CENSUS OF INDIA 1981

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Fertility and Child Mortality Estimates of
PUNJAB

Demography Division
Office of the Registrar General,India

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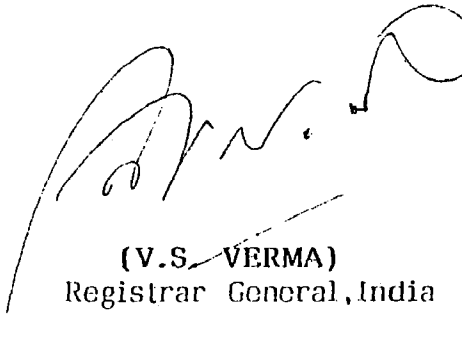
P R E F A C E

In the 1981 census four questions relating to fertility were canvassed. These were, age at marriage, number of children ever born, number of surviving children and whether any child was born during last one year. The first three were canvassed for all ever married women. For operational reasons the question on births during last one year was canvassed for currently married women only.

These questions were tabulated on a 20 per cent sample of enumeration blocks in major states with a population of over 10 million in 1981. The fertility data collected in the 1981 census on the basis of the response to these questions in respect of Punjab have already been published. In the present report an attempt has been made to analyse the fertility data presented in F series. In particular, this report presents estimates of female age at marriage, fertility and child mortality. The latter two estimates have been derived by indirect estimation techniques. These estimates have been presented at district level. At state level, female age at marriage, fertility and child mortality have been presented by religion, educational level and for manual and non-manual workers.

This report has been prepared by Demography Division under the direction of Shri K.S. Natarajan, Assistant Registrar General. I am thankful to the staff and officers of the Demography Division for their hard work. In particular, I am happy to place on record my appreciation of the efforts put in by Shri R.K. Puri, Shri Phool Singh, Deputy Directors, Shri K. Narayanan Unni, Senior Research Officer, Shri S.S. Bawa, Assistant Director and Dr. L.R. Yadav, Research Officer.

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C H A P T E R - 1

Population and its Characteristics

In the 1981 census 16.8 million people were counted in Punjab. The population of the state had increased by 23.89 per cent during 1971-81, the growth rate being less than the all India growth rate. The state is different in many socio-cultural aspects from the neighbouring states of Haryana, Himachal Pradesh, Jammu and Kashmir and Rajasthan. These characteristics could have influenced the level of fertility and child mortality in the state to a large extend. As a prelude to the analysis of fertility and child mortality in Punjab this chapter provides a back ground of some selected characteristics of the population, like growth rate urbanisation, literacy, proportion of married females, age at marriage for females etc. As the estimates of child mortality and fertility have been analysed at district level in the subsequent chapters the above characteristics have also been analysed at district level. This will enable the reader to correlate these variables with the levels of fertility and child mortality. Statement 1.1 provides selected population characteristics at district level.

Statement 1.1

Population and few selected characteristics

State/Distt.	Total Population (000's)	Density of Population per sq.km	Sex Ratio (females per 1000 males)	Percentage decadal variation of Population	Percentage of Urban Population	Percentage of Literates		Percentage
						Males	Females	S.C.
1	2	3	4	5	6	7	8	9
PUNJAB	16,789	333	879	23.89	27.68	47.16	33.69	26.87
1. Gurdaspur	1,513	420	907	23.10	21.69	50.29	32.66	23.69
2. Amritsar	2,188	429	871	19.23	32.97	46.83	34.40	26.20
3. Firozpur	1,308	223	884	25.16	22.79	39.46	24.17	20.90
4. Ludhiana	1,819	466	859	28.09	42.01	56.15	44.15	25.18
5. Jalandhar	1,735	510	893	19.26	35.32	55.18	42.46	36.28
6. Kapurthala	545	340	898	26.95	29.97	50.77	38.27	26.99
7. Hoshiarpur	1,244	319	915	18.34	14.44	58.24	41.19	30.83
8. Rupnagar	717	341	861	30.46	21.58	55.94	38.94	24.38
9. Patiala	1,569	341	863	29.55	29.59	46.27	33.70	22.12
10. Sangrur	1,410	282	860	22.99	22.81	35.56	22.68	25.47
11. Bathinda	1,305	233	864	27.24	22.68	34.14	20.29	27.02
12. Faridkot	1,436	252	882	24.48	23.92	39.49	26.87	31.67

The state is divided into 12 districts, whose population varies from 0.5 million in Kapurthala to 2.2 million in Amritsar. The state has a population density of 333 persons per square kilometer. This is more than fifty per cent above the national average of 216 persons per square kilometer. The most densly populated district, Jalandhar has 510 persons per square kilometer while Firozpur, with the least population density has 223 persons per square kilometer. There are four districts namely Gurdaspur, Amritsar, Ludhiana and Jalandhar with more than 400 persons per square kilometer while another four namely Ferozpur, Sangrur, Bathinda and Faridkot have less than 300 persons per square kilometer. The high density districts are in north and north west. The low density districts are in south and south east adjoining Rajasthan and Haryana.

Of the 16.8 million people of the state 8.9 million are males and 7.9 million are females. The sex ratio of the states population works out to be 879 females per 1000 males. This is significantly below the all India average of 933 females per 1000 males. It is worth noting that in the neighbouring state of Haryana also sex ratio is very low with only 870 females per 1000 males. There are no districts where females outnumber males. The highest sex ratio of 915 recorded in Hoshiarpur is also significantly below the national average.Ludhiana has the lowest sex ratio of 859 followed by Sangrur with 860 females per 1000 males. Considering the fact that the state has a relatively high per capita income, the low sex ratio observed indicates that economic prosperity need not necessarily lead to better status of females.

While the population of the state increased by 23.89 per cent during 1971-81 the district wise growth rates ranged from 18.34 per cent in Hoshiarpur to 30.46 in Rupnagar. Population of six districts has increased by more than a quarter during 1971-81 while the decadal growth rate is below 20 per cent in three districts. It is noticed that excepting Patiala and Ludhiana

the other four districts with growth rates above 25 per cent during the decade are not those with high proportion of urban population. This indicates that migration to uraban centers was probably not the predominant reason for high growth rates. Ludhiana has the highest proportion of population living in urban areas, followed by Jalandhar and Amritsar. Hoshiarpur with only 14.44 per cent of the population living in urban areas is the least urbanised district. More than one fifth of the population live in urban areas in all other districts. In the state as a whole 27.68 per cent of the population has been enumerated in urban areas. This is significantly higher than the corresponding national average of 23.31 per cent.

The state's male literacy levels are not very different from the national average. Against the national male literacy rate of 46.89 per cent the state's male literacy rate is 47.16 per cent. However in female literacy the state is much more advanced. Slightly more than athird of the states female population is literate while the national female literacy rate is only 24.82 per cent. More than half of the males are literate in the districts of Gurdaspur, Ludhiana, Jalandhar, Kapurthala, Hoshiarpur and Rupnagar. Male literacy rate is lowest in Bathinda with only 34.14 per cent of the males classified as literates. Ludhiana has the highest female literacy rate of 44.15 per cent followed by Jalandhar and Hoshiarpur with female literacy rates of 42.46 and 41.19 per cent respectively. Bathinda has the lowest female literacy of 20.29 per cent. Only in Bathinda, Sangrur and Firozpur the female literacy rates are below the national average of 24.82 per cent.

About 26.87 per cent of the states population has been classified as belonging to scheduled castes. At district level the proportion of Scheduled Castes varies from 20.90 per cent in Firozpur to 36.28 per cent in Jalandhar. In three districts, viz., Jalandhar, Faridkot and Hoshiarpur more than 30 per cent of the population belong to Scheduled Castes. There are no Scheduled Tribes in the state.

There are 3.5 million females aged 15-44 years among the 7.9 million females in the state. Among them 2.4 million forming 69.20 per cent are married. Among the bigger states of the country only Kerala has a lower proportion of married females in this age group. This proportion of married females is well below the national(excluding Assam) average of 80.43 per cent. The proportion of married females in the state is significantly lower than the corresponding proportion at national level in different age groups also. In the age group 10-14 years only 0.99 per cent of the females are married in the state against 6.23 per cent at national level (excluding Assam). In the age group 15-19 the proportion of married females is 13.42 per cent against 43.44 per cent at the national level. In the next age group 20-24, 68.03 per cent are married against the national average of 84.46 per cent. These lower proportions are due to comparatively high female age at marriage in the state. The mean age at marriage of all currently married women in the state is estimated to be 18.9 years against the national (excluding Assam) average of 16.8 years. As all the married women irrespective of the year in which they got married have been considered for the calculation of age at marriage these figures do not represent the current levels of age at marriage. The current levels are expected to be higher. However these figures indicate that female age at marriage in the state has traditionally been higher then the average for the rest of the country. It is estimated that there are 146 couples per 1000 people in the state. Among the larger states of the country only Kerala has such high age at marriage and low couple population ratio. It must be noted that the low couple population ratio in Punjab is partly due to low proportion of women in the population. The state ment 1.2 presents some of the selected nuptiality indices at district level.

Statement 1.2

Selected Nuptiality Indices - 1981

State/District	No. of females in 1981 in age group 15-44(00's)		Percentage of married females to total females in age group			Mean age at marriage			Couple per 1000 population
	Total	Married	15-44	15-19	20-24	Total	Rural	Urban	
1	2	3	4	5	6	7	8	9	10
PUNJAB	3,540.3	2,450.0	69.20	13.42	68.03	18.9	18.8	18.9	146
1. Gurdaspur	316.4	208.3	65.85	10.69	62.82	18.7	18.7	18.9	138
2. Amritsar	450.0	305.7	67.93	10.66	65.49	19.1	19.2	19.1	140
3. Firozpur	267.0	186.9	70.76	17.67	71.41	18.9	19.0	18.6	144
4. Ludhiana	415.9	270.8	65.11	11.08	63.77	19.2	19.2	19.2	149
5. Jalandhar	370.4	250.7	67.70	9.85	65.22	18.8	18.7	18.9	145
6. Kapurthala	117.3	78.0	66.48	10.57	63.02	19.0	19.1	18.9	143
7. Hoshiarpur	261.5	172.8	66.06	8.45	63.13	18.8	18.8	19.4	139
8. Rupnagar	147.7	105.1	71.18	13.98	71.38	18.4	18.3	18.9	147
9. Patiala	337.4	238.5	70.69	16.78	71.47	18.4	18.3	18.8	152
10. Sangrur	298.7	213.6	71.51	17.45	72.35	18.8	18.8	18.9	151
11. Bathinda	273.8	201.2	73.49	20.72	77.09	18.6	18.6	18.6	154
12. Faridkot	304.2	216.2	71.07	15.33	70.74	19.1	19.2	18.7	151

It is seen that the population of married females in the age group 15-44 years vary from 65.11 per cent in Ludhiana to 73.49 per cent in Bathinda. In six districts namely Firozpur, Rupnagar, Patiala, Sangrur, Bathinda and Faridkot more than 70 per cent of the females, in the age group 15-44 years are married. In the age group 15-19 years the proportion of married females varies from 8.45 per cent in Hoshiarpur to 20.72 per cent in Bathinda. While in Jalandhar and Hoshiarpur districts less than ten per cent of the females aged 15-19 years are married, there are five districts wherein the proportion is above 15 per cent. In the age group 20-24 years the proportion of married females ranges between 62.82 per cent in Gurdaspur and 77.09 per cent in Bathinda. In the age groups 15-19, 20-24 and 15-44 the proportion of married females is below the corresponding national average in all the districts of the state.

The mean age at marriage of currently married females in the state is 18.9 years. In rural areas it is estimated to be 18.8 years and in urban areas it is 18.9 years. Rupnagar and Patiala have the lowest mean age at marriage of 18.4 years. The highest mean age at marriage of 19.2 years is noticed for Ludhiana. The rural urban differential in age at marriage is negligible in the state as a whole and in all the districts the maximum difference is only 0.6 years for Hoshiarpur. The ratio of couples to population varies from 138 per 1000 persons in Gurdaspur to 154 per 1000 persons in Bathinda. It is above 150 per 1000 in the districts of Patiala, Sangrur and Faridkot also.

In the subsequent chapters estimates of fertility and child mortality have been presented for different religions, educational levels and worker category of the women. The distribution of women by these categories will help in a better appreciations of the differentials presented in those chapters on child mortality and fertility. The following paragraphs provide a brief analysis of the distributions of married females by the above characteristics.

Statement 1.3 presents the distribution of currently married women in the state by religion as also the proportion of scheduled castes.

Statement 1.3

Distribution of currently married women by religion and proportion of currently married women belonging to Scheduled Castes

Religion/ Scheduled Caste	Rural		Urban	
	Number of currently married women (00's)	Percentage to total	Number of currently married women (00's)	Percentage to total
1	2	3	4	5
All women	2,502,0	100.00	962,9	100.00
A. Religions				
1. Hindus	657,2	26.27	616,5	64.02
2. Muslims	16,8	0.67	11,0	1.15
3. Christians	26,7	1.07	6,8	0.71
4. Sikhs	1,800,7	71.97	322,8	33.53
5. Jains	2	0.01	5,4	0.56
6. Others and religion not stated	3	0.01	3	0.03
B. Scheduled Castes	732,9	29.29	179,0	18.59

Note: Totals may not tally due to rounding

Out of 3.5 million married females is 2.5 million live in rural areas and 1.0 million live in urban areas. In rural areas 1.8 million married females, forming 71.97 per cent of the total number of married females are Sikhs. Hindus forms 26.27 per cent while Christians account for another 1.07 per cent of the married females. Muslims and Jains and other religions

constitute only a small fraction. In urban areas 64.02 per cent of married females are Hindus while 0.3 million forming 33.53 per cent are Sikhs.

The statement 1.4 presents the distribution of currently married females by completed level of education.

Statement 1.4

Distribution of currently married women by completed level of education

Educational level	Rural		Urban	
	Number of currently married women (00's)	Percentage to total	Number of currently married women (00's)	Percentage to total
1	2	3	4	5
All women	2,502,0	100.00	962,9	100.00
1. Illiterate	2,056,6	82.20	505,9	52.54
2. Literate but below middle	291,7	11.66	157,1	16.32
3. Middle but below matric	730,3	2.92	91,7	9.52
4. Matric but below graduate	72,4	2.89	157,8	16.39
5. Graduate and above	8,2	0.33	50,4	5.23

In rural areas slightly more than 2 million married females are illiterate. They forms 82.20 per cent of the total married females in rural areas. The proportion illiterate married

females is lower in urban areas being 52.54 per cent. The category "literate but below middle" accounts for 11.66 per cent in rural areas and 16.32 per cent in urban areas. While about three per cent each of the married females in rural areas are in the categories "middle but below matric" and "matric but below graduate" in urban areas these categories respectively account for 9.52 per cent and 16.39 per cent of the married females. Graduates form 0.33 per cent in rural areas and 5.23 per cent in urban areas.

Statement 1.5

Distribution of currently married females by worker category

Worker Category	Rural		Urban	
	Number of currently married (00's)	Percentage to total	Number of currently married women (00's)	Percentage to total
1	2	3	4	5
All women	2,502,0	100.00	962,9	100.00
A Main workers	65,1	2.60	55,3	5.75
(i)Cultivators	5,9	0.23	-	-
(ii)Agricultural labourers	26,5	1.06	-	-
(iii)Manual workers	14,7	0.59	18.7	1.94
(iv)Non-Manual workers	18,0	0.72	36,7	3.81
B.Marginal workers	204,4	8.17	7,8	0.81
(i)Cultivators	61,6	2.46	-	-
(ii)Agricultural labourers	135,3	5.41	-	-
(iii)Manual workers	6,8	0.27	7,7	0.79
(iv)Non-manual workers	7	0.03	2	0.02
C Non workers	2,232,5	89.23	899,8	93.44

Note: Totals may not tally due to rounding.

In rural areas the workers are classified as cultivators, agricultural labourers, manual workers and non-manual workers. Those engaged in occupations falling in divisions 0-1, 2,3 and 4 of the National Classifications of Occupation are termed non-manual workers. The rest are classified as cultivators, agricultural labourers and other manual workers. In urban areas however, all cultivators and agricultural workers have been clubbed with manual workers. About 90 per cent of the married women are non-workers. In rural areas main workers form only 2.60 per cent and marginal workers form 8.17 per cent of the total married females. Majority of the workers are engaged as cultivators or agricultural labourers. Main workers engaged in non-manual occupations form only 0.72 per cent in rural areas. In urban areas majority of the main workers are engaged in non-manual occupations. They form 3.81 per cent of the total married females. Most of the marginal workers are engaged in manual occupations. It may be seen that only a very few currently married females are reported as workers in urban areas and in rural areas. The smallness of numbers should be kept in view while using estimates relating to these categories.

C H A P T E R - II

Estimates of child mortality

The 1981 census collected data on children ever born and children surviving sexwise. The questions on children ever born and children surviving were canvassed for all ever married women. Number of children ever born and number of children surviving have been tabulated by age of the mother. These tables are available at district level separately for rural and urban areas. From these two sets of data child mortality for the years preceding 1981 can be estimated by using Brass technique.

The essence of the Brass child mortality estimation procedure is that the proportion of children dead classified by the age of the mother could be converted into estimates of child mortality by selecting suitable multipliers(K_i).- These multipliers will differ according to the fertility pattern. As an indicator of fertility pattern, Brass suggested the ratio P_1 /P_2 or P_2 /P_3 where P_1 ,P_2 and P_3 are the average number of children ever born per woman in the age group 15-19, 20-24 and 25-29. The multipliers for converting the proportions dead into estimates of child mortality were derived by Brass, using Brass fertility polynomial. This fertility polynomial was a mathematical function and had some limitations. In view of this, multipliers were later modified by Trussel who generated a different set of multipliers using model life tables generated by Coale and Demeney. In estimating the child mortality we have used the Trussel equation.

The Brass procedure as modified by Trussel helps us to estimate q(1) i.e., the probability of a new born child dying before age 1, q(2) i.e. the probability of a new born child dying before age 2, q(3) the probability of a new born child dying before age 3, and q(5) the probability of a new born child dying before age 5. In the original Brass estimation procedure it was assumed that the child mortality would remain constant for a period preceding the census (survey). This assumption was, however, relaxed later on. Coale and Trussel developed a procedure which is valid when mortality declined. This procedure assigned the estimated q(x) to a few years prior to census. In other words when mortality is declining these estimates would not refer to the year preceding the census but would refer to different points of time prior to census. These have been termed as YPC, i.e. years prior to census. The YPC corresponding to q(1), q(2), q(3) and q(5) are 0.74, 1.74, 3.39 and 5.52 years respectively.

Table 2.1 shows the estimates of child mortality q(1), q(2), q(3) and q(5). While the trend indicated by these estimates seems generally satisfactory, it is noticed that in many cases, the progression of the estimated of q(1), q(2), q(3) and q(5) is not acceptable. This is true for both rural and urban areas. Obviously, mortality rates q(1), q(2), q(3) and q(5) should increase progressively. However,in our estimates, sometimes q(1) is estimated to be higher than q(2) which is not possible. It is, therefore, necessary that the estimates of q(1) are graduated. Such estimates arise because of the inaccurancies in reporting of age, number of children born and surviving, small number of events reported and other factors. Brass, in his presentation had mentioned that the estimates of q(1) could not be relied upon because of the small number of children born to women in this age group leading to sampling errors. However, due to early marriage of femles, the objection of a small number of births to women in the age group 15-19 may not be valid for India.

In such cases where the progression has not been acceptable, we have graduated the value to remove the irregularities. The graduation has been done by taking the average of values of life expectancy corresponding to q(2), q(3) and q(5) if the values of q(2), q(3) and q(5) were found to be all consistent. The expectations of life at birth corresponding to q(2), q(3) and q(5) were worked out from the South Asian pattern of Model life tables and their average taken. Corresponding to this average value of e_o^o, the value of q(1) was interpolated. This interpolated value of q(1) has been taken as the graduated value of q(1). In many cases, the values of both q(1) and q(2) had to be graduated because of irregularity in estimates. In such cases, graduation has been done by taking the average of life expectation for q(3) and q(5).

The estimates presented in Table 2.1 are ungraduated estimates. The graduated figures, whereever graduation was considered necessary, are also shown in brackets. The discussions in the following paras are based on the graudated values.

Estimates of child mortality for the state as a whole.

The graduated value of q(1) which corresponds broadly to the infant mortality works out to be 77 for Punjab; q(2) denoting the number of deaths by age 2 per 1000 live births is 94, q(3) denoting the number of deaths by age three is 102 and q(5) denoting the number of deaths by age 5 is 111. In the rural areas, q(1), q(2), q(3) and q(5) are 85,106,117 and 124 while in the urban areas the respective values are 53,63,66 and 73. Female child mortality is higher than the male child mortality from age one itself both in rural and urban areas.

The infant mortality estimate as denoted by q(1) is less than that given by the Sample Registration System. As per the infant mortality rate for the year 1980 in Punjab is 89. The estimates derived from the census data stands much lower at 77. The rural-urban estimates of infant mortality of census data are 85 and 53 as against the SRS estimates of 96 and 58 respectively.

Districtwise estimates

There is not a very wide variation in the estimates between the various districts of the state. The lowest child mortality by age one, q(1) is in Ludhiana being 66 while it is highest in Sangrur district being 87. The following statement classifies the districts by level of infant mortality q(1).

Statement 2.1

Districts classified by level of infant mortality

Level of IMR q(1)	Districts
Less than 70	Ludhiana
70-79	Rupnagar, Amritsar, Firozpur, Jalandhar, Gurdaspur, Patiala, Faridkot
80-90	Bathinda, Hoshiarpur, Kapurthala, Sanagrur

Out of 12 districts of the state, in nine the infant mortality ranges between 73 and 81 only. At the two extremes are the districts of Ludhiana, Kapurthala and Sangrur. Even then the range of child mortality lie is not very wide.

Because of sampling fluctuations and age errors in data q(2) estimated by Brass technique is considered to be a better estimate for mesurement of child mortality than q(1). Accordingly, a comparison of q(2) estimates of various districts has also been attempted. Statement 2.2 below classifies the various districts by level of q(2).

Statement 2.2

Districts classified by level of q(2)

Level of q(2)	Districts
80 or below	Jalandhar, Ludhiana
81 to 100	Rupnagar, Amritsar, Firozpur, Faridkot, Gurdaspur, Patiala, Bathinda, Hoshiarpur
100 and above	Kapurthala, Sangrur

By level of q(2) also child mortality is high in Kapurthala and Sangrur while Ludhiana has the lowest child mortality. Here also, it would be seen that in 9 of the 12 districts of the state estimated q(2) varies between 87 to 99. It can, therefore, be said that the variation between the disticts in respect of child mortality is not too large.

Rural-urban differentials in child mortality

The differentials in child mortality rates between the rural and urban areas for the state are quite high. For the state as a whole, q(1) is 85 in the rural areas and 53 in the urban areas, while q(2) is 106 in the rural areas and 63 in the urban areas, q(3) is 117 in the rural areas

and 66 in the urban areas and q(5) is 124 in the rural areas and 73 in the urban areas. As the age of the child advances, the differential between the rural and urban mortality increases. In the urban areas the number of deaths per 1000 live births increases from 53 at age 1 to 73 by age 5, whereas in the rural areas the number of deaths per 1000 live births increased from 85 at age 1 to 124 at age 5. This could be due to the availability of better health services in the urban areas than in the rural areas. But this could also be due to a host of socio-cultural and economic factors.

Male-female differentials in child mortality

For the state as a whole, the infant mortality rate is 74 for males and 79 for females. q(2) is 90 for males and 98 for females while q(5) is 104 for males and 118 for females. Both in rural and urban areas, the estimates of child mortality are lower in case of males. This is in sharp contrast to the pattern in the Southern states of India where the female child mortality is generally observed to be lower than the male child mortality. But it is quite in line with the pattern observed for the Northern states of India. This pattern of higher child mortality for females is observed to be true for all the districts of the state.

To sum-up, the above estimates lead to the following conclusions;

(1) child mortality in Punjab is quite low as compared to the other states of India whether in the North South, East or West.

(2) Even though the level of child mortality is quite low both for males and females, the female child mortality is higher than male child mortality in all the districts from age one itself. This may probably attributed to the neglect of female children in Punjab.

(3) There is a large differential in child mortality between the rural and the urban areas from age 1 itself. As the age of the child advances the rural-urban differentials widen. As transport infrastructure is highly developed even in rural Punjab and also the health facilities are easily available even in the rural areas, the existence of large differentials between the rural and the urban areas is a little surprising.

Regional pattern of child mortality

There does not seem to be a distinctive regional pattern of child mortality in the state. While child mortality is low in Jalandhar and Ludhiana, child mortality is high in Kapurthala which is adjacent to Jalandhar and in Sangrur which is adjacent to Ludhiana. Similarly, in Patiala which is adjacent to Sangrur child mortality is much lower than Sangrur. Also in Amritsar and Firozpur which are adjacent to Kapurthala child mortality is low. Therefore, there is no regional differentials of child mortality per se but it appears that the differentials between the various districts are based on the level of urbanisation of the various districts. Jalandhar, Ludhiana, Amritsar, Rupnagar, Patiala, Firozpur, Gurdaspur have higher levels of urbanisation than the districts of Sangrur, Kapurthala, Hoshiarpur, Faridkot and Bathinda. It has already been observed that in urban areas of the state child mortality is much lower in rural areas. It is, therefore, plausible that in more urbanised districts child mortality is lower than the less urbanised districts.

Child mortality estimates by religion and educational level of the mother

Table 2.2 shows the estimated child mortality rates for major religions of the state viz. Hundus, Sikhs, Muslims and Christians. In view of the small numbers involved, child mortality has not been calculated for Jains and Buddhists whose population as per 1981 census is 27049 and 799 respectively in the state. Child mortality is observed to be the lowest for the Hindus and the highest for the Christians. Among the Hindus q(2) is 88 while it is 96 for Muslims, 98 for Sikhs and 108 for Christians. q(5) is 104 for Hindus, 110 for Muslims, 114 for Sikhs and 129 for Christians. But the position varies between the rural and the urban areas. In the rural areas the child mortality is lowest among Muslims followed by Sikhs, Hindus and Christians. q(5) is 113 for Muslims in the rural areas, 121 for Sikhs, 131 for Hindus and 141 for Christians. In the urban areas q(5) is lowest for the Hindus (72), followed by Christians (73), Sikhs (74) and Muslims (106). It may be mentioned in Punjab that more Hindus live in urban areas than Sikhs. A large majority of the Hindu population of the state lives in the urban areas whereas a large majority of the Sikh population lives in the rural areas. This explains the differentials between the Sikh and the Hindu child mortality in the rural and the urban areas. The Hindus enjoy a lower child mortality in overall terms because of their concentration in the urban areas which have distinctively lower child mortality than the rural areas.

Table 2.3 shows the child mortality estimates by educational level of the mother. In most of the educational categories, the progression of estimates from q_1 to q_5 has not been smooth and as such, the estimates could not be

graduated. The estimates presented in this table are, therefore, ungraduated estimates. Nonetheless, the table clearly brings out the impact of mother's educational level on child mortality. As the educational level of the mother advances, child mortality rates decline very sharply. For example, the number of deaths per 1000 live births by age 5, q(5) is 32 only for graduate and above mothers, 44 for matriculate but below graduate mothers, 63 for middle but below matric mothers, 91 for literate but below middle mothers and 123 for illiterate mothers. These figures very vividly bring out the fact that the educational level of the mother has a very strong and positive impact on the mortality and upbrining of their offspring. It is not only that the initial mortality by age 1 itself is very low but also that there is very low child mortality between age 1 and age 5 in case of children of educated mothers. In case of illiterate mothers, the number of deaths per 1000 live births goes up from 86 to 123 between age 1 and age 5. As against this, in case of graduate and above mothers these numbers go-up from 29 to 32 between age 2 + age 5.

Child mortality by occupational level of the main worker

Table 2.4 presents the estimates of child mortality by occupational level of the main workers. The estimates of child mortality by occupation have been worked out from the data on children ever born and children surviving to currently married women i.e., from Tables F-19 and F-26, as data on children surviving by occupation of mother are not available for ever married women. To check the reliability of these estimates, we had pooled up the basic data for main workers and non-workers from F-19 and F-26, and then worked out the child mortality estimates based on the experience of currently married females. These estimates were compared with those derived from data of ever married women. The differences between the two sets of estimates for persons, males, females in rural, urban and all areas were not signifi-

cant. In view of this the differentials in child mortality have been based on the experience of currently married women only.

These estimate have been worked out for main workers only. In the rural areas, workers have been classified into four categories viz cultivators, agricultural labourers, manual workers and non-manual workers. In urban areas the classification is only two fold, namely, manual and non-manual. Non-manual workers cover workers engaged in professional, technical and related work administrative, executive and managerial work, clerical and related work and sales work i.e.occupational division 0,1,2,3 and 4. Service workers, farmers, cultivators and agricultural labourers, fisherman, hunters, loggers and related workers, production and related workers, transport equipment operators and labourers i.e. workers in divisions 5,6,7,8 and 9 are classified as manual workers. It may be worth remembering that in census, occupational classification is collected only for workers other than cultivators and agricultural labourers. Child mortality estimates for various types of workers are presented in Table 2.4.

In the rural areas q(5) is the highest for manual labourers (157) followed by agricultural labourers (151), cultivators (108) and non-manual workers (64). This pattern is different for males and females. In case of males in rural areas q(5) is highest for agricultural labourers (171) followed by manual workers (123), cultivators (103) and non-manual workers (68) but in case of females q(5) is highest for manual workers (175) followed by agricultural labourers (151), cultivators (121) and non-manual workers (59). In the urban areas, child mortality is much lower for non-manual workers than manual workers.

It is interesting to compare the levels of child mortality among workers and non-workers. Child mortality among mothers who are main workers is found to be lower than that among non-workers in the urban areas but higher in the rural areas. One possible explanation for this phenomenon may be that most of the female workers in the rural areas either worked as agricultural labourers or in jobs which are low paid. In the absence of child care facilities in the unorganised sector, such workers are not able to look after their children while they are at work. The young children of female workers in the rural areas are thus deprived of maternal care leading to higher mortality.

C H A P T E R - III

Estimates of Fertility

In the 1981 census four questions relating to fertility were canvassed. These were age at marriage, number of children ever born, number of surviving children and whether any child was born during the last one year. The first three questions were canvassed for all ever married women, while the last one was canvassed only in case of currently married women. The data has been tabulated at state level by religion, educational level and economic activity of the female. The data has also been tabulated at district level separately for rural and urban areas by age group but without cross classification by religion and educational level.

The data presented in the census permits presentation of fertility indicators at state level by religion and educational level of the females. For the first time it has become possible to provide estimates of fertility levels at the district level from the census data. The fertility indicators presented herein and their definitions are as follows:-

Age specific fertility rate (ASFR)	:	The average number of children born alive during the last year per woman of a particular age group.
Age specific marital fertility rate (ASMFR)	:	The average number of children born alive during the last year per married woman of a particular age group.
General fertility rate (GFR)	:	The number of children born alive during the last year per 1000 women of child bearing ages. In 1981 tabulation, the age group 15-49 and in the 1971 tabulation the age group 13-47 have been considered as child bearing ages.

General marital fertility rate (GMFR)	:	The number of children born alive during the last year per 1000 married women of child bearing ages. In the 1981 tabulation the age group 15-49 and in the 1971 tabulation the age group 13-47 have been considered as child bearing ages.
Total fertility rate (TFR)	: :	Total number of children that would have born alive per woman had the current schedule of age specific fertility rates been applicable for the entire reproductive period. It is calculated as the sum of the age specific fertility rates in five year age groups multiplied by five.
Total marital fertility rate (TMFR)	:	Total number of children that would have born alive per married woman had the current schedule of age specific marital fertility rates been applicable for the entire reproductive period. It is calculated as the sum of age specific marital fertility rates in five year age groups multiplied by five.

A few limitations with regard to these indices must be noted. In the census, the question on birth during the last one year was canvassed only for currently married women for operational reasons. It was felt that in a massive operation like the census, sensitive questions as to whether there was any birth during the last one year could not be canvassed in the case of the single, widowed or divorced women. There may have been some births during the last one year before the day of enumeration to women who might have become widowed or might have been divorced subsequently but before or during the census enumeration period. Such births would not have been netted. Another class of births that would have been left out would relate to babies born during the

last one year to mothers who may have died before the census date. Also, in calculating indices such as the ASFR, ASMFR, GMFR and GFR the mid-year population should usually be used as the denominator.

However, in the absence of any data on deaths during last year of females, the number of females classified by age groups as reported in the census has been used as the denominator without any adjustment. The effect of these three limitations would be partly to under estimate the relevant fertility indicators. The limitations of an enquiry of this nature in which retrospective data is attempted to be collected must also be kept in mind, particularly the likelihood of omissions of events, inaccuracies in dating of births and distortions in age reporting. These limitations would imply that the estimates of current fertility presented herein should be considered as indicative of broad trends rather than of actual levels. In latter protion of this chapter an attempt has been made to estimate the probable level of fertility by using P/F ratio technique. The method has been explained elsewhere. This estimate makes use of the data on children ever born and that of births during last year by age of women and works out a correction factor for the latter. In most of the cases this method gives usefull estimates. But in case of Punjab even this method does not seem to yield satisfactory result.

Table 3.1 presents the ASFR's and ASMFR's by religion for total, rural and urban areas. It also presents GFR, TFR, GMFR and TMFR. Marital fertility rates and total fertility rates are higher in rural areas compared to urban areas. This also holds good in case of Hindus constituting 36.93%, Sikhs constituting 60.75% and Christians constituting 1.10% of the state population. GFR's and GMFR's for the above religious group also follow the same pattern as TFR and TMFR. Only in case of Muslims who constitute 1% of

the state population TFR, TMFR, GFR and GMFR are lower in rural areas compared to urban areas. The population of Jains and Buddhists in the state is below 1%. Due to lack of reliability of data fertility indices have not been presented for these religions. In rural areas fertility both general and marital is highest among Christians followed by Muslims, Hindus and Sikhs and in urban areas it is highest among Muslims followed by Christians, Hindus and Sikhs. Although separately, in rural and urban areas the total fertility rate is higher among Hindus compared to Sikhs, the value of TFR for the state as a whole is identical for both the communities. It is due to differential in proportions residing in rural and urban areas, as also the age structure.

Table 3.2 presents ASFR's, ASMFR's, GFR's, GMFR's TFR's and TMFR's according to different educational levels of women for total, rural and urban areas separately. As expected among literates, educational level has direct impact on fertility. Fertility rates both in rural and urban areas decrease with increase in level of education.

In the rural areas workers have been classified into four categories viz. cultivators, agricultural labourers, manual workers and non-manual workers. In the urban areas the classification is onlytwo fold, namely manual and non-manual. Non-manual workers cover workers engaged in professional, technical and related work, administrative, executive and managerial work, clerical and related work and sales work i.e. occupational divisions 0-1, 2, 3 and 4. Service workers, farmers, cultivators and agricultural labourers, fisherman, hunters, loggers and related workers, production and related workers in divisions 5, 6, 7, 8 and 9 are classified as manual workers in urban areas. It may be worth remembering that in census occupational classification is coll-

ected only for workers other than cultivators and agricultural labourers. Table 3.3 presents the fertility indices by economic activity of the women. Working women have lower fertility than others. In urban and rural fertility is lower among non-manual jobs compared to those doing manual jobs. In rural areas among manual workers fertility is highest for agricultural labourers and lowest for cultivators.

ASFR, ASMFR, TFR, TMFR, GFR and GMFR have been presented in tables 3.4 & 3.5 for all the districts of Punjab separately for rural and urban areas. The ASFR in age-group 15-19 varies from 0.010 in Hoshiarpur to 0.030 in Bathinda and in age group 45-49 varies from 0.010 in Jalandhar to 0.024 in Firozpur districts. Similarly, ASMFR in age-group 15-19 varies from 0.096 in Ludhiana to 0.159 in Faridkot and in age group 45-49 it varies from 0.010 in Jalandhar to 0.017 in Patiala, Bathinda and Faridkot districts. Generally the age specific fertility rates and age specific marital fertility rates are higher in rural areas than urban areas in all the districts with a few exceptions in some of the age groups. The ASFR's in the age group 15-19 in urban areas are higher in comparison to rural areas in the districts Jalandhar, Hoshiarpur, Sangrur and Rupnagar. In Sangrur district ASFR's and ASMFR's in urban areas are generally found to be higher than the corresponding rates for rural areas except in the age group 30-34. The ASMFR's in the age group 15-19 in urban areas of Jalandhar, Hoshiarpur, Rupnagar, Sangrur and Patiala districts are higher than the corresponding rural areas. It is also evident from the table that in Firozpur and Sangrur districts ASMFR's in the age group 20-24 are higher in urban areas than rural areas. It is noticed that GFR, FMFR, TFR and TMFR are lowest in Ludhiana district and highest in Firozpur district.

The question on births during last year was canvassed in the 1971 census also for all currently married women. In that census data on fertility characteristics were presented according to the age groups 13-17, 18-22, 23-27, ... 43, 47, 48 and above. The results are not comparable age wise with those of 1981 census. However, we can compare the values of GFR, GMFR, TFR and TMFR based on the 1971 and 1981 censuses. In table 3.6 values of GMFR and TMFR for 1971 and 1981 have been presented. It is clear that marital fertility has declined in 1981 compared to 1971 both in rural and uraban areas. Decline in fertility is noticed among Hindus, Muslims, Christians and Sikhs in both rural and urban areas.

From the data on number of children ever born classified by age of mother, the average number of children born per woman has been calculated. Since women image group 45-49 mostly complete their reproduction the average number of children born to women in this age group can be taken as an index of completed level of fertility. Though the age group 50 and above is more appropriate for this analysis it is generally noticed that the average number of children in this age group is affected by omission of children born with the result that the average number of children born to women in this age group is lower than that of women in age group 45-49 probably due to recall lapse. In table 3.7 the avberage number of children ever born per woman in the age group 45-49 has been presented by religion, educational level and occupational status.

The average number of children born per woman of the age group 45-49 is 5.27 in Punjab. In rural and urban areas of Punjab the average number of children born per woman in the age group 45-49 are 5.45 and 4.79 respectively. Sikh women in the age group 45-49 have the lowest average number of children ever born in total, rural and urban areas of the

state while Christian women residing in rural areas and Muslim women in urban areas have the maximum number of children ever born by age group 45-49. The average decreases with the increase in level of education. The average number of children ever born per woman are higher in rural areas compared to urban areas except in case of women who are matric and above. Economic activity also has direct impact on fertility. Working women have fewer children than those who are economically inactive. Women who are doing non-manual jobs have less number of children ever born in comparison to those doing manual jobs.

Table 3.8 presents the average number of CEB per woman by the age group 45-49 for all the districts of state separately for total,rural and urban areas.It may be seen that the average varies from 4.84 in Ludhiana to 5.61 in Gurdaspur districts. In rural and urban areas the average varies from 4.99 in Ludhiana to 5.82 in Gurdaspur and 4.48 in Amritsar to 5.33 in Bathinda respectively.

The sex ratio of children ever born and children surviving have been presented in table 3.9 for the state as a whole by age of women. In table 3.10 it has been presented for women classified by religion and educational level and in 3.11 for the districts fo the state. The over all sex ratio of children ever born is 861 which is much below than the generally accepted sex ratio at birth i.e. 950. In rural areas it is 860 while in urban areas it is 863. It is noticed that the sex ratio generally decreases with the increase in age of women. One of the reason may be that elder women do not include daughters while reporting the number of children ever born to them. The sex ratio of CS is 847 and that CEB is 861 which means that female mortality is higher than male mortality in the state. Such trend is also observed in case of rural and urban areas. The sex ratio of CEB to women between ages 15-24 is less than that of CS. However, for the other age-group

the sex ratio of children surviving is lower than that of children ever born. The sex ratio of children ever born and children surviving are the highgest for Hindus. The sex ratio of children ever born is lowest for Christians and that of children surviving for Muslims. Further the sex ratios of CEB and CS increase with the increase in educational level of the women. Sex ratios of CEB and CS are higher in case of working women compared to non working women. Among working women those who are engaged in non manual jobs have still higher sex ratios of CEB and CS. Unlike others the female mortality seems lower among the children whose mothers are engaged in non manual jobs. This is also true about the children whose mothers are at least graduate.

District wise figures of sex ratios are presented in table 3.11. The sex ratio of CEB varies from 842 in Amritsar to 916 in Hoshiarpur. In case of rural areas the lowest value of sex ratio for CEB is 839 in Amritsar and highgest 925 in Hoshiarpur. In urban areas the lowest value of sex ratio of CEB is 847 in Amritsar and the highest is 881 in Rupnagar. Similarly sex ratio of CS varies from 828 in Amritsar to 860 in Firozpur in total areas, from 825 in Amritsar to 868 in Kapurthala in rural areas and from 836 in Amritsar to 880 in Rupnagar in urban areas.

Table 3.12 presents the percentage of ever married women and currently married women who had three or more children ever born by their age groups. It is seen that more than half of the married women have three or more children. From the age group 25-29 onwards in each age group more than 40% of ever married and currently married females have three or more children. The proportion of women with three or more children goes upto 87.12% in age group 25-49. The lower percentage reported in the age group 50 years and above may be

due to recall lapse. The percentage in the age group 45-49 may also be slightly under reported due to recall lapse. In urban areas the percentages are slightly lower in all the age groups except the age group 15-19. The lower percentage in urban areas may be due to lower fertility in urban areas.

Table 3.13 presents percentage of ever married and currently married women with three or more children in selected age groups according to religion, educational level and economic activities for rural and urban areas separately. In rural areas percentage of ever married women having three or more children is highest among Christians in the age groups 25-29, 30-34, 35-39 and 40-44. In urban areas the age groups 25-29 & 30-34 it is highest among Muslims and in the age groups 35-39 & 40-44 among Christians. In the age group 25-29, this percentage is lowest among Sikhs, in rural and urban areas. In general the relevant percentage is higher in rural areas except for Muslims in the age groups 25-29 and 30-34. The percentage of women having three or more children in general, decreases with the increase in the levels of education in both rural and urban areas except the females who are literate but below middle and residing in urban areas. The percentage of illiterate women with three or more children is higher in rural areas than urban areas but this trend gets changed for the females whose educational level is middle and above. In the case of women who are literate but below middle this percentage is higher in rural areas than urban areas in the age groups 35-39 and 40-44 only. The percentage of women having three or more children who are performing non-manual jobs is lower in comparison to those who are doing manual jobs.

Percentage of women of selected age groups who have three or more children is presented in table 3.14 district wise, separately for rural and urban areas. In the age group 25-29

the percentage of ever married women having three or more children is lowest in the rural area of Ludhiana and highest in Gurdaspur. In the urban area of Hoshiarpur the percentage of ever married women is lowest. It is highest in the urban area of Firozpur district.

Percentage of women of age 50 and above who have not born any child which is an indicator of sterility is 4.34, 4.01 and 5.40 in total, rural and urban areas of the state (table 3.15). Percentage of childless women of age 50 and above is maximum among Muslims followed by Christians, Hindus and Sikhs. The percentage of childless women is lower in rural areas than urban areas for all religions. Percentage of childless women increases with the increase in level of education for the state as a whole and rural areas. In urban area, however, it is least among women whose educational level is literate but below middle and highest among those who are graduate and above. It is clear from the table 3.15 that percentage of childless women is higher among the women who are performing non-manual jobs than those who are performing manual jobs.

District wise percentage of childless women of aged 50 and above has been presented in table 3.16. It varies from 3.14 in Gurdaspur to 5.85 in Ludhiana district. However, in rural areas it varies from 2.97 in Gurdaspur district to 5.53 in Patiala district and in urban areas it varies from 3.21 in Rupnagar to 8.11 in Ludhiana district.

Distribution of currently married women (CMW) by duration of marriage and religion presented in table 3.17 shows that about 43% of CMW have marriage duration less than 15 years while about 30% are in the duration range 15-30 years. The latter is a group which may be important for terminal family planning measures as it is likely that a large proportion of them would have 2 or more children.

Estimation of fertility using P/F ratio technique

As already noted, the 1981 census collected data on children ever born and births during last one year. The question on children ever born was canvassed for all ever married women and that on birth during last one year canvassed for all currently married women. If one is to make an assumption that very few births have occurred to widowed and divorced females during the last one year, the births during last one year could be converted in age specific fertility rates. From these two sets of data, fertility for the year 1980 can be estimated using P/F ratio technique suggested by William Brass, where P stands for the average parity of the women in a particular age group and F stands for the average parity equivalent obtained from period fertility rates and by cumulation and interpolation.

The essence of Brass fertility estimation procedure is the adjustment of the age pattern of fertility derived from information on births during last one year by the level of fertility implied by the average parity of women in age group 20-24 and 25-29. Since the current fertility has been obtained from the census question on births during last one year preceding the census the age of mother would be at time of census, not at the time of births. In other words, there would be half a year displacement in age specific fertility rates. Brass had developed a set of multipliers which can be used in such situations. These multipliers are dependent on the values of (f1/f2) i.e.the ratio of the age specific fertility rate in the age group 15-19 to that in 20-24 and the mean age of fertility schedule (m). Apart from their use in the Brass method, these two parameters have their own independent use as parameters describing the pattern of fertility curve.

The mean age of fertility schedule ($\bar{m}$), distinguishes populations that have their children relatively early in their reproductive period and those have them relatively later in life. These differences may be due to age at marriage or contraception or both. Adoption of contraception in older ages, reduces the values of ($\bar{m}$). The ratio (f1/f2), indicates the steepness of the fertility curve at initial ages. If fertility rate is low in the age group 15-19, say due to postponement of marriage, the ratio (f1/f2) may be very small. Otherwise it may be higher.

Table 3.18 presents the parameters, ($\bar{m}$) the mean age of fertility schedule and (f1/f2), the ratio of age specific fertility rate in the age group 15-19 to that of 20-24 used for calculating the multipliers ki's according to age of women. The same parameters at district level have been presented in table 3.19. The ($\bar{m}$) is 29.0, 29.2 and 28.4 for total, rural and urban areas of the state. The slightly higher value of ($\bar{m}$) in rural areas considered together with lower age at marriage in rural shows longer period of exposure to the risk of pregnancy. In urban areas the period of exposure to risk of pregnancy is comparatively less due to higher age at mariage and early completion of family size. The ratio (f1/f2) measures early versus late fertility. The ratio (f1/f2) is 0.113, 0.111 and 0.117 for total, urural and urban areas of the state respectively, which indicates no significant rural urban differential. In the state the value of ($\bar{m}$) is highest for Christians followed by Muslims, Sikhs and Hindus while the ratio (f1/f2) is highest for Muslims followed by Hindus, Sikhs and Christians. In rural areas the value of ($\bar{m}$) is highgest for Christians and in urban areas for Muslims. The value of ($\bar{m}$) is highest for the women who are graduate and above followed by women whose educational levels are illiterate, matric but below graduate, literate but below

middle and middle but below matric. The value of the ratio (f1/f2) is highest for illiterate women followed by literate but below middle, matric but below graduate, middle but below matric and graduate and above. The values of ($\bar{m}$) are higher in rural areas than urban areas for all the educational levels. The values of ($\bar{m}$) are higher for the women performing non-manual jobs than those who are performing manual jobs where as in the case of ratio (f1/f2) reverse is true.

In table 3.19 the values of ($\bar{m}$) and (f1/f2) for each district of Punjab have been presented according to total, rural and urban areas. The following statement shows the maximum and minimum values of those parameters among different districts of Punjab.

Statement

Maximum and minimum values of ($\bar{m}$) and (f1/f2)

Stratum	$\bar{m}$		f1/f2	
	Maximum	Minimum	Maximum	Minimum
Total	Amritsar (29.7)	Kapurthala (27.8)	Firozpur (0.153)	Hoshiarpur (0.062)
Rural	Amritsar (30.3)	Kapurthala (27.9)	Bathinda (0.154)	Hoshiarpur (0.057)
Urban	Ludhiana, Hoshiarpur (28.7)	Rupnagar (27.4)	Firozpur (0.156)	Kapurthala (0.065)

The value of ($\bar{m}$) are higher in rural areas than urban areas in all the districts of Punjab.

In table 3.20, 3.21 and 3.22 the P/F ratios, for various age groups, by religion, educational level economic activity of women have been presented. Table 3.23 presents the ratio by age groups and districts. It is observed that

in general the value of P/F ratio is more than one. For Punjab as a whole in the age group 15-19 the ratio is more than two. The ratio continuously declines upto the age group 35-39 and increases thereafter. These observations lead one to the conclusion that fertility has declined at younger ages probably due to rising age at marriage or increasing use of contraceptions by younger age couples or both. The increase in the ratio in older age group may also be attributed to rising use of contraception by older age couple. In the age groups 20-24 and 25-29 the ratios differ significantly. In view of this it may not be possible to get reliable estimates of fertility rates by adjusting the observed fertility rates.

While in case of the two major religious groups Hindus and Sikhs, similar patterns is revealed, in case of Muslims and Christians the P/F ratio declines till the last age group.

A perusal of the ratios indicates that unlike other states in Punjab the P/F ratio is very dissimilar even in the age groups 20-24 & 25-29. In view of this the method cannot be used to adjust the age specific fertility rates. Adjusted fertility rates have not therefore, been presented.

TABLES

Table 2.1

Child mortality estimates by district

State/District	TRU	q(1)			q(2)			q(3)			q(5)		
		P	M	F	P	M	F	P	M	F	P	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Punjab	T	127	138	114	109	112	105	102	100	105	111	104	118
		(77)	(74)	(79)	(94)	(90)	(98)						
	R	135	145	124	122	126	118	117	115	120	124	116	133
		(85)	(83)	(90)	(106)	(102)							
	U	104	117	90	76	77	74	66	64	68	73	70	76
		(53)	(51)	(55)	(63)	(60)	(65)						
Gurdaspur	T	163	164	161	116	115	116	102	99	105	116	107	126
		(78)	(75)	(82)	(96)	(91)	(101)						
	R	170	171	170	125	126	124	112	110	113	125	116	136
		(84)	(82)	(87)	(104)	(100)	(108)						
	U	125	131	117	82	77	87	67	59	75	81	71	91
		(56)	(50)	(62)	(66)	(59)	(74)						
Amritsar*	T	129	124	135	109	112	105	101	98	104	103	73	115
		(74)		(78)	(90)		(97)						
	@ R	141	127	158	131	134	127	124	120	128	121	108	137
				(94)									
	$ U	103	119	84	66	70	63	57	56	59	62	58	67
		(48)	(44)	(49)	(56)	(52)	(57)						
Firozpur	T	132	128	136	112	118	106	99	99	99	108	103	114
		(75)	(74)	(76)	(92)	(90)	(94)						
	R	136	133	140	114	119	108	105	106	104	113	106	120
		(78)	(77)	(79)	(96)	(94)	(98)						
	U	118	111	112	106	112	99	81	78	85	94	93	94
		(65)	(63)	(66)	(78)	(76)	(80)						

* Graduation is not possible in Total Males

@ Graduation is not possible in Rural (Persons & Males)

$ Figures in brackets are graduated estimates

Table 2.1

Child mortality estimates by district

State/District		TRU	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1		2	3	4	5	6	7	8	9	10	11	12	13	14
Rupnagar		T	125	141	108	87	83	90	100	98	102	103	98	109
			(73)	(71)	(75)									
		R	126	163	90	94	88	100	110	107	114	111	108	115
			(78)	(76)										
		U	118	80	155	64	68	59	68	72	63	74	64	85
			(54)	(57)	(50)								(78)	(67)
Patiala		T	95	109	78	96	100	93	102	100	104	114	109	119
			(78)	(76)										
		R	109	115	101	113	118	107	122	120	125	135	128	142
		U	51	91	13	52	53	51	54	53	55	58	59	58
			(44)	(44)										
Sangrur		T	138	178	87	120	121	119	118	117	119	129	123	135
			(87)	(89)		(108)	(106)	(110)						
		R	145	178	101	131	132	129	133	133	133	141	135	149
			(98)	(98)	(98)									
		U	114	181	45	87	86	87	71	68	75	87	84	91
			(59)	(58)	(62)	(71)	(67)	(74)						
Bathinda	*	T	142	162	120	117	126	108	109	109	109	114	107	121
			(80)		(83)	(98)								
	*	R	141	154	126	128	135	119	117	118	117	123	115	132
			(85)		(87)	(105)		(109)						
	@	U	146	187	101	85	96	72	82	81	82	81	81	82
					(60)						(77)			

* Graduation is not possible in Total, Rural(Males)

@ Graduation is not possible in Urban (Person & Males)

Table 2.1

Child mortality estimates by district

State/District	TRU	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Ludhiana	T	123 (66)	129 (66)	117 (69)	99 (80)	102 (77)	95 (83)	86	85	88	94	88	100
	@ R	153 (82)	181	121 (84)	127 (101)	129	124 (104)	113	111	115	116	111	123
	U	86 (45)	62 (43)	111 (48)	65 (52)	69 (50)	60 (55)	54	53	56	61	56	67
Jalandhar	T	122 (75)	107 (70)	135 (80)	107 (91)	114 (85)	100	98	91	106	109	101	118
	R	149 (88)	130 (82)	167 (93)	130 (109)	143 (101)	116	119	110	129	130	119	143
	* U	76 (50)	70 (48)	81	72 (59)	68 (56)	77	63	58	69	66	65	67
Kapurthala	T	109 (92)	110 (77)	106	123 (108)	124 (94)	123	112	105	121 (132)	106 (125)	107	105 (139)
	R	108	124	83	135	137	132	126 (141)	115 (142)	138	113 (150)	113 (145)	114 (155)
	* U	109 (64)	65	150	100 (77)	95 (75)	104	84	84	84	89	93	84
Hoshiarpur	T	143 (81)	184 (76)	90	109 (99)	117 (92)	100	108	106	110	118	110	127
	R	162 (85)	211 (82)	101	117 (105)	128 (100)	106	115	112	118	124	115	134
	U	-	-	-	63	59	69 (66)	68	70	67	80	77	81

@ Graduation is not possible in rural Males
* Graduation is not possible in urban Females

Table 2.1

Child mortality estimates by district

State/District	T R U	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Faridkot	T	108	123	90	108	108	107	103	103	103	112	109	117
		(78)	(77)	(78)	(95)	(93)	(97)						
	R	98	112	82	114	116	113	109	108	110	120	114	126
		(81)	(80)		(101)	(98)	(103)						
	U	132	148	110	91	89	92	85	86	83	87	89	86
		(64)	(65)	(63)	(77)	(78)	(76)						

Table 2.2

Child mortality estimates by religion

Religion	TRU	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Hindu	T	123	132	114	102	107	97	95	94	97	104	98	110
		(72)	(70)	(76)	(88)	(85)							
	R	147	153	139	125	132	117	123	121	124	131	123	140
		(89)	(87)	(92)	(111)	(107)							
	U	94	104	83	78	80	75	66	63	68	72	69	74
		(52)	(51)	(54)	(62)	(60)	(64)						
Muslim*	T	46	73	17	96	89	105	83	84	81	110	102	119
		(77)		(83)				(103)	(96)	(112)			
	R	50	66	32	108	96	122	92	97	86	113	107	121
		(83)	(74)					(111)					
	U	40	84	-	80	79	80	71	68	75	106	96	116
			(67)					(92)	(87)	(97)			
Christian	T	176	202	147	135	128	142	118	111	125	129	115	144
		(87)	(81)	(92)	(108)	(100)	(117)						
	R	188	241	131	156	152	159	133	122	144	141	128	156
		(95)	(89)	(101)	(119)	(110)	(129)						
	U	134	80	208	65	49	83	61	69	51	73	55	92
		(50)	(42)	(67)				(69)	(52)	(88)			

* Graduation not possible in rural females

Table 2.2

Child mortality estimates by religion

Religion	T R U	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Sikh	T	130	142	116	113	116	110	107	105	110	114	107	122
		(79)	(77)	(82)	(98)	(94)	(102)						
	R	130	141	118	121	124	117	115	112	118	121	113	130
		(84)	(81)	(86)	(104)	(100)	(108)						
	U	127	147	103	71	72	71	67	66	68	74	71	77
		(54)	(52)	(55)	(63)	(62)	(66)						

Table 2.3

Child mortality estimates by educational level of mother

Table 2.3

Child mortality estimates by educational level of mother

Educational level		TRU	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1		2	3	4	5	6	7	8	9	10	11	12	13	14
Illiterate		T	130	139	120	122	125	118	116	114	119	123	115	132
			(86)	(82)	(89)	(106)	(101)							
	X	R	139	149	128	130	134	125	123	121	126	129	121	139
			(89)		(89)	(111)								
		U	98	106	90	91	91	90	87	83	92	95	91	100
			(67)	(64)		(81)	(77)							
Literate but below middle	#	T	120	137	102	97	99	95	91	88	95	91	85	97
					(70)			(85)						
	@	R	121	133	109	104	107	101	102	97	107	102	96	110
			(75)		(79)	(90)								
	$	U	118	148	81	79	79	80	67	66	67	66	63	70
					(52)			(62)						
Middle but below matric		T	97	128	66	75	79	70	64	65	64	63	61	64
											(75)			(80)
	*	R	107	139	65	90	94	85	82	85	80	74	70	78
											(90)			(97)
		U	83	105	67	59	64	55	48	47	49	54	54	55
			(40)	(39)	(41)	(47)	(46)	(48)						

X Graduation is not possible in rural(Males)
Graduation is not possible in Total (person & males)
@ Graduation is not possible in Rural (Males)
$ Graduation is not possible in (Persons & Males)
* Graduation is not possible in Rural (persons & males)

Table 2.3

Child mortality estimates by educational level of mother

Educational level		TRU	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1		2	3	4	5	6	7	8	9	10	11	12	13	14
Matric but below graduate	@	T	63	59	67 (41)	54	60	48	49	49	48	44	44	43 (52)
		R	49 (53)	17 (54)	90 (52)	73 (63)	84 (64)	62	68	66	70	73	77	68 (72)
	#	U	72	88	56	44	48	41	40	41	39	31	30	32
Graduate and above		T	-	-	-	29	31	26	28	31	24	32	29	35
	$	R	-	-	-	31	23	39	69	83	59	62	61	62
	#	U	-	-	-	26	32	21	22	24	20	28	25	32

@ Graduation is not possible in Total Persons & Males
# Graduation is not possible in Urban
$ Graduation is not possible in Rural

Table 2.4

Child mortality estimates by occupation of main workers

Occupation	TRU	q(1)			q(2)			q(3)			q(5)		
		P	M	F	P	M	F	P	M	F	P	M	F
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Main worker	@ T	89	120	50	120	120	121	99	96	103	90	87	92
		(72)			(84)		(87)				(103)		(106)
	# R	110	163	43	131	127	135	125	121	129	119	114	124
		(89)			(107)		(111)			(118)	(131)		
	U	45	32	59	103	109	97	67	65	68	53	54	53
				(50)	(54)	(54)	(55)				(67)	(66)	(68)
Cultivator	R	-	-	-	100	118	81	88	64	114	108	103	113
					(87)	(59)	(109)						(121)
Agricultural labourer	R	151	212	62	157	147	167	144	150	137	151	147	155
		(101)	(112)		(128)		(126)					(171)	(151)
Manual worker	R	94	156	32	120	109	133	156	145	167	147	123	175
			(77)	(110)					(116)		(157)		
	U	67	42	99	128	137	119	112	100	124	93	89	97
					(91)	(84)					(114)	(103)	(138)

@ Graduation is not possible in total Males
# Graduation is not possible in Rural Males

Table 2.4

Child mortality estimates by occupation of main workers

Occupation	TRU	q(1) P	q(1) M	q(1) F	q(2) P	q(2) M	q(2) F	q(3) P	q(3) M	q(3) F	q(5) P	q(5) M	q(5) F
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Non-Manual worker	R	-	-	-	43	86 (53)	-	66 (58)	40 (60)	83 (56)	64	68	59
	@ U	-	-	-	56	60 (44)	51	38	45	30	37	37 (52)	36
Non-worker	T	126 (75)	136 (73)	114 (78)	105 (92)	109 (89)	102 (96)	99	98	102	109	102	116
	R	135 (84)	145 (81)	125 (88)	119 (104)	123 (100)	115	114	112	117	122	114	131
	U	103 (53)	116 (52)	89 (55)	75 (63)	76 (61)	73 (65)	66	64	68	74	71	77

@ Graduation is not possible in Urban Persons & Females

TABLE 3.1

Fertility indices by residence and religion

Age Group	A S F R			A S M F R		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
			ALL RELIGIONS			
15-19	0.018	0.019	0.016	0.135	0.139	0.123
20-24	0.160	0.169	0.140	0.235	0.246	0.211
25-29	0.203	0.218	0.169	0.213	0.229	0.179
30-34	0.142	0.156	0.107	0.146	0.160	0.110
35-39	0.074	0.083	0.051	0.077	0.086	0.053
40-44	0.035	0.040	0.021	0.037	0.043	0.022
45-49	0.016	0.018	0.010	0.017	0.020	0.011
GFR/GMFR	98	104	84	138	147	117
TFR/TMFR	3.2	3.5	2.8	4.3	4.6	3.6
			HINDUS			
15-19	0.020	0.022	0.017	0.127	0.130	0.123
20-24	0.162	0.183	0.143	0.228	0.245	0.211
25-29	0.199	0.231	0.171	0.208	0.239	0.180
30-34	0.137	0.168	0.106	0.140	0.171	0.109
35-39	0.072	0.093	0.051	0.075	0.097	0.053
40-44	0.034	0.046	0.021	0.037	0.050	0.023
45-49	0.015	0.020	0.010	0.017	0.022	0.011
GFR/GMFR	99	113	85	137	155	118
TFR/TMFR	3.2	3.8	2.6	4.2	4.8	3.5

TABLE 3.1

Fertility indices by residence and religion

Age Group	A S F R			A S M F R		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
			MUSLIMS			
15-19	0.045	0.045	0.044	0.201	0.194	0.215
20-24	0.220	0.213	0.230	0.272	0.265	0.281
25-29	0.224	0.232	0.213	0.233	0.243	0.221
30-34	0.190	0.174	0.213	0.194	0.180	0.214
35-39	0.122	0.117	0.127	0.125	0.121	0.129
40-44	0.069	0.076	0.058	0.074	0.080	0.063
45-49	0.043	0.047	0.036	0.046	0.050	0.038
GFR/GMFR	136	131	143	178	173	186
TFR/TMFR	4.6	4.5	4.6	5.7	5.7	5.8
			CHRISTIANS			
15-19	0.019	0.019	0.019	0.122	0.124	0.115
20-24	0.196	0.209	0.155	0.274	0.285	0.237
25-29	0.243	0.262	0.183	0.258	0.274	0.205
30-34	0.211	0.229	0.148	0.217	0.233	0.157
35-39	0.107	0.125	0.040	0.110	0.128	0.042
40-44	0.071	0.082	0.026	0.076	0.088	0.028
45-49	0.038	0.043	0.017	0.041	0.046	0.019
GFR/GMFR	129	138	97	179	191	137
TFR/TMFR	4.4	4.8	2.9	5.5	5.9	4.0

TABLE 3.1

Fertility indices by residence and religion

Age Group	A S F R			A S M F R		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
			SIKHS			
15-19	0.017	0.017	0.014	0.139	0.142	0.120
20-24	0.158	0.163	0.132	0.239	0.245	0.208
25-29	0.204	0.213	0.165	0.216	0.224	0.176
30-34	0.144	0.151	0.105	0.147	0.154	0.108
35-39	0.074	0.079	0.051	0.077	0.081	0.053
40-44	0.035	0.037	0.020	0.037	0.040	0.021
45-49	0.016	0.017	0.010	0.017	0.018	0.011
GFR/GMFR	97	100	80	138	143	113
TFR/TMFR	3.2	3.4	2.5	4.4	4.5	3.5

Table 3.2

Fertility indices by residence and educational level

Age Group	A S F R			A S M F R		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
			ALL EDUCATIONAL LEVELS			
15 - 19	0.018	0.019	0.016	0.135	0.139	0.123
20 - 24	0.160	0.169	0.140	0.235	0.246	0.211
25 - 29	0.203	0.218	0.169	0.213	0.229	0.179
30 - 34	0.142	0.156	0.107	0.146	0.160	0.110
35 - 39	0.074	0.083	0.051	0.077	0.086	0.053
40 - 44	0.035	0.040	0.021	0.037	0.043	0.022
45 - 49	0.016	0.018	0.010	0.017	0.020	0.011
GFR/GMFR	98	104	84	138	147	117
TFR/TMFR	3.2	3.5	2.6	4.3	4.6	3.6
			ILLITERATE			
15 - 19	0.033	0.031	0.045	0.143	0.145	0.132
20 - 24	0.194	0.195	0.188	0.239	0.246	0.213
25 - 29	0.216	0.223	0.184	0.222	0.231	0.188
30 - 34	0.156	0.162	0.129	0.160	0.166	0.132
35 - 39	0.083	0.087	0.068	0.087	0.090	0.071
40 - 44	0.039	0.042	0.026	0.041	0.045	0.028
45 - 49	0.017	0.018	0.012	0.019	0.020	0.014
GFR/GMFR	110	113	97	134	140	112
TFR/TMFR	3.7	3.8	3.3	4.6	4.7	3.9

Table 3.2

Fertility indices by residence and educational level

Age Group	ASFR			ASMFR		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
			LITERATE BUT BELOW MIDDLE			
15 - 19	0.012	0.010	0.018	0.128	0.124	0.138
20 - 24	0.162	0.157	0.180	0.247	0.253	0.230
25 - 29	0.203	0.215	0.173	0.213	0.227	0.178
30 - 34	0.126	0.140	0.097	0.129	0.143	0.098
35 - 39	0.055	0.064	0.041	0.057	0.066	0.043
40 - 44	0.022	0.028	0.015	0.023	0.030	0.015
45 - 49	0.009	0.013	0.005	0.010	0.015	0.006
GFR/GMFR	90	93	84	153	172	115
TFR/TMFR	2.9	3.1	2.6	4.0	4.3	3.5
			MIDDLE BUT BELOW MATRIC			
15 - 19	0.007	0.007	0.006	0.115	0.130	0.094
20 - 24	0.152	0.149	0.156	0.239	0.254	0.222
25 - 29	0.190	0.214	0.166	0.200	0.227	0.173
30 - 34	0.104	0.120	0.092	0.106	0.123	0.094
35 - 39	0.036	0.049	0.029	0.037	0.051	0.030
40 - 44	0.014	0.019	0.012	0.014	0.020	0.012
45 - 49	0.011	0.011	0.011	0.012	0.012	0.012
GFR/GMFR	73	75	71	148	181	120
TFR/TMFR	2.6	2.8	2.4	3.6	41	3.2

Table 3.2

Fertility indices by residence and educational level

Age Group	ASFR			ASMFR		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
MATRIC BUT BELOW GRADUATE						
15 - 19	0.005	0.004	0.005	0.092	0.089	0.095
20 - 24	0.096	0.084	0.104	0.203	0.211	0.199
25 - 29	0.164	0.188	0.152	0.180	0.214	0.164
30 - 34	0.100	0.133	0.085	0.102	0.136	0.087
35 - 39	0.034	0.060	0.026	0.035	0.062	0.027
40 - 44	0.012	0.013	0.011	0.012	0.014	0.012
45 - 49	0.003	0.016	-	0.003	0.018	-
GFR/GMFR	69	69	69	138	169	124
TFR/TMFR	2.1	2.5	1.9	3.1	3.7	2.9
GRADUATE AND ABOVE						
15 - 19	0.002	-	0.003	0.043	-	0.050
20 - 24	0.062	0.048	0.066	0.182	0.185	0.182
25 - 29	0.161	0.160	0.161	0.199	0.230	0.194
30 - 34	0.089	0.117	0.084	0.093	0.123	0.088
35 - 39	0.034	0.063	0.030	0.036	0.066	0.032
40 - 44	0.010	0.018	0.009	0.011	0.022	0.010
45 - 49	0.004	-	0.005	0.005	-	0.005
GFR/GMFR	87	85	87	144	174	139
TFR/TMFR	1.8	2.0	1.8	2.8	3.1	2.8

Table 3.3

Fertility indices by residence and economic activity

Age Group	ASFR			ASMFR		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
			MAIN WORKERS			
15 - 19	0.018	0.020	0.011	0.106	0.119	0.068
20 - 24	0.100	0.131	0.066	0.202	0.228	0.162
25 - 29	0.152	0.175	0.130	0.182	0.198	0.165
30 - 34	0.118	0.144	0.093	0.127	0.154	0.100
35 - 39	0.059	0.076	0.043	0.066	0.083	0.049
40 - 49	0.022	0.032	0.011	0.027	0.039	0.014
GFR/GMFR	84	98	68	116	136	93
TFR/TMFR	2.5	3.1	1.8	3.7	4.3	2.9
			NON-MANUAL WORKERS			
15 - 19	0.005	-	0.007	0.051	-	0.072
20 - 24	0.051	0.066	0.044	0.163	0.202	0.145
25 - 29	0.141	0.156	0.135	0.182	0.190	0.178
30 - 34	0.104	0.127	0.091	0.111	0.134	0.098
35 - 39	0.040	0.051	0.035	0.044	0.055	0.038
40 - 49	0.010	0.014	0.009	0.012	0.017	0.010
GFR/GMFR	77	93	70	103	121	95
TFR/TMFR	1.8	2.1	1.7	2.9	3.1	2.8

TABLE 3.3

Fertility indices by residence and economic activity

Age Group	URBAN		RURAL					
	Manual workers		Cultivators		Agricultural labourers		Manual workers other than cultivators and AL	
	ASFR	ASMFR	ASFR	ASMFR	ASFR	ASMFR	ASFR	ASMFR
1	2	3	4	5	6	7	8	9
15-19	0.013	0.067	0.018	0.108	0.019	0.132	0.027	0.114
20-24	0.119	0.182	0.119	0.205	0.178	0.256	0.135	0.201
25-29	0.112	0.128	0.154	0.180	0.195	0.211	0.183	0.195
30-34	0.096	0.111	0.143	0.155	0.170	0.181	0.141	0.152
35-39	0.058	0.073	0.044	0.050	0.105	0.114	0.077	0.086
40-49	0.013	0.013	0.021	0.027	0.038	0.046	0.038	0.047
GFR/GMFR	64	91	78	115	108	154	93	129
TFR/TMFR	2.1	3.0	2.6	3.8	3.7	4.9	3.2	4.2

Table 3.4

ASFR's and ASMFR's by district

State/District	ASFR/ ASMFR	T R U	Age Groups 15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8	9	10
PUNJAB	**ASFR**	**T**	**0.018**	**0.160**	**0.203**	**0.142**	**0.074**	**0.035**	**0.016**
		R	**0.019**	**0.169**	**0.218**	**0.156**	**0.083**	**0.040**	**0.018**
		U	**0.016**	**0.140**	**0.169**	**0.107**	**0.051**	**0.021**	**0.010**
	ASMFR	**T**	**0.135**	**0.235**	**0.213**	**0.146**	**0.077**	**0.037**	**0.017**
		R	**0.139**	**0.246**	**0.229**	**0.160**	**0.086**	**0.043**	**0.020**
		U	**0.123**	**0.211**	**0.179**	**0.110**	**0.053**	**0.022**	**0.011**
Gurdaspur	ASFR	T	0.015	0.162	0.226	0.174	0.086	0.041	0.018
		R	0.016	0.171	0.242	0.188	0.096	0.047	0.021
		U	0.013	0.134	0.178	0.128	0.054	0.022	0.007
	ASMFR	T	0.141	0.257	0.240	0.178	0.090	0.095	0.020
		R	0.141	0.268	0.255	0.192	0.100	0.051	0.023
		U	0.140	0.222	0.192	0.133	0.056	0.023	0.008
Amritsar	ASFR	T	0.016	0.152	0.198	0.145	0.085	0.044	0.023
		R	0.017	0.172	0.240	0.175	0.109	0.058	0.030
		U	0.013	0.118	0.129	0.085	0.043	0.017	0.009
	ASMFR	T	0.148	0.232	0.209	0.149	0.088	0.047	0.025
		R	0.161	0.259	0.252	0.180	0.113	0.061	0.032
		U	0.120	0.184	0.139	0.088	0.045	0.019	0.010
Firozpur	ASFR	T	0.028	0.182	0.231	0.163	0.099	0.042	0.024
		R	0.028	0.184	0.238	0.171	0.105	0.047	0.026
		U	0.028	0.178	0.211	0.136	0.079	0.029	0.016
	ASMFR	T	0.158	0.255	0.241	0.167	0.102	0.045	0.026
		R	0.160	0.253	0.248	0.176	0.108	0.050	0.028
		U	0.152	0.262	0.222	0.140	0.082	0.031	0.018
Ludhiana	ASFR	T	0.011	0.122	0.159	0.111	0.056	0.027	0.014
		R	0.011	0.126	0.175	0.128	0.064	0.032	0.017
		U	0.010	0.116	0.140	0.088	0.045	0.020	0.011
	ASMFR	T	0.096	0.190	0.169	0.114	0.057	0.029	0.016
		R	0.114	0.208	0.187	0.130	0.066	0.034	0.018
		U	0.075	0.171	0.149	0.091	0.047	0.021	0.012

Table 3.4

ASFR's and ASMFR's by district

State/District	ASFR/ ASMFR	T R U	Age Groups						
			15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8	9	10
Jalandhar	ASFR	T	0.011	0.137	0.180	0.119	0.058	0.029	0.010
		R	0.010	0.150	0.197	0.135	0.070	0.036	0.010
		U	0.013	0.116	0.153	0.091	0.037	0.014	0.008
	ASMFR	T	0.113	0.209	0.190	0.122	0.061	0.031	0.010
		R	0.109	0.230	0.208	0.138	0.073	0.039	0.010
		U	0.118	0.179	0.162	0.093	0.039	0.015	0.009
Kapurthala	ASFR	T	0.013	0.155	0.217	0.143	0.072	0.030	0.015
		R	0.015	0.157	0.224	0.156	0.079	0.033	0.018
		U	0.010	0.153	0.203	0.113	0.055	0.023	0.009
	ASMFR	T	0.128	0.247	0.230	0.147	0 074	0.032	0.016
		R	0.146	0.254	0.238	0.160	0.081	0.035	0.019
		U	0.085	0.232	0.215	0.117	0.058	0.026	0.010
Hoshiarpur	ASFR	T	0.010	0.157	0.222	0.149	0.077	0.036	0.011
		R	0.009	0.162	0.238	0.156	0 080	0.037	0.012
		U	0.014	0.135	0.191	0.114	0.058	0.030	0.006
	ASMFR	T	0.116	0.249	0.234	0.153	0.080	0.038	0.012
		R	0.108	0.253	0.240	0.159	0.084	0.040	0.013
		U	0.177	0.226	0.204	0.117	0.060	0.032	0.008
Rupnagar	ASFR	T	0.016	0.158	0.208	0.136	0.063	0.026	0.013
		R	0.015	0.163	0.217	0.145	0.070	0.030	0.014
		U	0.019	0.145	0.186	0.105	0.039	0.012	0.011
	ASMFR	T	0.112	0.222	0.217	0.139	0.065	0.027	0.015
		R	0.106	0.225	0.224	0.148	0.073	0.032	0.015
		U	0.135	0.214	0.198	0.107	0.040	0.012	0.012
Patiala	ASFR	T	0.022	0.169	0.202	0.140	0.068	0.037	0.016
		R	0.024	0.180	0.214	0.155	0.077	0.047	0.019
		U	0.019	0.148	0.181	0.109	0.050	0.016	0.008
	ASMFR	T	0.132	0.236	0.212	0.143	0.071	0.040	0.017
		R	0.128	0.238	0.221	0.158	0.079	0.050	0.020
		U	0.148	0.232	0.193	0.112	0.052	0.017	0.009

Table 3.4

ASFR's and ASMFR's by district

State/District	ASFR/ ASMFR	T R U	Age Groups						
			15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8	9	10
Sangrur	ASFR	T	0.023	0.176	0.216	0.155	0.084	0.034	0.013
		R	0.022	0.174	0.213	0.162	0.083	0.034	0.013
		U	0.025	0.181	0.224	0.132	0.085	0.034	0.016
	ASMFR	T	0.130	0.243	0.225	0.158	0.086	0.036	0.014
		R	0.124	0.238	0.223	0.165	0.086	0.036	0.014
		U	0.154	0.260	0.234	0.135	0.087	0.036	0.017
Bathinda	ASFR	T	0.030	0.204	0.218	0.146	0.074	0.034	0.015
		R	0.032	0.209	0.223	0.150	0.079	0.037	0.017
		U	0.024	0.189	0.201	0.133	0.058	0.024	0.011
	ASMFR	T	0.147	0.264	0.226	0.150	0.077	0.037	0.017
		R	0.155	0.270	0.232	0.154	0.082	0.040	0.018
		U	0.116	0.248	0.208	0.136	0.060	0.026	0.012
Faridkot	ASFR	T	0.024	0.168	0.197	0.137	0.068	0.033	0.016
		R	0.024	0.171	0.206	0.143	0.072	0.035	0.017
		U	0.024	0.161	0.172	0.119	0.054	0.026	0.011
	ASMFR	T	0.159	0.238	0.207	0.141	0.070	0.035	0.017
		R	0.171	0.242	0.217	0.146	0.074	0.037	0.019
		U	0.130	0.227	0.180	0.122	0.056	0.028	0.012

Table 3.5

GFR, GMFR, TFR, and TMFR by district

State/District	TRU	GFR	GMFR	TFR	TMFR
1	2	3	4	5	6
PUNJAB	**T**	**98**	**138**	**3.2**	**4.3**
	R	**104**	**147**	**3.5**	**4.6**
	U	**84**	**117**	**2.8**	**3.6**
Gurdaspur	T	105	154	3.6	4.9
	R	111	164	3.9	5.2
	U	84	122	2.7	3.9
Amritsar	T	98	139	3.3	4.5
	R	115	164	4.0	5.3
	U	66	94	2.1	3.0
Firozpur	T	117	162	3.8	5.0
	R	120	165	4.0	5.1
	U	109	151	3.4	4.5
Ludhiana	T	77	109	2.5	3.4
	R	82	119	2.8	3.8
	U	70	97	2.2	2.8
Jalandhar	T	82	118	2.7	3.7
	R	89	128	3.0	4.0
	U	70	100	2.2	3.1
Kapurthala	T	96	140	3.2	4.4
	R	99	145	3.4	4.7
	U	91	130	2.8	3.7
Hoshiarpur	T	96	141	3.3	4.4
	R	97	143	3.4	4.5
	U	88	126	2.7	4.1
Rupnagar	T	94	128	3.1	4.0
	R	95	131	3.3	4.1
	U	89	120	2.6	3.6
Patiala	T	102	141	3.3	4.3
	R	108	148	3.6	4.5
	U	89	126	2.7	3.8
Sangrur	T	108	147	3.5	4.5
	R	107	145	3.5	4.4
	U	113	154	3.5	4.6
Bathinda	T	115	153	3.6	4.6
	R	117	156	3.7	4.8
	U	109	144	3.2	4.0
Faridkot	T	100	138	3.2	4.3
	R	102	141	3.3	4.5
	U	94	128	2.8	3.8

TABLE 3.6

GMFR and TMFR by religion - 1971 & 1981

Religion	Rural Urban	GMFR		TMFR	
		1971	1981	1971	1981
1	2	3	4	5	6
All religions	Rural	186	147	5.6	4.6
	Urban	174	117	5.3	3.6
Hindus	Rural	202	155	6.2	4.8
	Urban	173	118	5.2	3.5
Muslims	Rural	233	173	7.2	5.7
	Urban	268	186	8.2	5.8
Christians	Rural	236	191	7.5	5.9
	Urban	221	137	6.7	4.0
Sikhs	Rural	177	143	5.4	4.5
	Urban	171	113	5.3	3.5

Table 3.7

Average number of children ever born per woman in the age group 45-49 by different classifications of women

Classification	Total	Rural	Urban
1	2	3	4
All women	5.27	5.45	4.79
A. Religion			
Hindus	5.34	5.80	4.83
Muslims	5.64	5.66	5.60
Christians	6.18	6.48	4.93
Sikhs	5.22	5.31	4.70
B. Educational level			
Illiterate	5.40	5.50	3.44
Literate but below middle	4.81	4.91	4.73
Middle but below matric	4.20	4.23	4.19
Matric but below graduate	3.46	3.45	3.46
Graduate and above	2.41	2.29	2.43
C. Economic Activities*			
Main-workers	4.23	4.79	3.60
Non-manual workers	2.84	3.17	2.70
Manual workers	-	-	4.67
Cultivators	-	4.17	-
Agricultural Labourers	-	5.60	-
Manual workers other than C & AL	-	4.93	-

*Relates to the women of age group 40-49.

Table 3.8

Average number of children ever born per woman in the age group 45-49 by district

State/District	Total	Rural	Urban
1	2	3	4
PUNJAB	**5.27**	**5.45**	**4.79**
Gurdaspur	5.61	5.82	4.87
Amritsar	5.19	5.56	4.48
Firozpur	5.52	5.60	5.27
Ludhiana	4.84	4.99	4.59
Jalandhar	5.04	5.23	4.67
Kapurthala	5.41	5.58	5.00
Hoshiarpur	5.24	5.34	4.65
Rupnagar	5.25	5.36	4.78
Patiala	5.48	5.84	4.66
Sangrur	5.40	5.45	5.22
Bathinda	5.47	5.51	5.33
Faridkot	5.15	5.18	5.06

TABLE 3.9

Sex ratio of children everborn and children surviving by age group

Age group	Children ever born			Children surviving		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
All ages	861	860	863	847	845	853
Less than 15	1055	951	1234	1008	868	1234
15-19	902	891	933	922	910	957
20-24	918	920	913	924	928	915
25-29	901	899	904	896	894	901
30-34	893	891	900	880	875	894
35-39	883	885	878	866	865	868
40-44	876	876	875	854	853	858
45-49	857	861	843	834	837	825
50 & above	825	825	826	810	810	812
15-49	883	884	882	869	868	873

Table 3.10

Sex ratio of children ever born and children surviving by different classifications of women

Classification	Children ever born			Children survivig		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
All women	861	860	863	847	845	853
A. Religion						
Hindus	871	873	868	857	856	858
Muslims	862	870	848	835	855	805
Christians	851	857	821	836	842	809
Sikhs	855	855	853	842	841	845
B. Educational level						
Illiterate	854	856	846	838	839	830
Literate but below middle	890	898	879	882	888	874
Middle but below matric	903	892	910	901	891	906
Matric but below graduate	910	935	901	912	939	902
Graduate and above	960	940	963	961	942	964
C. Economic activity*						
Main workers	905	912	927	904	897	914
Non-Manual workers	939	944	937	946	958	940

*Relates to currently married women.

Table 3.11

Sex ratio of children ever born and children surviving by district

State/District	Children ever born			Children surviving		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
PUNJAB	**861**	**860**	**863**	**847**	**845**	**853**
Gurdaspur	869	871	861	854	856	847
Amirtsar	842	839	847	828	825	836
Firozpur	871	870	876	860	857	871
Ludhiana	860	859	861	846	849	843
Jalandhar	856	855	860	839	833	852
Kapurthala	869	867	874	870	868	874
Hoshiarpur	916	925	861	857	858	852
Rupnagar	865	862	881	849	842	880
Patiala	867	865	872	855	851	868
Sangrur	852	850	863	836	834	846
Bathinda	870	869	874	857	855	864
Faridkot	855	874	861	841	837	855

Table 3.1.2

Percentage of ever married/currently married women with three or more children in different age groups

Age group	Ever married women			Currently married women		
	Total	Rural	Urban	Total	Rural	Urban
1	2	3	4	5	6	7
All ages	64.41	66.64	58.58	63.16	65.40	57.31
15 - 19	1.53	1.43	1.81	1.53	1.42	1.82
20 - 24	13.33	13.94	11.94	13.34	13.96	11.93
25 - 29	45.62	48.08	40.23	45.69	48.17	40.26
30 - 34	71.56	73.72	66.13	71.88	74.07	66.38
35 - 39	82.38	84.14	78.03	82.91	84.71	78.44
40 - 44	85.60	86.90	82.01	86.51	87.88	82.88
45 - 49	87.12	88.46	83.54	88.78	89.52	86.74
50 and above	82.96	84.75	77.22	86.20	87.73	81.03

Table 3.13

Percentage of ever married/currently married women with three or more children in selected age groups by different classifications of women

Classification		Ever married women				Currently married women			
		25-29	30-34	35-39	40-44	25-29	30-34	35-39	40-44
1		2	3	4	5	6	7	8	9
All women	R	48.08	73.72	84.14	86.96	48.17	74.07	84.71	87.88
	U	40.23	66.13	78.03	82.01	40.26	66.38	78.44	82.88
A. Religions									
Hindus	R	51.81	77.24	86.58	88.96	51.88	77.55	87.39	90.00
	U	40.27	66.69	78.57	82.85	40.30	66.94	79.05	83.63
Muslims	R	47.99	76.23	80.10	88.61	48.29	76.78	81.12	89.13
	U	53.36	77.77	87.02	80.05	53.38	77.77	87.34	81.05
Christians	R	55.18	80.97	89.06	89.31	55.22	81.00	89.16	89.98
	U	42.44	67.06	83.86	85.81	43.02	68.14	85.12	85.69
Sikhs	R	46.55	72.33	83.18	85.13	46.69	72.70	83.68	87.08
	U	39.81	64.66	76.57	80.42	39.85	64.89	76.86	81.50
B. Educational level									
Illiterate	R	51.64	75.56	85.14	87.28	51.73	75.91	85.75	88.23
	U	51.18	73.80	82.17	83.90	51.29	74.14	82.67	85.01
Literate but below middle	R	46.24	73.51	82.86	87.01	46.37	73.94	83.33	87.68
	U	51.81	75.29	82.83	85.83	51.88	75.38	83.19	86.17
Middle but below matric	R	38.10	66.22	77.28	82.62	38.23	66.66	77.63	82.85
	U	44.31	71.25	79.24	83.60	44.51	71.64	79.60	84.15
Matric but below graduate	R	24.02	50.69	61.91	69.36	24.11	50.74	62.28	71.05
	U	28.20	54.20	67.48	72.28	28.14	54.49	67.85	73.23
Graduate and above	R	6.44	22.27	33.85	39.53	6.56	22.50	34.09	40.61
	U	9.50	27.37	42.74	47.83	9.52	27.54	43.32	49.06

Table 3.13

Percentage of ever married/currently married women with three or more children in selected age groups by different classifications of women

Classification		Ever married women				Currently married women			
		25-29	30-34	35-39	40-44	25-29	30-34	35-39	40-44
1		2	3	4	5	6	7	8	9
C. Economic activity									
Main workers	R	35.93	55.01	69.23	78.00	35.82	54.83	69.86	78.89
	U	21.83	42.16	59.82	66.10	21.73	41.86	59.62	66.87
Non-Manual workers	R	12.58	37.36	54.42	63.46	12.46	37.31	54.54	66.60
	U	12.36	35.16	50.20	56.86	12.19	35.36	50.94	57.84
Manual workers	U	49.49	66.58	78.40	79.33	50.45	67.14	79.20	82.22
Cultivators	R	41.87	53.13	64.23	72.05	41.84	53.24	66.33	70.20
Agricultural labourers	R	50.55	72.78	81.15	86.46	50.79	73.56	82.10	82.14
Manual workers other than C & AL	R	46.36	67.15	72.06	79.70	45.97	68.14	73.49	79.91

TABLE 3.14

Percentage of ever married/currently married women with three or more children in selected age groups by district

State/District	R/U	Ever married women				Currently married women			
		25-29	30-34	35-39	40-44	25-29	30-34	35-39	40-44
1	2	3	4	5	6	7	8	9	10
PUNJAB	**R**	**48.08**	**73.72**	**84.14**	**86.96**	**48.17**	**74.07**	**84.71**	**87.88**
	U	**40.23**	**66.13**	**78.03**	**82.01**	**40.26**	**66.38**	**78.44**	**82.88**
Gurdaspur	R	51.99	78.54	88.33	89.59	52.06	78.92	88.96	90.50
	U	41.53	69.18	82.89	83.57	41.59	69.42	83.33	84.10
Amritsar	R	50.30	75.65	86.24	88.53	50.44	75.92	86.77	89.25
	U	39.14	64.99	76.69	80.70	39.18	65.36	76.92	81.63
Firozpur	R	48.83	75.44	84.42	87.15	48.95	75.80	84.92	87.98
	U	46.13	70.56	81.01	85.98	46.22	70.88	81.66	86.72
Ludhiana	R	41.20	67.82	79.36	83.69	41.26	68.07	79.90	84.55
	U	37.27	62.39	75.42	80.47	37.30	62.43	75.71	81.16
Jalandhar	R	45.67	73.43	83.63	86.73	45.71	73.93	84.28	88.02
	U	38.08	65.34	76.92	80.77	38.06	65.54	77.44	82.10
Kapurthala	R	50.08	73.12	86.09	88.74	50.24	73.56	86.85	90.15
	U	41.17	67.31	78.71	85.67	41.34	67.29	78.77	86.88
Hoshiarpur	R	46.21	74.14	84.55	87.86	46.40	74.55	85.46	89.30
	U	36.10	61.36	77.60	81.50	36.19	61.49	78.00	82.22
Rupnagar	R	46.86	72.19	82.08	84.61	46.97	72.41	82.92	85.46
	U	36.84	63.56	78.23	79.44	36.90	63.61	78.75	82.82
Patiala	R	51.65	76.23	85.47	88.11	51.66	76.54	86.04	88.77
	U	39.98	64.51	76.10	80.48	40.03	64.75	76.68	83.79
Sangrur	R	47.00	70.07	82.05	86.09	45.70	70.31	82.49	86.73
	U	44.94	73.27	80.89	84.08	45.04	73.61	81.07	85.35
Bathinda	R	49.44	74.79	84.35	87.46	49.57	75.22	84.80	88.45
	U	42.52	69.38	82.16	85.74	42.42	69.60	82.53	86.98
Faridkot	R	48.72	71.70	82.40	84.65	48.81	72.19	82.70	85.46
	U	44.08	67.26	78.86	81.24	44.05	67.75	79.63	81.70

Table 3.15

Proportion of childless ever married women aged 50 and above by different classifications of women

Classification	Total	Rural	Urban
1	2	3	4
All women	4.34	4.01	5.40
A. Religion			
Hindus	4.59	3.90	5.46
Muslims	4.66	4.11	5.54
Christians	3.61	3.28	5.06
Sikhs	4.22	4.05	5.34
B. Educational level			
Illiterate	4.28	3.98	5.42
Literate but below middle	4.68	4.31	4.93
Middle but below matric	5.79	6.13	5.69
Matric but below graduate	6.77	9.46	6.24
Graduate and above	9.59	17.39	8.86
C. Economic Activity			
Main workers	9.73	9.35	10.33
Non-manual workers	11.74	12.08	11.57
Manual workers	-	-	9.70
Cultivators	-	17.42	-
Agricultural Labourers	-	7.38	-
Manual workers other than C & AL	-	7.03	-

Table 3.16

Proportion of childless ever married women aged 50 and above by district

State/Districts	Total	Rural	Urban
1	2	3	4
PUNJAB	**4.34**	**4.01**	**5.40**
Gurdaspur	3.14	2.97	3.79
Amritsar	4.70	3.95	6.48
Firozpur	3.66	3.53	4.13
Ludhiana	5.85	4.73	8.11
Jalandhar	4.08	3.99	4.31
Kapurthala	3.75	3.81	3.58
Hoshiarpur	4.05	3.87	5.37
Rupnagar	4.66	4.93	3.21
Patiala	5.83	5.53	6.62
Sangrur	3.93	3.90	4.04
Bathinda	3.69	3.39	4.98
Faridkot	4.02	3.94	4.35

Table 3.17

Distribution of currently married women by duration of marrige and religion

Duration	TRU	All religions	Hindus	Muslims	Christians	Sikhs
1	2	3	4	5	6	7
All durations*	T	100.00	100.00	100.00	100.00	100.00
	R	100.00	100.00	100.00	100.00	100.00
	U	100.00	100.00	100.00	100.00	100.00
0 - 4	T	14.85	15.79	15.36	15.06	14.27
	R	14.17	14.62	15.54	14.54	13.98
	U	16.64	17.03	15.10	17.08	15.92
5 - 9	T	14.64	15.26	15.13	14.26	14.26
	R	14.12	14.36	13.88	13.86	14.04
	U	16.00	16.23	17.04	15.85	15.52
10 - 14	T	13.89	13.95	14.48	15.24	13.83
	R	13.89	14.03	13.41	14.94	13.83
	U	13.88	13.86	16.11	16.39	13.80
15 - 19	T	11.17	11.23	11.15	11.77	11.13
	R	11.30	11.65	11.33	12.24	11.16
	U	10.83	10.79	10.88	9.92	10.94
20 - 24	T	11.16	10.86	12.05	11.04	11.33
	R	11.45	11.29	12.89	11.09	11.51
	U	10.39	10.40	10.78	10.84	10.32
25 - 29	T	7.77	7.66	6.87	7.78	7.86
	R	7.87	7.81	7.29	7.81	7.89
	U	7.53	7.49	6.23	7.67	7.65
30 - 34	T	8.03	7.64	7.36	7.44	8.28
	R	8.34	8.18	8.47	7.45	8.41
	U	7.23	7.07	5.68	7.39	7.57
35 and above	T	14.26	12.62	11.60	12.34	15.31
	R	15.45	14.45	11.76	13.09	15.89
	U	11.15	10.68	11.36	9.42	12.06

*'All durations' include 'duration not stated' also.

Table 3.18

Mean age of fertility schedule ($\bar{m}$) and ratio of fertility rates for age groups 15-19 and 20-24 (f_1/f_2) by different classifications of women

Classification	$f_1^{\bar{m}}/f_2$	Total	Rural	Urban
1	2	3	4	5
All Women	$\bar{m}$	29.0	29.2	28.4
	f_1/f_2	0.113	0.111	0.117
A. Religion				
Hindus	$\bar{m}$	28.9	29.2	28.3
	f_1/f_2	0.123	0.120	0.118
Muslims	$\bar{m}$	29.8	29.9	29.5
	f_1/f_2	0.204	0.211	0.191
Christians	$\bar{m}$	30.1	30.3	28.5
	f_1/f_2	0.096	0.091	0.123
Sikhs	$\bar{m}$	29.1	29.2	28.5
	f_1/f_2	0.108	0.104	0.106
B. EDUCATIONAL LEVEL				
Illiterate	$\bar{m}$	287	28.8	27.9
	f_1/f_2	0.170	0.158	0.239
Literate but below middle	$\bar{m}$	28.3	28.8	27.3
	f_1/f_2	0.071	0.064	0.098
Middle but below matric	$\bar{m}$	27.9	28.4	27.7
	f_1/f_2	0.045	0.047	0.041
Matric but below graduate	$\bar{m}$	28.3	29.6	27.7
	f_1/f_2	0.052	0.048	0.047
Graduate and above	$\bar{m}$	28.9	30.1	28.7
	f_1/f_2	0.034	-	0.038

Table 3.18

Mean age of fertility schedule ($\bar{m}$) and ratio of fertility rates for age groups 15-19 and 20-24 (f_1/f_2) by different classifications of women

Classification	$\bar{m}$ / f_1/f_2	Total	Rural	Urban
1	2	3	4	5
C. ECONOMIC ACTIVITY				
Main workers	$\bar{m}$	28.8	28.9	28.7
	f_1/f_2	0.180	0.153	0.167
Non-manual workers	$\bar{m}$	29.2	29.5	29.0
	f_1/f_2	0.098	-	0.159
Manual workers	$\bar{m}$	-	-	28.3
	f_1/f_2	-	-	0.109
Cultivators	$\bar{m}$	-	28.4	-
	f_1/f_2	-	0.151	-
Agricultural labourers	$\bar{m}$	-	29.0	-
	f_1/f_2	-	0.107	-
Manual workers other than cultivators and agricultural labourers	$\bar{m}$	-	28.8	-
	f_1/f_2	-	0.200	-

Table 3.19

Mean age of fertility schedule ($\bar{m}$) and ratio of fertility rates for age groups 15-19 and 20-24 (f_1/f_2) by district

State/Districts	$\bar{m}$ / f_1/f_2	Total	Rural	Urban
1	2	3	4	5
PUNJAB	$\bar{m}$	**29.0**	**29.2**	**28.4**
	f1/f2	**0.113**	**0.111**	**0.117**
Gurdaspur	$\bar{m}$	29.4	29.6	28.6
	f1/f2	0.093	0.091	0.101
Amirtsar	$\bar{m}$	29.7	30.0	28.4
	f1/f2	0.104	0.100	0.109
Firozpur	$\bar{m}$	29.2	29.4	28.6
	f1/f2	0.153	0.152	0.156
Ludhiana	$\bar{m}$	29.2	29.4	28.7
	f1/f2	0.087	0.090	0.082
Jalandhar	$\bar{m}$	28.9	29.1	28.2
	f1/f2	0.081	0.069	0.108
Kapurthala	$\bar{m}$	27.8	27.9	27.9
	f1/f2	0.087	0.095	0.065
Goshiarpur	$\bar{m}$	29.1	29.1	28.7
	f1/f2	0.062	0.057	0.104
Rupnagar	$\bar{m}$	28.6	28.8	27.4
	f1/f2	0.099	0.090	0.134
Patiala	$\bar{m}$	28.8	29.1	28.0
	f1/f2	0.131	0.131	0.127
Sangrur	$\bar{m}$	27.9	28.0	28.0
	f1/f2	0.129	0.127	0.138
Bathinda	$\bar{m}$	28.3	28.4	28.0
	f1/f2	0.149	0.154	0.128
Faridkot	$\bar{m}$	28.7	28.8	28.2
	f1/f2	0.145	0.142	0.152

Table 3.20

P/F ratio for various age groups by religion

Religion	T R U	Age Groups						
		15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8	9
All religions	T	2.2541	1.5803	1.5398	1.4710	1.4953	1.5499	1.6330
	R	2.1800	1.5507	1.5026	1.4164	1.4322	1.4791	1.5553
	U	2.4969	1.6678	1.6443	1.6177	1.6813	1.7575	1.8649
Hindus	T	2.3073	1.5914	1.5494	1.5014	1.5411	1.6055	1.6755
	R	2.2267	1.5490	1.4870	1.4048	1.4227	1.4738	1.5264
	U	2.4480	1.6501	1.6238	1.6105	1.6878	1.7699	1.8660
Muslims	T	1.4179	1.3157	1.2448	1.2900	1.2522	1.2246	1.2462
	R	1.2751	1.2988	1.1919	1.2530	1.2433	1.2790	1.2634
	U	1.6694	1.3392	1.3101	1.3414	1.2710	1.1438	1.2232
Christians	T	3.1351	1.6610	1.6311	1.3334	1.3119	1.3254	1.4074
	R	3.0535	1.6189	1.4155	1.2965	1.2581	1.2308	1.3496
	U	3.4512	1.8304	1.5308	1.4670	1.5628	1.8335	1.6788
Sikhs	T	2.2182	1.5796	1.5398	1.4581	1.4747	1.5269	1.6183
	R	2.1611	1.5569	1.5134	1.4259	1.4403	1.4890	1.5754
	U	2.6607	1.7309	1.7086	1.6525	1.6960	1.7650	1.9000

TABLE 3.21

P/F ratio for various age groups by educational level

Educational level	T R U	Age groups 15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8	9
All educational levels	T	2.2541	1.5803	1.5398	1.4710	1.4953	1.5499	1.6330
	R	2.1800	1.5507	1.5026	1.4164	1.4322	1.4791	1.5553
	U	2.4969	1.6678	1.6443	1.6177	1.6813	1.7575	1.8649
Illiterate	T	2.1191	1.5492	1.4274	1.3589	1.3739	1.4074	1.4689
	R	2.0616	1.5282	1.4140	1.3399	1.3543	1.3891	1.4548
	U	2.2402	1.5998	1.4740	1.4405	1.4655	1.4956	1.5459
Literate but below middle	T	2.0463	1.6248	1.5840	1.4858	1.4907	1.5526	1.6368
	R	2.0888	1.5694	1.5437	1.4319	1.4216	1.4828	1.5701
	U	1.9056	1.7600	1.6424	1.5970	1.6324	1.6979	1.7892
Middle but below matric	T	2.1096	1.6112	1.5797	1.5067	1.5508	1.6253	1.6390
	R	1.8618	1.4158	1.4357	1.3621	1.3772	1.4580	1.4895
	U	2.5750	1.8817	1.7274	1.6497	1.7039	1.7739	1.7780
Matric but below graduate	T	1.8966	1.4940	1.6949	1.5606	1.5461	1.5715	1.6703
	R	1.9132	1.3388	1.5309	1.3988	1.3139	1.3172	1.3941
	U	2.2906	1.6224	1.7614	1.6404	1.6591	1.6938	1.8035
Graduate and above	T	1.2985	1.2175	1.3741	1.3741	1.3714	1.3867	1.3384
	U	1.2985	1.2361	1.4089	1.3960	1.3943	1.4141	1.3617

Table 3.22

P/F ratio for various age groups by economic activity

Economic activity	T R U	Age Groups 15-19	20-24	25-29	30-34	35-39	40-49
1	2	3	4	5	6	7	8
Main workers	T	2.4114	1.5444	1.5220	1.5162	1.5804	1.8325
	R	2.1438	1.4531	1.4654	1.3743	1.4470	1.6852
	U	4.4371	1.8948	1.7088	1.7695	1.8333	2.0561
Non-manual workers	T	5.1636	1.3495	1.5556	1.5863	1.5402	1.6282
	U	3.9906	1.3428	1.6185	1.7094	1.6361	1.6955
Manual workers	U	5.1782	2.6617	2.2296	2.1706	2.1469	2.2839
Cultivators	R	1.7724	1.3832	1.5627	1.3655	1.4270	1.6895
Agricultural labourers	R	2.4762	1.6319	1.5736	1.5015	1.4682	1.6124
Manual workers other than cultivators & Agricultural Labourers	R	1.8204	1.5251	1.6502	1.5285	1.5243	1.6714

Table 3.23

P/F ratio for various age groups by district

State/ districts	T R U	Age Groups						
		15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8	9
PUNJAB	**T**	**2.2541**	**1.5803**	**1.5398**	**1.4710**	**1.4953**	**1.5499**	**1.6330**
	R	**2.1800**	**1.5507**	**1.5026**	**1.4164**	**1.4322**	**1.4791**	**1.5553**
	U	**2.4969**	**1.6678**	**1.6443**	**1.6177**	**1.6813**	**1.7575**	**1.8649**
Gurdaspur	T	2.3476	1.5497	1.5357	1.4509	1.4555	1.4843	1.5590
	R	2.4086	1.5358	1.5024	1.4049	1.3989	1.4259	1.4986
	U	2.1002	1.6106	1.6691	1.6370	1.6962	1.7332	1.8198
Amritsar	T	2.4536	1.7102	1.6121	1.5259	1.5220	1.5335	1.5776
	R	2.2473	1.6044	1.4707	1.3581	1.3581	1.3593	1.3994
	U	3.0568	1.9836	1.9951	1.9971	2.0382	2.0988	2.1636
Firozpur	T	1.8819	1.4436	1.3776	1.3339	1.3494	1.3814	1.4423
	R	1.8480	1.4592	1.3760	1.3200	1.3277	1.3443	1.4088
	U	2.0045	1.3964	1.3833	1.3759	1.4222	1.5172	1.5631
Ludhiana	T	2.8985	1.8860	1.8392	1.7478	1.7698	1.8621	1.9460
	R	2.4549	1.7752	1.7766	1.6715	1.6519	1.7433	1.8165
	U	3.6993	2.0462	1.9287	1.8536	1.9553	2.0419	2.1410
Jalandhar	T	2.5562	1.7720	1.7250	1.6692	1.7210	1.7838	1.8583
	R	2.7235	1.6741	1.6577	1.5816	1.6115	1.6661	1.7219
	U	2.2823	1.9376	1.8502	1.8289	1.9465	2.0281	2.1632
Kapurthala	T	2.5599	1.5891	1.5470	1.4445	1.4952	1.5727	1.6757
	R	2.2328	1.5322	1.5722	1.4298	1.4779	1.5437	1.6402
	U	3.8735	1.7387	1.5016	1.4740	1.5334	1.6363	1.7682
Hoshiarpur	T	2.0155	1.4970	1.5047	1.4314	1.4618	1.5227	1.5873
	R	2.1793	1.4964	1.5039	1.4283	1.4442	1.5049	1.5658
	U	1.2533	1.4725	1.5069	1.4276	1.5636	1.5969	1.6971
Rupnagar	T	2.3756	1.6266	1.5438	1.4477	1.4782	1.5521	1.6974
	R	2.3979	1.6512	1.5576	1.4280	1.4512	1.5076	1.6464
	U	2.2571	1.5411	1.5022	1.4921	1.5555	1.7016	1.8507
Patiala	T	2.3416	1.5429	1.5365	1.4882	1.5168	1.6012	1.6776
	R	2.3598	1.5875	1.5450	1.4758	1.5027	1.5777	1.6403
	U	2.3119	1.4484	1.5291	1.5064	1.5480	1.6497	1.7588

Table 3.23

P/F ratio for various age groups by district

State/ districts	T R U	Age Groups						
		15-19	20-24	25-29	30-34	35-39	40-44	45-49
1	2	3	4	5	6	7	8	9
Sangrur	T	2.0189	1.4712	1.4174	1.3446	1.3731	1.4397	1.5444
	R	2.0634	1.5046	1.4345	1.3359	1.3819	1.4515	1.5575
	U	1.8760	1.3717	1.3668	1.3768	1.3456	1.3712	1.5010
Bathinda	T	1.8822	1.3947	1.3230	1.2937	1.3388	1.4104	1.5179
	R	1.7274	1.3767	1.3131	1.2775	1.3136	1.3820	1.4771
	U	2.6733	1.4718	1.3600	1.3432	1.4242	1.5035	1.6660
Faridkot	T	2.0787	1.5777	1.5207	1.4233	1.4446	1.4914	1.6061
	R	1.9768	1.5810	1.5020	1.3993	1.4016	1.4462	1.5535
	U	2.4081	1.5686	1.5750	1.4923	1.5879	1.6455	1.7891

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