DHS COMPARATIVE STUDIES

28

Fertility Levels, Trends, and Differentials

DHS

DEMOGRAPHIC AND HEALTH SURVEYS

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Fertility Levels, Trends, and Differentials

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Preface

One of the most significant contributions of the DHS program is the creation of an internationally comparable body of data on the demographic and health characteristics of populations in developing countries. The *DHS Comparative Studies* series and the *DHS Analytical Reports* series examine these data across countries in a comparative framework, focusing on specific topics.

The objectives of the DHS comparative research are: to describe similarities and differences between countries and regions, to highlight subgroups with specific needs, to provide information for policy formulation at the international level, and to examine individual country results in an international context. While *Comparative Studies* are primarily descriptive, *Analytical Reports* utilizes a more analytical approach.

The comparative analysis of DHS data is carried out primarily by staff at the DHS headquarters in Calverton, Maryland. The topics covered are selected by staff in conjunction with the DHS Scientific Advisory Committee and USAID.

The *Comparative Studies* are based on a variable number of data sets reflecting the number of countries for which data were available at the time the report was prepared. Each report provides detailed tables and graphs for countries in four regions: sub-Saharan Africa, the Near East and North Africa, Asia, Latin America and the Caribbean. Survey-related issues such as questionnaire comparability, survey procedures, data quality, and methodological approaches are addressed in each report, as necessary. Where appropriate, data from previous DHS surveys are used to evaluate trends over time.

Comparative Studies published under the current phase of the DHS program (DHS-III) are, in some cases, updates and expansions of reports published earlier in the series. Other reports, however, will cover new topics that reflect the expanded substantive scope of the DHS program.

It is hoped that the availability of comparable information for a large number of developing countries will have long-term usefulness for analysts and policymakers in the fields of international population and health.

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Project Director

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Executive Summary

This study examines patterns and trends in fertility utilizing national surveys in 28 developing countries. Several measures of fertility are presented for the total population and according to socioeconomic categories: women's residence, migration status, level of education, current work status, and husband's education and occupation. Trends in fertility are examined for all countries using both birth histories and data from repeat surveys in the same countries. In addition, age at first birth, parity progression ratios (PPR) and information on the length of birth intervals is examined to evaluate changes in the onset of reproduction, termination of childbearing, and spacing of births.

The results show that the total fertility rate (TFR) for women age 15-49 ranges from 2.5 in Turkey to 7.0 in Niger, with substantial variation within and between regions. The countries with the highest TFRs (6 to 7 children) are located in sub-Saharan Africa: Burkina Faso, Madagascar, Malawi, Niger, Nigeria, Rwanda, Senegal and Zambia. With the exception of Rwanda, most of the women in these countries have their first birth by age 20. The high fertility in these countries is not associated with short birth intervals but rather with early entry into parenthood and little limiting behavior (high parity progression ratios). Some countries in sub-Saharan Africa—Cameroon, Central African Republic, Ghana, Kenya and Namibia—and Jordan in the Asia/Near East/North African region recorded fertility in the range of 5 to 6 children per woman. Fertility declines are evident in urban areas and among women with high education in Ghana, Kenya, and Namibia. However, relatively low fertility in Cameroon and the Central African Republic may be associated with high sterility levels.

Among the sub-Saharan African countries, Zimbabwe has the lowest TFR (4.3); birth limiting plays a significant role in Zimbabwe with relatively low parity progression ratios and longer birth intervals. This level of fertility (4.0 - 4.9 children per woman) is also observed in Bolivia, Morocco, Pakistan, Paraguay and the Philippines; these countries also exhibit relatively low parity progression ratios and long birth intervals. Some Latin America/Caribbean countries such as Dominican Republic, North East Brazil, and Peru, and Bangladesh, Egypt, and Indonesia in Asia/Near East/North Africa, have TFRs in the range of 3.0 - 3.9 children per woman. Despite an early age at first birth, the TFR in Bangladesh is among the lowest in the region (3.4). The fertility level in this country is due much more to birth limitation and spacing after the first birth than to a delay in initiating childbearing.

The lowest fertility rates among the countries studied and the only rates lower than 3.0 are found in Colombia (2.8) and Turkey (2.5). Fertility transition in Turkey may be due to a decrease in parity progression ratios and to an increase in the length of birth intervals. In Colombia, the delay in the onset of reproduction has played an important role in its fertility transition.

Rural fertility is higher than urban fertility in all of the surveyed countries. Urban-rural differentials range from 5 percent in Central African Republic to more than 50 percent n Morocco and Peru. In general, the results show that as women's level of education increases, fertility levels decline. There are numerous exceptions to this pattern, however, with the differential between women with no education and women with primary education varying the most across countries.

Trends in fertility were examined for 10 countries by comparing results of the most recent DHS survey with results of an earlier DHS survey. In Kenya, the total fertility rate declined by 5.2 percent annually during the late 1980s and early 1990s. In Colombia, Ghana, Morocco, Peru, and Zimbabwe, annual declines were 3.0 - 3.5 percent during the same period. Declines ranging from 1.3 to 2.9 percent annually were recorded in Indonesia, Egypt, Dominican Republic, and Senegal.

1 Introduction

Many studies indicate that the effects of socioeconomic and cultural factors on fertility vary from one region to another. Moreover, the existence of substantial variations in the fertility behavior across socioeconomic categories—place of residence, level of education, and occupation—is a pervasive finding of social demography (Cleland, 1985; Freedman and Blanc, 1992; Rodriguez and Aravena, 1991; Singh and Casterline, 1985; United Nations, 1987). The objective of this study is to examine current fertility levels, assess fertility trends, and analyze socioeconomic differentials in fertility in developing countries in sub-Saharan Africa, Asia/Near East/North Africa, and Latin America/ Caribbean. The study provides an update to previous comparative studies on fertility based on Demographic and Health Surveys (DHS) data (Arnold and Blanc, 1990; Muhuri et al., 1994).

The report includes data from 28 countries in which DHS surveys were conducted between 1990 and 1995 under the second and third phases of the DHS program. Several measures of fertility are presented according to women's residence, migration status, level of education, current work status, and husband's education and occupation. The report examines trends in fertility for all countries using birth history data. In addition, for 12 countries for which data are available from at least two DHS surveys, the study examines fertility trends. Finally, the study examines age at first birth, parity progression ratios, and information on the length of birth intervals to evaluate changes in the onset of reproduction, spacing of births, and termination of childbearing.

2 Data and Definitions

The data analyzed here come from 28 countries in which DHS surveys were conducted (Table 2.1). Fourteen of these countries are in sub-Saharan Africa, 8 countries are in Asia/Near East/North Africa, and 6 countries are in Latin America/Caribbean.

Table 2.1 DHS surveys included in this report, Demographic and Health Surveys, 1986-1995

Region and country	DHS-I	DHS-II	DHS-III
SUB-SAHARAN AFRICA			
Burkina Faso		1993	
Cameroon		1991	
Central African Republic			1994-95
Ghana	1988		1993
Kenya	1988-89		1993
Madagascar		1992	
Malawi		1992	
Namibia		1992	
Niger		1992	
Nigeria		1990	
Rwanda		1992	
Senegal	1986	1992-93	
Zambia		1992	
Zimbabwe	1988-89		1994
ASIA/NEAR EAST/ NORTH AFRICA			
Bangladesh			1993-94
Egypt	1988-89	1992	
Indonesia		1991	1994
Jordan		1990	
Morocco	1987	1992	
Pakistan		1990-91	
Philippines		1993	
Turkey			1993
LATIN AMERICA/CARIBBEAN			
Bolivia	1989		1993-94
Brazil	1986		1991[a]
Colombia	1986	1990	
Dominican Republic	1986	1991	
Paraguay		1990	
Peru	1986	1991-92	

[a] Northeast region only
DHS-I: Demographic and Health Surveys, Phase I
DHS-II: Demographic and Health Surveys, Phase II
DHS-III: Demographic and Health Surveys, Phase III

2.1 FERTILITY MEASURES

The fertility rates presented in this report are based on data collected in the reproduction section of the DHS questionnaire. In this section, each woman was first asked about the number of sons and daughters living with her, the number living elsewhere, and the number who had died. Next, she was asked if she had ever given birth and her complete birth history was collected, including the child's sex, date of birth, and survival status. Seven measures of fertility are used because no single measure is ideal for all purposes:

1. Age-specific fertility rates (ASFRs) and their summation, the total fertility rate (TFR)
2. General fertility rate (GFR)
3. Mean number of children ever born to women age 40-49 (mean CEB)
4. Duration-specific marital fertility rates (DSMFRs) and their summation, the total marital fertility rate (TMFR)
5. Median age at first birth (MAFB)
6. Parity progression ratios (PPRs)
7. Birth interval (BI).

Each measure has different strengths and weaknesses. The total fertility rate (TFR) is a widely used measure that adjusts for differences due to age distributions. However, its relative sampling error is large when some age groups include only a small number of women. The advantage of the general fertility rate (GFR) is that its relative error is smaller than that of the TFR, but it is not age standardized. Both the TFR and GFR are synthetic cohort measures representing the current situation. In contrast, the third measure used—the mean number of children ever born to women age 40-49—represents the childbearing experience of a real age cohort and reflects both current and past fertility behavior. The median age at first birth (MAFB), parity progression ratio (PPR), and birth interval (BI) are used to evaluate changes in fertility in terms of the onset of reproduction, spacing of births, and termination of childbearing. Although, over time, the TFR can provide information on change in the average number of children per woman, it cannot give insight into the nature of change provided by period parity progression ratios, which measure the proportion of women moving from one parity to the next.

Age-specific fertility rates (ASFR) are calculated from birth histories by dividing the number of births to women in a specific age group, during a specific period, by the number of woman-years of exposure during the same period.[1] The formula used is

$$\text{ASFR}\ (i,t) = b\ (i,t)\ /\ e(i,t),$$

where i = 5-year age groups, $b\ (i,t)$ = births to women in age groups I during time period t (here 3 years before the survey), and $e\ (i,t)$ = woman-years of exposure among women in age groups I during the time period t. In surveys that included only ever-married women—Bangladesh, Egypt, Indonesia, Pakistan, and Turkey—the denominator of the rate is inflated to encompass all women, using the proportion ever married from the household schedule.[2]

The total fertility rate at time t is calculated by summing the age-specific fertility rates for 5-year age groups and multiplying by 5. The TFR may be interpreted as the mean number of births that a woman would have if she survived all her reproductive years and experienced the age-specific fertility schedule prevailing in a given period.

The general fertility rate is the ratio of the number of births among women age 15-44 during the 3 years preceding the survey to the sum of woman-years of exposure during the same period.

Duration-specific marital fertility rates (DSMFR) are calculated as follows:

$$\text{DSMFR}\ (j,t) = b\ (j,t)\ /\ e(j,t),$$

where j = 5-year marital duration groups, $b\ (j,t)$ = births to women at marital duration j during time period t (here 3 years before the survey), and $e\ (j,t)$ = woman-years of exposure among women at marital duration j during the time period t.

The total marital fertility rate (TMFR) represents the average number of children born in the first 24 or 29 years of marriage to a hypothetical woman experiencing the fertility rates of a specific period. The TMFR is calculated by summing the DSMFRs for 5-year marital duration groups and multiplying by 5. The TMFR includes all births and exposure since first marriage. Because DHS surveys do not include a marriage history, it is not possible to separate births within marriage from all births.

Depending on the size of the survey sample and the distribution of women according to background variables, fertility rates may be based on relatively small numbers of women. In this report, the discussion of fertility rates by socioeconomic variables for a 3-year reference period is based on women age 15-39 and for 0-14 years of marital duration.[3] The choice of women age 15-39 instead of women age 15-44 or 15-49 is because there are often few cases in some subgroups after age 39 for some socioeconomic categories (e.g., women with secondary education). Age-specific fertility rates and duration-specific marital fertility rates are in parentheses if the estimate is based on 50 to 199 unweighted woman-years of exposure in the age subgroup or marital-duration subgroup. The estimate is replaced with an asterisk when there are fewer than 50 woman-years of exposure. TFRs and the TMFRs are in parentheses or replaced with an asterisk when at least one of the ASFRs or DSMFRs, respectively, is based on 50 to 199 woman-years of exposure or fewer than 50 woman-years of exposure. The same guidelines apply in presenting general fertility rates, which are based on exposure in the 15-44 age group and 0-24 marital-duration group, respectively. For the mean number of children ever born to women age 40-49, the estimate is replaced with an asterisk if there are fewer than 25 women age 40-49. Parentheses are used if there are between 25 and 49 women who are age 40-49.

Finally, using life table methodology[4] parity progression ratios are estimated by period (the probability of progressing to the next parity within 5 years of the previous birth, called the quintum) and by the length of the interval between births (tempo). The analysis of these two components of family formation is relatively simple if birth histories of women who have completed their reproductive years are examined. The ratios can be measured directly from the distribution of family size, and the length (or timing) for each birth can be calculated. In addition, the quantum and tempo of fertility can be analyzed by applying standard techniques such as tabulation or regression analysis.

The survey situation is more complicated because complete longitudinal data are not available. Except for older women, most survey respondents are not at the end of their reproductive years. Consequently, information on birth histories is incomplete, and parity progression ratios cannot be calculated directly. It is important to distinguish two problems posed by the incomplete nature of the data: selectivity and censoring (Rodriguez and Hobcraft, 1980; Ryder, 1983).

Selectivity refers to the fact that the transition from parity n to parity $n+1$ can only be calculated for women who have reached parity n or higher at the time of the survey. For example, the

[1] The month of interview is excluded.

[2] The inflation factor is the number of ever-married women age 15-49 (from the household sample) divided by all women age 15-49 (ever-married and never-married women). It is assumed that never-married women have had no births.

[3] Age-specific fertility rates for the 15-49 age group are presented in Appendix A; duration-specific marital fertility rates for 0-29 years are presented in Appendix B.

[4] The trimean will be used here to estimate length of birth interval. The trimean = $(Q1+2\ Q2+Q3)/4$, where $Q1$ indicates the first quartile, that is, the 25th percentile, $Q2$ the second quartile, that is, the median, and $Q3$ indicates the third quartile, that is, the 75th percentile.

transition from parity 2 to parity 3 can only be analyzed for women having 2 or more children at the time of the survey. Such women may be selected for early marriage, may be more fecund, and may perhaps be less educated than those of the same age who have not yet reached parity 2.

Censoring refers to the fact that some women, having reached parity n at the time of the survey, are included in the analysis although they have not yet reached the next parity, $n+1$. For these women, two outcomes are possible: Either they will never reach parity $n+1$ or they will reach it after an unknown interval beyond the survey date. This censoring renders the definition of PPRs and BIs ambiguous.

Censoring can be overcome by using life table techniques, which are designed for dealing with this kind of problem. Selectivity can be taken into consideration by introducing appropriate controls into the analysis and by studying the process of family formation as a function of the women's socio-demographic characteristics (Rodriguez and Hobcraft, 1980). Hence, in this study life table methods are used to estimate parity progression ratios and birth intervals.

2.2 SOCIOECONOMIC VARIABLES

The TFR, GFR, and mean CEB are presented by urban-rural residence, migration status, education, and current work status. For countries where the sample is ever-married women, however, fertility measures are not estimated for migration status and current work status because data for never-married women are not available.

The DHS model questionnaire contains a limited number of questions about the socioeconomic characteristics of women. For most countries, information on education and urban-rural residence is available and many surveys also collect some information on women's employment and migration status. The DHS model questionnaire includes a few questions on the socioeconomic characteristics of husbands of ever-married women, including their education and occupation (Muhuri et al., 1994).

Urban-Rural Residence

Urban residence or rural residence is not reported by the woman herself but instead is determined by the sample point or cluster in which she is interviewed (which is classified as urban or rural in the sampling frame). Because most surveys were based on a de facto sample that included visitors, the location may be different from the place in which the woman usually lives.

Migration Status

To determine migration status, a woman's childhood place of residence is compared with the place where she was interviewed. The woman is categorized as *urban native* if both places were urban, as *rural-to-urban* if the childhood place of residence was rural and the place of the interview was urban, as *urban-to-rural* if the earlier place was urban and the later place was rural, and as *rural native* if both places were rural.

Unlike the current place of residence, the childhood place of residence is determined by information supplied by the respondent. In the core questionnaire, the respondent is asked whether she spent most of the time until she was 12 years old "in the city, in a town, or in the countryside." For all countries, city and town are considered urban.

Education

The categories used for women's and husband's levels of education are: no schooling, primary, and secondary or higher. This analysis considers only the level-of-education information and does not take into account the number of years spent at this level. Here it may be noted that a given level of education does not necessarily correspond to the same number of years of education in every country, because educational systems differ among countries. For example, primary school is 5 years in Bangladesh, Colombia, Morocco, Pakistan, and Peru; 6 years in Bolivia, Egypt, Indonesia, Jordan, and Senegal; 7 years in Cameroon, Kenya, Zambia, and Zimbabwe; and 8 years in Northeast Brazil, the Dominican Republic, and Ghana.

Current Employment Status

Women's work categories include working for cash or kind and working on the family farm or in the family business.

Husband's Occupation

Occupations were grouped into 5 categories: (1) agriculture (whether self-employed or labor); (2) skilled and unskilled manual labor; (3) sales and services; (4) professional and clerical positions; and (5) other occupations. Fertility rates for those in the other occupations category and for those whose husbands never worked are not shown because there were too few women in these groups.

3 Fertility Rates

3.1 OVERALL FERTILITY

Table 3.1 shows four summary measures of overall fertility. As noted earlier, all period rates (TFRs and GFRs) pertain to the 3-year period preceding the survey. The TFR for women age 15-49 ranges from 2.5 in Turkey to 7.0 in Niger, with substantial variation within and among regions. In sub-Saharan Africa, the TFR ranges from 4.3 children in Zimbabwe to 7 children in Niger. Most of the countries in sub-Saharan Africa show a TFR of more than 6 children. Except for Jordan, the fertility in Asia/Near East/North Africa is moderate. The TFR is much higher in Jordan (5.6) than in the rest of the countries in the region, all of which have TFRs less than 5. The lowest fertility rates are found in Latin America/Caribbean, where the TFR ranges from 2.8 children in Colombia to 4.7 children in Bolivia and Paraguay.

Table 3.1 Fertility rates 0-3 years preceding the survey and mean number of children ever born, Demographic and Health Surveys, 1990-1995

Region and country	Total fertility rate			General fertility rate, women 15-44	Mean number of children ever born, women 40-49	Total marital fertility rate			
	Women 15-39	Women 15-44	Women 15-49			0-14 years	0-19 years	0-24 years	0-29 years
Sub-Saharan Africa									
Burkina Faso	5.74	6.27	6.52	221	7.43	4.22	5.34	6.15	6.52
Cameroon	5.41	5.72	5.82	206	6.25	4.18	5.31	5.92	6.19
Central African Republic	4.66	4.96	5.07	182	5.72	3.66	4.47	4.95	5.14
Ghana	4.61	5.05	5.16	178	6.18	3.76	4.62	5.13	5.29
Kenya	4.80	5.15	5.40	181	7.32	4.12	5.03	5.60	5.89
Madagascar	5.59	6.03	6.13	211	6.75	4.55	5.65	6.42	6.80
Malawi	5.84	6.44	6.73	222	7.09	4.43	5.58	6.29	6.76
Namibia	4.65	5.18	5.37	175	5.71	3.52	4.31	4.86	5.08
Niger	6.34	6.80	6.99	249	7.50	4.64	5.94	6.82	7.30
Nigeria	5.23	5.69	6.01	205	6.49	4.30	5.35	6.04	6.40
Rwanda	5.33	6.00	6.23	197	7.74	4.87	5.89	6.76	7.09
Senegal	5.36	5.86	6.03	201	7.14	4.41	5.60	6.43	6.84
Zambia	5.79	6.31	6.46	219	7.69	4.60	5.74	6.57	6.92
Zimbabwe	3.96	4.22	4.29	148	6.29	3.37	4.06	4.53	4.64
Asia/Near East/North Africa									
Bangladesh	3.27	3.37	3.44	136	6.57	3.07	3.67	3.96	4.11
Egypt	3.69	3.90	3.93	196	5.71	3.76	4.34	4.69	4.86
Indonesia	2.87	2.99	3.02	108	4.90	2.93	3.41	3.67	3.77
Jordan	5.08	5.48	5.57	168	8.12	5.61	6.71	7.34	7.53
Morocco	3.41	3.84	4.04	127	6.53	3.86	4.71	5.30	5.57
Pakistan	4.42	4.72	4.91	164	6.35	4.19	5.01	5.47	5.68
Philippines	3.79	4.05	4.09	138	4.95	3.99	4.55	4.88	5.02
Turkey	2.44	2.51	2.51	90	4.62	2.75	3.01	3.16	3.20
Latin America/Caribbean									
Bolivia	4.37	4.70	4.77	163	5.57	3.91	4.61	5.02	5.19
Brazil (NE)	3.41	3.60	3.65	124	5.58	3.37	3.91	4.16	4.26
Colombia	2.71	2.80	2.82	105	4.79	2.83	3.12	3.27	3.29
Dominican Republic	3.23	3.29	3.34	125	5.00	3.32	3.66	3.83	3.91
Paraguay	4.29	4.60	4.70	159	5.30	3.81	4.48	4.89	5.09
Peru	3.28	3.49	3.54	120	5.11	3.39	3.89	4.21	4.38

Table 3.1 also presents the TFRs for women age 15-39 and age 15-44. For all countries, the TFRs for the age groups 15 to 39 and 15 to 44 are close, demonstrating that women have most of their births before they reach the age of 40, after which fertility is low.

A comparison of the cumulative measure of childbearing, CEB, with the TFR gives a rough indication of the trend in fertility over time. Table 3.1 shows that CEB is higher than TFR (in women age 15-49) for all countries. The difference between CEB and TFR is more than 3 children in Bangladesh and about 2 children in Bolivia, Brazil, Colombia, Egypt, Indonesia, Jordan, Morocco, Turkey, and Zimbabwe. For 8 countries in sub-Saharan Africa, the difference between CEB and TFR is less than one child.

Comparison of total marital fertility rates indicates that, in the 30 years following their first marriage, women in sub-Saharan Africa give birth to between 5 (Namibia and Zimbabwe) and 7 (Niger and Rwanda) children, with women in most countries in this region having 6 children. Marital fertility rates in countries of Asia/Near East/North Africa such as Jordan, Morocco, and Pakistan are as high as marital fertility rates in many sub-Saharan African countries, such as the Central African Republic, Namibia, and Zimbabwe, where the TMFR is around 5 children. The total marital fertility rate ranges from 3 to 5 children in Latin America/Caribbean countries, where Colombian women typically give birth to 3 children and Bolivian women give birth to 5 children.

Age-Specific Fertility Rates

The age-specific fertility rates presented by region in Figure 3.1 show that the smallest differences between countries are generally found in the youngest and the oldest age groups. In the youngest age group, the fertility rate is closely related to the age at which women first marry. The age-specific fertility rate for women age 15-19 ranges from 62 per thousand in Rwanda, where the median age at first marriage is 20, to 215 per thousand in Niger, where the median age at first marriage is 15. Although childbearing starts late in Rwanda (after age 30), Rwandan women typically have more children than women in other sub-Saharan African countries. Except for Namibia and Zimbabwe, all countries in sub-Saharan Africa have age-specific fertility rates for women age 40-49 that are more than 100 per thousand.

Among the countries in Asia/Near East/North Africa, the highest level of teenage fertility is found in Bangladesh, which reflects the lowest median age at marriage (14.0 years) not only in Asia but also in other regions as well. In the rest of the countries, teenage fertility is moderate. Among women age 20-39, the ASFRs are highest in Jordan, while Turkey has the lowest ASFRs in this region.

Among the countries in Latin America/Caribbean, the highest levels of fertility are found in Bolivia and Paraguay in all age groups. Colombia and Peru have the lowest age-specific fertility rates in this region.

3.2 SOCIOECONOMIC DIFFERENCES IN FERTILITY

It has generally been hypothesized that individuals who are educated, who are working in the modern sector, whose spouses are educated, and who are living in urban areas have lower fertility than do individuals who are not educated, who are not working outside the home, and who are living in rural areas. Tables 3.2 and 3.3 summarize differences in fertility by residence and migration status, respectively. Tables 3.4 and 3.5 show education differentials, and Table 3.6 presents marital fertility rates by husband's characteristics.

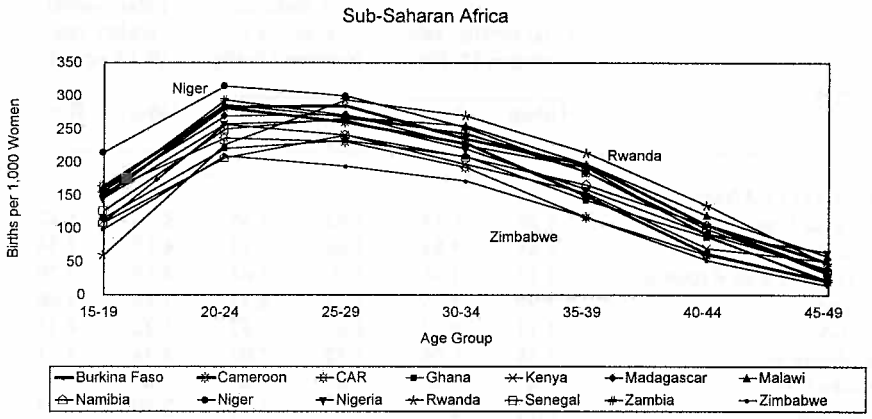
As mentioned in Section 2.2, the small number of women in some socioeconomic categories makes it difficult to estimate TFRs for women age 15-49 and age 15-44, and TMFRs for marriage durations up to 29 years and up to 24 years for several of the socioeconomic subgroups. Consequently, only TFRs for women age 15-39, TMFRs for marriage durations up to 14 years (calculated for 3 years before the survey), and CEBs for women age 40-49 are used to study the socioeconomic differences in fertility. The restriction of the analysis to women age 15-39 is unlikely to bias the differentials, because most childbearing occurs before age 40.

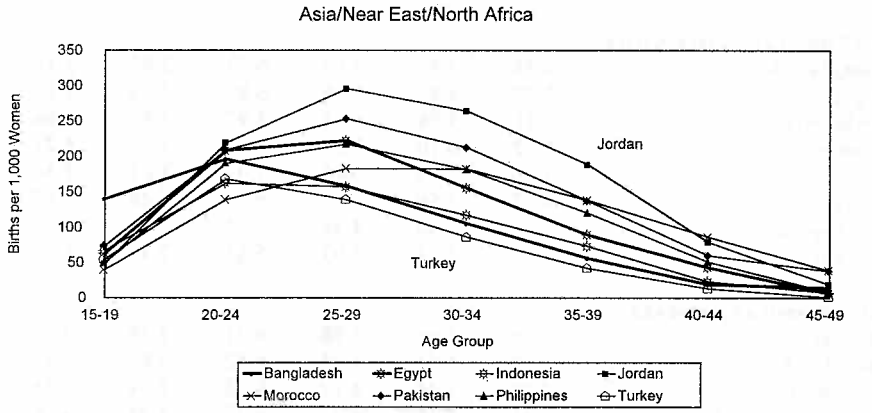
Urban-Rural Residence

Fertility (TFR for age 15-39 and CEB for age 40-49) is higher in rural areas than in urban areas in all of the surveyed countries (Table 3.2). Bangladesh, Egypt, Indonesia, Morocco, Turkey, and all countries except Bolivia and Paraguay in Latin America /Caribbean have a TFR of less than 3 children in urban areas. Rural TFRs are particularly high—6 or more children per woman—in many countries in sub-Saharan Africa. The smallest difference (5 percent) between urban and rural TFRs is found in the Central African Republic; the greatest difference is found in Kenya and Madagascar (39 percent). In Asia/Near East/North Africa, the smallest difference (9 percent) between urban and rural TFRs is found in Pakistan, and the largest difference (51 percent) is found in Morocco. In Latin America/Caribbean countries, the difference between urban and rural TFRs ranges from 39 percent in Colombia to more than 50 percent in Peru.

Marital fertility for the 15 years following the first marriage is also higher in rural areas than in urban areas in all countries, with the exception of Niger and Pakistan. A similar pattern of rural-urban differences is observed for the number of children ever born.

Figure 3.1 Age-specific fertility rates by region, Demographic and Health Surveys, 1990-1995





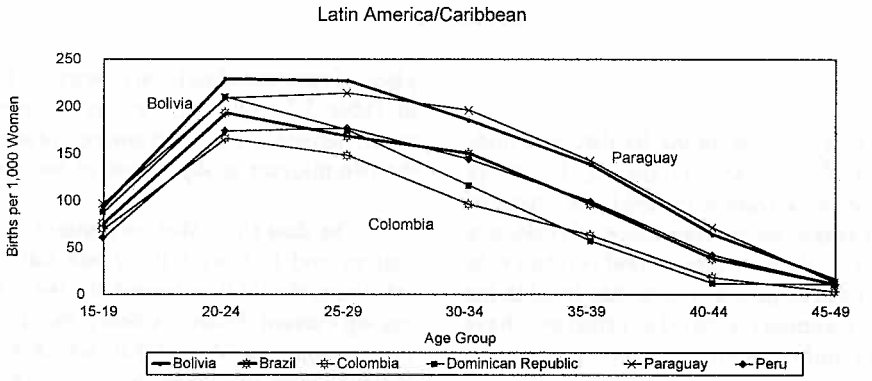


Table 3.2 Fertility rates 0-3 years preceding the survey and mean number of children ever born, by urban-rural residence, Demographic and Health Surveys, 1990-1995

Region and country	Total fertility rate (women 15-39)		Mean number of children ever born (women 40-49)		Total marital fertility rate (0-14 years)	
	Urban	Rural	Urban	Rural	Urban	Rural
Sub-Saharan Africa						
Burkina Faso	4.20	6.13	7.02	7.50	3.34	4.42
Cameroon	4.86	5.84	5.84	6.42	4.12	4.24
Central African Republic	4.53	4.76	5.90	5.61	3.59	3.70
Ghana	3.49	5.29	5.35	6.55	3.19	4.06
Kenya	3.17	5.17	4.67	7.62	3.22	4.31
Madagascar	3.68	6.06	5.52	7.03	3.74	4.71
Malawi	u	u	u	u	u	u
Namibia	3.71	5.36	4.74	6.23	2.50	4.24
Niger	5.70	6.48	7.11	7.56	4.69	4.63
Nigeria	4.58	5.47	6.01	6.61	4.24	4.32
Rwanda	4.05	5.41	6.71	7.78	4.38	4.90
Senegal	4.53	6.00	6.69	7.37	4.18	4.55
Zambia	5.27	6.37	7.44	7.86	4.42	4.77
Zimbabwe	3.03	4.44	4.74	6.79	2.79	3.66
Asia/Near East/North Africa						
Bangladesh	2.58	3.37	5.45	6.73	2.82	3.10
Egypt	2.77	4.55	4.66	6.84	3.06	4.39
Indonesia	2.51	3.06	4.71	4.97	2.86	2.96
Jordan	4.72	6.10	7.87	8.83	5.37	6.27
Morocco	2.27	4.60	5.46	7.47	3.01	4.56
Pakistan	4.17	4.56	6.34	6.35	4.48	4.07
Philippines	3.29	4.46	4.34	5.65	3.72	4.30
Turkey	2.25	2.78	4.03	5.63	2.46	3.32
Latin America/Caribbean						
Bolivia	3.60	5.69	4.88	6.41	3.38	4.77
Brazil (NE)	2.75	4.62	4.95	6.82	2.87	4.21
Colombia	2.47	3.44	4.12	6.28	2.64	3.36
Dominican Republic	2.81	4.16	4.27	6.37	2.98	3.98
Paraguay	3.39	5.54	3.87	6.90	3.13	4.71
Peru	2.60	5.56	4.44	7.28	2.90	4.64

u = Unknown (Not available)

Migration Status

First-generation migrants often retain the fertility traditions of their group of origin (Goldstein and Tirasawat, 1972). In countries where the pace of urbanization is rapid, the study of fertility differentials based solely on current place of residence may be inadequate. Moreover, data on urban-rural residence do not take into account the length of time a woman has lived in her current home. For example, a woman classified as urban may have lived in an urban area for only a short time before she was interviewed.

To study the fertility behavior of migrants and nonmigrants, a variable combining childhood place of residence and current place of residence has been constructed. The results are presented in Table 3.3. Overall, fertility is expected to be lowest among urban natives and highest among rural natives, with the fertility of the two migrant groups being in between.

The data show that, in general, the TFR is highest for rural natives and is lowest for urban natives. Among current rural residents, the TFR is lowest for the urban-rural migrants, while among current urban residents, the TFR is highest for the rural-urban migrants. Mean CEB, which is a measure of completed fertility, does not show this migration differential, although in nearly all countries completed fertility is highest among rural natives.

Table 3.3 Fertility rates 0-3 years preceding the survey and mean number of children ever born, by migration status, Demographic and Health Surveys, 1990-1995

Region and country	Total fertility rate (women 15-39)				Mean number of children ever born (women 40-49)				Total marital fertility rate (0-14 years)			
	Urban native	Rural to urban	Urban to rural	Rural native	Urban native	Rural to urban	Urban to rural	Rural native	Urban native	Rural to urban	Urban to rural	Rural native
Sub-Saharan Africa												
Burkina Faso	3.95	4.74	(5.49)	6.19	6.77	7.27	7.06	7.52	3.18	3.70	(4.25)	4.43
Cameroon	4.92	4.83	(5.56)	5.90	5.87	5.80	6.04	6.48	4.20	3.91	(4.24)	4.25
Central African Republic	4.41	(5.17)	4.64	4.80	5.61	6.64	5.74	5.56	3.57	(3.74)	3.66	3.72
Ghana	3.39	(4.02)	5.31	5.29	5.05	6.22	6.55	6.55	3.13	(3.44)	4.00	4.09
Kenya	(2.90)	3.29	(4.74)	5.20	3.69	5.26	7.07	7.67	(3.18)	3.23	(4.08)	4.34
Madagascar	3.61	(4.00)	5.66	6.16	5.45	5.75	6.34	7.19	3.75	(3.72)	4.43	4.78
Malawi	u	u	u	u	u	u	u	u	u	u	u	u
Namibia	3.22	4.21	(4.86)	5.42	3.86	5.57	4.80	6.31	2.32	2.67	(2.49)	4.37
Niger	5.27	6.39	(5.29)	6.53	7.45	6.77	6.24	7.61	4.49	4.99	(4.39)	4.64
Nigeria	4.51	4.83	5.17	5.52	5.71	6.76	6.87	6.57	4.18	4.39	4.45	4.30
Rwanda	(3.76)	4.16	(4.80)	5.42	6.11	7.08	8.00	7.78	(4.22)	4.46	4.37	4.91
Senegal	4.19	5.29	(6.34)	5.97	6.77	6.66	7.37	7.44	4.05	4.49	(4.71)	4.54
Zambia	5.14	5.58	(5.87)	6.53	7.11	7.62	7.95	7.85	4.38	4.51	(4.54)	4.85
Zimbabwe	2.68	3.25	(4.34)	4.45	4.12	5.00	6.34	6.82	2.47	3.01	(3.36)	3.69
Asia/Near East/North Africa												
Bangladesh	u	u	u	u	u	u	u	u	u	u	u	u
Egypt	u	u	u	u	u	u	u	u	3.00	3.38	(4.14)	4.41
Indonesia	u	u	u	u	u	u	u	u	2.83	2.90	(3.25)	2.94
Jordan	u	u	u	u	u	u	u	u	5.26	5.66	(6.56)	6.18
Morocco	1.89	3.22	(3.71)	4.68	4.93	6.09	6.78	7.52	2.78	3.41	(3.87)	4.62
Pakistan	u	u	u	u	u	u	u	u	u	u	u	u
Philippines	3.04	3.62	4.90	4.43	3.94	4.79	5.09	5.77	3.53	3.91	4.31	4.31
Turkey	u	u	u	u	u	u	u	u	u	u	u	u
Latin America/Caribbean												
Bolivia	3.39	4.98	5.22	5.89	4.61	6.11	6.12	6.52	3.25	4.08	4.48	4.92
Brazil (NE)	2.57	3.18	(4.11)	4.71	4.38	5.69	5.82	7.00	2.80	3.04	(3.43)	4.35
Colombia	2.49	2.51	(3.31)	3.49	3.60	4.04	4.74	5.44	2.63	2.73	(2.69)	3.66
Dominican Republic	2.86	2.70	(3.71)	4.27	3.82	4.82	4.52	6.72	3.03	2.85	(3.39)	4.14
Paraguay	3.28	3.95	4.58	5.84	3.66	4.73	5.95	7.20	3.14	3.14	3.79	5.00
Peru	2.47	3.78	5.51	5.61	4.24	5.54	7.22	7.33	2.81	3.57	4.48	4.73

Note: Total fertility rate and number of children ever born are not available for countries with ever-married samples because information on migration status for never-married women was not collected. Total fertility rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one age group. Total marital fertility rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.
u = Unknown (Not available)

Women's Education

It is hypothesized that as education increases fertility declines. This statement is generally, but not always, true. In sub-Saharan Africa, Cameroon, the Central African Republic, and Madagascar show irregular patterns (Table 3.4). Except for these 3 countries in this region, the TFR decreases uniformly as education increases. In Burkina Faso, Ghana, Niger, Rwanda, and Senegal, women with no schooling have about 2 to 3 children more than women with secondary or higher education. Although more education is generally associated with lower fertility, the magnitude of the differentials among educational levels varies widely. Among the least educated women, the lowest TFRs are observed in Asia/Near East /North Africa. In Indonesia, where the TFR is already low, there is no difference in fertility between uneducated women and women with primary education. In contrast, in Morocco and Turkey, women with no schooling have fertility twice as high as women with primary education. In the Philippines, women with primary schooling have higher fertility than women with either no education or secondary education. In all of the countries in Latin America/Caribbean, there is a systematic decline in fertility across educational subgroups. The differences, however, are particularly dramatic in Brazil, Paraguay, and Peru. In these countries, the difference in TFRs between women with no education and women with secondary and higher education is between 3 and 4 children.

Table 3.4 Fertility rates 0-3 years preceding the survey and mean number of children ever born, by women's education, Demographic and Health Surveys, 1990-1995

Region and country	Total fertility rate (women 15-39)			Mean number of children ever born (women 40-49)			Total marital fertility rate (0-14 years)		
	No Schooling	Primary	Secon-dary+	No Schooling	Primary	Secon-dary+	No Schooling	Primary	Secon-dary+
Sub-Saharan Africa									
Burkina Faso	6.06	4.97	(2.86)	7.44	8.02	4.87	4.36	3.88	(2.29)
Cameroon	5.78	6.02	(4.44)	6.43	5.96	5.20	4.17	4.55	(3.61)
Central African Republic	4.73	4.94	(3.74)	5.74	5.67	5.50	3.68	3.77	(3.34)
Ghana	5.36	4.56	(2.69)	6.66	5.89	3.67	3.89	3.83	(2.67)
Kenya	5.40	5.08	3.75	7.58	7.41	4.99	4.01	4.32	3.64
Madagascar	5.88	6.21	4.19	6.56	7.25	5.10	4.19	4.85	4.08
Malawi	6.11	5.81	(4.08)	7.12	7.00	7.65	4.31	4.57	(4.22)
Namibia	5.64	5.26	3.80	6.25	6.01	4.08	3.75	3.71	3.06
Niger	6.42	(6.37)	(3.92)	7.50	7.33	3.50	4.59	5.17	(4.15)
Nigeria	5.67	5.66	3.91	6.41	6.98	6.14	3.98	4.77	4.26
Rwanda	5.98	5.25	(3.78)	7.94	7.46	5.64	5.01	4.82	(4.24)
Senegal	5.85	4.79	(3.19)	7.23	7.02	5.49	4.45	4.48	(3.69)
Zambia	6.39	6.18	4.55	7.84	7.77	6.67	4.70	4.73	4.11
Zimbabwe	4.68	4.36	3.28	6.77	6.38	4.38	3.07	3.54	3.05
Asia/Near East/North Africa									
Bangladesh	3.64	3.24	2.49	6.77	6.52	4.87	3.12	3.05	2.78
Egypt	4.72	3.66	2.94	6.45	5.57	3.22	4.25	3.59	3.12
Indonesia	3.12	3.14	2.47	4.76	5.19	4.18	2.97	2.90	2.83
Jordan	6.31	5.62	4.74	8.84	8.38	5.90	5.82	5.66	5.52
Morocco	4.16	2.15	1.85	6.89	5.35	3.57	4.19	2.86	2.87
Pakistan	4.69	4.23	3.61	6.53	6.06	4.73	4.06	4.46	4.63
Philippines	(4.31)	5.13	3.25	6.07	5.93	3.79	4.22	4.63	3.64
Turkey	4.00	2.30	1.65	5.87	4.13	2.27	3.94	2.62	2.03
Latin America/Caribbean									
Bolivia	5.84	5.62	3.05	6.62	5.98	3.53	4.32	4.61	3.18
Brazil (NE)	5.35	3.45	1.90	6.65	5.34	2.98	4.42	3.41	2.24
Colombia	4.66	3.36	2.24	7.80	5.21	3.07	4.31	3.15	2.47
Dominican Republic	4.80	3.71	2.78	6.54	5.28	2.97	3.49	3.68	2.83
Paraguay	6.06	5.03	3.00	6.76	5.74	2.99	4.43	4.20	3.01
Peru	6.49	4.80	2.48	7.33	6.10	3.33	4.91	4.19	2.78

Note: Total fertility rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one age group. Total marital fertility rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.
u = Unknown (Not available)

When the association between TFR and primary education is examined, the following three patterns emerge:

- Women with primary education have higher fertility than women with no education.
- Primary education has no effect on women's fertility.
- Women with primary education have lower fertility than women with no education.

The various relationships between primary education and fertility have been observed by many authors (Easterlin, 1983; Muhuri et al., 1994).

When completed fertility (mean CEB) is considered, similar educational differences are observed in many countries. The exceptions are Burkina Faso, Cameroon, the Central African Republic, Indonesia, Malawi, and Nigeria. However, an irregular relationship between marital fertility and level of education is observed in many countries of sub-Saharan Africa, where marital fertility is higher for respondents with primary education than for those with no education.

In general, the lowest CEB is found among women with secondary education. However, the association of CEB with primary education is not uniform. For many countries, the CEB is lower for women with primary education than for those with no

education. The exceptions are Burkina Faso, Indonesia, Madagascar, and Nigeria, where women with primary education have the highest mean number of CEB.

Table 3.4 also presents the total marital fertility rate for women married 0-14 years, by education level. The lowest TMFR is generally found among women with secondary education. Like TFR and CEB, the relationship between TMFR and primary education is not consistent. Burkina Faso is the only sub-Saharan country where the TMFR for women with primary education is lower (about 0.5 children) than the TMFR for women with no education. The TMFR observed in Asia/Near East/North Africa is lower for women with primary education than for women with no education in Egypt, Morocco, and Turkey; for Pakistan and the Philippines, the opposite is observed. In Latin America/Caribbean, except for Bolivia and the Dominican Republic, the highest TMFR is observed among women with no education.

Women's Employment Status

Table 3.5 shows the TFR for women age 15-39, the CEB for women age 40-49, and the TMFR for women married 0-14 years by employment status. In sub-Saharan Africa, only Rwanda shows a difference in total fertility of 1 child or more between women who are working and women who are not working. Working women have a TFR of about 2 more children than nonworking women in Rwanda; but when marital fertility is considered, the difference is less than 0.5 children. For 10 countries in this region, there are no noticeable differences in fertility by employment status.

Table 3.5 Fertility rates 0-3 years preceding the survey and mean number of children ever born, by women's employment status, Demographic and Health Surveys, 1990-1995

Region and country	Total fertility rate (women 15-39)		Mean number of children ever born (women 40-49)		Total marital fertility rate (0-14 years)	
	Working	Not working	Working	Not working	Working	Not working
Sub-Saharan Africa						
Burkina Faso	5.83	5.67	7.43	7.42	4.22	4.22
Cameroon	5.66	5.42	6.22	6.32	4.23	4.14
Central African Republic	4.77	4.61	5.73	5.61	3.68	3.59
Ghana	4.79	(4.84)	6.20	5.96	3.65	4.35
Kenya	4.76	5.03	7.13	7.60	3.99	4.29
Madagascar	5.66	5.43	6.67	7.09	4.53	4.63
Malawi	5.56	5.98	7.20	7.03	4.40	4.45
Namibia	4.33	5.03	5.29	6.03	3.00	3.91
Niger	6.28	6.37	7.59	7.36	4.60	4.68
Nigeria	5.43	5.06	6.70	5.85	4.28	4.36
Rwanda	5.42	3.48	7.73	7.98	4.88	4.44
Senegal	5.41	5.40	7.23	7.00	4.41	4.45
Zambia	5.82	5.93	7.63	7.79	4.46	4.79
Zimbabwe	3.83	4.24	6.21	6.42	3.21	3.61
Asia/Near East/North Africa						
Bangladesh	u	u	u	u	2.50	3.18
Egypt	u	u	u	u	3.37	3.88
Indonesia	u	u	u	u	2.54	3.19
Jordan	u	u	u	u	5.08	5.68
Morocco	2.65	3.66	6.13	6.66	3.44	3.96
Pakistan	u	u	u	u	u	u
Philippines	2.71	4.64	4.74	5.22	3.26	4.48
Turkey	u	u	u	u	2.32	2.96
Latin America/Caribbean						
Bolivia	4.98	3.39	5.51	5.73	3.63	4.30
Brazil (NE)	2.59	4.18	5.37	5.82	2.77	3.85
Colombia	1.96	3.27	4.14	5.26	2.18	3.24
Dominican Republic	2.62	3.72	4.65	5.33	2.75	3.75
Paraguay	2.86	5.41	4.47	5.88	2.87	4.37
Peru	2.90	3.83	5.00	5.30	3.12	3.67

Note: Total fertility rate and number of children ever born are not available for countries with ever-married samples because information on women's work status for never-married women was not collected.
u = Unknown (Not available)

In Asia/Near East/North Africa, the TFR can be calculated only for Morocco and the Philippines.[5] In these countries, women who are working have lower fertility (more than 1 child) than women who are not working. When the TMFR is considered, working women have a lower level of fertility than women who are not working. The greatest difference is found in the Philippines, with more than 1 child difference between working women and nonworking women.

In Latin America/Caribbean, Bolivia is an exception: women who are not working have a lower level of fertility (a difference of almost 2 children) than women who are working. For the rest of the countries in this region, the opposite is observed.

Husband's Education

Table 3.6 presents marital fertility rates by husband's characteristics (husband's education and occupation). For currently married women, husband refers to the current husband; for formerly married women, husband refers to the most recent husband. A curvilinear relationship between fertility and husband's education is observed in most of the countries in sub-Saharan Africa. In Madagascar and Nigeria, marital fertility among women whose husbands have primary education exceeds by at least 0.7 births the rate among women whose husbands have no schooling. In Jordan and Pakistan, TMFR increases as husband's education increases. A curvilinear relationship between TMFR and the husband's education holds in Indonesia and the Philippines, while fertility consistently declines as the level of the husband's education rises in Bangladesh, Egypt, Morocco, and Turkey. In countries in Latin America/ Caribbean, with the exception of Bolivia and Paraguay, the pattern of differentials takes the form of a steady decline in fertility as the level of husband's education increases.

Husband's Occupation

In 4 of 8 countries in Asia and Latin America/Caribbean and in 8 of 15 countries in sub-Saharan Africa, wives of professional or clerical workers have the lowest fertility, while women whose husbands work in agriculture have the highest fertility. The most striking anomaly is found in Pakistan, where the fertility of women whose husbands work in agriculture is appreciably lower than for women whose husbands are in all 3 nonagricultural categories. This pattern is also seen in Nigeria and, to a lesser extent, in Bangladesh. The difference in marital fertility between agricultural and professional subgroups is greater than 2 children in Bolivia and Burkina Faso, and the difference is between 1 and 2 children in Egypt, Morocco, the Philippines, and other countries in Latin America/Caribbean except Colombia.

The total marital fertility rate in most of the countries surveyed is lowest among women whose husbands hold professional or clerical jobs, although the size of the difference varies. However, in sub-Saharan Africa, there is no consistent pattern in the marital fertility rate for women whose husbands work as laborers or in sales/services.

3.3 FERTILITY TRENDS

Fertility trends are analyzed here in two ways. One way is to compare data from two surveys. A second way is to use data from the birth history. As shown in Table 3.7, a decline of the TFR among women age 15-44 occurred in the period from 4-7 to 0-3 years preceding the survey in most countries, especially in sub-Saharan Africa[6] (Figure 3.2).

The rates shown in Table 3.7 for countries in sub-Saharan Africa suggest that recent declines in fertility occurred in all countries in this region. A decline of 15 percent or more in the total fertility rate has occurred in 8 of 14 countries where the total fertility rate declined by more than 1 child. Moreover, the Central African Republic, Kenya, Rwanda, and Zimbabwe have recorded declines of 20 percent or more. In Kenya and Zimbabwe these declines are probably attributable to moderately high use of modern family planning methods. Four countries in this region, namely, Burkina Faso, Cameroon, Malawi, and Zambia, show a decline of 0.5 or more during the period.

In Asia/Near East/North Africa, Bangladesh, Pakistan, and Turkey have experienced a decline of 20 percent or more in the total fertility rate. In Bangladesh, the TFR was 5.4 for the period 4-7 years before the survey and 3.6 for the period 0-3 years preceding the survey. This is a decline of 1.8 children. The fertility decline in Pakistan over the same period is more than 2 children, a decline that is probably overestimated due to birth displacement (Curtis and Arnold, 1994). The fertility decline is more than 10 percent in Indonesia, Jordan, and Morocco, and the total fertility decline in Jordan is more than 1 child. For Egypt and the Philippines, the decline is small, that is, less than 10 percent. All countries in Latin America/Caribbean experienced a fertility decline during this period, ranging from 8 percent in the Dominican Republic to 20 percent in Northeast Brazil.

Table 3.8 examines trends in fertility in 10 countries by comparing results of the most recent DHS survey with results of an earlier DHS survey. This comparison is appropriate because methods of data collection and rate calculated were identical in the two surveys. A comparison of TFRs calculated for the DHS-I surveys (1986-1989) with those calculated for the DHS-II and DHS-III surveys (1991-1994) for the 4 countries in sub-Saharan Africa shows that fertility has declined by an average of 1.3 to 5.2

[5] Countries with ever-married samples are excluded because information on work status for never-married women was not collected.

[6] It should be noted that the rate for the earlier period (4-7 years preceding the survey) is based on data that are partially truncated beginning in the sixth year prior to the survey.

Table 3.6 Marital fertility rates 0-3 years preceding the survey, by husband's education and occupation, Demographic and Health Surveys, 1990-1995

Region and country	Total marital fertility rate (0-14 years)						
	Husband's education			Husband's occupation			
	No schooling	Primary	Secon-dary+	Agricul-ture	Skilled/ Unskilled	Sales/ service	Professional/ clerical
Sub-Saharan Africa							
Burkina Faso	4.37	4.10	2.28	4.47	3.92	3.55	2.15
Cameroon	4.17	4.51	3.97	4.32	4.31	4.26	3.70
Central African Republic	3.33	3.82	3.75	3.73	3.55	3.60	3.63
Ghana	4.00	3.91	3.19	4.09	3.55	3.35	3.32
Kenya	4.06	4.30	3.91	4.57	4.01	3.80	3.82
Madagascar	4.09	4.99	4.21	4.73	4.43	4.13	3.68
Malawi	4.44	4.48	4.44	4.57	4.24	4.41	4.42
Namibia	3.67	3.88	3.09	3.28	3.70	3.44	3.16
Niger	4.66	4.50	4.22	4.62	4.93	4.70	4.20
Nigeria	4.01	4.79	4.26	4.16	4.49	4.54	4.43
Rwanda	4.87	4.89	4.70	4.91	4.93	4.93	4.46
Senegal	4.53	4.59	3.81	4.65	4.44	4.24	4.15
Zambia	4.41	4.86	4.41	4.93	4.51	4.53	4.07
Zimbabwe	3.64	3.57	3.11	3.97	3.21	3.32	3.07
Asia/Near East/North Africa							
Bangladesh	3.21	3.00	2.90	2.99	3.08	3.25	3.00
Egypt	4.24	3.87	3.34	4.51	3.61	3.71	3.21
Indonesia	2.72	2.93	2.91	2.94	2.90	3.02	2.77
Jordan	5.23	5.40	5.66	5.57	5.73	5.36	5.50
Morocco	4.28	3.66	3.01	4.51	3.89	3.44	3.11
Pakistan	3.93	4.00	4.59	3.85	4.34	4.50	4.19
Philippines	4.08	4.66	3.63	4.46	3.98	3.49	3.11
Turkey	3.91	2.88	2.45	3.21	2.78	2.66	2.33
Latin America/Caribbean							
Bolivia	3.70	4.54	3.61	4.93	3.91	3.25	2.67
Brazil (NE)	4.28	3.38	2.49	4.30	3.01	2.94	2.38
Colombia	3.53	3.15	2.50	3.37	2.72	2.83	2.47
Dominican Republic	3.95	3.56	3.04	4.12	3.21	3.23	2.70
Paraguay	4.31	4.37	3.23	4.90	3.70	2.94	3.18
Peru	4.79	4.35	3.00	4.63	3.19	2.90	2.74

percent per year during this period.[7] A comparison of TFRs from Egypt and Morocco for DHS-I and DHS-II shows that fertility has declined by an average of 2.9 and 3.5 percent per year, respectively. The annual percentage decline between the DHS-II and DHS-III surveys in Indonesia is about 2 percent. Countries in Latin America/Caribbean exhibit annual fertility declines of 2.9 to 3.4 percent.

[7] To calculate the annual percent decline, the following formula is used:

$$r = \ln (TFR_0/TFR_1)/t \times 100$$

where r = annual growth rate, TFR_0 = TFR in DHS-I, TFR_1 = TFR in DHS-II/DHS-III, and t = years between the two surveys.

Table 3.7 Total fertility rates for women 15-44 for the periods 0-3 and 4-7 years preceding the survey, Demographic and Health Surveys, 1990-1995

Region and country	Total fertility rate (women 15-44)		Absolute change	Percent change
	0-3 years preceding survey	4-7 years preceding survey		
Sub-Saharan Africa				
Burkina Faso	6.56	7.62	-1.1	-13.9
Cameroon	5.83	6.46	-0.6	- 9.8
Central African Republic	5.01	6.27	-1.3	-20.1
Ghana	5.02	6.14	-1.1	-18.2
Kenya	5.34	6.81	-1.5	-21.6
Madagascar	5.96	6.32	-0.4	- 5.7
Malawi	6.36	6.91	-0.6	- 8.0
Namibia	5.05	5.25	-0.2	- 3.8
Niger	6.96	8.18	-1.2	-14.9
Nigeria	5.85	6.90	-1.1	-15.2
Rwanda	6.05	7.56	-1.5	-20.0
Senegal	5.94	7.02	-1.1	-15.4
Zambia	6.22	6.81	-0.6	- 8.7
Zimbabwe	4.30	5.45	-1.2	-21.1
Asia/Near East/North Africa				
Bangladesh	3.61	5.37	-1.8	-32.8
Egypt	4.03	4.12	-0.1	- 2.2
Indonesia	2.88	3.28	-0.4	-12.2
Jordan	5.65	6.83	-1.2	-17.3
Morocco	3.93	4.75	-0.8	-17.3
Pakistan	4.75	6.84	-2.1	-30.6
Philippines	4.06	4.36	-0.3	- 6.9
Turkey	2.55	3.23	-0.7	-21.1
Latin America/Caribbean				
Bolivia	4.73	5.57	-0.8	-15.1
Brazil (NE)	3.75	4.67	-0.9	-19.7
Colombia	2.83	3.31	-0.5	-14.5
Dominican Republic	3.25	3.53	-0.3	- 7.9
Paraguay	4.66	5.19	-0.5	-10.2
Peru	3.60	4.16	-0.6	-13.5

Figure 3.2 Total Fertility rates 0-3 years and 4-7 years before the survey, Demographic and Health Surveys, 1990-1995

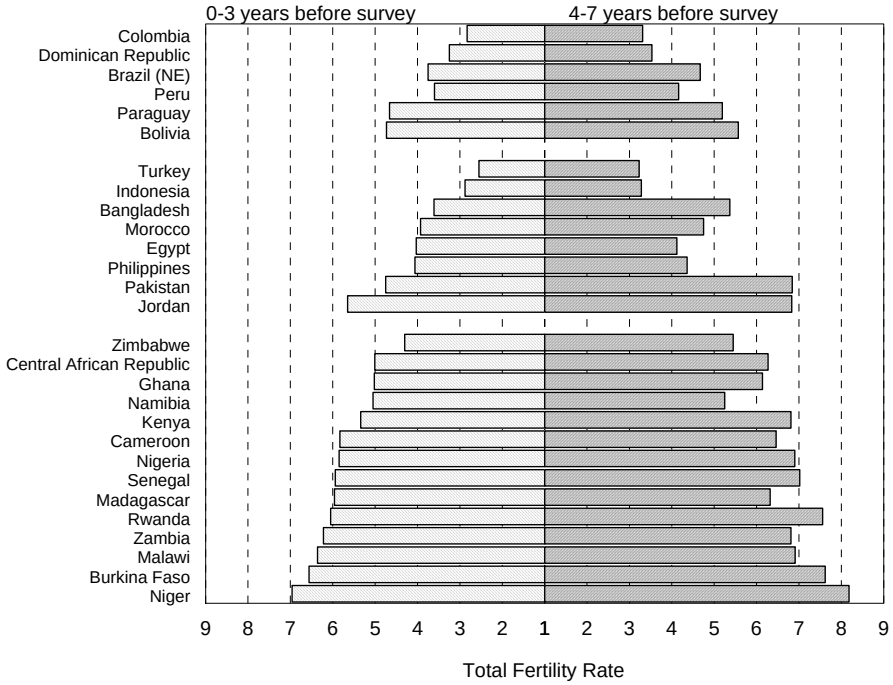


Table 3.8 Total fertility rates for women 15-44 and annual decline, Demographic and Health Surveys, 1986-1994

Region and country	Year of survey		Total fertility rate[a]		Annual decline (%)
	DHS-I	DHS-II/III	DHS-I	DHS-II/III	
Sub-Saharan Africa					
Ghana	1988	1993-1994	6.06	5.05	3.3
Kenya	1988-1989	1993	6.50	5.15	5.2
Senegal	1986	1992-1993	6.37	5.86	1.3
Zimbabwe	1988-1989	1994	5.31	4.22	3.5
Asia/Near East/North Africa					
Egypt	1988-1989	1994	4.58	3.90	2.9
Indonesia	1991[b]	1994[c]	2.99	2.83	1.8
Morocco	1987	1992	4.58	3.84	3.5
Latin America/Caribbean					
Colombia	1986	1990	3.20	2.80	3.3
Dominican Republic	1986	1991	3.69	3.29	2.9
Peru	1986	1991-1992	4.20	3.49	3.4

[a] From DHS final reports.
[b] DHS-II
[c] DHS-III

4 Other Fertility Components

4.1 ONSET OF REPRODUCTION: AGE AT FIRST BIRTH

Median age at first birth is calculated for cohorts using the life table method and is presented here to examine how the transition to parity one is accomplished from one country to another. The median age at first birth is based on retrospective reports by women and represents the exact age by which half of a cohort had a birth. Previous studies have found some reporting problems among older women, who appear to displace the exact timing of these events to older ages (Gage, 1995; Westoff et al., 1994).

Most women in sub-Saharan Africa begin their reproductive life earlier than women in Latin America or Asia, with the median age at first birth varying from 18.1 years in Niger to 21.5 years in Rwanda (Table 4.1). Except for Rwanda and Namibia, the curve of transition to first birth in sub-Saharan Africa is characterized by early entry into motherhood. In these countries many women have given birth to a child by age 17, and by age 20 a majority of women have done so (Figure 4.1). In many sub-Saharan African countries, the early age at the first birth obscures the fact that age at first marriage has been substantially delayed over the past decade. Absence of synchronization between age at first birth and age at first marriage can be associated with the prevalence of premarital births in this region (Casterline and Trussel, 1980; Njogu and Martin, 1991; Westoff et al., 1994). Previous studies have shown that delay of childbearing has contributed significantly to the fertility decline in sub-Saharan Africa (Adlakha et al., 1991; Jolly and Gribble, 1993). The data shown in Table 4.1 and Figure 4.2, however, do not show a consistent relationship between age at first birth and fertility in this region. Countries with relatively low fertility, such as Kenya and Zimbabwe, still have a median age at first birth (19.6) as early as those observed in countries with higher fertility. In Kenya, as noted by Njogu and Martin (1991), "the recent fertility decline cannot be attributed to a later onset of reproduction."

In Asia/Near East/North Africa, age at first birth ranges from 17.5 years in Bangladesh to 22.8 years in the Philippines. The early age at first birth in Bangladesh is due to early entry into marriage. The Bangladesh DHS results indicate that by age 14.4 years, half of the women age 20-49 have been married (Mitra et al., 1994). In contrast, in the Philippines the majority of women enter their first marriage after age 21 (National Statistics Office and Macro International, 1994). Despite the early age at first birth, the TFR (3.4) in Bangladesh is among the lowest in Asia/Near East/North Africa. This low level of fertility is most likely due to postpartum behavior, particularly contraceptive use (see Mitra et al., 1994). While contraceptive use has an important effect in reducing fertility, late entry into parenthood also contributes to the lower fertility observed among countries in Asia/Near East/North Africa, where more than half of women become mothers after age 20. But, the median age at first birth is not sufficient to explain fertility variations in this region. Countries with high fertility such as Jordan have a median age at first birth as high (21.2 years) as those observed in countries with low fertility levels, such as Indonesia.

The median age at first birth is relatively high in all countries in Latin America/Caribbean. Median age varies from 21.2 years in Bolivia to 22.1 years in Colombia. These high figures may explain in part the low fertility observed in this region. However, other factors such as the use of contraception and postpartum amenorrhea also play a role in determining fertility levels.

4.1.1 Socioeconomic Differences in Age at First Birth

There is considerable evidence for differentials in age at first birth by socioeconomic and other background variables United Nations, 1987. The variables considered in this analysis are (urban-rural) residence, migration status (migrant or nonmigrant), and education (no schooling, primary, and secondary or above).

Urban-Rural Residence

For most of the countries, age at first birth is higher for women in urban areas than for women in rural areas (Table 4.1). However, urban-rural differences are less noticeable in sub-Saharan Africa than in other regions. The greatest differential in this region is observed in Madagascar, where urban women have their first child 2.2 years later than rural women, that is, age at first birth for urban women is 21.0 years compared with 18.8 years for rural women. In Kenya, age at first birth for urban women is 20.5 years compared with 18.9 years for rural women. The lowest urban-rural differences in age at first birth (less than 1 year) are found in Burkina Faso, Cameroon, Niger, Zambia, and Zimbabwe. In contrast, women in urban areas of the Central African Republic and Namibia have their first child, on average, 1.2 and 0.5 years, respectively, earlier than women in rural areas. Earlier childbearing in the urban areas of CAR may be associated with a reduction in sterility (Ndamobissi et al., 1995).

In Asia, notable urban-rural differentials in median age at first birth are found in Egypt (2.9 years), Morocco (2.1 years), Indonesia (1.9 years), and the Philippines (1.8 years). It should be noted, however, that even in rural Philippines, age at first birth is later than that observed in urban areas in many countries in sub-Saharan Africa.

Table 4.1 Median age at first birth among women age 25-49 by urban-rural residence, migration status, and education, Demographic and Health Surveys, 1990-1995

Region and country	Urban-rural residence		Total	Migration status				Education		
	Urban	Rural		Urban native	Urban to rural	Rural to urban	Rural native	No Schooling	Primary	Secon-dary+
Sub-Saharan Africa										
Burkina Faso	19.4	19.1	19.1	19.5	19.3	19.1	19.1	19.1	18.9	22.4
Cameroon	19.0	18.5	18.7	19.2	18.7	18.6	18.5	18.0	18.8	20.1
Central African Republic	18.7	19.4	19.9	18.7	18.9	19.1	20.1	19.8	18.7	19.1
Ghana	20.9	19.9	20.2	21.1	20.4	19.8	19.9	20.0	19.8	23.8
Kenya	20.5	18.9	19.2	21.2	20.2	18.6	19.9	18.2	18.8	21.1
Madagascar	21.0	18.8	19.0	21.5	19.8	19.3	18.7	18.2	18.6	22.3
Malawi	19.0	u	u	u	u	u	u	18.9	18.9	21.4
Namibia	20.8	21.3	21.0	20.7	20.8	20.4	21.3	20.3	20.4	22.7
Niger	18.6	17.9	18.1	18.6	18.6	18.2	17.9	17.9	18.9	21.2
Nigeria	20.4	19.4	19.7	20.5	20.3	20.2	19.3	19.1	19.8	22.8
Rwanda	22.4	21.4	21.5	21.2	22.8	20.5	21.5	21.1	21.7	23.5
Senegal	20.1	18.7	19.2	20.4	19.6	19.1	18.7	18.8	20.2	23.0
Zambia	18.5	18.4	18.5	18.5	18.4	18.6	18.4	18.4	18.0	20.0
Zimbabwe	19.8	19.4	19.6	19.9	19.8	19.4	19.4	18.9	19.2	21.0
Asia/Near East/North Africa										
Bangladesh	18.0	17.4	17.5	u	u	u	u	17.3	17.3	18.9
Egypt	22.8	19.9	21.2	u	u	u	u	19.7	20.6	a
Indonesia	21.6	19.7	20.3	u	u	u	u	19.3	19.4	23.3
Jordan	21.4	21.0	21.2	u	u	u	u	20.5	19.6	22.8
Morocco	23.3	21.2	22.1	a	20.8	22.4	21.1	21.1	23.8	a
Pakistan	21.3	21.3	21.3	u	u	u	u	20.7	20.7	22.1
Philippines	23.7	21.9	22.8	24.2	23.0	22.4	21.8	20.9	21.0	24.3
Turkey	21.1	20.3	20.8	u	u	u	u	19.8	20.5	24.1
Latin America/Caribbean										
Bolivia	21.4	20.9	21.2	21.5	21.1	20.4	21.0	20.7	20.6	22.2
Brazil (NE)	21.9	21.4	21.7	22.2	21.3	22.0	21.3	20.4	21.2	a
Colombia	22.6	21.1	22.1	22.9	21.6	21.1	21.2	19.5	20.7	24.3
Dominican Republic	21.8	19.4	21.9	22.4	20.4	19.8	19.4	18.7	19.3	24.6
Paraguay	22.8	20.5	21.7	22.9	21.9	21.2	20.3	19.7	20.8	24.4
Peru	22.5	20.0	21.7	22.8	20.7	20.0	19.9	19.6	19.8	23.9

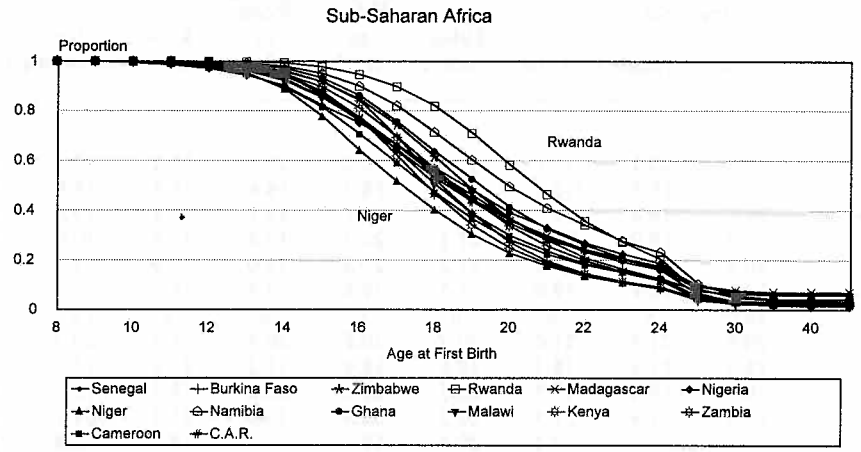
Note: The median age at first birth is calculated only for women age 25-49 because, for many countries in Asia/Near East/North Africa and in Latin America/Caribbean, more than half the women in cohorts 15-19 and 20-24 have not yet had a birth. Median age at first birth is not available for countries with ever-married samples because information on migration status for never-married women was not collected.
u = Unknown (Not available)
[a] Median age at first birth is not calculated because more than half the women have not yet had a birth.

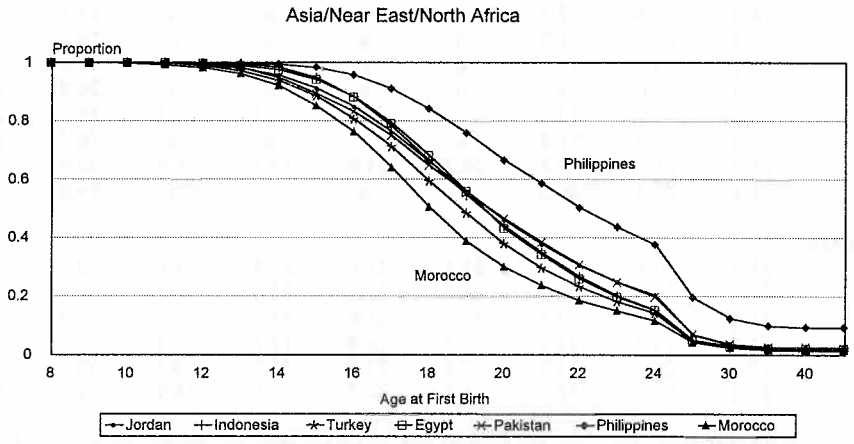
Urban-rural differences in median age at first birth are also important in Latin America/Caribbean. For example, in Peru, the Dominican Republic, and Paraguay, the median age at first birth for urban women is more than 2 years greater than the median age for rural women (2.5, 2.4, and 2.3 years, respectively).

Urban-Rural Migration

Median age at first birth is a retrospective indicator. A woman could spend her first years of reproductive life in a rural area and yet be interviewed in an urban area (or vice versa). It is interesting to compare the median age at first birth for women native to each of the two areas (urban and rural). In sub-Saharan Africa where urban-rural differences are less marked, the differences in median age at first birth for urban natives and for rural natives increase slightly in the context of migration (Table 4.1). In the Philippines, urban natives enter into marriage 2.4 years later than rural natives. In Latin America/Caribbean, the largest differences are noted in the Dominican Republic (3.0 years), followed by Peru (2.9 years), Paraguay (2.6 years), and Colombia (1.7 years).

Figure 4.1 Age at first birth by region, Demographic and Health Surveys 1990-1995





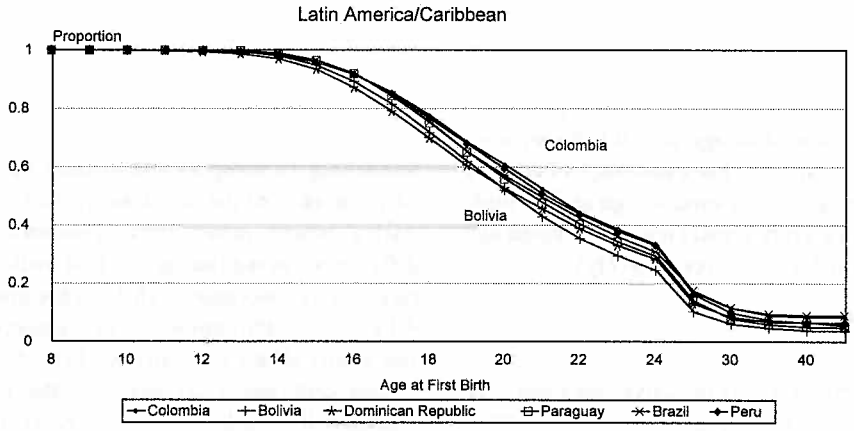
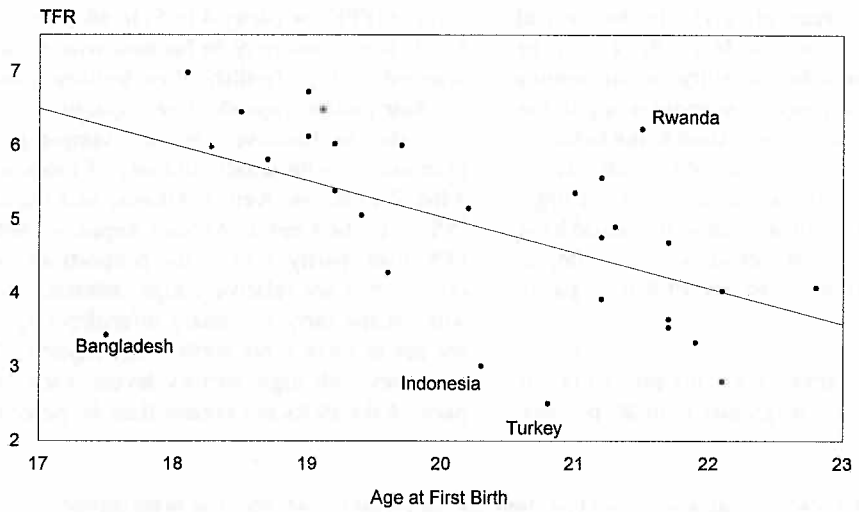


Figure 4.2 Relationship between the total fertility rate and age at first birth, Demographic and Health Surveys, 1990-1995



Women's Education

Table 4.1 shows age at first birth by level of education. For most countries, there is a positive relationship between level of education and age at first birth. Age at first birth is usually lowest for women with no education and then increases with educational attainment. Although differences between women with primary education and women with no schooling are not always pronounced (or in the same direction), women with secondary education have the highest age at first birth in all countries studied, except the Central African Republic.

In sub-Saharan Africa, the most notable variation in age at first birth by education is found in Senegal, where age at first birth is 4.2 years greater for women with secondary education than for women with no education. Contrasting with other countries in sub-Saharan Africa, the difference in age at first birth between women with primary education and no education in Senegal is also high (1.4). The Central African Republic is the only country in sub-Sahara Africa where women with primary schooling have their first child 1 year earlier than women with no schooling.

In Asia/Near East/North Africa, the greatest educational differentials in age at first birth are observed in Indonesia, the Philippines, and Turkey, where women with secondary or higher education give birth 3 years or more later than women with no schooling. In Egypt and Morocco, less than half of the women with secondary education had their first birth at the time of the survey, so it is not possible to calculate the medians. The smallest variation in median age at first birth is noted in Pakistan and Bangladesh (1.4 and 1.6 years, respectively). In Morocco the difference in median age at first birth between women with primary education and women with no education is greater than 1 year (2.7 years).

Differences in age at first birth by educational level (especially between women with secondary education or more and women with no education) are also observed in Latin America/Caribbean. With the exception of Bolivia, where the difference in median age at first birth between women with secondary education and women with no education is only 1.5 years, this difference is more than 4 years. In the Dominican Republic, the difference is about 6 years.

4.2 PARITY PROGRESSION AND BIRTH INTERVALS

In the preceding sections it has been shown that the fertility transition is advanced in the countries of Latin America and Asia, as well as in some countries of sub-Saharan Africa. One objective of this section is to examine two aspects of family formation. The first is the proportion of women at each parity who attain the next parity, or the parity progression ratio (PPR), which is related to the quantity or quantum of fertility. The other is the time elapsed from one parity to the next, or the distribution of birth intervals, which is related to timing or the tempo of fertility (Ryder, 1980).

4.2.1 Parity Progression

Table 4.2 indicates that in sub-Saharan Africa, when the transition from parity 1 to 2 is examined, the lowest PPRs are observed in Namibia, Zimbabwe, and in the Central African Republic (77, 78, and 79 percent respectively). In the Central African Republic the limited progression to parity 2 may be explained by the high level of secondary sterility among women (Retel-Laurentin, 1974). The low proportion progressing to the parity 2 in Zimbabwe and Namibia may be related to the behavior of women, particularly to the use of contraceptive methods for limiting or spacing births. In countries where fertility is high, such as Niger, more than 95 percent of women with 1 child have a second child within 5 years. Even in Kenya, where the beginnings of the fertility transition can be noted, the PPR from parity 1 to 2 remains high (84 percent).

In most countries in sub-Saharan Africa, the probability of progression to parity 6 is high, that is, greater than 80 percent. Only in Zimbabwe, where the fertility transition is well advanced, are PPRs below 70 percent observed as early as parity 2. This level of PPR is lower than that observed in other African countries at higher parities, even at parity 6. Nevertheless, in Zimbabwe there is an increase in the PPR from parity 5 to 6—from 60 percent (PPR for parity 4 to 5) to 68 percent (PPR for parity 5 to 6). This increase may be because women who attain parity 5 are selected for high fertility; their fertility level essentially depends on their natural reproductive capacity. However, this increase may also be because there are sampling errors that are more pronounced with small numbers of cases at the higher parities. After Zimbabwe, Kenya, Ghana, and Namibia have the lowest PPRs. In the Central African Republic, although there is a low PPR from parity 1 to 2, the proportions progressing to higher order births are relatively high, attesting to the fact that women who escape early secondary infertility (right after the first birth) are apt to have more births. The highest PPRs are observed in countries with high fertility levels, such as Niger, where until parity 6 the PPRs are greater than 90 percent.

Table 4.2 Parity progression ratios (quintum) for the 6-year period preceding to the survey, Demographic and Health Surveys, 1990-1995

Region and country	Parity progression ratio				
	Parity 1 to 2	Parity 2 to 3	Parity 3 to 4	Parity 4 to 5	Parity 5 to 6
Sub-Saharan Africa					
Burkina Faso	909	939	909	894	871
Cameroon	899	856	862	921	801
Central African Republic	793	810	841	848	851
Ghana	872	882	821	788	708
Kenya	844	833	845	816	712
Madagascar	885	861	869	838	898
Malawi	899	907	858	865	860
Namibia	768	800	793	744	826
Niger	954	921	942	931	906
Nigeria	872	916	905	921	843
Rwanda	897	906	909	882	805
Senegal	882	919	887	915	893
Zambia	876	921	885	841	896
Zimbabwe	782	687	620	602	684
Asia/Near East/North Africa					
Bangladesh	809	697	628	604	560
Egypt	918	779	675	622	627
Indonesia	669	504	553	441	486
Jordan	964	938	928	848	842
Morocco	801	822	840	734	740
Pakistan	939	879	839	788	786
Philippines	843	771	711	663	719
Turkey	813	451	440	488	571
Latin America/Caribbean					
Bolivia	780	800	701	703	727
Brazil	769	643	580	580	562
Colombia	625	548	518	478	520
Dominican Republic	797	740	428	619	572
Paraguay	804	636	621	635	688
Peru	793	659	634	636	596

Note: Parity progression ratio is the proportion of women at each parity who attain the next parity.

The PPRs in Asia/Near East/North Africa vary considerably. In Indonesia, where the fertility transition is well advanced, the PPR from parity 1 to 2 is already low (67 percent). By contrast, the PPRs at higher parities are greater than 80 percent in countries such as Jordan, where the proportion progressing to parity 6 is 84 percent. Overall, the PPRs observed in Jordan are as high as those observed in some sub-Saharan Africa countries such as Nigeria. The PPR in Bangladesh declines from 81 percent for the progression from parity 1 to 2 to 70 percent for the progression to parity 3 and then declines to 56 percent for the progression from parity 5 to 6. Similar PPR levels are observed in Egypt, where the PPR from parity 1 to 2 is 92 percent, declining to 78 percent for the progression to parity 3, and then reaching 63 percent for the progression from parity 5 to 6. Apparently, in Egypt fertility has not yet declined at parity 2, and it is mainly after the second child that Egyptian women begin to adopt birth spacing and birth limitation. In Morocco, PPRs are greater than 80 percent until parity 4, while in the Philippines, the PPRs are less than 80 percent after the parity 2. In Turkey, the levels of progression from parity 2 to higher parities are relatively low; less than half the women have more than 2 births. This suggests that birth limiting or birth spacing behavior is particularly important among women who already have 2 children.

In Latin America/Caribbean where the fertility transition is well advanced, PPRs from parity 1 to 2 are lower than in any other region, varying from 63 percent in Colombia to 80 percent in Paraguay. The lowest PPRs are generally found in Colombia, with PPRs falling to 48 percent for the transition from parity 4 to 5. After parity 2, Bolivia has the highest PPRs, that is, greater than 70 percent. For all remaining countries, the PPRs are less than 70 percent after parity 2.

4.2.2 Socioeconomic Differences in Parity Progression Ratios

This section examines the differentials in PPRs according to urban-rural residence and women's education.

Urban-Rural Residence

To study the relationship between residence and fertility, separate PPRs for urban women and for rural women have been calculated (Table 4.3). For most countries in sub-Saharan Africa (Cameroon, the Central African Republic, Niger, Rwanda, Senegal, and Zambia), the proportion of women who progress from one parity to the next remains high, although PPRs in urban areas are lower than in rural areas. On the other hand, in countries such as Kenya, Namibia, and Zimbabwe, where fertility decline is under way, the proportions of women going from one parity to the next are small in urban areas. In Ghana, PPRs remain high both in urban and rural areas up to parity 3, with slight variations. However, only about half the women in urban areas continue to progress to parity 5 or higher. The PPR pattern is irregular in urban areas of Kenya, but less than 60 percent of those who reach parity 5 continue on to parity 6. In rural areas of Kenya, although the PPR remains higher than in urban areas, the PPR drops as parity increases. In Namibia, PPRs remain high in rural areas, while low PPRs are found in urban areas despite some variations. More specifically, less than half the women in urban Namibia at parity 4 move on to parity 5. Nevertheless, among women who decide to continue to parity 5, the majority go on to parity 6 (87 percent).

As observed earlier, PPRs in Jordan and Pakistan are as high as PPRs observed in some sub-Saharan African countries. In Morocco and in the Philippines, the PPRs for higher parities are often greater than 70 percent, even in urban areas where about two-thirds of the women still progress from parity 5 to 6. By contrast, PPRs of less than 70 percent are found in both urban and rural areas in Bangladesh, Indonesia, and Turkey. Overall, for all countries, PPRs are lower in urban areas than in rural areas.

In Latin America/Caribbean, a steady drop in the proportion of women who go from one parity to the next parity (less than 6 women in 10 starting with parity 4) is observed in urban Bolivia. By contrast, the PPR is more than 80 percent in rural Bolivia for the same parities. In Brazil, where the fertility transition is advanced in urban areas, the proportion progressing from parity 2 to 3 is less than 60 percent. Beginning with parity 3, less than half of the women go on to higher parities. In urban Colombia, where the fertility transition is also advanced, the proportion progressing to parity 2 is about 60 percent, and less than half progress to higher parities.

Women's Education

The effect of education on the PPR is observed by calculating life tables by birth order separately for 3 broad educational groups: no education, primary education, and secondary or higher education (Table 4.4). Overall, women with a secondary or higher education show much lower PPRs than women with no education or some primary education. This differential emerges in the transition from parity 1 to 2 and becomes fully fledged in the transition from parity 2 to higher parities.

In the countries of sub-Saharan Africa, a significant proportion of women with low levels of education progress from one parity to the next. At high parities, the number of women with secondary education is too low for calculation of PPRs in some countries. In Namibia, the proportion of women with 2 children who go on to have a third child within 5 years is 67 percent for women with secondary or higher education, compared with 93 percent for women with no schooling. In Zimbabwe, only a small proportion of women with higher education move to higher parities; while more than half the women progress from parity 2 to 3, less than half go on to higher parities.

Table 4.3 Parity progression ratios (quintum) for the 6-year period preceding the survey, by urban-rural residence, Demographic and Health Surveys, 1990-1995

Region country and residence	Parity progression ratio				
	Parity 1 to 2	Parity 2 to 3	Parity 3 to 4	Parity 4 to 5	Parity 5 to 6
Sub-Saharan Africa					
Burkina Faso					
Urban	791	789	805	731	768
Rural	936	962	931	917	884
Cameroon					
Urban	844	807	832	924	815
Rural	936	882	899	921	791
Central African Republic					
Urban	781	831	837	814	761
Rural	800	799	837	867	887
Ghana					
Urban	757	809	757	580	502
Rural	921	914	845	848	787
Kenya					
Urban	638	676	727	748	578
Rural	906	870	865	822	725
Madagascar					
Urban	789	720	669	704	613
Rural	907	888	899	848	937
Namibia					
Urban	692	640	708	451	874
Rural	828	874	821	849	846
Niger					
Urban	897	899	894	898	904
Rural	964	924	947	936	907
Nigeria					
Urban	888	881	885	898	839
Rural	900	918	908	895	865
Rwanda					
Urban	899	792	850	801	645
Rural	899	912	911	885	812
Senegal					
Urban	841	904	800	845	807
Rural	903	924	922	954	940
Zambia					
Urban	853	894	856	796	842
Rural	898	946	914	883	937
Zimbabwe					
Urban	661	464	448	549	450
Rural	838	778	705	623	731
Asia/Near East/North Africa					
Bangladesh					
Urban	823	629	591	640	418
Rural	805	711	635	597	590
Egypt					
Urban	898	639	474	406	510
Rural	934	888	821	773	688
Indonesia					
Urban	711	484	498	269	403
Rural	655	512	579	507	503
Jordan					
Urban	960	919	926	816	831
Rural	973	984	926	925	863
Morocco					
Urban	731	726	685	507	657
Rural	859	878	935	865	783
Pakistan					
Urban	933	893	827	782	759
Rural	946	860	850	794	807
Philippines					
Urban	809	739	671	552	654
Rural	878	801	749	757	770
Turkey					
Urban	771	378	340	418	506
Rural	900	594	587	573	636
Latin America/Caribbean					
Bolivia					
Urban	742	718	583	562	541
Rural	848	912	828	830	862
Brazil					
Urban	717	563	441	372	401
Rural	881	789	773	789	683
Colombia					
Urban	592	489	447	385	361
Rural	709	682	636	578	652
Dominican Republic					
Urban	784	674	348	541	432
Rural	828	860	563	698	695
Paraguay					
Urban	823	502	472	477	512
Rural	747	842	781	750	811
Peru					
Urban	717	558	527	534	495
Rural	950	872	809	785	729

Note: Parity progression ratio is the proportion of women at each parity who attain the next parity.

Table 4.4 Parity progression ratios (quintum) for the 6-year period preceding the survey, by women's education, Demographic and Health Surveys, 1990-1995

Region country and education	Parity progression ratio				
	Parity 1 to 2	Parity 2 to 3	Parity 3 to 4	Parity 4 to 5	Parity 5 to 6
Sub-Saharan Africa					
Burkina Faso					
None	941	961	922	908	895
Primary	766	893	857	862	625
Secondary +	634	474	617	575	706
Cameroon					
None	945	831	902	921	724
Primary	910	905	878	951	876
Secondary +	828	740	736	745	865
Central African Republic					
None	809	800	811	824	812
Primary	827	851	876	939	909
Secondary +	657	754	855	677	*
Ghana					
None	935	898	867	893	795
Primary	880	868	815	763	573
Secondary +	532	840	514	98	*
Kenya					
None	928	843	893	882	723
Primary	859	881	876	804	731
Secondary +	780	737	734	742	616
Madagascar					
None	931	852	893	930	935
Primary	873	898	888	859	905
Secondary +	903	798	783	624	760
Malawi					
None	911	849	824	897	854
Primary	888	952	901	832	856
Secondary +	*	1000	*	784	736
Namibia					
None	676	931	813	858	815
Primary	764	818	833	739	822
Secondary +	802	666	678	586	1000
Niger					
None	957	921	943	932	904
Primary	955	930	929	884	956
Secondary +	875	885	889	836	*
Nigeria					
None	840	930	879	934	827
Primary	931	887	982	917	918
Secondary +	864	881	821	759	711
Rwanda					
None	871	932	913	898	823
Primary	904	892	910	879	799
Secondary +	915	761	891	534	669
Senegal					
None	906	957	910	934	902
Primary	859	855	902	889	882
Secondary +	683	604	616	747	679
Zambia					
None	921	873	869	879	985
Primary	907	939	922	864	914
Secondary +	870	923	885	832	875
Zimbabwe					
None	815	*	732	739	737
Primary	831	780	647	576	681
Secondary +	748	517	494	418	363
Asia/Near East/North Africa					
Bangladesh					
None	832	741	706	651	568
Primary	804	701	542	547	548
Secondary +	760	544	389	471	533
Egypt					
None	956	885	801	688	648
Primary	877	785	616	625	628
Secondary +	891	635	468	370	359
Indonesia					
None	683	493	619	459	603
Primary	629	498	554	479	468
Secondary +	728	520	509	279	415
Jordan					
None	*	993	922	916	747
Primary	972	904	936	895	849
Secondary +	958	932	929	820	859
Morocco					
None	841	861	897	812	767
Primary	694	744	630	319	588
Secondary +	731	632	421	328	*
Pakistan					
None	935	874	827	803	808
Primary	970	955	772	919	648
Secondary +	965	884	977	632	605
Philippines					
None	*	813	879	870	920
Primary	916	879	785	719	745
Secondary +	810	716	654	596	662
Turkey					
None	961	831	710	610	698
Primary	820	378	359	360	393
Secondary +	700	246	140	*	*
Latin America/Caribbean					
Bolivia					
None	924	799	839	851	771
Primary	854	900	838	723	761
Secondary +	707	708	477	510	531
Brazil					
None	795	708	754	830	708
Primary	784	701	616	809	569
Secondary +	689	499	167	138	251
Colombia					
None	*	842	582	711	668
Primary	679	662	551	523	538
Secondary +	585	436	463	319	316
Dominican Republic					
None	861	793	709	735	736
Primary	808	798	478	652	597
Secondary +	792	655	284	300	125
Paraguay					
None	*	520	*	656	*
Primary	817	704	688	700	730
Secondary +	786	530	432	320	317
Peru					
None	976	849	915	831	760
Primary	932	771	719	723	583
Secondary +	707	573	494	454	536

Note: Parity progression ratio is the proportion of women at each parity who attain the next parity.
An asterisk indicates there are too few cases to show the parity progression ratio.

In Asia/Near East/North Africa, the PPRs from parity 1 to 2 in Bangladesh are 54 percent for women with higher education and 74 percent for women with no education. By the time women in Bangladesh reach parity 3, the proportion who have another child within 5 years ranges from 39 percent for women with secondary education to 71 percent for women with no education. A similar pattern of education differentials can be observed in Egypt, where less than half (47 percent) of women with secondary or higher education progress from parity 3 to 4, compared with 80 percent for women with no schooling. In Jordan, only a small differential in the PPR is observed even for women with higher education, while in Morocco, the PPRs are much lower for educated women than for uneducated women.

In most of the countries of Latin America/Caribbean, especially Brazil and Colombia, the PPRs for women with secondary education are very low in the lower parities. In Brazil, the PPR from parity 2 to 3 for women with secondary education is 50 percent, which declines to 17 percent for the progression from parity 3 to 4. By contrast, the PPR for women with primary education is 70 percent for the progression from parity 2 to 3.

4.2.3 Birth Intervals

In Kenya and Zimbabwe where the PPRs are the lowest in sub-Saharan Africa, birth intervals are nevertheless as long as birth intervals found in Burkina Faso and Cameroon (Table 4.5). Long birth intervals are also observed in Ghana (greater than 36 months). In Asia/Near East/North Africa, particularly in Bangladesh and Indonesia, birth intervals are greater than 34 months. On the other hand, birth intervals in Jordan are relatively short (about 24 months), which may be associated with early resumption of sexual relations, a shorter period of breastfeeding, and low use of contraceptive methods (Zou'bi et al., 1992). Birth intervals in Latin America/Caribbean are slightly shorter than those observed in sub-Saharan Africa. In sub-Saharan Africa, the length of birth intervals is typically associated with lengthy periods of postpartum abstinence and amenorrhea (Mboup, 1997), whereas in Latin America/Caribbean and Asia/Near East/North Africa (except in Jordan), long birth intervals are typically related to the use of contraceptive methods (Rodriguez et al., 1984).

4.2.4 Socioeconomic Differences in Birth Intervals

Urban-Rural Residence

The countries in sub-Saharan Africa can be grouped according to three variations in the birth interval and residence. In the first group, birth intervals are long for both urban and rural residence, and there is no clear relationship by residence. Burkina Faso, Cameroon, the Central African Republic, Madagascar, Niger, Nigeria, Rwanda, Senegal, and Zambia are in this category. In the second group—Ghana, Kenya, and Namibia—birth intervals are generally longer in urban areas than in rural areas; however, some differences among the 3 countries can be observed. With increasing parity, the length of the birth interval increases in urban areas, but remains the same in rural areas. Finally, Zimbabwe is in the third group, where birth intervals are longer in rural areas through parity 4. After parity 4, birth intervals are longer in urban areas (Table 4.6).

There is no discernible pattern among the countries in Asia/Near East/North Africa. Birth intervals are long both in urban areas and in rural areas of Bangladesh and Indonesia. However, in Indonesia, after parity 4, birth intervals become shorter. In Jordan, the length of birth intervals is short for both types of residence, and birth intervals are longer in urban areas than in rural areas of Morocco. In the Philippines, birth intervals are moderate in length, and no notable urban-rural differences are found. In Turkey, birth intervals are longer in urban areas than in rural areas up to parity 3. After parity 3, the differences are small and inconsistent.

In the countries in Latin America/Caribbean, birth intervals tend to be longer in urban areas than in rural areas only until parity 3. At higher parities (4 or more), differences narrow and do not always favor urban areas. Only the Dominican Republic and Peru have birth intervals that are longer in urban areas than in rural areas for all parities.

Women's Education

One would expect that changes in fertility among educated women would begin by reductions in the length of breastfeeding and postpartum abstinence, followed by contraceptive practice, which would then lead to shorter birth intervals among educated women. In sub-Saharan Africa, this situation is not confirmed in Cameroon, the Central African Republic, Malawi, Niger, or Zambia. In Ghana, however, birth intervals are longer among educated women than among uneducated women after parity 2. Variations, however, are irregular after parity 4. In Madagascar and Senegal, birth intervals are longer for women with no education at almost all parities. In Zimbabwe, birth intervals are relatively long for both educated and uneducated women (Table 4.7).

There are several patterns observed in countries in Asia/Near East/North Africa. First, the length of birth intervals in Bangladesh is long for all educational groups until parity 3; thereafter, educational differences in birth intervals are irregular. In Egypt, shorter birth intervals are noted until parity 3 for uneducated women. Birth intervals in Indonesia are longer for educated women than for women with no education until parity 3. In Morocco, for almost all parities, birth interval lengths are longer for educated women than for women with no education.

In Bolivia, the length of birth intervals is relatively moderate, with no consistent differences by education. Birth intervals are longer in Northeast Brazil for educated women than for uneducated women until parity 3. A similar situation is observed in Colombia. In Paraguay, differences in birth intervals are small among the three educational groups. For Peru, birth intervals are longer for educated women, in particular for women with secondary education.

Table 4.5 Birth intervals (trimean) for the 6-year period preceding the survey, Demographic and Health Surveys, 1990-1995

Region and country	Birth interval (trimean)				
	Parity 1 to 2	Parity 2 to 3	Parity 3 to 4	Parity 4 to 5	Parity 5 to 6
Sub-Saharan Africa					
Burkina Faso	33.3	34.7	33.4	35.3	35.2
Cameroon	30.9	28.7	28.5	32.5	31.2
Central African Republic	29.3	31.4	31.4	32.4	33.9
Ghana	37.9	36.8	37.4	38.0	37.8
Kenya	29.0	29.9	30.9	32.0	29.1
Madagascar	27.2	27.4	28.5	29.1	30.3
Malawi	30.5	30.6	31.6	32.2	31.9
Namibia	33.1	32.7	33.1	30.5	31.6
Niger	28.0	29.8	30.1	29.7	29.8
Nigeria	28.1	31.2	30.9	31.4	31.4
Rwanda	29.4	30.8	32.8	32.2	32.1
Senegal	30.9	31.8	31.3	32.8	33.5
Zambia	30.3	30.5	31.5	31.8	32.9
Zimbabwe	35.5	35.7	35.0	37.9	38.6
Asia/Near East/North Africa					
Bangladesh	35.7	35.7	35.0	36.7	30.8
Egypt	25.7	29.5	31.3	30.3	29.6
Indonesia	35.6	36.1	40.7	33.5	34.8
Jordan	18.9	22.2	23.8	23.7	25.3
Morocco	26.7	32.1	33.8	32.1	31.4
Pakistan	26.8	28.7	30.7	29.9	31.9
Philippines	24.7	27.3	28.6	28.4	30.0
Turkey	31.4	31.5	30.1	31.4	30.2
Latin America/Caribbean					
Bolivia	27.3	29.8	29.2	28.9	29.0
Brazil	27.9	29.4	27.3	26.4	21.7
Colombia	30.9	29.9	32.9	27.4	29.3
Dominican Republic	26.7	26.9	25.9	29.7	33.9
Paraguay	29.0	27.4	25.5	25.3	22.9
Peru	29.0	29.9	29.3	30.0	30.2

Table 4.6 Birth intervals (trimean) for the 6-year period preceding the survey, by urban-rural residence, Demographic and Health Surveys, 1990-1995

Region, country, and residence	Birth interval (trimean)				
	Parity 1 to 2	Parity 2 to 3	Parity 3 to 4	Parity 4 to 5	Parity 5 to 6
Sub-Saharan Africa					
Burkina Faso					
Urban	33.1	36.0	33.8	33.5	36.9
Rural	33.3	34.5	33.4	35.4	35.1
Cameroon					
Urban	31.1	26.4	28.3	31.0	33.2
Rural	31.3	30.1	28.8	34.6	30.0
Central African Republic					
Urban	29.3	33.2	31.1	33.5	29.9
Rural	29.2	30.6	32.2	31.6	36.2
Ghana					
Urban	40.0	41.2	41.5	41.1	33.0
Rural	37.1	35.7	36.4	37.2	39.3
Kenya					
Urban	27.6	34.8	33.8	38.4	31.4
Rural	29.2	29.4	30.4	31.9	29.0
Madagascar					
Urban	29.9	27.8	28.2	28.4	27.6
Rural	26.9	27.3	28.5	29.2	30.6
Namibia					
Urban	35.5	35.9	39.1	28.7	39.6
Rural	31.8	30.9	32.0	29.8	30.4
Niger					
Urban	27.0	29.5	29.5	31.1	29.9
Rural	28.1	29.8	30.1	29.5	29.8
Nigeria					
Urban	28.6	30.1	30.5	30.9	31.5
Rural	28.8	30.4	31.3	30.3	30.3
Rwanda					
Urban	30.9	30.3	32.9	32.1	31.6
Rural	29.3	30.9	32.7	32.2	32.1
Senegal					
Urban	30.8	32.0	30.1	31.0	32.2
Rural	31.1	31.4	32.1	33.3	34.1
Zambia					
Urban	31.0	30.7	31.9	31.6	32.8
Rural	30.0	30.5	31.2	32.2	32.8
Zimbabwe					
Urban	35.4	34.1	34.2	45.0	44.1
Rural	35.5	36.1	35.5	36.9	37.4
Asia/Near East/North Africa					
Bangladesh					
Urban	36.9	35.9	35.3	35.6	30.6
Rural	35.4	35.6	34.8	36.8	30.7
Egypt					
Urban	27.5	33.2	32.5	26.5	29.9
Rural	24.3	28.1	30.9	32.2	29.3
Indonesia					
Urban	36.5	39.7	42.7	32.8	32.2
Rural	35.1	35.2	39.7	33.9	34.9
Jordan					
Urban	18.8	22.6	25.2	23.9	25.7
Rural	19.1	21.4	22.0	22.9	24.4
Morocco					
Urban	30.7	35.1	37.9	36.8	40.2
Rural	24.9	29.9	32.2	30.7	30.1
Pakistan					
Urban	24.4	26.9	28.7	27.4	30.2
Rural	29.5	31.3	33.1	32.4	33.3
Philippines					
Urban	24.4	26.7	28.5	26.5	28.6
Rural	24.8	27.7	28.6	29.5	30.5
Turkey					
Urban	33.5	33.7	28.7	32.1	31.4
Rural	27.0	28.9	31.1	30.5	30.0
Latin America/Caribbean					
Bolivia					
Urban	28.9	30.4	30.5	29.0	27.5
Rural	25.6	28.7	28.2	28.9	29.3
Brazil					
Urban	29.8	31.1	27.4	23.9	22.6
Rural	25.5	26.7	27.4	28.0	21.6
Colombia					
Urban	34.0	32.7	34.4	25.7	31.1
Rural	24.9	26.3	30.2	29.1	28.7
Dominican Republic					
Urban	27.7	28.7	27.0	34.6	43.9
Rural	25.1	24.8	24.8	25.2	29.6
Paraguay					
Urban	32.8	27.8	25.3	26.4	22.3
Rural	22.9	27.5	26.0	24.9	23.2
Peru					
Urban	29.6	32.5	31.0	30.1	30.3
Rural	27.1	26.8	28.2	29.4	30.0

Table 4.7 Birth intervals (trimean) for the 6-year period preceding to the survey, by women's education, Demographic and Health Surveys, 1990-1995

Region, country, and education	Birth interval (trimean)				
	Parity 1 to 2	Parity 2 to 3	Parity 3 to 4	Parity 4 to 5	Parity 5 to 6
Sub-Saharan Africa					
Burkina Faso					
None	33.6	34.8	33.2	35.1	35.2
Primary	30.9	33.5	34.4	39.9	34.4
Secondary +	31.2	28.7	38.2	37.6	37.3
Cameroon					
None	30.5	28.5	27.7	33.8	33.1
Primary	31.0	28.9	29.9	30.2	29.8
Secondary +	31.1	27.4	26.4	31.7	33.8
Central African Republic					
None	29.2	31.3	31.3	31.8	35.1
Primary	29.4	31.2	30.7	33.2	34.8
Secondary +	29.6	33.3	33.9	29.6	*
Ghana					
None	37.5	35.6	35.9	38.6	39.0
Primary	38.5	36.7	38.7	38.5	34.9
Secondary +	33.5	48.5	40.0	26.5	*
Kenya					
None	30.2	33.7	30.5	33.5	29.3
Primary	28.8	29.0	30.9	30.7	28.7
Secondary +	29.2	30.9	30.6	35.6	29.1
Madagascar					
None	29.6	26.2	31.4	28.7	33.5
Primary	26.4	27.1	27.8	28.9	29.8
Secondary +	29.1	28.8	27.9	27.7	28.5
Malawi					
None	30.2	31.2	33.2	33.8	31.3
Primary	30.2	30.3	30.8	30.8	32.4
Secondary +	*	35.0	*	33.2	53.3
Namibia					
None	33.5	31.4	31.6	35.3	27.1
Primary	30.7	30.5	34.0	30.2	31.4
Secondary +	36.4	35.0	33.5	24.8	38.0
Niger					
None	28.0	29.7	30.0	29.6	29.8
Primary	27.3	29.7	31.6	29.2	29.4
Secondary +	29.3	32.7	36.0	48.4	*
Nigeria					
None	28.4	33.6	32.2	31.6	31.3
Primary	27.7	28.9	28.9	31.0	31.2
Secondary +	27.9	27.6	26.8	29.8	34.2
Rwanda					
None	28.4	31.3	32.3	32.2	31.2
Primary	30.3	30.4	32.6	31.7	33.8
Secondary +	28.0	31.6	45.5	31.3	26.9
Senegal					
None	31.4	32.4	32.1	33.4	33.8
Primary	29.5	31.0	28.1	30.0	32.5
Secondary +	29.5	25.2	29.2	32.4	28.3
Zambia					
None	30.6	30.4	32.5	35.1	32.9
Primary	30.2	30.5	31.4	31.3	32.2
Secondary +	30.5	30.5	31.4	31.5	32.8
Zimbabwe					
None	36.4	*	35.6	37.8	38.1
Primary	35.2	36.0	35.2	38.1	38.1
Secondary +	35.7	33.4	34.0	32.8	51.2
Asia/Near East/North Africa					
Bangladesh					
None	34.2	34.9	35.6	37.1	30.0
Primary	35.8	37.0	34.0	34.3	31.8
Secondary +	41.2	40.8	29.7	40.3	32.4
Egypt					
None	24.7	28.0	29.0	29.4	27.9
Primary	25.1	29.7	34.2	35.2	31.2
Secondary +	26.8	32.1	34.9	27.9	30.1
Indonesia					
None	31.9	33.4	42.9	30.9	40.9
Primary	35.5	35.8	41.6	34.7	33.7
Secondary +	36.0	37.7	37.3	31.2	33.0
Jordan					
None	*	22.8	22.8	24.0	25.2
Primary	18.8	20.9	22.9	22.4	25.4
Secondary +	18.9	22.3	24.4	23.8	25.4
Morocco					
None	26.1	30.3	33.4	32.4	31.1
Primary	27.2	33.2	34.4	29.0	42.5
Secondary +	31.0	41.4	35.0	40.2	*
Pakistan					
None	28.4	29.9	30.7	30.7	32.5
Primary	24.1	27.2	27.4	28.8	28.4
Secondary +	22.7	28.4	30.3	26.4	32.2
Philippines					
None	*	29.8	26.0	33.6	22.2
Primary	24.0	26.3	28.8	28.0	29.2
Secondary +	24.8	27.7	28.5	28.4	33.4
Turkey					
None	23.8	28.6	30.2	28.1	30.6
Primary	30.2	32.0	30.2	36.7	27.0
Secondary +	43.9	40.3	23.0	*	*
Latin America/Caribbean					
Bolivia					
None	27.3	27.4	28.0	33.2	29.7
Primary	26.7	27.8	29.2	27.3	28.9
Secondary +	27.6	32.7	29.6	30.1	27.6
Brazil					
None	22.1	25.9	26.0	25.2	26.5
Primary	26.4	30.8	26.9	37.8	21.4
Secondary +	32.9	29.8	22.7	20.1	15.4
Colombia					
None	*	28.7	22.8	27.4	31.1
Primary	25.6	28.0	31.8	28.0	28.8
Secondary +	34.9	32.4	36.5	23.5	27.7
Dominican Republic					
None	25.6	35.8	26.1	27.8	35.2
Primary	23.6	25.5	25.0	30.8	31.5
Secondary +	30.0	29.2	27.8	16.3	32.4
Paraguay					
None	*	21.6	*	28.2	*
Primary	27.7	27.3	25.6	25.4	22.9
Secondary +	31.4	28.2	24.7	22.6	20.8
Peru					
None	29.2	26.8	27.5	28.4	27.6
Primary	27.2	26.1	27.3	29.0	28.7
Secondary +	29.5	34.6	33.3	33.7	40.4

Note: An asterisk indicates there are too few cases to show the birth interval.

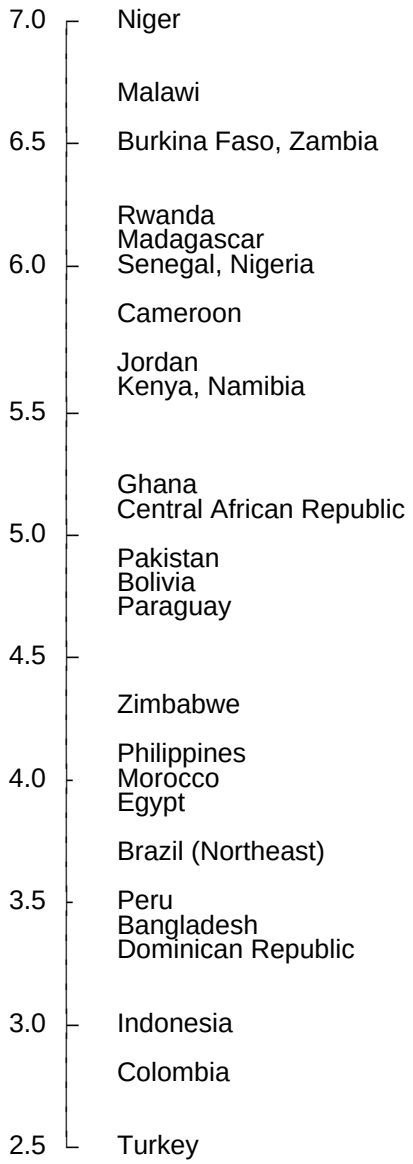
5 Conclusion

This study examines countries at different stages of the fertility transition. In Latin America/Caribbean and Asia/Near East/North Africa, the DHS results depict the magnitude of the continuing transition. The DHS results also assess the signs of the onset of the fertility transition in many countries in sub-Saharan Africa. Among the countries covered, Niger has the highest fertility level, while Turkey has the lowest. The total fertility rate (TFR) for women age 15-49 ranges from 2.5 to 7.0 children per woman (Figure 5.1). The countries can be classified into 5 groups by TFR level.

The first group includes 8 countries with TFRs between 6 and 7 children. All these countries are located in sub-Saharan Africa. They are Burkina Faso, Madagascar, Malawi, Niger, Nigeria, Rwanda, Senegal, and Zambia. With the exception of Rwanda, a majority of women in these countries have their first birth by age 20. Rwandan women are known for their late entry into motherhood, which is encouraged by the social structure, as noted in several studies (CEPED, 1992). After the first birth, the parity progression ratio (PPR) is more than 80 percent for higher parities in these countries. It is interesting to note, however, that the high level of fertility in these countries is not due to shorter birth intervals but rather is due to early entry into motherhood and to little limiting behavior (high PPRs). The length of birth intervals in these countries is among the longest, while contraceptive practice is low. This finding is consistent with the norm of traditional birth spacing due to the long period of postpartum amenorrhea (from breastfeeding) and abstinence. However, women in this group of countries who have secondary education, or whose husbands have a secondary education, have lower fertility rates and also have their first birth relatively late. The relatively low PPRs at high parities seem to indicate the use of contraception, as confirmed by DHS reports. Although overall fertility is still high in this group of countries, women who are living in urban areas and whose husbands have professional and clerical jobs generally have a lower TFR than their rural counterparts. The effect of women's work on fertility is in the opposite direction only in Rwanda, where women who are working have more children than women who are not working.

In the second group, 6 countries with TFRs ranging from 5 to 5.9 children per woman are identified. Five countries are in sub-Saharan Africa (Cameroon, Central African Republic, Ghana, Kenya, and Namibia), and 1 country is in Asia/Near East/North Africa (Jordan). Fertility transition for this group is mixed. Fertility has started declining, mostly in the urban areas and among women with higher education levels, in countries such as Ghana, Jordan, Kenya, and Namibia. On the other hand, the lower fertility levels observed in Cameroon and the Central African Republic may be associated with high levels of sterility (Libité et al., 1995; Ndamobissi et al., 1995). In Cameroon and the Central African Republic, women who have a primary education seem to have more children than women who are uneducated. Women in Cameroon, the Central African Republic, and Kenya enter into motherhood as early as women observed in the first group of countries (before age 20). The majority of women from Ghana, Jordan, and Namibia have their first birth after age 20. PPRs are high, that is, they exceed or are equal to 80 percent for all parities in Cameroon, the Central African Republic, and Jordan. The proportion progressing from parity 5 to parity 6 is less than 80 percent in Ghana and Kenya. The variations in PPR are irregular in Namibia, but they are still close to 80 percent. In Cameroon and the Central African Republic, the effect of primary education is not important, while education has a small

Figure 5.1 Fertility levels in selected DHS countries, Demographic and Health Surveys, 1990-1995



negative effect on fertility in Ghana, Jordan, Kenya, and Namibia.

The third group includes countries with TFRs of 4 to 4.9 children per woman. These countries are mainly located in Asia/Near East/North Africa (Morocco, Pakistan, and the Philippines) and in Latin America/Caribbean (Bolivia and Paraguay). Zimbabwe in sub-Saharan Africa is the only country located outside these regions. All these countries have already experienced substantial fertility declines, although the declines did not occur at the same time. The timing of onset of reproduction has contributed less to fertility levels in Zimbabwe, where age at first birth is as early as that observed in the first group of countries. For Zimbabwe, limiting births plays a significant role, with relatively low parity progression ratios and long birth intervals. In Bolivia, Morocco, Pakistan, the Philippines, and Paraguay, low fertility levels are associated with late entry into motherhood as well as with birth spacing and/or limiting (for Morocco and Egypt, see Ayad, 1995). Urbanization and women's education play an important role in fertility variations. The TFR is low in urban areas as well as in rural areas in this group of countries; however, the urban-rural difference in fertility is more pronounced in Bolivia, Morocco, and Paraguay. In Bolivia and Zimbabwe, there is only a slight negative effect of primary education, while in Morocco and Paraguay the effect is stronger, and women who have primary education have fewer children than women who are uneducated. In the Philippines, the opposite is observed, that is, women who have primary education have more children than women who are uneducated.

The fourth group includes 6 countries with TFRs of 3 to 3.9 children per woman. They are located in Asia/Near East/North Africa (Bangladesh, Egypt, and Indonesia) and in Latin America/Caribbean (Northeast Brazil, the Dominican Republic, and Peru). As indicated by their TFR levels, these countries have advanced far in the fertility transition. For 5 countries (Brazil, the Dominican Republic, Egypt, Indonesia, and Peru) entry into motherhood is delayed until age 20. But for Bangladesh, the onset of reproduction is earlier (before age 18) than that observed in the first group, which has the highest TFR. The fertility level in Bangladesh is due much more to birth limitation and spacing after the first birth than to a delay in the entry into reproduction. In Bangladesh, the PPR is about 81 percent from parity 1 to 2; less than 70 percent of women move to the next parity. When they reach parity 5, less than 60 percent move to parity 6. The low fertility levels in Brazil, the Dominican Republic, Egypt, Indonesia, and Peru are due to the combined effects of delay in the onset of reproduction and use of contraception. Low fertility levels are observed in urban areas as well as in rural areas. Fertility differences by education and other socioeconomic variables are greater in countries in Latin American/Caribbean than those in Asia/Near East/North Africa.

The fifth group of countries (Colombia and Turkey) has the lowest fertility levels among all the countries, with TFRs from 2 to 2.9. Delay in the entry into motherhood contributes little to fertility levels in Turkey, where the median age at first birth is less than 21 years. The fertility transition in Turkey may be due to a decrease in PPRs and to an increase in the length of birth intervals. Between parity 2 and parity 5, less than half of Turkish women move to a higher parity. In Colombia, despite the low fertility level, the PPRs are higher than those observed in Turkey. In fact, in Colombia, the delay in age at first birth may play an important role in the fertility transition. In this group of countries, a low level of fertility is observed among all subgroups of women.

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Appendix A

Age-specific fertility rates by selected background characteristics, Demographic and Health Surveys, 1990-1995

Table A.1 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Burkina Faso, 1993

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.096	0.210	0.217	0.172	0.145	0.060	0.021
Rural	0.167	0.302	0.302	0.249	0.207	0.113	0.054
Education							
No education	0.170	0.296	0.298	0.244	0.203	0.105	0.052
Primary	0.127	0.268	0.245	0.195	0.160	0.133	0.000
Secondary +	0.045	0.169	0.141	0.138	(0.079)	(0.038)	*
Migration status							
Urban native	0.098	0.199	0.194	0.160	0.139	0.039	(0.009)
Rural-to-urban	0.090	0.241	0.272	0.190	0.154	0.080	(0.032)
Urban-to-rural	0.127	(0.311)	(0.271)	(0.238)	(0.150)	(0.119)	*
Rural native	0.171	0.301	0.305	0.251	0.211	0.113	0.055
Employment status							
Working	0.169	0.280	0.283	0.241	0.193	0.103	0.032
Not working	0.130	0.287	0.289	0.225	0.204	0.110	0.081
Total	0.149	0.283	0.285	0.235	0.196	0.105	0.049

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer then 50 cases and has been suppressed.

Table A.2 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Cameroon, 1991

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.130	0.273	0.250	0.189	0.130	0.049	(0.013)
Rural	0.189	0.290	0.268	0.261	0.160	0.067	0.023
Education							
No education	0.227	0.316	0.242	0.229	0.141	0.062	0.023
Primary	0.193	0.310	0.284	0.256	0.161	0.069	0.014
Secondary +	0.098	0.222	0.251	0.171	(0.145)	(0.021)	*
Migration status							
Urban native	0.121	0.277	0.253	0.189	0.143	(0.054)	(0.000)
Rural-to-urban	0.157	0.263	0.243	0.192	0.112	(0.043)	0.026
Urban-to-rural	0.165	(0.233)	(0.275)	(0.304)	(0.135)	(0.062)	*
Rural native	0.195	0.304	0.263	0.254	0.164	0.068	0.017
Employment status							
Working	0.226	0.280	0.262	0.233	0.130	0.066	0.024
Not working	0.127	0.284	0.255	0.215	0.204	(0.048)	*
Total	0.164	0.282	0.260	0.228	0.149	0.062	0.020

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer then 50 cases and has been suppressed.

Table A.3 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Central African Republic, 1994-95

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.153	0.219	0.221	0.195	0.118	0.048	0.018
Rural	0.157	0.251	0.237	0.191	0.117	0.069	0.025
Education							
No education	0.167	0.240	0.230	0.190	0.119	0.058	0.025
Primary	0.153	0.246	0.245	0.218	0.125	0.071	(0.008)
Secondary +	0.129	0.208	0.204	0.143	(0.065)	*	*
Migration status							
Urban native	0.148	0.219	0.222	0.187	0.107	0.046	0.018
Rural-to-urban	(0.196)	(0.217)	(0.213)	(0.238)	(0.170)	(0.045)	(0.020)
Urban-to-rural	0.170	0.268	0.224	0.167	0.099	(0.052)	(0.015)
Rural native	0.153	0.244	0.242	0.199	0.122	0.074	0.028
Employment status							
Working	0.175	0.247	0.228	0.191	0.114	0.061	0.023
Not working	0.124	0.205	0.243	0.202	0.148	(0.052)	(0.019)
Total	0.155	0.237	0.231	0.192	0.117	0.060	0.023

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer then 50 cases and has been suppressed.

Table A.4 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Ghana, 1993

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.086	0.157	0.190	0.167	0.097	0.036	(0.006)
Rural	0.139	0.264	0.257	0.232	0.167	0.112	0.029
Education							
No education	0.163	0.254	0.262	0.235	0.158	0.106	0.025
Primary	0.117	0.230	0.229	0.201	0.133	0.071	(0.020)
Secondary +	0.030	0.081	0.152	0.151	(0.122)	(0.032)	*
Migration status							
Urban native	0.084	0.151	0.181	0.167	0.095	0.031	(0.000)
Rural-to-urban	(0.104)	(0.186)	(0.241)	(0.169)	(0.104)	(0.051)	*
Urban-to-rural	0.136	0.283	0.249	0.205	0.190	0.094	0.027
Rural native	0.140	0.256	0.260	0.245	0.158	0.118	0.030
Employment status							
Working	0.159	0.228	0.225	0.207	0.139	0.085	0.019
Not working	0.079	0.204	0.280	0.224	(0.181)	(0.104)	(0.054)
Total	0.116	0.221	0.233	0.209	0.143	0.087	0.022

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.5 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Kenya, 1993

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.074	0.176	0.178	0.133	0.074	(0.034)	(0.021)
Rural	0.119	0.281	0.258	0.209	0.166	0.074	0.053
Education							
No education	0.156	0.270	0.249	0.236	0.169	0.074	0.052
Primary	0.129	0.275	0.259	0.196	0.156	0.074	0.049
Secondary +	0.057	0.222	0.210	0.158	0.103	(0.019)	(0.037)
Migration status							
Urban native	0.047	0.170	0.203	(0.085)	(0.074)	(0.036)	*
Rural-to-urban	0.090	0.179	0.165	0.156	(0.068)	(0.035)	*
Urban-to-rural	0.151	0.267	0.262	0.188	(0.081)	(0.040)	*
Rural native	0.115	0.283	0.257	0.212	0.174	0.077	0.057
Employment status							
Working	0.144	0.253	0.231	0.182	0.142	0.063	0.035
Not working	0.095	0.262	0.257	0.221	0.171	0.081	0.070
Total	0.110	0.257	0.241	0.197	0.154	0.070	0.050

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.6 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Madagascar, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.075	0.180	0.215	0.171	0.096	0.031	(0.000)
Rural	0.178	0.293	0.285	0.242	0.215	0.104	0.023
Education							
No education	0.201	0.306	0.258	0.223	0.188	0.097	0.034
Primary	0.181	0.300	0.298	0.242	0.220	0.100	0.009
Secondary +	0.090	0.218	0.240	0.188	0.103	0.023	(0.000)
Migration status							
Urban native	0.074	0.173	0.216	0.164	0.093	0.036	(0.000)
Rural-to-urban	0.079	0.210	0.211	0.193	(0.106)	(0.016)	(0.000)
Urban-to-rural	0.184	0.294	0.255	0.212	0.188	(0.103)	(0.000)
Rural native	0.176	0.292	0.293	0.250	0.221	0.104	0.028
Employment status							
Working	0.167	0.277	0.272	0.226	0.188	0.085	0.017
Not working	0.131	0.247	0.270	0.226	0.211	0.111	(0.025)
Total	0.157	0.270	0.272	0.226	0.192	0.089	0.019

Note: Rates in parentheses are based on 50-199 cases.

Table A.7 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Malawi, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Education							
No education	0.213	0.275	0.259	0.245	0.230	0.141	0.068
Primary	0.142	0.311	0.281	0.273	0.155	0.090	0.032
Secondary +	0.053	0.182	(0.225)	(0.249)	(0.107)	(0.057)	*
Employment status							
Working	0.174	0.285	0.260	0.242	0.152	0.075	0.042
Not working	0.158	0.288	0.271	0.261	0.218	0.141	0.062
Total	0.161	0.287	0.268	0.255	0.197	0.120	0.058

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.8 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Namibia, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.110	0.172	0.192	0.154	0.114	0.046	0.010
Rural	0.108	0.231	0.279	0.249	0.204	0.135	0.053
Education							
No education	0.204	0.282	0.256	0.198	0.187	0.130	0.051
Primary	0.116	0.254	0.275	0.229	0.178	0.111	0.036
Secondary +	0.088	0.157	0.207	0.185	0.123	0.048	(0.014)
Migration status							
Urban native	0.094	0.176	0.163	0.143	0.069	0.036	(0.005)
Rural-to-urban	0.134	0.168	0.217	0.163	0.160	(0.059)	(0.014)
Urban-to-rural	(0.175)	(0.242)	(0.275)	(0.170)	*	*	*
Rural native	0.106	0.232	0.281	0.255	0.211	0.142	0.056
Employment status							
Working	0.157	0.186	0.215	0.176	0.132	0.090	0.022
Not working	0.099	0.218	0.264	0.233	0.191	0.117	0.049
Total	0.109	0.207	0.241	0.208	0.166	0.105	0.037

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.9 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Niger, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.168	0.278	0.284	0.234	0.175	0.107	0.035
Rural	0.225	0.323	0.304	0.256	0.187	0.090	0.039
Education							
No education	0.225	0.317	0.303	0.252	0.187	0.093	0.039
Primary	0.216	0.324	0.304	(0.286)	(0.146)	*	*
Secondary +	0.066	0.256	0.219	(0.172)	*	*	*
Migration status							
Urban native	0.152	0.271	0.263	0.206	0.161	0.082	(0.038)
Rural-to-urban	0.215	0.290	0.314	0.271	0.188	0.132	(0.031)
Urban-to-rural	(0.239)	(0.322)	(0.264)	(0.138)	*	*	*
Rural native	0.225	0.323	0.305	0.262	0.190	0.085	0.041
Employment status							
Working	0.209	0.319	0.290	0.253	0.186	0.082	0.028
Not working	0.217	0.313	0.309	0.252	0.184	0.106	0.055
Total	0.215	0.315	0.300	0.252	0.185	0.092	0.039

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.10 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Nigeria, 1990

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.093	0.199	0.255	0.223	0.145	0.057	0.034
Rural	0.166	0.280	0.265	0.219	0.164	0.100	0.071
Education							
No education	0.217	0.273	0.263	0.214	0.167	0.102	0.063
Primary	0.144	0.307	0.291	0.250	0.138	0.066	(0.060)
Secondary +	0.062	0.185	0.224	0.187	0.123	(0.004)	*
Migration status							
Urban native	0.089	0.194	0.253	0.219	0.148	0.048	(0.050)
Rural-to-urban	0.114	0.218	0.263	0.234	0.136	(0.081)	(0.010)
Urban-to-rural	0.107	0.265	0.282	0.261	0.119	0.096	(0.076)
Rural native	0.177	0.282	0.262	0.213	0.170	0.101	0.071
Employment status							
Working	0.175	0.269	0.266	0.219	0.157	0.091	0.063
Not working	0.127	0.240	0.255	0.222	0.167	0.098	(0.067)
Total	0.146	0.258	0.263	0.220	0.159	0.092	0.064

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.11 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Rwanda, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.043	0.184	0.242	0.230	0.111	(0.082)	(0.012)
Rural	0.061	0.231	0.298	0.273	0.220	0.137	0.048
Education							
No education	0.110	0.276	0.323	0.269	0.218	0.145	0.059
Primary	0.051	0.220	0.286	0.280	0.212	0.116	(0.012)
Secondary +	0.017	0.140	0.215	0.196	(0.187)	(0.094)	*
Migration status							
Urban native	0.070	0.170	0.201	(0.212)	(0.099)	(0.055)	*
Rural-to-urban	0.019	0.191	0.263	0.241	0.118	(0.100)	(0.018)
Urban-to-rural	(0.047)	*	*	*	*	*	*
Rural native	0.061	0.232	0.299	0.273	0.219	0.138	0.047
Employment status							
Working	0.068	0.233	0.296	0.270	0.216	0.136	0.047
Not working	0.012	0.103	(0.197)	(0.283)	(0.102)	*	*
Total	0.060	0.227	0.294	0.270	0.214	0.135	0.046

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.12 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Senegal1992-93

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.078	0.199	0.231	0.225	0.172	0.095	0.013
Rural	0.167	0.290	0.292	0.257	0.193	0.101	0.047
Education							
No education	0.163	0.277	0.283	0.255	0.191	0.099	0.033
Primary	0.080	0.244	0.247	0.218	0.170	(0.128)	*
Secondary +	0.038	0.098	0.167	0.193	(0.140)	(0.065)	*
Migration status							
Urban native	0.066	0.188	0.216	0.210	0.158	0.084	(0.007)
Rural-to-urban	0.115	0.221	0.265	0.252	0.206	0.115	(0.023)
Urban-to-rural	(0.173)	(0.323)	(0.290)	(0.272)	(0.209)	(0.122)	*
Rural native	0.164	0.289	0.292	0.256	0.193	0.102	0.051
Employment status							
Working	0.145	0.261	0.256	0.241	0.179	0.095	0.022
Not working	0.119	0.244	0.276	0.247	0.194	0.105	0.051
Total	0.127	0.250	0.266	0.244	0.185	0.099	0.034

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.13 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Zambia, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.133	0.263	0.265	0.222	0.171	0.078	0.028
Rural	0.184	0.328	0.276	0.264	0.221	0.121	0.032
Education							
No education	0.199	0.333	0.264	0.232	0.249	0.121	0.029
Primary	0.177	0.319	0.281	0.265	0.194	0.097	0.033
Secondary +	0.093	0.232	0.250	0.187	0.148	(0.076)	*
Migration status							
Urban native	0.129	0.257	0.257	0.218	0.167	(0.077)	(0.011)
Rural-to-urban	0.149	0.281	0.282	0.230	0.174	0.078	(0.037)
Urban-to-rural	0.170	0.304	0.264	0.206	(0.229)	(0.102)	(0.059)
Rural native	0.188	0.337	0.281	0.279	0.221	0.125	0.027
Employment status							
Working	0.195	0.292	0.259	0.234	0.185	0.111	0.032
Not working	0.137	0.296	0.287	0.256	0.210	0.096	0.028
Total	0.156	0.294	0.271	0.242	0.194	0.105	0.031

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.14 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Zimbabwe, 1994

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.072	0.169	0.163	0.132	0.069	0.009	(0.004)
Rural	0.113	0.232	0.211	0.194	0.137	0.066	0.016
Education							
No education	0.155	0.247	0.180	0.222	0.132	0.083	0.023
Primary	0.147	0.233	0.201	0.172	0.119	0.046	0.011
Secondary +	0.068	0.194	0.189	0.128	0.077	(0.008)	(0.000)
Migration status							
Urban native	0.066	0.169	0.143	0.113	(0.044)	(0.018)	*
Rural-to-urban	0.078	0.171	0.177	0.142	0.082	0.005	(0.005)
Urban-to-rural	0.141	0.214	0.214	(0.192)	(0.107)	(0.049)	*
Rural native	0.110	0.235	0.211	0.195	0.139	0.068	0.017
Employment status							
Working	0.116	0.198	0.186	0.156	0.111	0.040	0.011
Not working	0.090	0.222	0.207	0.202	0.127	0.072	0.017
Total	0.099	0.210	0.194	0.172	0.117	0.052	0.014

Note: Rates in parentheses are based on 50-199 cases. An asterisk indicates the rate is based on fewer than 50 cases and has been suppressed.

Table A.15 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Bangladesh, 1993-94

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.081	0.178	0.134	0.082	0.041	0.004	0.017
Rural	0.148	0.198	0.161	0.108	0.058	0.021	0.013
Education							
No education	0.174	0.209	0.171	0.118	0.057	0.024	0.013
Primary	0.157	0.205	0.138	0.093	0.054	0.012	0.014
Secondary +	0.078	0.155	0.144	0.069	0.052	0.000	0.017
Total	0.140	0.196	0.158	0.105	0.056	0.019	0.014

Table A.16 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Egypt, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.028	0.145	0.188	0.130	0.064	0.026	0.002
Rural	0.089	0.269	0.256	0.180	0.117	0.061	0.010
Education							
No education	0.135	0.281	0.245	0.173	0.109	0.054	0.008
Primary	0.079	0.241	0.209	0.131	0.071	0.042	0.003
Secondary +	0.025	0.138	0.204	0.152	0.069	0.006	0.001
Total	0.063	0.208	0.222	0.155	0.089	0.043	0.006

Table A.17 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Indonesia, 1994

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.034	0.108	0.141	0.105	0.057	0.016	0.001
Rural	0.078	0.170	0.155	0.110	0.073	0.038	0.005
Education							
No education	0.092	0.156	0.126	0.105	0.067	0.024	0.006
Primary	0.089	0.167	0.146	0.105	0.074	0.039	0.004
Secondary +	0.032	0.123	0.166	0.122	0.052	0.017	0.001
Total	0.061	0.147	0.150	0.109	0.068	0.031	0.004

Table A.18 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Jordan, 1990

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.048	0.208	0.277	0.237	0.173	0.068	0.013
Rural	0.051	0.251	0.346	0.339	0.232	0.111	0.039
Education							
No education	0.095	0.324	0.328	0.285	0.231	0.099	0.023
Primary	0.092	0.272	0.307	0.271	0.182	0.064	0.013
Secondary +	0.041	0.208	0.291	0.254	0.155	0.050	(0.012)
Total	0.049	0.219	0.296	0.264	0.188	0.079	0.019

Note: Rates in parentheses are based on 50-199 cases.

Table A.19 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Morocco, 1992

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.027	0.090	0.124	0.131	0.083	0.044	0.009
Rural	0.051	0.191	0.249	0.235	0.193	0.122	0.066
Education							
No education	0.058	0.184	0.221	0.207	0.161	0.097	0.043
Primary	0.034	0.099	0.111	0.100	0.086	0.032	(0.010)
Secondary +	0.013	0.065	0.104	0.143	0.045	(0.037)	(0.000)
Total	0.040	0.139	0.183	0.182	0.138	0.086	0.039

Note: Rates in parentheses are based on 50-199 cases.

Table A.20 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Pakistan, 1990-91

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.054	0.202	0.250	0.207	0.121	0.040	0.028
Rural	0.084	0.214	0.254	0.214	0.145	0.069	0.043
Education							
No education	0.100	0.220	0.251	0.222	0.144	0.066	0.044
Primary	0.060	0.247	0.241	0.179	0.119	0.023	(0.000)
Secondary +	0.024	0.159	0.270	0.177	0.092	0.030	(0.002)
Total	0.074	0.209	0.253	0.212	0.137	0.060	0.038

Table A.21 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Philippines, 1993

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.036	0.157	0.203	0.161	0.102	0.042	0.005
Rural	0.072	0.239	0.236	0.205	0.140	0.062	0.012
Education							
No education	(0.126)	(0.246)	(0.211)	(0.171)	(0.108)	(0.094)	(0.030)
Primary	0.112	0.282	0.265	0.213	0.154	0.066	0.010
Secondary +	0.036	0.162	0.198	0.161	0.092	0.033	0.004
Migration status							
Urban native	0.036	0.146	0.196	0.143	0.087	0.037	0.005
Rural-to-urban	0.035	0.178	0.212	0.183	0.117	0.048	0.005
Urban-to-rural	0.095	0.262	0.264	0.221	0.137	0.054	(0.012)
Rural native	0.070	0.236	0.235	0.203	0.141	0.064	0.012
Employment status							
Working	0.027	0.116	0.172	0.140	0.087	0.048	0.006
Not working	0.059	0.236	0.253	0.223	0.157	0.055	0.011
Total	0.050	0.190	0.217	0.181	0.120	0.051	0.008

Note: Rates in parentheses are based on 50-199 cases.

Table A.22 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Turkey, 1993

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.055	0.154	0.131	0.076	0.034	0.009	0.002
Rural	0.050	0.192	0.154	0.106	0.055	0.019	0.000
Education							
No education	0.133	0.255	0.202	0.136	0.075	0.023	0.002
Primary	0.059	0.179	0.125	0.072	0.024	0.005	0.000
Secondary +	0.019	0.104	0.122	0.065	0.019	0.005	(0.000)
Total	0.055	0.168	0.139	0.086	0.042	0.013	0.001

Note: Rates in parentheses are based on 50-199 cases.

Table A.23 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Bolivia, 1993-94

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.080	0.207	0.189	0.147	0.096	0.042	0.004
Rural	0.119	0.272	0.290	0.253	0.202	0.091	0.030
Education							
No education	0.143	0.274	0.311	0.254	0.196	0.092	0.021
Primary	0.146	0.290	0.284	0.237	0.166	0.070	0.018
Secondary +	0.068	0.191	0.171	0.114	0.066	0.021	0.002
Migration status							
Urban native	0.076	0.191	0.178	0.141	0.093	0.034	0.002
Rural-to-urban	0.132	0.302	0.266	0.185	0.112	0.080	0.010
Urban-to-rural	0.136	0.249	0.275	0.205	0.180	0.077	0.023
Rural native	0.115	0.285	0.298	0.274	0.206	0.096	0.032
Employment status							
Working	0.097	0.213	0.202	0.169	0.129	0.061	0.017
Not working	0.091	0.249	0.270	0.216	0.161	0.068	0.014
Total	0.094	0.229	0.227	0.185	0.138	0.064	0.016

Table A.24 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Brazil (NE), 1991

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.065	0.161	0.149	0.114	0.061	0.017	0.001
Rural	0.097	0.263	0.204	0.203	0.157	0.078	0.030
Education							
No education	0.170	0.338	0.193	0.224	0.145	0.064	0.025
Primary	0.080	0.215	0.177	0.141	0.078	0.024	0.002
Secondary +	0.025	0.089	0.129	0.090	0.047	0.010	0.000
Migration status							
Urban native	0.063	0.153	0.146	0.095	0.057	0.014	0.000
Rural-to-urban	0.072	0.185	0.157	0.152	0.068	0.020	0.003
Urban-to-rural	0.084	0.277	0.161	0.132	0.168	0.036	0.016
Rural native	0.100	0.261	0.211	0.215	0.155	0.085	0.033
Employment status							
Working	0.055	0.123	0.148	0.121	0.073	0.040	0.012
Not working	0.087	0.243	0.188	0.189	0.129	0.035	0.010
Total	0.076	0.193	0.168	0.150	0.096	0.038	0.011

Table A.25 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Colombia, 1990

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.063	0.148	0.137	0.091	0.056	0.011	0.003
Rural	0.090	0.222	0.178	0.115	0.083	0.033	0.005
Education							
No education	0.223	0.279	0.182	0.192	0.056	0.023	0.010
Primary	0.105	0.227	0.169	0.101	0.070	0.026	0.003
Secondary +	0.047	0.127	0.133	0.085	0.055	0.003	0.000
Migration status							
Urban native	0.065	0.142	0.140	0.090	0.060	0.010	0.002
Rural-to-urban	0.057	0.181	0.125	0.095	0.044	0.015	0.005
Urban-to-rural	0.112	0.229	0.129	0.128	0.064	0.008	0.000
Rural native	0.085	0.218	0.197	0.107	0.089	0.043	0.007
Employment status							
Working	0.054	0.103	0.111	0.074	0.050	0.020	0.004
Not working	0.075	0.202	0.181	0.120	0.076	0.016	0.003
Total	0.070	0.166	0.148	0.096	0.063	0.018	0.003

Table A.26 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Dominican Republic, 1991

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.071	0.177	0.157	0.110	0.046	0.003	0.005
Rural	0.123	0.282	0.216	0.128	0.083	0.030	0.021
Education							
No education	0.177	0.311	0.207	0.139	0.126	0.027	0.044
Primary	0.137	0.290	0.183	0.091	0.041	0.013	0.007
Secondary +	0.037	0.146	0.164	0.138	0.070	0.000	0.000
Migration status							
Urban native	0.071	0.172	0.161	0.120	0.048	0.002	0.008
Rural-to-urban	0.072	0.186	0.148	0.093	0.042	0.003	0.000
Urban-to-rural	0.126	0.269	0.139	0.162	0.046	0.018	0.000
Rural native	0.123	0.283	0.237	0.121	0.089	0.032	0.023
Employment status							
Working	0.074	0.153	0.146	0.105	0.046	0.007	0.000
Not working	0.094	0.251	0.201	0.129	0.069	0.017	0.018
Total	0.088	0.210	0.175	0.116	0.057	0.012	0.011

Table A.27 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Paraguay, 1990

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.068	0.171	0.189	0.148	0.101	0.048	0.003
Rural	0.128	0.264	0.252	0.264	0.199	0.096	0.026
Education							
No education	0.173	0.255	0.239	0.296	0.249	0.089	0.000
Primary	0.139	0.258	0.237	0.220	0.154	0.076	0.017
Secondary +	0.039	0.148	0.178	0.144	0.092	0.048	0.000
Migration status							
Urban native	0.060	0.164	0.189	0.147	0.096	0.049	0.003
Rural-to-urban	0.122	0.208	0.186	0.155	0.117	0.044	0.000
Urban-to-rural	0.130	0.206	0.188	0.232	0.161	0.072	0.000
Rural native	0.129	0.277	0.274	0.277	0.211	0.106	0.035
Employment status							
Working	0.061	0.122	0.152	0.130	0.107	0.054	0.014
Not working	0.116	0.272	0.257	0.259	0.178	0.083	0.011
Total	0.097	0.209	0.214	0.196	0.142	0.071	0.013

Table A.28 Age-specific fertility rates for the 3 years preceding the survey, by selected background characteristics, Peru, 1991-92

Background characteristic	Woman's age						
	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Residence							
Urban	0.041	0.134	0.152	0.118	0.075	0.027	0.004
Rural	0.141	0.305	0.258	0.232	0.177	0.091	0.033
Education							
No education	0.199	0.333	0.317	0.269	0.180	0.080	0.027
Primary	0.155	0.277	0.235	0.173	0.120	0.049	0.013
Secondary +	0.037	0.135	0.142	0.112	0.069	0.022	0.001
Migration status							
Urban native	0.038	0.128	0.148	0.108	0.073	0.025	0.004
Rural-to-urban	0.078	0.203	0.199	0.189	0.088	0.039	0.006
Urban-to-rural	0.146	0.322	0.226	0.237	0.172	0.090	0.005
Rural native	0.138	0.295	0.278	0.229	0.181	0.092	0.050
Employment status							
Working	0.064	0.150	0.151	0.130	0.085	0.040	0.013
Not working	0.060	0.201	0.214	0.167	0.125	0.045	0.009
Total	0.061	0.174	0.177	0.144	0.099	0.042	0.011

Appendix B

Duration-specific marital fertility rates by selected background characteristics, Demographic and Health Surveys, 1990-1995

Table B.1 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Burkina Faso, 1993

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.249	0.224	0.195	0.155	0.100	(0.040)
Rural	0.298	0.307	0.278	0.238	0.173	0.078
Migration status						
Urban native	0.246	0.216	0.175	0.136	0.091	(0.025)
Rural-to-urban	0.260	0.245	0.235	0.182	0.110	0.056
Urban-to-rural	0.299	(0.284)	(0.267)	(0.252)	(0.081)	(0.075)
Rural native	0.297	0.310	0.279	0.238	0.178	0.079
Education						
No education	0.295	0.301	0.276	0.230	0.163	0.076
Primary	0.301	0.270	0.204	0.190	0.161	0.049
Secondary +	0.204	0.163	0.091	(0.148)	(0.000)	(0.000)
Employment status						
Working	0.293	0.290	0.262	0.230	0.158	0.060
Not working	0.282	0.295	0.266	0.215	0.170	0.102
Husband's education						
No education	0.295	0.303	0.276	0.233	0.168	0.077
Primary	0.311	0.270	0.238	0.199	0.117	0.073
Secondary +	0.189	0.159	0.108	(0.087)	(0.066)	(0.022)
Husband's occupation						
Agriculture	0.304	0.311	0.279	0.235	0.171	0.072
Skilled/unskilled manual	0.266	0.270	0.248	0.238	0.158	0.138
Sales and services	0.262	0.247	0.201	0.169	0.135	0.058
Prof./Tech./Man./Clerical	0.189	0.148	0.092	(0.064)	(0.015)	(0.000)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.2 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Cameroon, 1991

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.299	0.300	0.226	0.192	0.105	(0.023)
Rural	0.290	0.289	0.269	0.245	0.132	0.065
Migration status						
Urban native	0.316	0.312	0.213	0.199	(0.139)	(0.013)
Rural-to-urban	0.261	0.278	0.243	0.178	0.059	0.037
Urban-to-rural	0.251	(0.294)	(0.303)	(0.288)	(0.043)	(0.042)
Rural native	0.301	0.288	0.261	0.238	0.146	0.069
Education						
No education	0.288	0.307	0.238	0.239	0.134	0.053
Primary	0.317	0.321	0.272	0.217	0.113	0.063
Secondary +	0.274	0.220	0.229	0.178	0.060	0.000
Employment status						
Working	0.314	0.280	0.252	0.231	0.105	0.058
Not working	0.273	0.313	0.242	0.209	0.173	(0.029)
Husband's education						
No education	0.279	0.315	0.239	0.239	0.144	0.061
Primary	0.340	0.299	0.262	0.228	0.109	0.023
Secondary +	0.274	0.268	0.252	0.197	0.076	0.076
Husband's occupation						
Agriculture	0.301	0.311	0.252	0.260	0.121	0.067
Skilled/unskilled manual	0.301	0.276	0.284	0.154	0.143	0.028
Sales and services	0.328	0.287	0.237	0.223	0.121	0.023
Prof./Tech./Man./Clerical	0.256	0.277	0.207	0.205	0.107	0.041
Other occupation	0.686	*	0.250	0.500	*	*

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.3 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Central African Republic, 1994-95

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.257	0.245	0.216	0.159	0.101	0.035
Rural	0.271	0.232	0.237	0.164	0.094	0.039
Migration status						
Urban native	0.255	0.247	0.212	0.155	0.102	0.034
Rural-to-urban	(0.273)	(0.236)	(0.240)	(0.180)	(0.101)	(0.028)
Urban-to-rural	0.264	0.256	0.212	0.155	(0.093)	(0.032)
Rural native	0.274	0.224	0.246	0.166	0.095	0.042
Education						
No education	0.275	0.242	0.220	0.144	0.098	0.040
Primary	0.261	0.239	0.253	0.213	0.100	(0.034)
Secondary +	0.250	0.218	0.200	(0.118)	(0.065)	(0.000)
Employment status						
Working	0.272	0.233	0.231	0.152	0.094	0.039
Not working	0.247	0.258	0.212	0.229	(0.125)	(0.017)
Husband's education						
No education	0.216	0.236	0.214	0.126	0.088	0.033
Primary	0.277	0.246	0.240	0.194	0.091	0.046
Secondary +	0.277	0.236	0.236	(0.155)	(0.127)	(0.035)
Husband's occupation						
Agriculture	0.269	0.246	0.232	0.174	0.095	0.041
Skilled/unskilled manual	0.256	0.233	0.221	0.126	0.072	0.028
Sales and services	0.270	0.210	0.240	0.144	0.117	0.027
Prof./Tech./Man./Clerical	0.253	0.251	0.221	0.174	(0.115)	(0.029)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.4 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Ghana 1993

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.262	0.215	0.162	0.115	0.052	(0.024)
Rural	0.300	0.283	0.230	0.197	0.125	0.036
Migration status						
Urban native	0.256	0.213	0.158	0.114	0.045	(0.013)
Rural-to-urban	(0.287)	(0.222)	(0.179)	(0.118)	(0.068)	(0.051)
Urban-to-rural	0.294	0.290	0.216	0.183	0.134	0.037
Rural native	0.303	0.280	0.235	0.202	0.123	0.035
Education						
No education	0.266	0.287	0.224	0.199	0.119	0.032
Primary	0.307	0.253	0.207	0.159	0.087	(0.037)
Secondary +	0.233	0.169	0.133	(0.096)	(0.060)	*
Employment status						
Working	0.281	0.249	0.200	0.167	0.102	0.031
Not working	0.305	0.303	0.263	(0.202)	(0.116)	(0.039)
Husband's education						
No education	0.285	0.286	0.230	0.197	0.138	0.037
Primary	0.304	0.265	0.212	0.175	0.095	0.029
Secondary +	0.256	0.220	0.163	(0.128)	(0.059)	(0.019)
Husband's occupation						
Agriculture	0.292	0.295	0.232	0.200	0.139	0.040
Skilled/unskilled manual	0.293	0.225	0.192	0.141	0.065	0.033
Sales and services	0.280	0.209	0.181	0.156	0.038	0.016
Prof./Tech./Man./Clerical	0.256	0.237	0.172	0.128	0.056	0.017
Other occupation	0.000	0.000	0.240	(0.000)	*	*

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.5 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Kenya, 1993

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.305	0.163	0.177	0.089	(0.062)	(0.023)
Rural	0.349	0.281	0.233	0.196	0.120	0.063
Migration status						
Urban native	0.288	0.176	0.172	(0.059)	(0.017)	(0.024)
Rural-to-urban	0.311	0.156	0.179	0.098	(0.084)	(0.023)
Urban-to-rural	0.329	0.283	0.204	0.219	(0.050)	(0.019)
Rural native	0.353	0.280	0.237	0.193	0.127	0.066
Education						
No education	0.281	0.281	0.240	0.217	0.120	0.075
Primary	0.340	0.282	0.241	0.176	0.115	0.042
Secondary +	0.352	0.205	0.171	0.100	(0.051)	(0.028)
Employment status						
Working	0.331	0.253	0.215	0.167	0.104	0.054
Not working	0.348	0.267	0.243	0.202	0.126	0.068
Husband's education						
No education	0.280	0.277	0.255	0.157	0.108	0.093
Primary	0.334	0.281	0.245	0.216	0.127	0.050
Secondary +	0.351	0.237	0.193	0.116	(0.084)	(0.034)
Husband's occupation						
Agriculture	0.336	0.324	0.254	0.214	0.143	0.067
Skilled/unskilled manual	0.339	0.233	0.230	0.169	0.100	0.058
Sales and services	0.326	0.238	0.196	0.163	0.077	0.048
Prof./Tech./Man./Clerical	0.365	0.226	0.173	0.159	(0.097)	(0.070)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.6 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Madagascar, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.328	0.245	0.176	0.104	(0.064)	(0.022)
Rural	0.361	0.315	0.266	0.247	0.172	0.085
Migration status						
Urban native	0.327	0.242	0.181	(0.098)	(0.053)	(0.028)
Rural-to-urban	0.330	0.252	0.163	(0.120)	(0.098)	(0.012)
Urban-to-rural	0.362	0.283	0.242	0.228	(0.122)	(0.071)
Rural native	0.360	0.325	0.272	0.253	0.182	0.089
Education						
No education	0.296	0.271	0.272	0.236	0.131	0.096
Primary	0.377	0.329	0.264	0.242	0.184	0.069
Secondary +	0.349	0.279	0.187	0.109	(0.040)	(0.000)
Employment status						
Working	0.354	0.301	0.250	0.219	0.147	0.075
Not working	0.356	0.316	0.255	0.231	0.186	(0.079)
Husband's education						
No education	0.291	0.289	0.238	0.219	0.147	(0.093)
Primary	0.373	0.342	0.283	0.250	0.202	0.088
Secondary +	0.382	0.266	0.194	0.169	(0.068)	(0.033)
Husband's occupation						
Agriculture	0.355	0.319	0.271	0.244	0.179	0.090
Skilled/unskilled manual	0.379	0.282	0.226	0.194	0.117	0.047
Sales and services	0.337	0.276	0.213	0.194	0.046	0.017
Prof./Tech./Man./Clerical	0.330	0.242	0.164	0.129	(0.050)	(0.049)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.7 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Malawi, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Education						
No education*	0.314	0.293	0.255	0.245	0.147	0.133
Primary	0.344	0.301	0.270	0.212	0.136	0.039
Secondary +	0.301	0.333	0.209	(0.110)	(0.053)	(0.021)
Employment status						
Working	0.347	0.288	0.245	0.165	0.116	0.079
Not working	0.324	0.301	0.265	0.258	0.153	0.100
Husband's education						
No education	0.329	0.290	0.271	0.242	0.121	0.114
Primary	0.329	0.304	0.263	0.241	0.145	0.097
Secondary +	0.350	0.293	0.245	(0.140)	(0.188)	(0.010)
Husband's occupation						
Agriculture	0.328	0.315	0.271	0.256	0.142	0.120
Skilled/unskilled manual	0.317	0.283	0.246	0.214	0.147	0.067
Sales and services	0.334	0.304	0.245	(0.186)	(0.112)	(0.065)
Prof./Tech./Man./Clerical	0.360	0.263	0.260	0.183	0.152	0.052

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.8 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Namibia, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.223	0.186	0.092	0.104	0.040	0.042
Rural	0.313	0.271	0.264	0.183	0.142	0.045
Migration status						
Urban native	0.222	0.160	0.082	0.087	0.018	(0.024)
Rural-to-urban	0.224	0.208	0.102	0.126	(0.063)	(0.059)
Urban-to-rural	(0.191)	(0.227)	(0.081)	*	*	*
Rural native	0.327	0.274	0.274	0.188	0.145	0.044
Education						
No education	0.257	0.244	0.249	0.181	0.129	0.051
Primary	0.273	0.252	0.215	0.180	0.138	0.035
Secondary +	0.276	0.210	0.125	0.075	0.015	(0.045)
Employment status						
Working	0.236	0.210	0.153	0.131	0.065	0.036
Not working	0.297	0.254	0.231	0.170	0.140	0.049
Husband's education						
No education	0.272	0.233	0.229	0.184	0.154	0.065
Primary	0.282	0.265	0.229	0.161	0.107	0.039
Secondary +	0.270	0.214	0.134	0.079	0.046	(0.021)
Husband's occupation						
Agriculture	0.273	0.210	0.174	0.171	0.113	0.045
Skilled/unskilled manual	0.294	0.239	0.206	0.155	0.112	0.040
Sales and services	0.243	0.242	0.204	0.142	0.087	0.113
Prof./Tech./Man./Clerical	0.268	0.225	0.138	0.117	0.071	(0.025)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.9 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Niger, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.344	0.311	0.281	0.241	0.172	0.114
Rural	0.285	0.324	0.317	0.263	0.177	0.093
Migration status						
Urban native	0.335	0.303	0.261	0.218	0.160	(0.087)
Rural-to-urban	0.367	0.325	0.306	0.266	0.182	(0.141)
Urban-to-rural	(0.274)	(0.333)	(0.271)	(0.184)	*	*
Rural native	0.285	0.323	0.319	0.266	0.179	0.095
Education						
No education	0.284	0.322	0.311	0.261	0.178	0.096
Primary	0.351	0.327	0.356	(0.233)	*	*
Secondary +	0.360	0.287	(0.184)	(0.179)	*	*
Employment status						
Working	0.302	0.314	0.304	0.268	0.170	0.088
Not working	0.291	0.328	0.318	0.252	0.184	0.106
Husband's education						
No education	0.295	0.323	0.315	0.264	0.177	0.095
Primary	0.270	0.340	0.289	(0.197)	*	*
Secondary +	0.325	0.273	(0.247)	(0.164)	*	*
Husband's occupation						
Agriculture	0.283	0.326	0.315	0.266	0.190	0.099
Skilled/unskilled manual	0.364	0.310	0.313	0.244	0.124	0.065
Sales and services	0.294	0.322	0.323	0.232	0.161	0.111
Prof./Tech./Man./Clerical	0.360	0.259	0.221	(0.195)	(0.151)	(0.143)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.10 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Nigeria, 1990

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.330	0.279	0.238	0.165	0.109	0.057
Rural	0.324	0.274	0.266	0.221	0.146	0.075
Migration status						
Urban native	0.327	0.277	0.232	0.166	0.103	(0.066)
Rural-to-urban	0.336	0.285	0.256	0.160	(0.126)	(0.037)
Urban-to-rural	0.327	0.276	0.287	0.173	0.132	(0.070)
Rural native	0.324	0.273	0.263	0.227	0.148	0.076
Education						
No education	0.281	0.252	0.263	0.222	0.154	0.080
Primary	0.365	0.318	0.270	0.187	0.095	(0.022)
Secondary +	0.367	0.291	0.195	0.078	(0.016)	*
Employment status						
Working	0.327	0.270	0.259	0.200	0.135	0.067
Not working	0.322	0.285	0.264	0.231	0.154	(0.086)
Husband's education						
No education	0.304	0.235	0.263	0.216	0.151	0.083
Primary	0.352	0.335	0.271	0.215	0.137	(0.058)
Secondary +	0.332	0.294	0.225	0.170	(0.075)	*
Husband's occupation						
Agriculture	0.312	0.262	0.257	0.224	0.156	0.078
Skilled/unskilled manual	0.349	0.298	0.252	0.156	0.081	0.118
Sales and services	0.330	0.296	0.282	0.200	0.121	0.065
Prof./Tech./Man./Clerical	0.358	0.284	0.244	0.159	(0.092)	(0.021)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.11 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Rwanda, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.384	0.271	0.221	0.119	(0.088)	(0.025)
Rural	0.383	0.323	0.275	0.209	0.176	0.068
Migration status						
Urban native	0.354	0.275	(0.215)	(0.103)	(0.067)	*
Rural-to-urban	0.395	0.269	0.227	0.129	(0.101)	(0.022)
Urban-to-rural	(0.361)	*	*	*	*	*
Rural native	0.383	0.323	0.276	0.208	0.177	0.069
Education						
No education	0.386	0.334	0.282	0.208	0.188	0.074
Primary	0.380	0.316	0.267	0.206	0.146	(0.051)
Secondary +	0.391	0.242	0.215	(0.107)	(0.124)	*
Employment status						
Working	0.383	0.320	0.272	0.205	0.174	0.067
Not working	0.360	0.284	(0.245)	(0.108)	*	*
Husband's education						
No education	0.385	0.320	0.268	0.190	0.173	0.082
Primary	0.379	0.324	0.274	0.224	0.175	(0.056)
Secondary +	0.391	0.293	0.256	(0.078)	(0.143)	*
Husband's occupation						
Agriculture	0.391	0.320	0.272	0.210	0.184	0.060
Skilled/unskilled manual	0.338	0.337	0.310	0.173	0.140	0.170
Sales and services	0.326	0.406	0.255	0.253	0.124	0.078
Prof./Tech./Man./Clerical	0.392	0.276	0.225	(0.063)	(0.039)	*

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.12 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Senegal, 1992-93

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.336	0.273	0.227	0.222	0.147	0.078
Rural	0.316	0.306	0.289	0.246	0.174	0.086
Migration status						
Urban native	0.331	0.255	0.223	0.202	0.125	(0.073)
Rural-to-urban	0.350	0.308	0.240	0.250	0.178	(0.094)
Urban-to-rural	(0.330)	(0.343)	(0.270)	(0.263)	(0.176)	*
Rural native	0.313	0.305	0.291	0.247	0.174	0.089
Education						
No education	0.315	0.300	0.275	0.250	0.170	0.081
Primary	0.352	0.288	0.256	0.176	(0.151)	*
Secondary +	0.328	0.240	0.170	(0.156)	(0.073)	*
Employment status						
Working	0.344	0.277	0.261	0.232	0.165	0.079
Not working	0.311	0.309	0.270	0.246	0.164	0.090
Husband's education						
No education	0.320	0.300	0.287	0.249	0.171	0.086
Primary	0.349	0.320	0.250	0.266	(0.177)	*
Secondary +	0.321	0.278	0.163	(0.181)	(0.097)	*
Husband's occupation						
Agriculture	0.324	0.313	0.293	0.256	0.165	0.094
Skilled/unskilled manual	0.344	0.287	0.257	0.255	0.163	0.077
Sales and services	0.309	0.282	0.258	0.222	0.223	0.079
Prof./Tech./Man./Clerical	0.297	0.300	0.232	(0.169)	(0.091)	*

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.13 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Zambia, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.346	0.297	0.241	0.213	0.150	0.061
Rural	0.351	0.308	0.295	0.244	0.179	0.078
Migration status						
Urban native	0.350	0.285	0.241	0.208	(0.144)	(0.065)
Rural-to-urban	0.336	0.325	0.241	0.220	0.155	(0.060)
Urban-to-rural	0.335	0.307	0.267	(0.189)	(0.215)	(0.071)
Rural native	0.357	0.309	0.304	0.256	0.174	0.080
Education						
No education	0.353	0.291	0.296	0.220	0.187	0.078
Primary	0.354	0.313	0.279	0.256	0.163	0.070
Secondary +	0.334	0.279	0.208	0.147	(0.130)	*
Employment status						
Working	0.343	0.302	0.247	0.227	0.161	0.073
Not working	0.353	0.304	0.300	0.229	0.173	0.069
Husband's education						
No education	0.356	0.273	0.254	0.207	0.187	0.079
Primary	0.356	0.319	0.296	0.248	0.163	0.076
Secondary +	0.344	0.293	0.246	0.211	(0.161)	*
Husband's occupation						
Agriculture	0.366	0.317	0.303	0.265	0.190	0.079
Skilled/unskilled manual	0.336	0.301	0.265	0.213	0.157	0.070
Sales and services	0.331	0.333	0.243	0.197	0.161	0.072
Prof./Tech./Man./Clerical	0.356	0.244	0.215	0.203	(0.128)	*

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.14 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Zimbabwe, 1994

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.297	0.150	0.111	0.112	0.033	(0.016)
Rural	0.311	0.224	0.196	0.149	0.112	0.024
Migration status						
Urban native	0.284	0.131	0.078	0.111	(0.018)	(0.052)
Rural-to-urban	0.312	0.162	0.127	0.113	0.040	(0.004)
Urban-to-rural	0.304	0.205	0.162	(0.207)	(0.071)	(0.029)
Rural native	0.313	0.227	0.199	0.145	0.114	0.024
Education						
No education	0.247	0.177	0.191	0.180	0.136	0.031
Primary	0.310	0.223	0.175	0.134	0.079	0.022
Secondary +	0.308	0.178	0.123	0.083	(0.045)	*
Employment status						
Working	0.298	0.188	0.156	0.125	0.083	0.019
Not working	0.316	0.218	0.187	0.160	0.108	0.028
Husband's education						
No education	0.271	0.270	0.187	0.187	0.096	0.015
Primary	0.302	0.232	0.180	0.139	0.098	0.029
Secondary +	0.312	0.164	0.146	0.106	(0.068)	*
Husband's occupation						
Agriculture	0.334	0.219	0.242	0.165	0.141	0.023
Skilled/unskilled manual	0.300	0.195	0.148	0.134	0.077	0.032
Sales and services	0.306	0.203	0.154	0.136	0.060	0.018
Prof./Tech./Man./Clerical	0.291	0.177	0.146	0.092	(0.059)	*

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.15 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Bangladesh, 1993-94

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.237	0.190	0.137	0.081	0.045	0.006
Rural	0.246	0.218	0.156	0.114	0.070	0.033
Education						
No education	0.233	0.227	0.165	0.129	0.073	0.033
Primary	0.254	0.208	0.147	0.090	0.068	0.027
Secondary +	0.256	0.185	0.116	0.067	0.025	0.007
Employment status						
Working	0.215	0.178	0.107	0.072	0.047	0.026
Not working	0.248	0.223	0.165	0.119	0.072	0.031
Husband's education						
No education	0.244	0.225	0.173	0.132	0.080	0.031
Primary	0.243	0.218	0.140	0.113	0.067	0.026
Secondary +	0.250	0.197	0.134	0.081	0.045	0.031
Husband's occupation						
Agriculture	0.247	0.209	0.142	0.110	0.068	0.031
Skilled/unskilled manual	0.231	0.223	0.162	0.115	0.065	0.036
Sales and services	0.267	0.224	0.160	0.113	0.062	0.023
Prof./Tech./Man./Clerical	0.255	0.186	0.157	0.096	0.077	0.020

Table B.16 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Egypt, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.332	0.171	0.110	0.074	0.040	0.019
Rural	0.379	0.287	0.212	0.149	0.098	0.045
Migration status						
Urban native	0.330	0.162	0.108	0.072	0.040	0.017
Rural-to-urban	0.340	0.215	0.122	(0.080)	(0.038)	(0.025)
Urban-to-rural	0.355	0.285	0.188	0.131	0.057	0.036
Rural native	0.382	0.287	0.214	0.151	0.100	0.046
Education						
No education	0.365	0.283	0.202	0.145	0.087	0.043
Primary	0.336	0.237	0.145	0.099	0.058	0.020
Secondary +	0.357	0.167	0.100	0.030	0.014	0.000
Employment status						
Working	0.323	0.194	0.157	0.107	0.063	0.027
Not working	0.364	0.248	0.165	0.118	0.072	0.036
Husband's education						
No education	0.352	0.282	0.213	0.136	0.082	0.042
Primary	0.355	0.259	0.158	0.139	0.081	0.034
Secondary +	0.358	0.189	0.122	0.058	0.036	0.011
Husband's occupation						
Agriculture	0.375	0.303	0.225	0.156	0.105	0.036
Skilled/unskilled manual	0.343	0.227	0.152	0.108	0.064	0.031
Sales and services	0.363	0.224	0.155	0.118	0.064	0.051
Prof./Tech./Man./Clerical	0.352	0.178	0.112	0.051	0.027	0.010
Other occupation	0.672	0.000	0.000	0.000	*	0.000

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.17 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Indonesia, 1994

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.291	0.142	0.104	0.066	0.033	0.012
Rural	0.275	0.165	0.140	0.081	0.059	0.028
Migration status						
Urban native	0.313	0.140	0.095	0.056	0.023	0.011
Rural-to-urban	0.267	0.145	0.111	0.076	(0.042)	(0.012)
Urban-to-rural	0.270	0.188	0.143	0.074	0.059	0.047
Rural native	0.276	0.164	0.139	0.082	0.059	0.027
Education						
No education	0.264	0.143	0.139	0.088	0.049	0.019
Primary	0.267	0.157	0.133	0.081	0.062	0.029
Secondary +	0.299	0.167	0.106	0.049	0.017	0.007
Husband's education						
No education	0.285	0.147	0.128	0.078	0.056	0.014
Primary	0.260	0.156	0.136	0.085	0.059	0.031
Secondary +	0.301	0.167	0.111	0.060	0.032	0.009
Husband's occupation						
Agriculture	0.277	0.167	0.141	0.082	0.057	0.026
Skilled/unskilled manual	0.280	0.156	0.124	0.076	0.048	0.037
Sales and services	0.281	0.151	0.132	0.095	0.069	0.022
Prof./Tech./Man./Clerical	0.288	0.157	0.091	0.037	0.021	0.003

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.18 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Jordan, 1990

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.460	0.336	0.277	0.198	0.108	0.034
Rural	0.472	0.420	0.363	0.275	0.175	0.043
Migration status						
Urban native	0.457	0.336	0.259	0.194	0.086	0.035
Rural-to-urban	0.474	0.336	0.322	0.209	0.144	(0.034)
Urban-to-rural	0.458	0.414	0.441	(0.223)	(0.139)	(0.034)
Rural native	0.478	0.421	0.338	0.291	0.185	0.045
Education						
No education	0.462	0.380	0.323	0.248	0.161	0.039
Primary	0.461	0.353	0.318	0.238	0.115	0.035
Secondary +	0.463	0.358	0.284	0.178	0.073	(0.024)
Employment status						
Working	0.446	0.307	0.263	0.170	0.082	0.046
Not working	0.465	0.367	0.304	0.225	0.132	0.036
Husband's education						
No education	0.386	0.348	0.312	0.228	0.139	0.035
Primary	0.424	0.351	0.305	0.220	0.129	0.038
Secondary +	0.472	0.363	0.296	0.217	0.120	(0.036)
Husband's occupation						
Agriculture	0.429	0.357	0.327	0.279	0.162	0.059
Skilled/unskilled manual	0.456	0.374	0.315	0.218	0.143	0.032
Sales and services	0.464	0.335	0.272	0.232	0.104	0.038
Prof./Tech./Man./Clerical	0.483	0.343	0.285	0.197	0.096	(0.040)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.19 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Morocco, 1992

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.276	0.182	0.143	0.110	0.059	0.018
Rural	0.345	0.310	0.257	0.218	0.163	0.081
Migration status						
Urban native	0.271	0.168	0.116	0.086	0.053	0.012
Rural-to-urban	0.290	0.205	0.186	0.135	0.066	0.022
Urban-to-rural	(0.324)	(0.239)	(0.211)	(0.151)	(0.136)	*
Rural native	0.348	0.316	0.260	0.223	0.165	0.082
Education						
No education	0.324	0.280	0.233	0.189	0.131	0.059
Primary	0.291	0.176	0.105	0.099	0.075	(0.007)
Secondary +	0.296	0.165	0.113	0.059	(0.010)	*
Employment status						
Working	0.301	0.224	0.164	0.178	0.115	0.062
Not working	0.316	0.258	0.219	0.167	0.121	0.050
Husband's education						
No education	0.329	0.285	0.241	0.199	0.135	0.062
Primary	0.315	0.237	0.181	0.130	0.098	(0.007)
Secondary +	0.287	0.183	0.133	0.098	(0.052)	*
Husband's occupation						
Agriculture	0.353	0.288	0.261	0.208	0.182	0.093
Skilled/unskilled manual	0.310	0.263	0.204	0.175	0.091	0.038
Sales and services	0.278	0.238	0.172	0.136	0.084	0.028
Prof./Tech./Man./Clerical	0.293	0.198	0.130	0.093	(0.068)	(0.027)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group. An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.20 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Pakistan, 1990-91

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.372	0.304	0.221	0.149	0.051	0.031
Rural	0.295	0.282	0.238	0.172	0.111	0.047
Education						
No education	0.295	0.281	0.235	0.179	0.100	0.046
Primary	0.355	0.305	0.232	0.130	0.049	0.016
Secondary +	0.399	0.318	0.210	(0.058)	(0.038)	(0.000)
Husband's education						
No education	0.297	0.269	0.219	0.186	0.096	0.044
Primary	0.282	0.289	0.230	0.155	0.137	0.061
Secondary +	0.355	0.311	0.251	(0.128)	(0.057)	(0.022)
Husband's occupation						
Agriculture	0.272	0.274	0.224	0.156	0.138	0.046
Skilled/unskilled manual	0.342	0.277	0.249	0.196	0.079	0.044
Sales and services	0.330	0.335	0.234	0.141	0.051	0.043
Prof./Tech./Man./Clerical	0.341	0.282	0.215	(0.152)	(0.046)	(0.037)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.21 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Philippines, 1993

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.387	0.214	0.143	0.085	0.054	0.019
Rural	0.405	0.264	0.191	0.139	0.079	0.035
Migration status						
Urban native	0.383	0.202	0.121	0.072	0.048	0.014
Rural-to-urban	0.391	0.228	0.164	0.100	0.063	0.023
Urban-to-rural	0.405	0.254	0.203	0.150	0.061	(0.026)
Rural native	0.405	0.268	0.190	0.138	0.084	0.036
Education						
No education	(0.400)	(0.247)	(0.197)	(0.115)	(0.071)	(0.081)
Primary	0.421	0.294	0.211	0.155	0.085	0.031
Secondary +	0.386	0.210	0.132	0.067	0.040	0.009
Employment status						
Working	0.337	0.186	0.129	0.083	0.056	0.033
Not working	0.422	0.273	0.201	0.145	0.081	0.023
Husband's education						
No education	(0.361)	(0.241)	(0.212)	(0.150)	(0.083)	(0.057)
Primary	0.423	0.296	0.213	0.157	0.087	0.031
Secondary +	0.386	0.208	0.131	0.070	0.040	0.022
Husband's occupation						
Agriculture	0.402	0.278	0.213	0.147	0.091	0.032
Skilled/unskilled manual	0.405	0.229	0.162	0.105	0.060	0.024
Sales and services	0.389	0.205	0.105	0.074	0.037	0.030
Prof./Tech./Man./Clerical	0.347	0.166	0.108	0.049	(0.022)	(0.021)

Note: Rates in parentheses are based on 50-199 unweighted woman-years of exposure in at least one marital duration group.

Table B.22 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Turkey, 1993

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.276	0.145	0.071	0.046	0.020	0.007
Rural	0.351	0.195	0.118	0.065	0.045	0.008
Education						
No education	0.380	0.247	0.162	0.101	0.052	0.011
Primary	0.302	0.152	0.069	0.037	0.013	0.004
Secondary +	0.253	0.113	0.040	0.004	0.011	0.000
Employment status						
Working	0.278	0.129	0.058	0.030	0.024	0.008
Not working	0.309	0.177	0.105	0.068	0.031	0.007
Husband's education						
No education	0.362	0.230	0.190	0.148	0.049	0.017
Primary	0.314	0.167	0.095	0.054	0.032	0.006
Secondary +	0.281	0.150	0.059	0.019	0.012	*
Husband's occupation						
Agriculture	0.349	0.186	0.106	0.077	0.045	0.016
Skilled/unskilled manual	0.294	0.171	0.090	0.061	0.029	0.002
Sales and services	0.295	0.148	0.089	0.038	0.021	0.007
Prof./Tech./Man./Clerical	0.270	0.139	0.058	0.023	0.022	0.006
Other occupation	0.180	0.000	0.176	0.000	0.000	0.000

Note: An asterisk indicates that the rate is based on fewer than 50 cases and has been suppressed.

Table B.23 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Bolivia, 1994

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.331	0.215	0.130	0.097	0.061	0.019
Rural	0.386	0.315	0.253	0.203	0.107	0.053
Migration status						
Urban native	0.323	0.207	0.120	0.091	0.058	0.015
Rural-to-urban	0.371	0.268	0.178	0.134	0.078	0.039
Urban-to-rural	0.349	0.309	0.239	0.173	0.105	0.043
Rural native	0.408	0.318	0.258	0.213	0.104	0.057
Education						
No education	0.356	0.291	0.217	0.198	0.106	0.045
Primary	0.388	0.306	0.228	0.176	0.092	0.036
Secondary +	0.325	0.204	0.107	0.051	0.031	0.003
Employment status						
Working	0.325	0.233	0.167	0.131	0.078	0.030
Not working	0.380	0.283	0.196	0.163	0.090	0.043
Husband's education						
No education	0.354	0.247	0.140	0.187	0.074	0.053
Primary	0.365	0.312	0.231	0.187	0.108	0.041
Secondary +	0.347	0.230	0.145	0.093	0.048	0.017
Husband's occupation						
Agriculture	0.400	0.320	0.266	0.205	0.110	0.055
Skilled/unskilled manual	0.356	0.261	0.166	0.130	0.080	0.015
Sales and services	0.322	0.200	0.128	0.114	0.072	0.028
Prof./Tech./Man./Clerical	0.278	0.170	0.085	0.055	0.028	0.019

Table B.24 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Brazil (NE), 1991

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.305	0.185	0.084	0.070	0.027	0.009
Rural	0.390	0.263	0.189	0.163	0.097	0.039
Migration status						
Urban native	0.303	0.175	0.082	0.065	0.019	0.002
Rural-to-urban	0.314	0.208	0.087	0.081	0.036	0.016
Urban-to-rural	0.355	0.207	0.124	0.159	0.117	0.000
Rural native	0.397	0.272	0.201	0.164	0.094	0.046
Education						
No education	0.397	0.285	0.201	0.150	0.077	0.033
Primary	0.345	0.213	0.124	0.100	0.033	0.008
Secondary +	0.276	0.147	0.026	0.004	0.017	0.000
Employment status						
Working	0.283	0.167	0.104	0.088	0.040	0.023
Not working	0.368	0.251	0.151	0.135	0.063	0.015
Husband's education						
No education	0.401	0.275	0.179	0.140	0.090	0.035
Primary	0.334	0.209	0.133	0.115	0.041	0.014
Secondary +	0.298	0.164	0.036	0.003	0.000	0.000
Husband's occupation						
Agriculture	0.381	0.278	0.200	0.155	0.087	0.030
Skilled/unskilled manual	0.318	0.185	0.099	0.096	0.029	0.014
Sales and services	0.332	0.183	0.073	0.052	0.029	0.006
Prof./Tech./Man./Clerical	0.289	0.163	0.024	0.007	0.009	0.000

Table B.25 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Colombia, 1990

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.306	0.150	0.072	0.044	0.022	0.004
Rural	0.320	0.224	0.128	0.091	0.044	0.006
Migration status						
Urban native	0.305	0.149	0.071	0.047	0.020	0.003
Rural-to-urban	0.316	0.154	0.076	0.036	0.026	0.005
Urban-to-rural	0.253	0.195	0.090	0.068	0.041	0.000
Rural native	0.350	0.238	0.145	0.104	0.045	0.008
Education						
No education	0.336	0.294	0.232	0.076	0.040	0.000
Primary	0.333	0.187	0.110	0.073	0.033	0.007
Secondary +	0.293	0.149	0.052	0.032	0.014	0.000
Employment status						
Working	0.242	0.140	0.054	0.039	0.020	0.002
Not working	0.342	0.189	0.116	0.075	0.035	0.005
Husband's education						
No education	0.355	0.218	0.133	0.089	0.040	0.000
Primary	0.329	0.187	0.114	0.070	0.038	0.007
Secondary +	0.294	0.148	0.057	0.036	0.010	0.000
Husband's occupation						
Agriculture	0.339	0.206	0.129	0.079	0.035	0.008
Skilled/unskilled manual	0.286	0.179	0.080	0.054	0.030	0.000
Sales and services	0.333	0.145	0.088	0.050	0.031	0.007
Prof./Tech./Man./Clerical	0.300	0.145	0.048	0.046	0.006	0.000

Table B.26 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Dominican Republic, 1991

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.313	0.197	0.085	0.051	0.019	0.006
Rural	0.345	0.299	0.152	0.106	0.062	0.030
Migration status						
Urban native	0.321	0.197	0.089	0.059	0.019	0.006
Rural-to-urban	0.293	0.199	0.078	0.038	0.018	0.005
Urban-to-rural	0.290	0.255	0.132	0.073	0.064	0.000
Rural native	0.359	0.311	0.159	0.112	0.062	0.032
Education						
No education	0.299	0.275	0.124	0.159	0.125	0.056
Primary	0.350	0.256	0.130	0.053	0.022	0.012
Secondary +	0.304	0.195	0.067	0.066	0.040	0.000
Employment status						
Working	0.292	0.172	0.086	0.065	0.025	0.010
Not working	0.342	0.279	0.129	0.073	0.044	0.021
Husband's education						
No education	0.377	0.269	0.143	0.153	0.093	0.020
Primary	0.342	0.252	0.117	0.059	0.029	0.020
Secondary +	0.305	0.218	0.085	0.070	0.019	0.002
Husband's occupation						
Agriculture	0.354	0.303	0.167	0.114	0.072	0.029
Skilled/unskilled manual	0.320	0.218	0.105	0.067	0.018	0.011
Sales and services	0.320	0.225	0.100	0.037	0.013	0.007
Prof./Tech./Man./Clerical	0.309	0.194	0.037	0.048	0.031	0.000
Other occupation	0.351	0.691	0.083	0.000	0.000	0.000

Table B.27 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Paraguay, 1990

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.309	0.188	0.130	0.087	0.048	0.022
Rural	0.388	0.315	0.239	0.196	0.118	0.052
Migration status						
Urban native	0.302	0.196	0.129	0.076	0.046	0.029
Rural-to-urban	0.335	0.152	0.140	0.124	0.055	0.000
Urban-to-rural	0.301	0.271	0.185	0.146	0.090	0.054
Rural native	0.414	0.327	0.259	0.211	0.129	0.053
Education						
No education	0.334	0.255	0.297	0.311	0.095	0.057
Primary	0.363	0.279	0.198	0.148	0.091	0.042
Secondary +	0.310	0.169	0.124	0.052	0.034	0.016
Employment status						
Working	0.268	0.182	0.125	0.084	0.054	0.039
Not working	0.374	0.278	0.222	0.181	0.104	0.040
Husband's education						
No education	0.353	0.355	0.154	0.256	0.072	0.044
Primary	0.361	0.293	0.220	0.175	0.098	0.047
Secondary +	0.330	0.185	0.130	0.063	0.057	0.027
Husband's occupation						
Agriculture	0.401	0.332	0.248	0.224	0.136	0.051
Skilled/unskilled manual	0.341	0.217	0.183	0.090	0.054	0.038
Sales and services	0.271	0.183	0.135	0.063	0.037	0.034
Prof./Tech./Man./Clerical	0.335	0.211	0.089	0.093	0.021	0.000

Table B.28 Fertility rates for ever-married women for the 3 years preceding the survey, by number of years since first marriage and selected background characteristics, Peru, 1991-92

Background characteristic	Years since first marriage					
	0-4	5-9	10-14	15-19	20-24	25-29
Residence						
Urban	0.320	0.155	0.106	0.067	0.042	0.014
Rural	0.407	0.294	0.227	0.198	0.122	0.073
Migration status						
Urban native	0.316	0.146	0.101	0.060	0.037	0.015
Rural-to-urban	0.351	0.231	0.133	0.109	0.070	0.014
Urban-to-rural	0.401	0.271	0.225	0.190	0.103	0.080
Rural native	0.411	0.305	0.229	0.206	0.132	0.069
Education						
No education	0.400	0.336	0.245	0.195	0.130	0.046
Primary	0.397	0.257	0.185	0.125	0.073	0.035
Secondary +	0.321	0.145	0.090	0.058	0.021	0.014
Employment status						
Working	0.311	0.186	0.127	0.092	0.059	0.028
Not working	0.374	0.203	0.157	0.117	0.071	0.041
Husband's education						
No education	0.317	0.397	0.244	0.195	0.148	0.032
Primary	0.392	0.274	0.205	0.144	0.085	0.046
Secondary +	0.333	0.161	0.106	0.068	0.034	0.014
Husband's occupation						
Agriculture	0.405	0.290	0.231	0.188	0.110	0.069
Skilled/unskilled manual	0.343	0.171	0.124	0.087	0.061	0.014
Sales and services	0.321	0.157	0.103	0.087	0.035	0.004
Prof./Tech./Man./Clerical	0.313	0.149	0.086	0.049	0.032	0.017
Other occupation	0.316	0.251	0.130	0.129	0.116	0.071

Appendix C

Summary of DHS-I, DHS-II, and DHS-III Surveys, 1985-1997

Region and Country	Date of Fieldwork	Implementing Organization	Respondents	Sample Size	Male/Husband Survey	Supplemental Studies, Modules, and Additional Questions
SUB-SAHARAN AFRICA						
DHS-I						
Botswana	Aug-Dec 1988	Central Statistics Office	AW 15-49	4,368		AIDS, PC, adolescent fertility
Burundi	Apr-Jul 1987	Département de la Population, Ministère de l'Intérieur	AW 15-49	3,970	542 Husbands	CA, SAI, adult mortality
Ghana	Feb-May 1988	Ghana Statistical Service	AW 15-49	4,488	943 Husbands	CA, SM, WE
Kenya	Dec-May 1988/89	National Council for Population and Development	AW 15-49	7,150	1,133 Husbands	
Liberia	Feb-Jul 1986	Bureau of Statistics, Ministry of Planning and Economic Affairs	AW 15-49	5,239		TBH, employment status
Mali	Mar-Aug 1987	Institut du Sahel, USED/CERPOD	AW 15-49	3,200	970 Men 20-55	CA, VC, childhood physical handicaps
Ondo State, Nigeria	Sep-Jan 1986/87	Ministry of Health, Ondo State	AW 15-49	4,213		CA, TBH
Senegal	Apr-Jul 1986	Direction de la Statistique, Ministère de l'Economie et des Finances	AW 15-49	4,415		CA, CD
Sudan	Nov-May 1989/90	Department of Statistics, Ministry of Economic and National Planning	EMW 15-49	5,860		FC, M, MM
Togo	Jun-Nov 1988	Unité de Recherche Démographique, Université du Benin	AW 15-49	3,360		CA, SAI, marriage history
Uganda	Sep-Feb 1988/89	Ministry of Health	AW 15-49	4,730		CA, SAI
Zimbabwe	Sep-Jan 1988/89	Central Statistical Office	AW 15-49	4,201		AIDS, CA, PC, SAI, WE
DHS-II						
Burkina Faso	Dec-Mar 1992/93	Institut National de la Statistique et de la Démographie	AW 15-49	6,354	1,845 Men 18+	AIDS, CA, MA, SAI
Cameroon	Apr-Sep 1991	Direction Nationale du Deuxième Recensement Général de la Population et de l'Habitat	AW 15-49	3,871	814 Husbands	CA, CD, SAI
Madagascar	May-Nov 1992	Centre National de Recherches sur l'Environement	AW 15-49	6,260		CA, MM, SAI
Malawi	Sep-Nov 1992	National Statistical Office	AW 15-49	4,850	1,151 Men 20-54	AIDS, CA, MA, MM, SAI
Namibia	Jul-Nov 1992	Ministry of Health and Social Services, Central Statistical Office	AW 15-49	5,421		CA, CD, MA, MM
Niger	Mar-Jun 1992	Direction de la Statistique et des Comtes Nationaux	AW 15-49	6,503	1,570 Husbands	CA, MA, MM, SAI
Nigeria	Apr-Oct 1990	Federal Office of Statistics	AW 15-49	8,781		CA, SAI
Rwanda	Jun-Oct 1992	Office National de la Population	AW 15-49	6,551	598 Husbands	CA
Senegal	Nov-Aug 1992/93	Direction de la Prévision et de la Statistique	AW 15-49	6,310	1,436 Men 20+	AIDS, CA, MA, MM, SAI
Tanzania	Oct-Mar 1991/92	Bureau of Statistics, Planning Commission	AW 15-49	9,238	2,114 Men 15-60	AIDS, CA, MA, SAI
Zambia	Jan-May 1992	University of Zambia	AW 15-49	7,060		AIDS, CA, MA

DHS-III						
Benin	Jun-Aug 1996	Institut National de la Statistique	AW 15-49	5,491	1,535 Men 20-64	AIDS, CA, MA, MM, SAI
Central African Republic	Sep-Mar 1994/95	Direction des Statistiques Démographiques et Sociales	AW 15-49	5,884	1,729 Men 15-59	AIDS, CA, CD, MA, MM, SAI
Comoros	Mar-May 1996	Centre National de Documentation et de la Recherche Scientifique	AW 15-49	3,050	795 Men 15-64	CA, MA
Côte d'Ivoire	Jun-Nov 1994	Institut National de la Statistique	AW 15-49	8,099	2,552 Men 12-49	CA, MA, SAI
Eritrea	Sep-Jan 1995/96	National Statistics Office	AW 15-49	5,054	1,114 Men 15-59	AIDS, CA, MA, MM, SAI
Ghana	Sep-Dec 1993	Ghana Statistical Service	AW 15-49	4,562	1,302 Men 15-59	CA, MA
Kenya	Feb-Aug 1993	National Council for Population and Development	AW 15-49	7,540	2,336 Men 15-54	AIDS, CA, MA, SAI
Madagascar	Sep-Dec 1997	Institut National de la Statistique, Direction de la Démographie et des Statistiques Sociales	AW 15-49	7,060		AIDS, CA, MA
Malawi (KAP)[a]	Jun-Oct 1996	National Statistical Office	AW 15-49	2,683	2,658 Men 15-54	AIDS
Mali	Nov-Apr 1995/96	CPS/MSSPA et DNSI	AW 15-49	9,704	2,474 Men 15-59	AIDS, CA, MA, MM, SAI
Mozambique	Mar-Jul 1997	Instituto Nacional de Estatístical Ministéro de Saúde	AW 15-49	8,779	2,335 Men 15-64	CA, MA, MM, SAI
Senegal (Interim)	Jan-Apr 1997	Division de Statistiques Démographiques, Direction de la Prévision et de la Statistique	AW 15-49	8,593	4,306 Men 20+	AIDS
Tanzania (KAP)[a]	Jul-Sep 1994	Bureau of Statistics, Planning Commission	AW 15-49	4,225	2,097 Men 15-59	AIDS, PC
Tanzania (In-depth)	Jun-Oct 1995	Bureau of Statistics, Planning Commission	AW 15-49	2,130		Adult and childhood mortality estimation
Tanzania	Jul-Nov 1996	Bureau of Statistics, Planning Commission	AW 15-49	8,120	2,256 Men 15-59	AIDS, CA, MA, MM
Uganda	Mar-Aug 1995	Statistics Department, Ministry of Finance and Economic Planning	AW 15-49	7,070	1,996 Men 15-59	AIDS, CA, MA, MM, SAI
Uganda (In-depth)	Oct-Jan 1995/96	Institute of Statistics and Applied Economics, Makerere University	AW 20-44	1,750	1,356 Partners	Negotiating reproductive outcomes
Zambia	Jul-Jan 1996/97	Central Statistics Office	AW 15-49	8,021	1,849 Men 15-59	AIDS, CA, MA, MM
Zimbabwe	Jul-Nov 1994	Central Statistical Office	AW 15-49	6,128	2,141 Men 15-54	AIDS, CA, MA, MM, PC, SAI
NEAR EAST/NORTH AFRICA						
DHS-I						
Egypt	Oct-Jan 1988/89	National Population Council	EMW 15-49	8,911		CA, CD, MM, PC, SAI, WE, WS
Morocco	May-Jul 1987	Ministère de la Santé Publique	EMW 15-49	5,982		CA, CD, S
Tunisia	Jun-Oct 1988	Office National de la Famille et de la Population	EMW 15-49	4,184		CA, S, SAI
DHS-II						
Egypt	Nov-Dec 1992	National Population Council	EMW 15-49	9,864	2,466 Husbands	CA, MA, PC, SM
Jordan	Oct-Dec 1990	Department of Statistics, Ministry of Health	EMW 15-49	6,461		CA, SAI
Morocco	Jan-Apr 1992	Ministère de la Santé Publique	AW 15-49	9,256	1,336 Men 20-70	CA, MA, MM, SAI
Yemen	Nov-Jan 1991/92	Central Statistical Organization	EMW 15-49	5,687		CA, CD, SAI

DHS-III						
Egypt	Nov-Jan 1995/96	National Population Council	EMW 15-49	14,779		CA, FC, MA, WS
Jordan	Jun-Oct 1997	Department of Statistics	EMW 15-49	5,548		AIDS, CA, MA, MM
Morocco (Panel)	Apr-May 1995	Ministère de la Santé Publique	AW 15-49	4,753		
ASIA						
DHS-I						
Indonesia	Sep-Dec 1987	Central Bureau of Statistics, National Family Planning Coordinating Board	EMW 15-49	11,884		PC, SM
Nepal (In-depth)	Feb-Apr 1987	New Era	CMW 15-49	1,623		KAP-gap survey
Sri Lanka	Jan-Mar 1987	Department of Census and Statistics, Ministry of Plan Implementation	EMW 15-49	5,865		CA, NFP
Thailand	Mar-Jun 1987	Institute of Population Studies Chulalongkorn University	EMW 15-49	6,775		CA, S, SAI
DHS-II						
Indonesia	May-Jul 1991	Central Bureau of Statistics, NFPCB/MOH	EMW 15-49	22,909		PC, SM
Pakistan	Dec-May 1990/91	National Institute of Population Studies	EMW 15-49	6,611	1,354 Husbands	CA
DHS-III						
Bangladesh	Nov-Mar 1993/94	Mitra & Associates/NIPORT	EMW 10-49	9,640	3,284 Husbands	PC, SAI, SM
Bangladesh	Nov-Mar 1996/97	Mitra & Associates/NIPORT	EMW 10-49	9,127	3,346 EMM	CA, MA, SM
Indonesia	Jul-Nov 1994	Central Bureau of Statistics/ NFPCB/MOH	EMW 15-49	28,168		MM, PC, SAI, SM
Kazakstan	May-Aug 1995	Institute of Nutrition, National Academy of Sciences	AW 15-49	3,771		CA, MA
Kyrgyz Republic	Aug-Nov 1997	Institue of Obstetrics and Pediatrics	AW 15-49	3,848		CA, MA, anemia testing
Nepal	Jan-Jun 1996	Ministry of Health/New ERA	EMW 15-49	8,429		CA, MA, MM
Philippines	Apr-Jun 1993	National Statistics Office	AW 15-49	15,029		MM, SAI
Turkey	Aug-Oct 1993	General Directorate of MCH/FP Ministry of Health	EMW <50	6,519		CA, MA
Uzbekistan	Jun-Oct 1996	Research Institute of Obstetrics and Gynecology	AW 15-49	4,415		CA, MA
LATIN AMERICA/CARIBBEAN						
DHS-I						
Bolivia	Feb-Jul 1989	Instituto Nacional de Estadística	AW 15-49	7,923		CA, CD, MM, PC, S, WE
Bolivia (In-depth)	Feb-Jul 1989	Instituto Nacional de Estadística	AW 15-49	7,923		Health
Brazil	May-Aug 1986	Sociedade Civil Bem-Estar Familiar no Brasil	AW 15-44	5,892		CA, S, SM, abortion, young adult use of contraception
Colombia	Oct-Dec 1986	Corporación Centro Regional de Población, Ministerio de Salud	AW 15-49	5,329		CA, PC, S, SAI, SM
Dominican Republic	Sep-Dec 1986	Consejo Nacional de Población y Familia	AW 15-49	7,649		CA, NFP, S, SAI, family planning communication

Dominican Republic (Experimental)	Sep-Dec 1986	Consejo Nacional de Población y Familia	AW 15-49	3,885		S, SAI
Ecuador	Jan-Mar 1987	Centro de Estudios de Población y Paternidad Responsable	AW 15-49	4,713		CD, SAI, employment
El Salvador	May-Jun 1985	Asociación Demográfica Salvadoreña	AW 15-49	5,207		CA, S, TBH
Guatemala	Oct-Dec 1987	Instituto de Nutrición de Centro América y Panamá	AW 15-44	5,160		CA, S, SAI
Mexico	Feb-May 1987	Dirección General de Planificación Familiar, Secretaría de Salud	AW 15-49	9,310		NFP, S, employment
Peru	Sep-Dec 1986	Instituto Nacional de Estadística	AW 15-49	4,999		NFP, employment,
Peru (Experimental)	Sep-Dec 1986	Instituto Nacional de Estadística	AW 15-49	2,534		
Trinidad and Tobago	May-Aug 1987	Family Planning Association of Trinidad and Tobago	AW 15-49	3,806		CA, NFP, breastfeeding
DHS-II						
Brazil (NE)	Sep-Dec 1991	Sociedade Civil Bem-Estar Familiar no Brasil	AW 15-49	6,222	1,266 Husbands	AIDS, PC
Colombia	May-Aug 1990	PROFAMILIA	AW 15-49	8,644		AIDS
Dominican Republic	Jul-Nov 1991	Instituto de Estudios de Población y Desarrollo (PROFAMILIA), Oficina Nacional de Planificación	AW 15-49	7,320		CA, MA, S, SAI
Paraguay	May-Aug 1990	Centro Paraguayo de Estudios de Población	AW 15-49	5,827		CA, SAI
Peru	Oct-Mar 1991/92	Instituto Nacional de Estadística e Informática	AW 15-49	15,882		CA, MA, MM, SAI
DHS-III						
Bolivia	Nov-May 1993/94	Instituto Nacional de Estadística	AW 15-49	8,603[b]		AIDS, CA, CD, MA, MM, S, SAI
Brazil	Mar-Jun 1996	Sociedade Civil Bem-Estar Familiar no Brasil	AW 15-49	12,612	2,949 Men 15-59	AIDS, CA, MA, MM, PC, S
Colombia	Mar-Jun 1995	PROFAMILIA	AW 15-49	11,140		AIDS, CA, MA, PC
Dominican Republic	Aug-Dec 1996	CESDEM/PROFAMILIA	AW 15-49	8,422	2,279 Men 15-64	CA, MA
Guatemala	Jun-Dec 1995	Instituto Nacional de Estadística	AW 15-49	12,403		AIDS, CA, MA, MM, S
Haiti	Jul-Jan 1994/95	Institut Haitien de l'Enfance	AW 15-49	5,356	1,610 Men 15-59	AIDS, CA, CD, MA, SAI
Peru	Aug-Nov 1996	Instituto Nacional de Estadística e Informática	AW 15-49	28,951	2,487 Men 15-59	CA, MA, MM

[a] No health or birth history section in questionnaire.
[b] Household questionnaire was administered in 26,144 households.

AIDS acquired immune deficiency syndrome
AW all women
CA child anthropometry
CD causes of death (verbal reports of symptoms)
CMW currently married women
EMW ever-married women
FC female circumcision
M migration
MA maternal anthropometry
MM maternal mortality
NFP natural family planning
PC pill compliance
S sterilization
SAI service availability information
SM social marketing
TBH truncated birth history
VC value of children
WE women's employment
WS women's status

Demographic and Health Surveys Comparative Studies Series

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