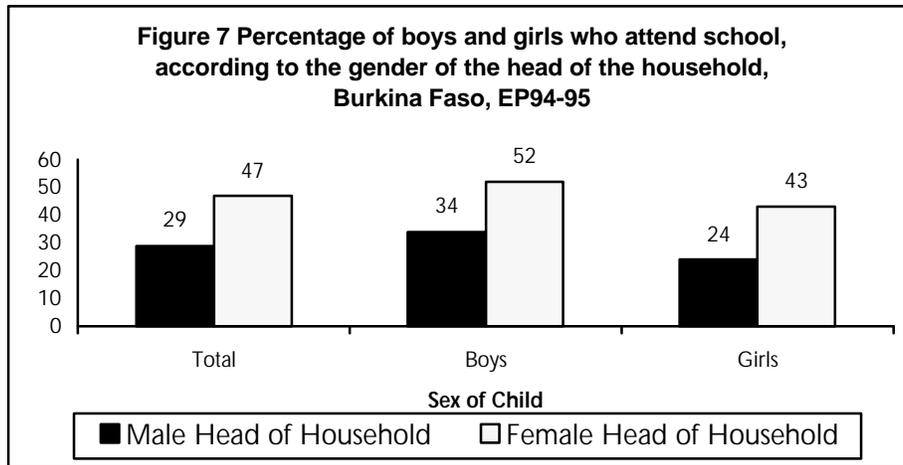
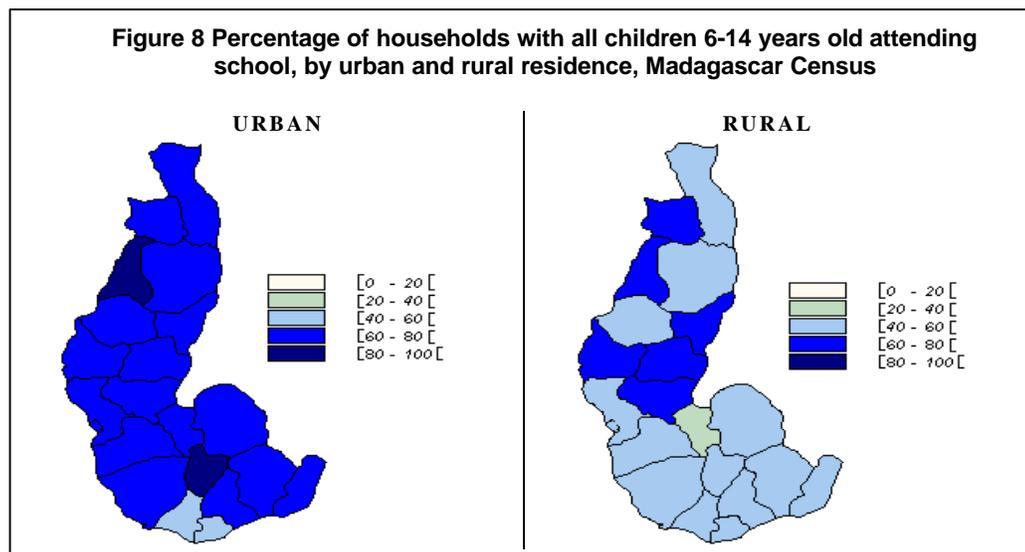


Figure 7 presents interesting findings on gender in Burkina Faso. Households headed by women are much more likely to send both boys and girls to school than households headed by men. However, generally boys attend school at higher rates than girls, regardless of the gender of the household head.



Maps are also a helpful way of presenting regional variation in educational participation. The following map (see Figure 8) highlights the differences in educational participation in Madagascar. In urban areas throughout the country, educational participation of all children 6-14 in the household is extremely high, with the exception of the southern-most region of the country. Generally, educational participation of all children 6-14 in the household is lower in the rural areas, with a few exceptions in the central and northwestern districts.



The above tables and figures illustrate considerations to bear in mind when presenting data. As mentioned at the beginning of the chapter, this set of tables and figures is by no means exhaustive, but rather is illustrative. Tables and figures presenting data on other education indicators can be patterned after those presented in this Guide.

This Guide promotes the use of education data from multiple-topic household surveys and national censuses. Data from these surveys and censuses are underutilized, and the intent of this Guide is to describe the data available from several major survey programs and to encourage the use of these data, both through the use of published reports and the further analysis of existing data sets.

Household-level data sets offer enormous possibilities for the analysis of education data by household and individual characteristics, with the goal of better understanding how educational attainment, literacy, and children's participation in schooling differ by urban-rural residence, household wealth, sex, age groups, and other individual and household characteristics. This kind of information, especially when combined with MOE data, can contribute to the understanding of how education indicators vary across groups. As discussed earlier, however, more advanced statistical analysis—beyond crosstabulations—is required in order to provide information about the effects of different factors on the variable of interest, such as the likelihood of children attending school.

This Guide is also intended to encourage collaboration between Ministries of Education, the organizations that implement national censuses and household surveys, and education stakeholders and researchers. Discussions between survey implementing organizations and Ministries of Education during the survey design, data analysis, and report writing processes, can offer great benefits. This collaboration allows experts in education and in survey methodology to exchange ideas about what data are of most interest and how best to collect those education data. This collaboration is expected to improve the quality of education questions in future censuses and surveys. In addition, this Guide encourages collaboration to foster improvements in data analysis and the presentation of results.

In addition, MOE staff intimately involved in the survey process are more likely to make use of the data set to conduct ongoing analyses, possibly in conjunction with MOE data. Such discussions between these organizations can also foster the consideration of policy implications of the results and the development of strategies to address education needs. The use of these data resources can highlight important educational inequities by gender, household status, residence and other social categories, which are important for education policy and related social and economic policies designed to address a number of problems, such as child care and child labor. Intensified use of secondary data sources such as national censuses and household surveys may raise intriguing questions to be explored through other data collection activities, including qualitative and other quantitative studies.

This Guide promotes the use of education data from multiple-topic household surveys and national censuses. Data from these surveys and censuses are underutilized, and the intent of this Guide is to describe the data available from several major survey programs and to encourage the use of these data, both through the use of published reports and the further analysis of existing data sets.

Household-level data sets offer enormous possibilities for the analysis of education data by household and individual characteristics, with the goal of better understanding how educational attainment, literacy, and children's participation in schooling differ by urban-rural residence, household wealth, sex, age groups, and other individual and household characteristics. This kind of information, especially when combined with MOE data, can contribute to the understanding of how education indicators vary across groups. As discussed earlier, however, more advanced statistical analysis—beyond crosstabulations—is required in order to provide information about the effects of different factors on the variable of interest, such as the likelihood of children attending school.

This Guide is also intended to encourage collaboration between Ministries of Education, the organizations that implement national censuses and household surveys, and education stakeholders and researchers. Discussions between survey implementing organizations and Ministries of Education during the survey design, data analysis, and report writing processes, can offer great benefits. This collaboration allows experts in education and in survey methodology to exchange ideas about what data are of most interest and how best to collect those education data. This collaboration is expected to improve the quality of education questions in future censuses and surveys. In addition, this Guide encourages collaboration to foster improvements in data analysis and the presentation of results.

In addition, MOE staff intimately involved in the survey process are more likely to make use of the data set to conduct ongoing analyses, possibly in conjunction with MOE data. Such discussions between these organizations can also foster the consideration of policy implications of the results and the development of strategies to address education needs. The use of these data resources can highlight important educational inequities by gender, household status, residence and other social categories, which are important for education policy and related social and economic policies designed to address a number of problems, such as child care and child labor. Intensified use of secondary data sources such as national censuses and household surveys may raise intriguing questions to be explored through other data collection activities, including qualitative and other quantitative studies.

This Guide promotes the use of education data from multiple-topic household surveys and national censuses. Data from these surveys and censuses are underutilized, and the intent of this Guide is to describe the data available from several major survey programs and to encourage the use of these data, both through the use of published reports and the further analysis of existing data sets.

Household-level data sets offer enormous possibilities for the analysis of education data by household and individual characteristics, with the goal of better understanding how educational attainment, literacy, and children's participation in schooling differ by urban-rural residence, household wealth, sex, age groups, and other individual and household characteristics. This kind of information, especially when combined with MOE data, can contribute to the understanding of how education indicators vary across groups. As discussed earlier, however, more advanced statistical analysis—beyond crosstabulations—is required in order to provide information about the effects of different factors on the variable of interest, such as the likelihood of children attending school.

This Guide is also intended to encourage collaboration between Ministries of Education, the organizations that implement national censuses and household surveys, and education stakeholders and researchers. Discussions between survey implementing organizations and Ministries of Education during the survey design, data analysis, and report writing processes, can offer great benefits. This collaboration allows experts in education and in survey methodology to exchange ideas about what data are of most interest and how best to collect those education data. This collaboration is expected to improve the quality of education questions in future censuses and surveys. In addition, this Guide encourages collaboration to foster improvements in data analysis and the presentation of results.

In addition, MOE staff intimately involved in the survey process are more likely to make use of the data set to conduct ongoing analyses, possibly in conjunction with MOE data. Such discussions between these organizations can also foster the consideration of policy implications of the results and the development of strategies to address education needs. The use of these data resources can highlight important educational inequities by gender, household status, residence and other social categories, which are important for education policy and related social and economic policies designed to address a number of problems, such as child care and child labor. Intensified use of secondary data sources such as national censuses and household surveys may raise intriguing questions to be explored through other data collection activities, including qualitative and other quantitative studies.

REFERENCES

- Bottani, N. (1990). The background of the CERI/OECD project on international educational indicators. *International Journal of Educational Research*, 14, 335-342.
- Central Statistical Office [Zambia], Ministry of Health [Zambia] and Macro International. (1993). *Zambia Demographic and Health Survey, 1992*. Calverton, Maryland: Central Statistical Office and Macro International Inc.
- Central Statistical Office [Zambia], Ministry of Health [Zambia] and Macro International. (1997). *Zambia Demographic and Health Survey, 1996*. Calverton, Maryland: Central Statistical Office and Macro International Inc.
- Grosh, Margaret and Paul Glewwe. (2000). *Designing Household Survey Questionnaires for Developing Countries: Lessons from Fifteen Years of the Living Standards Measurement Study*. Washington, DC: World Bank and Oxford University Press.
- Grosh, Margaret E. and Paul Glewwe. (1995). *A Guide to Living Standards Measurement Study Surveys and Their Data Sets*. LSMS Working Paper 120. Washington, DC: World Bank.
- Grosh, Margaret E. and Juan Muñoz. (1996). *A Manual for Planning and Implementing the Living Standards Measurement Study Survey*. LSMS Working Paper 126. Washington, DC: World Bank.
- Ministère de l'Enseignement Pré-Universitaire et de l'Éducation Civique, Service Statistique et Planification [Guinea] and ORC Macro. (2001). *Schooling in Guinea: Findings from the GDHS-II 1999*. Calverton, Maryland USA: Ministère de l'Enseignement Pré-Universitaire et de l'Éducation Civique, Service Statistique et Planification and ORC Macro.
- Ministry of Health and Social Services[Namibia] and Macro International Inc. (1993). *Namibia Demographic and Health Survey 1992*. Windhoek, Namibia and Calverton, Maryland, USA: Ministry of Health and Social Services and Macro International Inc.
- Pilon, Marc. (Ed.). (1999). *Guide d'exploitation et d'analyse des données de recensement et d'enquêtes en matière de scolarisation (Les Documents et Manuels du CEPED, n°9)*. Paris, France: Centre français sur la population et le développement(CEPED), Union pour l'étude de la population africaine(UEPA), et Organisation des Nations unies pour l'éducation, la science et la culture(UNESCO).
- Statistical Service, Republic of Ghana and World Bank. (1988). *Ghana Living Standards Survey Preliminary Report*. Lkd. LSMS. <<http://www.worldbank.org/html/prdph/lsms/country/gh/docs/GHA04.pdf>> (2001, June 26).
- UNICEF. (1999). *The State of the World's Children*. New York, NY: UNICEF.

UNESCO. (1988). World Education Indicators, Working Document. Paris, France: UNESCO.

UNESCO, Division of Statistics. Gender-Sensitive Education Statistics and Indicators: A Practical Guide. Lkd. UNESCO. <<http://unescostat.unesco.org/en/pub/doc/gend-stat.pdf>> (2000, June 19).

UNESCO. Use of cohort Analysis Models for Assessing Educational Internal Efficiency. Lkd. UNESCO. <<http://unescostat.unesco.org/en/stats/stats0.htm>>.

APPENDIX A

CALCULATION OF EDUCATION INDICATORS

CALCULATION OF EDUCATION INDICATORS

APPENDIX A

As discussed in Chapter 4, missing values can be handled in different ways. Some household surveys, such as the DHS, do not exclude cases with missing values. Not excluding those with missing values allows the production of tables with consistent sample sizes across indicators. Other data collection efforts choose to exclude cases with missing values on key variables. Decisions about handling missing values need to be made on a case-by-case basis.

Literacy

The adult literacy rate is calculated as follows:

$$\frac{\text{Number of adults age 15 and older in the sample or population who are literate}^1}{\text{Number of adults age 15 and older in the sample or population}}$$

As mentioned in the text, the adult literacy rate can also be calculated for adults age 25 and older, and for various age groups (such as 15-24, 25-34, 35-44, etc).

Also as discussed in the text, the definition of literacy in the national census or household survey is key. In household surveys such as the DHS, the percentage literate includes those respondents who can read a simple statement easily or with difficulty.

Adult educational attainment

Adult educational attainment is a measure of the highest level of schooling attended, and is calculated by level of schooling, as follows:

Percentage with no schooling:

$$\frac{\text{Number of adults age 15 and older who have attended less than one year of school}}{\text{Number of adults age 15 and older in the sample or population}}$$

Percentage with primary schooling:

$$\frac{\text{Number of adults age 15 and older whose highest level attended is primary school}}{\text{Number of adults age 15 and older in the sample or population}}$$

Percentage with secondary schooling:

$$\frac{\text{Number of adults age 15 and older whose highest level attended is secondary school}}{\text{Number of adults age 15 and older in the sample or population}}$$

Percentage with post-secondary schooling:

$$\frac{\text{Number of adults age 15 and older whose highest level attended is post-secondary school}}{\text{Number of adults age 15 and older in the sample or population}}$$

Notice that these categories are mutually exclusive and when added together, should total 100 percent.

¹ Literacy may be self-reported or tested, according to the survey.

Adult school completion rates

Adult primary school completion rates are calculated as follows:

$$\frac{\text{Number of adults age 15 and older who completed primary school (or have attended a higher grade)}}{\text{Number of adults age 15 and older in the sample or population}}$$

Adult secondary school completion rates are calculated as follows:

$$\frac{\text{Number of adults age 20 and older who completed secondary school (or have attended a higher grade)}}{\text{Number of adults age 20 and older in the sample or population}}$$

Notice that in these calculations, the age ranges differ for primary (age 15 and older) and secondary (age 20 and older) school completion rates among adults. The age range begins at 20 for the indicator at the secondary level to allow for the fact that in most countries, the official age range for secondary school extends through the late teenage years. Note that because of the way in which these indicators are calculated, adults who have completed secondary school or higher are counted as having completed both primary and secondary school.

Current school attendance rates among youth

The *net attendance ratio* (NAR) at the primary school level is the percentage of the official primary school age population that attends primary school. This indicator is calculated as follows:

$$\frac{\text{Number of children of primary school age who attend primary school}}{\text{Number of children of primary school age in the sample or population}}$$

At the secondary level, the indicator is calculated as follows:

$$\frac{\text{Number of children of secondary school age who attend secondary school}}{\text{Number of children of secondary school age in the sample or population}}$$

Note in particular that the numerator for the secondary school NAR includes only those children of secondary school age who attend secondary school; those children who attend primary school are included in the denominator but not in the numerator. Also note that the official primary and secondary school age ranges differ across countries.

The *gross attendance ratio* (GAR) at the primary level is the total number of students attending primary school—regardless of age—expressed as a percentage of the official primary school age population. The GAR indicates the level of participation in primary schooling by people of any age, and when compared with the NAR, indicates the extent of over- and under-age participation in primary schooling. In countries with high rates of primary school attendance, the GAR can exceed 100 if there are significant numbers of overage (or underage) students in primary school. The GAR at the primary level is calculated as follows:

$$\frac{\text{Number of children of any age who attend primary school}}{\text{Number of children of primary school age in the sample or population}}$$

At the secondary level, the indicator is calculated as follows:

$$\frac{\text{Number of children of any age who attend secondary school}}{\text{Number of children of secondary school age in the sample or population}}$$

The gender parity index (GPI) at the primary level indicates whether male and female children are equally likely to attend primary school, or whether there is a gap between the sexes in terms of participation. The GPI at the primary level is calculated as follows:

$$\frac{\text{Female primary school GAR}}{\text{Male primary school GAR}}$$

At the secondary level, the GPI is calculated as follows:

$$\frac{\text{Female secondary school GAR}}{\text{Male secondary school GAR}}$$

The net intake rate is the number of new entrants to the first year of primary school who are of the official primary school entrance age, expressed as a percentage of the population that is of the official school entrance age. The net intake rate is an indicator of the extent of timely entry to primary school, and is a more sensitive measure of changes in school enrollment rates than are net enrollment or attendance ratios.

The net intake rate requires data on school attendance over a two-year period, and is estimated as follows, assuming that the official starting age for the first grade of primary school is age 7:

$$\frac{\text{Number of 7-year-old children who did not attend the first grade (or any higher grade) of primary school last year, but did attend the first grade of primary school this year}}{\text{Number of children who are age 7}}$$

The gross intake rate (or apparent intake rate) is the number of new entrants to the first year of primary school—regardless of age—expressed as a percentage of the population that is of the official school entrance age. The gross intake rate indicates the extent of access to the first grade of primary school, relative to the population of primary school entrance age. If participation in primary schooling is high, and if there are significant numbers of overage and/or underage new entrants in the school system, the gross intake rate can exceed 100 percent.

The gross intake rate also requires data on school attendance over a two-year period, and is calculated as follows, again assuming that the official starting age for the first grade of primary school is age 7:

$$\frac{\text{Number of children of any age who did not attend the first grade (or any higher grade) of primary school last year, but did attend the first grade of primary school this year}}{\text{Number of children who are age 7}}$$

The proportion of students over-age, under-age, and on-time, by grade is calculated as detailed below.

Proportion of grade 1 students who are on-time for grade:

$$\frac{\text{Number of grade 1 students who are at the official age for the grade (age x) or age (x + 1)}}{\text{Number of grade 1 students in the sample or population}}$$

Proportion of grade 1 students who are underage for grade:

$$\frac{\text{Number of grade 1 students who are younger than the official age for the grade (age x)}}{\text{Number of grade 1 students in the sample or population}}$$

Proportion of grade 1 students who are overage for grade:

$$\frac{\text{Number of grade 1 students who are older than the official age for the grade + 1 (x + 1)}}{\text{Number of grade 1 students in the sample or population}}$$

The *age-specific attendance ratio* (ASAR) is calculated as follows, for all ages for which data are available. If, for example, data on current school attendance, at any level of schooling, is available for children age 6-24, the ASAR can be calculated for each age in that range.

$$\frac{\text{Number of children age 6 currently attending any level of schooling}}{\text{Number of children age 6 in the sample or population}}$$

$$\frac{\text{Number of children age 7 currently attending any level of schooling}}{\text{Number of children age 7 in the sample or population}}$$

And so on, through age 24.

Student flow rates

Student flow rates describe the movement of students in and out as well as through the education system. Using data on school attendance and level and grade attended during the current and last years that are collected by recent demographic surveys, the following student flow rates can be derived:

- Promotion rate
- Repetition rate
- Dropout rate
- Transition rate
- Survival rate

These indicators can be calculated from national census or household survey data, providing that the following basic questions are included in the survey:

- Q1. Is (name) currently attending school ?
- Q2. If 'YES', what level and grade is (name) currently attending ?
- Q3. Did (name) attend school last year ?
- Q4. If 'YES', what level and grade did (name) attend last year ?

These basic student flow indicators can in turn be used in calculating survival rates as well as other indicators by applying the cohort student flow model.

For household members whose answers to both Q1 and Q3 are 'YES', the comparison of the answers to Q2 and Q4 allow the calculation of the *promotion rate*: Those who were in Grade (n-1) last year, and who are in Grade(n) this year were promoted. This number is then divided by the number of students who were attending Grade(n-1) the last year, to obtain the promotion rate for Grade(n-1) for last year.

The repetition rate, by grade, is the proportion of students who attend a given grade in a given school year who attend the same grade in the following year. The repetition rate is calculated as follows:

$$\frac{\text{Number of students attending a given grade in a given school year who attended the same grade in the last school year}}{\text{Number of students attending the given grade in the last school year}}$$

In other words, the repetition rate for Grade(n) is calculated by dividing the number of students who attended Grade(n) during both the current and last school years (see Q. 2 and Q.4), by the total number of students who attended Grade(n) in the last school year.

The transition rate from primary to secondary school is calculated as follows:

$$\frac{\text{Number of students in last grade of primary school in a given school year who attend the first grade of secondary school in the following school year}}{\text{Number of students in last grade of primary school in a given school year}}$$

In other words, the transition rate from primary to secondary school is calculated by dividing the number of students in the last grade of primary school in the last school year who attend the first grade of secondary in the current school year, by the number of students who attended the last grade of primary school in the last school year.

It should be noted that some students may skip grades from one year to the next (e.g. from Grade 1 to Grade 3), or descended from a higher to a lower grade (e.g. from Grade 3 to Grade 2). If such occurrences are common, grade-skipping and demotion rates can be calculated.

The dropout rate, by grade, is calculated in a similar way as is the repetition rate:

Number of students who attended a given grade in a given
school year who do not attend school in the following school year
Number of students attending the given grade in the last school year

In other words, the dropout rate for Grade(n) is calculated by dividing the number of students who attended Grade(n) during the last school year (see Q. 4) and who did not attend school at all during the current school year (Q.1 is NO), by the total number of students who attended Grade(n) in the last school year.

APPENDIX B

SURVEY AND CENSUS CONTACT INFORMATION

SURVEY AND CENSUS CONTACT INFORMATION

APPENDIX B

Access to data sets varies by survey and may be under the purview of the specific country. Accessing the survey program Web site is the first place to start to learn about what data may be available regarding the countries of interest and how to go about accessing the data required.

Demographic and Health Surveys

Measure DHS +
Macro International
11785 Beltsville Drive, Suite 300
Calverton, MD 20705 USA

Phone: 301 572-0200
Fax: 301 572-0999
E-mail: measure@macroint.com
<http://www.measure.dhs.com>

Access to data sets: Data sets are publicly available through Macro International. Data sets can be requested via the website. Researchers need to apply for a download account. There is no charge for downloading the datasets and accompanying documentation. The site also allows the possibility to build customized tables from hundreds of DHS surveys and indicators with the STATcompiler.

Access to DHS education data: DHS EdData education data can be accessed from the DHS EdData Education Profiles, USAID Global Bureau of Human Capacity Development's Global Education Database, DHS's STATcompiler, and DHS's web data set distribution. (See the Web site for additional information and links: <http://www.dhseddata.com>).

Living Standards Measurement Study

LSMS Office
The World Bank
1818 H Street, NW
MSN MC3-306
Washington, DC 20433
USA

Fax: (202) 522-1153
E-mail: lsms@worldbank.org
Web site: <http://www.worldbank.org/lsms/lsmshome.html>

Access to data: The Development Economics Research Group (DECRG) of the World Bank, formerly the Policy Research Department, maintains the website to make available to researchers around the world the data sets and methodological lessons from these surveys. It is possible to access results from 38 surveys across 25 countries conducted from 1985 to 2000. Documentation and basic information for all of the LSMS surveys are available through the LSMS Office or through the LSMS Web site. Many of the data sets can also be downloaded free of charge from the Web site. <http://www.worldbank.org/lsms/>

Information on data available in Africa can be found on the Africa Poverty Monitoring Database Web site: <http://www4.worldbank.org/afr/poverty/default.cfm>

Multiple Indicator Cluster Surveys

UNICEF, MICS Coordinator
3 UN Plaza
New York, NY 10017

Phone: 212 824-6745
Web site: <http://www.childinfo.org>

Access to data sets: Individual countries control data from MICS surveys, so access varies by country. Contact the MICS Coordinator or the statistics office in country to obtain data sets.

REMUAO Surveys

CERPOD (Centre d'études et de recherche sur la population pour le développement, Bamako, Mali) ensured international coordination through REMUAO and published the results of the surveys. To gain access to the data sets or learn more about the REMUAO Surveys, contact CERPOD or the statistical office for the country of interest.

Sadio TRAORE
CERPOD- Centre d'Etudes et de Recherche sur la Population pour le Développement Bamako,
Mali
BP 1530 Tel: (223) 22 47 06 / 22 30 43 / 22 80 86
Fax: (223) 22 78 31
E-mail: btraore@cerpod.insah.ml

National Censuses

For further information on data available from National Censuses and National Household Surveys conducted by local agencies, contact the statistical office in country.

Africa Household Survey Databank

The Africa Household Survey Databank contains datasets for 110 Surveys conducted as early as 1985 and as recent as 1998 for 37 countries. These surveys include both international or donor-driven surveys as well as national surveys. The types and number of surveys available are: Priority Surveys (Social Dimension of Adjustment - SDA): 28; Household Budget Surveys / Income Expenditure Surveys: 15; Integrated Surveys (SDA/LSMS): 21; Core Welfare Indicators Questionnaire Survey (CWIQ): 1; Demographic and Health Survey (DHS): 40; Demographic and Health Survey (non-DHS): 1; Other: 4. For further information on survey types, coverage, sampling units, status of data and access policies, see the website.

http://www4.worldbank.org/afr/poverty/databank/presentation_background_en.htm

Household Surveys Initiative (ISLC/MECOVI)

The Program for the Improvement of Surveys and the Measurement of Living Conditions in Latin America and the Caribbean (ISLC/MECOVI) covers household survey datasets for seven countries: Argentina, Bolivia, El Salvador, Guatemala, Nicaragua, Paraguay and Peru. The objective of this initiative is to develop an organized, documented, and standardized data bank composed by household surveys executed within the ISLC/MECOVI Program and by household surveys executed independently from this program. Web access to datasets is currently *under construction*.

http://www.iadb.org/sds/pov/site_19_e.htm

Poverty Monitoring Database

This database provides quick access to comprehensive poverty information, including household surveys, poverty assessment summaries, participatory poverty assessments, and social indicators. Provides information on key features of survey, data availability and general information on income/consumption surveys recently conducted including many by national agencies.

<http://wbln0018.worldbank.org/dg/povertys.nsf/Surveys+By+Country?openview&Count=1999>

Luxembourg Income Study/ Luxembourg Employment Study

The Luxembourg Income Study (LIS), an international comparative study on income distribution started in 1983 that aims to create a database containing social and economic micro-data collected in household surveys from different countries and to promote comparative research on the economic status of populations in different countries. The LIS database has a total of over 60 income and expenditure survey datasets for 26 countries covering the period from the 1980s to the current year 1992.

<http://lisweb.ceps.lu/techdoc.htm>

The Luxembourg Employment Study (LES), started in 1993, is designed to facilitate the study of different labour market related issues, including analysis of labour market behaviour on an individual level, or in the frame of the household, of educational and occupational patterns, of retirement decisions. The LES database includes labour force surveys for 16 OECD countries from the late 1980s.

<http://lisweb.ceps.lu/lestechedoc.htm>

HEIDE database

The Household Expenditure and Income Data for Transitional Economies (HEIDE Database) includes household expenditure and income data for transitional economies including: Bulgaria, Hungary, Poland, Slovak Republic, Armenia, Estonia, Latvia, Russia and Kyrgyz Republic.

<http://www.worldbank.org/research/transition/house.htm>

Rand Family Life Surveys

The Rand Family Life Surveys were household and community surveys conducted by RAND in collaboration with local institutions in Bangladesh, Guatemala, Indonesia and Malaysia

<http://www.rand.org/>

Organizations with Links to Education Data Sources

The William Davidson Institute http://www.wdi.bus.umich.edu/research/internet_databases.htm

The Development Gateway

<http://www.ids.ac.uk/eldis/health/health.htm>

University of California site

http://chaka.sscnet.ucla.edu/dev_data/data.htm

APPENDIX C
SURVEYS BY TYPE AND COUNTRY

DHS s surveys by region

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			Households Sample
		Start	End				Resp.	Age	Sample	
Sub-Saharan Africa										
Benin	2001	Aug-01	Oct-01	DHS	Ongoing		All Women	15-49	7,000	6,096
Benin	1996	Jun-96	Aug-96	DHS	Completed	Inst. Nat. de la Statistique	All Women	15-49	5,491	4,499
Botswana	1988	Aug-88	Dec-88	DHS	Completed	Ministry of Health	All Women	15-49	4,368	4,473
Burkina Faso	1999	Dec-98	Mar-99	DHS	Completed	Inst. Nat. de la Stat. et de la Démo.	All Women	15-49	6,445	4,812
Burkina Faso	1992	Nov-92	Jan-93	DHS	Completed	Inst. Nat. de la Stat. et de la Démo	All Women	15-49	6,354	5,143
Burundi	1987	Apr-87	Jul-87	DHS	Completed	Dép. de la Pop., Min. de l'Intérieur	All Women	15-49	3,970	3,868
Cameroon	1998	Feb-98	Jun-98	DHS	Completed	Bur. Cen. Recensements et Etudes de Prop.	All Women	15-49	5,501	4,697
Cameroon	1991	Apr-91	Sep-91	DHS	Completed	Min. du Plan et de l'Amén. du Terr.	All Women	15-49	3,871	3,538
CAR	1994	Sep-94	Mar-95	DHS	Completed	Dir. des Stat. Dém. et Sociales	All Women	15-49	5,884	5,551
Chad	1997	Dec-96	Jul-97	DHS	Completed	Bureau Central du Recensement	All Women	15-49	7,454	6,840
Comoros	1996	Mar-96	May-96	DHS	Completed	Centre Nat. de Doc. et de Rech. Sci.	All Women	15-49	3,050	2,252
Cote d'Ivoire	1994	Jun-94	Nov-94	DHS	Completed	Inst. Nat. de la Statistique	All Women	15-49	8,099	5,935
Eritrea	1995	Sep-95	Jan-96	DHS	Completed	Nat. Statistics Office	All Women	15-49	5,054	5,469
Ethiopia	2000	Feb-00	Apr-00	DHS	Ongoing	Central Statistical Authority	All Women	15-49	15,367	14,072
Gabon	2000	Oct-00	Dec-00	DHS	Ongoing	Direction Générale de la Stat. Et des Etudes Economiques	All Women	15-49	6,500	
Ghana	1998	Nov-98	Feb-99	DHS	Completed	Ghana Statistical Service	All Women	15-49	4,843	6,003
Ghana	1993	Sep-93	Jan-94	DHS	Completed	Ghana Statistical Service	All Women	15-49	4,562	5,822
Ghana	1988	Feb-88	May-88	DHS	Completed	Ghana Statistical Service	All Women	15-49	4,488	4,406
Guinea	1999	May-99	Jun-99	DHS	Completed	Direction Nat. de la Statistique et de l'Information	All Women	15-49	6,753	5,090
Guinea	1992	Feb-92	Mar-92	Special	Completed	Direction Nat. de la Statistique	All Women	15-49	6,065	6,899

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			
		Start	End				Resp.	Age	Sample	Households Sample
Sub-Saharan Africa										
Kenya	1999	Apr-99	Aug-99	SPA	Completed	Nat. Council for Pop. and Dev./Min. of Health				
Kenya	1998	Feb-98	Jul-98	DHS	Completed	Nat. Council for Pop. and Dev.	All Women	15-49	7,881	8,380
Kenya	1993	Feb-93	Aug-93	DHS	Completed	Nat. Council for Pop. and Dev.	All Women	15-49	7,540	7,950
Kenya	1989	Dec-88	May-89	DHS	Completed	Nat. Council for Pop. and Dev.	All Women	15-49	7,150	8,173
Liberia	1986	Feb-86	Jul-86	DHS	Completed	Min. of Planning & Economic Affairs	All Women	15-49	5,239	5,023
Madagascar	2002			DHS	Ongoing		All Women	15-49	7,500	8,000
Madagascar	1997	Sep-97	Dec-97	DHS	Completed	Dir. de la Dém. et des Stat. Sociales/INSTAT	All Women	15-49	7,060	7,171
Madagascar	1992	May-92	Nov-92	DHS	Completed	Centre Nat. de Recherches sur l'Env.	All Women	15-49	6,260	5,944
Malawi	2000	Jul-00	Nov-00	DHS	Ongoing	Nat. Statistical Office	All Women	15-49	14,000	15,315
Malawi	1996	Jun-96	Oct-96	KAP	Completed	Nat. Statistical Office	All Women	15-49	2,683	2,798
Malawi	1992	Sep-92	Nov-92	DHS	Completed	Nat. Statistical Office	All Women	15-49	4,850	5,323
Mali	2001	Jan-01	Apr-01	DHS	Ongoing	CPS/MSSPA et DNSI	All Women	15-49	14,000	
Mali	1996	Nov-95	Apr-96	DHS	Completed	CPS/MSSPA et DNSI	All Women	15-49	9,704	8,716
Mali	1987	Mar-87	Aug-87	DHS	Completed	Institut de Sahel: USED/CERPOD	All Women	15-49	3,200	3,048
Mozambique	1997	Mar-97	Jun-97	DHS	Completed	Inst. Nacional de Estadística	All Women	15-49	8,779	9,282
Namibia	2000			DHS	Ongoing					
Namibia	1992	Jul-92	Nov-92	DHS	Completed	Min. of Health and Social Services	All Women	15-49	5,421	4,101
Niger	2000	May-00	Jun-00	Special	Ongoing	Macro International Inc.				
Niger	1998	Mar-98	Jul-98	DHS	Completed	Care International	All Women	15-49	7,577	5,928
Niger	1992	Mar-92	Jun-92	DHS	Completed	Dir. de la Stat. et des Comptes Nationaux	All Women	15-49	6,503	5,242
Nigeria	1999	Mar-99	May-99	DHS	Completed	Nat. Pop. Comm.	All Women	10-49	7,647	7,647
Nigeria	1990	Apr-90	Oct-90	DHS	Completed	Federal Office of Statistics	All Women	15-49	8,781	8,999
Ondo State	1986	Sep-86	Jan-87	DHS	Completed	Min. of Health	All Women	15-49	4,213	3,437
Rwanda	2000	Jun-00	Aug-00	DHS	Ongoing	Office National de la Population	All Women	15-49	10,421	9,696
Rwanda	1992	Jun-92	Oct-92	DHS	Completed	Office National de la Population	All Women	15-49	6,551	6,252

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			
		Start	End				Resp.	Age	Sample	Households Sample
Sub-Saharan Africa										
Senegal	1999	Oct-99	Dec-99	DHS	Completed	SERDHA	All Women	15-49	17,189	9,085
Senegal	1997	Jan-97	Apr-97	DHS	Completed	Min. de l'Economie et des Finances	All Women	15-49	8,593	4,772
Senegal	1993	Nov-92	Aug-93	DHS	Completed	Dir. de la Prévision et de la Stat.	All Women	15-49	6,310	3,528
Senegal	1986	Apr-86	Jul-86	DHS	Completed	Min. de l'Economie et des Finances	All Women	15-49	4,415	3,736
South Africa	1998	Feb-98	Sep-98	DHS	Ongoing	Dept. of Health/Med. Research Council	All Women	15-49	11,735	12,247
Sudan	1990	Nov-89	May-90	DHS	Completed	Dept. of Stat., Min. of Econ. & Nat. Plan.	Ever Married Women	15-49	5,860	6,891
Tanzania	1999	Sep-99	Nov-99	Interim	Completed	Nat. Bureau of Statistics	All Women	15-49	4,029	3,615
Tanzania	1996	Jul-96	Nov-96	DHS	Completed	Bureau of Statistics, Planning Comm.	All Women	15-49	8,120	7,969
Tanzania	1995	Jun-95	Oct-95	In Depth	Completed	Bureau of Statistics, Planning Comm.	All Women	15-49	2,130	1,488
Tanzania	1994	Jul-94	Sep-94	KAP	Completed	Bureau of Statistics, Planning Comm.	All Women	15-49	4,225	4,023
Tanzania	1992	Oct-91	Mar-92	DHS	Completed	Bureau of Statistics, Planning Comm.	All Women	15-49	9,238	8,327
Togo	1998	Feb-98	May-98	DHS	Completed	Direction de la Statistique	All Women	15-49	8,569	7,517
Togo	1988	Jun-88	Nov-88	DHS	Completed	Unité de Recherche Dém., U. du Benin	All Women	15-49	3,360	3,432
Uganda	2000	Sep-00	Feb-01	DHS	Ongoing	Uganda Bureau of Stat. (formerly Dept. of Stat.)	All Women			
Uganda	1995	Mar-95	Aug-95	DHS	Completed	Dept. of Stat., Min. of Fin. & Econ. Plan.	All Women	15-49	7,070	7,550
Uganda	1995	Oct-95	Jan-96	In Depth	Completed	Inst. Stat. & Applied Econ. Makerere U.	All Women	20-44	1,750	3,610
Uganda	1988	Sep-88	Feb-89	DHS	Completed	Ministry of Health	All Women	15-49	4,730	5,101
Zambia	2001	Jul-01	Nov-01	DHS	Ongoing	Central Statistical Office	All Women	15-49	8,000	8,000
Zambia	1996	Jul-96	Jan-97	DHS	Completed	Central Statistical Office	All Women	15-49	8,021	7,286
Zambia	1992	Jan-92	May-92	DHS	Completed	University of Zambia	All Women	15-49	7,060	6,209
Zimbabwe	1999	Sep-99	Dec-99	DHS	Completed	Central Statistical Office	All Women	15-49	5,907	6,369
Zimbabwe	1994	Jul-94	Nov-94	DHS	Completed	Central Statistical Office	All Women	15-49	6,128	5,984
Zimbabwe	1988	Sep-88	Jan-89	DHS	Completed	Central Statistical Office	All Women	15-49	4,201	4,107

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			Households Sample
		Start	End				Resp.	Age	Sample	
Near East/N. Africa										
Egypt	2000	Mar-00	May-00	DHS	Completed	Nat. Population Council	Ever Married Women	15-49	15,573	16,957
Egypt	1998	Nov-98	Dec-98	Interim	Completed	El-Zanaty & Associates	Ever Married Women	15-49	6,406	6,759
Egypt	1997	Oct-96	Mar-97	In Depth	Completed	Nat. Population Council	Ever Married Women	15-49	2,444	
Egypt	1997	Nov-97	Dec-97	Interim	Completed	El-Zanaty & Associates	Ever Married Women	15-49	5,554	
Egypt	1995	Nov-95	Jan-96	DHS	Completed	Nat. Population Council	Ever Married Women	15-49	14,779	15,567
Egypt	1992	Nov-92	Dec-92	DHS	Completed	Nat. Population Council	Ever Married Women	15-49	9,864	10,760
Egypt	1988	Nov-88	Jan-89	DHS	Completed	Nat. Population Council	Ever Married Women	15-49	8,911	9,805
Jordan	1997	Jun-97	Oct-97	DHS	Completed	Dept. of Statistics	Ever Married Women	15-49	5,548	7,335
Jordan	1990	Sep-90	Dec-90	DHS	Completed	Dept. of Statistics/Min. of Planning	Ever Married Women	15-49	6,461	8,333
Mauritania	2000	Oct-00	Dec-00	DHS	Ongoing	Office Nat. de la Statistique	All Women	15-49	6,500	
Morocco	1995	Apr-95	May-95	Panel	Completed	Min. de la Santé Publique	All Women	15-49	4,753	2,751
Morocco	1992	Jan-92	Apr-92	DHS	Completed	Min. de la Santé Publique	All Women	15-49	9,256	6,577
Morocco	1987	May-87	Jul-87	DHS	Completed	Min. de la Santé Publique	Ever Married Women	15-49	5,982	6,960
Tunisia	1988	Jun-88	Oct-88	DHS	Completed	Office Nat. de la Fam. et de la Pop.	Ever Married Women	15-49	4,184	5,645
Yemen	1997	Oct-97	Dec-97	DHS	Completed	Central Statistical Organization	Ever Married Women	15-49	10,414	10,701
Yemen	1991	Nov-91	Jan-92	DHS	Completed	Central Statistical Organization	Ever Married Women	15-49	5,687	12,836

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			Households Sample
		Start	End				Resp.	Age	Sample	
Europe/Eurasia										
Armenia	2000	Oct-00	Dec-00	DHS	Ongoing	National Statistical Service/MOH	All Women	15-49	6,430	5,980
Kazakhstan	1999	Jul-99	Sep-99	DHS	Completed	Academy of Preventive Medicine	All Women	15-49	4,800	5,844
Kazakhstan	1995	May-95	Aug-95	DHS	Completed	Nat. Institute of Nutrition	All Women	15-49	3,771	4,178
Kyrgyz Republic	1997	Aug-97	Nov-97	DHS	Completed	Inst. of Obst. & Ped., MOH	All Women	15-49	3,848	3,672
Turkey	1998	Aug-98	Nov-98	DHS	Completed	Hacettepe University Inst. of Pop. Studies	Ever Married Women	15-49	8,576	8,059
Turkey	1993	Aug-93	Oct-93	DHS	Completed	Hacettepe University Inst. of Pop. Studies/Min. of Health	Ever Married Women		6,519	8,619
Turkmenistan	2000	Jul-00	Oct-00	DHS	Ongoing	MCH/MOH and MIT	All Women	15-49	7,919	6,303
Uzbekistan	1996	Jun-96	Oct-96	DHS	Completed	Inst. of Obst. & Gynec./MOH	All Women	15-49	4,415	3,703

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			
		Start	End				Resp.	Age	Sample	Households Sample
Asia										
Bangladesh	2001	Jan-01	May-01	Special	Ongoing	Mitra & Associates/ACPR/NIPORT				100,000
Bangladesh	2000	Oct-99	Mar-00	DHS	Ongoing	Mitra & Associates/NIPORT	Ever Married Women	10-49	10,544	9,854
Bangladesh	1999	Jul-99	Dec-99	SPA	Ongoing	Mitra & Associates/NIPORT				
Bangladesh	1997	Nov-96	Mar-97	DHS	Completed	Mitra & Associates/NIPORT	Ever Married Women	10-49	9,127	8,682
Bangladesh	1994	Nov-93	Mar-94	DHS	Completed	Mitra & Associates/NIPORT	Ever Married Women	10-49	9,640	9,174
Cambodia	2000	Feb-00	Jun-00	DHS	Ongoing	Nat. Inst. Of Statistics/Min of Health	All Women	15-49	13,500	
Cambodia	1998	May-98	Jul-98	Special	Completed	SAWA Cam./Nat. Inst. of Public Health	All Women	15-49	7,630	
India	1999			Benchmark	Ongoing	Various	All Women			
India	1999	Nov-98	Jul-00	DHS	Completed	International Inst. for Pop. Sciences	Ever Married Women	15-49	90,303	92,486
India	1993	Apr-92	Sep-93	DHS	Completed	International Inst. for Pop. Sciences	Ever Married Women	13-49	89,777	88,562
Indonesia	1997	Sep-97	Dec-97	DHS	Completed	Central Bureau of Stat./NFPCB/MOH	Ever Married Women	15-49	28,810	34,255
Indonesia	1994	Jul-94	Nov-94	DHS	Completed	Central Bureau of Stat./NFPCB/MOH	Ever Married Women	15-49	28,168	33,738
Indonesia	1991	May-91	Jul-91	DHS	Completed	Central Bureau of Stat./NFPCB/MOH	Ever Married Women	15-49	22,909	26,858
Indonesia	1987	Sep-87	Dec-87	DHS	Completed	Central Bureau of Statistics/NFPCB	Ever Married Women	15-49	11,884	14,142
Myanmar	1996	Apr-96	Jan-97	Special	Completed	Settlmt. and Land Rec. Dep., Min. of Agr.				20,270
Nepal	2001	Jan-01	Jun-01	DHS	Ongoing	Min. of Health/New ERA				
Nepal	1996	Jan-96	Jun-96	DHS	Completed	Min. of Health/New ERA	Ever Married Women	15-49	8,429	8,082
Nepal	1987	Feb-87	Apr-87	In Depth	Completed	New ERA	Currently Married Women	15-49	1,630	4,709
Pakistan	1991	Dec-90	May-91	DHS	Completed	Nat. Institute of Population Studies	Ever Married Women	15-49	6,611	7,193
Philippines	1998	Feb-98	Apr-98	DHS	Completed	Nat. Statistics Office, Dept. of Health	All Women	15-49	13,983	12,407
Philippines	1993	Mar-93	May-93	DHS	Completed	Nat. Statistics Office	All Women	15-49	15,029	12,995
Philippines	1993	Oct-93	Dec-93	In Depth	Completed	Nat. Statistics Office	All Women	15-49	8,431	12,995
Sri Lanka	1987	Jan-87	Mar-87	DHS	Completed	Dept. of Cen. & Stat./Min. of Plan Impl.	Ever Married Women	15-49	5,865	7,669
Thailand	1987	Mar-87	Jun-87	DHS	Completed	Inst. of Pop. Studies, Chulalongkorn U.	Ever Married Women	15-49	6,775	9,045
Vietnam	1997	Jul-97	Oct-97	DHS	Completed	Nat. Committee for Pop. and Fam. Plan.	All Women	15-49	5,664	7,001

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			
		Start	End				Resp.	Age	Sample	Households Sample
Asia										
Bolivia	1998	Mar-98	Sep-98	DHS	Completed	Inst. Nacional de Estadística	All Women	15-49	11,187	12,109
Bolivia	1994	Nov-93	May-94	DHS	Completed	Inst. Nacional de Estadística	All Women	15-49	8,603	9,114
Bolivia	1989	Feb-89	Jul-89	DHS	Completed	Inst. Nacional de Estadística	All Women	15-49	7,923	8,439
Brazil	1996	Mar-96	Jun-96	DHS	Completed	Soc. Civil Bem-Estar Fam.	All Women	15-49	12,612	13,283
Brazil	1991	Sep-91	Dec-91	DHS	Completed	Soc. Civil Bem-Estar Fam. no Brasil	All Women	15-49	6,222	6,064
Brazil	1986	May-86	Aug-86	DHS	Completed	Soc. Civil Bem-Estar Fam.	All Women	15-44	5,892	13,283
Colombia	2000	Mar-00	Jul-00	DHS	Completed	PROFAMILIA	All Women	15-49	11,585	10,907
Colombia	1995	Mar-95	Jun-95	DHS	Completed	PROFAMILIA	All Women	15-49	11,140	10,112
Colombia	1990	May-90	Aug-90	DHS	Completed	PROFAMILIA	All Women	15-49	8,644	7,412
Colombia	1986	Oct-86	Dec-86	DHS	Completed	Corp. Cen. Reg. de Prb./Min. de Salud	All Women	15-49	5,329	4,273
Dominican Republic	1999	Aug-99	Dec-99	Pre-test	Completed	Gen. Estud. Soc. y Dem. (CESDEM)	All Women	15-49	1,286	1,381
Dominican Republic	1996	Sep-96	Dec-96	DHS	Completed	Gen. Estud. Soc. y Dem./PROFAMILIA	All Women	15-49	8,422	8,831
Dominican Republic	1991	Jul-91	Nov-91	DHS	Completed	Assoc. Domin. Pro-Bienestar de la Fam.	All Women	15-49	7,320	7,144
Dominican Republic	1986	Sep-86	Dec-86	DHS	Completed	Consejo Nac. de Población y Familia	All Women	15-49	7,649	7,152
Dominican Republic	1986	Sep-86	Dec-86	Experimental	Completed	Consejo Nac. de Población y Familia	All Women	15-49	3,885	7,152
Ecuador	1987	Jan-87	Mar-87	DHS	Completed	Gen. de Estud. de Pob. y Pater. Res.	All Women	15-49	4,713	4,578
El Salvador	1985	May-85	Jun-85	DHS	Completed	Asociación Demográfica Salvadoreña	All Women	15-49	5,207	4,922
Guatemala	1999	Nov-98	Apr-99	Interim	Completed	Inst. Nacional de Estadística	All Women	15-49	6,021	5,587
Guatemala	1997	Mar-97	Jun-97	In Depth	Completed	Inst. Nacional de Estadística				2,603
Guatemala	1997	Feb-97	Jun-97	SPA	Completed	Inst. Nacional de Estadística				
Guatemala	1995	Jun-95	Dec-95	DHS	Completed	Inst. Nacional de Estadística	All Women	15-49	12,403	11,754
Guatemala	1987	Oct-87	Dec-87	DHS	Completed	Inst. de Nutrición de Cent. y Panamá	All Women	15-44	5,160	5,459
Haiti	2000	Mar-00	Jul-00	DHS	Ongoing	Inst. Haitien de l'Enfance	All Women	15-49	10,159	9,595
Haiti	1994	Jul-94	Jan-95	DHS	Completed	Inst. Haitien de l'Enfance	All Women	15-49	5,356	4,818
Mexico	2000	Jan-00	Mar-00	SPA	Completed	Nat. Institute of Public Health				
Mexico	1987	Feb-87	May-87	DHS	Completed	Dir. Gen. de Plan. Fam./ Sec. de Salud	All Women	15-49	9,310	7,786
Nicaragua	2001			Special	Ongoing					
Nicaragua	1997	Nov-97	Jan-98	DHS	Completed	Inst. Nacional de Estadísticas y Censos	All Women	15-49	13,634	11,528

Country	Year	Fieldwork		Type	Status	Implementing Organization	Female			
		Start	End				Resp.	Age	Sample	Households Sample
Latin America & Caribbean										
Paraguay	1990	May-90	Aug-90	DHS	Completed	Cen. Paraguayo de Estudios de Pob.	All Women	15-49	5,827	5,683
Peru	2000	Aug-00	Nov-00	DHS	Completed	Inst. Nacional de Estadística e Informática	All Women	15-49	32,000	32,000
Peru	1996	Aug-96	Nov-96	DHS	Completed	Inst. Nacional de Estadística e Informática	All Women	15-49	28,951	28,122
Peru	1992	Oct-91	Mar-92	DHS	Completed	Inst. Nacional de Estadística e Informática	All Women	15-49	15,882	13,479
Peru	1986	Sep-86	Dec-86	DHS	Completed	Inst. Nacional de Estadística e Informática	All Women	15-49	4,999	4,497
Peru	1986	Sep-86	Dec-86	Experimental	Completed	Inst. Nacional de Estadística e Informática	All Women	15-49	2,534	
Trinidad & Tobago	1987	May-87	Aug-87	DHS	Completed	Family Plan. Assoc.	All Women	15-49	3,806	4,122

Living Standards Measurement Surveys (LSMS)

WORLD BANK LIVING STANDARDS MEASUREMENT STUDY SURVEYS/INTEGRATED SURVEYS									
Region	Country	Year	FIELD WORK		Type	Implementing Organization	Sample Size		
			Start Date	End Date					
ECA	Albania (excludes Tirana)	1996	Sep-96	Oct-96	LSMS	Ministry of Labor and Social Protection	1,500		
MNA	Algeria	1995			LSMS		5,900		
ECA	Azerbaijan	1995	Nov-95	Dec-95	LSMS	State Statistical Committee	2,016		
LAC	Bolivia	1999			LSMS	National Institute for Statistics	3,247		
LAC	Bolivia	2000			LSMS	National Institute for Statistics			
ECA	Bosnia Herzegovina	2001	tbd	tbd	LSMS		6,000		
LAC	Brazil (Northeast & Southeast only)	1996	Mar-96	Mar-97	LSMS	Institute of Geography and Statistics	4,940		
ECA	Bulgaria	1995	May-95	Jul-95	LSMS	Gallup International	2,468		
ECA	Bulgaria	1997	Mar-97	Sep-97	LSMS	Gallup International	2,314		
ECA	Bulgaria	2001	Apr-01	May-01	LSMS	Gallup International	2,634		
EAS	Cambodia	1997	May-97	Jun-97	LSMS	National Institute of Statistics	6,010		
EAS	China (Hebei & Liaoning only)	1995	Jul-95	Jul-95	LSMS	World Bank	1,000		
AFR	Côte d'Ivoire	1985	Feb-85	Jan-86	LSMS	Statistics Department	1,588		
AFR	Côte d'Ivoire	1986	Feb-86	Jan-87	LSMS	Statistics Department	1,600		
AFR	Côte d'Ivoire	1987	Mar-87	Feb-88	LSMS	Statistics Department	1,600		
AFR	Côte d'Ivoire	1988	May-88	Apr-89	LSMS	Statistics Department	1,600		
LAC	Ecuador	1994	Jul-94	Nov-94	LSMS	Ecuadoran Professional Training Service	4,536		
LAC	Ecuador	1995	Aug-95	Nov-95	LSMS	Ecuadoran Professional Training Service	5,760		
LAC	Ecuador	1998	Feb-98	May-98	LSMS	National Institute for Statistics and Census	5,760		
LAC	Ecuador	1998-99	Nov-98	Sep-99	LSMS	National Institute for Statistics and Census	5,824		
AFR	Gambia	1992	Nov-92	Mar-93	IS	Central Statistics Department	1,400		
AFR	Ghana	1987/88	Sep-87	Aug-88	IS	Ghana Statistical Service	3,200		
AFR	Ghana	1988/89	Sep-88	Sep-89	IS	Ghana Statistical Service	3,200		
AFR	Ghana	1991/92	Sep-91	Sep-92	IS	Ghana Statistical Service	3,200		
AFR	Ghana	1998/99	Apr-98	Feb-99	IS	Ghana Statistical Service	3,200		
LAC	Guatemala	2000	Jul-00	Dec-00	LSMS	National Institute for Statistics and Census	8,500		
AFR	Guinea	1994	Feb-94	Jan-95	IS	National Department of Statistics and Information	4,705		

LAC	Guyana	1992/93	Jan-93	Jul-93	LSMS	Bureau of Statistics	1,800
LAC	Jamaica	1988	Aug-88	Sep-88	LSMS	Planning Institute of Jamaica/Statistical Institute	1,909
LAC	Jamaica	1989-1	Jun-89	Aug-89	LSMS	Planning Institute of Jamaica/Statistical Institute	2,005
LAC	Jamaica	1989-2	Oct-89	Mar-90	LSMS	Planning Institute of Jamaica/Statistical Institute	3,937
LAC	Jamaica	1990	Oct-90	Mar-91	LSMS	Planning Institute of Jamaica/Statistical Institute	1,828
LAC	Jamaica	1991	Nov-91	Feb-92	LSMS	Planning Institute of Jamaica/Statistical Institute	1,786
LAC	Jamaica	1992	Aug-92	Mar-93	LSMS	Planning Institute of Jamaica/Statistical Institute	4,485
LAC	Jamaica	1993	Nov-92	Mar-93	LSMS	Planning Institute of Jamaica/Statistical Institute	1,963
LAC	Jamaica	1994	Nov-94	Jan-95	LSMS	Planning Institute of Jamaica/Statistical Institute	1,940
LAC	Jamaica	1995	May-95	Aug-95	LSMS	Planning Institute of Jamaica/Statistical Institute	1,976
LAC	Jamaica	1996	May-96	Aug-96	LSMS	Planning Institute of Jamaica/Statistical Institute	1,825
LAC	Jamaica	1997	May-97	Jul-97	LSMS	Planning Institute of Jamaica/Statistical Institute	2,020
LAC	Jamaica	1998	May-98	Aug-98	LSMS	Planning Institute of Jamaica/Statistical Institute	7,375
LAC	Jamaica	1999	May-99	Aug-99	LSMS	Planning Institute of Jamaica/Statistical Institute	6,554
LAC	Jamaica	2000	May-00	Aug-00	LSMS	Planning Institute of Jamaica/Statistical Institute	6,309
ECA	Kazakhstan	1996	Jul-96	Jul-96	LSMS	GOSKOMSTAT	2,000
ECA	Kosovo	2000	Sep-00	Dec-00	LSMS	Statistical Office of Kosovo	2,880
ECA	Kryrgyz Republic	1993	Oct-93	Dec-93	LSMS	GOSKOMSTAT	1,937
ECA	Kryrgyz Republic	Spring 1996			LSMS	GOSKOMSTAT	2,398
ECA	Kryrgyz Republic	Fall 1996	Nov-96	Dec-96	LSMS	GOSKOMSTAT	1,951
ECA	Kryrgyz Republic	1997	Sep-97	Oct-97	LSMS	GOSKOMSTAT	1,428
ECA	Kryrgyz Republic	1998	Oct-98	Dec-98	LSMS	GOSKOMSTAT	2,962
AFR	Madagascar	1993	Jul-93	Jul-94	IS	National Institute for Statistics	4,504
AFR	Malawi	1990	Jul-90	Jul-91	IS	National Statistical Office	6,000
AFR	Mauritania	1987	Nov-87	Oct-88	IS	Statistics Department and National Accounts	1,600
AFR	Mauritania	1989	Oct-89	Sep-90	IS	Statistics Department and National Accounts	1,600
AFR	Mauritania	1995	Oct-95	Jun-96	IS	Statistics Department and National Accounts	3,540
MNA	Morocco	1991	Oct-90	Oct-91	LSMS	Statistics Directorate	3,323
MNA	Morocco	1998			LSMS	Statistics Directorate	?
SAS	Nepal	1996	Jun-95	May-96	LSMS	Central Bureau of Statistics	3,373
LAC	Nicaragua	1993	Jun-93	Aug-93	LSMS	National Institute for Statistics and Census	4,454
LAC	Nicaragua	1998	Apr-98	Aug-98	LSMS	National Institute for Statistics and Census	4,209

Proposed Variables and Tables

LAC	Nicaragua	2001	Apr-01	Jul-01	LSMS	National Institute for Statistics and Census	4,950
AFR	Niger	1989	Feb-89	Mar-90	IS	Statistics Department and National Accounts	1,872
AFR	Niger	1992	Nov-92	Nov-93	IS	Statistics Department and National Accounts	2,070
AFR	Niger	1995	Nov-95	Dec-95	IS	Statistics Department and National Accounts	4,383
SAS	Pakistan	1991			LSMS	Federal Bureau of Statistics	4,800
LAC	Panama	1997	Jun-97	Oct-97	LSMS	Ministry of Planning and Political Economy	4,945
EAS	Papua New Guinea	1996	Jan-96	Dec-96	LSMS	University of Waikato	1,396
LAC	Paraguay	1997/98	Aug-97	Jul-98	LSMS	General Directorate for Statistics, Surveys & Census	4,353
LAC	Paraguay	1999	Aug-99	Dec-99	LSMS	General Directorate for Statistics, Surveys & Census	
LAC	Paraguay	2000/01	Sep-00	Aug-01	LSMS	General Directorate for Statistics, Surveys & Census	
LAC	Peru	1985	Jul-85	Jul-86	LSMS	National Institute for Statistics & Information	5,120
LAC	Peru (Lima only)	1990	Jun-90	Jul-90	LSMS	Cuanto	1,500
LAC	Peru	1991	Oct-91	Nov-91	LSMS	Cuanto	2,200
LAC	Peru	1994	Jun-94	Aug-94	LSMS	Cuanto	3,500
ECA	Romania	1994/95	Apr-94	Dec-94	LSMS	National Commission for Statistics	31,200
AFR	South Africa	1993	Jul-93	Apr-94	LSMS	University of Cape Town	8,850
ECA	Tajikistan	1999	May-99	Jun-99	LSMS	State Statistical Agency & Center for Strategic Studies	2,000
AFR	Tanzania (National)	1993	Sep-93	Jan-94	LSMS	Planning Commission	5,200
AFR	Tanzania-Kagera	1991			LSMS		800
MNA	Tunisia	1995/96			LSMS		3,800
AFR	Uganda	1992	Mar-92	Mar-93	IS	Ministry of Planning and Economic Development	9,929
EAS	Viet Nam	1992/93	Sep-92	Oct-93	LSMS	General Statistics Office	4,800
EAS	Viet Nam	1997/98	Dec-97	Dec-98	LSMS	General Statistics Office	5,994

Multiple Indicator Cluster Surveys (MICS)

MICS Surveys in which education questions were asked by region.

COUNTRY NAME

Eastern and Southern Africa

Angola

Botswana

Burundi

Comoros

Kenya

Lesotho

Madagascar

Malawi

Rwanda

Somalia

Swaziland

Zambia

TOTAL 12

West and Central Africa

Burkina Faso

Cameroon

Central African Republic

Chad

Cote d'Ivoire

Equatorial Guinea

Gambia

Guinea-Bissau

Liberia

Niger

Nigeria

Sao Tome & Principe

Senegal

Sierra Leone

Togo

Congo, Dem.

TOTAL 16

Middle East and North Africa

Algeria

Bahrain

Iraq

Lebanon

Morocco

Sudan

Syria

Tunisia

West Bank & Gaza strip

Proposed Variables and Tables

TOTAL 9

South Asia

Afghanistan

Bangladesh

Bhutan

India

Maldives

Nepal

Pakistan

TOTAL 7

East Asia and the Pacific

Dem Rep Korea

Indonesia

Laos

Mongolia

Myanmar

Philippines

Thailand

Viet Nam

TOTAL 8

Americas and the Caribbean

Bolivia

Cuba

Dominican Republic

Guyana

Suriname

Trinidad & Tobago

Venezuela

TOTAL 7

Central and Eastern Europe/Comm.of Indep.States

Albania

Armenia

Azerbaijan

Bosnia and Herzegovina

Georgia

Macedonia

Moldova, Republic Of

Tajikistan

Ukraine

Uzbekistan

Yugoslavia

TOTAL 11

GRAND TOTAL 70

APPENDIX D
SAMPLE TABLES

Table 1. Distribution (%) of households, from the total population and the population n¹ to 14 years according to characteristics of the household head and of household members

Characteristics	Total						Male heads of household						Female heads of household							
	House-holds % ² (N) ³		Population n-14 years		House-holds % (N)		Population n-14 years		Total population % (N)		House-holds % (N)		Population n-14 years		Total population % (N)		House-holds % (N)		Population n-14 years	
	B+G % (N)	G % (N)	B % (N)	Male ratio (N)	B+G % (N)	Male ratio (N)	B+G % (N)	B % (N)	G % (N)	Male ratio (N)	B+G % (N)	B % (N)	G % (N)	Male ratio (N)	B+G % (N)	B % (N)	G % (N)	Male ratio (N)		
Head of household																				
Age group																				
Marital status																				
Literacy																				
Level of education																				
Religion																				
Ethnicity																				
Current occupation																				
Job position																				
Household																				
Size of household																				
Type of household																				
Type of housing																				
Water supply																				
Mode of lighting																				
Occupational status																				

This table focuses on the characteristics of households and household heads, including the sex of school-age children.

¹ The value n is defined according to the legal age of school entry. It must be specified when the guide is used by each country and for each table.
² The % are given in columns, with 100 for each variable.
³ Total number for each variable.
 B+G: Boys + Girls; B: Boys ; G : Girls.
 Source: country, type of operation, year, month.

Total, rural, total urban and capital.

Table 2. Distribution (%) of households according to number of school age children (age *n* to 14 years) and characteristics of the household and household head

Characteristics	Number of school age children							Total number	Total %	Mean number of school age children by household
	0	1	2	3	4	5 and +				
Head of household										
Sex	(%)	(%)	(%)	(%)	(%)	(%)	(N)	100		(N)
Age group							(N)	100		(N)
Marital status							(N)	100		(N)
Literacy							(N)	100		(N)
Level of education							(N)	100		(N)
Current occupation							(N)	100		(N)
Job position										
Household	<i>This table focuses on the number of school age children in the household, as well as on characteristics of the household and household head.</i>									
Size										
Type										
Type of housing							(N)	100		(N)
Water supply							(N)	100		(N)
Mode of lighting							(N)	100		(N)
Occupational status							(N)	100		(N)
The % are given in lines, with 100 for each characteristic.										
<i>Source: country, type of operation, year, month.</i>										

Total, rural, total urban, capital.

Table 3a. Proportion (%) of children n to 14 years in school by residence and according to household and household head characteristics

Characteristics ¹	Total				Rural				Total urban				Capital			
	B+G % ² (N) ³	B % (N ^o)	G % (N)	Male ratio	B+G % (N)	B % (N)	G % (N)	Male ratio	B+G % (N)	B % (N)	G % (N)	Male ratio	B+G % (N)	B % (N)	G % (N)	Male ratio
Children																
Family status																
Age																
Head of household																
Sex																
Age group																
Marital status																
Literacy																
Level of education																
Current occupation																
Job position																
Household																
Size																
Type																
Presence of 0-4 year olds																
Number of 15-24 in school																
Number 15+, primary																
Number 25+, secondary																
% 15+, primary																
% 25+, secondary																
Type of housing																
Water supply																
Mode of lighting																
Occupational status																
Total	% (N)	% (N)	% (N)		% (N)	% (N)	% (N)		% (N)	% (N)	% (N)		% (N)	% (N)	% (N)	

This table measures and observes differences in school attendance among school age children, according to their characteristics, those of the household head and other household members, the sex of the child and area of residence.

¹ The variables mentioned here are not exhaustive.
² Proportions are calculated for each modality of variable.
³ Reference number for each proportion calculated.
Source : country, pays, type of operation, year, month.

This table can be reproduced making a distinction by sex of head of household.

Table 3b. Proportion (%) of children *n* to 14 years who have been in school by residence and according to characteristics of the household and household head

Characteristics ¹	Total				Rural				Total urban				Capital			
	B+G % ² (N) ³	B % (N)	G % (N)	Male ratio	B+G % (N)	B % (N)	G % (N)	Male ratio	B+G % (N)	B % (N)	G % (N)	Male ratio	B+G % (N)	B % (N)	G % (N)	Male ratio
Children																
Family status																
Age																
Head of household																
Sex																
Age group																
Marital status																
Literacy																
Level of education																
Current occupation																
Job position																
Household																
Size																
Type																
Presence of 0-4 year olds																
Number of 15-24 in school																
Number 15+, primary																
Number 25+, secondary																
% 15+, primary																
% 25+, secondary																
Type of housing																
Water supply																
Mode of lighting																
Occupational status																
Total	% (N)	% (N)	% (N)		% (N)	% (N)	% (N)		% (N)	% (N)	% (N)		% (N)	% (N)	% (N)	

This table presents data on children of school age, according to the characteristics of households, household heads, and school-age children.

¹ The variables mentioned here are not exhaustive.
² The proportions are calculated for each modality of variable.
³ Reference number for each proportion calculated.
Source : country, type of operation, year, month.

This table can be reproduced making a distinction by sex of head of household.

Table 3c. Proportion (%) of children *n* to 14 years who have never been to school by residence and according to characteristics of the household and household head

Characteristics ¹	Total			Rural			Total urban			Capital		
	B+G % (N) ³	B % (N)	G % (N)	B+G % (N)	B % (N)	G % (N)	B+G % (N)	B % (N)	G % (N)	B+G % (N)	B % (N)	G % (N)
Children												
Family status												
Age												
Head of household												
Sex												
Age group												
Marital status												
Literacy												
Level of education												
Current occupation												
Job position												
Household												
Size												
Type												
Presence of 0-4 year olds												
Number of 15-24 in school												
Number 15+, primary												
Number 25+, secondary												
% 15+, primary												
% 25+, secondary												
Type of housing												
Water supply												
Mode of lighting												
Occupational status												
Total	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)

This table presents data on children of school age, according to the characteristics of households, household heads, and school-age children.

¹ The variables mentioned here are not exhaustive.
² The proportions are calculated for each modality of variable.
³ Reference number for each proportion calculated.
Source: country, type of operation, year, month.

This table can be reproduced making a distinction by sex of head of household.

Table 4. Distribution (%) by age of children *n* to 14 years according to their current school participation and, for those in school, according to their year in school

<u>AGE</u>	In school (by year of study)										In school (total)	Dropped out	Never attended school	Total %	Total number
	1	2	3	4	5	6	7	8	9	10					
<i>n</i>	%	%	%	%	%	%	%	%	%	%	%	%	%	100	(<i>N</i>)
.														100	(<i>N</i>)
.														100	(<i>N</i>)
.														100	(<i>N</i>)
.														100	(<i>N</i>)
.														100	(<i>N</i>)
14														100	(<i>N</i>)
Total <i>n</i> -14 years														100	(<i>N</i>)
% younger															
% older															
GRAYS*															
NRAYS**															
* Gross rate of attendance by year of study.															
** Net rate of attendance by year of study.															
Note: this table must be adapted for the legal school age and educational system of the country.															
Source: country, type of operation, year, month.															
Gross rate of primary school attendance :															
Net rate of primary school attendance :															
Gross rate of secondary school attendance 1st cycle :															
Net rate of secondary school attendance 1st cycle :															

Total, rural, total urban, capital; according to sex.

Table 5. Proportion (%) by age of children who have left primary school, according to sex and relationship to the household head

	Total			Boys			Girls			Male ratio for the total		
	Total	Children of HH	OR	NR	Total	Children of HH	OR	NR	Total		Children of HH	OR
N	% (N)	% (N)	% (N)	% (N)								
•	% (N)											
•	% (N)											
•	% (N)				<i>This table presents information on primary school dropout among children according to their relationship to the household head.</i>							
•	% (N)											
•	% (N)											
•	% (N)											
•	% (N)											
•	% (N)											
14	% (N)											
n-14 years	% (N)											

Children of HH: children of head of household.
OR: other relative.
NR: no kin relationship.
Note: this table must be adapted for the legal school age of the country.
Source: country, type of operation, year, month.

Total, rural, total urban, capital; and according to sex of head of household.

Table 6. Proportion (%) by last class completed or attended for children who dropped out of primary school, according to sex and relationship to the household head

Class	Total						Boys						Girls						Male ratio for the total
	Total	Chd. HH	OR	NR	Total.	Chd. HH	OR	NR	Total	Chd. HH	OR	NR	Total	Chd. HH	OR	NR			
1	% (N)	% (N)	% (N)	% (N)															
2	% (N)																		
3	% (N)				<i>This table allows for the study of whether there are “threshold” classes at which children are most likely to drop out of primary school, according to sex and relationship to the household head.</i>														
4	% (N)																		
5	% (N)																		
6	% (N)																		
Primary	% (N)																		

Children of HH: children of head of household.
 OR: other relative.
 NR: no kin relationship.
 Note: this table must be adapted for the educational system of the country.
 Source: country, type of operation, year, month.

Total, rural, total urban, capital; and according to sex of head of household.

Table 7. Distribution of households (by total number and in %) according to the number of school age children in the household (age n to 14 years; from 1 to maximum Na) and the number of children in school (from 0 to maximum $Né$)

Number of children in school	Number of school age children				
	1	2	3	Na	Total
0	N (%)* (%)**	N (%) (%)	N (%) (%)	N (%) (%)	N 100 (%)
1	N (%) (%)	N (%) (%)	N (%) (%)	N (%) (%)	N 100 (%)
2	/	N (%) (%)	N (%) (%)	N (%) (%)	NE 100 (%)
3	/	/	N (%) (%)	N (%) (%)	N 100 (%)
$Né$	/	/	/	N (%) (%)	N 100 (%)
Total number of households	N	N	N	N	N
(total % in column)	(100)	(100)	(100)	(100)	(100)
% in line (total)	%	%	%	%	100
% of households having at least one child in school	%	%	%	%	%
Mean number of children in school	m	m	m	m	m
N : number. %*: % in line. %**: % in column. m : mean number. Source: country, type of operation, year, month.					

This table calculates, overall and according to the number of school age children, the following indicators:

- a) the % of households having at least one child in school (calculated for the total, this result constitutes the counterpart at the household level of the education rate);***
- b) the % of households having no child in school (appears on the line "0 child in school");***
- c) the % of households having all their children in school (appears on the diagonal between number of children who are school age and in school);***
- d) mean number of children in school.***

Table 9. Numbers of literate and illiterate household members by sex and age group

Age group (in years)	Literate			Illiterate			Not specified			Literacy rate				
	Total	Male	Female	Total	Male	Female	Total	Male	Female	Total	Male	Female	Male ratio	
10-14														
15-19														
20-24														
25-29														
30-34				<i>This table examines the general literacy level among household members age 10 years and older, by sex and age group.</i>										
35-39														
40-44														
45-49														
50-54														
55-59														
60-64														
65-69														
70-74														
75 and over														
Age unknown														
Total 15 and over														

Source: country, type of operation, year, month.

*Total, rural, total urban, capital.
This table can be reproduced for heads of household alone.*

Table 10. Distribution (%) of population 15 years and older according to the highest level of school attended, by sex and age group

Level of study	Male						Female					
	15-19	20-24	25-29	65+	Total	15-19	20-24	25-29	65+	Total
Never attended school												
Primary												
Total												
1												
2												
3												
4												
5												
6												
Secondary												
Total												
1												
2												
3												
4												
Higher												
Total												
1												
2												
3												
4												
Other												
Not specified												
Total	100	100	100	100	100	100	100	100	100	100	100	100
(Number)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)	(N)

This table presents information on the highest level of schooling attended by household members age 15 and older, according to sex and age group

Source: country, type of operation, year, month.

*Total, rural, total urban, capital.
This table can be reproduced for heads of household alone.*

Table 12. Distribution (%) of children *n* to 14 years according to their sex and family status, in relation to the survival and residential status of their parents

Survival and residence of parents	Total				Boys				Girls			
	Total	Children of HH	OR	NR	Total	Children of HH	OR	NR	Total	Children of HH	OR	NR
Lives with both parents												
Lives with mother, father elsewhere												
Lives with mother, father deceased												
Lives with father, mother elsewhere												
Lives with father, mother deceased												
Father and mother elsewhere												
Father elsewhere, mother deceased												
Father deceased, mother elsewhere												
Father and mother deceased												
Situation not clarified												
Total (Number)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)
Children of HH: children of head of household. OR: other relative. NR: no kin relationship. Source: country, type of operation, year, month.												

Total, rural, total urban, capital.

Table 13. Proportion (%) of children *n* to 14 years in school according to their sex and relationship to the household head

Characteristics	Total			Boys			Girls		
	Total % (N)	Child. of HH % (N)	OR % (N)	Total % (N)	Child. of HH % (N)	OR % (N)	Total % (N)	Child. of HH % (N)	OR % (N)
Head of household									
Sex									
Age group									
Marital status									
Literacy									
Level of education									
<i>This table shows differences in schooling according to the characteristics of the head of household, the size and composition of the household, and other household characteristics.</i>									
Current occupation									
Household									
Size									
Type									
Type of housing									
Water supply									
Mode of lighting									
Occupational status									
Total	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)
Children of HH: children of head of household. OR: other relative. NR: no kin relationship. <i>Source: country, type of operation, year, month.</i>									

Total, rural, total urban, capital.

Table 14. Proportion (%) of children in school (age *n* to 14 years) according to birthplace and residence

Birthplace/ residence	Total			Boys			Girls					
	Total	Child. of HH	OR	NR	Total	Child. of HH	OR	NR	Total	Child. of HH	OR	NR
Same village												
Same city												
R/R intra depart.												
Rural/other rural												
R/Secondary city												
Rural/Capital												
Sec. city/Sec. city												
Secondary city/Capital												
Capital/Capital												
Secondary city/Rural												
Capital/Rural												
Total (Number)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)	100 (N)

This table shows whether there are differences in school attendance according to children's geographic mobility.

R: rural.
 Intra depart: within the same department.
 Children of HH: children of head of household.
 OR: other relative.
 NR: no kin relationship.
 Source: country, type of operation, year, month.

Table 15. Proportion (%) of children in school according to their sex and family status, in relation to the survival and residential status of parents

Survival and residence of parents	Total			Boys			Girls					
	Total	Child. of HH	OR	NR	Total	Child. of HH	OR	NR	Total	Child. of HH	OR	NR
Lives with both parents	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)	% (N)
Lives with mother, father elsewhere												
Lives with mother, father deceased												
Lives with father, mother elsewhere												
Lives with father, mother deceased												
Father and mother elsewhere												
Father elsewhere, mother deceased												
Father deceased, mother elsewhere												
Father and mother deceased												
Situation not clear												
Children of HH: children of head of household. OR: other relative. NR: no kin relationship. Source: country, type of operation, year, month.												

Total, rural, total urban, capital.

Table 16. Probability of promotion, repetition and dropping out for the in- school population n to 14 years, by age and sex

Age	Promotion			Repetition			Dropout			Number			
	B+G	B	G	B+G	B	G	B+G	B	G	B+G	B	G	
n													
.													
.			<i>This table presents information on the probability of promotion, repetition and dropping out, for children in school, by age of the child.</i>										
.													
.													
.													
.													
.													
.													
14													
$n-14$ years													
<i>Source: country, type of operation, year, month.</i>													

Total, rural, total urban, capital.

Table 17. Probability of promotion, repetition and dropping out for the in- school population n to 14 years, by year of study and sex

Year of study	Promotion			Repetition			Drop out			Number			
	B+G	B	G	B+G	B	G	B+G	B	G	B+G	B	G	
1													
2													
3			<i>This table presents information on the probability of promotion, repetition and dropping out, for children in school, by age of the child.</i>										
4													
5													
6													
7													
8													
9													
10													
<i>Total</i>													
<i>Note: this table must be adapted for the school system of the country.</i>													
<i>Source: country, type of operation, year, month.</i>													

Total, rural, total urban, capital.

Table 18a. Proportion (%) of children *n* to 14 years who are both working and in school, by year of age, according to sex and relationship to household head

Age	Total			Boys			Girls		
	Total	Child. Of HH	Others	Total	Child. of HH	Others	Total	Child. of HH	Others
<i>n</i>	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)		<i>This table evaluates the portion of children who are working among those who attend school, by age and according to the sex and family status of the child.</i>						
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
14	% (<i>N</i>)								
<i>n</i> -14 years	% (<i>N</i>)								
Children of HH: children of head of household.									
<i>Source: country, type of operation, year, month.</i>									

Total, rural, total urban, capital.

Table 18b. Proportion (%) of children *n* to 14 years who are working among children who have attended school, by year of age, according to sex and relationship to household head

Age	Total			Boys			Girls		
	Total	Child. of HH	Others	Total	Child. of HH	Others	Total	Child. of HH	Others
<i>n</i>	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)		<i>This table presents information on the percentage of children who are working among those who have been to school.</i>						
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
14	% (<i>N</i>)								
<i>n</i> -14 years	% (<i>N</i>)								
Children of HH: children of head of household.									
<i>Source: country, type of operation, year, month.</i>									

Total, rural, total urban, capital.

Table 18c. Proportion (%) of children *n* to 14 years who are working among children who have never been to school, by year of age, according to sex and relationship to household head

Age	Total			Boys			Girls		
	Total	Child. of HH	Others	Total	Child. of HH	Others	Total	Child. of HH	Others
<i>n</i>	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)		<i>This table presents information on the percentage of children who are working among those who have been to school.</i>						
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
.	% (<i>N</i>)								
14	% (<i>N</i>)								
<i>n</i> -14 years	% (<i>N</i>)								
Children of HH: children of head of household. <i>Source: country, type of operation, year, month.</i>									

Total, rural, total urban, capital.

Table 19a. Distribution (%) of children n to 14 years who are in school according to their type of stated work, for the total population and by sex

Type of work			Total	(Number)
Working	Not working	Other		
Total	Housework			
<i>Total</i>				
			100	(N)
			100	(N)
<i>Boys</i>				
			100	(N)
			100	(N)
<i>Girls</i>				
			100	(N)
			100	(N)

Source: country, type of operation, year, month.

This table presents information on type of work done by children who currently attend school.

Table 19b. Distribution (%) of children n to 14 years who have been to school according to type of work, for the total population and by sex

Type of work			Total	(Number)
Working	Not working	Other		
Total	Housework			
<i>Total</i>				
			100	(N)
			100	(N)
<i>Boys</i>				
			100	(N)
			100	(N)
<i>Girls</i>				
			100	(N)
			100	(N)

Source: country, type of operation, year, month.

This table presents information on type of work done by children who currently attend school.

Total, rural, total urban, capital.

Table 19c. Distribution (%) of children *n* to 14 years who have never been to school according to their type of stated work, for the total population and by sex

Type of work				Total	<i>(N)</i>
Working		Not working	Other		
Total	Housework				
<i>Total</i>					
				100	<i>(N)</i>
				100	<i>(N)</i>
<i>Boys</i>					
				100	<i>(N)</i>
				100	<i>(N)</i>
<i>Girls</i>					
				100	<i>(N)</i>
				100	<i>(N)</i>

Source: country, type of operation, year, month.

This table presents information on type of work done by children who currently attend school.

Total, rural, total urban, capital.

Table 20a. Distribution (%) of children *n* to 14 years who are in school and working, according to their job position, for each year of age, for the total population and by sex

Age	Job position					Total	<i>(N)</i>				
	Independent	Family helper	Appren- tice	Other							
Ensemble											
N						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
14						100	<i>(N)</i>				
Total						100	<i>(N)</i>				
Boys											
<i>N</i>						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.											
.											
.											
.											
.											
.						100	<i>(N)</i>				
14						100	<i>(N)</i>				
Total						100	<i>(N)</i>				
Girls											
<i>N</i>						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
.	<i>This table presents information on type of work done by children who currently attend school, according to level of school attended.</i>										
.											
.											
.											
.						100	<i>(N)</i>				
.						100	<i>(N)</i>				
14						100	<i>(N)</i>				
Total						100	<i>(N)</i>				
<p>Note: one can distinguish between children who have been to school from those who have never been. Source: country, type of operation, year, month.</p>											

Total, rural, total urban, capital.

Table 20b. Distribution (%) of children *n* to 14 years who have been to school and are working, according to their job position for each year of age, for the total population and by sex

Age	Job position					<i>(Number)</i>
	Independent	Family helper	Apprentice	Other	Total	
Total						
N					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
14					100	<i>(N)</i>
Total					100	<i>(N)</i>
Boys						
<i>n</i>					100	<i>(N)</i>
.					100	<i>(N)</i>
.						
.	<i>This table presents information on type of work done by children who currently attend school, according to the level of schooling attained.</i>					
.						
.						
.						
.						
14					100	<i>(N)</i>
Total					100	<i>(N)</i>
Girls						
<i>n</i>					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
.					100	<i>(N)</i>
14					100	<i>(N)</i>
Total					100	<i>(N)</i>
<i>Source: country, type of operation, year, month.</i>						

Total, rural, total urban, capital.

Table 20c. Distribution (%) of children *n* to 14 years who have never been to school and are working according to their job position, for each year of age, for the total population and by sex

Age	Job position					Total	(Number)
	Independent	Family helper	Apprentice	Other			
<i>Total</i>							
<i>N</i>						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
14						100	(<i>N</i>)
Total						100	(<i>N</i>)
<i>Boys</i>							
<i>n</i>						100	(<i>N</i>)
.						100	(<i>N</i>)
.	<i>This table presents information on type of work done by children who currently attend school, according to the level of schooling attained.</i>						
.							
.							
.							
.							
.							
14						100	(<i>N</i>)
Total						100	(<i>N</i>)
<i>Girls</i>							
<i>n</i>						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
.						100	(<i>N</i>)
14						100	(<i>N</i>)
Total						100	(<i>N</i>)
<i>Source: country, type of operation, year, month.</i>							

Total, rural, total urban, capital.