

## CHAPTER 4

### FERTILITY AND FERTILITY PREFERENCES

A major objective of NFHS-2 is to provide detailed information on fertility levels, differentials, and trends. This chapter presents a description of current and past fertility, cumulative fertility and family size, birth intervals, age at first cohabitation with husband, age at first and last birth, age at menopause, and durations of postpartum amenorrhoea, abstinence, and insusceptibility to pregnancy. Also discussed are fertility preferences, ideal and actual number of children, preference for sons or daughters, planning status of pregnancies, and wanted and actual total fertility rates.

Most of the fertility measures presented in this chapter are based on the complete birth histories collected from ever-married women age 15–49 years. Several measures and procedures were used to obtain complete and accurate reporting of births, deaths, and the timing of these events. First, women were asked a series of questions aimed at recording all the live births that had occurred in their lifetime. Second, for each live birth, the survey collected information on the age, sex, and survival status of the child. For dead children, age at death was recorded. Interviewers were given extensive training in probing techniques designed to help respondents report this information accurately. For example, interviewers were instructed to check any documents (such as horoscopes, school certificates, or vaccination cards) that might provide additional information on dates of birth and to probe for the reason for any birth interval of four or more years in order to prevent omission of births, especially of children who died soon after birth. Stillbirths, miscarriages, and induced abortions that occurred between live births were also recorded.

Despite these measures to improve data quality, NFHS-2 is subject to the same types of errors that are inherent in all retrospective sample surveys—namely, the omission of some births (especially births of children who died at a very young age) and the difficulty of determining the date of birth of each child accurately. These problems can bias estimates of fertility levels and trends.

#### 4.1 Age at First Cohabitation

The number of children that a woman will have in her lifetime is strongly influenced by the age at which she marries. In many parts of India, traditionally formal marriage is not always immediately followed by cohabitation. Rather, the husband and the wife typically begin to cohabit only after a ceremony (called *Gauna* or *Vida* in many states) that is performed after the marriage with a lag of a few days to a few years. Although this practice is not followed in most parts of Maharashtra, a marriage may not be consummated immediately if it occurs at a very young age. In such instances, there is a difference between age at marriage and age at consummation of marriage. Age at consummation of marriage is, of course, what is relevant for fertility. NFHS-2 measured age at first cohabitation as a proxy for age at consummation of marriage. In Table 4.1, the median age at first cohabitation for a group of women is defined as the age by which half of the entire group began to cohabit, rather than the age by which half of all ever-cohabiting women in the group began to cohabit.

<b>Table 4.1 Age at first cohabitation with husband</b>							
Median age at first cohabitation with husband among women age 20–49 years by current age and selected background characteristics, Maharashtra, 1999							
Background characteristic	Current age						
	20–24	25–29	30–34	35–39	40–49	20–49	25–49
<b>Residence</b>							
Urban	19.8	18.7	18.2	17.8	18.0	18.6	18.2
Rural	17.1	16.0	16.1	15.9	15.4	16.0	15.8
<b>Mumbai</b>							
Slum	NC	20.1	19.3	19.1	19.6	20.0	19.6
Non-slum	19.5	18.9	18.8	18.1	18.1	18.8	18.5
	NC	22.4	20.6	20.8	20.8	NC	21.0
<b>Education</b>							
Illiterate	15.2	15.1	15.3	15.3	15.1	15.2	15.2
Literate, < middle school complete	17.3	16.9	16.8	16.8	16.5	16.8	16.8
Middle school complete	18.6	18.8	18.6	18.7	18.5	18.7	18.7
High school complete and above	NC	20.9	20.9	20.9	20.7	NC	20.9
<b>Religion</b>							
Hindu	18.1	16.9	16.7	16.5	16.2	16.8	16.5
Muslim	18.2	18.4	17.4	17.1	17.0	17.7	17.5
Christian	*	*	*	*	(19.5)	19.5	19.5
Buddhist/Neo-Buddhist	19.8	17.1	17.0	(16.5)	16.5	17.2	16.6
Jain	NC	*	*	(18.3)	(18.7)	19.5	18.7
Other	*	*	*	*	*	(18.0)	(18.1)
<b>Caste/tribe</b>							
Scheduled caste	19.3	17.2	16.6	16.1	15.7	16.8	16.3
Scheduled tribe	16.7	16.7	16.2	15.9	15.8	16.2	16.1
Other backward class	18.7	17.4	16.9	17.0	17.1	17.5	17.1
Other	18.1	17.1	16.9	16.7	16.5	17.1	16.8
<b>Standard of living index</b>							
Low	15.9	15.5	15.5	15.3	15.1	15.5	15.4
Medium	18.2	17.0	16.8	16.6	16.3	17.0	16.6
High	NC	19.9	19.4	18.3	18.5	19.5	18.9
Total	18.2	17.1	16.8	16.5	16.3	17.0	16.7
Note: Total includes women with missing information on caste/tribe and the standard of living index, who are not shown separately.							
NC: Not calculated because less than 50 percent of the women have started living with their husband by age 20							
( ) Based on 25–49 unweighted cases							
*Median not shown; based on fewer than 25 unweighted cases							

Table 4.1 shows that, in Maharashtra, the median age at first cohabitation with the husband is 17 years for women age 20–49. The median age at first cohabitation increases steadily from 16.3 for women age 40–49 to 18.2 for women age 20–24, suggesting a modest increase in the median age at first cohabitation over a period of approximately 23 years.

For women age 20–49, the median age at first cohabitation is 16.0, 18.6, and 20.0 in rural areas, urban areas, and Mumbai, respectively. In comparison with rural women, it is two and a half years higher for women in urban areas and four years higher for women in Mumbai. Within Mumbai, the median age at first cohabitation is two and a half years higher in non-slum areas than in slum areas. In both rural and urban areas of the state the median age at first cohabitation has risen by the same moderate pace over the years, however in Mumbai it has increased

relatively recently and at a slower pace. The median age at first cohabitation rises sharply with women's level of education, although over the period the age at first cohabitation within each educational category has not changed much. For illiterate women it has been around 15 years and for women with high school complete or more education it has been around 21 years during the period shown in the table. The median age at first cohabitation is lowest for Hindu women (16.8 years), followed by Buddhist/Neo-Buddhist and Muslim women (17.2 and 17.7 years, respectively), and highest for Christian and Jain women (19.5 years each). The median age at first cohabitation is lower for women from scheduled tribes and scheduled castes (16.2 and 16.8 years, respectively) than for women from other castes (17.1–17.5 years). The increase in the age at first cohabitation is comparatively sharp among Buddhist/Neo-Buddhist women (from 16.5 years for women age 40–49 to 19.8 years for women age 20–24) and those belonging to scheduled castes (from 15.7 to 19.3 years). The median age at first cohabitation is four years higher for women living in households with a high standard of living (19.5 years) than for women living in households with a low standard of living (15.5 years).

## 4.2 Current Fertility Levels

NFHS-2 provides estimates of age-specific fertility rates (ASFR), total fertility rates (TFR), and crude birth rates (CBR) for the three-year period preceding the survey, which, in Maharashtra, corresponds roughly to the period 1996–98. This three-year period was chosen as a compromise between the need to obtain recent information (suggesting the use of a short period close to the survey date) and the need to reduce sampling variation and minimize problems related to displacement of births from recent years to earlier years (suggesting the use of a longer period). The ASFR for any specific age group is calculated by dividing the number of births to women in the age group during the period 1–36 months preceding the survey by the number of woman-years lived by women in the age group during the same three-year time period. The TFR is a summary measure, based on the ASFRs, that gives the number of children a woman would bear during her reproductive years if she were to experience the ASFRs prevailing at the time of the survey. Mathematically, the TFR is calculated as five times the sum of all the ASFRs for the five-year age groups. The CBR is defined as the annual number of births per 1,000 population.

Based on estimates for the three-year period before NFHS-2, the CBR for Maharashtra is estimated at 23 live births per 1,000 population, and the TFR is estimated at 2.52 births per woman, as shown in Table 4.2. The fertility estimates are lower in urban areas than in rural areas. The CBR is 9 percent lower in urban areas than that in rural areas, and the urban TFR is 18 percent lower than the rural TFR. As shown in Figure 4.1, rural ASFRs are much higher at younger ages (15–24) than urban ASFRs. At older ages (25–39), rural ASFRs are marginally lower than urban ASFRs. The high levels of ASFR of rural women below age 25 account for the higher total fertility rate in rural areas. Fertility at age 15–19 accounts for 21 percent of total fertility in urban areas, 28 percent in rural areas, and 26 percent overall, indicating that there is a substantial amount of teenage fertility in both urban and rural areas of Maharashtra. Forty-one percent of urban fertility, 46 percent of rural fertility, and 44 percent of overall fertility is concentrated in the 20–24 age group alone. Seventy-five percent of fertility among rural women, 62 percent among urban women, and 70 percent among all women is contributed by women under age 25. For the state as a whole, fertility at ages 35 and older accounts for only 2 percent of total fertility implying that almost all women in Maharashtra complete their childbearing by age 35.

**Table 4.2 Current fertility**

Age-specific and total fertility rates and crude birth rates from NFHS-1, NFHS-2, and the SRS by residence, Maharashtra

Age	NFHS-1 (1990–92)	NFHS-2 (1996–98)		SRS (1997)			
	Total	Urban	Rural	Total	Urban	Rural	Total
15–19	0.141	0.094	0.156	0.129	0.036	0.066	0.054
20–24	0.227	0.185	0.254	0.223	0.200	0.278	0.245
25–29	0.132	0.111	0.101	0.106	0.144	0.164	0.155
30–34	0.053	0.045	0.026	0.034	0.054	0.066	0.061
35–39	0.012	0.014	0.010	0.012	0.019	0.023	0.021
40–44	0.006	0.000	0.000	0.000	0.006	0.007	0.007
45–49	0.000	0.000	0.000	0.000	0.002	0.003	0.002
TFR 15–44	2.86	2.24	2.74	2.52	2.30	3.02	2.72
TFR 15–49	2.86	2.24	2.74	2.52	2.31	3.04	2.73
CBR	26.3	21.6	23.8	23.0	21.0	24.4	23.1

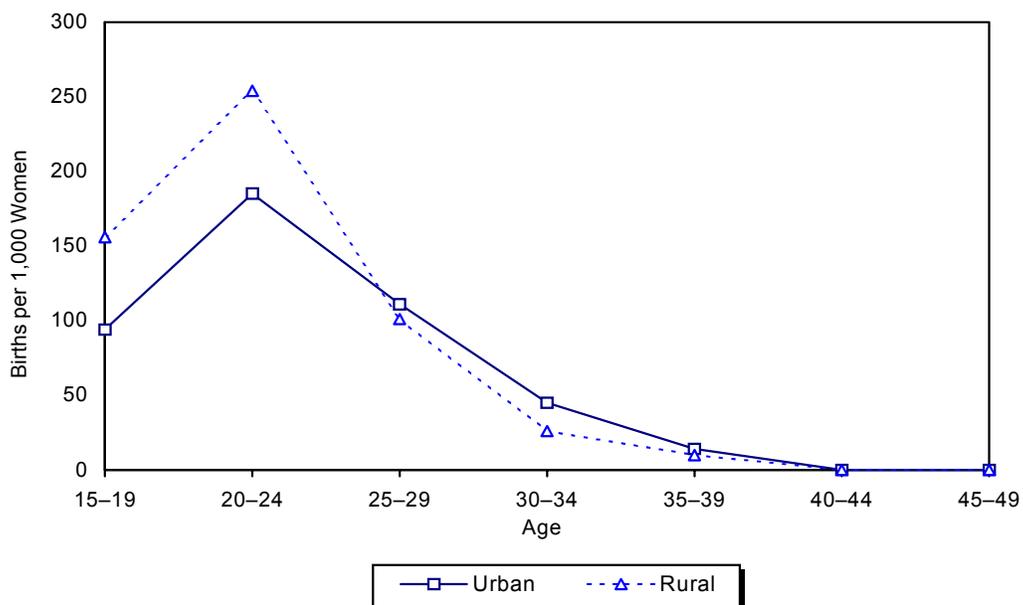
Note: Rates from NFHS-1 and NFHS-2 are for the period 1–36 months preceding the survey. Rates for the age group 45–49 might be slightly biased due to truncation. Rates from the SRS are for one calendar year. Age-specific and total fertility rates are expressed per woman.

TFR: Total fertility rate

CBR: Crude birth rate, expressed per 1,000 population

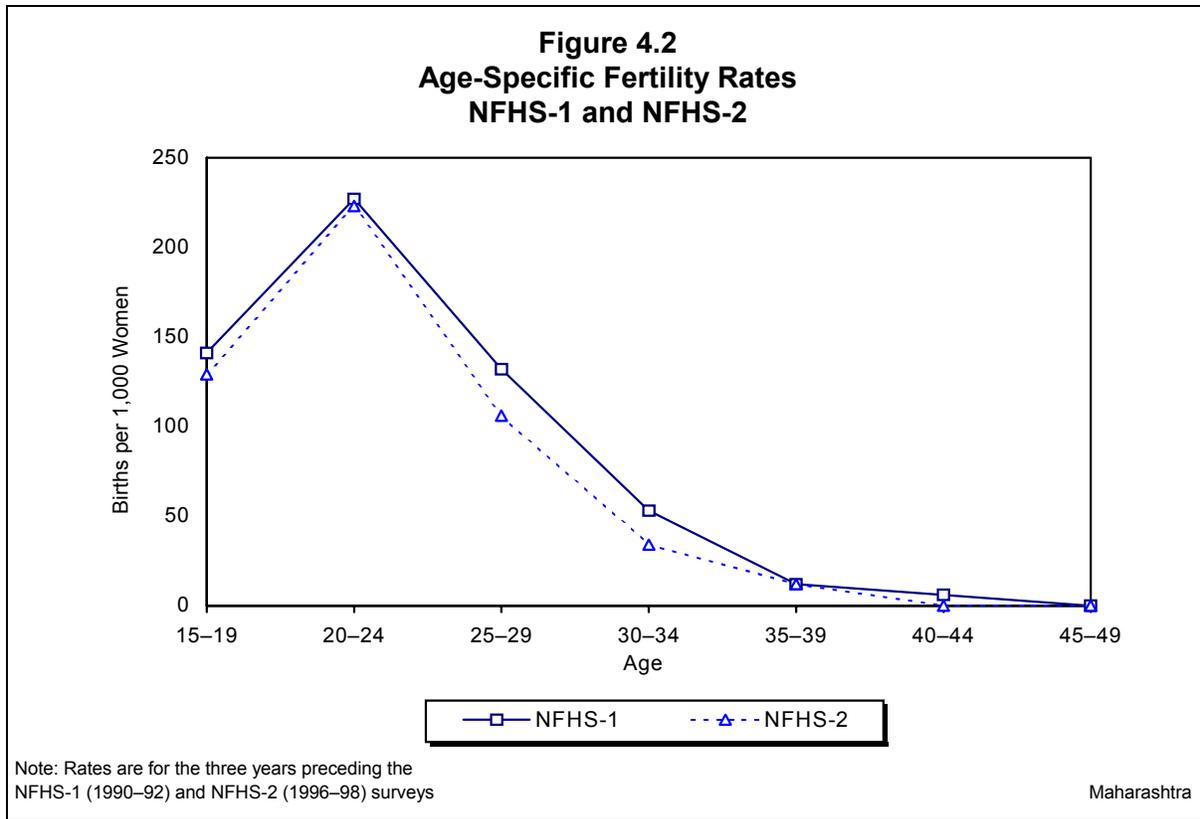
Source for SRS: Office of the Registrar General, 1999a

**Figure 4.1  
Age-Specific Fertility Rates  
by Residence**



Note: Rates are for the three years preceding the survey (1996–98)

NFHS-2, Maharashtra, 1999



Based on estimates for the three-year periods preceding NFHS-1 and NFHS-2, the CBR fell from 26.3 to 23.0 between the two surveys, a decline of 13 percent in approximately six years. Over the same period, the TFR fell from 2.86 to 2.52, a decline of 12 percent. Table 4.2 and Figure 4.2 show that between NFHS-1 and NFHS-2 fertility fell considerably for all age groups, except 20-24 and 35-39. An insignificant change in the peak-fertility age group (20-24) is particularly noteworthy.

NFHS-2 fertility estimates can be compared with estimates from the Sample Registration System (SRS), which is maintained by the Office of the Registrar General, India. Since the NFHS-2 rates refer to 1996-98, it is appropriate to compare them with the SRS estimates for 1997, which are also shown in Table 4.2. The NFHS-2 estimate of the CBR in Maharashtra, at 23.0, matches closely with the SRS estimate of 23.1, although in urban Maharashtra the NFHS-2 estimate of the CBR of 21.6 is slightly higher than the corresponding SRS estimate of 21.0 and in rural Maharashtra the NFHS-2 estimate of 23.8 is slightly lower than SRS estimate of 24.4. Although the CBR estimates from NFHS-2 and SRS match almost exactly, the NFHS-2 estimate of the TFR (2.52) is 0.2 children lower than the SRS estimate of 2.73. In both rural and urban areas and in the state as a whole, the NFHS-2 estimate of fertility in the age group 15-19 is substantially higher than the corresponding SRS estimate, but beyond age 20, the NFHS-2 estimates of fertility are substantially lower than the corresponding SRS estimates.

### 4.3 Fertility Differentials and Trends

Table 4.3 and Figure 4.3 show how the TFR, the percentage currently pregnant, and the mean number of children ever born to women age 40-49 vary by selected background characteristics. It has already been noted that the TFR in urban Maharashtra is lower than that in rural

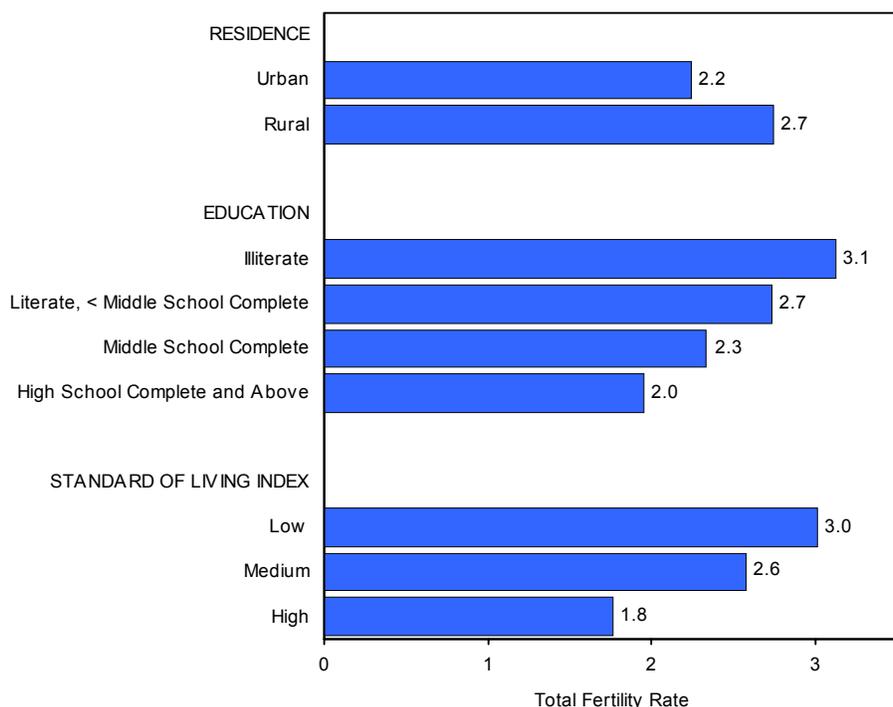
Table 4.3 Fertility by background characteristics

Total fertility rate for the three years preceding the survey, percentage of all women age 15–49 currently pregnant, and mean number of children ever born to all women age 40–49 by selected background characteristics, Maharashtra, 1999

Background characteristic	Total fertility rate <sup>1</sup>	Percentage currently pregnant <sup>2</sup>	Mean number of children ever born to all women age 40–49 years
<b>Residence</b>			
Urban	2.24	6.0	3.34
Rural	2.74	5.8	4.12
<b>Mumbai</b>			
Slum	2.69	6.0	3.54
Non-slum	1.40	2.8	2.41
<b>Education</b>			
Illiterate	3.12	5.6	4.27
Literate, < middle school complete	2.73	6.7	3.74
Middle school complete	2.33	5.9	3.26
High school complete and above	1.95	5.0	2.50
<b>Religion</b>			
Hindu	2.45	5.7	3.69
Muslim	3.30	8.6	4.58
Christian	2.45	3.3	(2.88)
Buddhist/Neo-Buddhist	2.14	3.7	3.99
Jain	1.64	5.8	(3.31)
Other	(2.67)	(4.7)	*
<b>Caste/tribe</b>			
Scheduled caste	2.42	6.0	4.16
Scheduled tribe	2.93	7.1	4.15
Other backward class	2.19	5.0	3.72
Other	2.59	5.9	3.62
<b>Standard of living index</b>			
Low	3.01	7.1	4.03
Medium	2.58	5.8	4.02
High	1.76	4.4	3.10
Total	2.52	5.9	3.77
<p>Note: Total includes women with missing information on caste/tribe and the standard of living index, who are not shown separately.            ( ) Based on 125–249 woman-years of exposure for the total fertility rate and 25–49 unweighted cases for percentage currently pregnant and the mean number of children ever born            *Mean not shown; based on fewer than 25 unweighted cases  <sup>1</sup>Rate for women age 15–49 years  <sup>2</sup>For this calculation, it is assumed that women who are never married, widowed, divorced, separated, or deserted are not currently pregnant.</p>			

Maharashtra by 0.5 children. The TFR in Mumbai (2.13) is slightly lower than that in urban Maharashtra (2.24). As Mumbai is included in urban Maharashtra, the difference in the fertility of women in Mumbai and women in other urban parts of Maharashtra excluding Mumbai must be still wider. Within Mumbai, fertility is much higher in slum areas than in non-slum areas—an average woman in slum areas gives birth to 1.3 children more than an average woman in non-slum areas. The TFR for slum areas of Mumbai (2.69) is only slightly lower than the rural TFR

**Figure 4.3**  
**Total Fertility Rate by Selected Background Characteristics**



Note: Rates are for the three years preceding the survey (1996–98)

NFHS-2, Maharashtra, 1999

(2.74). In Maharashtra, the TFR among illiterate women is 1.2 children higher than among women who have completed at least a high school education. The TFR among Muslim women is nearly one child higher than among Hindu or Christian women, 1.2 children higher than among Buddhist women, and 1.7 children higher than among Jain women. The TFR is 1.3 children higher among women from low standard of living households (3.01) than among women from high standard of living households (1.76). The TFR is 2.93 among women from scheduled tribes, 2.42 among women from scheduled castes, 2.19 among women from other backward classes, and 2.59 among women who do not belong to any of these groups.

Fertility transitions in other countries have shown that fertility differentials typically diverge early in the transition and reconverge (though rarely completely) towards the end of the transition as fertility approaches the replacement level. Table 4.3 and Figure 4.3 indicate that in Maharashtra, in spite of the TFR approaching replacement level, there are still large fertility differentials, with the TFR and other fertility indicators varying widely among population groups. A comparison of the two current fertility indicators (TFR and percentage currently pregnant) with an indicator of past fertility (mean number of children ever born to ever-married women age 15–49) reveals that the differentials in current fertility are somewhat less pronounced for education and urban-rural residence and more pronounced for all other background characteristics included in the table than the differentials in past fertility.

Overall, 6 percent of women age 15–49 in Maharashtra report that they are currently pregnant (close to the national average). For the most part, differentials in the percentage currently pregnant follow a pattern similar to that for differentials in the TFR, but there are some exceptions. These exceptions may be due partly to the fact that the TFR is not affected by the age structure, whereas the percentage currently pregnant is affected by the age structure.

The last column of Table 4.3 shows the mean number of children ever born to ever-married women age 40–49 at the time of the survey. The average number of children ever born for these women, who are at the end of their childbearing years, is 3.8. The decline in fertility in Maharashtra over time is evident from the difference of 1.3 children between the average number of children for women who are currently in their forties and the number of children women would have in their lifetime if they were subject to the current age-specific fertility rates (the last column and first column of Table 4.3). In most cases, the pattern of differentials in the mean number of children ever born parallels the pattern of differentials in the TFR. The differentials by religion and caste/tribe are a partial exception. Exceptions can occur because the mean number of children ever born at age 40–49 reflects fertility in the past, whereas the TFR reflects fertility only in the three years preceding the survey.

The preceding section already discussed fertility trends based on estimates from NFHS-1 and NFHS-2 for the three-year period preceding each survey. Table 4.4 shows fertility trends for five-year time periods preceding NFHS-2, estimated solely from NFHS-2 birth histories. It is not possible to show TFRs in this table because of progressively greater age truncation as one goes back in time. For example, for the period 5–9 years preceding the survey, it is not possible to compute an ASFR for age 45–49 because the women in question would be 50–54 at the time of the survey, whereas NFHS-2 only collected birth histories for women up to age 49. Similarly, for the period 10–14 years preceding the survey, it is not possible to compute ASFRs for women age 40–49, and for the period 15–19 years preceding the survey, it is not possible to compute ASFRs for women age 35–49. Thus Table 4.4 shows only the truncated trends in ASFRs. Results are shown separately for urban and rural areas as well as for the entire state. These results show substantial fertility declines in all age groups. However, these trends may get distorted by displacement of births to earlier years, and this displacement may exaggerate the extent of fertility decline.

For the periods 0–4 years and 5–9 years before the survey, it is possible to calculate truncated TFRs (more appropriately called cumulative fertility rates, or CFRs) for the age range 15–39, based on the ASFRs shown in Table 4.4. This is done by summing ASFRs for the age groups 15–19 through 35–39 and multiplying the sum by five. For the state as a whole, CFR(15–39) declined from 3.0 to 2.6 between these two five-year periods, a decline of 0.4 children. The decline was 0.3 children for urban areas and 0.5 children for rural areas, indicating that the absolute level of fertility fell somewhat more rapidly in rural areas than in urban areas.

Another way of looking at fertility is to calculate fertility rates by the number of years since first cohabitation with the husband. These rates are measures of marital fertility, i.e., fertility within marriage. Table 4.5 shows fertility rates by duration since first cohabitation for

<b>Table 4.4 Fertility trends</b>				
Age-specific fertility rates for five-year periods preceding the survey by residence, Maharashtra, 1999				
Age	Years preceding survey			
	0–4	5–9	10–14	15–19
<b>URBAN</b>				
15–19	0.096	0.114	0.133	0.163
20–24	0.188	0.223	0.247	0.265
25–29	0.121	0.122	0.146	0.186
30–34	0.043	0.040	0.063	[0.088]
35–39	0.013	0.014	[0.017]	U
40–44	0.000	[0.002]	U	U
45–49	[0.000]	U	U	U
<b>RURAL</b>				
15–19	0.170	0.217	0.252	0.227
20–24	0.245	0.274	0.291	0.303
25–29	0.103	0.109	0.182	0.186
30–34	0.032	0.053	0.081	[0.111]
35–39	0.011	0.010	[0.040]	U
40–44	0.001	[0.009]	U	U
45–49	[0.000]	U	U	U
<b>TOTAL</b>				
15–19	0.137	0.171	0.202	0.200
20–24	0.220	0.253	0.272	0.286
25–29	0.111	0.114	0.166	0.186
30–34	0.036	0.047	0.073	[0.100]
35–39	0.012	0.012	[0.029]	U
40–44	0.000	[0.006]	U	U
45–49	[0.000]	U	U	U
Note: Age-specific fertility rates are expressed per woman.				
U: Not available				
[ ] Truncated, censored				

ever-married women over the entire 20-year period preceding the survey.<sup>1</sup> Fertility has declined at all durations, but more at longer durations than at shorter durations.

It is also evident from Table 4.5 that marital fertility is lower in urban areas than in rural areas for almost all durations and time periods. During the 0–4 years after cohabitation, however, urban fertility is almost as high as rural fertility. This pattern is not uncommon in populations in which the age at first cohabitation is higher in urban areas than in rural areas, as is the case in Maharashtra (Table 4.1). Women who marry when they are older tend to have their first birth sooner after marriage and concentrate their births earlier in their marriages than women who marry when they are younger (Basu, 1993; Pandey et al., 1990). In addition, because breastfeeding is shorter in urban areas (see Table 7.8), another contributing factor may be a

<sup>1</sup>Since NFHS-2 collected information only on a woman's age at the time of first cohabitation and not on the year and month when she first began cohabiting with her husband, the exact number of months since first cohabitation cannot be calculated. For this reason, the first year since cohabitation contains only six months, on average, and the first five years since cohabitation contain only 4.5 years, on average.

<b>Table 4.5 Fertility by marital duration</b>				
Fertility rates for ever-married women by duration since first cohabitation with husband (in years) and residence for five-year periods preceding the survey, Maharashtra, 1999				
Duration since first cohabitation (in years)	Years preceding survey			
	0–4	5–9	10–14	15–19
<b>URBAN</b>				
< 5	0.321	0.327	0.336	0.342
5–9	0.161	0.200	0.213	0.262
10–14	0.065	0.059	0.098	0.145
15–19	0.020	0.019	0.036	(0.093)
20–24	0.007	0.006	(0.032)	*
25–29	0.000	(0.002)	*	U
<b>RURAL</b>				
< 5	0.332	0.347	0.364	0.317
5–9	0.210	0.237	0.280	0.304
10–14	0.083	0.100	0.164	0.181
15–19	0.021	0.043	0.069	0.115
20–24	0.008	0.009	0.054	*
25–29	0.003	0.012	*	U
<b>TOTAL</b>				
< 5	0.327	0.339	0.353	0.328
5–9	0.190	0.223	0.252	0.285
10–14	0.076	0.083	0.135	0.168
15–19	0.021	0.032	0.057	0.109
20–24	0.008	0.008	0.048	*
25–29	0.002	0.009	*	U
Note: Duration-specific fertility rates expressed are per woman. The duration since first cohabitation with husband is defined as the difference between the woman's age at the specific time period and her age when she began living with her husband. U: Not available ( ) Based on 125–249 woman-years of exposure *Rate not shown; based on fewer than 125 woman-years of exposure				

shorter period of postpartum amenorrhoea, which results in shorter birth intervals in the absence of the use of contraception (which is rarely practiced in Maharashtra during the first few years of marriage). Since the median duration of breastfeeding in urban Maharashtra is shorter by just two months, however, differentials in breastfeeding may only partly account for the relatively high urban fertility in the first five years of marriage.

#### 4.4 Children Ever Born and Living

The number of children a woman has ever borne is a cohort measure of fertility. Because it reflects fertility in the past, it provides a somewhat different picture of fertility levels, trends, and differentials than do period measures of fertility such as the CBR and the TFR. Table 4.6 shows the percent distribution of all women and currently married women by the number of children ever born (CEB). The table shows these distributions by the age of the woman at the time of the survey and also shows the mean number of children ever born and living children.

Among women age 15–49, the mean number of children ever born is 2.2 for all women and 2.8 for currently married women. The mean number of children ever born increases steadily with women's age, reaching a high of 3.9 children among all women age 45–49 and 4.1 among

**Table 4.6 Children ever born and living**

Percent distribution of all women and currently married women by number of children ever born (CEB) and mean number of children ever born and living, according to age, Maharashtra, 1999

Age	Children ever born											Total percent	Number of women	Mean number of CEB	Mean number of living children
	0	1	2	3	4	5	6	7	8	9	10+				
<b>ALL WOMEN</b>															
15-19	81.0	12.7	5.3	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,421	0.26	0.24
20-24	31.5	23.1	23.3	15.4	5.1	1.1	0.5	0.0	0.0	0.0	0.0	100.0	1,204	1.45	1.36
25-29	12.2	10.0	26.6	29.3	14.4	5.0	2.2	0.1	0.1	0.1	0.0	100.0	1,161	2.49	2.31
30-34	6.3	7.3	21.9	31.5	17.1	10.3	3.9	1.1	0.6	0.0	0.0	100.0	974	3.02	2.74
35-39	4.6	5.5	17.3	27.8	23.4	10.8	6.0	2.4	1.0	0.4	0.7	100.0	786	3.43	3.06
40-44	5.4	4.3	14.2	24.1	22.4	14.8	8.1	2.8	1.9	1.0	1.0	100.0	693	3.71	3.17
45-49	5.8	4.9	11.9	23.7	18.3	14.9	11.9	4.9	1.4	1.0	1.3	100.0	428	3.87	3.26
Total	27.5	11.1	17.5	20.0	12.2	6.4	3.3	1.1	0.5	0.2	0.3	100.0	6,668	2.23	2.00
<b>CURRENTLY MARRIED WOMEN</b>															
15-19	45.5	36.3	15.2	2.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	490	0.76	0.69
20-24	13.1	28.8	29.4	19.9	6.7	1.5	0.6	0.0	0.0	0.0	0.0	100.0	922	1.85	1.74
25-29	5.9	9.3	28.4	31.8	16.2	5.6	2.4	0.2	0.1	0.1	0.0	100.0	1,032	2.72	2.52
30-34	3.4	6.1	22.9	33.8	17.2	10.7	4.1	1.2	0.7	0.0	0.0	100.0	891	3.14	2.86
35-39	2.6	4.6	17.2	28.2	24.6	11.4	6.5	2.7	1.1	0.5	0.6	100.0	697	3.57	3.19
40-44	3.1	4.2	14.0	23.0	23.8	15.9	8.4	3.3	1.9	1.1	1.2	100.0	582	3.88	3.33
45-49	4.1	3.0	12.4	23.0	19.0	16.2	12.0	6.0	1.7	1.2	1.5	100.0	350	4.08	3.42
Total	9.8	13.3	21.9	25.0	15.3	8.0	4.1	1.4	0.6	0.3	0.3	100.0	4,963	2.79	2.51

currently married women in this age group. The table also shows that early childbearing is fairly common in Maharashtra. Nineteen percent of all women age 15–19 and 55 percent of currently married women age 15–19 have already had a child.

For women age 45–49, the number of children ever born is of particular interest because these women have virtually completed their childbearing. For all women in this age group, irrespective of marital status, the modal number of children ever born is three. Twenty-four percent of all women age 45–49 and 23 percent of currently married women in this age group have reached the end of childbearing with three children ever born. Eighty-one percent of currently married women age 45–49 have had three or more live births. Four percent of currently married women age 45–49 have never given birth, suggesting that the magnitude of primary infertility (which is the proportion of couples who are unable to have any children) in Maharashtra is higher than that for the country as a whole (2 percent).

For all women age 15–49, the average number of children who died is 0.23 per woman. For currently married women, the average number of dead children is 0.28, indicating that 10 percent of children ever born to currently married women have died. For currently married women, the proportion of children ever born who have died increases from 6–9 percent for women age 15–34 to 14–16 percent for women age 40–49.

#### **4.5 Birth Order**

The distribution of births by birth order is yet another way to view fertility. Table 4.7 shows the distribution of births during the three-year period preceding the survey by birth order for selected background characteristics. Overall, as expected, the proportion of births at each order is larger than the proportion of births at the next higher order. One-third of all births are first-order births, 28 percent are second-order births, and 21 percent are third-order births. The low proportion of births of order four or higher (18 percent), compared with the national average of 28 percent, is another indication of the relatively low level of fertility in Maharashtra.

Over two-thirds of births to women age 15–19 are first-order births, 27 percent of the births are of second order, and remaining 5 percent are of order three. By contrast, 76 percent of births to women age 30–39 are of order three or higher. The proportion of births that are of order four or higher is lower in urban areas (15 percent) than in rural areas (20 percent). Within Mumbai, the proportion of births of order four or higher in slum areas (18 percent) is double the proportion in non-slum areas (9 percent). The proportion of births that are of order four or higher is relatively large for births to illiterate women, Muslim women, scheduled-caste, scheduled-tribe, and other backward class women, working women, and women in households with a low standard of living. The range is particularly wide for education groups: 31 percent of births to illiterate women are of order four or higher, compared with only 3 percent of births to women who have at least completed high school. The range is also wide according to the household standard of living: 26 percent of births to women in households with a low standard of living are of order four or higher, compared with only 5 percent of births to women in households with a high standard of living. Only 14 percent of births to women who did not work during the 12 months preceding the survey are of order four or higher, whereas 19–24 percent of births to working women are of order four or higher. This finding can be partly explained by the fact that nonworking women come disproportionately from better off households and from urban areas, where fertility is relatively low.

**Table 4.7 Birth order**

Percent distribution of births during the three years preceding the survey by birth order, according to selected background characteristics, Maharashtra, 1999

Background characteristic	Birth order				Total percent	Number of births
	1	2	3	4+		
<b>Mother's current age</b>						
15–19	68.6	27.0	4.5	0.0	100.0	320
20–29	27.6	30.2	24.6	17.7	100.0	1,311
30–39	10.2	14.3	25.6	49.9	100.0	183
<b>Residence</b>						
Urban	38.5	28.6	18.2	14.6	100.0	709
Rural	29.5	27.5	22.9	20.1	100.0	1,107
Mumbai	35.7	32.4	16.4	15.5	100.0	210
Slum	35.3	30.2	16.7	17.8	100.0	154
Non-slum	36.7	38.5	15.6	9.1	100.0	56
<b>Mother's education</b>						
Illiterate	23.6	21.7	23.4	31.3	100.0	739
Literate, < middle school complete	29.4	30.6	25.2	14.7	100.0	465
Middle school complete	42.8	32.8	17.6	6.8	100.0	261
High school complete and above	50.2	33.9	13.4	2.5	100.0	351
<b>Religion</b>						
Hindu	33.8	28.5	20.8	16.9	100.0	1,389
Muslim	28.5	24.9	20.3	26.3	100.0	265
Christian	(33.3)	(41.5)	(20.1)	(5.1)	100.0	27
Buddhist/Neo-Buddhist	34.8	26.5	22.3	16.4	100.0	107
<b>Caste/tribe</b>						
Scheduled caste	37.3	25.2	18.4	19.0	100.0	241
Scheduled tribe	30.5	23.2	23.4	22.9	100.0	215
Other backward class	32.7	30.5	16.5	20.3	100.0	357
Other	32.9	28.7	22.8	15.6	100.0	992
<b>Mother's work status</b>						
Working in family farm/business	30.2	24.5	22.5	22.8	100.0	339
Employed by someone else	24.8	25.8	25.5	23.9	100.0	400
Self-employed	33.2	27.9	20.4	18.5	100.0	73
Not worked in past 12 months	37.2	30.0	18.9	13.9	100.0	1,004
<b>Standard of living index</b>						
Low	26.4	23.7	24.0	26.0	100.0	619
Medium	34.3	28.0	20.6	17.1	100.0	837
High	41.2	36.1	17.9	4.8	100.0	300
Total	33.0	27.9	21.1	18.0	100.0	1,816

Note: Total includes 3 births to mothers currently age 40–49, 15 and 13 births to mothers belonging to Jain and 'other' religions, respectively, and 11 and 60 births with missing information on caste/tribe and the standard of living index, respectively, which are not shown separately.  
( ) Based on 25–49 unweighted cases

## 4.6 Birth Intervals

A birth interval, defined as the length of time between two successive live births, indicates the pace of childbearing. Short birth intervals may adversely affect a mother's health and her children's chances of survival. Past research has shown that children born too close to a previous birth are at increased risk of dying, especially if the interval between the births is less than 24 months (Pandey et al., 1998; Govindasamy et al., 1993).

Table 4.8 shows the percent distribution of births during the five years preceding the survey by birth interval according to selected demographic and socioeconomic background characteristics. In Maharashtra, 11 percent of births occur within 18 months of a previous birth and 31 percent occur within 24 months. One-third of births occur after an interval of three years or more.

The median birth interval in Maharashtra is 29 months. The median birth interval ranges from 22 months for women age 15–19 to 37 months for women age 30–39. The relatively short birth interval for women age 15–19 may result partly from a selection effect: Only women who have had two or more births are included in the table, and women age 15–19 with more than one birth are likely to be more fecund than average. Given the finding that the median birth interval increases with mother's age, it is surprising that it does not also increase substantially with the order of the previous birth. Perhaps this is due to the absence of the selection effect just noted. There may also be another type of selection effect operating: Mothers of higher-order births may be more fecund, on average, than mothers of lower-order births.

The length of the median birth interval does not depend on the sex of the previous child. The median birth interval is about six months longer if the previous child died than if it survived. In part, this reflects the shortening of postpartum amenorrhoea that occurs when the preceding child dies in infancy and breastfeeding stops prematurely. Women are also less likely to use temporary methods of contraception to postpone fertility if the previous child died and they want to replace the dead child.

Birth intervals are slightly longer for births to women in rural areas than to women in urban areas. Birth intervals for women in Mumbai are three and one-half months longer than for women in all urban areas of the state. Birth intervals for women in slum areas of Mumbai are eight months shorter than those for women from non-slum areas. Birth intervals are longer for women who have completed at least a high school education (33 months) than for other women (28–29 percent). The median birth interval is more than two months longer for Hindu women than for Muslim women. It is two months longer for women from other backward classes than for other caste/tribe women. The median birth interval is 2–3 months longer for women from high standard of living households than for women from low or medium standard of living households.

## 4.7 Age at First and Last Birth

The ages at which women start and stop childbearing are important demographic determinants of fertility. A higher median age at first birth and a lower median age at last birth are indicators of lower fertility. Table 4.9 shows the median age at first birth for various age groups by selected background characteristics. In this table, the median age at first birth for any group of women is

**Table 4.8 Birth interval**

Percent distribution of births during the five years preceding the survey by interval since previous birth and median number of months since previous birth, according to selected background characteristics, Maharashtra, 1999

Background characteristic	Months since previous birth						Total percent	Median months since previous birth	Number of births
	< 12	12–17	18–23	24–35	36–47	48+			
<b>Mother's current age</b>									
15–19	11.0	19.8	28.2	29.8	11.2	0.0	100.0	22.4	101
20–29	1.6	9.7	21.4	37.3	18.7	11.4	100.0	28.0	1,579
30–39	0.1	3.9	11.5	33.1	16.6	34.9	100.0	36.5	387
<b>Residence</b>									
Urban	1.6	10.7	21.0	34.9	14.5	17.3	100.0	28.2	764
Rural	1.8	8.1	19.3	36.6	19.8	14.4	100.0	29.4	1,318
<b>Mumbai</b>									
Slum	1.5	14.0	15.8	32.6	16.3	19.7	100.0	29.9	155
Non-slum	0.6	6.8	14.9	25.1	18.8	33.8	100.0	37.9	56
<b>Mother's education</b>									
Illiterate	1.7	7.9	19.0	38.0	18.0	15.4	100.0	29.1	1,012
Literate, < middle school complete	1.2	9.8	21.2	37.9	18.6	11.4	100.0	28.1	569
Middle school complete	2.4	9.8	26.5	32.5	16.5	12.3	100.0	27.9	229
High school complete and above	2.2	11.2	15.3	27.4	16.7	27.1	100.0	33.0	272
<b>Religion</b>									
Hindu	1.7	8.1	19.1	36.1	19.0	16.0	100.0	29.6	1,577
Muslim	2.4	12.7	23.0	34.3	15.0	12.6	100.0	27.4	328
Christian	(0.0)	(7.3)	(42.9)	(35.7)	(2.4)	(11.7)	100.0	(24.0)	27
Buddhist/Neo-Buddhist	0.6	10.7	20.4	38.9	14.4	15.0	100.0	29.0	120
<b>Caste/tribe</b>									
Scheduled caste	2.3	10.7	21.2	37.0	12.3	16.5	100.0	28.3	260
Scheduled tribe	2.4	8.9	16.5	44.7	15.4	12.1	100.0	28.6	266
Other backward class	1.4	8.1	18.1	34.7	22.2	15.5	100.0	30.9	406
Other	1.6	8.7	21.3	34.1	18.2	16.1	100.0	28.9	1,136
<b>Standard of living index</b>									
Low	1.5	10.0	18.9	36.2	18.1	15.5	100.0	29.1	786
Medium	2.0	7.6	21.9	37.7	18.5	12.4	100.0	28.4	939
High	1.9	10.0	19.0	29.3	14.8	25.0	100.0	31.1	301
<b>Order of previous birth</b>									
1	2.5	11.3	19.8	34.1	16.9	15.4	100.0	28.8	892
2	1.0	8.0	20.4	36.2	18.8	15.7	100.0	29.1	617
3	0.9	5.5	18.7	40.2	18.6	16.1	100.0	29.4	300
4+	1.7	8.0	20.6	37.2	17.9	14.8	100.0	29.0	272
<b>Sex of previous birth</b>									
Male	1.7	7.9	21.0	35.5	18.7	15.1	100.0	29.1	952
Female	1.8	10.0	19.0	36.4	17.1	15.8	100.0	28.9	1,130
<b>Survival of previous birth</b>									
Living	0.9	8.3	19.6	37.0	17.9	16.2	100.0	29.4	1,913
Dead	10.8	17.7	23.0	24.5	16.9	7.1	100.0	23.7	168
Total	1.7	9.0	19.9	36.0	17.8	15.5	100.0	29.0	2,082

Note: Table includes only second- and higher-order births. The interval for multiple births is the number of months since the preceding pregnancy that ended in a live birth. Total includes 14 births to mothers currently age 40–49, 14 and 15 births to mothers belonging to Jain and 'other' religions, respectively, and 14 and 55 births with missing information on caste/tribe and the standard of living index, respectively, which are not shown separately.

( ) Based on 25–49 unweighted cases

Table 4.9 Median age at first birth								
Median age at first birth among women age 20–49 years by current age and selected background characteristics, Maharashtra, 1999								
Background characteristic	Current age							
	20–24	25–29	30–34	35–39	40–44	45–49	20–49	25–49
<b>Residence</b>								
Urban	NC	20.8	20.1	19.8	20.2	20.7	NC	20.3
Rural	18.8	17.9	18.0	18.3	18.0	18.4	18.2	18.1
<b>Mumbai</b>								
Slum	NC	21.9	21.3	21.3	21.4	22.0	NC	21.5
Non-slum	NC	NC	20.7	20.2	19.8	19.8	NC	20.2
	NC	NC	22.7	22.7	22.6	22.9	NC	23.1
<b>Education</b>								
Illiterate	17.2	17.1	17.2	17.9	17.7	18.2	17.4	17.5
Literate, < middle school complete	18.6	19.0	18.7	18.9	18.8	18.8	18.8	18.8
Middle school complete	NC	21.0	20.4	20.6	21.5	*	NC	20.7
High school complete and above	NC	22.7	22.6	22.7	22.6	22.7	NC	22.7
<b>Religion</b>								
Hindu	19.8	19.0	18.7	19.0	18.9	19.2	19.1	18.9
Muslim	19.6	20.1	18.7	19.1	18.3	(18.4)	19.3	19.1
Christian	NC	*	*	*	*	*	NC	22.2
Buddhist/Neo-Buddhist	NC	19.3	18.4	(18.3)	19.3	(18.7)	19.3	18.9
Jain	NC	*	*	(20.3)	*	*	NC	21.0
Other	*	*	*	*	*	*	(19.4)	(19.4)
<b>Caste/tribe</b>								
Scheduled caste	NC	19.3	18.2	18.0	17.9	(17.7)	19.0	18.5
Scheduled tribe	18.7	18.5	17.9	18.4	17.2	(17.8)	18.2	18.0
Other backward class	NC	19.6	18.9	19.2	19.3	20.2	19.6	19.3
Other	19.7	19.2	18.9	19.2	19.2	19.3	19.3	19.1
<b>Standard of living index</b>								
Low	17.8	17.4	17.5	17.9	18.1	18.3	17.7	17.7
Medium	19.8	19.2	18.4	18.9	18.4	18.8	19.0	18.7
High	NC	21.9	21.0	20.2	21.0	20.7	NC	21.1
Total	20.0	19.2	18.7	19.0	19.0	19.2	19.2	19.0
Note: Total includes women with missing information on caste/tribe and the standard of living index, who are not shown separately.								
NC: Not calculated because less than 50 percent of women had their first birth by age 20								
( ) Based on 25–49 unweighted cases								
*Median not shown; based on fewer than 25 unweighted cases								

defined as the age by which half of all women in the group have had a first birth, rather than the age by which half of all mothers in the group have had a first birth. If the median age at first birth calculated for an age group lies above the lower limit of that age group, it is not valid because some younger women in the age group who have not yet had a first birth will not have reached the median age by the time of the survey. In such cases, the estimate of the median is not shown.

As shown in the last row of the table, the median age at first birth in Maharashtra has not changed much during the last 23 years. The median for women age 20–24, at 20 years, is only slightly higher than the median for women age 45–49, at 19.2 years. In between, the median is as low as 18.7 years for women age 30–34. The median age at first birth for women age 20–49 in Maharashtra (19.2 years) is slightly lower than that for the country as a whole (19.6 years).

For women age 25–49, the median age at first birth is higher for Christian (22.2) and Jain (21.0) women than for Hindu (18.9), Buddhist/Neo-Buddhist (18.9), and Muslim women (19.1). The median age at first birth is particularly low (18 years or less) among illiterate women, scheduled-tribe women, and women who live in households with a low standard of living. The median age at first birth is 18.1 years in rural areas, 20.3 years in urban areas, and 21.5 years in Mumbai. Within Mumbai, it is much higher in non-slum areas (23.1) than in slum areas (20.2). It increases monotonically with woman’s education from 17.5 years for illiterate women to 22.7 years for women who have completed at least high school. The median age at first birth is much lower for women in households with a low standard of living (17.7) than for women in households with a high standard of living (21.1).

For older women, the age at last childbirth is an indicator of cessation of childbearing. Table 4.10 presents the distribution of ever-married women age 40–49 by age at last birth, as well as the median age at last birth. As already seen in Tables 4.2 and 4.4, childbearing of women in Maharashtra is complete by age 40, and hence the age at last birth of women age 40–49 indicates the age at cessation of childbearing. Seventy-three percent of women in this age group had their last birth by age 30 and 95 percent by age 35. The median age at last birth is 27.0 years for women age 40–44 and 28.2 years for women age 45–49. The typical reproductive age span (which is the difference between the median age at last birth and the median age of first birth for women who have ever had a birth) is considerably shorter in Maharashtra (8.4 years) than in India as a whole (9.9 years), consistent with lower level of fertility in Maharashtra (see International Institute for Population Sciences and ORC Macro, 2000: Table 4.15).

Table 4.10 Age at last birth											
Percent distribution of ever-married women age 40–49 years by age at last birth and median age at last birth, according to current age, Maharashtra, 1999											
Current age	No birth	Age at last birth							Total percent	Median age at last birth	Number of women
		< 20	20–24	25–29	30–34	35–39	40–44	45–49			
40–44	4.7	4.6	29.5	38.7	18.2	4.4	0.0	NA	100.0	27.0	688
45–49	4.8	3.5	21.7	37.2	25.5	5.8	1.5	0.0	100.0	28.2	424
40–49	4.7	4.2	26.5	38.1	21.0	4.9	0.6	0.0	100.0	27.4	1,112
NA: Not applicable											

#### 4.8 Postpartum Amenorrhoea, Abstinence, Insusceptibility, and Menopause

Among the factors that influence the risk of pregnancy following a birth are breastfeeding and sexual abstinence. Breastfeeding prolongs postpartum protection from conception through its effect on the period of amenorrhoea (the period prior to the return of menses) following a birth. Delaying the resumption of sexual relations following a birth also prolongs the period of postpartum protection. Women are defined as insusceptible to pregnancy following a birth if they are not at risk of conception because they are amenorrhoeic, abstaining from sexual relations, or both.

<u>Table 4.11 Postpartum amenorrhoea, abstinence, and insusceptibility</u>				
Percentage of births during the three years preceding the survey whose mothers are postpartum amenorrhoeic, abstaining, or insusceptible by number of months since birth, and median and mean durations, Maharashtra, 1999				
Months since birth	Percentage of births whose mothers are:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible	
< 2	98.0	91.8	98.4	89
2–3	77.8	67.2	88.2	88
4–5	73.8	43.0	79.5	107
6–7	55.3	33.7	67.5	134
8–9	40.4	26.0	55.4	98
10–11	36.9	17.5	42.1	103
12–13	31.1	10.8	36.4	90
14–15	27.2	14.3	31.0	95
16–17	16.0	13.8	26.1	73
18–19	7.2	11.1	16.4	136
20–21	5.0	1.1	6.2	113
22–23	4.0	6.7	9.4	104
24–25	3.2	2.7	4.3	94
26–27	0.4	3.1	3.6	85
28–29	0.0	2.8	2.8	76
30–31	1.2	1.5	2.7	112
32–33	1.3	4.1	4.1	116
34–35	0.0	4.7	4.7	97
Median <sup>1</sup>	7.7	4.1	9.6	NA
Mean	9.8	7.4	11.8	NA
Prevalence/incidence mean	9.4	6.9	11.4	NA

Note: Median and mean durations are based on current status. Insusceptible is defined as amenorrhoeic, abstaining, or both.  
NA: Not applicable  
<sup>1</sup>Based on a three-period moving average of percentages

Table 4.11 shows the percentage of births occurring during the three years preceding the survey whose mothers are postpartum amenorrhoeic, abstaining, or insusceptible, by the number of months since the birth. These distributions are based on current status information, that is, on the proportions of births occurring within the 36 months before the survey whose mothers were amenorrhoeic, abstaining, or insusceptible. In other words, the table is based on cross-sectional data and does not represent the experience of a real cohort of births over time. The data are grouped in two-month intervals to minimize fluctuations in the distributions. The table also shows median and mean durations of amenorrhoea, abstinence, and insusceptibility. The prevalence/incidence mean is obtained by dividing the number of mothers who are amenorrhoeic, abstaining, or insusceptible by the average number of births per month over the 36-month period.

Ninety-eight percent of women who had a birth less than two months before the survey and 78 percent of women who had a birth 2–3 months before the survey are still amenorrhoeic. The proportion amenorrhoeic decreases monotonically as the number of months since the birth increases. Fifty-five percent of all women who had a birth 6–7 months before the survey are still amenorrhoeic, and the proportion amenorrhoeic declines rapidly thereafter. The proportion of women abstaining from sexual intercourse within two months after a birth (92 percent) is lower than the proportion amenorrhoeic (98 percent), and only 67 percent of women are still abstaining 2–3 months after a birth, and this percentage declines rapidly thereafter. Overall, when amenorrhoea and abstinence are considered together, 58 percent women are susceptible to

pregnancy 10–11 months after giving birth, and 69 percent are susceptible 14–15 months after giving birth.

The median and mean durations of insusceptibility are 10 and 12 months, respectively. Because the mean is affected by extreme values and the median is not, and because the distribution is skewed towards the higher durations, the mean is somewhat higher than the median. The median duration of amenorrhoea (8 months) is double the median duration of abstinence (4 months). These results indicate that women in Maharashtra remain insusceptible to pregnancy for about one year after a birth, primarily due to the effect of postpartum amenorrhoea.

Menopause is a primary limiting factor of fertility. It is the culmination of a gradual decline in fecundity with increasing age. After age 30, the risk of pregnancy declines with age as an increasing proportion of women become infecund. In NFHS-2, menopause is defined as the absence of menstruation for six or more months preceding the survey among currently married women. Women who report that they are menopausal or that they have had a hysterectomy are also included in this category. Women who are pregnant or postpartum amenorrhoeic are assumed not to be menopausal. Table 4.12 presents data on menopause among women age 30–49 years. In Maharashtra, menopause is not common among women in their thirties, but its incidence increases rapidly after age 40. By age 42–43, 22 percent of women are menopausal. The proportion of menopausal women rises to 63 percent by age 46–47 and to 65 percent by age 48–49.

Table 4.12 Menopause						
Percentage of currently married women age 30–49 years who are in menopause by age and residence, Maharashtra, 1999						
Age	Urban		Rural		Total	
	Percentage	Number	Percentage	Number	Percentage	Number
30–34	2.0	365	5.9	526	4.3	891
35–39	7.0	322	8.4	375	7.8	697
40–41	15.1	128	18.3	124	16.6	252
42–43	19.7	100	23.1	121	21.5	220
44–45	36.0	92	43.8	120	40.5	212
46–47	59.8	67	65.2	91	62.9	158
48–49	72.5	38	(59.4)	53	64.8	91
30–49	15.2	1,110	18.2	1,409	16.9	2,519

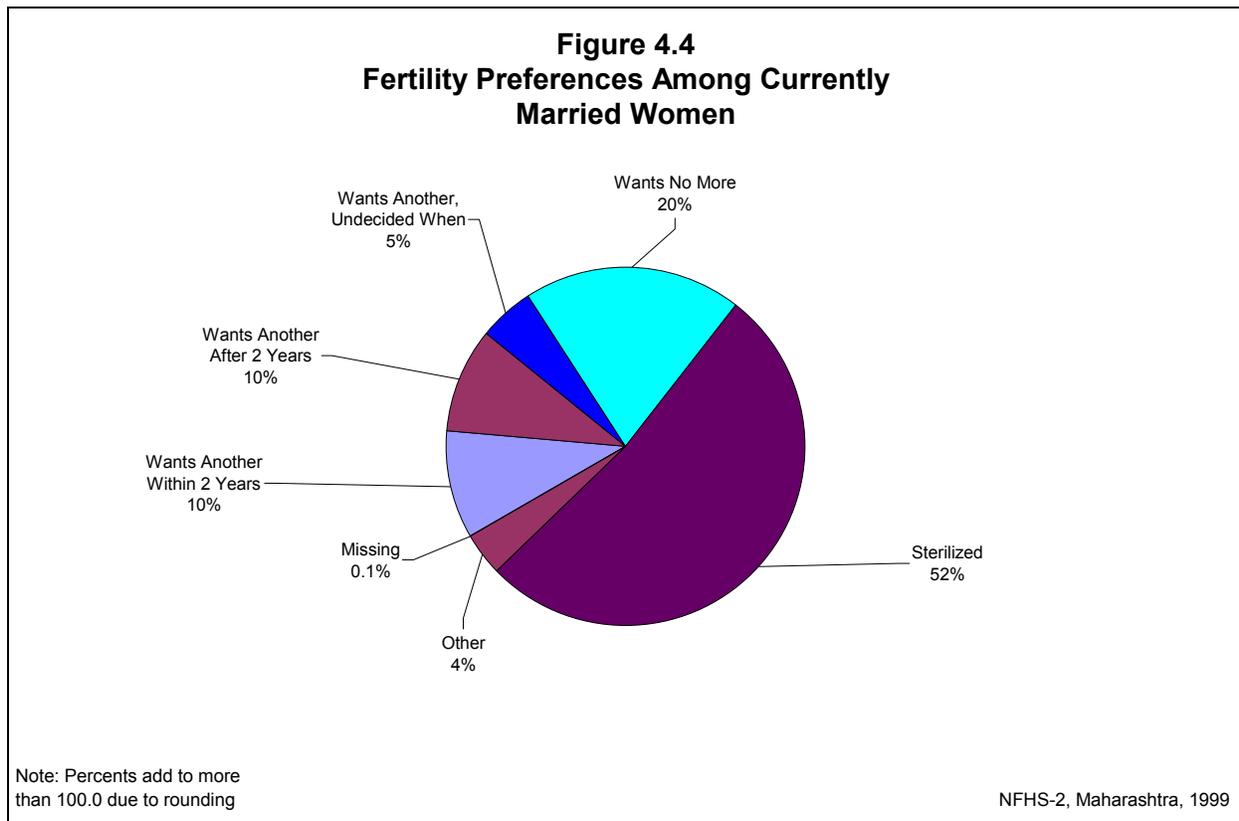
Note: Percentage menopausal is defined as the percentage of currently married women who are not pregnant and not postpartum amenorrhoeic and who reported that their last menstrual period occurred six or more months preceding the survey or that they are menopausal or have had a hysterectomy.  
( ) Based on 25–49 unweighted cases

#### 4.9 Desire for More Children

In order to obtain information on fertility preferences, NFHS-2 asked nonsterilized, currently married, nonpregnant women: ‘Would you like to have (a/another) child or would you prefer not to have any (more) children?’ Pregnant women were asked, ‘After the child you are expecting, would you like to have another child or would you prefer not to have any more children?’ Women who expressed a desire for additional children were asked how long they would like to wait before the birth of their next child. The survey also collected information on the preferred sex of the next child and the ideal number of children by sex.

Table 4.13 and Figure 4.4 show future fertility preferences of currently married women. Twenty percent of currently married women say that they do not want any more children, an additional 52 percent cannot have another child because either the wife or the husband has been sterilized, and 3 percent of women say that they cannot get pregnant (that is, they are ‘declared infecund’). Twenty-five percent of women want another child—10 percent want another child within two years, 10 percent after two years, and 5 percent are undecided when they want the next child. Overall, 82 percent of women either want to space their next birth or do not want any more children, including women who are sterilized or whose husbands are sterilized. This proportion is about the same in urban and rural areas.

The desire to have a child within two years drops rapidly with the number of living children, from 54 percent of women with no living children to 6 percent or less for women with two or more living children. For women with one living child, 42 percent (44 percent in urban areas and 41 percent in rural areas) want to wait at least two years before having the next child.



**Table 4.13 Fertility preferences**

Percent distribution of currently married women by desire for children and preferred sex of additional child, according to number of living children and residence, Maharashtra, 1999

Desire for children	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
<b>URBAN</b>						
<b>Desire for additional child</b>						
Wants another soon <sup>2</sup>	49.8	16.2	3.2	1.5	0.6	8.3
Wants another later <sup>3</sup>	10.1	43.8	6.7	2.2	0.9	11.2
Wants another, undecided when	22.6	10.7	3.1	2.0	1.0	5.3
Undecided	0.0	2.0	1.7	1.2	0.3	1.2
Up to God	0.8	0.3	0.3	0.0	1.2	0.4
Wants no more	2.0	20.8	40.6	22.5	21.3	25.6
Sterilized	1.8	3.3	42.8	69.6	71.8	45.1
Declared infecund	12.9	2.8	1.6	0.8	2.9	2.8
Missing	0.0	0.0	0.0	0.3	0.0	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	164	359	598	518	405	2,044
<b>Preferred sex of additional child<sup>4</sup></b>						
Boy	11.3	32.5	50.8	(50.7)	*	30.3
Girl	4.6	20.3	15.9	(12.4)	*	13.7
Doesn't matter	73.3	35.1	22.3	(31.1)	*	44.9
Up to God	10.8	12.0	11.0	(5.7)	*	11.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more <sup>4</sup>	144	197	67	24	8	439
<b>RURAL</b>						
<b>Desire for additional child</b>						
Wants another soon <sup>2</sup>	56.6	28.4	8.1	3.0	0.8	10.8
Wants another later <sup>3</sup>	8.1	40.5	6.2	2.4	1.7	8.2
Wants another, undecided when	19.4	12.4	3.8	1.6	0.7	4.6
Undecided	0.6	0.8	1.0	1.3	0.6	0.9
Up to God	0.7	0.0	0.0	0.2	0.2	0.2
Wants no more	0.0	7.0	27.7	13.4	15.8	15.8
Sterilized	2.0	7.3	51.8	77.2	78.8	57.2
Declared infecund	12.6	3.7	1.4	0.9	1.1	2.3
Missing	0.0	0.0	0.0	0.0	0.4	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	219	356	722	871	751	2,919
<b>Preferred sex of additional child<sup>4</sup></b>						
Boy	17.8	39.5	70.6	(79.3)	*	42.6
Girl	0.7	13.4	7.8	(4.9)	*	7.0
Doesn't matter	73.0	41.3	19.0	(5.2)	*	43.6
Up to God	8.5	5.8	2.7	(10.6)	*	6.8
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more <sup>4</sup>	199	225	112	55	20	612

**Table 4.13 Fertility preferences (contd.)**

Percent distribution of currently married women by desire for children and preferred sex of additional child, according to number of living children and residence, Maharashtra, 1999

Desire for children	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
<b>TOTAL</b>						
<b>Desire for additional child</b>						
Wants another soon <sup>2</sup>	53.7	22.3	5.9	2.4	0.7	9.8
Wants another later <sup>3</sup>	9.0	42.2	6.4	2.3	1.4	9.5
Wants another, undecided when	20.7	11.6	3.5	1.8	0.8	4.9
Undecided	0.4	1.4	1.3	1.3	0.5	1.0
Up to God	0.7	0.1	0.1	0.1	0.5	0.3
Wants no more	0.9	13.9	33.5	16.8	17.7	19.8
Sterilized	2.0	5.3	47.7	74.4	76.3	52.2
Declared infecund	12.7	3.3	1.5	0.8	1.8	2.5
Missing	0.0	0.0	0.0	0.1	0.2	0.1
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	383	715	1,320	1,389	1,156	4,963
<b>Preferred sex of additional child<sup>4</sup></b>						
Boy	15.1	36.2	63.2	70.8	(69.3)	37.4
Girl	2.3	16.7	10.8	7.1	(0.0)	9.8
Doesn't matter	73.1	38.4	20.2	12.9	(16.9)	44.1
Up to God	9.5	8.7	5.8	9.2	(13.9)	8.6
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more <sup>4</sup>	342	422	179	79	28	1,051
( ) Based on 25–49 unweighted cases *Percentage not shown; based on fewer than 25 unweighted cases <sup>1</sup> Includes current pregnancy, if any <sup>2</sup> Wants next birth within 2 years <sup>3</sup> Wants to delay next birth for 2 or more years <sup>4</sup> Excludes currently pregnant women						

And yet, as will be seen in Chapter 5, only 18 percent women in Maharashtra with one surviving child use any temporary method of contraception. These findings suggest that encouraging the use of temporary methods would lower overall fertility and population growth, as well as provide health benefits to mothers and their children through increased birth spacing.

More than one-third of women (37 percent) who want another child say that they want the next child to be a boy, only 10 percent say that they want a girl, and the rest say that the sex of the child is either up to God (9 percent) or does not matter (44 percent). According to NFHS-1, 44 percent of women who wanted another child wanted a boy, 11 percent wanted a girl, and the rest reported that sex of the next child was up to God (10 percent) or it did not matter (35 percent). This comparison suggests some decline in son preference in Maharashtra. In Table 4.13, both the proportion of women expressing a desire for a child of a particular sex and the proportion expressing a desire for a son generally increase with the number of living children. For 83 percent of women with no living children, the sex of their first child is immaterial as they report that the sex of the child is up to God (10 percent) or it does not matter (73 percent). However, among women with three living children these two categories account for only 22 percent. Seventy-one percent of women with three living children desire their next child to be a

son whereas only 7 percent desire their next child to be a daughter. A clear indication of reduction in son preference in Maharashtra is revealed by comparison of NFHS-1 and NFHS-2 on preference for sons among women without any living children. The proportion of women without any living children and desiring a son has declined from 24 percent in NFHS-1 to 15 percent in NFHS-2.

Table 4.14 provides information about differentials in the desire to limit family size by selected background characteristics. In this table, women who are sterilized (or whose husbands are sterilized) are included among those who say that they want no more children. It is striking that the percent of women who want no more children increases from 19 percent among women with one living child to 81 percent among women with two living children. As expected, older women are much more likely than younger women to want no more children. Already by age 25–34, 83 percent of women want no more children. At age 35 and above, 91 percent of women want no more children. The proportion wanting no more does not vary much by urban/rural residence or by residence in Mumbai. Within Mumbai, the proportion wanting no more children is slightly higher in non-slum areas than in slum areas. The differentials in the proportion wanting no more children by urban/rural residence and by slum/non-slum residence within Mumbai are much greater for women with one living child than for women with two or more living children. Among women with one living child, 27 percent from Mumbai desire to stop childbearing as against 14 percent from rural areas of Maharashtra; and within Mumbai, among women with one living child, the proportion that does not want more children is more than twice as high in non-slum areas (38 percent) as in slum areas (18 percent). The desire to limit family size increases consistently with education for women with two or more living children, but not for women with one living child or no living children. Among women with two living children, the proportion wanting no more children increases from 74 percent for illiterate women to 88 percent for those who have completed at least a high school education. The proportion wanting no more children is the lowest among Christian women (62 percent), followed by Muslim women (66 percent). The proportion is much higher among Hindu women (72 percent), and Buddhist/Neo-Buddhist and Jain women (79 percent each). The proportion wanting no more children ranges from 63 percent among scheduled-tribe women to 72–75 percent among other women. The proportion who want no more children is somewhat lower for women from low standard of living households (69 percent) than for women from medium or high standard of living households (74 percent each). Among the women with two living children the percent who want no more children increases from 74 percent for women living in households with a low standard of living to 88 percent for women living in households with a high standard of living.

The background characteristic with the strongest effect on women's desire to limit family size, however, is number of living sons. Only 19 percent of women with no living sons want no more children, compared with 96 percent or more of women with two or more living sons. Differences associated with the number of living daughters are also large, but not as large as differences associated with the number of living sons, indicating a strong preference for sons. Fifty-two percent of women with no living daughters want no more children, compared with 85 percent or more of women with two or more living daughters. It is interesting to note that women in Maharashtra want to go for the third child mainly in the hope of getting a son, as 41 percent with two children but no sons do not want more children against 85 percent with one son and one daughter and 94 percent with both sons.

Table 4.14 Desire to have no more children by background characteristics

Percentage of currently married women who want no more children by number of living children and selected background characteristics, Maharashtra, 1999

Background characteristic	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
<b>Age</b>						
15–24	0.0	4.6	64.2	74.9	76.8	35.6
25–34	1.7	31.3	88.0	92.8	94.3	82.8
35–49	16.0	74.8	91.3	96.0	95.6	90.9
<b>Residence</b>						
Urban	3.9	24.1	83.3	92.1	93.1	70.7
Rural	2.0	14.3	79.5	90.6	94.5	72.9
Mumbai	1.8	26.7	85.0	93.6	92.7	69.4
Slum	1.2	17.6	78.8	92.2	91.4	67.0
Non-slum	2.5	38.4	91.0	95.5	97.4	72.6
<b>Education</b>						
Illiterate	4.7	21.4	74.1	88.5	92.8	75.3
Literate, < middle school complete	4.1	10.0	81.8	91.5	95.6	74.8
Middle school complete	0.0	9.7	83.2	93.8	96.9	62.4
High school complete and above	0.4	27.2	88.2	98.4	99.3	66.0
<b>Religion</b>						
Hindu	2.8	19.9	82.8	92.4	94.6	72.1
Muslim	(7.8)	8.5	60.1	79.4	90.2	66.2
Christian	*	*	(90.0)	*	*	62.0
Buddhist/Neo-Buddhist	*	(27.0)	77.9	96.2	95.8	79.3
Jain	*	*	(92.3)	*	*	79.2
Other	*	*	*	*	*	(79.7)
<b>Caste/tribe</b>						
Scheduled caste	(3.4)	19.0	79.3	92.4	96.6	74.7
Scheduled tribe	(2.8)	12.6	69.9	81.9	92.2	63.4
Other backward class	1.7	17.6	80.5	95.0	94.3	74.0
Other	3.2	20.8	83.6	91.2	93.4	72.2
<b>Standard of living index</b>						
Low	3.2	14.1	73.6	85.1	91.7	68.8
Medium	2.9	14.3	82.1	92.9	96.1	74.2
High	2.6	31.5	87.6	95.8	93.5	73.9
<b>Number of living sons<sup>2</sup></b>						
0	2.8	17.5	41.4	44.8	(65.1)	19.0
1	NA	27.7	85.3	88.8	92.4	76.7
2	NA	NA	93.5	98.3	97.3	96.6
3+	NA	NA	NA	96.9	95.1	95.7
<b>Number of living daughters<sup>2</sup></b>						
0	2.8	27.7	93.5	96.9	(98.8)	51.8
1	NA	17.5	85.3	98.3	95.5	80.1
2	NA	NA	41.4	88.8	98.5	84.9
3+	NA	NA	NA	44.8	91.1	86.3
Total	2.8	19.2	81.2	91.2	94.0	72.0

Note: Women who have been sterilized or whose husbands have been sterilized are considered to want no more children. Total includes women with missing information on caste/tribe and the standard of living index, who are not shown separately.

NA: Not applicable

( ) Based on 25–49 unweighted cases

\*Percentage not shown; based on fewer than 25 unweighted cases

<sup>1</sup>Includes current pregnancy, if any

<sup>2</sup>Excludes pregnant women

<b>Table 4.15 Ideal and actual number of children</b>						
Percent distribution of ever-married women by ideal number of children, and mean ideal number of children, by number of living children, Maharashtra, 1999						
Ideal number of children	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
1	14.8	13.6	5.1	4.1	1.9	6.2
2	65.9	69.8	76.9	54.7	43.5	61.2
3	11.4	11.2	13.8	30.9	31.6	22.0
4	1.9	1.1	1.8	5.9	13.8	5.6
5	0.3	0.4	0.2	0.4	1.1	0.5
6+	0.0	0.0	0.1	0.0	0.9	0.2
Non-numeric response	5.7	3.7	2.1	4.0	7.2	4.3
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	460	804	1,417	1,480	1,230	5,391
Mean ideal number <sup>2</sup>	2.0	2.0	2.1	2.4	2.7	2.3
Number of women giving numeric response	434	774	1,388	1,420	1,142	5,157

<sup>1</sup>Includes current pregnancy, if any  
<sup>2</sup>Means are calculated excluding women who gave non-numeric responses.

#### 4.10 Ideal Number of Children

To assess women’s ideal number of children, NFHS-2 asked each woman the number of children she would like to have if she could start over again. Women with no children were asked, ‘If you could choose exactly the number of children to have in your whole life, how many would that be?’ Women who already had children were asked, ‘If you could go back to the time you did not have any children and could choose exactly the number of children to have in your whole life, how many would that be?’ Some women found it difficult to answer these hypothetical questions, and hence the question sometimes had to be repeated to ensure that the meaning was understood. Yet 96 percent of women in Maharashtra were able to give a numerical response.

Table 4.15 shows that 61 percent of ever-married women in Maharashtra consider two to be the ideal number of children. Another 22 percent consider three to be the ideal. Only 13 percent women have an ideal that differs from two or three children. Among all women who gave a numeric response, the average number of children considered ideal is 2.3, ranging from 2.0–2.1 for women who have two or fewer children to 2.7 for women who have four or more children. In NFHS-1, the average ideal family size was reported to be 2.5. Thus, during the six-year period between NFHS-1 and NFHS-2, the ideal family size in Maharashtra has declined by 0.2 children, indicating a decline approaching the two-child norm.

Asking a question on ideal family size is sometimes criticized on the grounds that women tend to adjust their ideal family size upward as their number of living children increases, in a process of rationalizing previously unwanted children as wanted. It is argued that the question on ideal family size prompts many women to state the actual number of children they already have as their ideal. It is evident from Table 4.15, however, that this is not so for many women in Maharashtra. Among women with four or more living children, for example, 77 percent state that

**Table 4.16 Ideal number of children by background characteristics**

Mean ideal number of children reported by ever-married women, according to current age and selected background characteristics, Maharashtra, 1999

Background characteristic	Current age							Total
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	
<b>Residence</b>								
Urban	2.2	2.2	2.2	2.1	2.2	2.3	2.3	2.2
Rural	2.2	2.3	2.3	2.4	2.5	2.5	2.6	2.4
<b>Mumbai</b>								
Slum	2.1	2.1	2.2	2.2	2.2	2.2	2.3	2.2
Non-slum	*	1.9	1.9	2.0	2.0	2.0	2.0	2.0
<b>Education</b>								
Illiterate	2.4	2.5	2.5	2.5	2.5	2.6	2.7	2.5
Literate, < middle school complete	2.2	2.2	2.3	2.3	2.3	2.4	2.6	2.3
Middle school complete	2.0	2.1	2.1	2.1	2.2	2.3	*	2.1
High school complete and above	(2.0)	1.9	1.9	1.9	2.0	2.0	1.9	1.9
<b>Religion</b>								
Hindu	2.2	2.2	2.3	2.3	2.3	2.3	2.4	2.3
Muslim	2.4	2.5	2.5	2.5	2.5	2.9	(2.7)	2.5
Christian	*	*	*	*	*	*	*	2.3
Buddhist/Neo-Buddhist	*	2.2	2.2	2.2	(2.5)	2.6	(2.4)	2.3
Jain	*	*	*	*	*	*	*	2.0
Other	*	*	*	*	*	*	*	(2.6)
<b>Caste/tribe</b>								
Scheduled caste	2.2	2.2	2.3	2.3	2.5	2.5	(2.6)	2.3
Scheduled tribe	(2.5)	2.4	2.4	2.6	(2.5)	(2.4)	(2.5)	2.4
Other backward class	2.2	2.1	2.2	2.3	2.3	2.4	2.5	2.3
Other	2.2	2.2	2.3	2.3	2.3	2.4	2.4	2.3
<b>Work status</b>								
Working in family farm/business	2.3	2.3	2.3	2.5	2.4	2.7	2.7	2.4
Employed by someone else	2.4	2.3	2.3	2.3	2.5	2.3	2.4	2.4
Self-employed	*	(2.2)	2.3	2.1	2.3	(2.1)	*	2.2
Not worked in past 12 months	2.1	2.2	2.2	2.2	2.2	2.4	2.4	2.2
<b>Standard of living index</b>								
Low	2.3	2.4	2.4	2.5	2.7	2.4	2.7	2.5
Medium	2.2	2.2	2.3	2.3	2.3	2.6	2.5	2.3
High	(2.0)	2.0	2.0	2.0	2.2	2.1	2.2	2.1
<b>Husband's education</b>								
Illiterate	2.5	2.5	2.5	2.6	2.6	2.5	2.6	2.5
Literate, < primary school complete	(2.3)	2.5	2.5	2.4	2.6	2.6	2.7	2.5
Primary school complete	2.2	2.3	2.3	2.4	2.4	2.7	2.6	2.4
Middle school complete	2.2	2.1	2.2	2.3	2.3	2.3	(2.5)	2.3
High school complete	2.0	2.1	2.1	2.2	2.2	2.3	2.3	2.2
Higher secondary complete and above	2.1	2.0	2.0	1.9	2.1	2.0	1.9	2.0
Total	2.2	2.2	2.3	2.3	2.4	2.4	2.5	2.3

Note: Means are calculated excluding women who gave non-numeric responses. Total includes women with missing information on caste/tribe, the standard of living index, and husband's education, who are not shown separately.

( ) Based on 25–49 unweighted cases

\*Mean not shown; based on fewer than 25 unweighted cases

fewer than four children would be ideal. Similarly, among women with three living children, 59 percent state that their ideal family size is smaller than three children. It is evident from these results that a substantial proportion of women in Maharashtra already have more children than they consider ideal now. This proportion may be taken as another indicator of surplus or unwanted fertility.

Table 4.16 shows the mean ideal number of children for ever-married women by age according to selected background characteristics. The mean ideal number of children increases gradually from 2.2 for women age 15–24 to 2.5 for women age 45–49. The mean ideal number of children is lower in urban areas (2.2 children) than in rural areas (2.4 children), and lower in non-slum areas of Mumbai (2.0 children) than in slum areas (2.2 children). The mean ideal number of children declines gradually with education, from 2.5 for illiterate women to 1.9 for women who have completed at least a high school education. The pattern is similar according to the education level of the husband. The mean ideal number of children ranges from 2.0 for Jains to 2.5 for Muslims. It is 2.3 children for Hindus, Christians, and Buddhists/Neo-Buddhists. The mean ideal family size is slightly higher for scheduled-tribe women than for other women. By work status, the ideal family size is somewhat higher for women working on a family farm or in a family business or employed by someone else (2.4 children each) than for self-employed women or for women who did not work in the past 12 months (2.2 children each). The mean ideal number of children declines gradually with the standard of living index, from 2.5 children for women living in low standard of living households to 2.1 children for women living in high standard of living households.

#### 4.11 Sex Preference for Children

A strong preference for sons has been found to be pervasive in Indian society, affecting both attitudes and behaviour with respect to children (Arnold et al., 1998; Arnold, 1996; Basu, 1989; Das Gupta, 1987; Kishor, 1995; Koenig and Foo, 1992; Kulkarni, et al., 1996; Murthi et al., 1995; Nag, 1991; Parasuraman et al., 1994). In NFHS-2, women who gave a numerical response to the question on the ideal number of children were asked how many of these children they would like to be boys, how many they would like to be girls, and for how many the sex would not matter. Table 4.17 shows women's mean ideal number of sons and daughters, the percentages who want more children of a particular sex, the percentage who want at least one son, and the percentage who want at least one daughter, according to selected background characteristics. The table shows a consistent preference for sons over daughters. Overall, the average ideal family size of 2.3 children consists of 1.2 sons, 0.9 daughters, and 0.3 children of either sex. Twenty-seven percent of women want more sons than daughters, but only 2 percent want more daughters than sons.

The indicator on the percentage of women who want at least one son and at least one daughter exhibits the weakest son preference. In Maharashtra, although 27 percent of women want more sons than daughters, the percent of women who want at least one daughter (79 percent) is not substantially lower than the percent of women who want at least one son (85 percent). One reason that a substantial proportion of women want to have at least one daughter may be to fulfill the Hindu religious obligation of *kanyadan* (giving the daughter away at the time of marriage), which is one of the acts that enables the parents to acquire the highest level of merit (*punya*). Another reason may be that most women in Maharashtra want variety in bringing up children and hence want at least one daughter.

Table 4.17 Indicators of sex preference

Mean ideal number of sons, daughters, and children of either sex for ever-married women, percentage who want more sons than daughters, percentage who want more daughters than sons, percentage who want at least one son, and percentage who want at least one daughter by selected background characteristics, Maharashtra, 1999

Background characteristic	Mean ideal number of:			Percentage who want more sons than daughters	Percentage who want more daughters than sons	Percentage who want at least one son	Percentage who want at least one daughter	Number of women
	Sons	Daughters	Either sex					
<b>Residence</b>								
Urban	1.0	0.8	0.4	19.4	2.5	77.2	73.6	2,170
Rural	1.3	0.9	0.2	32.7	1.4	89.7	83.5	2,987
<b>Mumbai</b>								
Slum	1.0	0.8	0.4	17.5	2.8	75.5	72.3	385
Non-slum	0.8	0.7	0.4	17.0	2.7	72.0	64.8	281
<b>Education</b>								
Illiterate	1.4	1.0	0.2	36.3	1.8	91.4	85.2	2,232
Literate, < middle school complete	1.2	0.9	0.3	26.3	1.6	85.9	81.5	1,398
Middle school complete	0.9	0.8	0.4	16.1	1.5	78.1	74.2	576
High school complete and above	0.8	0.7	0.5	13.4	2.7	69.8	65.3	951
<b>Religion</b>								
Hindu	1.2	0.9	0.3	27.5	1.7	84.9	79.6	4,129
Muslim	1.2	1.0	0.3	26.2	2.7	84.2	81.3	504
Christian	1.0	0.8	0.5	16.8	3.9	74.4	68.7	68
Buddhist/Neo-Buddhist	1.1	0.8	0.3	25.1	1.6	82.1	76.7	355
Jain	1.0	0.7	0.3	23.1	2.5	81.5	71.5	66
Other	(1.4)	(1.0)	(0.1)	(35.9)	(0.0)	(89.7)	(81.7)	34
<b>Caste/tribe</b>								
Scheduled caste	1.2	0.9	0.3	28.3	2.1	85.4	79.8	703
Scheduled tribe	1.3	1.0	0.2	30.7	1.4	90.3	85.6	516
Other backward class	1.1	0.8	0.3	25.5	1.7	82.4	78.1	1,113
Other	1.1	0.9	0.3	26.6	1.9	83.9	78.4	2,804
<b>Work status</b>								
Working in family farm/business	1.3	0.9	0.2	36.5	1.9	90.3	83.6	1,069
Employed by someone else	1.2	0.9	0.3	31.4	2.0	85.3	79.5	1,490
Self-employed	1.1	0.9	0.3	23.3	1.9	82.6	78.9	308
Not worked in past 12 months	1.0	0.8	0.3	20.4	1.7	81.4	77.2	2,290
<b>Standard of living index</b>								
Low	1.3	1.0	0.2	34.0	1.9	91.0	85.5	1,532
Medium	1.2	0.9	0.3	27.6	1.4	85.4	79.7	2,317
High	0.9	0.7	0.4	17.8	2.4	73.9	69.9	1,152
<b>Husband's education</b>								
Illiterate	1.4	1.0	0.2	37.6	1.5	89.9	83.3	1,018
Literate, < primary school complete	1.3	1.0	0.2	34.3	1.5	92.0	86.8	585
Primary school complete	1.2	0.9	0.2	29.8	2.0	89.2	85.3	907
Middle school complete	1.1	0.9	0.3	25.0	1.5	85.6	80.1	791
High school complete	1.0	0.8	0.4	21.7	2.0	80.4	73.5	911
Higher secondary complete and above	0.9	0.7	0.4	15.4	2.3	72.2	69.3	927
Total	1.2	0.9	0.3	27.1	1.9	84.5	79.3	5,157

Note: Table excludes women who gave non-numeric responses to the questions on ideal number of children or ideal number of sons and daughters. Total includes 22, 157, and 18 women with missing information on caste/tribe, the standard of living index, and husband's education, respectively, who are not shown separately.

( ) Based on 25–49 unweighted cases

Son preference as reflected in the ideal family composition is relatively strong among women who live in rural areas, women who are illiterate, women whose husbands are illiterate or have not completed primary school, and women living in households with a low standard of living. Son preference is also relatively strong among scheduled-tribe women, women working on a family farm or in a family business, and women employed by someone else. There is not much difference in sex preference between slum and non-slum areas of Mumbai.

#### 4.12 Fertility Planning

For each child born in the three years before the survey and for each current pregnancy, NFHS-2 asked women whether the pregnancy was wanted at that time (planned), wanted at a later time (mistimed), or not wanted at all. Because a woman may retrospectively describe an unplanned pregnancy as one that was wanted at that time, responses to these questions may lead to an underestimation of unplanned childbearing. Nevertheless, this information provides a potentially powerful indicator of the degree to which couples successfully control childbearing. It should be noted that the proportion of births that are unplanned is influenced not only by whether, and how effectively, couples use contraception, but also by the couple's ideal family size.

Table 4.18 shows the percent distribution of births during the three years preceding the survey and current pregnancies according to fertility planning status. One-fifth (21 percent) of all pregnancies that resulted in live births in the three years preceding the survey (including current pregnancies) were unplanned (that is, unwanted at the time the woman became pregnant). Thirteen percent were wanted later and 7 percent were not wanted at all. In spite of an increase in contraceptive use from NFHS-1 to NFHS-2, the percentage of unplanned pregnancies has declined by only 2 percentage points. The proportion of births that were unplanned is higher for women age 30–39 (29–38 percent) than for women age 15–29 (17–22 percent). The proportion of births that were wanted later falls and the proportion that were not wanted at all rises as mother's age increases.

The proportion of births that were unplanned does not vary widely by socioeconomic characteristics. The proportion of births that were unplanned is higher in urban areas (23 percent) than in rural areas (19 percent), and it is lowest in non-slum areas of Mumbai (10 percent). The proportion of unplanned births is nearly twice as high in slum areas of Mumbai as in non-slum areas. It does not vary consistently by woman's educational attainment or by the household's living standard. The proportion of births that were unplanned is considerably larger for Buddhist/Neo-Buddhist women (28 percent) and Muslim women (26 percent) than for Hindu women (19 percent). Not surprisingly, births of higher order are more likely than births of lower order to be unplanned. The proportion of unplanned births ranges from 15 percent for first-order births to 29 percent among births of order four or higher. The fact that 21 percent of births of order four or higher were not wanted at all indicates that the family planning programme has failed to meet the needs of women who already have at least three children to control their fertility. The substantial proportion of women at all parities who would have liked to have their births later suggests that attention also needs to be given to the promotion of spacing methods of contraception.

The impact of unwanted fertility can be measured by comparing the total wanted fertility rate with the total fertility rate (TFR). The total wanted fertility rate represents the level of fertility that theoretically would result if all unwanted births were prevented. A comparison of

<b>Table 4.18 Fertility planning</b>					
Percent distribution of births during the three years preceding the survey and current pregnancies by fertility planning status, according to selected background characteristics, Maharashtra, 1999					
Background characteristic	Planning status of pregnancy			Total percent	Number of births and current pregnancies
	Wanted then	Wanted later	Not wanted at all		
<b>Mother's age at birth<sup>1</sup></b>					
< 20	81.6	16.7	1.8	100.0	635
20–24	77.8	15.3	7.0	100.0	996
25–29	83.2	6.5	10.4	100.0	428
30–34	70.8	9.2	20.0	100.0	109
35–39	(61.9)	(0.0)	(38.1)	100.0	31
<b>Residence</b>					
Urban	77.2	15.3	7.5	100.0	884
Rural	80.7	12.2	7.1	100.0	1,317
Mumbai	83.9	11.1	5.0	100.0	252
Slum	81.5	13.6	5.0	100.0	183
Non-slum	90.4	4.6	5.1	100.0	69
<b>Mother's education</b>					
Illiterate	81.3	10.8	8.0	100.0	879
Literate, < middle school complete	78.4	14.4	7.3	100.0	576
Middle school complete	73.1	19.3	7.5	100.0	318
High school complete and above	81.1	13.3	5.6	100.0	428
<b>Religion</b>					
Hindu	80.9	12.6	6.5	100.0	1,686
Muslim	74.1	15.6	10.3	100.0	323
Christian	(71.8)	(19.4)	(8.7)	100.0	30
Buddhist/Neo-Buddhist	71.9	17.8	10.3	100.0	126
Jain	(80.1)	(19.9)	(0.0)	100.0	21
<b>Caste/tribe</b>					
Scheduled caste	73.4	17.8	8.8	100.0	295
Scheduled tribe	82.0	11.0	7.0	100.0	260
Other backward class	83.6	11.7	4.7	100.0	431
Other	78.7	13.5	7.7	100.0	1,200
<b>Standard of living index</b>					
Low	81.8	9.4	8.9	100.0	747
Medium	76.8	15.4	7.8	100.0	1,006
High	82.6	14.7	2.8	100.0	372
<b>Birth order<sup>2</sup></b>					
1	84.8	13.2	2.0	100.0	840
2	80.0	17.1	2.9	100.0	571
3	74.5	13.6	11.9	100.0	420
4+	71.2	8.0	20.9	100.0	370
Total	79.3	13.4	7.3	100.0	2,201
<p>Note: Table includes the two most recent births in the three years preceding the survey and current pregnancies. Total includes 2 births to women age 40–44, 15 births to women belonging to other religions, and 14 and 76 births with missing information on caste/tribe and the standard of living index, respectively, which are not shown separately.</p> <p>( ) Based on 25–49 unweighted cases</p> <p><sup>1</sup>For current pregnancy, estimated maternal age at birth</p> <p><sup>2</sup>Includes current pregnancy, if any</p>					

<b>Table 4.19 Wanted fertility rates</b>		
Total wanted fertility rate and total fertility rate for the three years preceding the survey by selected background characteristics, Maharashtra, 1999		
Background characteristic	Total wanted fertility rate	Total fertility rate
<b>Residence</b>		
Urban	1.71	2.24
Rural	2.00	2.74
Mumbai	1.58	2.13
Slum	1.88	2.69
Non-slum	1.20	1.40
<b>Education</b>		
Illiterate	2.10	3.12
Literate, < middle school complete	2.17	2.73
Middle school complete	1.86	2.33
High school complete and above	1.64	1.95
<b>Religion</b>		
Hindu	1.84	2.45
Muslim	2.20	3.30
Christian	2.34	2.45
Buddhist/Neo-Buddhist	1.56	2.14
Jain	1.50	1.64
Other	(1.54)	(2.67)
<b>Caste/tribe</b>		
Scheduled caste	1.71	2.42
Scheduled tribe	2.03	2.93
Other backward class	1.69	2.19
Other	1.95	2.59
<b>Standard of living index</b>		
Low	2.03	3.01
Medium	1.92	2.58
High	1.51	1.76
Total	1.87	2.52
<p>Note: Rates are based on births in the period 1–36 months preceding the survey to women age 15–49. The total fertility rates are the same as those presented in Table 4.3. Total includes women with missing information on caste/tribe and the standard of living index, who are not shown separately.</p> <p>( ) Based on 125–249 woman-years of exposure</p>		

the TFR with the total wanted fertility rate indicates the potential demographic impact of the elimination of all unwanted births. The total wanted fertility rates presented in Table 4.19 are calculated in the same way as the TFR except that unwanted births are excluded from the numerator. In this case, a birth is considered unwanted if the number of living children at the time of conception was greater than or equal to the ideal number of children reported by the respondent at the time of the survey. Women who did not give a numeric response to the question on ideal number of children are assumed to have wanted all the births they had.

Overall, the total wanted fertility rate of 1.87 in Maharashtra is lower by 0.65 children (i.e., by 26 percent) than the total fertility rate of 2.52. This means that if unwanted births could be eliminated, the TFR in Maharashtra would reach 11 percent below the replacement level of fertility (approximately 2.1 children per woman). In fact, if all unwanted births were eliminated,

women in all socio-economic groups, except women with less than a middle school education and Muslim and Christian women, would have below-replacement level fertility. Even for these women, however, the wanted fertility rate is only 0.1–0.2 children higher than the replacement level.