

# *Chapter – V*

## **FERTILITY AND SOCIO-ECONOMIC DETERMINANTS – AN ANALYSIS**

### **Introduction**

Several studies have been conducted in various countries by scholars to find out the relationship of fertility with socio-economic factors. Among the important works in this direction, McClamroch's (1996) work on "Total Fertility Rates, Women's Education, and Women's Work: What are the Relationships?" is significant in this context. The author has selected the following determinants to explain fertility:

- a) Average number of years of education for women,
- b) Percentage contraceptive uses,
- c) Percentage of females in labour force,
- d) Per capita Gross National Product,
- e) Percentage of females in 15-19 married,
- f) Female life expectancy at birth, and
- g) Percentage of calories available.

The above study shows that apart from percentage of married female in the age group of 15-19 years, which is positively related, all other variables are negatively related to Total Fertility Rates (TFR). "It has shown that the percentage of married couples using contraceptives and the percentage of

women in the labour force are the most critical variables related to TFR, according to the model studies,” (McClamroch’s, 1996, p. 185).

Krishnaji and James (2005) while trying to understand the religious differentials in fertility point out that understanding of mortality would clear the obscurity to a certain extent. “The only acknowledgement of the role of mortality is in the observation that the Muslims were apparently less affected by Influenza between 1911 and 1921. (One explanation for this could be that the areas of Muslim concentration – such as Bengal and the Punjab – were less affected by the epidemic than other parts of the country, this needs further study and analysis)” (Krishnaji and James, 2005, p.455). They further added while explaining fertility differentials “why was that so? We do not yet have an adequate understanding of the difference in ‘natural’ fertility. But plausible explanations that have been offered include the role of cultural practices like women spending long periods at the homes of parents, spells of sexual abstinence which vary from community to community, difference in nutrition intake, breast feeding norms etc.” (Krishnaji and James, 2005, p. 456).

Researchers have found many more socio-economic factors responsible for differentials of fertility. Rajan (2004) finds that infant mortality and child mortality rates are lesser among Muslims as compared to Hindus. This finding holds good in many studies through 1991 census to NFHS-I and NFHS-II conducted by IIPS, Mumbai.

Age at marriage is found to be having a strong bearing on fertility. Premi (2005) observes “Data on mean age at marriage of currently married males and females by religion and rural urban residence at the all India level show that the same is highest among Christians, followed by Jains among males and Sikhs among females. Age at marriage among Muslims is only slightly higher in total and rural populations compared to Hindus but lower in urban areas where Muslims form a majority,” (Premi, 2005, p. 210).

Basu (1997) points out in her study that in contrast to the popular belief that fertility is related to income, it may not be necessarily true. “As regards to the truth of the poverty-fertility relationship, there is once again no clear answer. While the usual macro-understanding of the situation is that the poor breed fastest, this is not at all empirically well established. The confusion is especially great when it is ‘wanted fertility’ that is referred to – excess or ‘unwanted’ fertility may be higher among the poor because of the great costs to them of fertility control. Several contemporary data sets suggest that the relationship between income (or one of its several proxies) and fertility is often an inverted-U, with the left half of the curve being much shorter than the right. While part of this may be voluntary it need not always be so” (Basu, 1997, pp. 14-15).

Mehta (2005) analysed education, age at marriage and work participation ratio to examine the influence of these determinants. The author concludes “... that fertility in Muslims displays a consistent pattern of decline with socio-

economic development, in general and educational development in particular. Thus the population growth difference between Hindus and Muslims will ultimately narrow down. A more realistic assumption would, therefore, be to assume that population of both Hindus and Muslim decline at an accelerated pace so as to approach a stationary state by the mid-21<sup>st</sup> century” (Mehta, 2005, p. 160).

McQuillan (2004) observes that religion among socio-cultural aspects may influence fertility when the following conditions are fulfilled.

- a) The religion in question must articulate behavioral norms that have linkages to fertility out-come.
- b) A religious group must possess the means to communicate its teaching to its members and to enforce compliance.
- c) Religious groups more likely influence the demographic choices of their followers when members feel strong sense of attachment to the religious community.

“When these three attributes are present, it is likely that religion will influence demographic behaviour. Nevertheless, the consequences of the religious influence are not uniform” (McQuillan, 2004, p. 50).

Shariff (1995) examines demographic differentials between Hindus and Muslims taking sectoral structure of occupation, occupation and work

participation ratio, ownership of land, relative levels of living, and relative levels of education. The author observes “On the whole the Muslims are socio-economically worse off in all parts of the country. The levels of fertility as measured by General Marital Fertility Rates (GMFR) and Total Marital Fertility Rates (TMFR) are higher for Muslims in both rural and urban areas. But the child mortality among both urban and rural Muslims is comparatively low. A combination of a positive growth of population and child mortality seems to have enabled a marginally higher growth of Muslim population in India,” (Shariff, 1995, pp. 2952-2953).

With a view to observe the relationship of socio-economic factors controlling fertility, two types of determinants: a) quantifiable variables and b) non-quantifiable variables or qualitative variables are usually taken into consideration.

### **Quantifiable Variables**

1. Age at marriage of the respondent,
2. Duration of breast feeding,
3. Number of years of schooling of the respondent,
4. Number of years of schooling of husband of the respondent,
5. Number of years of schooling of mother of the respondent,
6. Number of years of schooling of father of the respondent,
7. Occupation of the respondent,

8. Occupation of husband of the respondent,
9. Family's average monthly income,
10. Family's average monthly savings, and
11. Percentage of respondents using modern contraceptives.

### **Non-quantifiable Variables**

1. Religious faith and adherence,
2. Women's status,
3. Women's empowerment,
4. Attitude towards girl child,
5. Attitude towards education of girl child,
6. Engagement of girl child as domestic help,
7. Prevalence and frequency of domestic violence against women, and
8. Prevalence of dowry.

Since it has been assumed that the socio-economic condition in general and education and income of the respondents in particular will have a great bearing on the fertility behaviour of the respondents, and hence the above aspects will be discussed in detail. Table 5.1 presents the condition of educational attainment of the respondents as well as their parents and also their husbands. It will be seen from the table-5.1 monthly per capita income, expenditure and savings. The same will help us to understand the influence of these determinants on the fertility pattern of the respondents. Occupation is another important aspect that

requires special attention. Proportion of husbands of the respondents engaged in service sector has been calculated and presented in the table number 5.1 with an expectation that the higher ratio will indicate lower fertility

**Table 5.1: Educational and Economic Status by Religion, 2007-2008**

Religion	No. of years of schooling				Proportion (percent) in service <sup>#</sup>	Monthly Finance (Per Capita)		
	Self	Father	Mother	Husband		Income (Rs.)	Expenditure (Rs.)	Savings (Rs.)
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
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 are relevant to the husbands of the respondents

The respondents belonging to Muslim community exhibit the poorest condition in education. Be it the educational attainment of the respondent or their parents or even husband, record shows that the condition is poorer than the average condition prevailing among all the religious groups. The employment scenario is very poor among the Muslims. The survey result reveals that only 11.00 percent of the respondents responded that their husbands are in any kind of service which is only one third of the average condition. Income, expenditure

and savings records also portray a dismal picture of Muslim respondents. Their condition is found to be below average which is one of the worst conditions prevailing in the region.

### **Fertility and Education**

Education has been considered as one of the most important determinants of fertility. It is not only the educational attainment of the respondents but also the educational attainment of the husbands and the parents has also been considered. It has been presumed that the higher educational attainment will have a negative impact on fertility that will be examined in the later sections in the present chapter itself.

While collecting data on educational attainment, information has been on the 'number of years spent in school' and the 'class up to which the respondent, her husband and her parents have studied'. For the purpose of this exercise, 'number of years spent in school' has been taken in to account to analyse fertility rate.

Among the respondents, it has been found that they have spent 5 years 11 months and 18 days in school on an average. About one fourth (26.00 percent) of the respondents i.e. 156 out of 600 were illiterate. 53.17 percent of the respondents had education between 5<sup>th</sup> standard to 10<sup>th</sup> standard. Only 61 respondents out of 600 i.e. 10.17 percent of total respondents have continued

even after 10<sup>th</sup> standard. A large number of the respondents wanted to continue their education but for the following causes forbid them to continue.

**Causes of discontinuance of study** have been found as follows:

- i) Distance of School causing inconvenience (2.67 percent),
- ii) Financial constraints creating hurdles(9.33 percent),
- iii) Marriage & disinterest on the part of in-laws (social pressure) (34.67 percent),
- iv) Death & illness of mother (domestic pressure to run the family) (4.00 percent),
- v) Domestic help (to supplement the elders effort) (7.17 percent),
- vi) Not interested in study (not having joyful learning) (8.83 percent),
- vii) Unsuccessful in the last examination (detention and discourage) (2.83 percent),
- viii) Health problem (ill-health acted as deterrent) (1.67 percent), and
- ix) None of the above is applicable (never attended school) (28.83 percent).

Table 5.2 presents fertility, both TFR and CBR, and average number of years spent in school. It will be seen from the table that the educational scenario is very poor. Among all the respondents only Buddhists have completed nearly 10 years of education. All other respondents belonging of different religious groups have completed only about five and half years of education. As a matter

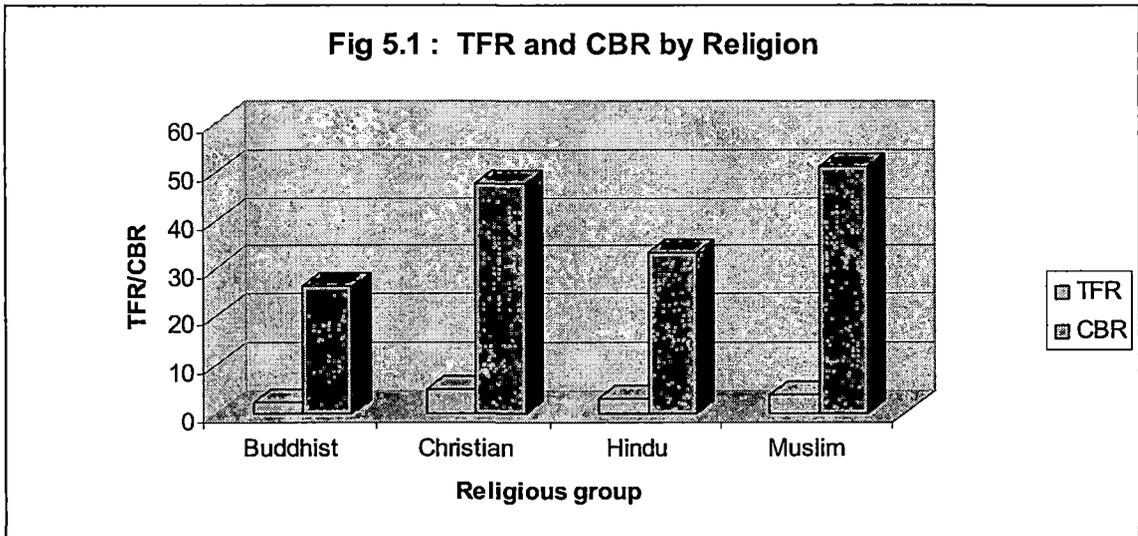
of fact the lowest fertility is observed among the Buddhists. It is not only the educational achievement of the respondents which is relatively higher in case of Buddhists but also the education of husbands as well as education of thier parents too.

**Table 5.2: Fertility and Schooling by Religion**

Religious groups	Fertility Rates		No. of years of schooling <sup>@</sup>			
	TFR	CBR	Respondent's	Husband's	Father's	Mother's
Buddhist	2.44	26.25	9.73	10.82	5.99	3.86
Christian	4.89	47.72	5.28	7.12	3.74	0.72
Hindu	2.98	33.26	5.84	7.31	5.12	2.21
Muslim	3.99	51.02	5.56	6.24	4.59	1.73
Average/ Over all	3.57	39.56	6.35	7.87	4.86	2.13

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

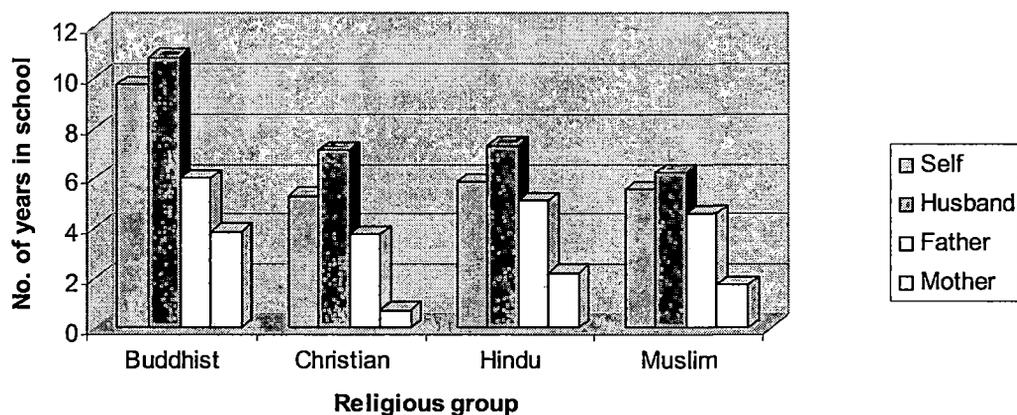
@ No. of years of schooling including the years for which the students were detained in the same class for consecutive two or more than two years.



**Fig. 5.1**

It will be worthy to explain terms such as illiterate, literate, primary educated, secondary level, senior secondary level and higher education. For the purpose of the present study 'illiterates' are those respondents who can not fulfill the criteria laid down by the Census of India for the purpose. All those respondents having formal education between 1<sup>st</sup> and 2<sup>nd</sup> standard are considered as literates. Respondents having no formal education but can fulfill the criteria laid down by the census of India i.e. "A person who can read and write with understanding in any language with age over six years is a literate" have also been included in the literate category. Similarly, all respondents who had 3-4 years schooling have been categorized in the 'primary' group. 'Secondary' group included all those respondents having schooling 5<sup>th</sup> to 10<sup>th</sup> class. Respondents with number of years in formal education 11-12 years have been grouped in the 'Senior Secondary' group. Similarly, respondents who have continued their education after passing 12<sup>th</sup> (+2) up to any higher educational attainment have been classified in the group 'Higher Education'.

**Fig 5.2 : Schooling by religion**



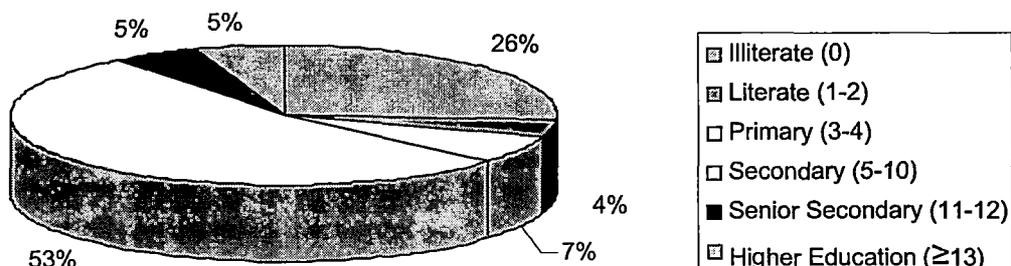
**Fig. 5.2**

**Table 5.3: Distribution of Respondents by Educational Attainment**

Educational attainment (class studied)	Number of respondents	Percentage to total
Illiterate (0)	156	26.00
Literate (1-2)	25	4.17
Primary (3-4)	39	6.50
Secondary (5-10)	319	53.17
Senior Secondary (11-12)	29	4.83
Higher Education ( $\geq 13$ )	32	5.33
All categories	600	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

**Fig 5.3: Distribution of Respondents by Level of Schooling**



**Fig. 5.3**

So far as the educational attainment of the respondents is concerned, it is found from the data collected from the field survey that as high as approximately 1/4<sup>th</sup> (26.00 percent) of the total respondents are illiterate. Approximately, 11 percent of the respondents are either literate or educated up to primary level. It is quite encouraging to note that as high as 53.17 percent of the respondents are found to be having secondary level education. A meager 10 percent of the respondents have achieved higher education as evident from the data.

**Table 5.4: Distribution of Respondents by Number of Births to Them by Educational Attainment**

Educational attainment (class studied)	Number of births including still births						Total	Percent
	0	1	2	3	4	≥5		
Illiterate (0)	2	9	40	52	26	27	156	26.00
Literate (1-2)	2	3	2	7	9	2	25	4.17
Primary (3-4)	7	4	5	12	9	2	39	6.50
Secondary (5-10)	19	80	140	46	15	19	319	53.17
Senior Secondary (11-12)	10	10	7	2	--	--	29	4.83
Higher Education (≥13)	6	13	13	--	--	--	32	5.33
All (percent)	46 (7.67%)	119 (19.83%)	207 (34.50%)	119 (19.83%)	59 (9.83%)	50 (8.34%)	600 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

While examining the relationship of education to fertility, as revealed by the table-5.4, it is found that there exists a negative relationship between the variables. This phenomenon can be observed from the table-5.4 where the distribution of the respondents with number of births by educational attainment has been presented. The table reveals that as high as 92.95 percent of the illiterate respondents have given births twice or more. As the level of educational attainment moves up, one finds that it reaches to a situation where as low as 40.63 percent respondents with higher educational back ground ( $\geq 13$  years) have given birth to two or more than two children.

An effort has been made here to examine the relationship of education with fertility across religions to ascertain whether the relationship is uniform or it differs across the religious groups. Tables 5.5-5.8 present the distribution of respondents, with their educational background, by number of times they have given births to babies. It is obvious from the tables that the relationship is not uniform. While only 22.86 percent of the illiterate Christian respondents have given birth to four or more than four babies, the same is 25.00 percent for the Buddhists, 30.77 percent for the Hindus and 44.26 percent for the Muslims.

**Table 5.5: Distribution of Respondents by Number of Births to Them by Educational Attainment (Buddhists)**

Educational attainment (class studied)	Number of births including still births						Total	Percent to total
	0	1	2	3	4	≥5		
Illiterate (0)	--	--	4	2	2	--	8	8.00
Literate (1-2)	--	--	--	--	--	--	0	0.00
Primary (3-4)	--	--	2	--	--	--	2	2.00
Secondary (5-10)	9	8	32	6	--	--	55	55.00
Senior Secondary (11-12)	2	6	7	2	--	--	17	17.00
Higher Education (≥13)	6	7	5	--	--	--	18	18.00
All	17	21	50	10	2	--	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

**Table 5.6: Distribution of respondents by Number of Births to Them by Educational Attainment (Christians)**

Educational attainment (class studied)	Number of births including still births						Total	Percent to total
	0	1	2	3	4	≥5		
Illiterate (0)	--	2	12	13	2	6	35	35.00
Literate (1-2)	2	--	--	--	--	--	2	2.00
Primary (3-4)	--	1	--	2	--	--	3	3.00
Secondary (5-10)	4	9	27	15	1	--	56	56.00
Senior Secondary (11-12)	4	--	--	--	--	--	4	4.00
Higher Education (≥13)	--	--	--	--	--	--	0	0.00
All	10	12	39	30	3	6	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

In order to ascertain further the extent of association of fertility to educational attainment, statistical tools have been employed. The correlation analysis (Karl Pearson's) shows that negative correlation exists between the variables and it are true in case of all the religious groups. However, the degree of correlation differs to a great extent as far as the different religious groups are concerned. As for example, the correlation coefficient between education and number of pregnancies to respondents is the highest (i.e. -0.4972) in case of the Buddhists and the lowest i.e. -0.3153 in case of the Muslims (tables: 5.37-5.41). When we take the case of number of births and education it is found that the highest coefficient (i.e. -0.0474) is found among the Hindus and lowest (i.e. -0.331) among the Muslims.

It is true that it is not only the educational attainment of the respondents that is important but also the educational back ground of the Husband with whom the fate of the respondent is firmly tied up. Apparently husband is the most influencing person in the life of a prospecting mother. Her decisions are immensely influenced by the views of their husbands. Moreover, in Indian society, particularly rural areas of Darjeeling district, it is almost unimaginable that the wife is free to take vital decisions such as child bearing. Thus husbands' educational back ground has also been taken into consideration. It has been found during the field survey that only the Buddhist husbands have schooling over 10 years and for all other communities it is between 6-7 years.

**Table 5.7: Distribution of Respondents by Number of Births to Them by Educational Attainment (Hindus)**

Educational attainment (class studied)	Number of births including still births						Total	Percent
	0	1	2	3	4	≥5		
Illiterate (0)	2	2	6	26	7	9	52	26.00
Literate (1-2)	--	1	--	5	3	--	9	4.50
Primary (3-4)	5	1	3	6	3	--	18	9.00
Secondary (5-10)	2	36	46	14	5	3	106	53.00
Senior Secondary (11-12)	1	2	--	--	--	--	3	1.50
Higher Education (≥13)	--	4	8	--	--	--	12	6.00
All (percent)	10 (5.00%)	46 (23.00%)	63 (31.50%)	51 (25.50%)	18 (9.00%)	12 (6.00%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

The influence of husband's educational background has been ascertained by correlating the same with the number of births. The coefficients of correlation were calculated and presented in the tables (tables: 5.37-5.41). The tabulated results show that husband's educational attainment is negatively correlated with fertility in all the religious groups. However, the relationship is found to be relatively stronger in case of Christians with coefficient being -0.2047. Buddhists show a weak negative correlation (-0.1349) between the variables (fertility and husband's educational attainment). Among the Hindus the correlation coefficient is calculated to be -0.184. As far as Muslims are concerned, the correlation coefficient is calculated to be -0.168.

Nobody can deny the fact that parents are one of the most influential individuals in the life of the daughters. Particularly prospecting mothers are emotionally attached to the parents. Mother is the 'friend, philosopher and guide' to an aspirant mother. Psychologically parents are of greatest help to the prospecting mothers in the moment of complexity relating to child bearing and rearing and therefore, the child bearing decision is also greatly influenced by the parents. The parents' educational backgrounds mould the view of their daughter to a large extent. It is in this context that the analysis of educational back ground of the parents of the respondents is of great importance.

**Table 5.8: Distribution of Respondents by Number of Births to Them by Educational Attainment (Muslims)**

Educational attainment (class studied)	Number of births including still births						Total	Percent
	0	1	2	3	4	≥5		
Illiterate (0)	--	5	18	11	15	12	61	30.50
Literate (1-2)	--	2	2	2	6	2	14	7.00
Primary (3-4)	2	2	--	4	6	2	16	8.00
Secondary (5-10)	4	27	35	11	9	16	102	51.00
Senior Secondary (11-12)	3	2	--	--	--	--	5	2.50
Higher Education (≥13)	--	2	--	--	--	--	2	1.00
All (percent)	9 (4.50%)	40 (20.00%)	55 (27.50%)	28 (14.00%)	36 (18.00%)	32 (16.00%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

From the survey data it is found that the level of educational attainment of the parents is poor. When the average number of years of schooling of all the fathers is only 4.86 years, the same is poorer in case of mothers which is only 2.13 years. On an average, the Buddhist fathers are relatively better of with an average schooling (6 years) which is the highest among all the religious groups. The average number of years of schooling is 3.74 years in case of the Christians which is the lowest. From the table-5.2, it is clear that the Buddhist mothers have relatively better educational back ground with the highest average number of years of schooling i.e. 3.86 years. The lowest duration of schooling of the mothers of the respondents are found to be among Christians at the tune of only 0.72 years. The tribal background of the Christian community may be one of the reasons of such a lower level of schooling. Tribalism itself doesn't encourage modern education among the members of the community. In the tribal tradition each member is responsible to earn for his or her survival, so far the member is physically capable of doing so. The tendency of going for extra income and savings among the tribal people is very weak. All the above stated tradition is having influence on fertility. However, in order to ascertain actual reason of low educational attainment of these parents a separate probe is required.

An effort has also been made to find out the influence of mother's educational background on her daughter's fertility. It's clear that there exists a negative relationship between the two. But the extent of influence is not uniform across the religious groups. The highest correlation coefficient is found among

the Buddhists with a coefficient of -0.1961 and the lowest is among the Muslims i.e. 0.964. The above analysis shows that Muslim mothers are given lesser importance when the question of child bearing decision of the daughter is arises. This further shows that patriarchal societal behaviour is more prominent among the Muslims as compared to the other co-religionists.

The educational background of the father may have less influence on the child bearing decision of the daughter but the influence is there. As a matter of fact in many cases father is truly the "friend-philosopher-guide" for a daughter. The influence in this regard certainly works indirectly. In order to find the influence of educational attainment of a father on the fertility of the daughter a suitable statistical tool has been applied. The Karl Pearson's correlation coefficient is therefore, of great significance in this context. The correlation coefficient is negative for all the religious groups which mean daughters of educated father are less susceptible to high fertility. After analyzing the data it has been found that the influence does not seem to be consistent for all the religious groups. It is thus found that the correlation coefficient is the highest among the Muslims i.e. -0.2415 and the lowest among the Buddhists i.e. -0.1041.

From the above discussion one can summarize the section by high lighting the followings:

1. Buddhists are educationally better off; so far the respondent's education and education of their husbands and parents are concerned, the Christians are lagging behind others in this front.
2. Educational attainment has negative impact on fertility but the extent of influence varies from one religious community to other as their socio-economic conditions vary.
3. Among others the impact of educational attainment of the respondents is much more effective (strong) than the husbands and the parents.

### **Fertility and Occupation**

It will be worthy to examine whether the fertility and the occupation are related to each other or not. It is therefore, quite likely that occupation influences fertility. If prospecting mother is employed then there is lesser likelihood that she will afford to have many children. Moreover, the government has framed different policies and provisions that are ante-natal. As for example, four months' maternity leave is applicable to employed women in case of first two babies only. Bringing up of many children for a working mother is therefore, quite difficult. Over all expenditure involved in bringing up of children, particularly in their education and health care, etc. also will be under consideration while deciding on number of children desired. Therefore, occupation has also been taken as one of the controlling factors of fertility in the present study.

**Table 5.9: Average Number of Children Born to Married Women by Occupation, 1991**

Occupation	Urban			Rural		
	Percent	TFR (All)	TFR (40-44 years)	Percent	TFR (All)	TFR (40-44 years)
<b>All women</b>	100	2.90	3.64	100	3.13	4.13
<b>Main workers</b>	12.6	2.65	3.15	29.1	2.96	3.87
Cultivators	0.7	3.21	3.96	11.6	3.13	4.09
Agr. Labour	2.1	2.88	3.59	14.1	2.84	3.75
Other	9.8	2.56	3.02	3.4	2.84	3.63
Manual	5.3	2.87	3.49	2.6	2.90	3.82
Non-manual	4.5	2.18	2.55	0.8	2.62	3.16
<b>Marginal worker</b>	1.7	3.14	4.11	12.8	3.21	4.31
<b>Non-workers</b>	85.7	2.93	3.73	58.1	3.20	4.25

Source: Mehta, B. C., (2005): Religion & Fertility: Buttrressing the Case, EPW 08/01/2005, pp. 157-160.

It is always believed that the working women will have lesser number of children as compared to non-working women. According to Mehta (2005), "It is generally hypothesized that non-working women, as well as those are self employed in cultivation or working nearer the house with irregular employment, have higher fertility than those working in organized non-agricultural sectors." It

may be noted therefore that 85.70 percent in the urban areas and 58.00 percent in the rural areas are non-working women.

On the contrary, it is not only the occupation of the respondent that is important but the occupation of the husband is also important in this context and hence, the same has been taken into consideration for analysis. If husband is also employed along with the wife then bringing up of a child is more difficult and therefore, employment of both husband and wife will definitely influence the fertility behaviour.

The question is whether one of the spouses, more importantly fair sex, or both are employed or not, it is also important where (how much is the distance) and how long is the duty that is being performed. Along with duration and nature of work, the income of the family that is more relevant to females, too depends on occupation and will thus have an important bearing on fertility.

For the purpose of this study the occupation of the respondents has been classified in to four classes namely, a) Domestic works (housewife), b) Primary sector occupation, c) Secondary sector occupation and d) Tertiary sector occupation. The husbands' occupation has been classified into three groups namely a) Primary sector occupation, b) Secondary sector occupation and c) Tertiary sector occupation. In order to identify an activity for a particular class, the criteria of Census of India have been followed. The domestic work of women is

however an extra class which has been introduced in the present study. This class is not present in the nine folds classification of workers presented by Census of India in 1991.

**Table 5.10: Sector-wise distribution respondents by occupation & by religion**

Occupation	Religion				Total	Percent to total
	Buddhist	Christian	Hindu	Muslim		
Domestic (Housewife)	88	66	157	181	492	82.00
Primary sector	--	3	--	--	3	0.50
Secondary Sector	2	9	10	2	23	3.83
Tertiary Sector	10	22	33	17	82	13.67
Total (percent)	100 (16.67%)	100 (16.67%)	200 (33.33%)	200 (33.33%)	600 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Table-5.10 shows a gloomy picture so far as the occupation of the respondents is concerned. An overwhelming majority i.e. 82.00 percent of the respondents of all religious background of the present study are housewives engaged themselves in purely domestic works. This environment secludes the

respondents from the out side world and thus deprived of taste of modern life. Under these circumstances families are encouraged to have more children, particularly by the elderly members of the families. A meager 13.67 percent are engaged in tertiary sector employment is not going to help the condition owing to the fact that even this sector of employment is not that remunerative. The ICDS workers, ASHA workers and petty trade and business etc. are classed in the tertiary sector and, therefore, is of no help. Gainful employment in the tertiary sector would have influenced fertility negatively which has not happened here.

**Table 5.11: Fertility and Occupation by Religion**

Religious group	Fertility Rates		Occupation (percent in service sector)	
	TFR	CBR	Respondents	Husbands
Buddhist	2.44	26.25	10.00	68.00
Christian	4.89	47.72	22.00	34.00
Hindu	2.98	33.26	16.50	18.50
Muslim	3.99	51.02	8.50	11.00
Average/ Over all	3.57	39.56	14.30	32.88

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Table 5.11 reveals that that the highest proportion of respondents engaged in tertiary sector is among Christian (22.00 percent) followed by Hindu

(16.50 percent), Buddhist (10.00 percent) and Muslim (8.50 percent). Similarly, the proportion of husbands of respondents in tertiary sector (shown in the table-5.11) depicts that a majority of them employed in this sector (68.00 percent) found only among the Buddhists followed by Christians (34.00 percent), Hindus (18.50 percent) and Muslims (11.00 percent).

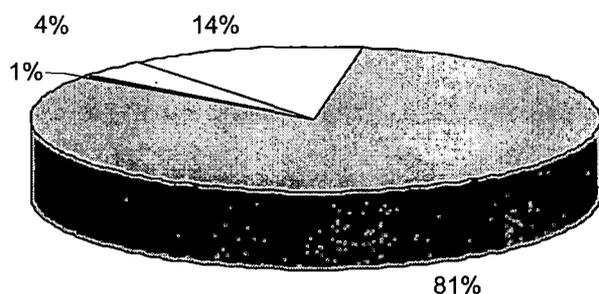
It is interesting to note that there exists a positive correlation between the proportions of husbands employed in the tertiary sector activities with fertility. So far as CBR is concerned there exists a direct and positive relation between them. As for instance, the husbands of the Buddhist respondents constitute the highest percent engaged in tertiary sector (68.00 percent) and at the same time lowest CBR is found among the Buddhists i.e. 26.25. Similarly, the Muslim representation in the tertiary sector is found to be the lowest (11.00 percent) and the CBR is also found to the highest among Muslims (51.02).

**Table 5.12: Distribution of Respondents by Occupation (Sector of Employment)**

Sector of employment	Number of respondents	Proportion to total (percent)
Domestic works	492	82.00
Primary sector	3	0.50
Secondary sector	23	3.83
Tertiary sector	82	13.67
All	600	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

**Fig 5.4: Sectoral Composition of Respondents by Occupation**



Domestic works 
  Primary sector 
  Secondary sector 
  Tertiary sector

**Fig. 5.4**

**Table 5.13: Distribution of Respondents by Number of Pregnancies and by Occupation (Sector of Employment)**

Sector of employment	Number of pregnancies						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	32	88	149	90	75	58	492	82.00
Primary sector	--	--	1	--	--	2	3	0.50
Secondary sector	--	1	13	5	2	2	23	3.83
Tertiary sector	4	17	21	24	13	3	82	13.67
All (percent)	36 (6.00%)	106 (17.67%)	184 (30.67%)	119 (19.83%)	90 (15.00%)	65 (10.83%)	600 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Among the Buddhists it has been found that 88.00 percent of them are engaged in domestic works and another 10.00 percent (table-5.14) are found engaged in tertiary sector activities. Among the Buddhists engaged in domestic works, as high as 15.90 percent had pregnancies thrice or more.

**Table 5.14: Distribution of Respondents by Number of Pregnancies and by Occupation (Sector of Employment) of Buddhist Respondents**

Sector of employment	Number of pregnancies						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	14	21	39	10	4	--	88	88.00
Primary sector	--	--	--	--	--	--	0	0.00
Secondary sector	--	--	2	--	--	--	2	2.00
Tertiary sector	1	--	9	--	--	--	10	10.00
All	15	21	50	10	4	00	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Switching over to the Christians, it is observed that the proportion of the respondents having pregnancies thrice or more is found to be substantially high

i.e. 51.15 percent of the total respondents engaged in domestic works. As many as 22.22 percent of the respondents engaged in secondary activities are found to be recorded thrice or more than thrice pregnancies. Similarly, 59.09 percent of Christian respondents in tertiary activities do have pregnancies thrice or more.

**Table 5.15: Distribution of Respondents by Number of Pregnancies and by Occupation (Sector of Employment) of Christian Respondents**

Sector of employment	Number of pregnancies						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	4	12	16	23	8	3	66	66.00
Primary sector	--	--	1	--	--	2	3	3.00
Secondary sector	--	1	6	--	--	2	9	9.00
Tertiary sector	1	2	6	10	2	1	22	22.00
All	5	15	29	33	10	8	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Tables 5.15 and 5.16 show distribution of respondents by number of pregnancies and sector in which the respondents are engaged. The tables reveal that 45.85 percent of the respondents of the Hindus and 51.51 percent of the respondents of the Muslims had pregnancies thrice or more. The primary and secondary sectors are almost missing in both the cases, primarily because of our peculiarity of definition. The secondary activities are almost non-existent in the region except 'Tea Processing and allied Activities'. Though Primary activities are there in the region but the same are dominated by their male counterparts.

**Table 5.16: Distribution of Respondents by Number of Pregnancies and by Occupation (Sector of Employment) of Hindu Respondents**

Sector of employment	Number of pregnancies						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	10	23	52	27	22	23	157	78.50
Primary sector	--	--	--	--	--	--	00	0.00
Secondary sector	--	--	3	5	2	--	10	5.00
Tertiary sector	1	8	6	11	7	--	33	16.50
All (percent)	11 (5.50%)	31 (15.50%)	61 (30.50%)	43 (21.50%)	31 (15.50%)	23 (11.50%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Since the economic activities in the region are gradually becoming diversified there is a promising Tertiary Sector activity which has potentiality to engage people in different activities. It has been found that 16.50 percent of the Hindu respondents and 8.50 of the Muslim respondents are engaged in tertiary activities. Of the total Hindu respondents, who are engaged in the tertiary sector, 51.51 percent have reported pregnancies thrice and above. As high as 52.94 percent of the Muslim respondents engaged in tertiary sector are found to have recorded pregnancies thrice or above.

**Table 5.17: Distribution of Respondents by Number of Pregnancies and by Occupation (Sector of Employment) of Muslim Respondents**

Sector of employment	Number of pregnancies						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	4	32	42	30	41	32	181	90.50
Primary sector	--	--	--	--	--	--	00	0.00
Secondary sector	--	--	2	--	--	--	2	1.00
Tertiary sector	1	7	--	3	4	2	17	8.50
All (percent)	5 (2.50%)	39 (19.50%)	44 (22.00%)	33 (16.50%)	45 (22.50%)	34 (17.00%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

As has been stated earlier, the statistics on births has been taken as fertility indicator and termed as 'secondary fertility' in this study. According to the field data presented in table 5.18, it will be seen that as high as 38.17 percent of the respondents belonging to all religions have given birth to three or more than three babies. Conforming 'Hum Do Hamara Do" slogan, 34.50 percent of the respondents have given births to two children. A little over 1/4<sup>th</sup> of the respondents (27.33 percent) have record of having given birth to either one child or have not given birth to any child.

**Table 5.18: Distribution of Respondents by Number of Births and by Occupation (Sector of Employment)**

Sector of employment	Number of births						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	43	90	176	84	54	45	492	82.00
Primary sector	--	--	1	--	--	2	3	0.50
Secondary sector	--	6	8	7	--	2	23	3.83
Tertiary sector	4	21	22	28	5	2	82	13.67
All (percent)	47 (7.83%)	117 (19.50%)	207 (34.50%)	119 (19.83%)	59 (9.83%)	51 (8.50%)	600 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

It is clear from the study that the respondents engaged in the domestic works have given birth to relatively larger number of children. It is found from the data collected from the field that as high as 37.19 percent of the respondents engaged in domestic works as house wives have given births to three or more than three children till the date of survey. At the same time, it should be noted that of all the respondents, 82.00 percent have reported themselves being engaged in domestic works only.

**Table 5.19: Distribution of Respondents by Number of Births and by Occupation (Sector of Employment) of Buddhist Respondents**

Sector of employment	Number of births						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	16	21	39	10	2	--	88	88.00
Primary sector	--	--	--	--	--	--	0	0.00
Secondary sector	--	--	2	--	--	--	2	2.00
Tertiary sector	1	--	9	--	--	--	10	10.00
All	17	21	50	10	2	00	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

The field survey result shows that an overwhelming majority of the respondents is found to be engaged in the domestic chores cutting across religious back ground. The highest proportion (90.50 percent) of the respondents reporting themselves as domestic workers are found among the Muslims and the lowest proportion of (66.00 percent) respondents in the domestic work is found among the Christians followed by the Buddhists (88.00 percent) and the Hindus (78.50 percent).

**Table 5.20: Distribution of Respondents by Number of Births and by Occupation (Sector of Employment) of Christian Respondents**

Sector of employment	Number of births						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	9	9	26	18	2	2	66	66.00
Primary sector	--	--	1	--	--	2	3	3.00
Secondary sector	--	1	6	--	--	2	9	9.00
Tertiary sector	1	2	6	12	1	--	22	22.00
All	10	12	39	30	3	6	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

A comparative picture of distribution of the respondents by number of births and their sector-wise employment gives an interesting insight into the subject. It is found from the analysis that while 50.00 percent of the respondents belonging to Buddhist religious community have given birth to two babies, only 12.00 percent of them are found to have given birth to more than two babies. The figure is 39.00 percent for the Christians.

**Table 5.21: Distribution of Respondents by Number of Births and by Occupation (Sector of Employment) of Hindu Respondents**

Sector of employment	Number of births						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	10	30	56	30	18	13	157	78.50
Primary sector	--	--	--	--	--	--	00	0.00
Secondary sector	--	3	--	7	--	--	10	5.00
Tertiary sector	1	11	7	14	--	--	33	16.50
All (percent)	11 (5.50%)	44 (22.00%)	63 (31.50%)	51 (25.50%)	18 (9.50%)	13 (6.50%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Among the Hindu respondents 31.50 percent have reported to have given birth to two babies which constitute 27.50 percent in case of Muslims. As it comes to the proportion of respondents having given birth more than twice, the same is found to be 41.00 percent among the Hindus and 48.00 percent among the Muslims. It is interesting to note that only a small proportion of respondents engaged in the secondary and tertiary activities have given birth to more than two children, and it does hold good for both Hindus and Muslims.

**Table 5.22: Distribution of Respondents by Number of Births and by Occupation (Sector of Employment) of Muslim Respondents**

Sector of employment	Number of births						Total	Percent
	0	1	2	3	4	≥5		
Domestic works	8	30	55	26	32	30	181	90.50
Primary sector	--	--	--	--	--	--	00	0.00
Secondary sector	--	2	--	--	--	--	2	1.00
Tertiary sector	1	8	--	2	4	2	17	8.50
All (percent)	9 (4.50%)	40 (20.00%)	55 (27.50%)	28 (14.00%)	36 (18.00%)	32 (16.00%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

From the discussion on occupation and fertility the following broad observations may be made.

1. There is no definite trend of relationship between fertility and sector of economic activities in which the respondents are engaged.
2. Working females have relatively less number of children as compared to the housewives but the difference is not significant.
3. There is no significant difference in fertility across religious groups in the same sector of occupation (respondents engaged in occupation in the same sector).
4. Even among the employed respondents, only a few are gainfully employed and therefore, nothing remarkable is observed on fertility behaviour.

### **Fertility and Income**

It will be pertinent to examine the impact of income of the spouses on the fertility behaviour. In the present study, the estimation of income has been done on the basis of information provided by the respondents and the material evidence observed by the investigator during the survey. However, a certain degree of inaccuracy in estimation may not be ruled out. While taking the data on income, total income of the house hold has been calculated taking all sources into consideration. Possible cares have been taken to collect accurate data on income.

**Table 5.23: Fertility and Per Capita Monthly Income & Savings by Religion**

Religious groups	Fertility Rates		Per capita monthly income and savings (Rs.)	
	TFR	CBR	Income (Rs.)	Savings (Rs.)
Buddhist	2.44	26.25	3077.00	1374.00
Christian	4.89	47.72	1200.00	586.00
Hindu	2.98	33.26	1416.00	513.00
Muslim	3.99	51.02	1413.00	482.00
Average/ Over all	3.57	39.56	1776.50	738.75

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Per capita income is calculated taking the total income of all the members of the household together divided by the total number of members in the household including earning as well as dependent members. The data on income shows that on an average the per capita income of the families is estimated to be rupees 1776.50. The same is found to be the highest among the Buddhists (Rs. 3077.00) and the lowest among the Christians (Rs. 1200.00). On the other hand, the per capita income of the Muslims and Hindu households are found to be marginally different with Rs. 1413.00 and Rs. 1416.00 (table-5.23) respectively. However, it is interesting to note that when it comes to the question of savings, the average figure does not exceed even thousand rupees mark (Rs. 738.75). It

is the lowest among the Muslims (Rs. 513.00) with the highest savings rate is again in favour of the Buddhists (Rs. 1374.00).

On close observation of distribution of number of respondents by income category (table-5.24) one finds that nearly half (46.34 percent) of the respondents reported that per capita monthly income of their families is below Rs. 1000.00. Nearly 1/4<sup>th</sup> (27.50 percent) have per capita monthly income varying between Rs. 1000.00 to Rs. 2000.00. The other 1/4<sup>th</sup> has per capita monthly income of Rs. 2000.00 and above. It is clear from the data that the respondents are at their subsistence level of living as evident from the data relating to per capita income. The reason could be attributed to the low level of savings, the average per capita savings being only Rs. 738.75. The highest monthly per capita income is found to be among the Buddhists (Rs. 1374.00) followed by Christians (Rs. 586.00), Hindus (Rs. 513.00) and Muslims (Rs. 482.00). It is important to note that it is again the Muslims who have the lowest per capita income and are in the lowest rung of the ladder.

When per capita income is compared with the fertility rates it is found that there is a strong negative relationship between the two. With increasing income there is tendency of reducing fertility rates. The observation of table 5.23 reveals that the communities with higher income have low fertility and vice-versa. The lowest level of TFR of 2.44 is found among the Buddhists who have the highest

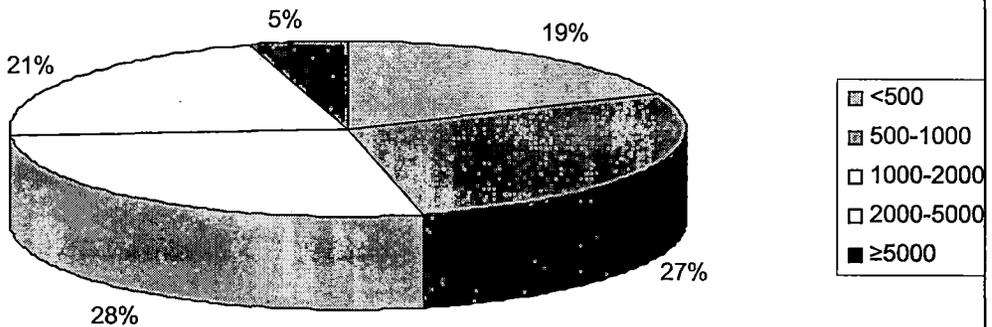
per capita monthly income of Rs. 3077.00. In contrast the lowest per capita monthly income of the Christians i.e. Rs. 1200.00 and the community has the highest TFR of 4.98. Hindus and Muslims are in the same ranks in terms of income and fertility rates (table-5.23).

**Table 5.24: Distribution of Respondents by Per Capita Monthly Income**

Income groups (monthly per capita income in rupees)	Number of respondents	Proportion to total (percent)
<500	112	18.67
500-1000	166	27.67
1000-2000	165	27.50
2000-5000	128	21.33
≥5000	29	4.83
All	600	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

**Fig 5.5: Distribution of Respondents by Per Capita Income**



**Fig. 5.5**

In order to find out the relationship of fertility with income, Pearson's Correlation Coefficient has been calculated separately for the four religious groups under consideration. The result presented in the tables 5.37-5.41 show that there exist a negative relation between income and fertility. The correlation coefficients vary between the variables range between -0.0495 to -0.3236. It is interesting to note that the strongest negative relationship exists between the two variables among the Christians (-0.3236) and the weakest relationship is observed between the variables among the Muslims. The Hindus and Buddhists, lying in between, have correlation coefficient of -0.171 to -0.3036 respectively. This points to the fact that despite even with increasing income Muslims are prone to higher fertility rates. From the correlation between income and fertility, it can be said that the increase in income has weaker impact on fertility among the Muslims. This may be because of the fact that even the meager amount of income that the Muslims are earning are spent to fulfill the bare necessities of life

such as 'food, shelter and clothing' and thus the higher needs of life such education, health care etc. are neglected. The income, expenditure and savings etc. all are found to be the lowest among the Muslims. Overall consciousness among the Muslims is considerably low which causes relatively higher fertility.

**Table 5.25: Distribution of Respondents by Number of Births by Monthly Per Capita Income**

Income groups (monthly per capita income in rupees)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<500	2	5	34	33	13	25	112	18.67
500-1000	5	33	57	37	21	13	166	27.67
1000-2000	13	29	66	33	13	11	165	27.50
2000-5000	19	47	36	15	9	2	128	21.33
≥5000	8	3	14	1	3	--	29	4.83
All	47	117	207	119	59	51	600	100.00
(percent)	(7.83%)	(19.50%)	(34.50%)	(19.83%)	(9.83%)	(8.50%)	(100.00%)	

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

The distribution of the respondents by income and the number of births revealed by the respondents till the day of interview shows that as high as 58.44 percent of the respondents giving births to three or more than three children do have monthly per capita income of only up to Rs. 1000.00 (table-5.24), where as only 18.10 percent of the respondents have monthly per capita income of Rs. 2000.00 and above. About 1/4<sup>th</sup> (23.46 percent) of the respondents having children three or above three do have monthly per capita income that varies between Rs. 1000.00 and Rs. 2000.00. This conforms to the fact that higher income groups exhibit lower fertility rate.

**Table 5.26: Distribution of Respondents by Number of Births and by Monthly Per Capita Income (Buddhists)**

Income groups (monthly per capita income in rupees)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<500	--	--	--	--	--	--	0	0.00
500-1000	--	--	6	2	--	--	8	8.00
1000-2000	1	3	17	4	2	--	27	27.00
2000-5000	10	16	18	4	--	--	48	48.00
≥5000	6	2	9	--	--	--	17	17.00
All	17	21	50	10	2	--	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Number of births and income among the Buddhists show interesting trend which seems to be different from the overall condition prevailed in the region. It has been seen that only 12 percent of the respondents belonging to Buddhists religions background have given birth to three or more than three babies. Of the total respondents belonging to the above category as many as 83.33 percent have monthly per capita income of Rs. 1000.00 to Rs. 2000.00. Similarly, of the total respondents 50 percent have given birth to 2 (two) children. Out of total 50 respondents in this category as high as 35 respondents have monthly per capita income of Rs. 1000.00 to Rs. 5000.00. Similarly, nine respondents have monthly per capita income of Rs. 5000.00 and above.

**Table 5.27: Distribution of Respondents by Number of Births and by Monthly Per Capita Income (Christians)**

Income groups (monthly per capita income in rupees)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<500	2	--	6	9	2	4	23	23.00
500-1000	--	7	13	7	1	2	30	30.00
1000-2000	3	3	14	12	--	--	32	32.00
2000-5000	3	2	6	2	--	--	13	13.00
≥5000	2	--	--	--	--	--	2	2.00
All	10	12	39	30	3	6	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

As has been mentioned earlier, it is in the case of Christians that the relation of fertility to the income is found to be the strongest. As a result, it could be seen that out of 39 respondents having given birth to three and more than three children, of which as high as 25 respondents have their per capita income below Rs. 1000.00 only. It is only two percent of the respondents who have high per capita monthly income of Rs. 2000.00 and above and have given birth to three or more than three children.

When it comes to the question of Hindu respondents, it was found from the data that as high as 41 percent of the respondents have given birth to three or more than three children where as only 22.00 percent of the respondents have 2 children till the day of enumeration. Of the total 82 Hindu respondents in this group, 50 respondents i.e. 60.98 percent have income up to Rs. 1000.00. Thus, the distribution of the Hindu respondents also conforms to have had negative relationship between fertility and income. It is clear that as income goes up fertility declines among the Hindus.

The distribution of Muslim respondents by number of births and income shows that as high as 16.00 percent of the total respondents have given birth to five or more than five children. Of the total 96 respondents in the category of greater than equal to 3 children, as high as 65 respondents i.e. 67.71 percent have income up to Rs. 1000.00. On the other hand, only 15 out of 96 i.e. 15.63 percent respondents in this category have per capita income of Rs. 2000.00 and

above. It is interesting to note that only 4.50 percent of the Muslim respondents with per capita income of Rs. 2000.00 and above have given birth to three or more than three children.

**Table 5.28: Distribution of Respondents by Number of Births and by Monthly Per Capita Income (Hindus)**

Income groups (monthly per capita income in rupees)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<500	--	1	10	16	4	8	39	19.50
500-1000	2	11	18	12	8	2	53	26.50
1000-2000	7	15	26	17	3	3	71	35.50
2000-5000	2	16	6	5	3	--	32	16.00
≥5000	--	1	3	1	--	--	5	2.50
All	11	44	63	51	18	13	200	100.00
(percent)	(5.50%)	(22.00%)	(22.00%)	(25.50%)	(9.00%)	(6.50%)	100.00(%)	

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

**Table 5.29: Distribution of Respondents by Number of Births by Monthly Per Capita Income (Muslims)**

Income groups (monthly per capita income in rupees)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<500	--	4	18	8	7	13	50	25.00
500-1000	3	15	20	16	12	9	75	37.50
1000-2000	2	8	9	--	8	8	35	17.50
2000-5000	4	13	6	4	6	2	35	17.50
≥5000	--	--	2	--	3	--	5	2.50
All (percent)	9 (4.50%)	40 (20.00%)	55 (27.50%)	28 (14.00%)	36 (18.00%)	32 (16.00%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

The major high lights of the section on 'Fertility and Income' are as follows:

1. There exists a negative relationship between fertility (number of births) and income (per capita monthly income).
2. The income has strongest negative relation with fertility among the Christians and weakest among the Muslims.
3. The correlation coefficient calculated between the variables fertility (number of births) and income (per capita monthly income) varies between -0.0495 and -0.3236.

## **Fertility and Age at Marriage**

Age at marriage for the purpose of this study is essentially 'Age at First Marriage'. While choosing this indicator it was expected that the age at marriage will have influence on fertility. As duration of conjugal life as well as duration fertile period (child bearing) also increase fertility may increase with increasing age at marriage. An early marriage means longer duration of both conjugal life and fertile period and hence there is a possibility of higher fertility.

Recording of correct age as well as date of marriage and thus estimation of age at marriage and subsequently duration of conjugal life were found to be too difficult. It is true particularly for rural areas and for illiterate and uneducated people. Whenever there is an absence of documentary evidence, statement by person concerned, parents statement as well as statement of the elderly neighbour etc. have been given due consideration. A very high degree of precaution has been taken to cross check and verify the age as well as age at marriage of the respondents. When all the above cited methods have failed, the eye estimation along with statement of the respondents was the final basis of entering age as well as age at marriage.

While planning and formulating the study it was expected that the age at marriage will have negative impact on fertility. While observing data on fertility and average age at marriage it is found that average age at marriage is the lowest among the Muslim respondents (16.54 years) and the highest age at

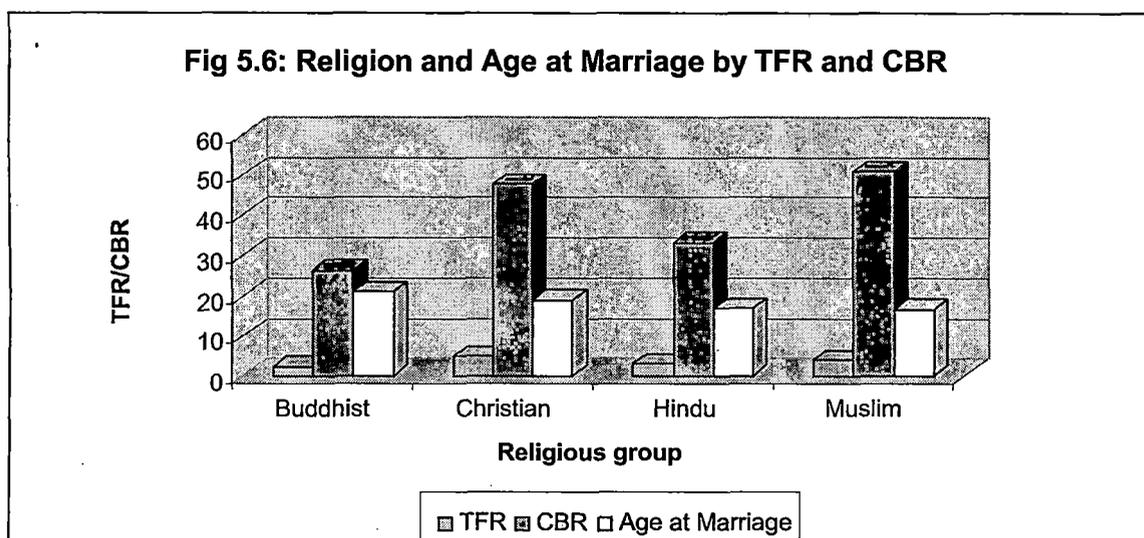
marriage is found among the Buddhists (20.99 years). The average age at marriage for all the religions is 18.38 years (table 5.30). It is inferred from the data that the lowest fertility i.e. TFR is found among the Buddhists and the highest fertility rates is found among the Muslims. It will be difficult to draw a simple conclusion in this regard. But when one examines the extent of CBR it is found that there is a strong relationship of fertility with the age at marriage. The Buddhists have highest age at marriage (20.99 years) and lowest CBR (26.25) and the Muslims similarly, have lowest age at marriage (16.54 years) with highest CBR i.e. 51.02 among all the religious groups under consideration.

**Table 5.30: Fertility and Age at Marriage by Religion**

Religious group	Fertility Rates		Average age at marriage (years)
	TFR	CBR	
Buddhist	2.44	26.25	20.99
Christian	4.89	47.72	19.03
Hindu	2.98	33.26	16.94
Muslim	3.99	51.02	16.54
Average/ Over all	3.57	39.56	18.38

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

The distribution of respondents by age at marriage shows that as high as 50.00 percent of the respondents of all religious affiliation got married before the completion of 18 years i.e. the legal age of marriage. It is not only interesting to note but a matter of great concern that half of the respondents got married before attaining legal age of married i.e. 18 years. It is thus only 27.33 percent of the all the respondents who got married at the age of 20 years and above.

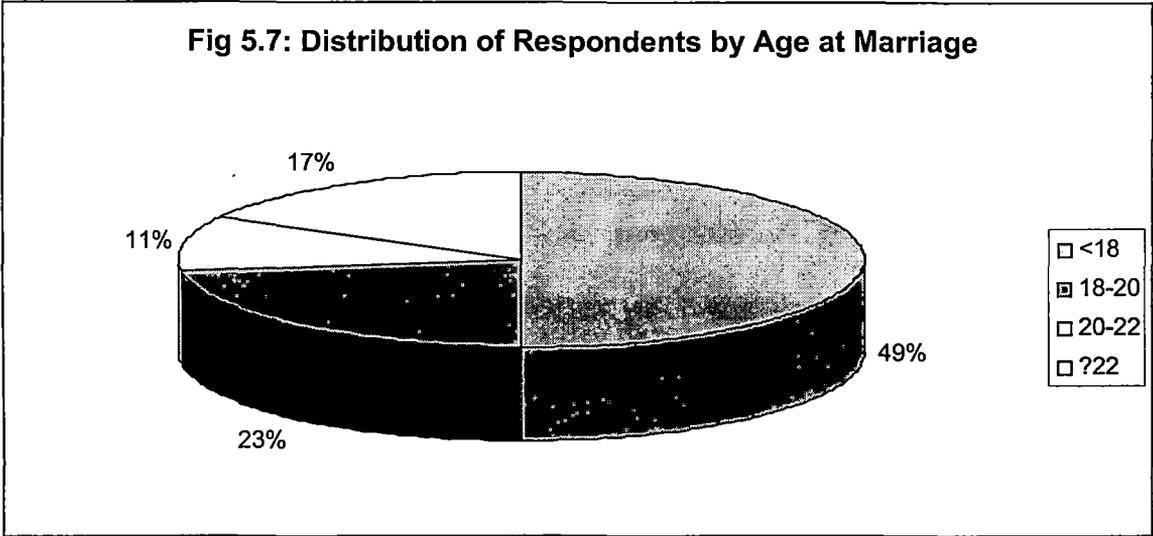


**Fig. 5.6**

**Table 5.31: Distribution of Respondents by Age at Marriage**

Age at marriage (years)	Number of respondents	Proportion to total (percent)
<18	300	50.00
18-20	136	22.67
20-22	63	10.50
≥22	101	16.83
All ages	600	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.



**Fig. 5.7**

It is interesting to note that while 38.16 percent of all the respondents have given birth to three or more than three children, as high as 53.33 percent of the respondents getting married below the age of 18 years have given birth to three or more than three children. As one moves up in the ladder of age at marriage, it is observed that lesser proportion of the respondents have given birth to multiple children ( $\geq 3$  children). Table 5.32 reveals that only 19.50 percent of the respondents who got married at the age of 20 years and above have given birth to three or more than three children. It is further observed that only 34.50 percent of the respondents have given birth to two children followed by 38.16 percent to three or more than three and remaining 46.90 percent to one or no child till the day of enumeration.

**Table 5.32: Distribution of Respondents by Number of Births and by Age at Marriage**

Age at marriage (years)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<18	12	32	96	83	47	30	300	50.00
18-20	11	42	53	8	10	12	136	22.67
20-22	2	15	24	11	2	9	63	10.50
≥22	22	28	34	17	--	--	101	16.83
All ages (percent)	47 (7.83%)	117 (19.50%)	207 (34.50%)	119 (19.83%)	59 (9.83%)	51 (8.50%)	600 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

It is true that the age at marriage is related to fertility and valid for all the respondents irrespective of their religious allegiance. In order to ascertain this relation and its effect across the religious groups, correlation coefficients have been calculated taken number of births including still births i.e. 'secondary fertility' and 'age at marriage' into consideration. The result shows that age at marriage is negatively related to fertility when it is calculated for all the religious groups, but it is to be noted that the extent at which fertility varies with varying ages at marriage is not same for all the religious groups.

**Table 5.33: Distribution of Respondents by Number of Births and by Age at Marriage (Buddhists)**

Age at marriage (years)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<18	--	--	12	2	--	--	14	14.00
18-20	5	4	11	2	--	--	22	22.00
20-22	-	6	12	2	2	--	22	22.00
≥22	12	11	15	4	--	--	42	42.00
All ages	17	21	50	10	2	--	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

From the correlation analysis it is inferred that the strongest relationship between fertility (birth) and age at marriage found among the Buddhists where the correlation coefficient being -0.2783 and the weakest relationship between the variables is found among the Hindus where the coefficient is only -0.2370. The other religious groups i.e. Christians and Muslims have coefficients value varying between -0.2725 and -0.2529 respectively. When one examines correlation coefficient between fertility (number of pregnancies) and age at marriage it is found that the strongest negative relationship exists among the Buddhists (-0.3213) and the weakest relationship exist among Muslims (-0.2113). That means increase in age at marriage is a cause of relatively low fertility

among the Buddhists, where as the phenomenon has no significant influence on Muslim fertility.

**Table 5.34: Distribution of Respondents by number of Births and by Age at Marriage (Christians)**

Age at marriage (years)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<18	--	1	16	17	1	2	37	37.00
18-20	1	5	11	4	2	2	25	25.00
20-22	--	--	3	3	--	2	8	8.00
≥22	9	6	9	6	--	--	30	30.00
All ages	10	12	39	30	3	6	100	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

Distribution of respondents by age at marriage and religion shows that half of the Buddhist respondents have given birth to two children which is the highest among all the religious groups. At the same time, a low proportion of respondents that i.e. 27.50 percent of the total respondents among Muslims have given birth to two children. The other two groups i.e. Christians and Hindus have 30.00 percent and 31.50 percent of the respondents giving birth to two babies each respectively.

**Table 5.35: Distribution of Respondents by Number of Births and by Age at Marriage (Hindus)**

Age at marriage (years)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<18	9	13	32	38	15	9	116	58.00
18-20	1	17	15	2	3	2	40	20.00
20-22	--	7	8	6	--	2	23	11.50
≥22	1	7	8	5	--	--	21	10.50
All ages (percent)	11 (5.50%)	44 (22.00%)	63 (31.50%)	51 (25.50%)	18 (9.00%)	13 (6.50%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

There is a larger variation in the proportion of respondents having given birth to three or more children among different religious groups under study. The Muslims lead the list with 44.16 percent of the respondents belonging to this religious group have giving birth to three children or more. With respect to the same indicator Buddhists hold the bottom position in the list. Only 12.00 percent of the respondents of the Buddhists reported that they have given birth to three or more than three children. The Christians and Hindus are observed to have maintained moderate level with respect to births.

**Table 5.36: Distribution of Respondents by Number of Births and by Age at Marriage (Muslims)**

Age at marriage (years)	Number of births						Total	Percent
	0	1	2	3	4	≥5		
<18	3	18	36	26	31	19	133	66.50
18-20	4	16	15	--	5	8	48	24.00
20-22	2	2	2	--	--	5	11	5.50
≥22	--	4	2	2	--	--	8	4.00
All ages (percent)	9 (4.50%)	40 (20.00%)	55 (27.50%)	28 (26.00%)	36 (18.00%)	32 (16.00%)	200 (100.00%)	100.00

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

A glance at the tables 5.33-5.36 reveals that the highest proportion of the respondents (19.00 percent) of the Christians with age at marriage 18 years and above have given birth to three or more than three children followed by the other three religious groups percentage being 10.00 each.

The major high lights of the section Fertility and Age at Marriage are as follows:

1. There exists a negative relationship between fertility and age at marriage.
2. The relationship also holds good in case of pregnancy and births.

3. The relation between fertility and age at marriage is negative for all the religions but the magnitude differs across the religious groups.
4. The strongest relationship between the variables is found among the Buddhists and the weakest relationship exists among the Hindus of all the religious groups studied.

### **Quantitative Analysis of Fertility with Respect to Socio-economic Variables**

In this section, an effort has been made to go in for quantitative analysis of variables. The section is devoted to understand the effect of selected variables on fertility. For calculation of correlation coefficients, the variables such as number of births including still births and number of pregnancies occurred to a respondent has been taken into account. Pearson's correlation coefficients have been calculated, between number of births (also number of pregnancies occurred) and the socio-economic indicators as given below:

- Educational attainment (number of years of schooling),
- Father's education (number of years of schooling),
- Mother's education (number of years of schooling),
- Husband's education (number of years of schooling),
- Age at marriage (years), and
- Per capita monthly income (Rupees).

The value of correlation coefficient (r) shows how strong the relation between the variables is. The 'r' value varies between +1 and -1 which means the range is  $1 \geq r \geq -1$ . A value of +ve1 indicates the highest possible positive relation and -ve1 indicates the highest possible negative relationship between the variables. Between these two extreme values the coefficient may vary. When  $r = 0$  it indicates there exists absolutely no relationship between the variables. The results of correlation analysis are presented in tables (5.37-5.41).

In order to measure the effect of one explanatory variable on the other explained variable, linear regression analysis has been adopted. As part of this exercise both the slope (a) and the intercept (b) of the best fit line has been calculated as per the equation (i) and the result has been presented in the tables 5.40-5.43.

$$y = ax + b \text{ ----- (i)}$$

Where, y = dependent variable (fertility/birth)

x = independent variable (income etc.)

**Slope (a)** it returns the slope of the linear regression line through the given data points (table 5.42-5.45).

**Intercept (b)** is the point at which a line will intersect the y-axis using a best fit regression line plotted through the known x-values and y-values (table 5.42-5.45).

The regression lines have been drawn (figures 5.9 – 5.20) as per the equation no. (i) for all four religious groups and also for different explanatory variables in the following sections.

- Figures 5.9-5.12 present regression line of income on fertility,
- Figures 5.13-5.16 present regression line of age at marriage on fertility, and
- Figures 5.17-5.20 present regression line of education of respondents on fertility.

For regression analysis, the number of births has been taken as dependent variable and the independent variables are as follows-

- Educational attainment (class passed),
- Monthly Income (Rupees),
- Monthly Expenditure (Rupees),
- Per capita monthly income (Rupees),
- Per capita monthly expenditure (Rupees),
- Age at marriage (years), and
- Duration of conjugal life (years).

The results of regression analysis have been presented in the tables (5.42-5.45). The following section will be dealing with the results of regression analysis. The results have been interpreted in the light of the objectives set in the study.

**Table 5.37: Correlation of Fertility with Socio-economic Variables (Buddhists)**

Socio-economic variables	Correlation coefficient with	
	Births including still birth	Pregnancy
Educational attainment	-0.44552	-0.497154
Father's education	-0.104136	-0.086415
Mother's education	-0.19612	-0.235968
Husband's education	-0.134971	-0.120614
Age at marriage	-0.278314	-0.321328
Per capita monthly income	-0.303649	-0.314117

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

- Among the educational variables, the strongest relation of fertility is found with respondent's education ( $r = 0.44552$ ) among the Buddhists.
- Among the educational variables, the weakest relation of fertility is found with father's education ( $r = 0.104136$ ) among the Buddhists.

**Table 5.38: Correlation of Fertility with Socio-economic Variables (Christians)**

Socio-economic variables	Correlation coefficient with	
	Births including still birth	Pregnancy
Educational attainment	-0.45699	-0.4352
Father's education	-0.12202	-0.06479
Mother's education	-0.19367	-0.07563
Husband education	-0.2047	-0.22762
Age at marriage	-0.27246	-0.22897
Per capita monthly income	-0.32355	-0.31141

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

- Among the educational variables, the strongest relation of fertility is found with respondent's education ( $r = -0.45699$ ) among the Christians.
- Among the educational variables, the weakest relation of fertility is found with father's education ( $r = -0.12202$ ) among the Christians.

**Table 5.39: Correlation of Fertility with Socio-economic Variables (Hindus)**

Socio-economic variables	Correlation coefficient with	
	Births including still birth	Pregnancy
Educational attainment	-0.474	-0.425492
Father's education	-0.222	-0.208524
Mother's education	-0.170	-0.205433
Husband education	-0.184	-0.184421
Age at marriage	-0.237	-0.271921
Per capita monthly income	-0.171	-0.165224

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

- Among the educational variables, the strongest relation of fertility is found with respondent's education ( $r = -0.474$ ) among the Hindus.
- Among the educational variables, the weakest relation of fertility is found with mother's education ( $r = -0.170$ ) among the Hindus.

**Table 5.40: Correlation of Fertility with Socio-economic Variables (Muslims)**

Socio-economic variables	Correlation coefficient with	
	Births including still birth	Pregnancy
Educational attainment	-0.37725381	-0.31526591
Father's education	-0.24152723	-0.22820004
Mother's education	-0.09645681	-0.08916365
Husband education	-0.16816827	-0.12600011
Age at marriage	-0.25296931	-0.21133164
Per capita monthly income	-0.04957086	-0.05883836

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

- Among the educational variables, the strongest relation of fertility is found with respondent's education ( $r = -0.37725$ ) among the Muslims.
- Among the educational variables, the weakest relation of fertility is found with father's education ( $r = -0.04957$ ) among the Muslims.

**Table 5.41: Correlation Coefficient of Birth with Selected Variables by Religion**

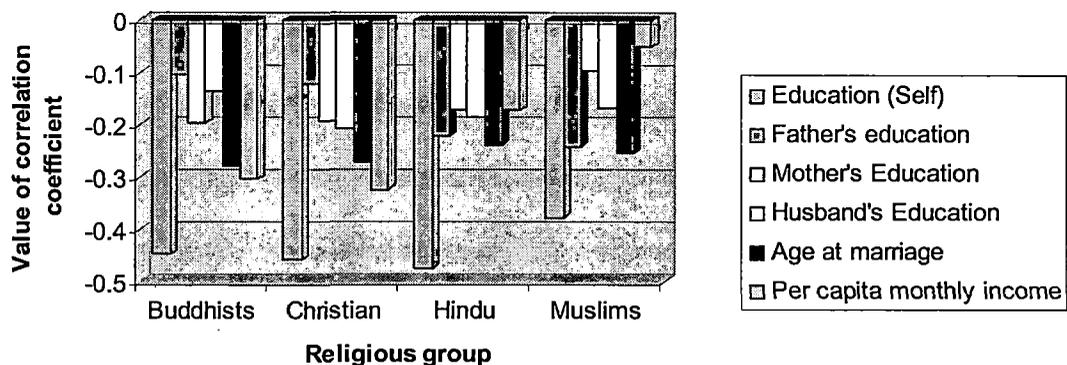
Variables	Correlation Coefficient of Birth to selected variables with respect to the religious group			
	Buddhists	Christian	Hindu	Muslims
Educational attainment (Self)	-0.44552	-0.45699	-0.474	-0.37725381
Father's education	-0.104136	-0.12202	-0.222	-0.24152723
Mother's education	-0.19612	-0.19367	-0.170	-0.09645681
Husband education	-0.134971	-0.2047	-0.184	-0.16816827
Age at marriage	-0.278314	-0.27246	-0.237	-0.25296931
Per capita monthly income	-0.303649	-0.32355	-0.171	-0.04957086

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

How the individual determinant influences and how they are related to fertility in different religious group have been presented in a summarized form.

- **Education of the respondents:** the strongest relation is found among the Hindus ( $r = -0.474$ ) and weakest among the Muslims ( $r = -0.377$ ).
- **Education of the respondents' father:** the strongest relation is found among the Muslims ( $r = -0.242$ ) and the weakest among the Buddhists ( $r = -0.104$ ).
- **Education of the respondents' mother:** the strongest relation is found among the Buddhists ( $r = -0.196$ ) and the weakest among the Muslims ( $r = -0.096$ ).
- **Education of the respondents' Husband:** the strongest relation is found among the Christians ( $r = -0.205$ ) and the weakest among the Buddhists ( $r = -0.135$ ).
- **Age at marriage of the respondents:** the strongest relation is found among the Buddhists ( $r = -0.278$ ) and the weakest among the Hindus ( $r = -0.237$ ).
- **Per Capita Monthly Income:** the strongest relation is found among the Christians ( $r = -0.324$ ) and weakest among the Muslims ( $r = -0.049$ ).

**Fig 5.8 : Correlation of Birth to Selected Socio-economic Variables**



**Fig. 5.8**

**Table 5.42: Regression Analysis of Fertility with Socio-economic Variables (Buddhists)**

Socio-economic variables i.e. explanatory variables (x)	Result of Regression Analysis	
	slope (a)	Intercept (b)
Monthly Income (Rs)	$-1.978 \times 10^{-5}$	1.920095
Monthly Expenditure (Rs)	$-2.335 \times 10^{-5}$	1.835397
Age at marriage (years)	-0.089	3.540965
Duration of conjugal life (years)	0.093	0.285071
Per capita monthly income (Rs)	$-0.131 \times 10^{-5}$	2.071823
Per capita monthly expenditure (Rs)	$-0.190 \times 10^{-5}$	1.994416
Education (class passed)	-0.10526023	2.614182

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

From the table 5.42, related to the Buddhists, it is revealed that barring 'duration of conjugal life' all other variables are negatively related to fertility with varying degree of impact. While the highest negative coefficient is observed between 'age at marriage' and fertility, the same is the lowest incase of 'per capita monthly income' and fertility. Per unit change in the independent variables the impact on the dependent variable is as given below.

- One unit (Re. one) increase in monthly income will lead to reduction of fertility (birth) at the rate of  $-1.978 \times 10^{-5}$ .
- One unit (Re. one) increase in monthly expenditure will lead to reduction of fertility (birth) at the rate of  $-2.335 \times 10^{-5}$ .
- One unit (one year) increase in age at marriage will lead to reduction of fertility (birth) at the rate of -0.089.
- One unit (one year) increase in duration of conjugal life will lead to increase in fertility (birth) at the rate of 0.093.
- One unit (Re. one) increase in per capita monthly income will lead to reduction of fertility (birth) at the rate of  $-0.131 \times 10^{-5}$ .
- One unit (Re. one) increase in per capita monthly expenditure will lead to reduction of fertility (birth) at the rate of  $-0.190 \times 10^{-5}$ .
- One unit of education (one year of schooling) will lead to reduction of fertility (birth) at the rate of -0.10526.

**Table 5.43: Regression Analysis of Fertility with Socio-economic Variable (Christians)**

Socio-economic variables i.e. explanatory variables (x)	Result of Regression Analysis	
	slope (a)	Intercept (b)
Monthly Income (Rs)	$-7.069 \times 10^{-5}$	2.936427
Monthly Expenditure (Rs)	$8.182 \times 10^{-5}$	2.325354
Age at marriage (years)	-0.058	3.670622
Duration of conjugal life	0.092	1.387122
Per capita monthly income (Rs)	$-0.324 \times 10^{-3}$	2.949486
Per capita monthly expenditure (Rs)	$-0.258 \times 10^{-3}$	2.71846
Education (class passed)	-0.146794076	3.055073

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

From the table 5.43, related to the Christians, it is revealed that barring 'duration of conjugal life' and 'monthly expenditure' all other variables are negatively related to fertility with varying degree of impact. While the highest negative coefficient is observed between 'educational attainment' and fertility, the same is the lowest in case of 'monthly income' and fertility. Per unit change in the independent variables the impact on the dependent variable is as given below.

- One unit (Re. one) increase in monthly income will lead to reduction of fertility (birth) at the rate of  $-7.069 \times 10^{-5}$ .
- One unit (Re. one) increase in monthly expenditure will lead to increase in fertility (birth) at the rate of  $8.182 \times 10^{-5}$ .
- One unit (one year) increase in age at marriage will lead to reduction of fertility (birth) at the rate of  $-0.058$ .
- One unit (one year) increase in duration of conjugal life will lead to increase in fertility (birth) at the rate of  $0.092$ .
- One unit (Re. one) increase in per capita monthly income will lead to reduction of fertility (birth) at the rate of  $-0.324 \times 10^{-3}$ .
- One unit (Re. one) increase in per capita monthly expenditure will lead to reduction of fertility (birth) at the rate of  $-0.258 \times 10^{-3}$ .
- One unit of education (one year of schooling) will lead to reduction of fertility (birth) at the rate of  $-0.1468$ .

**Table 5.44: Regression Analysis of Fertility with Socio-economic Variable (Hindus)**

Socio-economic variables i.e. explanatory variables (x)	Result of Regression Analysis	
	slope (a)	Intercept (b)
Monthly Income (Rs)	$-4.999 \times 10^{-6}$	2.6807
Monthly Expenditure (Rs)	$8.926 \times 10^{-6}$	2.6143
Age at marriage (years)	-0.115	4.5919
Duration of conjugal life	0.128	0.9516
Per capita monthly income (Rs)	$-0.152 \times 10^{-3}$	2.865
Per capita monthly expenditure (Rs)	$-0.239 \times 10^{-3}$	2.866
Education (class passed)	-0.141193566	3.15457

Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

From the table 5.44, related to the Hindus, it is revealed that barring 'duration of conjugal life' and 'monthly expenditure' all other variables are negatively related to fertility with varying degree of impact. While the highest negative coefficient is observed between 'educational attainment' and fertility, the same is the lowest incase of 'monthly income' and fertility. Per unit change in the independent variables the impact on the dependent variable is as given below.

- One unit (Re. one) increase in monthly income will lead to reduction of fertility (birth) at the rate of  $-4.999 \times 10^{-6}$ .
- One unit (Re. one) increase in monthly expenditure will lead to increase in fertility (birth) at the rate of  $8.926 \times 10^{-6}$ .
- One unit (one year) increase in age at marriage will lead to reduction of fertility (birth) at the rate of  $-0.115$ .
- One unit (one year) increase in duration of conjugal life will lead to increase in fertility (birth) at the rate of  $0.128$ .
- One unit (Re. one) increase in per capita monthly income will lead to reduction of fertility (birth) at the rate of  $-0.125 \times 10^{-3}$ .
- One unit (Re. one) increase in per capita monthly expenditure will lead to reduction of fertility (birth) at the rate of  $-0.239 \times 10^{-3}$ .
- One unit increase of education (one year of schooling) will lead to reduction of fertility (birth) at the rate of  $-0.1412$ .

**Table 5.45: Regression Analysis of Fertility with Socio-economic Variable (Muslims)**

Socio-economic variables i.e. explanatory variables (x)	Result of Regression Analysis	
	slope (a)	Intercept (b)
Monthly Income (Rs)	$9.916 \times 10^{-6}$	2.9557
Monthly Expenditure (Rs)	$1.325 \times 10^{-5}$	2.9623
Age at marriage (years)	-0.143	5.3823
Duration of conjugal life	0.161	1.1353
Per capita monthly income (Rs)	$-5.040 \times 10^{-5}$	3.0962
Per capita monthly expenditure (Rs)	$-1.538 \times 10^{-5}$	3.0393
Education (class passed)	-0.161237793	3.514438

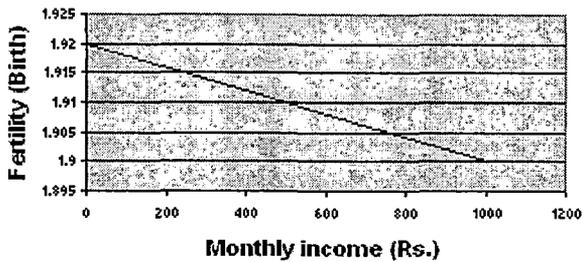
Source: Calculated by the researcher on the basis of the data collected from the field during 2007-2008.

From the table 5.45, related to the Muslims, it is revealed that barring 'duration of duration of conjugal life', 'monthly income' and also 'monthly expenditure' all other variables are negatively related to fertility with varying degree of impact. While the highest positive coefficient is observed between 'duration of conjugal

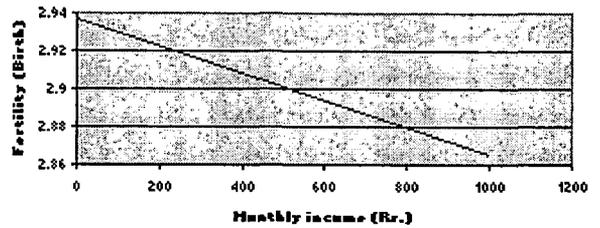
life' and fertility, the same is the lowest increase of 'monthly income' and fertility. At the same time, the highest negative coefficient is observed between 'educational attainment' and fertility, the same is the lowest increase of 'per capita monthly expenditure' and fertility. Per unit change in the independent variables the impact on the dependent variable is as given below.

- One unit (Re. one) increase in monthly income will lead to increase in fertility (birth) at the rate of  $9.916 \times 10^{-6}$ .
- One unit (Re. one) increase in monthly expenditure will lead to increase in fertility (birth) at the rate of  $1.325 \times 10^{-5}$ .
- One unit (one year) increase in age at marriage will lead to reduction of fertility (birth) at the rate of -0.143.
- One unit (one year) increase in duration of conjugal life will lead to increase in fertility (birth) at the rate of 0.161.
- One unit (Re. one) increase in per capita monthly income will lead to reduction of fertility (birth) at the rate of  $-5.040 \times 10^{-5}$ .
- One unit (Re. one) increase in per capita monthly expenditure will lead to reduction of fertility (birth) at the rate of  $-1.538 \times 10^{-5}$ .
- One unit of education (one year of schooling) will lead to reduction of fertility (birth) at the rate of -0.1612.

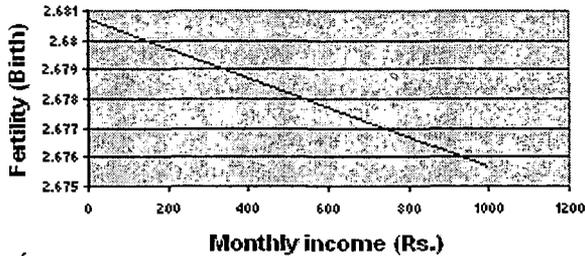
**Fig. 5.9 : Trend line between income and fertility (Buddhist)**



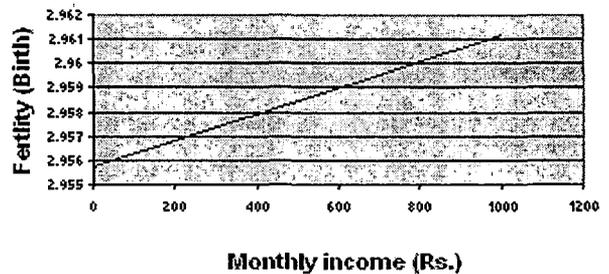
**Fig. 5.10 : Trend line between income and fertility (Christian)**



**Fig. 5.11 : Trend line between income and fertility (Hindu)**



**Fig. 5.12 : Trend line between income and fertility (Muslim)**



Regression line given by the equation:

$$y = ax + b$$

Where, y = dependent variable (fertility/birth)

x = independent variable (income)

a = slope of the line

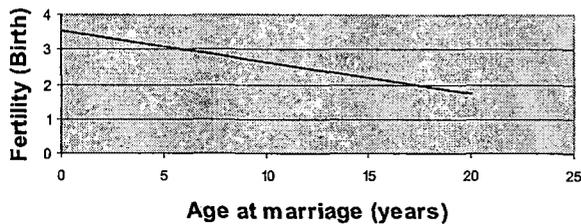
b = intercept of the line

**Note:**

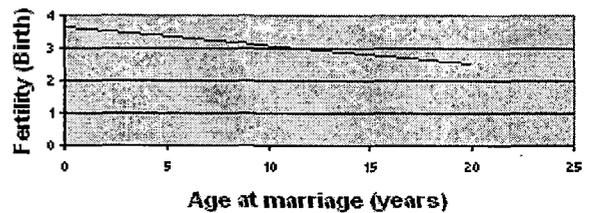
**Slope (a)** it returns the slope of the of the linear regression line through the given data points (table 5.40-5.43).

**Intercept (b)** is the point at which a line will intersect the y-axis using a best fit regression line plotted through the known x-values and y-values (table 5.42-5.45).

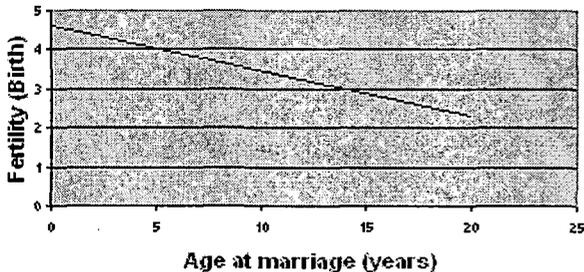
**Fig. 5.13 : Trend line between age at marriage- birth (Buddhist)**



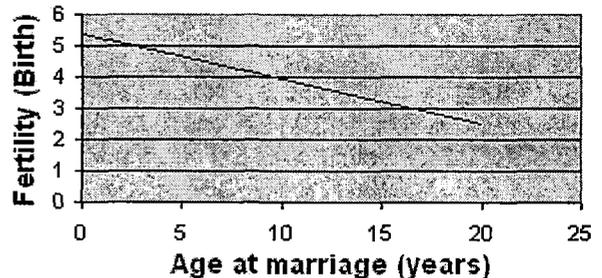
**Fig. 5.14 : Trend line between age at marriage-fertility (Christian)**



**Fig. 5.15 : Trend line between fertility and age at marriage (Hindu)**



**Fig. 5.16: Trend line between fertility-age at marriage (Muslim)**



Regression line given by the equation:  $y = ax + b$

Where,  $y$  = dependent variable (fertility/birth)

$x$  = independent variable (age at marriage in years)

$a$  = slope of the line

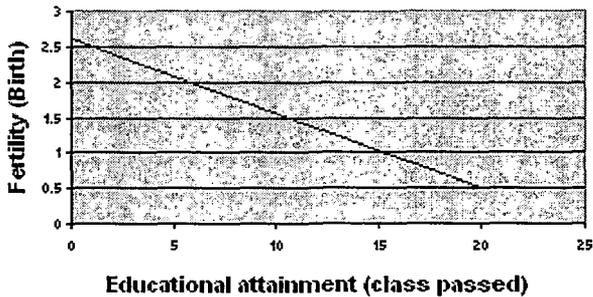
$b$  = intercept of the line

**Note:**

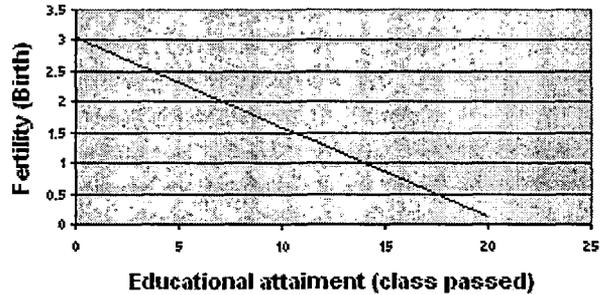
**Slope (a)** it returns the slope of the of the linear regression line through the given data points (table 5.40-5.43).

**Intercept (b)** is the point at which a line will intersect the y-axis using a best fit regression line plotted through the known x-values and y-values (table 5.42-5.45).

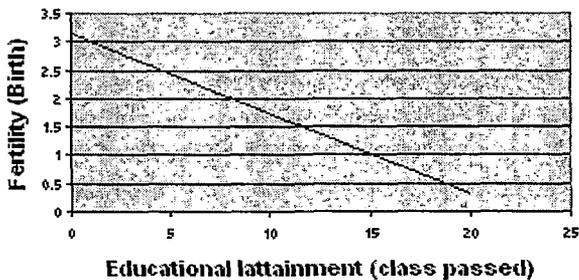
**Fig. 5.17 :Trend line between education and fertility (Buddhist)**



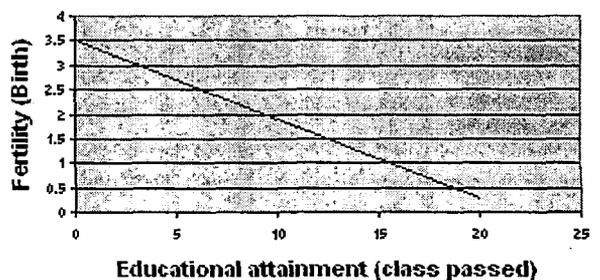
**Fig. 5.18 : Trend line between education and fertility (Christian)**



**Fig. 5.19 : Trend line between education and fertility (Hindu)**



**Fig. 5.20 : Trend line between education and fertility (Muslim)**



Regression line given by the equation:  $y = ax + b$

Where,  $y$  = dependent variable (fertility/birth)

$x$  = independent variable (education in terms of class passed)

$a$  = slope of the line

$b$  = intercept of the line

**Note:**

**Slope (a)** it returns the slope of the of the linear regression line through the given data points (table 5.40-5.43).

**Intercept (b)** is the point at which a line will intersect the y-axis using a best fit regression line plotted through the known x-values and y-values (table 5.42-5.45).

Figures 5.9 to 5.12 show the regression line between income and fertility. Close observation of the figures (5.9 to 5.12) reveals that regression lines for all the religions barring Muslims slope down ward. But the amount of slope differs to a certain degree indicating differential impact of income on fertility. Where as maximum degree of down ward slope is found incase of Christians. The minimum is found in case of Buddhists. In case of Muslims the slope is up ward that indicates an increase in fertility with increasing income. It is interesting to note that incase of Muslims the increments in income has been influencing the fertility rate positively. It is probably because of the fact that even with increasing income, the educational development and thereby overall development is not taking place, at least at desired level. The Buddhists, Hindus and Christians have developed their educational and other social consciousness with increasing level of income.

Fertility and Age at Marriage for all the religions have been depicted in the figures 5.13 to 5.16. The relationship between fertility and age at marriage is negative which is indicated by the downward slope of the regression lines for all the religious groups. Though the magnitude varies, yet the trend is similar. The slope of the regression line produced in case of Muslim is the maximum indicating maximum impact on fertility in the community and lowest incase of Christian indicating minimum impact in the community. The above analysis indicates that the increasing age at marriage works more effectively among the

Muslims compared to the others as it is evident from the maximum gradient of the regression line in case of the Muslims.

Impact of educational attainment of the respondents have been analysed by constructing regression lines between educational attainment and fertility for all the religious groups. The result of the regression analysis (figures 5.17-5.20) reveals that the impact of education on fertility is maximum among the Muslims and minimum among the Buddhists. Though the slope of the regression lines is negative for all the religions, yet the magnitude varies. The highest gradient (downward) of the regression line is found in case of Muslims and the same is the minimum in case of Buddhists, though the trend is negative for all the religious groups. It interesting to note that the impact of development of education on fertility is more effective in case of the Muslims compared to others, as it is evident from the maximum downward slope of the regression lines drawn for all the religious groups under study. Hence, one may conclude to a certain degree of confidence that the way to reduce the fertility among the Muslims is to take a policy decision to improve education among the community.