Chapter – III

FERTILITY CHARACTER BY RELIGIOUS GROUPS

General Characteristics

Fertility character is an important aspect of demography of any place or region. As population replenishment depends on fertility of a group of persons, it always holds an important place in policy making of a country or region. While discussing general character of fertility in Darjeeling district, it will be worth while first to gather an idea of prevailing systems of fertility survey and measurement in general. Here, in this study primary data have been collected through field work. Secondary data have also been collected from different sources on the general fertility behaviour of the region.

Fertility analysis is a more complex task as compared to mortality for several reasons. First, human fertility essentially involve two individuals but the information is always exclusively with the mother as she is the host of the baby. Now all women are not fecund i.e. capacity of a woman to participate in reproduction of a live child. Even a fecund woman may experience some temporary infecundity. Some women may be 'sterile' which refers to man's or woman's permanent inability to conceive under any circumstances. According to Preston and others (2001) "Lifetime sterility is usually called 'primary sterility' while sterility that develops during reproductive years is termed 'secondary sterility" (Preston, Heuveline and Guilot, 2001, p. 92).

Among fecund individuals, the risk of giving births depends on their sexual behaviour. The fact is that sexuality is socially regulated and thus the sexual behaviour is constrained by social norms and customs. In some settings, marriage delineates the members of the society at the risk of giving birth and in these cases only the behaviour of married women needs to be considered for studies that are under consideration. Preston, Heuveline and Guilot (2001) are further of view that "even if there is some out-of-wedlock childbearing, the fertility rates of married women typically differ so that fertility analysis is usually made more precise by considering separately in-wedlock and out-of-wedlock births" (Preston, Heuveline and Guilot, 2001, p. 92).

"Fertility rates also depend on whether sexual partners attempt to influence the likelihood that their sexual activity will result in a live birth. Behaviour intended to decrease the chance of conception is referred to as contraceptive, where as behaviours intended to increase the chance are sometimes referred to as proceptive. A conception may not produce a birth but may instead be terminated by an abortion. Abortions may be spontaneous or may be induced in order to prevent a birth" (Preston, Heuveline and Guilot, 2001, p. 92).

There are several types of measures of fertility. The first type of measure may be termed as "Period" measures, for they are related to a particular period and are based on data referring to that period, say one year.

The second type of measures of fertility refers to the reproductive performance of women up to a certain point of time, say 45 or 49 years i.e. the productive age. The question on "the number of children ever born" is asked during a census and in the course of sample survey. During the present survey two questions on children born were asked, the first question was on "how many children, including still births, are born to the lady". Second question was on whether the lady had given birth to any bay, including still birth, during last 12 months. The answer to the second question was particularly helpful to find out Age-specific Fertility Rates and Total Fertility Rates for all the religious groups.

The third type of measures of fertility attempts to measure fertility indirectly on the basis of age and sex distribution of the population as obtained from census (reports) conducted at an interval of 10 years.

Basis of measure of fertility may be as follows:

(i) Measures based on performance such as –

(a) The Crude Birth Rate,

(b) The General Fertility Rate,

(c) Age-Specific Fertility Rate,

(d) Total Fertility Rate,

(e) Total Marital Fertility Rate,

(f) Gross Reproduction Rate,

(g) Sex-age Adjusted Birth Rate.

(ii) Measures based on census age distribution.

(iii) Measures based on number of children ever born.

The above measure of fertility i.e. number of births taken to a married woman has been adopted in the present study. Information on the number of children ever born is collected from ever-married and currently married women through fertility survey. The present age of the mother has been ascertained either by asking the mother or by collecting information from some other sources available with the respondent. Average number of children ever born per married women has been calculated from this information.

The growth rate of population of a region is an indication of fertility. The district has a little higher decadal growth rate of population of (i.e. 23.79 percent) as compared to national average of 22.66 percent during 1991-2001 which means the region has a higher fertility as compared to national average, even though the effect of cross border migration can not be ruled out. During the field survey of 600 families it was found that the average family size was 4.79 which is very close to national average.

The finding of survey of 600 respondents covering all four major religious groups reveals that on an average the respondents have 2.60 pregnancies out of which 2.35 (table-3.1) births including still births took place. On the whole, some 149 pregnancies were 'terminated' i.e. 'aborted' either intentionally or automatically. Abortion which is a sensitive issue was

not freely answered as to 'whether the termination was engineered or not'. Hence, the data so collected was found to be unreliable and were thus ignored. Out of total 1409 births 58 (4.12 percent) were still births from the 600 respondents. The survey result shows a total of 1351 live births from the given number (600) of respondent females. The average number of live births to the respondents is 2.25. Out of 1351 live births 1332 were found to be surviving at the time of enumeration. As many as 19 children lost their lives after their successful live births.

Table 3.1: Fertility in the Sample Respondents in the District of Darjeeling, 2007- 08

SL	Fertility Attributes	Average Magnitude
1	No. of pregnancies ever occurred	2.60
2	No. of births including still births ever took place	2.35
3	No. of live births (ever born)	2.25
4	No. of still births	0.10
5	No. of children during enumeration	2.22
6	No. of live births during last one year	0.12
7	Crude Birth Rates	40.96
8	Children Ever Born	2.22
9	Total Fertility Rates	3.58
10	Family size	4.79

Source: Calculated by the researcher on the basis of Field Survey (2007-08) data.

The average CBR and TFR are found to be 40.96 and 3.58 per 1000 (table-3.1). Average CBR and TFR for all the religious groups of the district are found to be slightly higher as compared to state or national average. Concentrations of tribal population, populations belonging to lower castes and Muslims who are educationally backward and economically poor have exhibited high fertility in the district.

Table 3.2: Fertility Estimates for all Religions, 2001

Country/State/District	CBR	TFR
India	25.9	3.2
W. Bengal	22.5	2.6
Darjeeling	19.6 (40.96)	2.1(3.58)

Source: Fertility Tables, Census of India 2001 (adopted from EPW, January 29, 2006, pp. 437 – 446).

Note: Figures within parenthesis are arrived on the basis of data collected from the field.

Spatial Variation in Fertility

Table-3.3 showing block-wise CBR and female literacy reveals that in the hilly region of the district CBR is considerably lower i.e. 17.39 (2005-06), estimated by the Deptt. Of health, Government of W. B. compared to the district average of 40.96 (2007-08), an estimation in the present study. It is interesting to note that particularly in the hilly region the female fertility is not inversely related e.g. Jore Bunglow-Sukhia Pokhri with female literacy of 66.00 percent, one of the highest rate, has CBR of 19.26 which is much higher than regional average of 17.39.

Table 3.3: Block-wise Crude Birth Rate in Darjeeling District, 2005-06

Name of C. D. Blocks	Estimated CBR	Female literacy (%)
Darjeeling Pulbazar	16.87	63.20
Rangli Rangliot	15.57	63.40
Kalimpong - I	19.26	66.60
Kalimpong - II	17.60	61.20
Gorubathan	19.97	57.20
Jorebunglow Sukiapokhri	14.83	66.80
Mirik	17.66	61.70
Kurseong	17.35	64.60
Total	17.39	63.09

Source: Health on the March, Deptt. Of Health and Family Welfare, Govt. of W. B. 2005-06.

Religious Differentials

Many demographers have studied the different aspects of fertility. Differentials in fertility between different religions, ethnic, socio-cultural and linguistic groups have been studied by a number of scholars. There are several arguments propounded by different scholars while relating religion to fertility. 'Particularized theology' says that it is the very essence of religion that influences fertility, irrespective of any socio-economic or demographic factors. On the other hand, many others argue that the fertility differentials are the outcome of the differences in the socio-economic characteristics of the members of different religious groups. Thus, Chamie, (1977) argues that it is not religion per se, but the characteristics of the religious groups that are important influencing factor of fertility levels.

While studying fertility differentials of religious groups, one aspect is often over looked i.e. Muslims or for that matter any religious group is not homogeneous but differ widely in terms of their socio-economic and demographic behaviour in different regions of the country. Dyson & Moore (1983) opined that regional factors outweigh that of religion as Hindu and Muslims show more similarities with each other within regional demographic regimes, than they do with co-religionists elsewhere in the sub-continent. Thus, according to Jeffery & Jeffery (2000, 2002), Muslims are closer to Hindus in their socio-economic and demographic behaviour within each region in the country.

National Family Health Survey (NFHS) data show that fertility has declined among Hindus and Muslims in almost at the same pace since the mid 1980s. While the tempo of decline among Hindus got accelerated from a level of 4.5 in 1984, the declining trend among the Muslims set off from a relatively higher level of 5.6. The pattern of decline is nearly similar since then. The fertility differentials between Hindus and Muslims have begun to narrow down during the 1990s. In fact, after 1992-93, the declining trend in TFR among the Muslims is sharper as compared to the Hindus. The trend, therefore, points to the fact that fertility decline among the Muslims is well in progress in India, though with a lag, and might eventually attain a replacement level closely following the Hindus (James and Nair, 2005, p. 377).

A simple way of thinking of fertility and religion will leave one no where. The fertility rate among the Muslims in Southern Indian states is observed to be comparatively low, where in the overall fertility is also found to be low.

There are some Union Territories such as Pondichery & Daman-Diu where fertility rate among Muslims is even lower than Hindus. But the concentration of Muslims in South India is much lower than that of North India or the so called 'Hindi Heart Land'. Since the over all fertility is higher in the north Indian states, therefore, the fertility rate among the Muslims seems to be higher (Jeffery and Jeffery, 2000, p. 3254).

Apart from the regional aspect of distribution of Muslim population, there are other factors too. Estimate of Infant Mortality Rate (henceforth IMR) and Child Mortality Rate (henceforth CMR) among Hindus & Muslims is an eye opener.

Table 3.4: Estimates of IMR & CMR of Hindus & Muslims in India

Source	IMR		CMR	
	Hindus	Muslims	Hindus	Muslims
Census (1991)	74	68	97	91
NFHS-1 (1992-93)	90	77	124	106
NFHS-2 (1998-99)	77	59	107	83

Source: Irudaya Rajan & Mohana Chandran (2000): IIPS (1995), IIPS (2000).

Table 3.4 reveals that the difference in IMR & CMR between Hindus and Muslims has certainly greater impact on the population growth rates. Since Muslims have lower IMR & CMR they have higher growth rate of population. Greater chances of survival guaranteed by lower level of IMR and CMR might results in higher growth rate of Muslims.

The regional dimension of population growth taking both Hindu and Muslim into consideration is very important. Census of India data shows that growth rate of population among Muslim has fallen at a sharper rate as compared to Hindus in southern Indian states. Since most of the Muslims are concentrated in the north Indian states and these states have higher fertility in general. The question to disparity as to which community has higher fertility rate is a matter of further investigation in the region.

Table 3.5: Growth Rates of Hindus and Muslims by Regions (1951-2001)

Region	1951-61	1961-71	1971-81	1981-91	1991-2001
Hindus					
South	1.52	1.94	1.97	1.77	1.22
N. E.	3.22	3.20	2.12	1.78	1.30
East	2.09	2.02	1.98	1.95	1.71
West	1.89	2.62	2.25	2.23	2.00
N. W.	1.87	1.01	2.43	2.23	2.32
India	**1.87**	**1.93**	**2.16**	**2.04**	**1.82**
Muslims					
South	1.66	2.93	2.51	2.37	1.66
N. E.	3.39	2.21	3.29	2.53	2.63
East	2.95	2.68	2.61	2.90	2.67
West	2.12	3.58	2.99	2.64	2.86
N. W.	3.71	2.24	2.67	3.24	2.86
India	**2.82**	**2.69**	**2.70**	**2.84**	**2.57**

Source: Census of India, Religion Tables, 1951-2001.

Even the same level of consciousness or educational attainment has different meaning in different regions. It is clear from the study of Bhat & Irudaya Rajan (1990) that illiterate women in Kerala have fewer children compared to illiterate women in Madhya Pradesh or else where in India. This phenomenon attains greater significance in the context of Muslims. The states which have gone through rapid fertility transition, the fertility and reproductive behaviour of Muslim women of the same are very different from other states. Mallapuram in Kerala is a classic case of this experience where 69.00 percent of the population is Muslims as compared to 25.00 percent for the state as a whole. Muslims in Mallapuran experienced a spectacular fertility decline during the last 20 years. The decline was 2.0 children (4.4 children to 2.4 children) in Mallapuram as compared to just 1.2 children the state.

It could be said that fertility differentials between Hindus and Muslims are less determined by their religious affiliation than the socio-economic condition in which they live. Zacharia (1995) in his writing 'Transition in the determinants of fertility decline in India' says, "The principal factors mentioned as affecting fertility were the basic socio-economic variables such as urbanization, social mobility, status of women, family organization, level of living and cost of rearing children, decline of religious interest, women's employment, occupation and education etc."

Freedman (1979) observed "I now believe there is a case for the thesis that once motivation is present, both the concept of and the means for family

limitation can have independent casual effects in determining both the timing of onset and the rapidity of the fertility decline" (Freedman, 1979, pp. 1-17).

Roy and Parasuraman (1996) while discussing about the demographic history of India opine, "The demographic transition in India began in the third decade of this century. The earlier expanding stage of transition, with solitary decline in mortality lasted for almost five decades. The late expanding stage of transition, whether both fertility and mortality start declining, occurred around 1970. However, the pace of fertility decline in India has been much slower than that of mortality decline. During 1970-1993, the birth rate in India has declined by 23 percent, compared with 41 percent decline in the death rate. The slower pace of fertility decline kept the population growth rate at the stable level above two percent per annum. There are indications, however, that the fertility decline has been accelerating in recent years. According to the Sample Registration System, the growth (natural) rate of population came down below two percent for the first time in 1991. It appears that the country is entering the last phase of the transitional stage which is characterised by faster decline in fertility than that in mortality" (Roy and Parasuraman,1996, p. 43).

As per Ray & Parasuraman (1996), the fertility levels are determined by the following factors:

i) Women's literacy,

ii) Standard of living (Electricity use, Tap and Hand pump within residence, Pucca house, Television etc),

iii) Infant Mortality Rate,

iv) Index of exposure to Media (TV, Radio & News Paper),

v) Program strength-

a) Percent of women receiving antenatal care services,

b) Percent of births in last 4 years preceding survey in health centres,

c) Percent of children in the age group of 12-23 months who received all vaccines,

d) Percent of women who have knowledge of all three methods of IUD, Condoms and Oral Pills,

vi) Ideal family size ,

vii) Index of son preference,

viii) Median age at marriage for families.

ix) Contraceptive prevalence rate,

x) Effective contraceptive prevalence rate,

xi) Quality of contraceptive use,

xii) Median duration of Post Partum Non-susceptible period in months, and

xiii) Percentage of married women in Menopause.

Mutharayappa & others (1997) using NFHS data studied the 'son preference and its effect on fertility'. They identified and enlisted the following reasons of son preference.

1) Economic utility of son – it supplies family labour in all aspects of economy, earning and support in the old age.
2) Brings daughter – in – law into the family (help and dowry).
3) Socio – cultural utility: patrilineal society maintaining family lineage.

4) Utility of son from religious point of view. The religious functions that son only can play i.e. kindle the funeral Pyre of their deceased parents and to help in the salvation of their soul.

Dyson & Moore (1983) on demographic situation of the country says, "Female social status probably the single most important element in comprehending India's demographic situation".

Sample Registration System as well as NFHS data show that so far Total Fertility Rate is concerned; decline in Fertility among Muslim is much higher as compared to Hindus both in the state and national level. Table-3.5 portrays a picture of comparative declining rates of Muslims and Hindus in the state and country as whole. It is interesting to note that though the fertility rates among Muslims is higher, yet the faster declining rates among the community may bring both communities closer in near future. As a result, by the year 2091 Muslim population will be stabilized at 18.8 percent to total population of the country with some 32 million people. Therefore, the apprehension of the saffron demographers that the country is going to be a Muslim majority is a utopian idea based on other than facts.

A glance to table-3.6, it is observed that TFR among Hindus and Muslims is in declining trend. From 1984 to 1998-99 the TFR for Hindus has declined from 3.5 to 2.02 i.e. the decline is 1.48 for the state of west Bengal. The TFR decline for the same period for Muslims is as high as 2.21. The national scenario is also somewhat similar. The decline is again higher in case of

Muslims as compared to Hindus. The TFR decline during 1984 to 1998-99 is 2.01 for Muslims and is only 1.72 in case of Hindus.

Table 3.6: Total Fertility Rate among Hindus and Muslims in West Bengal

State/Country	Hindus			Muslims		
	1984	1992-93	1998-99	1984	1992-93	1998-99
West Bengal	3.5	2.52	2.02	5.5	4.59	3.29
India	4.5	2.30	2.78	5.6	4.41	3.59

Sources: 1) Sample Registration System, Registrar General of India, 1998-99.

2) NFHS – 2, IIPS, Mumbai, 1998 – 1999.

Crude Birth Rate (CBR) and Total Fertility Rate (TFR) of Darjeeling district for Hindus & Muslims presented in the table-3.6 shows that TFR and CBR both are considerably higher among Muslims as compared to that of the Hindus.

Table 3.7: Fertility Estimates for Hindus & Muslims, 2001

India/WB/Darjeeling	Total		Hindus		Muslims	
	CBR	TFR	CBR	TFR	CBR	TFR
India	25.9	3.2	24.9	3.1	30.8	4.1
W. Bengal	22.5	2.6	19.7	2.2	30.9	4.1
Darjeeling	19.6	2.1	19.5	2.2	34.8	4.7

Source: Fertility Tables, Census of India 2001 (adopted from EPW, January 29, 2006, pp. 437 – 446).

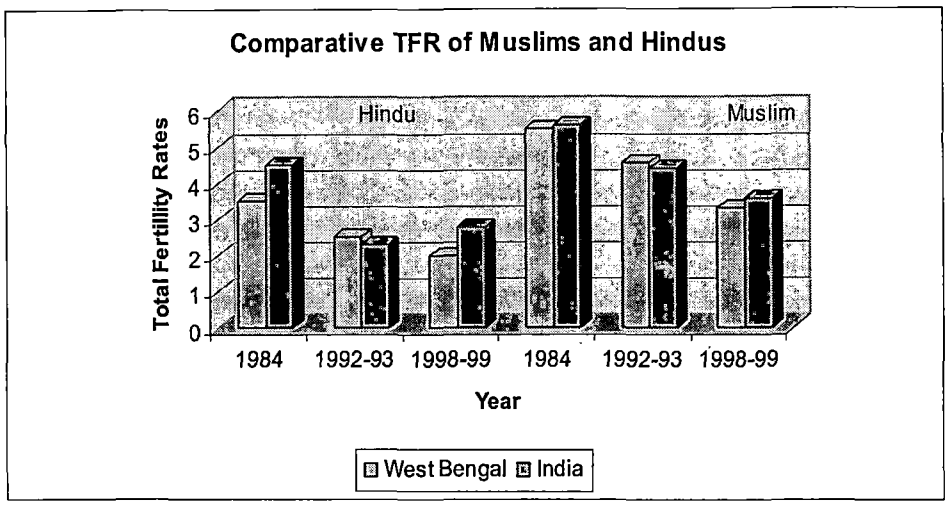

Fig. 3.1

During field work a total of 600 married women in the age group (child bearing) of 15-49 years have been interviewed taking a pre-decided number of respondents incase of each religious group such as Muslims 200, Hindus 2000, Buddhists 100 and Christians 100. Keeping the religious composition of population of the district as well as the state of West Bengal and the country in view, the number of respondents from different religious groups has been chosen. The scientific method of selection of samples has been discussed in the chapter-I (page-24).

The respondents were interviewed with an exhaustive pre-designed survey schedule (questionnaire). However, a pilot survey was conducted before finalization of the survey schedule (questionnaire). A brief result of survey is presented in the table-3.8 depicting different angles of fertility. One can observe that both CBR and TFR for the entire group of respondents are higher as compared to that of state average. Above two estimates are found to be 40.96 and 3.58 per thousand respectively. However, according to Rajan

(2005, p. 444) the same stand at 22.5 and 2.60 per thousand respectively for the state.

Table 3.8: Attributes of Fertility of Four Religious Groups, 2007- 08

SL	Attributes	Buddhist	Christian	Hindu	Muslim	Total	Average
1	No. of respondents	100	100	200	200	600	—
2	No. of pregnancy (ever occurred)	167	256	530	605	1558	2.60#
3	No. of births including still births	159	228	466	556	1409	2.35#
4	No. still births	2	8	15	33	58	0.10#
5	No. live births (ever born) CEB	157	220	451		1351	2.25#
6	No. of live births during (2007-08)	11	23	30	50	114	0.12#
7	Children during enumeration	155	216	448	513	1332	2.22#
8	Crude Birth Rates	26.25	47.72	33.26	51.02	—	40.96$
9	Total Fertility Rates	2.44	4.89	2.98	3.99	—	3.58$
10	Population	430	505	601	1030	2897	—
11	Family size	4.30	5.05	4.66	5.15	—	4.82$

Source: Calculated by the researcher from the data collected from field work, 2007-2008.

$ Calculated by taking cumulative number of live births of all the religions together, not simple averaging of calculated figures have been considered for calculation of overall CBR, TFR, and family size.

Simple arithmetic average calculated for 600 respondents.

The survey result on fertility i.e. Children Ever Born (CEB) and number of children during enumeration per married woman is presented in the table-

3.9. It is observed from the table that the Muslims have higher fertility as compared to Hindus, Buddhists and Christians. The relation of fertility to the factors that control fertility will be analysed in the subsequent chapters. It will be difficult to infer the causes until and unless one observes fertility of a religious group visa-vis their social, economic and educational status.

Table 3.9: Children Ever Born, Pregnancy and No. of children During Enumeration by Religion, Darjeeling District, 2007- 08

Religion	No. of times pregnancy occurred	Children Ever Born	No. of children at the time of enumeration
Buddhist	1.67	1.57	1.55
Christian	2.56	2.20	2.16
Hindu	2.65	2.25	2.24
Muslim	3.03	2.62	2.57
Total/Average	2.60	2.25	2.22

Source: Field survey by the researcher during 2007-2008.

From the above table it is clear that the Muslims have slightly higher fertility measured by number of children ever born to a married woman. Number of pregnancies as well as number of children, at the time of enumeration, both is higher in case of Muslims as compared to Hindus. An attempt would be made to find out the reason for differentials in fertility in the subsequent chapter. But it is mostly the educational attainment which is probably the important controlling factor of fertility.

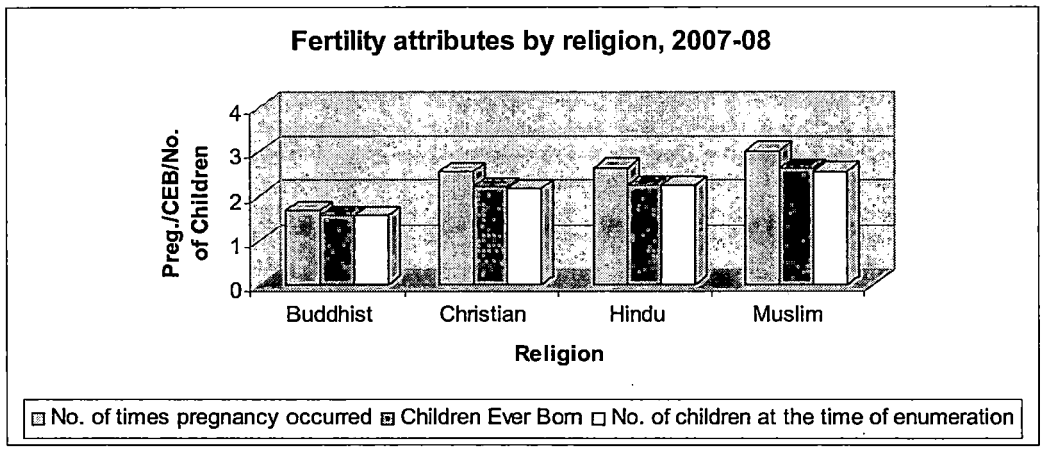

Fig. 3.2

Here, an attempt has been made to understand the differentials in fertility by observing differences in certain factors that were presumed to be influencing fertility behaviour of a respondent and thereby the religious group in which she belongs. During field survey, level of educational attainment of the respondents has been asked. Simultaneously, educational achievement of their parents as well as husband has also been asked. The data on this aspect is presented in the table-3.10. It was presumed that occupation of respondents and their husbands will have greater influence on fertility and hence the information on their occupation has also been collected. Glancing through the table-3.10 shows that on average Muslim parents, husbands and respondents are lesser educated as compared to others. They are found to be below average of all four religious groups.

Table 3.10: Educational and Economic status by religion, 2007-08

Religious groups	No. years of schooling				Proportion in service#	Monthly Finance (per capita)		
	Self	Father	Mother	Husband		Income	Expenditure	Savings
Buddhists	9.73	5.99	3.86	10.82	68.00	3077	1703	1374
Christians	5.28	3.74	0.72	7.12	34.00	1200	614	586
Hindus	5.84	5.12	2.21	7.31	18.50	1416	903	513
Muslims	4.56	4.59	1.73	6.24	11.00	1413	931	482
Total	25.5	19.44	8.52	31.49	131.50	7106	4151	2955
Average$	6.35	4.86	2.13	7.87	32.88	1777	1038	739

Source: Calculated by the researcher from the data collected from field work, 2007-2008.

Data relevant to the husbands of the respondents (percent).

$ Averages are arithmetic mean.

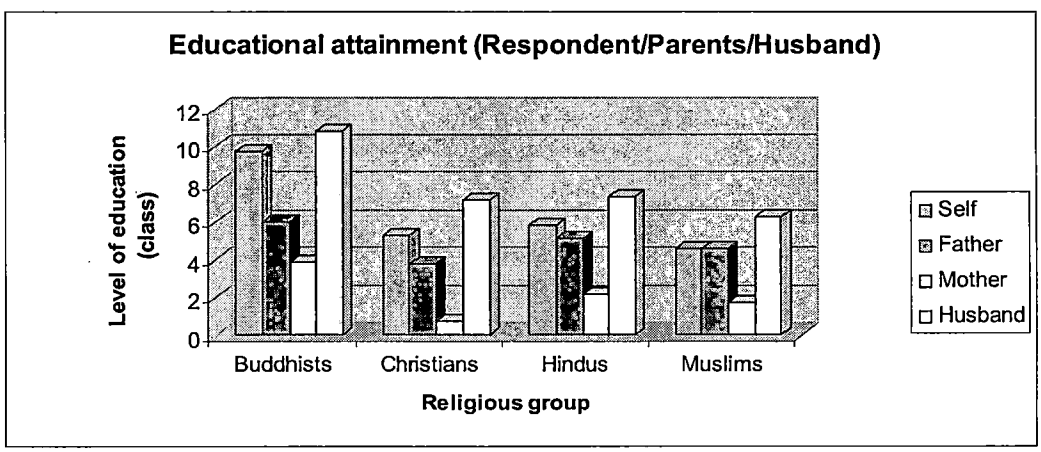

Fig. 3.3

Similarly, the occupational pattern of the respondents, parents and husbands of the respondents have been collected that will be presented in

detail in the next chapters. Here we have considered only the occupation of the husband of the respondents as it is considered to be the most influential factor. It was found that on the whole about 32.88 percent husbands of the respondents were reported to be in regular service which is just one third in case Muslims (11.00 percent). Highest proportion of service holders are found among the Buddhists at the tune of 68.00 percent followed by Christian 34.00 percent. The income and expenditure as well as savings are other sets of determinants of fertility. The information on income, expenditure, and savings has been collected for the households. The analysis of the data related to this aspect again reveals an interesting picture. The Muslims hold the bottom position with respect to income and savings. In the view of the fact that the community earns less hence the savings is also less. The major share of the earning is spent on purchasing food items and other essentials and life supporting articles to feed the family members.