

## 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, fertility by sociodemographic characteristics, pregnancy outcomes, 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. 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, information was collected 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 difficulties 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, however, formal marriage is not always immediately followed by cohabitation. Rather, the husband and the wife only begin to cohabit after the *gauna* ceremony. Even in states where *gauna* is not practiced, 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. Accordingly, Table 4.1 presents information on the median age at first cohabitation to supplement the information on the median age at first marriage presented in Chapter 3. 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. If the median calculated for an age group lies above the lower limit of that age group, it is not valid because

Table 4.1 Age at first cohabitation with husband							
Median age at first cohabitation with husband among women age 20–49 years by current age and selected background characteristics, Bihar, 1998–99							
Background characteristic	Current age						
	20–24	25–29	30–34	35–39	40–49	20–49	25–49
<b>Residence</b>							
Urban	19.5	18.3	17.5	17.6	17.2	18.0	17.6
Rural	17.0	16.6	16.5	16.4	16.4	16.6	16.5
<b>Region</b>							
North Bihar Plain	17.0	16.4	16.3	16.4	16.2	16.4	16.3
South Bihar Plain	17.7	17.3	17.2	17.1	17.1	17.3	17.2
Jharkhand	16.9	16.7	16.6	16.3	16.4	16.6	16.5
<b>Education</b>							
Illiterate	16.5	16.3	16.3	16.4	16.2	16.3	16.3
Literate, < middle school complete	18.3	17.0	17.5	16.6	17.0	17.3	17.0
Middle school complete	19.0	18.3	(17.1)	(16.8)	(17.3)	18.1	17.4
High school complete and above	NC	19.5	19.0	19.1	18.5	19.5	19.2
<b>Religion</b>							
Hindu	17.3	16.7	16.6	16.5	16.5	16.7	16.6
Muslim	16.7	16.4	16.4	16.7	16.1	16.5	16.4
Christian	*	*	*	*	*	19.0	18.9
Other	NC	*	*	*	*	17.3	(16.7)
<b>Caste/tribe</b>							
Scheduled caste	16.7	16.1	16.3	16.1	16.1	16.3	16.1
Scheduled tribe	16.8	17.0	16.5	16.7	16.8	16.8	16.8
Other backward class	17.0	16.7	16.4	16.4	16.3	16.6	16.5
Other	19.0	17.3	17.7	17.2	17.1	17.7	17.3
<b>Standard of living index</b>							
Low	16.4	16.2	16.3	16.3	16.2	16.3	16.2
Medium	17.9	17.1	16.7	16.6	16.5	16.9	16.7
High	NC	19.1	18.3	18.0	17.5	18.5	18.2
Total	17.2	16.7	16.6	16.5	16.5	16.7	16.6
NC: Not calculated because less than 50 percent of the women have started living with husband by age 20							
( ) Based on 25–49 unweighted cases							
*Median not shown; based on fewer than 25 unweighted cases							

some younger women in the age group who have not yet begun to cohabit will not have reached the median age by the time of the survey. In such cases, the estimated median is biased and is not shown.

Table 4.1 shows that, in Bihar, the median age at first cohabitation with husband is 16.7 years for women age 20–49. The lowest median age at first cohabitation is 16.5 years for women age 35–49, and the highest is 17.2 years for women age 20–24, suggesting a modest increase of 0.7 years in the median age at first cohabitation over a period of approximately 20 years. The value of 17.2 for the younger age group is still low, however, suggesting that whatever decline in

fertility that has occurred in Bihar has resulted mainly from family limitation within marriage rather than from an increase in age at first cohabitation.

Table 4.1 also shows that the median age at first cohabitation is 1.4 years higher for urban women than for rural women. Over time, the median age at first cohabitation has risen in both urban and rural areas, but the rise has been greater in urban areas. Differentials by education in the median age at first cohabitation are even larger than differentials by residence. For example, for women age 20–49, the median age at first cohabitation ranges from 16.3 for illiterate women to 19.5 for women who have at least completed high school. Within education categories, the median age has increased over time among literate women, but not among illiterate women. By religion, the median age at first cohabitation for women age 20–49 ranges from 16.5 for Muslims to 19.0 for Christians. By caste/tribe, it ranges from 16.3 for scheduled-caste women to 17.7 for women in the ‘other’ category. The median age of first cohabitation increases steadily with the standard of living, from 16.3 for women living in households with a low standard of living to 18.5 for women living in households with a high standard of living.

## **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 Bihar 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 closer 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 women-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 five times the sum of all the ASFRs of 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 was 28.1 births per thousand population and the TFR (15–49) was 3.49 births per woman, as shown in Table 4.2. Both the CBR and TFR are considerably higher in rural areas than in urban areas (28.8 and 3.59 compared with 22.3 and 2.75, respectively).

Table 4.2 and Figure 4.1 show that ASFRs are higher in rural areas than in urban areas for all the age groups. The urban-rural differential in ASFRs for the 15–19 age group is highest. For the other age groups, urban-rural differences in ASFRs are relatively small. Sixty-five percent of urban total fertility and 57 percent of rural total fertility is concentrated in the prime childbearing ages of 20–29. There is also a substantial amount of early childbearing. Fertility at age 15–19 accounts for 13 percent of total fertility in urban areas, 17 percent in rural areas, and 16 percent overall. Fertility at ages 35 and older accounts for 5 percent of total fertility in urban areas, 11 percent in rural areas, and 10 percent overall.

**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, Bihar

Age	NFHS-1 (1990–92)	NFHS-2 (1996–98)		SRS (1997)			
	Total	Urban	Rural	Total	Urban	Rural	Total
15–19	0.121	0.072	0.119	0.113	0.037	0.057	0.055
20–24	0.241	0.200	0.226	0.223	0.183	0.250	0.242
25–29	0.190	0.160	0.182	0.180	0.187	0.236	0.231
30–34	0.141	0.088	0.115	0.112	0.121	0.185	0.178
35–39	0.078	0.030	0.053	0.050	0.056	0.104	0.099
40–44	0.026	0.000	0.020	0.018	0.029	0.055	0.052
45–49	(0.004)	(0.000)	0.003	0.002	0.006	0.017	0.015
TFR 15–44	3.98	2.75	3.57	3.48	3.07	4.44	4.29
TFR 15–49	4.00	2.75	3.59	3.49	3.10	4.52	4.36
CBR	32.1	22.3	28.8	28.1	23.6	32.7	31.7

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.

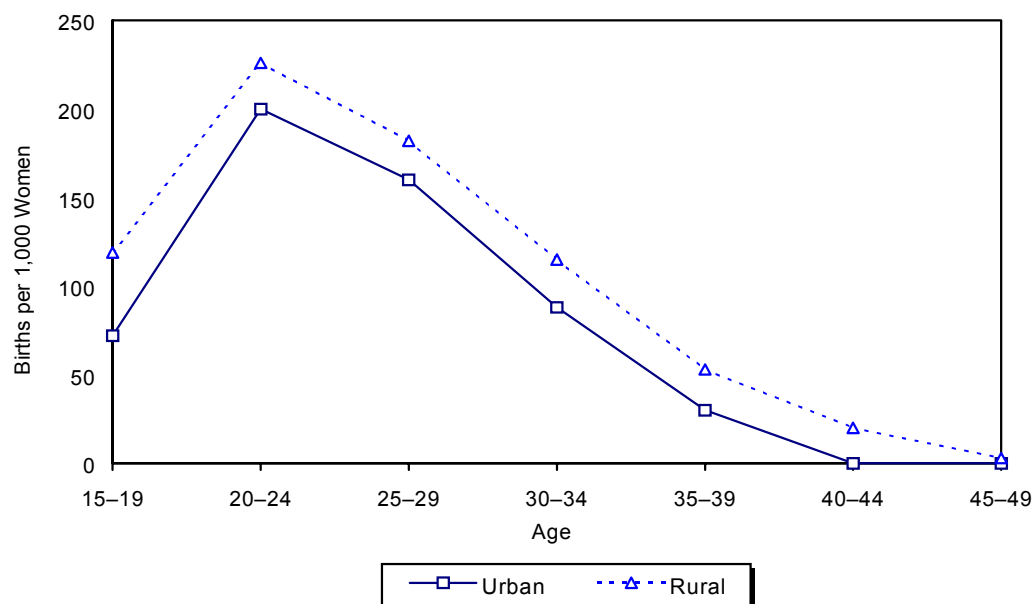
TFR: Total fertility rate

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

( ) Based on 125–249 woman-years of exposure

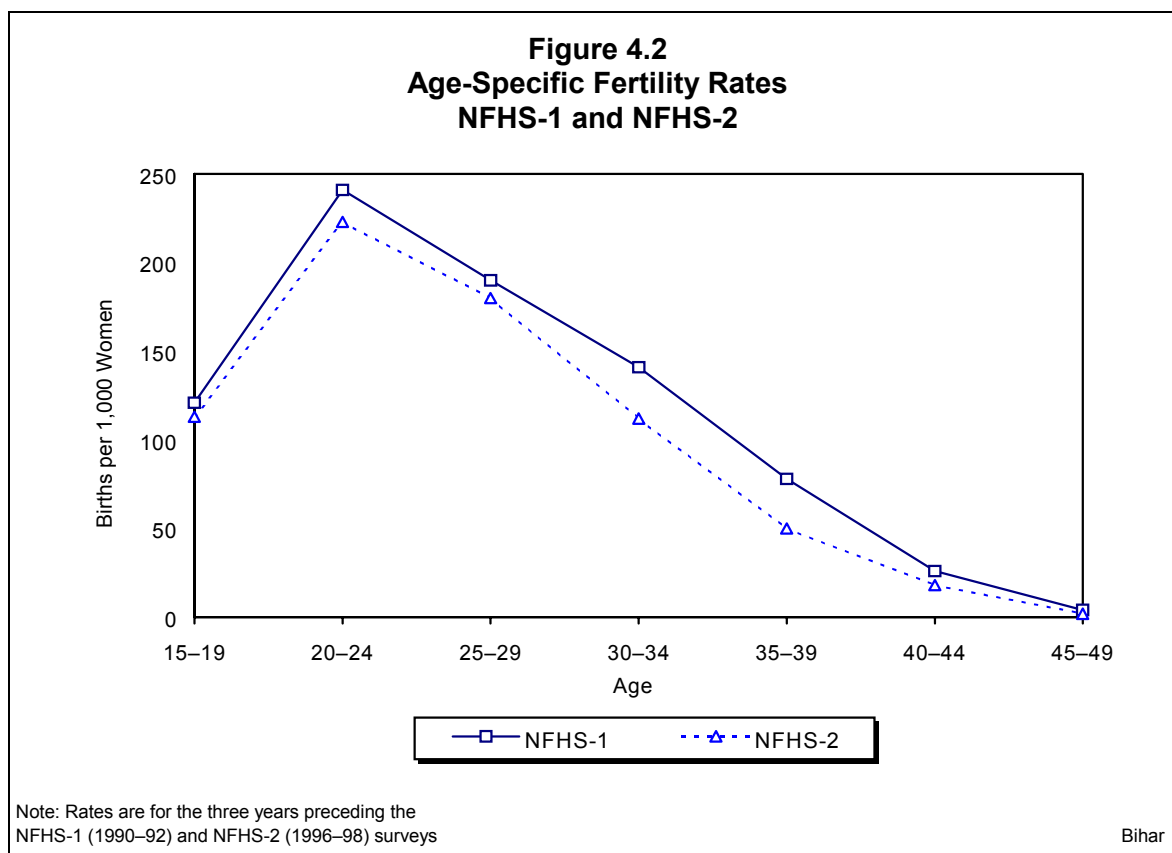
Source for SRS: Office of the Registrar General, 1999a

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



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

NFHS-2, Bihar, 1998–99



Based on estimates for the three-year periods preceding NFHS-1 and NFHS-2, the CBR fell from 32.1 to 28.1 between the two surveys, a decline of 12 percent in about six years. Over the same period, the TFR fell from 4.00 to 3.49, a decline of 13 percent. Table 4.2 and Figure 4.2 show that fertility fell for all age groups between the two surveys. Although fertility fell considerably for both 40-44 and 45-49 age groups from NFHS-1 to NFHS-2, fertility for these age groups was already low in NFHS-1, so that the fertility decline above age 40 had a very small impact on the CBR and the TFR during the six years between the two surveys.

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 (Office of the Registrar General, 1999a). The NFHS-2 estimate of the CBR, at 28.1, is lower than the SRS estimate of the CBR, at 31.7. Also, the NFHS-2 estimate of the TFR, at 3.49, is 0.87 children per woman lower than the SRS estimate, at 4.36. Differences between NFHS-2 and the SRS estimates may be attributed to different methodologies adopted in the collection of data on ages of women and their children. The greater discrepancy in rural areas may be caused by more age misreporting in rural areas, which tends to result in the displacement of births further into the past. Retrospective surveys such as NFHS-1 and NFHS-2 are subject to such displacement, whereas the SRS, in which births are recorded during the year in which they occur, is not. Narasimhan et al. (1997) compared NFHS-1 and SRS estimates of fertility and concluded that both are probably underestimates. Nonetheless, since the SRS estimates are not subject to displacement, they are likely to be closer to the true level of fertility than NFHS-1 estimates. This argument is probably equally valid for NFHS-2 estimates

**Table 4.3 Fertility by background characteristics**

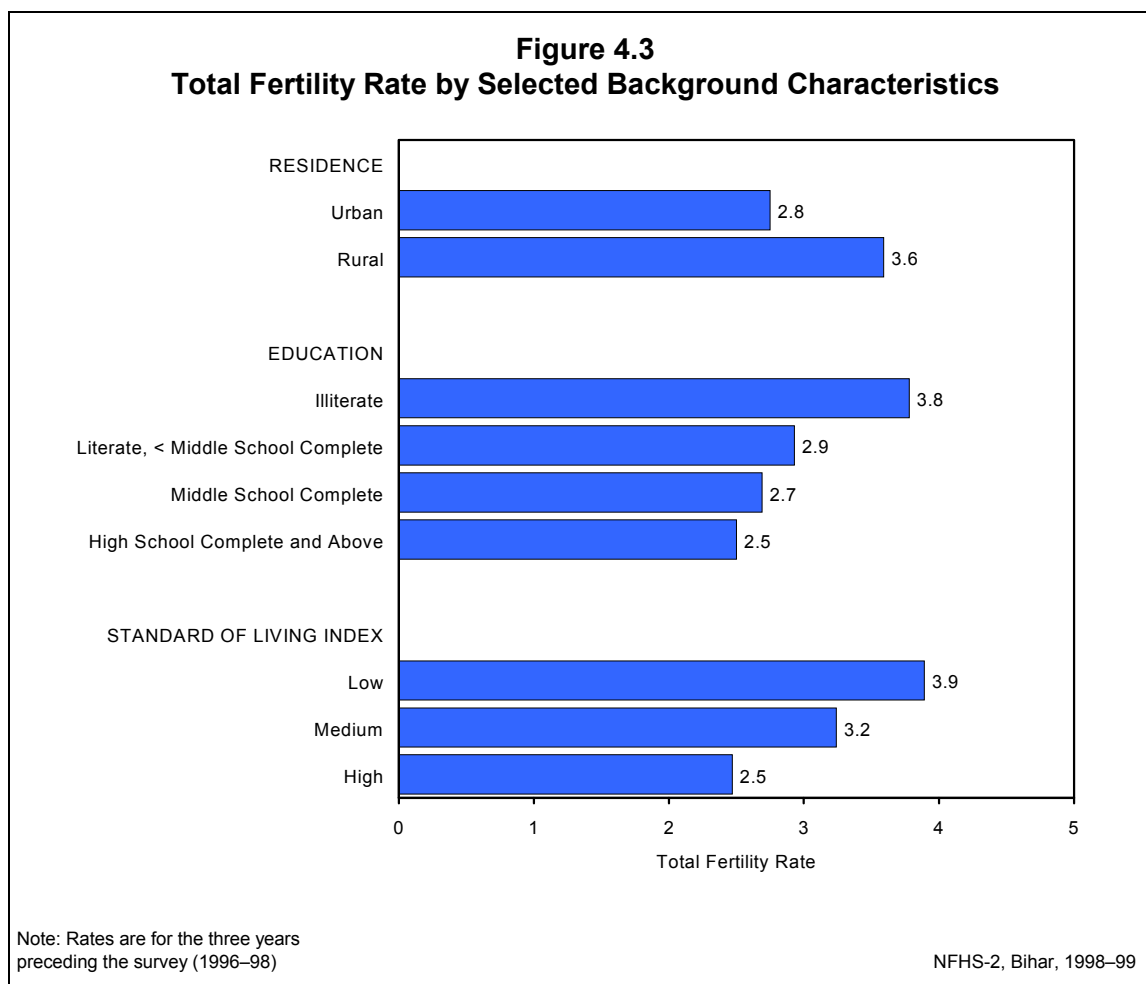
Total fertility rate for the three years preceding the survey, percentage of all women age 15–49 currently pregnant, and mean number of children ever born to ever-married women age 40–49 by selected background characteristics, Bihar, 1998–99

Background characteristic	Total fertility rate <sup>1</sup>	Percentage currently pregnant <sup>2</sup>	Mean number of children ever born to ever-married women age 40–49 years
<b>Residence</b>			
Urban	2.75	4.2	4.84
Rural	3.59	7.1	5.31
<b>Region</b>			
North Bihar Plain	3.82	7.4	5.40
South Bihar Plain	3.63	6.9	5.36
Jharkhand	2.76	5.2	4.83
<b>Education</b>			
Illiterate	3.78	7.6	5.41
Literate, < middle school complete	2.93	4.4	4.99
Middle school complete	2.69	3.5	*
High school complete and above	2.50	5.1	3.63
<b>Religion</b>			
Hindu	3.36	6.5	5.04
Muslim	4.44	8.0	6.41
Christian	(1.90)	5.2	*
Other	(2.41)	9.0	*
<b>Caste/tribe</b>			
Scheduled caste	3.91	7.9	5.44
Scheduled tribe	2.45	5.2	4.60
Other backward class	3.64	6.8	5.46
Other	3.13	6.2	4.81
<b>Standard of living index</b>			
Low	3.89	7.7	5.51
Medium	3.24	6.3	5.19
High	2.47	3.6	4.56
Total	3.49	6.7	5.25
( ) Rate is based on 125–249 woman-years of exposure			
*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.			

of fertility as compared with 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. The TFR varies considerably by residence, being 0.84 children higher in rural areas than in urban areas. It varies substantially by education, being 1.28 children higher among illiterate women than among women who have at least completed high school. The TFR also varies substantially



by religion, being 1.08 children higher among Muslims than among Hindus. By caste/tribe, the TFR is 0.78 children higher among scheduled-caste women and 0.51 children higher among other backward class women than among women in the ‘other’ category. The TFR is lowest, at 2.45, among scheduled-tribe women, 0.68 children lower than among women in the ‘other’ caste/tribe/class category. The characteristic showing the greatest variation is household standard of living. The TFR is 1.42 children higher among women living in households with a low standard of living than among women living in households with a high standard of living. These results indicate that fertility differentials by background characteristics remain quite substantial in Bihar.

Differentials in the percentage of all women who are currently pregnant are larger than the differentials in the TFR. The percentage currently pregnant is much higher in rural areas compared with urban areas. The percentage currently pregnant is also higher among illiterate women than among literate women. Muslims have higher fertility than Hindus, and they also have higher percentages currently pregnant. As in the case of fertility, the proportion currently pregnant is highest among scheduled-caste women and lowest among scheduled-tribe women, and it declines rapidly with increase in the household standard of living index.

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. Because only women age 40–49 are

considered, age variations among the different categories of women do not affect the interpretation of differentials. In each case, the pattern of differentials in the mean number of children ever born parallels the pattern of differentials in the TFR. The mean number of children ever born is higher among rural women than among urban women. As in the case of the total fertility rate, Muslims have by far the highest mean number of children ever born of all categories of women.

Table 4.4 shows fertility trends for five-year time periods preceding the survey. It is not possible to show TFRs because of progressively greater age truncation as one goes back in time. In NFHS-2, birth histories were collected only for women age 15–49. This means that for the period 5–9 years before the survey it is not possible to compute an ASFR for age 45–49. Similarly, for the period 10–14 years preceding the survey, it is not possible to compute ASFRs for the oldest two age groups, and for the period 15–19 years preceding the survey, it is not possible to compute ASFRs for the oldest three age groups. 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 considerable fertility declines in all age groups over a 15-year period in both urban and rural areas. The proportionate decline is somewhat greater at the older reproductive ages.

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 5.16 to 3.65 over the five year period, a decline of 1.5 children. The decline was 1.1 for urban areas and 1.6 for rural areas, indicating that fertility fell more rapidly in rural areas than in urban areas during the five years before the survey. This is to be expected because the practice of family limitation tends to start in urban areas and spread to rural areas. It should be noted that these estimated fertility declines may exaggerate to some degree the magnitude of the decline between these two five-year periods because there is considerable age misreporting in Bihar which could result in displacement of births from the first five-year period into the second five-year period before the survey (Narasimhan et al. 1997).

Another way of looking at fertility is to calculate fertility rates by years since first cohabitation. These rates are measures of marital fertility, i.e., fertility within marriage. Table 4.5 shows fertility rates by duration of cohabitation for ever-married women for four five-year periods preceding the survey<sup>1</sup>. Fertility has declined for all durations, but more so for the longer durations. The limited fertility decline during the first 0–4 years after cohabitation is typical of populations in which contraception is initiated only after the first birth or later, as is the case in Bihar (see Table 5.5). The declines in fertility rates by duration confirm the earlier observation that fertility within marriage has declined to some extent in Bihar.

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<sup>1</sup>Because NFHS-2 collected information only on a woman's age at the time of first cohabitation and not 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.



Table 4.4 Fertility trends				
Age-specific fertility rates for five-year periods preceding the survey by residence, Bihar, 1998–99				
Age	Years preceding survey			
	0–4	5–9	10–14	15–19
<b>URBAN</b>				
15–19	0.080	0.130	0.183	0.164
20–24	0.214	0.267	0.301	0.287
25–29	0.170	0.221	0.278	0.262
30–34	0.101	0.127	0.156	[0.164]
35–39	0.033	0.071	[0.068]	U
40–44	0.007	[0.036]	U	U
45–49	[0.000]	U	U	U
<b>RURAL</b>				
15–19	0.134	0.198	0.198	0.176
20–24	0.244	0.330	0.314	0.298
25–29	0.198	0.266	0.275	0.266
30–34	0.113	0.175	0.176	[0.186]
35–39	0.057	0.091	[0.107]	U
40–44	0.021	[0.047]	U	U
45–49	[0.002]	U	U	U
<b>TOTAL</b>				
15–19	0.128	0.191	0.196	0.175
20–24	0.241	0.323	0.313	0.297
25–29	0.195	0.260	0.275	0.266
30–34	0.111	0.169	0.174	[0.184]
35–39	0.054	0.089	[0.102]	U
40–44	0.019	[0.046]	U	U
45–49	[0.002]	U	U	U
Note: Age-specific fertility rates are expressed per woman. U: Not available [ ] Truncated, censored				

It is also evident from Table 4.5 that marital fertility is lower in urban areas than in rural areas for most durations and time periods. During the first five years after cohabitation, however, urban women have higher fertility than rural women for most of the time periods. 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 Bihar (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 shorter period of postpartum amenorrhoea, which results in shorter birth intervals in the absence of birth control (which is rarely practised during the first few years of marriage in Bihar).

Table 4.5 Fertility by marital duration				
Fertility rates for ever-married women by duration since first cohabitation with husband (in years) and residence for five-year periods preceding the survey, Bihar, 1998–99				
Duration since first cohabitation (in years)	Years preceding survey			
	0–4	5–9	10–14	15–19
<b>URBAN</b>				
< 5	0.324	0.314	0.357	0.309
5–9	0.214	0.285	0.312	0.283
10–14	0.139	0.191	0.214	0.255
15–19	0.077	0.107	0.158	*
20–24	0.019	0.056	*	*
25–29	0.009	*	*	U
<b>RURAL</b>				
< 5	0.274	0.323	0.315	0.283
5–9	0.247	0.341	0.317	0.302
10–14	0.172	0.233	0.249	0.245
15–19	0.097	0.155	0.160	0.186
20–24	0.050	0.080	0.105	*
25–29	0.017	0.034	*	U
<b>TOTAL</b>				
< 5	0.279	0.323	0.319	0.286
5–9	0.244	0.335	0.316	0.300
10–14	0.169	0.228	0.245	0.246
15–19	0.094	0.149	0.160	0.185
20–24	0.046	0.077	0.104	*
25–29	0.016	0.034	*	U
Note: Duration-specific fertility rates are expressed 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				
*Rate not shown; based on fewer than 125 woman-years of exposure				

#### 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 the number of children ever born (CEB) to all women and to currently married women by women's age at the time of the survey. The table also shows the mean number of children ever born and the mean number of living children by women's age.

Among women age 15–49 in Bihar, the mean number of children ever born is 2.8 for all women, irrespective of marital status, and 3.3 for currently married women. The mean number of children ever born increases steadily with age, reaching a high of 5.3 children among all women age 45–49 and 5.5 among currently married women in this age group. The table also shows that early childbearing is common in Bihar. Nineteen percent of all women age 15–19 have already had a child.

**Table 4.6 Children ever born and living**

Percent distribution of all women and of currently married women by number of children ever born (CEB) and mean number of children ever born and living, according to age, Bihar, 1998–99

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+				
ALL WOMEN															
15–19	81.0	14.3	4.2	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	1,888	0.24	0.22
20–24	29.8	24.4	25.6	14.3	5.1	0.6	0.1	0.0	0.0	0.0	0.0	100.0	1,647	1.43	1.27
25–29	9.0	8.3	20.5	25.1	19.7	10.9	4.7	1.3	0.3	0.1	0.1	100.0	1,467	2.99	2.69
30–34	3.7	5.8	9.8	19.0	21.5	16.4	12.6	6.9	2.9	1.1	0.3	100.0	1,097	4.10	3.59
35–39	3.6	2.6	9.3	16.6	18.9	17.9	13.7	7.8	5.3	3.2	1.3	100.0	925	4.57	3.97
40–44	2.0	2.9	6.5	10.3	17.5	19.7	14.0	12.3	6.2	4.5	4.1	100.0	760	5.19	4.48
45–49	2.1	3.0	5.7	9.9	19.7	15.1	15.1	11.2	7.5	5.1	5.6	100.0	595	5.34	4.37
Total	26.9	11.0	12.9	13.3	12.3	9.0	6.3	3.9	2.1	1.3	1.0	100.0	8,380	2.75	2.39
CURRENTLY MARRIED WOMEN															
15–19	56.1	33.0	9.7	1.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0	802	0.56	0.51
20–24	18.2	28.4	29.9	16.8	5.8	0.7	0.2	0.0	0.0	0.0	0.0	100.0	1,379	1.66	1.48
25–29	5.7	8.3	21.2	25.9	20.8	11.3	5.0	1.4	0.3	0.1	0.1	100.0	1,373	3.11	2.80
30–34	2.3	5.4	9.7	19.2	21.6	17.1	12.9	7.3	3.1	1.2	0.3	100.0	1,027	4.21	3.68
35–39	2.5	2.2	9.1	16.1	19.8	18.1	13.9	8.1	5.7	3.2	1.3	100.0	859	4.67	4.07
40–44	2.0	2.7	5.5	10.3	17.7	19.5	14.4	12.5	6.5	4.9	4.2	100.0	698	5.26	4.56
45–49	1.5	2.1	5.0	10.2	19.2	15.2	16.2	11.2	7.9	5.4	6.0	100.0	522	5.48	4.51
Total	12.7	13.1	15.4	15.9	14.7	10.7	7.6	4.6	2.6	1.6	1.1	100.0	6,661	3.29	2.87

For women age 45–49, the number of children ever born is of particular interest because these women have virtually completed their childbearing. Among all women in this age group, irrespective of marital status, the modal number of children is four. Twenty percent of these women have reached the end of childbearing with four children ever born. Among currently married women age 45–49, the modal number of children is also four. Nineteen percent of these women have reached the end of childbearing with four children ever born. Only two percent of currently married women age 45–49 have never given birth. This suggests that primary infertility (which is the proportion of couples who are unable to have any children) is very low in Bihar.

Among all women age 15–49, the average number of dead children per woman is 0.36. Among currently married women it is 0.42. Thirteen percent of children ever born to currently married women have died. The proportion of children ever born who have died increases with women's age. Among currently married women, for example, the proportion of children ever born who have died increases from 9 percent for women age 15–19 to 18 percent for women age 45–49.

#### **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 before the survey by birth order for selected background characteristics. Twenty-three percent of all births are first-order births, 22 percent are second-order births, 17 percent are third-order births, and 37 percent are of order four or higher.

The highest proportion of births to mothers age 15–19 are of order one; by contrast, the highest proportion births to mothers age 30–49 are of order four or higher. The proportion of births that are of order four or higher is 29 percent in urban areas and 38 percent in rural areas. The proportion of births of order four or higher is relatively large for births to illiterate women, Muslim women, and scheduled-caste and scheduled-tribe women. By work status, 51–56 percent of births to women who work are of order four or higher compared with 33 percent among women who did not work in the past 12 months. This suggests a positive association between fertility and work status that requires further investigation. Among women with a low standard of living, the proportion of births of order four or higher is 44 percent, compared with 18 percent among women with a high standard of living.

#### **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 Bihar, 11 percent of births occur within 18 months of a previous birth, and 25 percent occur within 24 months. Forty percent of births occur after an interval of three years or more.

Table 4.7 Birth order

Percent distribution of births during the three years preceding the survey by birth order, according to selected background characteristics, Bihar, 1998–99

Background characteristic	Birth order				Total percent	Number of births
	1	2	3	4+		
<b>Mother's current age</b>						
15–19	75.6	21.9	2.4	0.0	100.0	371
20–29	20.6	28.8	23.6	27.0	100.0	1,924
30–39	1.2	3.2	8.0	87.6	100.0	593
40–49	0.0	0.0	4.6	95.4	100.0	66
<b>Residence</b>						
Urban	32.8	20.2	18.4	28.6	100.0	259
Rural	22.2	22.3	17.3	38.1	100.0	2,695
<b>Region</b>						
North Bihar Plain	23.0	22.0	15.8	39.2	100.0	1,380
South Bihar Plain	22.8	22.3	17.6	37.3	100.0	983
Jharkhand	24.1	22.1	20.8	32.9	100.0	591
<b>Mother's education</b>						
Illiterate	20.3	19.6	17.1	43.0	100.0	2,267
Literate, < middle school complete	28.2	27.0	18.8	26.0	100.0	282
Middle school complete	33.0	28.9	19.3	18.8	100.0	127
High school complete and above	36.7	34.9	17.9	10.5	100.0	277
<b>Religion</b>						
Hindu	24.2	22.5	18.2	35.1	100.0	2,384
Muslim	18.5	21.1	13.0	47.4	100.0	533
<b>Caste/tribe</b>						
Scheduled caste	22.0	21.2	16.5	40.3	100.0	672
Scheduled tribe	22.4	16.6	21.0	40.0	100.0	197
Other backward class	22.9	22.1	18.3	36.8	100.0	1,550
Other	25.7	25.6	14.7	34.0	100.0	534
<b>Mother's work status</b>						
Working in family farm/business	11.5	17.1	17.1	54.3	100.0	231
Employed by someone else	15.1	14.7	19.2	51.0	100.0	291
Self-employed	11.4	20.3	12.6	55.7	100.0	135
Not worked in past 12 months	26.1	23.7	17.5	32.8	100.0	2,296
<b>Standard of living index</b>						
Low	19.9	19.4	17.0	43.8	100.0	1,680
Medium	26.0	23.7	19.1	31.3	100.0	1,030
High	33.9	34.7	13.8	17.7	100.0	237
Total	23.2	22.1	17.4	37.3	100.0	2,954

Note: Total includes 17 and 20 births to mothers belonging to Christian and 'other' religions, respectively, and 6 births with missing information on the standard of living index, who are not shown separately.

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, Bihar, 1998–99

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	6.3	19.9	13.8	35.4	19.6	5.0	100.0	26.0	97
20–29	2.5	8.9	15.8	36.3	20.7	15.9	100.0	31.3	2,492
30–39	2.1	5.6	12.9	31.3	22.6	25.4	100.0	35.1	1,184
40–49	1.7	9.4	9.9	26.8	18.9	33.2	100.0	36.5	169
<b>Residence</b>									
Urban	2.7	10.6	17.6	31.7	17.5	20.0	100.0	30.0	317
Rural	2.4	8.0	14.3	34.6	21.5	19.2	100.0	32.5	3,625
<b>Region</b>									
North Bihar Plain	2.2	6.8	13.1	36.9	21.8	19.1	100.0	33.0	1,775
South Bihar Plain	2.9	10.0	16.4	33.0	19.5	18.2	100.0	30.8	1,349
Jharkhand	2.2	8.1	14.9	31.3	22.4	21.1	100.0	33.2	818
<b>Mother's education</b>									
Illiterate	2.3	7.9	13.8	34.1	21.8	20.1	100.0	33.0	3,191
Literate, < middle school complete	3.2	8.4	17.0	36.5	18.8	16.2	100.0	30.3	356
Middle school complete	3.2	9.6	16.5	30.8	22.4	17.6	100.0	31.2	127
High school complete and above	1.8	11.3	20.1	37.2	15.7	13.9	100.0	29.1	268
<b>Religion</b>									
Hindu	2.3	7.8	14.4	34.6	21.3	19.7	100.0	32.4	3,125
Muslim	2.9	9.8	15.6	33.7	20.4	17.6	100.0	32.0	765
Other	(3.9)	(15.6)	(11.6)	(37.9)	(19.5)	(11.5)	100.0	(27.9)	28
<b>Caste/tribe</b>									
Scheduled caste	2.1	8.8	12.0	37.1	21.4	18.5	100.0	32.5	893
Scheduled tribe	2.5	8.9	13.4	32.8	20.7	21.6	100.0	32.7	296
Other backward class	2.5	7.6	15.2	33.9	21.9	18.9	100.0	32.5	2,082
Other	2.4	9.1	16.6	33.0	18.8	20.1	100.0	31.6	671
<b>Standard of living index</b>									
Low	2.2	7.6	13.1	34.9	22.1	20.1	100.0	33.1	2,385
Medium	2.6	8.6	16.5	33.9	20.2	18.1	100.0	32.0	1,293
High	3.1	11.6	18.9	32.7	16.8	16.9	100.0	28.1	261
<b>Order of previous birth</b>									
1	2.4	9.6	15.0	33.1	20.5	19.4	100.0	32.1	1,086
2	2.1	7.5	14.3	37.6	21.7	16.9	100.0	32.3	907
3	2.4	8.3	16.2	32.8	20.0	20.3	100.0	31.8	695
4+	2.7	7.5	13.5	34.1	21.9	20.3	100.0	33.0	1,254
<b>Sex of previous birth</b>									
Male	2.1	8.0	15.0	34.8	21.0	19.1	100.0	32.2	1,937
Female	2.7	8.4	14.2	34.0	21.3	19.4	100.0	32.5	2,005
<b>Survival of previous birth</b>									
Living	1.9	6.8	14.6	34.3	22.0	20.4	100.0	33.2	3,465
Dead	6.0	18.2	14.8	34.8	15.3	10.8	100.0	26.5	477
Total	2.4	8.2	14.6	34.4	21.2	19.2	100.0	32.3	3,942

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 24 births to mothers belonging to the Christian religion and 3 births with missing information on the standard of living index, who are not shown separately.

( ) Based on 25–49 unweighted cases

The median birth interval in Bihar is 32 months. The median birth interval for women age 15–19 is 26 months, which is substantially lower than the median interval of 37 months for women age 40–49. The relatively short birth interval for women age 15–19 at the time of the survey 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 in the case of age. 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 median birth interval varies little by sex of previous child. Birth intervals are much shorter if the previous child died (27 months) than if the previous child survived (33 months). 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. Temporary methods of contraception are used by very few women in Bihar, however, so that the main effect is probably through prematurely terminated breastfeeding.

Birth intervals are three months shorter among urban women than among rural women, perhaps because breastfeeding is shorter among urban women. There is also a tendency for birth intervals to decrease with education. Mothers with at least a high school education have a median birth interval that is four months shorter than the interval for illiterate mothers. It is significant to note that a greater proportion of births occur within 24 months among mothers with at least high school education (33 percent) than among illiterate mothers (24 percent). Similarly, mothers living in households with a high standard of living have a median birth interval that is five months shorter than the interval for mothers who live in households with a low standard of living. Differences in birth intervals by religion and caste/tribe of household head tend to be small.

#### **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. The median age at first birth for any group of women is defined in this table 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 the state as a whole has increased in recent years. This is shown by the fact that the median increases from 18.9 years for women age 25–29 to 19.6 years for women age 20–24.

Among all women age 25–49, the median age at first birth is 0.8 years higher in urban areas than in rural areas. Hindu women have a slightly higher median age at first birth (19.0

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, Bihar, 1998–99								
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	20.3	19.7	19.4	19.6	18.9	NC	19.7
Rural	19.4	18.8	18.9	18.9	18.8	18.8	19.0	18.9
<b>Region</b>								
North Bihar Plain	19.3	18.5	18.6	18.8	18.6	18.4	18.7	18.6
South Bihar Plain	19.9	19.4	19.6	19.5	19.3	19.8	19.6	19.5
Jharkhand	19.6	19.0	18.7	18.6	18.8	18.7	19.0	18.8
<b>Education</b>								
Illiterate	18.9	18.5	18.6	18.8	18.8	18.6	18.7	18.7
Literate, < middle school complete	NC	19.0	19.6	18.8	18.6	19.6	19.3	19.1
Middle school complete	NC	19.7	(19.5)	*	*	*	20.0	19.7
High school complete and above	NC	21.5	21.1	21.9	(21.1)	*	NC	21.4
<b>Religion</b>								
Hindu	19.6	18.9	19.1	19.0	18.9	19.0	19.1	19.0
Muslim	19.1	18.6	18.7	18.8	18.9	17.7	18.7	18.6
Christian	*	*	*	*	*	*	NC	(20.5)
Other	NC	*	*	*	*	*	(19.8)	(19.1)
<b>Caste/tribe</b>								
Scheduled caste	19.1	18.5	18.6	18.5	18.5	18.2	18.6	18.5
Scheduled tribe	19.5	19.1	18.7	19.4	19.5	(18.7)	19.1	19.0
Other backward class	19.3	18.9	18.9	19.0	18.8	18.9	19.0	18.9
Other	NC	19.3	19.7	19.3	19.3	19.4	19.8	19.4
<b>Standard of living index</b>								
Low	18.8	18.3	18.5	18.8	18.8	18.8	18.6	18.6
Medium	19.9	19.3	19.3	18.8	18.8	18.8	19.3	19.1
High	NC	21.1	20.3	20.5	19.5	18.8	NC	20.2
Total	19.6	18.9	19.0	19.0	18.9	18.8	19.1	18.9
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								

years) than Muslim women (18.6 years). By caste/tribe, the ‘other’ category has a median of 19.4, which is 0.9 years higher than the median for scheduled-caste women, 0.4 years higher than the median for scheduled-tribe women, and 0.5 years higher than the median for women from other backward classes. Women living in households with a high standard of living have a median age at first birth of 20.2, which is 1.6 years higher than the median for women living in households with a low standard of living. The differentials by education are also substantial. The median age at first birth is 18.7 years among illiterate women compared with 21.4 years among women who have at least completed high school.

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 in the age group 40–49 by age at last



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, Bihar, 1998–99											
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	1.9	1.8	11.4	28.9	28.3	23.4	4.3	NA	100.0	31.3	759
45–49	1.9	2.6	8.4	26.2	27.8	21.8	10.9	0.5	100.0	31.6	593
40–49	1.9	2.2	10.1	27.7	28.1	22.7	7.2	0.2	100.0	31.4	1,353
NA: Not applicable											

birth, as well as the median age at last birth. Although a few of these women may have another birth later on, the very low fertility rates for women in this age group suggest that childbearing is virtually complete by these ages. Seventy percent of women (including women who never gave birth) had their last birth by age 35, and 93 percent by age 40. The median age at last birth in Bihar for women age 40–49 is 31.4 years. It is 31.3 for women age 40–44 and 31.6 for women age 45–49. The difference between the median age at first birth and the median age at last birth provides an estimate of the typical reproductive age span. Among women age 45–49, this estimated reproductive age span is the difference between 18.8 and 31.6, or 12.8 years.

#### 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 if they are not at risk of conception because they are amenorrhoeic, are abstaining from sexual relations, or both, following a birth.

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 number of months since birth. These distributions are based on current status information, i.e., on the proportions of births occurring within the 36 months before the survey whose mothers were amenorrhoeic, abstaining, and insusceptible at the time of the survey. 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. Median and mean durations of amenorrhoea, abstinence, and insusceptibility are also shown in the table. 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-five percent of all women who had a birth in the two months before the survey are still amenorrhoeic, and 82 percent of women who had a birth 2–3 months before the survey are still amenorrhoeic. The proportion amenorrhoeic gradually decreases as the number of months

**Table 4.11 Postpartum amenorrhoea, abstinence, and insusceptibility**

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, Bihar, 1998–99

Months since birth	Percentage of births whose mothers are:			Number of births
	Amenorrhoeic	Abstaining	Insusceptible	
< 2	94.5	84.0	96.4	144
2–3	82.2	51.8	87.4	239
4–5	72.0	33.7	75.9	215
6–7	60.1	19.6	63.4	185
8–9	63.3	13.6	67.3	129
10–11	55.7	13.6	58.6	107
12–13	47.3	8.1	51.0	186
14–15	32.5	9.4	36.6	213
16–17	21.5	7.4	25.5	180
18–19	25.9	3.5	27.9	148
20–21	24.5	1.7	24.5	114
22–23	24.0	5.1	28.1	99
24–25	14.9	5.0	18.5	140
26–27	7.2	2.9	9.4	149
28–29	5.3	1.9	7.2	168
30–31	10.0	2.4	11.9	209
32–33	5.0	0.6	5.6	158
34–35	4.3	3.6	7.9	143
Median <sup>1</sup>	11.3	2.9	11.9	NA
Mean	13.3	5.7	14.3	NA
Prevalence/incidence mean	13.4	5.7	14.4	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

since last birth increases. About one-half (47 percent) of all women who had births 12–13 months before the survey are still amenorrhoeic, but the proportion amenorrhoeic drops off rapidly thereafter. More than four-fifths of all mothers abstain from sexual intercourse within two months after the birth of a child. The proportion abstaining at all durations is substantially lower than the proportion amenorrhoeic. About one-third of all women still abstain from sexual intercourse 4–5 months after a birth, but this percentage drops off rapidly at longer durations. Overall, when amenorrhoea and abstinence are considered together, half of women become susceptible to pregnancy by 12–13 months after giving birth, and about three-fourths become susceptible by 16–17 months.

The median and mean durations of insusceptibility are 11.9 and 14.3 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 (11.3 months) is almost four times as high as the median duration of abstinence (2.9 months). The results indicate that women in Bihar remain nonsusceptible to conception for a little more than one year after a birth, primarily due to the effect of postpartum amenorrhoea.

Table 4.12 Menopause						
Percentage of currently married women age 30–49 years who are in menopause by age and residence, Bihar, 1998–99						
Age	Urban		Rural		Total	
	Percentage	Number	Percentage	Number	Percentage	Number
30–34	4.4	124	2.7	903	2.9	1,027
35–39	5.9	107	9.7	753	9.2	859
40–41	(30.0)	31	22.9	268	23.6	299
42–43	(42.1)	39	34.0	227	35.2	266
44–45	(60.4)	32	49.8	224	51.1	256
46–47	(53.5)	27	61.7	190	60.7	217
48–49	*	22	75.1	159	75.8	181
30–49	23.3	382	21.4	2,725	21.7	3,107
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						
*Percentage not shown; based on fewer than 25 unweighted cases						

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 increasing proportions 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 for women age 30–49. In Bihar, menopause is not common for women in their thirties, but its incidence increases rapidly after age 40. By age 42–43, slightly over one-third of women are in menopause, and the proportion rises to over three-fourths for women age 48–49. The onset of menopause appears to be later in rural areas, but this observation is based on a fairly small number of women in some of the age groups.

#### 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, classified by their number of living children. Overall, 30 percent of currently married women say that they do not want any more children, an additional 20 percent cannot have another child because either the wife or the husband has been sterilized, and 6 percent of woman say that they cannot get pregnant (that is, they are ‘declared infecund’). One-third of the women say they

**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, Bihar, 1998–99

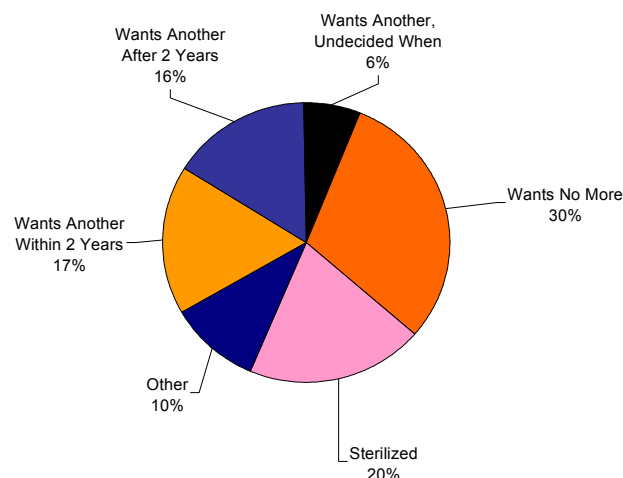
	Number of living children <sup>1</sup>					
Desire for children	0	1	2	3	4+	Total
URBAN						
Desire for additional child						
Wants another soon <sup>2</sup>	65.4	22.1	5.0	0.9	2.0	10.8
Wants another later <sup>3</sup>	15.2	56.3	14.8	10.3	2.0	15.9
Wants another, undecided when	11.5	7.5	0.8	2.5	2.4	3.7
Undecided	0.0	0.0	0.9	1.6	0.4	0.6
Up to God	4.1	1.9	2.6	2.4	1.6	2.2
Wants no more	0.0	5.6	42.1	35.4	41.1	31.1
Sterilized	2.0	1.9	27.1	40.1	40.1	28.3
Declared infecund	1.8	4.6	6.7	6.7	10.4	7.4
Missing	0.0	0.0	0.0	0.0	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	54	112	125	122	263	677
Preferred sex of additional child <sup>4</sup>						
Boy	(47.6)	52.5	(55.6)	*	*	56.9
Girl	(0.0)	20.1	(24.1)	*	*	13.3
Doesn't matter	(14.5)	8.6	(3.8)	*	*	8.2
Up to God	(38.0)	18.8	(16.5)	*	7.1	21.7
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more <sup>4</sup>	50	84	26	15	15	189
RURAL						
Desire for additional child						
Wants another soon <sup>2</sup>	69.4	28.4	17.5	7.9	3.1	18.1
Wants another later <sup>3</sup>	7.9	42.7	27.3	11.6	3.8	15.8
Wants another, undecided when	14.0	13.9	7.9	3.9	2.0	6.6
Undecided	0.7	0.9	0.8	0.9	0.7	0.8
Up to God	4.6	6.1	3.7	2.9	3.6	4.0
Wants no more	0.6	4.2	22.6	37.2	50.2	30.1
Sterilized	0.3	1.7	16.5	30.4	28.2	19.2
Declared infecund	2.6	2.1	3.8	5.2	8.4	5.4
Missing	0.0	0.0	0.0	0.1	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	696	928	1,038	1,097	2,226	5,984
Preferred sex of additional child <sup>4</sup>						
Boy	51.7	59.1	62.4	81.3	74.4	61.0
Girl	0.4	11.6	14.1	7.6	8.2	8.2
Doesn't matter	15.1	6.5	4.2	2.3	1.9	7.8
Up to God	32.8	22.8	19.2	8.7	15.5	23.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more <sup>4</sup>	640	651	471	216	167	2,145

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, Bihar, 1998–99						
Desire for children	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
TOTAL						
Desire for additional child						
Wants another soon <sup>2</sup>	69.1	27.7	16.1	7.2	2.9	17.3
Wants another later <sup>3</sup>	8.4	44.2	25.9	11.5	3.7	15.8
Wants another, undecided when	13.8	13.2	7.2	3.7	2.0	6.3
Undecided	0.7	0.8	0.8	1.0	0.7	0.8
Up to God	4.6	5.7	3.6	2.8	3.4	3.8
Wants no more	0.5	4.4	24.7	37.0	49.2	30.2
Sterilized	0.4	1.7	17.6	31.4	29.5	20.1
Declared infecund	2.5	2.4	4.1	5.4	8.6	5.6
Missing	0.0	0.0	0.0	0.1	0.0	0.0
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	750	1,040	1,163	1,220	2,489	6,661
Preferred sex of additional child <sup>4</sup>						
Boy	51.4	58.3	62.1	81.6	75.4	60.7
Girl	0.4	12.6	14.6	7.6	8.1	8.6
Doesn't matter	15.0	6.8	4.2	2.2	1.8	7.8
Up to God	33.2	22.3	19.1	8.6	14.8	22.9
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women wanting more <sup>4</sup>	690	735	497	231	182	2,334
( ) 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						

would like to have another child. Seventeen percent want a child within two years, and 16 percent want to wait at least two years before the birth of the next child. The desire to stop childbearing increases rapidly with the number of living children. Only 1 percent of women with no living children do not want any children (the woman or her husband is sterilized or the woman says she wants no more children) compared with 42 percent of women with two living children and 68 percent or more of women with three or more living children. About 4 percent of women say that the decision about having any (more) children is up to God. Overall, 66 percent of women want to either space their next birth, are sterilized, or do not want any more children. This proportion is 75 percent in urban areas and 65 percent in rural areas.

The desire to have a child within two years drops rapidly with the number of living children, from 69 percent for women without any living children to 7 percent or less for women with three or more living children. Forty-four percent of women with one living child (56 percent in urban areas and 43 percent in rural areas) would like to wait at least two years before having the next child. And yet, as will be seen in the next chapter, very few women in Bihar use any temporary method of contraception. These findings suggest that encouraging the use of

**Figure 4.4**  
**Fertility Preferences Among Currently Married Women**



Note: Percents add to less than 100.0 due to rounding

NFHS-2, Bihar, 1998-99

temporary methods would lower overall fertility and population growth, as well as provide health benefits to mothers and their children through increased birth spacing.

Sixty-one percent of women who want another child say they want the next child to be a boy, 9 percent say they want the child to be a girl, and the rest say that the sex of the child does not matter (8 percent) or that it is up to God (23 percent). Irrespective of their number of living children, women are much more likely to express a desire for a son than for a daughter, indicating a strong preference for sons in Bihar. In addition, the proportion of women expressing a desire specifically for a son increases with the number of living children. Among women who have no living children, very few women (less than one-half of one percent) express a specific desire for a daughter, 15 percent say it does not matter whether they have a son or a daughter, and 33 percent say it is up to God. Even among this group, 51 percent say they would like their first child to be a boy.

Table 4.14 provides information about differentials in the desire to limit family size by selected background characteristics. Women who are sterilized (or whose husbands are sterilized) are included among those who say they want no more children. As expected, older women are much more likely than younger women to want no more children. Already by age 25-34, 61 percent of women want no more children. The proportion who want no more children is somewhat higher among urban women (59 percent) than among rural women (49 percent). The proportion who want no more children is higher among Hindus (53 percent) than among Christians (45 percent) or Muslims (38 percent). By caste/tribe, the proportion who want no more

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, Bihar, 1998–99						
Background characteristic	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
<b>Age</b>						
15–24	0.2	2.4	28.2	55.0	73.6	15.7
25–34	2.1	9.8	47.0	68.3	77.5	60.5
35–49	6.7	36.5	70.4	76.8	79.8	75.1
<b>Residence</b>						
Urban	2.0	7.5	69.2	75.5	81.2	59.4
Rural	0.8	5.9	39.1	67.6	78.4	49.4
<b>Region</b>						
North Bihar Plain	1.1	6.6	43.0	69.4	79.3	51.3
South Bihar Plain	1.4	3.8	40.1	63.0	77.0	48.1
Jharkhand	0.0	8.2	43.8	72.7	79.9	51.6
<b>Education</b>						
Illiterate	1.1	5.9	33.8	63.9	77.5	49.4
Literate, < middle school complete	1.0	4.8	45.8	79.0	84.9	54.7
Middle school complete	(0.0)	(4.5)	58.2	83.7	81.4	48.5
High school complete and above	0.0	9.1	72.3	83.0	88.1	53.9
<b>Religion</b>						
Hindu	0.9	6.2	45.1	70.6	83.4	52.6
Muslim	1.0	3.4	25.5	48.3	59.4	38.4
Christian	*	*	*	*	*	44.9
Other	*	*	*	*	*	(42.0)
<b>Caste/tribe</b>						
Scheduled caste	1.2	5.8	31.4	64.0	82.0	48.1
Scheduled tribe	0.0	6.5	36.1	58.6	70.0	40.9
Other backward class	1.0	5.0	38.6	68.4	80.1	50.6
Other	0.9	9.3	60.5	77.2	74.2	56.2
<b>Standard of living index</b>						
Low	1.0	5.1	33.7	60.1	75.7	46.4
Medium	0.3	6.4	43.2	74.2	80.8	52.5
High	2.7	11.1	68.3	86.2	89.1	63.0
<b>Number of living sons<sup>2</sup></b>						
0	0.9	3.7	16.2	20.3	38.7	6.3
1	NA	9.6	42.8	55.8	71.7	42.7
2	NA	NA	59.9	85.4	85.0	79.8
3+	NA	NA	NA	78.6	80.4	80.1
<b>Number of living daughters<sup>2</sup></b>						
0	0.9	9.6	59.9	78.6	80.7	25.4
1	NA	3.7	42.8	85.4	81.4	54.9
2	NA	NA	16.2	55.8	84.7	66.5
3+	NA	NA	NA	20.3	74.6	70.8
Total	0.9	6.1	42.3	68.4	78.7	50.4
Note: Women who have been sterilized or whose husbands have been sterilized are considered to want no more children.						
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						

children is highest for women in the ‘other’ category (56 percent) and lowest for scheduled-tribe women (41 percent). The proportion who want no more increases with the standard of living from 46 percent for women with a low standard of living to 63 percent for women with a high standard of living. The proportion who want no more children is highest for women with two or more living sons (80 percent) and lowest for women with no living sons (6 percent). Differences associated with number of living daughters are also large but not as large as differences associated with the number of living sons, again indicating a considerable amount of son preference. The proportion who want no more children is highest for women with three or more living daughters (71 percent) and lowest for women with no living daughters (25 percent). Overall, the table shows that an overwhelming majority of women in every subgroup with two or more living children want no more children. It also shows that within each subgroup, the proportion who want no more children rises sharply with the number of living children.

#### **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 had difficulty in answering these hypothetical questions, and hence the questions often had to be repeated to ensure that the meaning was understood. Ninety-three percent of respondents were able to give a numerical response when asked for their ideal number of children.

Table 4.15 shows that 25 percent of ever-married women in Bihar consider two children to be the ideal. Another 31 percent consider three children to be the ideal. For 37 percent of women, the ideal number of children is four or more. Seven percent of women were unable to give a numeric response to the question. Among all women who gave a numeric response, the average number of children considered ideal is 3.3, ranging from 2.8–2.9 for women who have two or fewer children to 3.8 for women who already have four or more children.

Asking a question on ideal family size is sometimes criticized on the grounds that women tend to adjust their ideal family size upward as the number of their 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 Bihar. Among women with four or more living children, for example, about one-third state that fewer than four children would be ideal. Similarly, among women with three living children, 18 percent state that their ideal family size is smaller than three children. It is evident that a considerable proportion of women already have more children than they now consider ideal. 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 increases steadily from 2.9 children for women age 15–19 to 3.7 children for women age 45–49. The mean ideal number is higher in rural areas compared with urban areas, by 0.5 children. By education, it ranges from 3.4 for illiterate women down to 2.4 for women with at least a high school education. Muslim



Table 4.15 Ideal and actual number of children						
Percent distribution of ever-married women by ideal number of children, and mean ideal number of children, by number of living children, Bihar, 1998–99						
Ideal number of children	Number of living children <sup>1</sup>					Total
	0	1	2	3	4+	
1	1.6	2.0	0.9	0.4	0.3	0.8
2	36.5	40.0	41.5	17.5	10.8	24.9
3	32.9	30.6	31.6	49.5	20.9	30.9
4	18.7	18.7	18.9	24.1	40.7	27.9
5	2.3	2.0	1.9	3.1	10.2	5.3
6+	1.0	2.2	1.6	1.8	6.5	3.5
Non-numeric response	7.1	4.4	3.6	3.6	10.7	6.8
Total percent	100.0	100.0	100.0	100.0	100.0	100.0
Number of women	814	1,091	1,229	1,282	2,608	7,024
Mean ideal number <sup>2</sup>	2.9	2.9	2.8	3.2	3.8	3.3
Number of women giving numeric response	756	1,043	1,184	1,235	2,330	6,549
<sup>1</sup> Includes current pregnancy, if any						
<sup>2</sup> Means are calculated excluding women who gave non-numeric responses.						

women report a considerably higher mean ideal number of children than other women. Differences in the mean ideal number by caste/tribe of household head and work status of women are small. Women who live in households with a low standard of living have a mean ideal family size that is 0.7 children higher than the ideal for women who live in households with a high standard of living. For women whose husbands are illiterate, the mean ideal family size is 0.8 children higher than for women whose husbands have completed at least a higher secondary education.

#### 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; Murthi et al., 1995; Nag, 1991; Parasuraman et al., 1994). In NFHS-2, women who gave a numerical response to the question on ideal number of children were also 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 the mean ideal number of sons and daughters, the percentage who desire more sons than daughters, the percentage who desire at least one son, and the percentage who desire at least one daughter according to selected background characteristics. The table shows a consistent, rather strong preference for sons over daughters. Overall, the average ideal family size of 3.3 children consists of 1.9 sons, 1.3 daughters, and 0.1 children of either sex. Forty-eight percent of women want more sons than daughters but only 2 percent want more daughters than sons. Almost all women (97 percent) say they want at least one son among their children and a slightly smaller percentage (94 percent) want at least one daughter.

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, Bihar, 1998–99

Background characteristic	Current age							Total
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	
<b>Residence</b>								
Urban	2.4	2.4	2.8	2.8	3.0	3.1	3.3	2.8
Rural	3.0	3.1	3.2	3.4	3.5	3.6	3.7	3.3
<b>Region</b>								
North Bihar Plain	3.0	3.1	3.3	3.5	3.5	3.6	3.8	3.3
South Bihar Plain	3.0	3.0	3.2	3.4	3.5	3.8	3.8	3.3
Jharkhand	2.8	3.0	3.0	3.2	3.2	3.1	3.3	3.1
<b>Education</b>								
Illiterate	3.0	3.2	3.4	3.5	3.6	3.7	3.8	3.4
Literate, < middle school complete	2.9	2.8	3.0	3.0	3.1	3.3	3.4	3.0
Middle school complete	2.5	2.6	2.7	(2.8)	*	*	*	2.7
High school complete and above	(2.3)	2.4	2.4	2.5	2.4	(2.6)	*	2.4
<b>Religion</b>								
Hindu	2.8	2.9	3.1	3.3	3.4	3.5	3.6	3.2
Muslim	3.6	3.6	3.9	4.0	4.1	4.0	4.3	3.9
Christian	*	*	*	*	*	*	*	2.9
Other	*	*	*	*	*	*	*	(3.0)
<b>Caste/tribe</b>								
Scheduled caste	2.9	3.1	3.3	3.4	3.7	3.6	3.5	3.3
Scheduled tribe	3.0	3.2	3.4	3.5	3.4	(3.5)	(3.4)	3.4
Other backward class	2.9	3.0	3.2	3.4	3.5	3.6	3.9	3.3
Other	3.2	2.9	2.9	3.1	3.1	3.3	3.5	3.1
<b>Work status</b>								
Working in family farm/business	(2.8)	3.0	3.4	3.4	3.3	3.6	3.5	3.3
Employed by someone else	2.9	3.1	3.5	3.5	3.7	3.8	3.7	3.5
Self-employed	*	3.3	3.4	3.2	3.3	(3.6)	(3.4)	3.4
Not worked in past 12 months	2.9	3.0	3.1	3.3	3.4	3.5	3.7	3.2
<b>Standard of living index</b>								
Low	3.1	3.2	3.4	3.6	3.7	3.7	3.8	3.4
Medium	2.8	2.9	3.1	3.3	3.3	3.6	3.7	3.2
High	(2.5)	2.4	2.5	2.5	2.7	2.7	3.5	2.7
<b>Husband's education</b>								
Illiterate	3.1	3.3	3.5	3.6	3.6	3.7	3.8	3.5
Literate, < primary school complete	(3.1)	3.1	3.3	(3.4)	3.5	(3.8)	(3.8)	3.4
Primary school complete	2.9	3.1	3.4	3.5	3.8	3.7	3.9	3.4
Middle school complete	2.7	3.0	3.0	3.3	3.5	3.3	3.4	3.1
High school complete	2.7	2.8	3.0	3.2	3.2	3.3	3.6	3.1
Higher secondary complete and above	2.7	2.5	2.6	2.7	2.7	3.1	3.3	2.7
Total	2.9	3.0	3.2	3.4	3.4	3.5	3.7	3.3
Note: Means are calculated excluding women who gave non-numeric responses.								
( ) Based on 25–49 unweighted cases								
*Mean not shown; based on fewer than 25 unweighted cases								

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, Bihar, 1998–99

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	1.5	1.1	0.2	35.7	2.8	93.0	90.0	693
Rural	1.9	1.3	0.1	49.3	2.0	97.7	94.0	5,851
<b>Region</b>								
North Bihar Plain	2.0	1.3	0.1	52.6	1.3	98.5	94.6	2,832
South Bihar Plain	1.9	1.3	0.1	48.2	2.3	98.6	94.2	2,036
Jharkhand	1.7	1.2	0.2	39.5	3.2	93.3	91.1	1,675
<b>Education</b>								
Illiterate	2.0	1.3	0.1	50.8	2.2	97.7	94.2	4,949
Literate, < middle school complete	1.8	1.2	0.1	47.4	2.0	97.2	93.9	739
Middle school complete	1.5	1.1	0.1	38.4	2.0	98.1	94.2	265
High school complete and above	1.3	1.0	0.2	28.6	1.6	92.5	88.0	591
<b>Religion</b>								
Hindu	1.8	1.2	0.1	48.1	2.0	97.2	93.5	5,623
Muslim	2.3	1.5	0.1	48.8	2.7	98.1	95.1	809
Christian	1.5	1.1	0.3	35.8	3.6	87.8	86.0	59
Other	(1.5)	(1.2)	(0.3)	(30.7)	(5.9)	(90.1)	(88.2)	53
<b>Caste/tribe</b>								
Scheduled caste	1.9	1.3	0.1	52.6	1.7	98.0	94.3	1,367
Scheduled tribe	1.8	1.3	0.2	40.1	3.5	93.2	91.1	574
Other backward class	1.9	1.3	0.1	49.4	1.8	97.8	94.4	3,389
Other	1.8	1.2	0.1	42.2	2.6	96.4	91.7	1,214
<b>Work status</b>								
Working in family farm/business	1.9	1.3	0.1	46.2	1.4	96.3	93.1	566
Employed by someone else	2.0	1.3	0.1	52.1	2.8	96.3	93.4	767
Self-employed	2.0	1.3	0.1	53.2	2.5	97.3	92.1	380
Not worked in past 12 months	1.9	1.3	0.1	47.0	2.0	97.4	93.8	4,831
<b>Standard of living index</b>								
Low	2.0	1.3	0.1	51.0	2.3	97.7	93.9	3,390
Medium	1.8	1.3	0.1	46.8	1.9	97.4	94.5	2,453
High	1.5	1.0	0.2	36.7	2.0	94.0	88.8	694
<b>Husband's education</b>								
Illiterate	2.0	1.4	0.1	50.7	2.4	97.6	94.3	2,687
Literate, < primary school complete	2.0	1.4	0.1	49.9	2.8	98.0	95.8	361
Primary school complete	2.0	1.3	0.1	49.7	1.7	97.4	94.6	845
Middle school complete	1.8	1.2	0.1	50.2	1.4	97.7	93.0	626
High school complete	1.8	1.2	0.1	45.9	1.7	98.1	94.5	1,081
Higher secondary complete and above	1.5	1.0	0.1	38.3	2.2	94.1	89.1	940
Total	1.9	1.3	0.1	47.9	2.1	97.2	93.6	6,544

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 8 and 4 women with missing information on the standard of living index and husband's education, respectively, who are not shown separately.

( ) Based on 25–49 unweighted cases

Son preference is relatively moderate in urban areas, in the Jharkhand region, among more educated women, among women belonging to a religion other than Hindu or Muslim, and among women from higher standard of living households. Son preference does not vary much by work status of women. The proportion of ever-married women who desire more sons than daughters is 36 percent in urban areas and 49 percent in rural areas. By women's education, this proportion ranges from 51 percent for illiterate women to 29 percent for women who have completed high school or more education. The proportion wanting more sons than daughters ranges from 51 percent among women from low standard of living households to 37 percent among women from high standard of living households. The proportion wanting more sons than daughters is also relatively low among scheduled-tribe women and among women whose husbands have at least completed high school. The proportion wanting more daughters than sons is universally low across all groups of women.

#### **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 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-quarter 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 (12 percent were wanted later and 13 percent were not wanted at all). The proportion of births that were unplanned is highest for women age 35–44 (40–42 percent) and lowest for women below age 20 (14 percent). Within the unplanned category, the proportion of births that were wanted later goes down and the proportion that were not wanted at all goes up with the age of the mother. The proportion of births that were unplanned is slightly higher in urban areas (33 percent) than in rural areas (24 percent). By region, the Jharkhand region has the highest proportion of births that were wanted later and the lowest proportion of births that were not wanted at all. The proportion wanted later increases and the proportion not wanted at all decreases as mother's education increases. A similar percentage of births were reported as unplanned for both Hindus and Muslims (24 percent each). By caste/tribe, scheduled-caste women were most likely (14 percent) and scheduled-tribe women were least likely (8 percent) to have births that were not wanted at all. The proportion wanted later increases with the household standard of living, but the proportion not wanted at all does not show any clear relationship with living standard. Not surprisingly, births of higher order are more likely to be unplanned. Specifically, the proportion unplanned increases from 11 percent among first-order births to 37 percent among births of order four or higher.

Table 4.18 Fertility planning

Percent distribution of births during the three years preceding the survey and current pregnancies by fertility planning status, according to selected background characteristics, Bihar, 1998–99

Background characteristic	Planning status of pregnancy				Total percent	Number of births and current pregnancies
	Wanted then	Wanted later	Not wanted at all	Missing		
<b>Mother's age at birth<sup>1</sup></b>						
< 20	85.2	10.2	3.4	1.1	100.0	756
20–24	77.7	14.2	7.2	0.9	100.0	1,237
25–29	71.5	11.3	16.4	0.8	100.0	891
30–34	61.4	11.0	26.8	0.8	100.0	428
35–39	58.2	6.4	33.5	2.0	100.0	152
40–44	(53.0)	(2.4)	(39.1)	(5.5)	100.0	41
<b>Residence</b>						
Urban	65.5	15.5	17.5	1.5	100.0	300
Rural	75.5	11.4	12.2	1.0	100.0	3,210
<b>Region</b>						
North Bihar Plain	78.0	9.2	12.7	0.1	100.0	1,650
South Bihar Plain	70.6	12.7	14.3	2.4	100.0	1,162
Jharkhand	73.3	16.1	9.7	0.9	100.0	698
<b>Mother's education</b>						
Illiterate	74.3	11.0	13.6	1.1	100.0	2,718
Literate, < middle school complete	77.5	12.0	9.8	0.7	100.0	324
Middle school complete	75.2	14.9	8.5	1.5	100.0	145
High school complete and above	73.9	16.2	9.3	0.7	100.0	322
<b>Religion</b>						
Hindu	74.7	11.6	12.7	1.1	100.0	2,828
Muslim	74.9	11.7	12.6	0.7	100.0	634
<b>Caste/tribe</b>						
Scheduled caste	73.2	11.0	14.4	1.4	100.0	803
Scheduled tribe	77.6	13.3	8.3	0.9	100.0	234
Other backward class	74.2	11.4	13.3	1.1	100.0	1,832
Other	76.3	13.1	10.3	0.3	100.0	640
<b>Standard of living index</b>						
Low	75.8	10.6	12.4	1.2	100.0	2,000
Medium	73.2	12.7	13.5	0.6	100.0	1,230
High	72.7	15.5	11.0	0.8	100.0	271
<b>Birth order<sup>2</sup></b>						
1	88.1	6.8	4.0	1.1	100.0	968
2	79.9	14.2	5.0	1.0	100.0	753
3	70.8	17.9	10.4	0.9	100.0	582
4+	62.3	11.2	25.5	1.0	100.0	1,206
Total	74.6	11.7	12.7	1.0	100.0	3,510

Note: Table includes only the two most recent births in the three years preceding the survey. Total includes 4 births to women age 45–49 at the time of birth, 21 and 26 births to mothers belonging to Christian and 'other' religions, respectively, and 8 births with missing information on the standard of living index, which are not shown separately.

( ) Based on 25–49 unweighted cases

<sup>1</sup>For current pregnancy, estimated maternal age at birth

<sup>2</sup>Includes current pregnancy, if any

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 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. (Women who did not give 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 2.58 is lower by 0.91 children (i.e., 26 percent) than the total fertility rate of 3.49. This means that if all unwanted births could be eliminated, the TFR in Bihar would drop by about one child per woman. The difference between the total fertility rate and the total wanted fertility rate is about the same for both rural and urban women. The difference is larger for illiterate women (0.97 children) than for women with at least high school complete (0.56 children). It is larger for Muslims (1.09 children) than for Hindus (0.89 children) or Christians (0.66 children). It is also larger for scheduled-caste women (1.11 children) than for women from other backward classes (0.94 children), women in the 'other' caste/tribe category (0.76 children), or scheduled-tribe women (0.64 children). The difference is larger for women living in households with a low standard of living (1.02 children) than for women living in households with a high standard of living (0.54 children). Overall, the TFR exceeds the total wanted fertility rate most for scheduled-caste women, Muslim women, and women from low standard of living households.

Table 4.19 Wanted fertility rates		
Total wanted fertility rate and total fertility rate for the three years preceding the survey by selected background characteristics, Bihar, 1998–99		
Background characteristic	Total wanted fertility rate	Total fertility rate
<b>Residence</b>		
Urban	1.84	2.75
Rural	2.68	3.59
<b>Region</b>		
North Bihar Plain	2.88	3.82
South Bihar Plain	2.65	3.63
Jharkhand	1.97	2.76
<b>Education</b>		
Illiterate	2.81	3.78
Literate, < middle school complete	2.20	2.93
Middle school complete	1.87	2.69
High school complete and above	1.94	2.50
<b>Religion</b>		
Hindu	2.47	3.36
Muslim	3.35	4.44
Christian	(1.24)	(1.90)
Other	(1.51)	(2.41)
<b>Caste/tribe</b>		
Scheduled caste	2.80	3.91
Scheduled tribe	1.81	2.45
Other backward class	2.70	3.64
Other	2.37	3.13
<b>Standard of living index</b>		
Low	2.87	3.89
Medium	2.36	3.24
High	1.93	2.47
Total	2.58	3.49
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. ( ) Based on 125–249 woman-years of exposure		