Social Inequalities and Cancer
Kogevinas, M., Pearce, N., Susser, M. and Boffetta, P., eds
IARC Scientific Publications No. 138
International Agency for Research on Cancer, Lyon, 1997

Socioeconomic differences in reproductive behaviour

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There are marked socioeconomic variations in the risk of female reproductive cancers. We examine here data from the World Fertility Surveys, the Demographic and Health Surveys, and other national surveys, to assess whether these variations in cancer risk might be explained, at least in part, by socioeconomic variations in reproductive behaviour. There were marked socioeconomic differentials in achieved parity, age at first birth, final childlessness, duration of breastfeeding, and possibly also age at menopause. These differentials were present in almost all settings: countries with low and high levels of modernization, and countries with low and high levels of fertility. In general, women of higher socioeconomic status and with more education had lower fertility and later age at first birth, but a greater prevalence of childlessness, shorter duration of breastfeeding and later age at menopause. However, the size and even the direction of these differentials varied markedly from country to country according to its level of economic development and, within each country, from generation to generation of women. It is possible that some of these socioeconomic differences may be narrowing in recent generations in Western countries. There was little evidence of socioeconomic variations in age at menarche.

The observed socioeconomic differentials in most aspects of reproductive behaviour could potentially account for some of the socioeconomic variation in the risk of female reproductive cancers. However, this relationship could not be assessed directly because such analysis would require birth-cohort-specific data on socioeconomic variations in reproductive behaviour and in cancer risks. Unfortunately, these data are not available.

A woman's reproductive history plays an important role in the risk of breast, ovarian and endometrial cancers. Studies have consistently shown a higher risk of these cancers in nulliparous than parous women (Elwood *et al.*, 1977; MacMahon *et al.*, 1970; The Centers for Disease Control, 1983), and an inverse relationship with parity for ovarian and endometrial cancers. Age at first birth has been considered as a major risk factor for breast cancer since the large international study of MacMahon *et al.* (1970).

The risks of these cancers are also reduced by an early age at menopause (Hildreth *et al.*, 1981; Elwood *et al.*, 1977; Pike *et al.*, 1983), and some studies, but not all, have also found a late age at menarche to be protective (Booth, 1991; Elwood *et al.*, 1977; Pike *et al.*, 1983). There is conflicting evidence of a duration-related protective effect of lactation against the risk of breast and ovarian cancers (Risch *et al.*, 1983; Yuan *et al.*, 1988).

There are large socioeconomic differences in the risk of female reproductive cancers. The general pattern is that breast, ovarian and endometrial cancers are more common in women of higher socioeconomic status. In this chapter, we examine whether these socioeconomic variations in cancer risks could be explained, at least in part, by socioeconomic variations in reproductive behaviour.

Sources of data

The World Fertility Surveys (WFS) provide a unique opportunity to examine the relationship between fertility and socioeconomic factors using comparable data from a wide variety of settings: countries with high and low socioeconomic developments and varying levels of fertility. These surveys were intended to be nationally representative (and internationally comparable) surveys of women in the reproductive ages. The WFS were conducted in about 40 developing countries and 20 developed countries mainly in the late 1970s (United Nations, 1987).

For most countries, the WFS consisted of both a household survey and an individual survey. The

household survey provided a listing of persons living in the household along with some basic demographic data (sex, age, marital status, and so on), on the basis of which women eligible for the detailed individual interview on reproductive behaviour were identified. There was some variability in the criteria used to select women for the individual interview in developed countries (that is, European countries and the United States of America). For the analyses shown here it was possible, however, to select in each country a subsample of currently married women in their first marriage aged under 45 years (Jones, 1982). The only exceptions were Denmark and Poland, where all currently married women were included, and France, where women aged under 20 years were excluded. The survey in Belgium included only the Flemish part of the country.

The individual surveys conducted in developing countries usually included all women aged 15 to 49 or 50 years (United Nations, 1987). However, in Costa Rica and Panama, the youngest age for interview was 20 and in Venezuela the oldest age for interview was 44. In Asian countries, where extramarital childbearing is thought to be relatively rare, the individual interviews were restricted to ever-married women. At the other extreme, all women, regardless of marital status, were interviewed in all but one of the Latin American surveys (Peru). The pattern in Africa was mixed but in most of the sub-Saharan countries all women aged 15 to 49 years were interviewed irrespective of their marital status.

The WFS were succeeded by the Demographic and Health Surveys (DHS), which started in the late 1980s and early 1990s. In contrast to the WFS, the DHS were set up only in developing countries. Generally, they consisted of national representative samples of all women aged 15 to 49 regardless of their marital status (Westoff *et al.*, 1994). There were, however, some exceptions to this design. Individual interviews were restricted to women aged 15 to 44 years in Brazil and Guatemala and to ever-married women in northern African and in Asian countries.

In both the WFS and the DHS, fertility patterns for all women (regardless of their marital status) were estimated for those countries in which single women were excluded from the individual interview, by using data obtained in the household survey (Hogdson & Gibbs, 1980; Westoff *et al.*, 1994).

Both the WFS and the DHS collected data on various measures of socioeconomic status such as type of place of residence (urban versus rural), educational level of the respondents and of their husbands, family income, and husband's socio-occupational status. The definition and measurement of these variables were bounded by country-specific criteria, with content and levels varying substantially across countries. They were, however, designed with the intention of capturing the full range of socioeconomic variability in each particular country.

In this chapter, we extracted data from the WFS and the DHS to examine whether there were socioeconomic variations in reproductive behaviour. Data on socioeconomic differentials in final childlessness and age at menopause were not available from either of these two surveys and were therefore extracted from other published sources. Data on childlessness were available from national surveys carried out in Norway (Kravdal, 1992), England and Wales (Office of Population Censuses and Surveys, 1983) and the USA (Poston, 1974) and from special studies carried out in some developing countries (Poston, 1988; Poston & Rogers, 1988; Poston *et al.*, 1985; Romaniuk, 1980). Data on socioeconomic differences in age at menopause were available from nationally representative surveys carried out in Finland (Luoto *et al.*, 1994) and in the USA (Stanford *et al.*, 1987); to our knowledge, no similar surveys were conducted in any other developed countries or in any of the developing countries.

Results

Parity

Tables 1–5 present WFS data on socioeconomic differentials in achieved parity for women in various European countries and for the United States. In these tables, achieved parity was calculated as the mean number of live births the respondents had had up to the date of the survey, standardized by duration of marriage. Despite the overall low fertility of these countries, there were considerable socioeconomic differentials in achieved parity. In almost all countries (except Belgium and Spain) the higher a woman's educational level the lower was her achieved parity (Table 1). This educational gradient was particularly marked in eastern European countries where the number of children born to women in the lowest educational level was 45–76% greater than the number born to those in the highest educational group. A similar relationship

was observed with husband's educational level but the differentials were not so marked (Table 2), and in some countries (Belgium, Denmark, Finland, France, Great Britain and Spain) there was some evidence that women whose husbands had post-secondary education had a slightly higher parity than women whose husbands fell in the higher-secondary category.

Similar gradients were observed with other measures of socioeconomic status. Achieved parity declined as family income rose in Bulgaria, Poland and the USA (Table 3); however, in Belgium and, to a lesser extent, in former Czechoslovakia, Denmark, France and Norway there was some suggestion of a U-shaped relationship, with families with very high and very low incomes having more births than adjacent groups. The average number of live births decreased consistently as husband's socioeconomic status rose in all the countries for which data were available (Table 4). Women living in rural areas had a higher number of live births than women living in urban areas (Table 5); this urban–rural gradient was particularly marked in eastern European countries.

There was also considerable evidence of socioeconomic differentials in parity in developing countries. Tables 6–8 show data on socioeconomic differentials in the number of children ever born to all women (regardless of their marital status) aged 40 to 49 years at the time of the survey (except Table 7 where the analysis by husband's educational level had to be restricted to ever-married women). Education differentials in parity showed an overall pattern of decreasing fertility with increasing woman's education but the size of the differentials varied substantially across countries (Table 6). In most African countries for which data were available, women with no or a few years of education usually had the highest fertility. In most Latin American countries the educational differentials were large, with parity decreasing consistently with increasing educational level. Similar patterns were observed when data were examined by husband's level of education but the magnitude of the differentials tended to be smaller (Table 7).

Parity tended to decline with increasing urbanization in most of the developing countries where the WFS were carried out (Table 8); these differentials were most marked in Latin America and considerably smaller in Africa.

Age at first birth

The WFS conducted in Europe and in the USA did not publish data on socioeconomic differentials in age at first birth, but data on socioeconomic differences in the time from first marriage to first birth were published (Ford, 1984). Table 9 shows results by woman's level of education. The median number of months from first marriage to first birth increased with educational level in most countries except Belgium, former Czechoslovakia and former Yugoslavia (Table 9). These data seem to suggest that differentials in age at first birth might have been in the same direction unless women in higher educational groups married at an earlier age than those in lower educational groups. Data from other sources indicate, however, that this might not have been the case. For instance, data from the 1971 Census in England and Wales showed that the proportion of women who married at ages under 25 years was greater among those married to men in manual occupations than among those married to men in non-manual occupations (Office of Population Censuses and Surveys, 1983). A similar pattern was observed in Norway (Central Bureau of Statistics of Norway, 1981).

Tables 10 and 11 present data from the DHS on the percentage of all women (regardless of their marital status) aged 20 to 49 years at the time of the survey who had their first birth before reaching the exact age of 20 years. The percentage of women with an early first birth was substantially higher among women with no education than among those with a high educational level, although in several countries (for example, Bolivia, Jordan, Liberia, Uganda and Zambia) the proportion among those with primary education was the same as or higher than among those with no education (Table 10). The percentages of women having had an earlier first birth were also higher in rural than in urban areas in almost every country included in this analysis (Table 11).

Childlessness

Table 12 shows results from the few studies that have examined the relationship between socioeconomic status and childlessness at an individual level. In Norway, there was a clear positive association between educational level and percentage of women who were still childless by age 35 years for cohorts born between 1935 and 1950. The

magnitude of these educational differentials is so large that they are unlikely to reflect just a higher tendency of well-educated women to postpone childbearing to ages above 35.

The pattern was different for women born in England and Wales and in the USA. Final childlessness for cohorts born in England and Wales around 1920–1930 was 11% lower among women married to manual workers (social classes III-M, IV and V) than among those married to non-manual workers (social classes III-NM, II and I). Within each broad category, however, childlessness was lowest among those married to men in the highest social class (Table 12). In the USA, the relationship between childlessness and income for women born around 1924–1935 was U-shaped, with women in the highest income category having the same level of childlessness as those in the lowest income category (Table 12). It should be noted, however, that these two surveys were restricted to married women.

The relationship between childlessness and socioeconomic status in developing countries has been assessed only in ecological studies. These studies have shown that during the early stages of modernization the level of childlessness, which is mainly involuntary, tends to decline as a result of better access to health services. A decline in childlessness with modernization was observed in various developing countries such as Zaire (Romaniuk, 1980) and Mexico (Poston *et al.*, 1985). As modernization progresses, however, the level of childlessness increases due to a rise in voluntary fertility control. This evolution has been shown in Taiwan (Poston, 1988) and in Brazil (Poston & Rogers, 1988) – countries that have been actively engaged in modernization programmes for several decades. It is conceivable that similar socioeconomic gradients in childlessness might have been present at an individual level.

Ages at menarche and menopause

Data on socioeconomic differences in age at menarche were collected in the WFS carried out in a small number of developing countries (Table 13). These data showed no clear relationship between age at menarche and woman's type of place of residence or educational level. Unfortunately, data on age at menarche were not collected in any of the WFS carried out in developed countries.

Very few studies have investigated the determinants of age at menopause. A nationally representative survey of women aged 45 to 64 years carried out in Finland in 1989 provided some evidence of socioeconomic differences in age at natural menopause (Table 14). Women in the higher socioeconomic levels had a slightly later age at natural menopause than those in the lower socioeconomic groups, but most of the estimates were based on small numbers. The age-adjusted proportion of women having had surgical menopause was also higher in women of low socioeconomic level (Table 14). Similar socioeconomic differentials in age at natural menopause were observed in a study of women who participated in a nationwide breast cancer screening programme carried out in the USA in 1973–1980 (Table 14).

Breastfeeding and postpartum amenorrhoea

Data from the WFS showed marked socioeconomic differences in duration of breastfeeding and postpartum amenorrhoea in a large number of developing countries (Tables 15–17). The WFS questions on breastfeeding and postpartum amenorrhoea applied to the live births resulting from the two last pregnancies, and therefore they refer to behaviour around the time of the surveys (Singh & Ferry, 1984; United Nations, 1987). In all countries for which the comparison could be made, breastfeeding duration decreased consistently with increasing educational level (Table 15) but the gradient was particularly marked at the higher end of the educational scale: the largest difference occurred between women with from four to six years of schooling and those with seven years or more. The educational differentials were greatest in Latin America and the Caribbean where the duration of breastfeeding of women in the lowest educational group was at least twice that for women in the highest educational group. A similar pattern was observed with woman's place of residence (Table 16). Data on postpartum amenorrhoea were available for a few WFS countries (Table 17). Although the duration of postpartum amenorrhoea was considerably smaller than the duration of breastfeeding, the socioeconomic differentials were similar.

No similar data from the WFS were available for developed countries. Recent trends in the incidence and duration of breastfeeding in the USA seem to suggest, however, that they are in the opposite direction to that observed in developing countries (United States Department of Health and Human

Services, 1984). Among White women, a significantly higher percentage of breastfeeding was observed with increasing maternal education in 1969, as well as in 1980. In sharp contrast, among Black women with newborns in 1969, there was a significant decrease in breastfeeding as the educational level of the mother increased. However, the relationship in 1980 was similar to that observed among White women.

General comments

The data presented here shows large socioeconomic differentials in reproductive behaviour. In general, women of higher socioeconomic status had fewer children and had them later than women of lower status. The direction and magnitude of the differences varied according to the level of economic development of each particular country. In general, fertility differentials were larger in the relatively more developed of the developing countries. This widening of differentials with modernization should be viewed in the context of the recent declines in overall fertility; while there might be societies where, from the beginning, fertility decline proceeded more or less at the same pace for all socioeconomic groups, decline more typically began amongst the highest socioeconomic groups and spread later to the lowest socioeconomic groups. In a few countries, the widening of the socioeconomic differentials might have been accomplished in part through small fertility increases among those women in the lower socioeconomic groups.

Socioeconomic variations in reproductive behaviour were also present in developed countries, where fertility had already reached very low levels. There is, however, evidence that the magnitude and even direction of the differentials is not constant. Table 18 clearly illustrates this point. There was relatively little socioeconomic variation in achieved fertility for women who married in England and Wales around the years 1851–1861. For women married since then, however, achieved fertility tended to be lowest among women married to men in professional and managerial occupations, and highest among the wives of unskilled manual workers. This pattern is similar to that observed now in many developing countries. But for women in England and Wales married since the 1940s, fertility rates were no longer lowest in the highest social group. The distribution of family size has been since then U-shaped, with the lowest average completed family size being recorded in group III-NM, the non-professional white-collar workers. In the manual group, fertility rises from social class III-M to social class V, and women married to men in social class V are more fertile than those in other classes of the manual group. In the non-manual group, by contrast, wives of men in social class I (professional occupations) have the largest families, and family size declines from social class I to social class III-NM.

The recent tendency for a slightly higher fertility at the upper end of the socioeconomic scale has also been observed in other developed countries. In Norway, there has been a recent trend among highly educated mothers of two children to proceed to a third birth more often than their less educated counterparts (Kravdal, 1992). A similar trend in third-birth rates has been observed in the USA (Kravdal, 1992). If this trend persists it may more than compensate for the tendency of the most highly educated women to remain childless, so that the educational gradient in achieved fertility may become positive at the higher end of the educational scale.

It is not clear whether age at first birth has changed recently in the different socioeconomic groups but it is worth noting that the differentials on age at first birth observed here (Tables 9–11) were larger than those on parity (Tables 1–8).

The observed socioeconomic differentials in most aspects of reproductive behaviour could potentially account for some of the socioeconomic variation in the risk of female reproductive cancers. Any assessment of this notion would need to take into account the marked changes in the pattern of the socioeconomic differentials in reproductive behaviour for successive generations of women. Unfortunately, most of the published data on socioeconomic differentials in fertility and in cancer risks do not relate to any specific cohort(s) of women.

There are long delays in socioeconomic differences in fertility manifesting themselves as differences in cancer rates – that is, fertility patterns at around ages 20–30 years generally manifest themselves as risk factors for cancer in women some decades later. Thus, cancer rates now reflect reproductive practices long ago and reproductive practices now will not affect cancer rates for many decades to come, and as socioeconomic differences in fertility

may be changing in the West there is no reason to believe that the present socioeconomic differences in reproductive cancers will continue forever.

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Table 1. Average number of live births (standardized by duration of marriage) by woman's level of education[a]

Country (sample size)	Woman's level of education					%
	1 Elementary not completed	2 Elementary completed	3 Lower secondary	4 Higher secondary	5 Post-secondary[d]	Excess of 1 relative to 5[c]
Belgium (4010)	1.77[a]		1.83	1.72	(1.90)	–7
Bulgaria (6352)	2.41	1.74	1.55	1.50	1.37	+76
Czechoslovakia (2932)	2.35[a]		2.08	1.80	1.62	+45
Denmark (3129)	2.20[a]		1.87	1.86	(1.85)	+19
Finland (5349)	2.01[a]		1.80	1.74	1.64	+23
France (2290)	2.51	2.03	1.86	1.79	(1.66)	+51
Great Britain (3682)	2.15[a]		1.90	1.73	1.72	+25
Italy (5359)	2.45	1.96	1.74	1.65	(1.48)	+66
Norway (2824)	2.40[a]		2.11	1.95	1.86	+29
Poland (9799)	2.70	2.32	1.95	1.71	1.55	+74
Romania (8771)	2.25[a]		1.68	1.52	1.39	+62
Spain (4618)	2.63	2.28	2.42	2.27	(2.41)	+9
USA (5545)	2.76[a]		2.34	2.07	1.82	+52
Yugoslavia (6806)	2.43	1.81	1.57		1.40	+74

[a]World Fertility Surveys conducted in Europe and in the USA during the years 1975–1979; modified from Jones, 1982.

[b]Pooled estimate, groups 1 + 2.

[c]Calculated as $[(1 - 5) / 5] \times 100$, or as $\{[(1 + 2) - 5] / 5\} \times 100$ if the two lowest categories were combined.

[d]Estimates were placed in parentheses if either the total number of women involved was less than 50 or the number of women in any one category of the underlying distribution by duration of marriage was less than 5.

Table 2. Average number of live births (standardized by duration of marriage) by husband's level of education[a]

Country (sample size)	Husband's level of education					
	1 Elementary not completed	2 Elementary completed	3 Lower secondary	4 Higher secondary	5 Post-secondary[b]	% Excess of 1 relative to 5[c]
Belgium (4010)	1.85[d]		1.72	1.73	1.91	−3
Bulgaria (6352)	2.39	1.73	1.58	1.57	1.41	+70
Czechoslovakia (2932)	NA		NA	NA	NA	–
Denmark (3129)	2.14[d]		1.88	1.83	1.85	+16
Finland (5349)	1.97[d]		1.84	1.72	1.78	+11
France (2290)	2.31	2.06	1.96	1.75	1.80	+28
Great Britain (3682)	2.00[d]		1.91	1.71	1.79	+12
Italy (5359)	2.53	2.02	1.83	1.71	(1.66)	+52
Norway (2824)	2.22[d]		2.19	2.00	1.93	+15
Poland (9799)	2.67	2.37	2.00	1.71	1.54	+73
Romania (8771)	1.75[d]		1.95	1.66	1.46	+20
Spain (4618)	2.62	2.30	2.33	2.33	2.58	+2
USA (5545)	2.66[d]		2.27	2.05	1.93	+38
Yugoslavia (6806)	2.52	2.02	1.77[e]		1.70	+48

NA; data not available.

[a]World Fertility Surveys conducted in Europe and in the USA during the years 1975–1979; modified from Jones, 1982.

[b]Estimates in parentheses are when total number of women involved was less than 50 or the number of women in any one category of the underlying distribution of marriage was less than 5.

[c]Calculated as $[(1 - 5) / 5] \times 100$, or as $\{[(1 + 2) - 5] / 5\} \times 100$ if the two lowest categories were combined.

[d]Pooled estimate, groups 1 + 2.

[e]Pooled estimate, groups 3 + 4.

Table 3. Average number of live births (standardized by duration of marriage) by family income at the time of the survey[a]

Country	Family income (quintiles of the distribution in each national sample)					
	1 Very low[b]	2 Low	3 Medium	4 High	5 Very high	% Excess of 1 relative to 5[c]
Belgium	2.01	1.95	1.80	1.55	1.79	+12
Bulgaria	1.86	1.72	1.62	1.51	1.49	+25
Czechoslovakia	2.10	1.82	1.84	1.95	1.87	+12
Denmark	2.05	2.12	1.96	1.68	1.76	+16
Finland	1.86	1.71	1.63	1.66	1.66	+12
France	2.59	2.10	1.85	1.51	1.57	+65
Great Britain	NA	NA	NA	NA	NA	–
Italy	NA	NA	NA	NA	NA	–
Norway	(2.29)	2.07	1.98	1.65	1.68	+36
Poland	2.19	1.94	1.81	1.80	1.60	+37
Romania	1.92	2.06[d]			1.57	+22
Spain	NA	NA	NA	NA	NA	–
USA	2.53	2.21	2.08	1.91	1.84	+38
Yugoslavia	NA	NA	NA	NA	NA	–

NA, data not available.

[a]World Fertility Surveys during the years 1975–1979; modified from Jones, 1982. The analysis was restricted to urban residents except for the USA, where all respondents were included. No information on the number of urban respondents in each country was given in Jones, 1982.

[b]Estimates in brackets when either the total number of women involved was less than 50 or the number of women in any one category of the underlying distribution of marriage was less than 5.

[c]Calculated as $[(1 - 5) / 5] \times 100$.

[d]Pooled estimate, groups 2 + 3 + 4.

Table 4. Average number of live births (standardized by duration of marriage) by husband's socio-occupational status at the time of the survey[a]

Country (sample size)	Husband's socio-occupational status 1) Agricultural workers	2 Manual workers	3 Non-manual workers	% Excess of 1 relative to 5[b]
Belgium (4010)	2.23	1.80	1.75	+27
Bulgaria (6352)	1.68	1.74	1.48	+14
Czechoslovakia (2932)	NA	NA	NA	–
Denmark (3129)	NA	NA	NA	–
Finland (5349)	2.07	1.86	1.76	+18
France (2290)	2.04	2.20	1.83	+11
Great Britain (3682)	2.02	1.92	1.74	+16
Italy (5359)	2.33	1.91	1.94	+20
Norway (2824)	2.26	2.14	1.93	+17
Poland (9799)	2.51	2.10	1.64	+53
Romania (8771)	2.44	2.12	1.46	+67
Spain (4618)	2.58	2.41	2.35	+10
USA (5545)	2.62	2.19	1.96	+34
Yugoslavia (6806)	2.44	2.11	1.90	+28

NA, data not available.

[a]World Fertility Surveys conducted in Europe and in the USA during the years 1975–1979; modified from Jones, 1982. Women whose husbands were unemployed were excluded from the analysis. In some countries (Finland, Poland, Romania and Spain) there was a group of 'other workers' but it was too small and too heterogenous for meaningful comparisons.

[b]Calculated as $[(1 - 3) / 3] \times 100$.

Table 5. Average number of live births (standardized by duration of marriage) by woman's place of residence at the time of the survey[a]

Country (sample size)	Place of residence		
	1 Rural	2 Urban	% Excess of 1 relative to 2[b]
Belgium (4010)	1.85	1.78	+4
Bulgaria (6352)	1.97	1.64	+20
Czechoslovakia (2932)	2.16	1.89	+14
Denmark (3129)	2.16	1.94	+11
Finland (5349)	2.09	1.71	+22
France (2290)	2.19	1.93	+13
Great Britain (3682)	NA	NA	–
Italy (5359)	1.98	1.89	+5
Norway (2824)	2.18	1.91	+14
Poland (9799)	2.47	1.82	+36
Romania (8771)	2.25	1.74	+29
Spain (4618)	2.45	2.40	+2
USA (5545)	NA	NA	–
Yugoslavia (6806)	2.45	1.96	+25

NA, data not available.

[a]World Fertility Surveys conducted in Europe and in the USA during the years 1975–1979; modified from Jones, 1982.

[b]Calculated as $[(1 - 2) / 2] \times 100$.

Table 6. Mean number of children ever born to all women aged 40–49 at the time of the surveys by woman's educational level[a]

Country (sample size)[b]	Year of survey	Approximate year of birth	Years of schooling: 1 Zero	2 1–3	3 4–6	4) 7+	% Excess of 1 relative to 4[c]
Africa							
Benin (4018)	1982	1932–43	6.2	NA	(5.0)	(4.8)	+29
Cameroon (8219)	1978	1928–39	5.2	5.1	4.9	(3.6)	+44
Côte d'Ivoire (5764)	1980	1930–41	6.8	(6.8)			–
Egypt (8788)	1980	1930–41	6.8	7.2	6.5	3.7	+84
Ghana (6125)	1979–80	1929–41	6.4	6.4	7.0	5.5	+16
Kenya (8100)	1977–78	1927–39	7.6	8.4	7.8	7.8	–3
Mauritania (3504)	1981	1931–42	5.9	6.0	NA	NA	–
Morocco (5801)	1979–80	1929–41	7.1	(7.3)	(6.3)	NA	–
Senegal (3985)	1978	1928–39	6.9	(6.9)			–
Sudan (3115)	1978–79	1938–40	6.1	(6.9)	(5.8)	(3.9)	+56
Asia and Oceania							
Bangladesh (6513)	1975–76	1925–37	6.9	7.0	7.6	(6.9)	0
Fiji (4298)	1974	1924–35	6.9	7.1	6.1	5.6	+23
Indonesia (9155)	1976	1926–37	5.2	6.1	5.6	4.5	+16
Jordan (3612)	1976	1926–37	8.9	9.0	7.2	6.2	+44
Korea, Rep. of (5430)	1974	1924–35	6.0	5.7	5.2	4.0	+50
Malaysia (6316)	1974	1924–35	6.3	6.2	5.9	3.7	+70
Nepal (5940)	1976	1926–37	5.7	3.9			–
Pakistan (4996)	1975	1925–36	6.9	(5.8)	6.5	(5.1)	+35
Philippines (9268)	1978	1928–39	7.0	7.4	6.9	5.2	+35
Sri Lanka (6812)	1975	1925–36	6.4	6.0	5.8	4.4	+45
Syrian Arab Rep. (4487)	1978	1928–39	7.8	6.3	6.6	4.0	+95
Thailand (3778)	1975	1925–36	6.4	6.6	6.5	4.0	+60
Latin America and the Caribbean							
Colombia (5378)	1976	1926–37	7.0	6.8	5.9	4.5	+56
Costa Rica (3935)	1976	1926–37	8.7	7.2	6.0	3.6	+42
Dominican Rep. (3115)	1975	1925–36	7.2	6.9	5.8	4.3	+67
Ecuador (6797)	1979	1929–40	7.9	7.4	6.2	3.8	+108
Guyana (4642)	1977	1927–38	7.5	6.5	6.9	5.8	+29
Haiti (3365)	1977	1927–38	5.8	6.0	5.6	(3.5)	+66
Jamaica (3096)	1975–76	1925–37	(4.4)	5.5	6.1	5.3	–17
Mexico (7310)	1976	1926–37	7.4	7.1	6.4	3.8	+95
Panama (3701)	1975–76	1925–37	7.1	7.0	5.9	4.0	+78
Paraguay (4682)	1979	1929–40	7.4	7.2	5.4	3.1	+139
Peru (5640)	1977–78	1927–38	7.4	6.6	5.8	3.9	+90
Trinidad & Tobago (4359)	1977	1927–38	7.1	6.9	6.1	5.0	+42
Venezuela (4361)	1977	1927–38	7.9	6.9	5.3	4.0	+98

[a]World Fertility Surveys conducted in selected developing countries during the years 1974–1982; modified from United Nations, 1987.
[b]These numbers represent the total sample size of each national survey; equivalent figures for women aged 40–49 years only were not given in the above publication. Values shown in parentheses are based on 10–24 cases. Categories containing fewer than 10 cases are not shown (NA) or (if this would mean suppressing more than two categories) are combined with adjacent categories.
[c]Calculated as $[(1 - 4) / 4] \times 100$.

Table 7. Mean number of children ever born to ever married women aged 40–49 at the time of the surveys by husbands's educational level[a]

Country[b]	Year of survey	Approximate year of birth of women	Years of schooling completed by the husband: 1 Zero	2 1–3	3 4–6	4 7+	% Excess of 1 relative to 4[c]
Africa							
Benin (4018)	1982	1932–43	6.2	(7.4)	5.6	(6.2)	0
Cameroon (8219)	1978	1928–39	5.1	6.1	5.5	5.1	0
Côte d'Ivoire (5764)	1980	1930–41	6.8	7.0	6.2	6.8	0
Egypt (8788)	1980	1930–41	6.9	7.2	6.9	4.6	+50
Ghana (6125)	1979–80	1929–41	6.4	(6.4)	6.1	6.4	0
Kenya (8100)	1977–78	1927–39	7.4	8.2	8.1	7.8	–5
Mauritania (3504)	1981	1931–42	5.6	6.3	8.9	NA	–
Morocco (5801)	1979–80	1929–41	7.2	NA	6.3	(6.8)	+6
Senegal (3985)	1978	1928–39	7.0	NA	(7.7)	6.3	+11
Sudan (3115)	1978–79	1938–40	5.9	6.5	7.2	6.7	–12
Asia and Oceania							
Bangladesh (6513)	1975–76	1925–37	6.8	7.2	7.1	7.6	–11
Fiji (4298)	1974	1924–35	6.9	6.7	6.3	6.1	+13
Indonesia (9155)	1976	1926–37	5.0	5.6	5.7	5.5	–9
Jordan (3612)	1976	1926–37	8.8	9.3	9.0	7.5	+17
Korea, Rep. of (5430)	1974	1924–35	6.3	6.5	5.5	4.7	+34
Malaysia (6316)	1974	1924–35	6.1	6.8	6.3	5.0	+22
Nepal (5490)	1976	1926–37	5.7	(5.9)	5.2	5.2	+10
Pakistan (4996)	1975	1925–36	7.0	6.9	6.8	6.6	+6
Philippines (9268)	1978	1928–39	7.4	7.7	7.1	6.1	+21
Sri Lanka (6812)	1975	1925–36	6.5	6.0	6.0	5.2	+25
Syrian Arab Rep. (4487)	1978	1928–39	7.9	7.5	7.7	6.1	+30
Thailand (3778)	1975	1925–36	6.6	6.6	6.6	5.2	+27
Latin America and the Caribbean							
Colombia (5378)	1976	1926–37	7.6	7.4	6.5	5.3	+43
Costa Rica (3935)	1976	1926–37	8.9	8.1	6.5	4.3	+107
Dominican Rep. (3115)	1975	1925–36	7.8	7.4	6.5	4.5	+73
Ecuador (6797)	1979	1929–40	8.4	7.7	7.2	4.5	+87
Guyana (4642)	1977	1927–38	6.2	7.8	7.3	6.1	+2
Haiti (3365)	1977	1927–38	6.1	6.4	5.5	4.6	+33
Jamaica (3096)	1975–76	1925–37	7.2	7.4	7.0	5.2	+38
Mexico (7310)	1976	1926–37	7.8	7.6	6.6	5.0	+56
Panama (3701)	1975–76	1925–37	7.7	7.2	5.9	4.4	+75
Paraguay (4682)	1979	1929–40	8.2	7.4	6.0	3.9	+110
Peru (5640)	1977–78	1927–38	7.6	7.6	6.8	4.9	+55
Trinidad & Tobago (4359)	1977	1927–38	7.2	8.4	6.6	5.2	+38
Venezuela (4361)	1977	1927–38	8.2	6.6	5.9	4.8	+71

[a]World Fertility Surveys conducted in selected developing countries during the years 1974–1982; modified from United Nations, 1987.
[b]These numbers represent the total sample size of each national survey; equivalent figures for women aged 40–49 years only were not given in the above publication. Values shown in parentheses are based on 10–24 cases. Categories containing fewer than 10 cases are not shown (NA) or (if this would mean suppressing more than two categories) are combined with adjacent categories.
[c]Calculated as $[(1 - 4) / 4] \times 100$.

Table 8. Mean number of children ever born to all women aged 40–49 at the time of the surveys by woman's place of residence[a]

Country (sample size)[b]	Year of survey	Approximate year of birth	Place of residence 1 Rural	2 Other urban	3 Major urban	% Excess of 1 relative to 4[c]
Africa						
Benin (4018)	1982	1932–43	6.2	6.0	5.9	+5
Cameroon (8219)	1978	1928–39	5.3	4.7	4.9	+8
Côte d'Ivoire (5764)	1980	1930–41	6.9	6.4	6.7	+3
Egypt (8788)	1980	1930–41	6.9	6.7	5.7	+21
Ghana (6125)	1979–80	1929–41	6.6	6.0	5.8	+14
Kenya (8100)	1977–78	1927–39	7.8	5.8	7.1	+10
Mauritania (3504)	1981	1931–42	5.9	6.0	5.8	+2
Morocco (5801)	1979–80	1929–41	7.7	6.3	6.2	+24
Senegal (3985)	1978	1928–39	7.0	6.6	6.9	+1
Sudan (3115)	1978–79	1938–40	6.0	6.3	6.1	–2
Asia and Oceania						
Bangladesh (6513)	1975–76	1925–37	7.0	6.8	6.8	+3
Fiji (4298)	1974	1924–35	6.5	6.0	5.5	+18
Indonesia (9155)	1976	1926–37	5.2	5.1	5.6	–7
Jordan (3612)	1976	1926–37	8.8	8.8	8.0	+10
Korea, Rep. of (5430)	1974	1924–35	6.1	5.1	4.5	+36
Malaysia (6316)	1974	1924–35	6.3	6.0	5.4	+17
Nepal (5940)	1976	1926–37	5.7	4.4	NA	–
Pakistan (4996)	1975	1925–36	6.9	7.0	6.5	+6
Philippines (9268)	1978	1928–39	7.0	5.7	5.1	+37
Sri Lanka (6812)	1975	1925–36	5.7	4.9	5.0	+14
Syrian Arab Rep. (4487)	1978	1928–39	7.7	7.7	6.5	+18
Thailand (3778)	1975	1925–36	6.4	5.0	4.8	+33
Latin America and the Caribbean						
Colombia (5378)	1976	1926–37	7.2	6.4	4.9	+47
Costa Rica (3935)	1976	1926–37	8.0	5.5	4.7	+70
Dominican Rep. (3115)	1975	1925–36	7.9	5.4	5.0	+58
Ecuador (6797)	1979	1929–40	7.4	6.4	4.9	+51
Guyana (4642)	1977	1927–38	7.0	6.3	4.9	+43
Haiti (3365)	1977	1927–38	6.1	(4.5)	5.0	+22
Jamaica (3096)	1975–76	1925–37	6.1	5.4	4.1	+49
Mexico (7310)	1976	1926–37	7.6	6.2	5.8	+31
Panama (3701)	1975–76	1925–37	6.9	6.1	4.6	+50
Paraguay (4682)	1979	1929–40	7.2	5.4	4.1	+76
Peru (5640)	1977–78	1927–38	7.1	6.6	5.0	+42
Trinidad & Tobago (4359)	1977	1927–38	6.1	5.4	4.9	+24
Venezuela (4361)	1977	1927–38	7.8	6.2	5.0	+56

[a]World Fertility Surveys conducted in selected developing countries during the years 1974–1982; modified from United Nations, 1987.
[b]These numbers represent the total sample size of each national survey; no corresponding figures for women aged 40–49 years were given in the above publication. Values shown in parentheses are based on 10–24 cases. Categories containing fewer than 10 cases are not shown (NA) or (if this would mean suppressing more than two categories) are combined with adjacent categories.
[c]Calculated as $[(1 - 3) / 3] \times 100$.

Table 9. Median number of months from first marriage to first birth by woman's level of education[a]

Country (sample size)	Level of education[b]					% Excess of 5 relative to 1[c]
	1 Elementary not completed	2 Elementary completed	3 Lower secondary	4 Higher secondary	5 Post-secondary	
Belgium (2375)	–	15.9	16.5	16.9	–	+6
Czechoslovakia (1570)	–	16.3	14.0	16.0	–	–2
Finland (3009)	–	10.3	12.1	17.6	25.2	+145
France (2121)	14.8	14.0	16.6	17.0	24.0	+62
Great Britain (1933)	–	–	21.7	31.2	38.9	+79
Hungary (2413)	–	(10.2)[d]	13.6	17.4	–	+71
Italy (3101)	12.6	13.7	15.2	15.1	–	+20
Netherlands (4184)	–	15.6	20.7	26.0	–	+67
Norway (1702)	–	–	7.4	11.3	23.6	+219
Poland (5857)	–	10.5	10.6	11.8	15.4	+47
Spain (2849)	11.8	12.1	12.4	15.1	–	+28
USA (1730)	–	–	14.2	20.9	37.8	+166
Yugoslavia (1732)	15.1	12.3	–	11.0	(15.7)	–4

[a]World Fertility Surveys during the years 1975–1979; modified from Ford, 1984.

[b]Not all countries have data for all the five educational levels because the data supplied by some countries had fewer categories.

[c]Calculated as $[(5 - 1) / 1] \times 100$.

[d]Values shown in brackets are based on 50–100 cases. No estimates are based on less than 50 cases.

Table 10. Percentage of all women aged 20–49 at the time of the surveys who had their first birth before reaching exact age 20 by woman's level of education[a]

Country (sample size)	Year of survey	Woman's level of education 1 No education	2 Primary	3 Higher	% Excess of 1 relative to 3[b]
Africa					
Botswana (3430)	1988	60.3	61.3	39.3	+53
Burundi (3239)	1987	35.7	31.8	15.0	+138
Cameroon (2952)	1991	69.5	70.2	46.8	+49
Egypt (9906)[c]	1988–89	56.1	41.9	5.2	+979
Ghana (3639)	1988	59.9	54.6	19.3	+210
Kenya (5645)	1988–89	69.0	70.9	40.7	+70
Liberia (4102)	1986	54.1	72.8	63.1	−14
Madagascar (4839)	1992	64.5	64.6	32.8	+97
Mali (2677)	1987	61.7	62.5	17.6	+251
Morocco (7111)	1992	36.3	22.5	5.8	+526
Namibia (4162)	1992	49.2	46.6	27.2	+81
Niger (5124)	1992	71.7	68.2	33.8	+112
Nigeria (7170)	1990	59.2	53.4	26.6	+123
Rwanda (5087)	1992	35.8	26.8	12.9	+178
Senegal (3440)	1986	65.2	46.1	30.1	+117
Sudan (7308)[c]	1989–90	54.3	42.6	11.6	+368
Tanzania (7053)	1991–92	67.0	59.5	20.9	+221
Togo (2636)	1988	61.5	58.0	34.5	+78
Tunisia (5644)[c]	1988	26.6	16.2	6.8	+291
Uganda (3573)	1988–89	70.2	72.0	45.4	+55
Zambia (5076)	1992	67.8	75.1	47.1	+44
Zimbabwe (3180)	1988–89	62.8	61.7	32.1	+96
Asia and Oceania					
Indonesia (24 620)[c]	1991	55.6	55.4	19.4	+187
Jordan (8089)[c]	1990	43.9	51.6	24.4	+80
Pakistan (7216)[c]	1990–91	40.8	36.9	20.9	+95
Sri Lanka (7650)[c]	1987	NA	NA	NA	–
Thailand (8165)[c]	1987	41.4	30.6	6.3	+557
Latin America and the Caribbean					
Bolivia (6242)	1989	44.1	45.9	28.8	+53
Brazil (4579)	1986	43.7	34.9	7.6	+475
Colombia (6706)	1990	55.7	43.9	20.5	+172
Dominican Rep. (5610)	1991	66.2	57.6	17.1	+287
Ecuador (3672)	1987	52.7	48.2	25.5	+107
Guatemala (3978)	1987	60.4	52.2	17.7	+241
Mexico (7096)	1987	63.0	46.7	19.9	+217
Paraguay (4563)	1990	54.4	43.3	17.7	+207
Peru (12 405)	1991–92	54.8	53.6	20.4	+167
Trinidad & Tobago (3122)	1987	53.3	45.2	22.0	+142

NA, date not available.

[a]Demographic and Health Surveys conducted in selected developing countries during the years 1986–1992; data from Westoff *et al.*, 1994.

[b]Calculated as $[(1 - 3) / 3] \times 100$.

[c]Only ever-married women were included in the survey.

Table 11. Percentage of all women aged 20–49 at the time of the surveys who had their first birth before reaching exact age 20 by woman's place of residence[a]

Country (sample size)	Year of survey	Place of residence		% Excess of 1 relative to 2[b]
		1 Rural	2 Urban	
Africa				
Botswana (3430)	1988	56.8	54.2	+5
Burundi (3239)	1987	34.0	47.4	–28
Cameroon (2952)	1991	67.9	60.1	+13
Egypt (9916)[c]	1988–89	52.5	29.7	+77
Ghana (3639)	1988	58.1	46.5	+25
Kenya (5653)	1988–89	66.9	51.5	+30
Liberia (4101)	1986	55.9	60.9	–8
Madagascar (4840)	1992	60.6	39.4	+54
Mali (2677)	1987	61.8	59.6	+4
Morocco (7111)	1992	34.8	23.8	+46
Namibia (4162)	1992	38.2	41.7	–8
Niger (5124)	1992	71.8	64.5	+11
Nigeria (7170)	1990	55.7	43.7	+27
Rwanda (5087)	1992	30.0	23.6	+27
Senegal (3440)	1986	67.3	49.3	+37
Sudan (7333)[c]	1989–90	45.1	34.9	+29
Tanzania (7055)	1991–92	61.2	59.3	+3
Togo (2636)	1988	63.5	45.5	+40
Tunisia (5668)[c]	1988	24.6	17.0	+45
Uganda (3573)	1988–89	69.9	59.2	+18
Zambia (5076)	1992	70.1	64.1	+9
Zimbabwe (3180)	1988–89	56.9	50.3	+13
Asia and Oceania				
Indonesia (24 677)[c]	1991	51.7	35.5	+46
Jordan (8121)[c]	1990	34.6	33.1	+5
Pakistan (7231)[c]	1990–91	38.6	34.6	+12
Sri Lanka (7650)[c]	1987	22.5	15.0	+50
Thailand (8169)[c]	1987	30.3	16.3	+86
Latin America and the Caribbean				
Bolivia (6241)	1989	44.0	36.0	+22
Brazil (4587)	1986	34.2	27.0	+27
Colombia (6709)	1990	38.9	27.9	+39
Dominican Republic (5609)	1991	53.4	35.3	+51
Ecuador (3672)	1987	46.2	34.4	+34
Guatemala (3978)	1987	57.9	40.4	+43
Mexico (7098)	1987	53.4	34.9	+53
Paraguay (4564)	1990	44.8	27.5	+63
Peru (12 406)	1991–92	51.2	27.7	+85
Trinidad & Tobago (3902)	1987	50.0	32.3	+55

[a]Demographic and Health Surveys conducted in selected developing countries during the years 1986–1992; data from Westoff *et al.* (1994).

[b]Calculated as $[(1 - 3) / 3] \times 100$.

[c]Ony ever–married women were included in the survey.

Table 12. Percentage of childless women in certain developed countries by socioeconomic status

Norway: percentage of childless women (born 1935–1950) at age 35 years[a]

Birth cohort	Woman's level of education (years of schooling)					% Excess of 1 relative to 5[b]
	1 7–9	2 10	3 11–12	4 13–14	5 15+	
1935	8.8	9.9	13.0	17.6	18.0	–51
1940	8.2	9.1	11.8	14.6	16.5	–50
1945	7.5	8.7	11.5	13.2	16.8	–55
1950	7.4	8.8	12.3	15.3	19.0	–61

England and Wales, 1971: percentage of childless women (born around 1920–1930) at the end of their reproductive life[c]

	Husband's social class						% Excess of 1 relative to 6[d]
	1 V	2 IV	3 III-M	4 III-NM	5 II	6 I	
Number of women	6811	20475	47164	12992	26796	5780	
% Childless	11.3	11.6	10.3	14.0	11.5	10.3	+10

United States of America, 1970: percentage of childless women (born around 1924–1935) at ages 35–44 years[e]

	Family income (US$) in 1969					% Excess of 1 relative to 5[b]
	1 <6000	2 6000–9999	3 10000–14999	4 15000–19999	5 ≥20000	
Number of women	35977	156338	371461	235701	174025	
% Childless	18.4	14.7	15.3	17.9	18.4	0

[a]Data from Kravdal, 1992. Study population included all women born in the country regardless of their marital status. The numbers of women on which these analyses were based are not given in the original publication.

[b]Calculated as $[(1 - 5/5] \times 100$.

[c]Data from Office of Population Censuses and Surveys, 1983. Study population included all women married in the years 1946–1950 who had been married once only at ages under 45.

[d]Calculated as $[(1 - 6) / 6] \times 100$.

[e]Data from Poston, 1974. Study population included all white women aged 35–44 who were married after age 22, in the labour force, married once only, and were wives of civilian household heads employed in non-farming occupations.

Table 13. Mean age at menarche (in years) for ever-married women[a] by woman's place of residence and educational level[b]

Country (sample size)	Place of residence				Years of schooling				
	1 Rural	2 Other urban	3 Major urban	% Excess of 1 relative to 3[c]	4 0	5 1–3	6 4–6	7 7+	% Excess of 4 relative to 7[d]
Africa									
Benin (3330)	14.7	14.6	15.0	–2	(14.7)[e]	14.8	14.9	(14.8)	–1
	14.8	*14.7*	*15.3*	*–3*	*14.8*	*15.2*	*15.2*	*14.9*	*–1*
Cameroon (7256)	14.2	14.2	14.1	+1	14.2	14.0	14.3	14.1	+1
	14.5	*14.5*	*14.2*	*+2*	*14.3*	*14.5*	*14.9*	*14.4*	*–1*
Côte d'Ivoire (4984)	14.2	14.1	14.2	0	14.2	13.9	13.8	13.9	+2
	14.3	*14.2*	*14.3*	*0*	*14.3*	*14.1*	*14.1*	*14.0*	*+2*
Egypt (8782)	13.6	13.3	13.0	+5	13.5	13.3	13.2	13.1	+3
Ghana (4462)	14.9	15.0	14.9	0	14.9	14.8	14.9	15.1	–1
	15.2	*15.2*	*15.1*	*+1*	*15.0*	*14.9*	*15.2*	*15.4*	*–2*
Kenya (4641)	14.4	14.3	14.3	+1	14.2	14.5	14.4	14.7	–3
	14.9	*14.4*	*14.5*	*+3*	*14.4*	*14.9*	*15.3*	*14.8*	*–3*
Mauritania (3385)	13.9	13.7	13.4	+4	13.7	13.7	13.7	13.8	–1
Sudan (2884)	13.3	13.1	13.0	+2	13.2	13.1	13.2	13.3	–1
Tunisia (2727)	13.8	13.6	13.2	+5	13.6	13.5	13.6	13.4	+1
Asia and Pacific									
Nepal (5047)	15.3	15.1	–[f]	–	15.4	(15.1)	14.8	(14.5)	+6
Philippines (9266)	14.0	13.8	13.6	+3	14.0	14.0	14.1	13.7	+2
Syrian Arab) Republic (4362	13.5	13.4	13.3	+2	13.4	13.4	13.3	13.5	–1
Americas									
Colombia (3280)	13.7	13.5	13.5	+1	13.5	13.6	13.6	13.3	+2
	13.7	*13.4*	*13.4*	*+2*	*13.6*	*13.7*	*13.6*	*13.3*	*+2*
Haiti (2263)	14.9	14.2	14.3	+4	14.8	14.8	14.2	13.8	+7
	14.9	*15.6*	*15.2*	*–2*	*15.4*	*15.5*	*14.5*	*14.1*	*+9*

[a]Values for all women regardless of their marital status are presented in italics for the countries for which these data were available.
[b]World Fertility Surveys conducted in selected developing countries during the years 1974–1982; data from Singh and Ferry, 1984.
[c]Calculated as $[(1 - 3) / 3] \times 100$.
[d]Calculated as $[(4 - 7) / 7] \times 100$.
[e]Estimates were placed in brackets if based on 50–100 cases.
[f]There were no 'Major urban' areas in Nepal.

Table 14. Age at natural menopause and proportion of women with a surgical menopause in two developed countries by woman's occupation and educational level

Finland, 1989[a]

	Sample size	Mean age at natural menopause (median age)	Age-adjusted % of women with surgical menopause
Occupation			
Upper white-collar workers	153	53.5 (52)	16.2
Lower white-collar workers	612	51.9 (52)	18.9
Farmers	182	51.8 (51)	17.0
Blue-collar service workers	234	50.5 (51)	23.4
Blue-collar factory workers	277	51.0 (51)	21.0
Housewives	47	51.0 (51)[b]	11.8
Education (years of schooling)			
≥11	158	52.7 (52)	11.2
9–10	281	51.8 (52)	22.4
≤8	1066	51.4 (51)[c]	19.6

USA, 1973–1980[d]

		Median age at natural menopause	
Income (US$)	**Sample size**	**Years**	**Months**
≥30 000	285	51	10
20 000–29 999	250	51	2
10 000–19 999	350	50	11
≤9999	344	50	7
Education (years of schooling)			
≥13	616	51	5
12	534	51	4
≤11	272	50	3

[a]Data from a nationally representative survey of women aged 45–64 years (Luoto *et al.*, 1994).

[b]Mantel-Cox test of trend: $P = 0.02$.

[c]Mantel-Cox test of trend: $P = 0.03$.

[d]Data from a study of women who participated in a nationwide breast screening programme during the years 1973–1980 (Stanford *et al.*, 1987).

Table 15. Mean duration of breastfeeding (months) by woman's educational level[a]

Country (sample size)	Year of survey	Years of schooling: 1 Zero	2 1–3	3 4–6	4 7+	% Excess of 1 relative to 4[b]
Africa						
Benin (4018)	1982	21.6	NA	17.8	NA	–
Cameroon (8219)	1978	21.0	19.1	17.5	14.6	+44
Côte d'Ivoire (5764)	1980	20.4	18.0	14.6	11.5	+77
Egypt (8788)	1980	21.2	19.5	16.3	10.2	+108
Ghana (6125)	1979–80	21.3	NA	19.2	15.7	+36
Kenya (8100)	1977–78	19.6	17.4	15.2	12.5	+57
Mauritania (3504)	1981	17.7	17.2	15.6	15.7	+13
Morocco (5801)	1979–80	16.7	NA	9.3	NA	–
Senegal (3985)	1978	21.1	NA	16.8	NA	–
Sudan (northern only)	1978–79	17.3	16.1	NA	NA	–
Asia and Oceania						
Bangladesh (6513)	1975–76	34.4	30.4	NA	NA	–
Fiji (4298)	1974	13.0	11.1	11.8	8.7	+49
Indonesia (9155)	1976	28.4	27.0	24.7	13.7	+107
Jordan (3612)	1976	13.9	13.0	10.5	7.7	+81
Korea, Republic of (5430)	1974	21.0	17.7	18.0	13.7	+53
Malaysia (6316)	1974	7.6	5.7	5.7	3.8	+100
Nepal (5940)	1976	29.3	NA	NA	NA	–
Pakistan (4996)	1975	22.0	NA	19.8	NA	–
Philippines (9268)	1978	18.9	17.6	14.8	9.5	+99
Sri Lanka (6812)	1975	26.1	24.7	23.4	18.5	+41
Syrian Arab Republic (4487)	1978	12.9	NA	10.7	9.5	+36
Thailand (3778)	1975	20.9	NA	20.8	NA	NA
Latin America and the Caribbean						
Colombia (5378)	1976	11.9	11.4	8.3	5.3	+125
Costa Rica (3935)	1976	NA	8.1	4.6	3.2	–
Dominican Republic (3115)	1975	12.2	10.5	8.6	5.2	+135
Ecuador (6797)	1979	17.0	14.5	13.0	8.9	+91
Guyana (4642)	1977	NA	9.2	7.7	6.6	–
Haiti (3365)	1977	19.0	14.1	NA	NA	–
Jamaica (3096)	1975–76	NA	NA	8.9	6.2	–
Mexico (7310)	1976	12.9	10.9	8.3	3.8	+239
Panama (3701)	1975–76	NA	13.0	9.2	2.4	–
Paraguay (4682)	1979	15.7	14.6	11.4	6.1	+157
Peru (5640)	1977–78	19.3	16.6	12.0	7.0	+176
Trinidad and Tobago (4359)	1977	NA	NA	10.0	7.1	–
Venezuela (4361)	1977	11.6	10.0	6.7	3.5	+231

NA, data not available because of small sample sizes.

[a]World Fertility Surveys conducted in selected developing countries in 1974–1982; modified from United Nations, 1987.

[b]Calculated as $[(1 - 4) / 4] \times 100$.

Table 16. Mean duration of breastfeeding (months) by woman's place of residence at the time of the survey[a]

Country (sample size)	Year of survey	Place of residence			% Excess of 1 relative to 3[b]
		1 Rural	2 Other urban	3 Major urban	
Africa					
Benin (4018)	1982	22.1	20.3	16.5	+34
Cameroon (8219)	1978	20.4	16.3	15.3	+33
Côte d'Ivoire (5764)	1980	20.8	16.8	16.7	+25
Egypt (8788)	1980	21.4	16.7	13.9	+54
Ghana (6125)	1979–80	20.7	17.2	14.7	+41
Kenya (8100)	1977–78	17.3	12.4	12.9	+34
Mauritania (3504)	1981	17.5	16.2	17.8	–2
Morocco (5801)	1979–80	17.6	11.6	12.7	+39
Senegal (3985)	1978	22.0	18.5	17.5	+26
Sudan (3115)	1978–79	17.4	15.5	16.7	+4
Asia and Oceania					
Bangladesh (6513)	1975–76	33.7	29.6	NA	–
Fiji (4298)	1974	12.1	7.1	6.6	+83
Indonesia (9155)	1976	28.2	18.2	15.8	+78
Jordan (3612)	1976	13.1	11.5	10.3	+27
Korea, Republic of (5430)	1974	20.0	15.8	14.0	+43
Malaysia (6316)	1974	6.9	4.6	2.1	+229
Nepal (5940)	1976	29.2	NA	NA	–
Pakistan (4996)	1975	22.8	18.8	16.8	+36
Philippines (9268)	1978	15.2	10.9	7.4	+105
Sri Lanka (6812)	1975	23.4	18.5	NA	–
Syrian Arab Republic (4487)	1978	12.8	11.6	9.5	+35
Thailand (3778)	1975	21.7	NA	7.5	+189
Latin America and the Caribbean					
Colombia (5378)	1976	11.7	8.7	5.8	+102
Costa Rica (3935)	1976	6.4	4.3	3.2	+100
Dominican Republic (3115)	1975	11.8	7.9	5.0	+136
Ecuador (6797)	1979	15.3	10.8	8.9	+72
Guyana (4642)	1977	8.3	8.0	5.2	+60
Haiti (3365)	1977	19.2	NA	11.0	+75
Jamaica (3096)	1975–76	8.9	10.2	6.2	+44
Mexico (7310)	1976	12.3	8.0	6.0	+105
Panama (3701)	1975–76	10.8	5.0	4.0	+170
Paraguay (4682)	1979	13.6	12.6	5.7	+139
Peru (5640)	1977–78	18.9	13.0	8.3	+128
Trinidad and Tobago (4359)	1977	9.4	8.6	6.5	+45
Venezuela (4361)	1977	11.5	7.0	4.1	+180

NA, data not available because of small sample size.

[a]World Fertility Surveys conducted in selected developing countries in 1974–1982; data from United Nations, 1987.

[b]Calculated as $[(1 - 3) / 3] \times 100$.

Table 17. Mean duration of postpartum amenorrhoea (in months) by woman's place of residence and educational level[a]

Country (sample size)	Place of residence				Years of schooling				
	1 Rural urban	2 Other urban	3 Major	% Excess of 1 relative to 3[b]	4 0	5 1–3	6 4–6	7 7+	% Excess of 4 relative to 7[c]
Africa									
Benin (2803)	12.9	10.5	7.9	+63	12.6	(8.7)[d]	8.2	(6.0)	+110
Cameroon (4650)	12.5	9.7	7.8	+60	13.1	11.6	10.4	7.2	+82
Côte d'Ivoire (3804)	11.5	8.4	8.9	+29	11.2	11.4	7.4	5.3	+111
Egypt (5667)	10.6	7.2	6.1	+74	10.4	9.4	7.4	3.9	+167
Ghana (3335)	13.3	11.9	9.9	+34	13.5	12.8	11.4	11.0	+23
Kenya (5679)	10.3	7.3	6.7	+54	11.8	11.0	8.8	6.9	+71
Mauritania (2447)	9.8	7.8	7.4	+32	10.1	8.8	6.4	4.1	+146
Sudan (2242)	11.7	8.4	7.6	+54	11.6	9.0	8.0	(5.1)	+127
Tunisia (3021)	8.4	4.7	5.1	+65	8.1	5.3	3.5	2.4	+238
Asia and Pacific									
Bangladesh (3836)	15.0	11.2	10.5	+43	15.7	15.1	10.7	8.0	+96
Fiji (2660)	5.1	3.7	3.5	+46	5.0	4.6	5.3	4.1	+22
Philippines (6627)	8.9	6.4	4.6	+93	10.4	9.4	8.8	5.9	+76
Syrian Arab Republic (4025)	7.5	5.9	4.2	+79	7.6	4.8	4.6	4.0	+90

[a]World Fertility Surveys conducted in selected developing countries during the years 1974–1982; data from Singh & Ferry, 1984.

[b]Calculated as $[(1 - 3) / 3] \times 100$.

[c]Calculated as $[(4 - 7) / 7] \times 100$.

[d]Estimates in parentheses are based on 50–100 cases.

Table 18. Achieved fertility by husband's social class and year of marriage

Date of marriage	Duration of marriage (years)	Social class I	II	III	IV	V	% Excess of V relative to I[a]
		Number of children born per 100 families at the time of the 1911 census[b]					
1851–1861	50–60	662	733	746	735	763	+15
1861–1871	40–50	607	665	696	690	715	+18
1871–1881	30–40	497	567	615	616	652	+31
1881–1886	25–30	413	481	544	550	596	+44
1886–1891	20–25	357	422	482	491	541	+52
1891–1896	15–20	303	359	405	412	463	+53
1896–1901	10–15	242	284	314	323	362	+49
		I	II	III-NM	III-M	IV	V	% Excess of V relative to III-NM[d]
		Mean family size at the time of the 1971 census[c]						
1941–1945	26–30	2.04	1.99	1.86	2.20	2.24	2.47	+33
1946–1950	21–25	2.11	2.02	1.90	2.24	2.29	2.57	+35
1951–1955	16–20	2.25	2.17	2.00	2.34	2.36	2.66	+33
1956–1960	11–15	2.23	2.12	2.00	2.29	2.31	2.58	+29

[a]Calculated as [(V – I) /I] × 100.
[b]Rates standardized for age of wife's marriage; data from Stevenson, 1920.
[c]Data from Office of Population Censuses and Surveys, 1983.
[d]Calculated as [(V – III-NM) /III-NM] × 100.