THE IMPACT OF RELIGION ON FERTILITY AMONG HINDUS, MUSLIMS, AND CATHOLICS IN BOMBAY: A COMPARATIVE STUDY

by

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To my beloved Mother
and to the memory of my beloved Father
who religiously fulfilled the Vedic blessing
by bearing eight wonderful sons

PREFACE

This study is an outgrowth of the thesis I presented in 1979 for the degree of "Magister der Theologie" in the Pastoral Theology Institute of the Pontifical Theological Faculty of Linz, Austria. While studying various factors contributing to the population explosion in India, I mentioned *en passant* that religion is one of the important ones. My area of specialization in Sociology of Religion at Marquette University gave me a unique opportunity to investigate scientifically and in sociological perspective the under-pinnings of *religion and other* related variables studied *per se* and as an independent variable and their impact on fertility, and this among the adherents of three major Religions of India: Hinduism, Islam, and Catholicism.

This study is divided into seven Chapters. The first, an introduction, explains the population situation in India. The second --The Sociology of Fertility: A General Review-- is a background paper representing a review of major literature on the subject with special reference to India. The research design and methodology is dealt with in the third Chapter. The data analysis is presented in three subsequent Chapters dealing, respectively, with Religion and Fertility, Religiosity and Fertility; and the impact of Socio-Economic Status (SES) on Fertility, while controlling for Religion. A Summary and Conclusions are presented in the seventh Chapter.

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CHAPTER 1

INTRODUCTION: THE POPULATION PROBLEM IN INDIA

India is a population giant. With 2.4 percent of the world's land area (3.3 million sq.Km.), it has about 15 percent of the world population, making it the seventh largest and the second most populous in the world.

If the size of population is large, its growth is horrifying. It is estimated that its population as of January 1, 1981, was 683,810,051 and it is increasing at the rate of well over a million per month. Since Independence in 1947, over 300 million have been added, a number equivalent to the entire population of the Soviet Union which has six times the land area of India.

In the 1951 Census, India's total population was 361 million, and in 1961 it was 439 million, showing an increase of 21.5 percent for the decade 1951-1961, or increasing at nearly 2.2 percent per year. There has been a further increase in the rate of growth of population since 1961. In the decade 1961-1971, the rate of population growth was 24.57 percent according to 1971 Census. At the current rate of growth, it is estimated that by the turn of the century, the population may double itself and reach the incredible figure of more than one billion. The data on the growth of population during the 70 years from 1901 to 1971 are summarized in Table 1.

Table 1. Growth of the Population of India, 1901-1971

Census Year	Population in Millions	Percentage Increase
1901	236.3	-0.20
1911	252.1	5.73
1921	251.4	-0.31
1931	279.0	11.01
1941	318.7	14.22
1951	361.1	13.31
1961	439.2	21.50
1971	547.0	24.57

SOURCE: Government of India, Census of India, 1961 and 1971

India's First Five Year Plan (1951-1956) assumed a rate of population growth of 1.25 percent per decade. This assumption was retained in the Second Plan also, and it was assumed that the population might increase at the rate of 1.33 percent during 1961-1971. This assumption was based on the estimate of Kingsley Davis (1951:88-90). In 1951, he estimated that the population may grow at the rate of 1.2 percent per annum. Gopalaswami (1951:179-180), the Census Commissioner, on the basis of the Census figures of 1951, assumed that the highest growth rate may be 1.32 per year. Ajit Das Gupta and Murari Majumdar (1954), in their working papers for the Bandung United Nations Seminar on Population for Asia and the Far East held in 1954, assumed an annual growth rate of 1.1 percent and 1.4 percent, respectively. However Coale and Hoover

(1958:359-367) suggested that the population actually may be growing at a rate bordering on 2 percent. The Fourteenth round of the National Sample Survey showed that during the year from July 1958 to July 1959, the population increased at 1.9 percent. As a result of these assessments and surveys, the members of the Seminar on India's population held in 1959 assumed that the rate of growth was 1.7 percent per annum between 1951 and 1956, and 2 percent between 1956 and 1961. So it was projected that the 1961 Census may show a population of 423 million. Actually it was 439 million. Coale and Hoover's (1958:359-367) highest population projection estimated that India's population in 1971 would be 524 million. At the time of that Census count, it was found to be 547.9 million.

Table 1 reveals that from 1901 to 1921 the population increase was modest. It increased from 236 million to 251 million, or about 15 million, in 20 years, or 7.5 million per decade. The slowness of this increase is due to the great influenza epidemic of 1918-1919 (Mitra,1978). (More detailed information about the incidence of mortality from influenza epidemic of 1918 is given in Mitra,1978:816). But the population increase between 1921 and 1951 was much greater. It increased from 251 to 361 million, about 110 million in 30 years or 37.3 million per decade on the average; this is nearly five times the rate of increase of the period 1901-1921. During these 30 years from 1921 to 1951, there were no extraordinary or severe epidemics or famines. This is why the year 1921 is known as the "great divide" in the history of Indian

population.

Before 1921, the population increased slowly, but since then it has increased rapidly. The current rate of growth of population indicates that 1951 is also a significant year. In the twenty years between 1951 and 1971, the population increased from 361 million to 547 million, an increase of 186 million or a rate of 93 million per decade. Since 1956, the growth rate seems to be even higher. It is estimated that the annual addition is 13 million per year--more than the total population of Australia which has two and a half times the area of India. With a birth rate of 41 per thousand population, 21 million people are born every year. This is one baby for every one and a half seconds--more than 55,000 a day. With a death rate of 16 per thousand population, There are 8 million deaths per year, leaving a net addition of 13 million people per year.

Calculations show that India's population of 547 million in 1971 is likely to skyrocket to 934 million in 1991 and to 1.2 billion in 2001 if there is no decline in the birth rate. In India there are over 100 million couples in the reproductive age bracket (Government of India,1978). Of these, nearly 40 million have 3 or fewer children, and 60 million have 4 or more. These 100 million couples are spread out in 560,000 villages and 3,000 towns and cities of diversified geographical conditions, climate, and terrain.

Various reasons are listed by demographers and sociologists to explain this dramatic and apparently uncontrolled growth of the population in India. Fertility behaviour is one of the

important ones, because it is a part of the culture of the people of India! The implication of such recognition is that fertility has to be understood in the context of the economics, social structure, and religion of the people. The present study is an effort in this direction. It seeks to study the impact of religion and personal religiosity on fertility among the adherents of the major religions in India: Hindus, Muslims, and Catholics. However, before coming to that, it is appropriate to review the literature on the major sociological determinants of fertility and other relevant topics, giving particular attention to India.

CHAPTER 2

THE SOCIOLOGY OF FERTILITY: A GENERAL REVIEW

According to a United Nations report (1973), human fertility, as a complex process and as an instrument for the biological continuance of society, constitutes as essential aspect of the studies in modern sociology and demography. The study of the factors contributing to high fertility levels assumes great importance in view of the high rate of increase in population growth experienced in most of the developing countries and the wide variations in the levels of fertility observed within many high fertility countries. A thorough understanding of the differentials and determinants of fertility at all levels is essential for initiating any planned effort for fertility control programmes and for economic development. Further, the knowledge of various determinants of differential fertility contributes to the advancement of a precise theoretical conceptualisation in the sociology of fertility.

There still remains a considerable gap in understanding the determinants of fertility in many countries including India. An attempt is made in this chapter to review the literature on major sociological determinants of fertility in addition to other related factors with a particular reference to India.

A variety of factors have been identified as directly or indirectly responsible for the differences in fertility. The

1973 UN report observes:

> Within the limits established by physiological factors, a multitude of economic, social and cultural factors are the ultimate determinants of fertility levels and of the variations in different societies (p.64).

The countries of the world have been broadly classified into low and high fertility nations. A crude birth rate below 30 or a gross reproduction rate below 2 is considered as low fertility and the rest high fertility (UN,1973). Most of the low fertility countries are developed nations (Ryder,1959).

Though the effects of modernization upon fertility are known to be very strong, the ways in which they occur are obscure. Nor is sufficient information available to explain adequately the major causes of low fertility in many countries (Freedman and Berelson,1976:4).

Most of the studies hitherto conducted in different parts of the world--USA, Latin America, and a few Asian countries--have taken one or the other of the stratification variables or cultural units as the basis of study and have generated a certain amount of knowledge to explain the causes of differential fertility. I shall examine here those which are relevant to the present study.

Religion and Other Cultural Factors

Differentials in fertility according to religious, ethnic, and other cultural groups have been reported in many studies (Kiser,1962; Lenski,1963; Goldberg,1967). In most of the American studies, beginning with the pioneering Indianapolis

Study, the Growth of American Families (GAF) Study (Freedman, 1959), and the Princeton Study (FGMA) (Westoff et al.1961), fertility is shown to vary among the three major religious groups of Catholics, Protestants, and Jews and between the broad ethnic groups, such as the Whites and Blacks. Among them, the Whites have had a lower fertility rate than the Blacks. The Catholics have had the highest fertility and the Jews the lowest. The distinctive Catholic fertility pattern was not a result of low social or educational status or of recent urbanisation, but is one of the characteristics of the religion itself (Freedman,1961). The 1975 National Fertility Study, however, revealed that the distinctiveness of Catholic fertility in USA had in fact disappeared. This is also confirmed by a more recent study by Westoff and Jones (1979). According to them, the end of "Catholic" fertility is due to the rejection of Church's prohibition of the use of artificial birth control by practicing as well as by nominal Catholics (1977:204).

Why do Jews have the lowest fertility compared to the other groups? Freedman, Whelpton and Campbell (1959) believe that their low fertility seems to be consistent with their distinctive social and economic characteristics. Another explanation given for the low fertility of the Jews is their strong upward social mobility which induces lower fertility intentions (Eversley,1959; Westoff et al.,1961).

The higher fertility of the American Catholics and Protestants has been attributed to the fertility values of the respective religious groups. Some writers have taken the view

that Roman Catholicism, with its strong condemnation of contraceptive devices, has tended to consolidate high fertility mores and has been a powerful factor upholding large family norms in many countries, including USA, the Latin American nations, the Philippines, etc. Goldberg (1958) found religious differences considerably reduced when analysis is restricted to the purely urban population. Catholic-Protestant fertility differences (2.37-2.00) among the two generation urbanites in Detroit in 1958 were only at the border line of statistical significance. The only large religious differentials in fertility for Detroiters were found among the rural migrants.

In India, as in many developing countries, religious and other cultural diversities have contributed to definite fertility differences. According to the 1971 Census in India, the decennial growth rates for various religious groups were 23.69 percent for Hindus, 30.85 percent for Muslims, and 32.60 percent for Christians during 1961-1971 (Table 1). Their fertility has varied over these years. There is also definite evidence of religious differences in fertility since the beginning of this century as well. The comparatively low increase of the Hindu population compared to Muslims and Christians gave birth to a politically flavoured controversy, as the extreme right Hindus feared that the Government sponsored Family Planning program could reduce Hindus to a minority in their own homeland (Balasubramanian,1974:15; Hendre,1971:35). Davis (1951: 193-194) However, feels that although this possible, it is not probable.

> The rate of gain has been so gradual that if the two religious groups had continued the same rates of growth that they averaged between 1891 and 1941, 263 years would have been required after 1941 for the Muslim population to equal that of the Hindus. In other words the two groups would not have become even until the year 2204. In the interim it hardly seems likely that the current conditions governing growth would have remained the same, so that the assumption underlying the calculation--namely, that the 1881-1941 rates of growth would continue--is not realistic. It is likely that the Muslims would have continued to be a minority in India for hundreds of years. But in view of the 50-60 million untouchables who are mostly regarded as Hindu, but who might form a mass movement into Christianity or Islam, the future was not necessarily assured.

Table 2. Percentage Distribution of Population by Religion in India 1961 and 1971

Religion	1961	1971	Population Increase (1961-71)
Hindus	83.5	82.7	23.7
Muslims	10.7	11.2	30.8
Christians	2.4	2.6	32.6

SOURCE: Ministry of Information and Broadcasting, Government of India. India: A Reference Annual 1974. New Delhi: Government of India Publication.p.13.

Hinduism and Fertility

In Hinduism, which makes up 83.51 percent of the Indian population, human semen has a sacred function of creating a healthy society through righteous children. Because it constitutes the "essence of man" (Brihadaranyaka Upanishad VI.IV.I),

it should not be spilled, nor wasted in sleep or on account of a man's passionate nature (ibid.,VI.IV.4). Should this happen, he should repeat ritualistically the following mantra to ward off its evil effects:

> Whatever semen of mine has spilt on earth, whatever has flowed to plants, whatever to water, I reclaim it. With these words, he should take the semen with his ring finger and thumb and rub it between his breasts or eyebrows, repeating the following mantra: 'Let the semen return to me, let the vigour come to me again, let glow and good fortune come to me again. May the deities who dwell in the (sacrificial) fire put the semen back in its proper place' (ibid.,VI.IV.5).

Sexual intercourse is compared to Vajapeya sacrifice (ibid.,VI.IV.3) in which the woman's lap

> is the (sacrificial) alter, her hair the (sacrificial) grass, her skin (within the organ) the lighted fire; the two labia of the vulva are the two stones of the 'soma-press' (ibid,).

It is to be performed in the spirit of religious sacrifice, ritualistically, with actions accompanied by the mantra (ibid., VI.IV.24), not in order to satisfy carnal desires alone. Those who ignore this are punished and "depart from this world impotent and without merit" (ibid.,VI.IV.4). This punishment assumes a new dimension when viewed in the context of the doctrine of re-incarnation and transmigration of souls, which constitutes the core of Hinduism.

The Hindu tradition demands that every family should have a son. The traditional Hindu blessing to an Indian bride is "Be the mother of eight sons". In fact, according to the Hindu

Scriptures, sons bring purification to 12 descendants and to 12 ancestors on both (the husband's and the wife's) sides (Asvalayana Griya Sutra I.VI.I). The son enables the father to pay off the debt he owes to his ancestors to secure immortality and heavenly worlds (Ait.Br.33.1). According to Many, it was the son who saved the father from falling into hell (Laws of Manu IX,138). It is also said that without a son to perform the death rites, a Brahmin is not capable of gaining heaven. Moreover

> a man secures the (higher) worlds through (the birth of) a son; he obtains permanence (in the world) through a grandson; through the son of a grandson, he wins the world of the son (Laws of Manu IX,137;IX,107).

Hence the hymn in the Rig Veda:

> In sons, O Indra, make her rich,
> give her a life of happiness;
> Ten children grant and spare to her
> as an eleventh her dear spouse (10.42.46).

Or the prayer in Sutras:

> May a male embryo enter thy womb, as an arrow the quiver... . Give birth to a male child; after him (another) male be born, and (to others) mayst though give birth (Sankhayana Griya Sutra I.19.6).

Within Hindu society, depending upon the pattern of their internal variations in culture, preference for son and/or daughter varies. Wyon and Gordon, (1971) and The Mysore Population Study (UN,1961) show that the ideal family as conceived by the people includes at least one daughter. There is

also a deeply ingrained notion that a Hindu earns punya (spiritual merit) by giving away a daughter in marriage; its expression is the adoption of girls. In a society where girls are adopted to earn religious merit, couples may continue to have children even after they had a string of sons in the hope of getting a daughter. The Upanishads mention rites to be performed if a man wishes to have a daughter (Brihadaranyaka Upanishads,VI.IV.17). Further, in matrilineal groups of Hindus, like the Nayars or Khasis, daughters are more desired, but for patrilineal Hindus, sons are essential.

The preference for male or female children developed historically to meet the requirements of their cultural functions. Hindu customs like universal marriage,[1] early age at marriage, a strong desire for sons to continue the family line and to perform rituals for the salvation of departed souls have a strong pro-natalist orientation.

The traditional Hindu way of life, however, also facilitates reduction of fertility over the duration of the fecund period of married life through culturally prescribed sexual abstinence during both early and later parts of marital life

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1. Hindus regard marriage a "sacred duty", hence it is a universal phenomenon in Hinduism. Even the gods of their worship are married, and Shiva's most common symbolic form in the "lingam" or phallus.

and also on different inauspicious occasions during the reproductive period.[2] A Hindu is expected to adhere to four major goals in his life, namely, Dharma, Artha, Kama and Moksha. In realising these goals man's life span is divided into four ashrams, (stages of life) namely, Brahmacharya, Grahasthya, Vanaprastha, and Sanyasa. In adhering to the above four stages of life, the Hindus adjusted their life patterns suitably. They followed intensive religious practices and tabooed eating certain food items that excite sex during the stages of Brahmacharya and Sanyasa. Today most Hindus do not follow the true disciplined stages of the Hindu way of life.

Islam and Fertility

Although among Muslims there is no organised opposition to any fertility regulating methods, the fertility rate of Muslims is higher than that of the Christians in certain countries and than that of the Hindus in India. Muslim natality is universally high compared to other religious groups. Kirk (1967) points out that Muslims institutions, more than those of other world religions, seem to favour a generally high natality. Religion and high natality are more closely correlated for Muslims than for any other major religious group.

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2. Agarwala (1963:106-112) found that the number of days in a year in which sexual relations were avoided for religious reasons varied between 2 and 120 in Ramanagaram and between 1 and 79 in Lodi Colony. About half of the persons interviewed in Ramanagaram and Lodi Colony reported the avoidance of sex relations on a number of religious days.

The factors favouring high birth rates may be conveniently grouped at three levels: (1) general, cultural, and religious factors; (2) specific characteristics of Muslims belief and practice related to the family, and (3) mechanisms by which these determine natality (Kirk,1967:72).

The Muslim population may offer a more prolonged resistance to fertility decline than other religious groups for several reasons. (1) While Muslim religious doctrine does not specifically prohibit voluntary birth limitation, the institutional pressure to have many children, especially sons, is strong. (2) The population of almost all Muslim countries consists largely of a culturally conservative peasantry that is resistant to modern influence. (3) Although recent progress has been noted, the status of women is perhaps lower among the Muslims than among other major religious groups. Experience elsewhere suggests that the emancipation of women may facilitate the decline in fertility of the Muslims.

Catholic Church and Fertility

Christianity continued the Old Testament heritage of strong fertility: "Be fruitful and multiply" (Gen.1,28). Not until 1930 did the Lambeth Conference of the Anglican Church gave qualified approval to artificial birth control practices. The other major Protestant denominations gradually dropped their opposition to contraceptives over the period from 1925 to 1950. The Catholic Church, however, continued its pro-natalist position which was best expressed by Pope Pius XII (1958:363-364):

> Large families are almost blest by God and especially loved and prized by the Church as its most precious treasures. For these families offer particularly clear testimony to three things that serve to assure the world of the truth of the Church's doctrine and the soundness of its practice, and that redound, through good example, to the great benefit of all other families and of civil society itself. Where you find families in great numbers, they point to you: the physical and moral health of a Christian people; a living faith in God and trust in His providence; the fruitful and joyful holiness of Catholic marriage... . Large families are the most splendid flower-beds of the Church.

At Vatican II the section on Marriage and the Family in the "Pastoral Constitution of the Church in the Modern World" reminded parents of the "duty to procreate" and emphasized that "marriage and conjugal love are by their nature ordained toward the begetting and educating of children", yet it carefully avoided earlier expressions like the procreation of children as the "primary" end of marriage.

In Humanae Vitae, Pope Paul VI reaffirmed the Catholic doctrine on contraception. Although no mention is made to the primary and secondary ends of marriage, the traditional pro-fertility emphasis can be detected in some passages:

> ...we must once again declare that the direct interruption of the generative process already begun, and above all, directly willed and procluded abortion, even if for therapeutic reasons, are to be absolutely excluded as licit means of regulating birth.
>
> ...The Church... teaches that each and every marriage act must remain open to the transmission of life.

> In relation the physical, economic, psychological and social conditions, responsible parenthood is exercised, either by the deliberate and generous decision to raise a numerous family, or by the decision, made for grave motives and with due respect for the moral law, to avoid for the time being, or even for an indeterminate period, a new birth.

The Indian Bishops gave an unqualified acceptance to the teachings contained in the above encyclical. Catholics in India were asked to obey the Pope, rather than have a discussion on the subject. As Valerian Cardinal Gracias (1968: 555), the then Archbishop of Bombay and President of the Catholic Bishops' Conference of India, wrote:

> The point at issue is not whether the people will take the encyclical well or not. It is rather whether our people, in a spirit of faith will obey the Holy Father, subordinating a personal conscience to Divine Authority.

Fonseca and Berna (1968) try to explain the more or less passive attitude of the Catholic Church in India towards an issue of such a great importance to India:

> There is first of all the fact the laity is, to a great extent, theologically illiterate... . The official Church, which is still under influence of a paternalistic tradition, is understandably anxious to discourage dissent... . The Catholic Press, which is controlled by the official Church, noting the "very good" response of the Indian Church has been unable to resist the temptation to institute a comparative evaluation of the Western reaction to the encyclical...(p.361).

In spite of this and other criticism levelled against the Indian hierarchy (CBCI,1969), on the occasion of the 10th anniversary of Humane Vitae, the Catholic Bishops' Conference

of India (1978) issued a statement re-affirming their continued acceptance of the papal teaching and urging the Catholics to

> stress all the positive teaching contained in the Encyclical concerning married life and its value; /to/ resist, with all the means at their command, the spread of an anti-life mentality; /to/ undertake massive efforts...to counteract whatever serves to foster the acceptance of practices abhorrent to sound Christian morality.

Gracias (1979:127) attributes this "unrealistic approach" of the Church in India to the population explosion to (1) the clerical character of the Church in India, where Catholics are accepted as "belonging" to the Church in which the priest and the Bishops - the learned in Theology - give the truths required by the layman to save his soul, and (2) the unquestioned obedience of the Bishops to the Vatican: the type of attitude that accepts the word of its supreme authority without discussing it. This prevented the Catholic Church in India from understanding some important issues involved in the decision and from visualising strong and positive action that may be within her power. One may ask whether the sense of dependence approaches what Kothari (1968:14) says about the colonized countries in general:

> Colonization of a land and its people produces intellectual incapacitation in two related but somewhat different respects. On the one hand, it produces dependence and servility as attitudes of mind. This leads to proportionate deference to external authority (both political and intellectual), psychopancy and ego alienation. It retards the growth of self-reliant habits of work and thought, finds comfort in

> procrastination and looks for ready-made solutions... . On the other hand, however, a prolonged period of colonization shatters self-confidence and leads to reaction born out of a pervading sense of inferiority. It produces a defensive stance in the face of challenge, a righteousness that is moralistic in tone but anaemic in impulse.

In the same work, Gracias (1979:127), analysing the validity of Humanae Vitae to the Indian context, asserts that

> there has been a serious misunderstanding in applying the principles enunciated in Humanae Vitae and its practical guidelines regarding the contraceptive methods to the Indian situation. A close study of the encyclical will reveal that the Pope gives two different answers to two different situations (the developed and the developing countries) - a nuance that has been completely overlooked.

Gracias (1979:171) sees no valid reason why sterilization should not be morally justified in the Indian context.

As no research has so far been done to measure Catholic fertility in India, except within the broad "Christian" religious preference, it is not possible to assess the direct or indirect impact of the above directives of the Pope and the Indian Bishops on the Catholic fertility. The present study will throw some light on the subject. It is pertinent to differentiate Christian and Catholic fertility, in the context that the former numbered 49.7 percent and the latter 39 percent in the Census of India, in 1921. Although these figures belong to 1921 Census, there is little reason to believe that proportions have changed substantially since then (Davis,1951).

Religious Differences in India

A number of studies conducted in different parts of India bring out the religious differences in fertility of the three major religious groups, Hindus, Muslims and Christians. The Mysore Population Study (UN,1961) indicated that religion was associated with fertility: the ever-married Muslim women had borne on an average a larger number of children than Hindu women. The average for Christians was less than the Hindus. Driver found in Central India that the average number of children born to Hindu and Muslim wives (standardised for age) was 4.5 and 4.6 respectively. In the erstwhile Travancore-Cochin State the average number of children born to wives who had completed their fertility was 6.4 for Hindus and 7 for Muslims (Kurup and George,1965). In the Lucknow area, Mukerjee and Singh (1961) found that the lifelong number of pregnancies per wife is 3.9 for Muslims and 3.6 for Hindus, and that the proportion of pregnancies resulting in live-births is higher among Muslims than Hindus. In Bombay, El-Badry (1967) found that the Muslim wives have a significant higher average parity than the Hindu wives.

Most of the studies have not fully isolated the specific characteristics of the religious groups which determine the fertility differences between Hindus, Muslims, Christians, and other religious groups. They have taken religion as a macro-variable for comparison. Hence, it is difficult to get a complete explanation of the determinants of the fertility differences in the religious groups. However, a few variables have been indicated as the probable factors of the differential

fertility of the religious groups. One, noticed in the Mysore Study was that Muslims and a higher median age at marriage than the Hindus, and the Christians married still later than the Muslims. Driver (1963) reported that the median ages at marriage of Hindu and Muslim women were 14 and 16.7 years, respectively. However, his findings did not indicate any significant association between age at marriage and fertility. Other factors accorded importance are the cultural ban on widow remarriage and religious abstinence among Hindus, and polygamy and higher infant and child mortality rates among Muslims. But these findings are not well established; a more systematic study is needed to test their assumptions.

Family Structure

The reproductive process is familially conditioned by the direct or indirect influence of the members of the kinship group. The influence of family and kinship on fertility differences is probably strongest in developing countries and less substancial in developed countries on account of the higher degree of individualism in them.

The role of family structure in fertility behaviour was studied as early as 1950's in the Indianapolis study which included factors like husband-wife dominance and marital adjustment. Blake (1961) in her study of Jamaican fertility, and Hill, Stycos and Back (1959) in their Puerto Rico Study also used family structural variables. The Princeton studies of two-child families in the metropolitan United States incorporated family group variables as one of the three major

categories of independent variables. Goldberg (1960) notes with regard to the Indianapolis and Princeton studies that there is a systematic relationship between family structure and fertility.

Hill, Stycos and Back (1955) find that communication between husband and wife is an important factor influencing contraceptive practice, and thereby fertility. Goldberg (1960) reports positive correlations between frequency of family gatherings and desired and expected family size. Rainwater (1965) relates certain aspects of the conjugal role-relationship to contraceptive use and fertility and points out that family relationships are significantly correlated with contraceptive behaviour and fertility.

Lorimer (1954) notes that in societies where the kinship group must fulfill a multiplicity of functions, the basis of social organisation is often a corporate kinship system with emphasis on unilineal descent, whether patrilineal or matrilineal. According to him, such a kinship system generally provides a strong motivation for high fertility: numerous children are valued as contributory to the strength of the group, economically as well as militarily, and of ensuring its continued survival.

Primogeniture contributes to the low fertility of certain communities. Dore (1953:66) reports that in Japan the eldest son was permitted to marry at an earlier age than the younger ones:

> Eldest sons as heirs to the family land, have a secure economic future and, moreover, bear the responsibility for ensuring the continuance of the line of succession. Even when a family had sufficient land to set up a new household for the younger son as a branch family with an independent holding, they generally had to earn this gift of land by working for some years on his parental family and during which time marriage might not be permitted; even if not actually forbidden, unless the family was of labour, it would be regarded as a concession, a sort of reward for good conduct. If division of the holding was impossible the younger son had to make a livelihood for himself by migrating to the town or in transport, industry or commerce within the reach of his village. In any case marriage was likely to be delayed; the increasing atomization of holdings and the virtual disappearance of reclaimable land compel the younger sons to postpone their marriage.

In India, primogeniture is observed among Nampoodiri Brahmins. Among them, until recently, only the eldest son was permitted to marry a wife from his own caste; all other members had to marry from either the Nayar or Kshatria or warrior caste. The eldest son in the Nampoodiri family had the right to inherit the family property and others could only enjoy it without right to inheritance. This pattern of primogeniture helps them very much to regulate their family size at a lower level and helps to keep the standard of living and status much higher than many other castes. However, this custom has been changing since independence on account of the right given to all children through new legislation to inherit the property of their parents.

Poffenberger (1968) observed the importance of the kinship obligation of siblings to their parents as a factor facilitating higher fertility among certain Hindus in Gujarat. He

found that 30 percent fathers and 56 percent mothers want sons for economic reasons. He further noted that more sons were also desired as a source of security during old age and as protection for widowed mothers.

Davis and Blake (1956), reporting on family structure, observed that joint families have higher fertility than nuclear families; Lorimer (1954) also had similar findings elsewhere. But most of the later studies conducted in India (Driver,1963; Nag,1965; Pakrasi and Malakar,1967) reported uniformly higher fertility in nuclear families than in joint families and indicated many reasons for such findings. In a kinship system of extended families, marriage does not necessarily imply the formation of a separate household (Coale, 1967; Driver,1963). In joint families, young couples are frequently separated, so coital frequencies are minimised and the chances of conception correspondingly reduced (Nag,1965).

Marriage Custom and its Duration

Marriage is universal in most societies, but the type of marriage and other customs of marriage vary among communities according to religious and other cultural practices. Among Muslims, Kirk (1967:74) wrote:

> In those countries for which data are available, only 3 percent or less (more often only one percent) are not married by the end of reproductive period.

The institution of marriage is a complex variable with a number of intermediate variables that directly or indirectly influence the fertility behaviour of wives in many societies.

These variables are marriage interruption, dissolution of marriages and widowhood. Dandekar (1962:69) writes that

> important among factors that determine the level of human fertility are exposure or non-exposure to pregnancy through marriage or widowhood. The exposure begins evidently with age at marriage.

Age at Marriage

Age at marriage usually varies across many cultural and sub-cultural groups. It is lower in developing countries than in the developed ones. Age at marriage is low for women in all Muslim countries where it has ranged from 15 to 19 (Kirk, 1967). The influence of an older age at marriage, according to Agarwala (1962:71), acts in two ways:

> First, through a shortening of the reproductive span by about five years; and secondly through the shift in the fertility pattern towards fewer children in a woman's later years, partly attributable to, factors like education and modernisation. Calculations show that the shortening of reproductive span alone will result in a 10 to 14 percent decline in the birth rate.

Busfield (1971) believed that age at marriage is an important determinant of completed family size because of its association of other factors, such as that of fecundity with age. He thought that a spurious association existed between the two factors, both being the product of some other factor or factors. This, he felt was due to the selection of women with different characteristics in the different age of marriage groups that led the differences in family size, rather than age at marriage per se.

Sociologically, it gives women time to get a better education, acquire interest unrelated to the family, and develop a cautious attitude towards pregnancy. In India, another sociological factor of great importance is that girls who have not reached puberty are usually denied necessary information concerning sex and reproduction. The prevailing ignorance of the biology of reproduction and the advantages of family planning among the girls before their marriage stems from the existing cultural taboo on discussions of such matters between unmarried adult girls and their relatives.

Studies conducted in different parts of the world have shown some relation of age at marriage either directly or indirectly correlated with fertility. A British study (Peel, 1970) found a negative relationship between wife's age at marriage and her intended family size at marriage. The largest difference existed between women who marry between the age of 30 and those who marry later.

Two American studies have differed in their findings of the correlates of age at marriage. The Princeton study (1961) indicated no significant differentials in socio-economic status or religion with age at marriage. The GAF study (1959) on the other hand, revealed that the middle class and Catholics tend to marry later, although the differences of age at marriage are not very large. Both studies pointed out the status of the age at marriage as a truly intervening variable between social factors and fertility; both showed a strong association between an early age at marriage and shorter birth intervals, a larger desired family size, and higher ultimate fertility,

and this tended to be associated with the lower socio-economic group.

In Japan, marriage-standardised birth rate figures for rural areas seemed to indicate that the 15 percent fall in the rural gross reproduction rate which took place between 1920 and 1935 can be mainly attributed to the rise in the marriage age (Dore,1953). Dumpass (1969) wrote that the age at marriage is an interaction variable that greatly attenuates the relationship between social class and fertility. He found that the relationship was inverse among women marrying before age 19, but direct among women who are 23 years or older at first marriage.

Age at marriage in India varies considerably among the different cultural groups. Among the religious groups, Christians have the highest mean age at marriage, while Hindus have the lowest. Among Hindus, the schedules castes or the outcastes have the lowest mean age at marriage. As between urbanites and rural folk, the former have a higher figure compared to the latter. Considering educational level, the more educated girls (high school, 10 years of schooling and above) marry at a later age than the less educated girls.

Compared to other nationals in Asia, who are culturally nearer to Indians, Indian girls and boys marry earlier than their counterparts in other parts of Asia (Chandrasekhar, 1968). In 1961 the average age at marriage of girls in India was 16 years. Many studies conducted in India indicated a lower fertility for those women who marry late compared to those who marry at younger ages (UN,1961; Driver,1963; Agarwala,1968;

Mukerjee,1961; Jain,1964; Wyon and Gordon,1971). Agarwala (1968) strongly suggested that Indian women marrying after the age of 19 gave birth to fewer children than women who marry earlier. He further calculated that the Indian birth rate might be reduced to 30 percent by 1991-1992 if all Indian women married after the age of 19.

Polygyny and Polyandry

Whether polygamy increases or depresses fertility is still a controversial issue. Besides, the variable itself is found generally among primitive and traditional societies, rather than modern ones. Polygyny is also widespread among Muslims. However, most scholars seem to agree that polygyny reduces fertility, although a few hold the opposite view (Lorimer, 1954; Brebant,1955; Busia,1954). Kirk (1967:75) wrote:

> Polygamy is probably more a spectacular feature of Muslim institutions than a decisive factor in Muslim natality.

Nag (1962) found no difference in the fertility of polyandrously and non-polyandrously married women among the Toda and the Jaunsari groups of societies. Muhsam (1951) reported that among the Beduin in South Israel the fertility of polygamous marriages is 32 percent lower than that of monogamous marriages if it is assumed that there is no difference in infant and child mortality between these two groups.

Both Nag (1962) and Dorjahn (1958) believed that the relationship between polygamy and fertility was not direct; instead certain intermediate variables related to polygamy

operated between them. Dorjahn believed that there were five such intermediate variables: frequency of coitus, divorce, post-partum abstinence, difference of age between spouses, and female sterility. However, he found only the first three of these variables in the Temne society; though the other two may be important in other societies. In an examination of these factors among a group of societies, Nag (1962) found that the frequency of coitus per married woman in a polygynous society seemed to be lower than that in a monogamous society. However, the frequency of coitus per bigamous husband seemed to be somewhat higher than for monogamous husbands. According to Kinsey (1948), husbands of two wives, as a group, would, on an average, be twice as active sexually as the monogamous majority, and the same is obviously true or husbands with more than two wives. Still, Nag (1962) felt that as most of the polygamous husbands are older men who are likely to have a lesser frequency of coitus, women in a polygynous society are likely to reach a lower fertility level in their society. Nag found no correlation to support the hypothesis that the incidence of polygyny is positively associated with the incidence of separation, divorce, or post-partum abstinence. But he found that difference in age between spouses was expected to be greater for all types of marriages in a polygynous society than between the other intermediate variables like separation or divorce, childlessness, and post-partum abstinence.

In India so far, very little attempt has been made to investigate the relationship between polygamy and fertility. There are many primitive societies in India where polygyny

and polyandry are still in vogue. While polyandry exists only among a few societies, such as the Todas, the Tibetans settled in India, and the people in Ladakh and in the foot-hills of the Himalayas, polygyny is more common. It is commonly seen among Muslims, but among caste Hindus it is now practised surreptitiously on account of legal restrictions, among certain caste Hindus in Tamil Nadu concubinage, which is functionally like a polygynous marriage, is common. Among Vellala Pillais it is said to be prestigious to have concubines. Similarly among other caste Hindus, there are instances of concubinage, although with less frewuency.

Separation, Divorce and Widowhood

The proportion of married women in each reproductive age group at a point in time does not depend exclusively on the average age at which women marry and the proportion of women who never marry. It is affected by the incidence of divorce, separation, and death of spouse, by the extent to which divorcees and widows remarry, by the rate at which separated persons become reunited, and by the period of time elapsing before remarriage (UN,1973).

Murdock (1950) shows among 40 non-European societies certain cultural patterns of separation or divorce in spite of the safeguards provided for the stability of marriage. According to Kirk (1967), divorce was more common in Islam than elsewhere. The reported figures, which probably understate the fact, show higher divorce rates than in either in the West or the non-Muslim countries of Asia. The reported rates are

not so high as to seriously jeopardise reproduction (e.g., annual rates of less than 1.5 per thousand population in Turkey, Albania, and Iraq and 2-3 in Morocco and the UAR. The estimated US rate of divorces was, however, 1.12 to 2.35 for the years 1954-60.

As far as fertility is concerned, separation may effect it prior to and during separation. Nag (1962) reported the importance of four factors for estimating the loss of reproductive period of women due to separation: (1) frequency of separation, (2) age of spouses at separation, (3) frequency of union after separation, and (4) the duration of interval between separation and reunion. Of these four factors, he observed, the frequency of separation probably had the maximum variability and hence had an important differential effect on fertility. However, Nag (1962) found no statistically significant evidence for the hypothesis that separation is negatively associated with fertility, though a trend towards such association was noticed. On the other hand, Blake (1961) reporting on a Jamaican comminity, found a 37 percent reduction in their fertility on account of the instability of unions. Nevertheless, it is difficult to study this phenomenon accurately unless a sufficiently large number of women are longitudinally followed up for a longer period of time.

When mortality rates are relatively high, as is the case in many developing countries, customs relating to the remarriage of widows may have an important bearing on fertility level (UN,1973). Widow remarriage vary in many societies depending upon the customs, religious sanctions, level of

modernization, and so on. Widow remarriage is permitted in most societies with some exceptions in certain parts of Asia. In India the ban on widow remarriage was strictly observed by all the caste Hindus until the Hindu Marriage Act was passed in 1956. It is also a norm among certain tribal groups in India. Even today, in spite of the legislation, most of the caste Hindus follow the ban on widow remarriage as a strong norm in their society. However, in developed countries with low mortality rates, the proportion of widowed among women of reproductive age is small, and the effect of widowhood on total fertility is marginal.

Blake (1961) estimated that women living in unstable unions in Jamaica fell below the fertility expected if the union had been continuous, by 27 percent.

Many scholars agree that the cultural ban of widow remarriage in India has had some effect in depressing the fertility of caste Hindus (Davis,1951; Agarwala,1962; Dandekar,1963). Davis (1951) concluded from the Indian census data that the differences in religion, caste, and level of literacy was one of the main reasons for variations in fertility levels in India. Chandrasekaran (1955) attributed differences in fertility levels mainly to the lower incidences of widowhood and delayed widowhood among people of "high economic status". The idea of celibacy in widowhood and the ban on widow remarriage are more strictly observed in the upper classes of Indians (Davis and Blake,1956; Nag,1962; Agarwala,1962). Dandekar (1963) found that widow remarriage depended largely on age at widowhood, the relationship being of course inverse. Under

these circumstances there is a need now to generate more data on various aspects of widowhood in order to establish the precise contribution of this aspect of the institution of marriage on overall fertility behaviour.

Socio-Economic Status Variables

The influence of socio-economic status variables in explaining gertility behaviour has been of much importance in sociology and demography. Historically, studies conducted in many Western countries have shown that there has been an inverse relationship between socio-economic status and fertility during the period of urbanisation and industrialisation. However, many studies since the Indianapolis one in 1958 have revealed changes from the conventional relationship between status variables and fertility.

In Europe, several studies emphasized the lessening of class differences in fertility. Johnson (1960:53) found that

> the often-observed inverse association of fertility with socio-economic status is still present in some, and possibly in a majority of the industrialised countries of Europe. But where it does exist, it has, with few exceptions been significantly modified. In general, the higher professionals and the wealthier classes no longer have the smallest families; this position is now occupied by intermediate occupational groups and by married couples of average means.

Deborah Freedman (1963) explained the reasons for this shift in the traditional relationship of classes with fertility. According to her,

> large families were more prevalent among the poor and uneducated. Recently these differentials have narrowed or even been reversed in some places. This change was predicted by a number of authors for two reasons: (1) as our population has become more universally educated and urbanised, knowledge of contraception is no longer limited to the higher socio-economic group so that an effective choice of desired number of children is possible for all strata; and (2) as our economy has lost its rural character, children have lost their economic utility. Instead, the long period of education required by a modern economy makes them liabilities rather than assets from a strictly economic point of view. Under these circumstances, children are analogous to other consumption goods in that their value resides in the direct satisfaction they provide. Some theorised that as contraceptive use becomes widespread, the traditional relationship is reversed so that there would be a positive relationship between income and fertility (1963: 414).

Wrong (1958:229) on the basis of his data from Canada, England and USA, stated that

> middle class standards of living have been brought within the reach of the least privileged strata and made popular by the new mass media. Accordingly, it is not surprising to find that class fertility differences have diminished in the past thirty years... .

Whelpton et al (1966) also thought that social class differences in desired family size seemed to have been diminished in recent years. But when the relationship is examined separately for different classes within the religious group, it is found that lower class Protestants want more children than middle and upper class Protestants (as also indicated by studies of Westoff et al.,1963; Rainwater,1965).

Ryder (1959) however, felt that, although class differences

in fertility seemed to be diminishing, the basic relationship remains inverse. Nevertheless, Westoff et al. (1963) concur with the view that the negative association of fertility with socio-economic status diminishes and tends to become positive among couples with several generations of urban living. Though socio-economic status as a complex variable is methodologically sound in explaining the cause of fertility variations, it is not universally adopted in many studies for various reasons. Hence, it is necessary to examine each of the components of the status variables independently.

Economic Status

With regard to the influence of income on fertility behaviour, Becker (1960) put forth certain explanations for its conventional inverse relationship. His "Economic Theory of Fertility" (Becker,1960,1965; Leibenstein,1957,1974; Easterlin, 1969,1971; Robinson and Horlacher, 1971; Schultz,1973,1974) views the individual as trying to maximise satisfaction, given a range of goods, their prices, and his or her own tastes and income. In the application of the theory to fertility analysis, children are viewed as a special kind of good, and fertility is seen as a response to the consumer's demand for children relative to other goods. Hence, according to him, economic status may lead to "better quality" children rather than to a large number of children. The parents may invest more in each child rather than having a larger number. In the purchase of automobiles, economic status is more closely correlated with the price of the car purchased than with the number. A similar

situation may exist with respect to children. Under these circumstances, the income variable could be counted as one of the important variables to explain the variance in fertility.

Freedman (in Kiser,1962:221) however stated that

> It has seemed plausible to many scholars that the couple's economic position should be positively rather than negatively correlated with fertility once effective contraception is widespread in all economic strata.

Hence, he concluded that "empirical evidence relevant to the economic variable is rather 'contradictory'" (1962:222).

In the Indianapolis study, the small amount of variance explained is mainly attributable to socio-economic status, and

> Neither the Princeton nor GAF studies have found any consistent significant relation between various measures of economic status or economic attitudes and fertility or fertility planning (Freedman in Kiser,1962:222).

The major social status determinants of fertility in the West, the USSR, and Eastern Europe are also found to be the same. Vostrikova (1962) reported that in the USSR, fertility rates were lower for urbanites than for rural folk, lower for women in towns who work than for those who do not, and lower for families in urban settlements who have medium-size or higher income than for those who have the lowest incomes. Stycos (in UN,1973:105) indicated that in Lima, Peru, there were class differences in fertility and attitude towards fertility. Similarly, Carleton (1956:15) observed that

> while levels of fertility are high in most Latin American countries and show little signs of change, there is good reason to believe that differential fertility by major social categories exists throughout the continent.

Hill et al. (1955) reported only an indirect relation between social-status variables and fertility in Puerto Rico. However, Japan seems to be an exception in not exhibiting any substantial reduction in fertility differentials by socio-economic status (Kuroda,1963).

Indian studies do not show generally any definite relationship of economic variables with fertility behaviour. Driver (1963) wrote that economic status showed only some indirect effects on fertility in Central India. However, as regards to the use of contraceptives, he concluded that socio-economic variables did affect use. Agarwala (1970) indicated that fertility among wives in rural areas near Delhi did not vary with income levels.

Labour Force Participation of Women

Gainful employment of women outside the home is found to be inversely related to fertility according to a number of studies conducted in many parts of the world (Gandell, et al. 1970; Ridley,1969; Weller,1969; Weller and Sly,1969; Heer and Turner,1965; Namboodiri,1964; Heer,1964). This relationship has been found to be more pronounced in the industrialised than in developing countries, and in urban than in rural areas. In the Indianapolis study, the wife's work history was one of the very few variables strongly correlated with planning-status

and fertility, even when socio-economic status was controlled (Freedman,1961).

Freedman et al. (1963) showed that an inverse relationship clearly exists between duration of work and fertility. The relationship also persists with many indices of fertility (live births, expected number of births, or proportion expecting five or more children). Gendell et al. (1970) in a study in Guatemala City, noticed that economically active women have considerably lower fertility than inactive women. In the metropolitan areas of eight countries, Collver (1968) found negative correlation between the proportion of women working and the child-woman ratio.

Several studies in USSR and Eastern Europe also support the hypothesis that working women have low fertility than others (Davtyan, in UN,1973:77; Sadvokasova, in UN,1973:88; Urlanis in UN,1973:104; Szabady,1964). However, data obtained from Latin America and Turkey do not support the hypothesis (Stycos, 1965; Stycos and Weller,1967). Similarly, Mazur (1968) does not support this conclusion even in urban areas. These few exceptions to this hypothesis support the contention that female work and maternal roles are compatible and that fertility reduction need not occur on account of participation in the labour force.

In India this variable is yet to assume importance in view of the very high rate of illiteracy prevailing among women, their lack of employment opportunities, and the custom of women among higher caste people generally of not working outside the home. The Mysore Study (UN,1961) indicated that it is

still not customery among the higher socio-economic groups for women to work outside the home and those who work usually do so out of economic necessity.

Kiser (1965:219) noted the difficulty in explaining the causal relation of this variable:

> It is difficult to know whether the fertility of working wives is low because they work or whether they work because their fertility is low.

Morsa (in UN,1973:102) similarly expressed the difficulty of isolating the independent influence of this factor from other related socio-economic status variables. He reported that the activity of women decidedly influenced socio-economic differentials in fertility. The labour force participation of women has a greater effect on reducing fertility among upper-status women than among those of lower status. This relationship is also influenced by the rural-urban background of the women. Freedman, Whelpton and Campbell (1959) found that the women most likely to be employed are sub-fecund women.

Nevertheless, different explanations have been advanced by many scholars to substantiate this proposition. Judith Blake (1967) argued that foregoing employment was an indirect cost that must be considered by the working wife and that this indirect cost had a negative influence on the decision of the working wife to bear additional children. Further, she contended that employment often entails satisfactory alternative to children, such as companionship, recreation, stimulation, creative activity, and the means to such satisfactions in the

form of financial remunaration.

Another explanation was given by Ridley (1960) based on husband-wife dominance. According to him, labour force participation of women led to a more egalitarian relationship between husbands and wives, which, in turn, was said to be related to lower fertility. Similarly, Weller (1969) added that wives manifest lower fertility behaviour in wife-dominant egalitarian families rather than in husband-dominant families.

Education

Historically, many studies have shown a persistently strong negative relationship between level of education and fertility (Grabil et al.,1958; Kiser,1960; Blake,1967; Stycos and Weller,1967; Stycos,1968; Minkler,1970; Mitchel,1971; Bhatnagar,1975). An inverse relationship appears generally to have been existed between fertility and educational level both in the United States and countries in Europe since the late Nineteenth century; this relationship is now diminishing or even disappearing in some low fertility countries. Both the Princeton and GAF studies revealed a direct, thought somewhat weaker, relationship between fertility and education. Nevertheless, in Sweden, England, Wales, and the Netherlands, fertility rates of the better educated classes were clearly below the average rates.

Further, higher education was not necessarily associated with fewer children in all developed countries (Hubback,1975; Wunderlich,1967). Kiser (1971) believed that the inverse re-

lationship between fertility and education could be a temporary one due to particular circumstances present during the demographic transition which may later disappear.

In developing countries, however, the above hypothesis has not always been confirmed. In fact, in 1950 only 7 percent of the women aged 15 or above had education beyond the primary school level in most of the Latin American countries except Puerto Rico. Even for Puerto Rico, there are conflicting reports on the influence of education on fertility. Census data from Puerto Rico shows a markedly differential fertility by education. But Stycos (1968) believed that these educational gains have not occurred in a "socio-economic vacuum" but were accompanied by marked gains in per capita income, urbanisation, and industrialisation. Hill et al. (1955) also found a strong influence of education on fertility in Puerto Rico.

According to the many studies conducted in India, the effect of education in depressing fertility was visible only with an education beyond the level of the school final (11 years of school) (Driver,1963; UN,1961). Among the social and economic factors examined in Bangalore City, the one which appeared to be most significant in relation to fertility was educational status. However, educational status below the high school or university level was not found to be related significantly to live-birth rates. But Hussain (1970) indicated that in Lucknow City education was positively associated with age at marriage of males and females, and a strong negative relationship between fertility and educational status was found.

Many assumptions have been put forward to explain the influence of the educational status of wives on fertility behaviour. As a result of education, the age at marriage of both wife and husband will go up automatically, adoption of some contraception will be attempted, and overall modernity will be achieved. Further, many studies (Agarwala,1970; Driver,1963; UN,1961) indicated that over 80 percent of women were illiterate, a rate so high that this variable had very little relevance in explaining the fertility behaviour of women, at least in rural areas of India. Incidentally, the influence of the husband's level of education on the wife's fertility was much less than that of her own education.

Urbanization

The idea of an "urban mentality" rather than mere residence in cities has been acclaimed by many scholars as an important variable associated with declining family size (Goldberg,1958; Freedman,1962). Even earlier than these, (Park, in UN,1973:91, and Redfield (1941) expressed the view that secularization, secondary group association, increased segmentation of roles, and poorly defined norms, all of which characterise urbanism as a way of life, depressed fertility of the urban community. Certain other causes for the urban influence upon declining fertility are the decline in mortality, differentials in marriage pattern, occupation, income, literacy, and the adoption of family planning.

Rosen and Simmons (1971) concluded that as a result of industrialisation and urbanisation, the general economic and

social factors related to industrialisation appeared to influence fertility in part through shifts in the work and social status of women, in part through new female roles, attitudes, and aspirations, and in part through egalitarian modes of family life. Again on the social front, with increased mobility and the expansion of opportunities that accompany the process of urbanisation and industrialisation, people tended to become less fatalistic and more oriented towards planning their lives with regard to distant future goals (Beshers,1967). Hill, Stycos and Back (1959) emphasized changes in husband-wife relations which they are emerging with the new planning.

The Indianapolis study indicated that

> there is good reason to believe that it is not socio-economic status per se, but rather some underlying factors characteristic of these classes that account for the variations in fertility behaviour (Kiser and Whelpton, 1958).

Rainwater (1965) argued in a similar vein. Differential effects of mortality and natality were related to living conditions, medical attention, literacy, etc., and these in turn have been directly related to the urban status of the population (Coale and Hoover,1958; Lorimer,1946). These assumptions might be based on the theoretical premises that different social classes possess dissimilar values as part of their distinctive and differentiating mechanisms (Parsons,1942; Kluckhohn and Strodtback,1961).

The high fertility of the rural population, especially

the farm sector, and drastic changes in fertility which occurred in the developed nations through urbanisation and industrialisation have been well documented (Whelpton, et al., 1966; Jafee,1940; Blacker,1947; Tauber,1958). Goldberg (1958) finds that the traditional inverse relation of status and fertility was most characteristic of the couples with a farm background and least characteristic of the couples with an urban background. In the US among Protestants, the lower class wanted more children than the middle and upper classes (Westoff et al.,1963; Rainwater,1965; Blake,1968).

Westoff et al. (1963) observed that a part of this difference may be due to the rural background of many lower class Protestants. The negative association of fertility with socio-economic status diminished and tended to become positive among couples with several generations of urban living. In Latin America, Stycos (1968) revealed that rural-urban differences in fertility were also found concurrently with class differences.

In Japan in 1960, rural fertility exceeded urban by 20 percent among ever-married women 35 years old and over. It has been suggested, however, that the differential may eventually disappear with the growing sophistication of both the rural and the urban population in successful contraceptive practice (Kimura, in UN,1973:91). However, in several studies, it has been pointed out that the effect on fertility appears after a period of urban residence. Goldberg,1958; Gendell,1967; and Zarate,1967) in their studies in Brazil and Mexico, showed that urbanisation without the concomitant increase in income

and educational levels had no depressing effects at all on fertility.

Generally in India, there has been no evidence of rural-urban fertility differences in the past. But recent studies indicate that urban fertility has tended to be lower than rural (Rele,1967). Even in the past, cities like Bombay, Calcutta, and Madras exhibited lower fertility than country areas (Davis,1951). Rele (1974) indicated that in a recent study in metropolitan areas of Bombay, rural migrant wives in the city have significantly higher fertility than the wives who were born in, grew up in, and/or migrated from urban areas.

Fertility differentials exist not only between rural and urban areas, but also between larger and smaller cities. In general, as measured by the child-woman ratio, reproduction varies inversely with size of the city (Robinson,1963). Bongalore City had a lower birth rate than the neighbouring towns and rural areas (UN,1961).

Most of the above assumptions have not been fully explored at a micro-level in the past, excepting that fertility was demonstrably lower in urban areas compared to rural. As the process of urbanisation coincided with modernisation and consequently changes in many structural variables, micro-level studies are necessary for identifying the discrete variables that influence fertility behaviour.

Social Mobility

The desire to improve one's position in the social scale

has been stressed as an important variable for family limitation (UN,1973). Many theoretical explanations have been postulated to explain the nature of influence of this variable. One of them is what has become known as the "Theory of Social Capillarity". It is associated with Arsene Dumont, a French philosopher of the nineteenth century who pointed out that people have an urge to rise in the social scale. He compared this urge to the inevitable physical law of nature - the force of capillarity. Just as a column of liquid has to be thin in order to rise under the force of capillarity, so a family must be small in order to rise in the social scale. He and many others have argued that during the period when family size declined, the mobility between social classes increased greatly, and new attitudes towards social mobility developed. Whereas formerly most men took their social position for granted, concern with improving one's own position or that of one's children became an ever pressing preoccupation in those countries where family limitation spread.

The effect of social mobility on fertility appears to be attributed in general to the fact that rearing children absorbs money, time and effort which could otherwise be used to rise in the social scale, and this fosters motivation for smaller families (Royal Commission in Lorimer,1954:300; UN, 1973:79). However, when people are maintained at the subsistence level with little hope of improving their social status, such incentives are lacking (Mombert, in UN,1973:90).

Blau (1956) on the other hand, noted that socially mobile individuals have been subject to the socio-psychological

forces of past and current membership and reference groups. He accordingly postulated an intermediate level of conformity by the socially mobile between the non-mobile groups at the origin level and the destination level. He added that

> mobile persons are not well integrated in either social class. Without extensive and intimate social contacts, they do not have sufficient opportunity for complete acculturation to the values and style of life of one group, nor do they continue to experience the full impact of the social constraints of the other. But both groups exert some influence over mobile individuals since they have, or have had, social contact with members of both... . Hence, their behaviour is expected to be intermediate between that of the two non-mobile classes (1956:290).

Analysis of data from the Indianapolis study showed that the couples who experienced intergenerational upward mobility tended to come from smaller families than non-mobile couples (Kantner and Kiser, in UN,1973:90), but the relationship between fertility and mobility after marriage seems to be less clear (Riemer and Kiser, in UN,1973:90). The successor studies of the Indianapolis study, the Family Growth in Metropolitan America Study (Freedman, et al.,1959; Westoff et al.,1961; Westoff et al.,1963) also tested the general hypothesis that mobility experience is inversely related to the size of family and directly related to family planning success within otherwise homogeneous categories.

In this case, results concerning the association between mobility aspiration and experience with reproductive behaviour have been inconclusive. Similar inconclusive findings with respect to the relationship between reproductive behaviour and

social mobility in Australia, Great Britain and United States were also reported by Bogue (1959) and Scott (1967).

Studies other than Goldberg's (1958) Detroit Area Study are based on various professional or occupational groups. However, Berent (1951), comparing family size of persons of the same class of origin, indicated that those who have moved up have smaller families than those who have remained static or have moved down.

Different explanations have been advanced by many scholars for the inconclusive evidence of social mobility on fertility behaviour. Boyd (1973) assumed that it was due to the specific societal conditions within which mobility and reproductive behaviour occur.

Another explanation is that mobility rates are high in developed societies where mobility becomes institutionalised through participation in the educational system. Since mobility is no longer costly, it is not associated with drastic behavioural modification on the part of individuals concerned (Germani,1966; Bogue,1959). Perrucci (1967) while confirming the above argument, stressed the importance of the institutionalisation of mobility through educational attainment which, in turn, acted as a socializing agent. In her intergenerational study of occupational mobility of American engineers, Perucci also noted that intergenerational mobility was achieved largely through education and generally preceded reproductive behaviour.

India has been generally slow to absorb change and has acute unemployment, a low literacy level, a high risk involved

in getting a job after leaving one, etc., so mobility has not been given much scope for influencing fertility in rural and urban areas in the past. Even if there were such scope, no attempt has been made to study the relationship between mobility and fertility even in urban areas where mobility of occupation is occurring rapidly.

Caste Variation

Indian society is historically stratified on the basis of caste. Sociologically, it is impossible to think of studying population in India without considering caste as a major variable. Caste, as a stratification variable, is seldom systematically considered in studies of differential fertility in this country for various reasons. Since each major caste has a distinct socio-cultural characteristic of its own, it is essential to distinguish the diverse castes for the study of their events. Often what happens is that a random sample of a population from a geographical region is drawn for study on fertility without stratifying the population on the basis of the dominant stratification variable. Consequently, in the analysis of the data it is difficult to bring out the actual differences in fertility according to various strata on account of the paucity of sample sizes of the different strata, or the stratification variable itself is undermined or neglected.

In a few studies, however, an attempt was made to bring out the fertility variations on the basis of caste (UN,1961; Driver,1963; Agarwala,1970). But the principle on which

numerous castes and sub-castes are grouped in these studies has seldom been mentioned explicitly, although the grouping itself may influence the findings. Moreover, most of these studies have not tried to explain the presence or absence of fertility differentials among castes based on their cultural homogeneity or position in the social hierarchy.

Driver (1963) indicated that scheduled castes have the highest fertility and Brahmins the lowest fertility. The former lies on the lowest rung of the status and/or caste hierarchy and the latter at the top. But Agarwala (1970), Danekar (1959), and Wyon and Gordon (1971) report no difference in fertility among different caste groups. These findings cannot be taken at face value because caste was not considered as a major variable in most of these studies.

Conclusion

Research on the major sociological determinants of fertility behaviour has been reviewed in the preceding pages. It shows that among the various cultural factors affecting fertility, religion does play a prominent role in determining the family size.

Studies conducted in USA in the fifties and sixties (Freedman, 1959; Westoff,1961; Kiser,1962; Lenski,1963; Goldberg,1967) showed fertility to vary among the three major religious groups of Catholics, Protestants and Jews. Catholic fertility was highest; this was explained as "one of the characteristics of the religion itself" (Freedman,1961). Jewish was lowest; the chief reason for this was their distinctive

socio-economic characteristics (Freedman, Whepton and Campbell,1959) and their strong upward social mobility (Eversley,1959; Westoff,1961). However, the 1975 National Fertility Study and the more recent studies (Westoff and Jones,1979) have shown that while the Jewish fertility continues to be the lowest, the distinctiveness of the Catholic fertility rates in the USA had disappeared.

One possible explanation for this shift is said to be the rejection of the Church's prohibition of the use of artificial birth control methods by practicing as well as by nominal Catholics. This could be an indication that religion in the USA is becoming a dependent rather than independent variable.

In India, religion continues to be an independent variable. This is evident from Census of India (Government of India, 1972) figures in the 1971. The decennial growth rates for various religious groups were 24 percent for Hindus, 31 percent for Muslims, and 33 percent for Christians. The comparative lower increase of the Hindu population is due to the stronger emphasis on fertility values among the Muslims and Catholics. Further, the institutional pressure to have many children, especially sons, among Muslims, is also strong.

Among other cultural factors affecting fertility, family structure has a big share. The influence of family and kinship on fertility is probably strongest in developing countries and less substantial in developed countries.

There is no unanimity among the scholars regarding the relationship between socio-economic status and fertility, even

though studies conducted in many Western countries have shown an inverse correlation. Recent studies (Johnson,1960; Deborah Freedman,1963; Whelpton,1966) emphasized the lessening of close differences in fertility. Various studies conducted in India (Driver,1973; Agarwala,1970) revealed that socio-economic status showed only some indirect effects on fertility.

The inverse relationship between education and fertility is diminishing or even disappearing in developed countries, where higher education is not necessarily associated with fewer children. In India, the effect of education in depressing fertility is visible only with an education beyond the level of high school (11 years of schooling). This is because, as a result of education, the age at marriage of wife and husband goes up automatically. The influence of the husband's level of education on the wife's fertility is much less than that of her own education.

Urbanization--or rather the "urban mentality"--is another important variable associated with the declining family size in the West. This is allegedly for various reasons: increased secularization, secondary group association, and high level of industrialization. Although in the past there has been no evidence of rural-urban fertility differences, recent studies in India indicate that the urban fertility has tended to be lower than rural.

In view of the fact that many sociological variables seem to determine fertility in various societies, it is all the more important to examine them in our complex Indian society

where religion plays a vital role in shaping values, including those related directly and/or indirectly to fertility. In spite of this significant role of religion as an independent variable in India, only one study (Rele and Kanitkar,1980) by sociologists and demographers analyzes the influence of religion on fertility per se, and I have found none which study the impact on other facets of this multi-dimensional variable of religiosity. In fact, no serious study of the influence of religion on fertility would seem complete without examining many aspects of the religion. This is the scope of the present study.

CHAPTER 3

THE METHODOLOGY

The experience of the developed countries tells us that when the decline in fertility first begins, it does not take place uniformly throughout a country. It occurs earlier in some areas than in others. In urban areas it is likely to occur earlier than in rural areas. Even within the urban areas the bigger towns and cities tend to precede the smaller urban places in the initiation of their fertility decline. In the same way, the first step towards reduction in fertility is visible in the country's biggest metropolitan centres.

The Sampling Area: Bombay

Bombay is the biggest metropolitan centre of India--the Urbs Prima in Indiis: The Primate City of India. For a demographer, Bombay offers a unique opportunity as an object for study. This is true because Bombay has always been the main centre or chief force for introducing new ideas and new ways of life to India, and because of its high level of industrialization.

For a sociologist of religion interested in the study of the impact of religion of fertility, Bombay offers another vantage point: her cosmopolitan nature and secular character. It is this that made Bombay a Mecca of all religions. That all major religions of India are well represented in Bombay can be seen from Table 3.

Table 3. Percentage Distribution of Population by Religion for India, Maharashtra* and Bombay

Religion	India	Maharashtra	Bombay
Hindu	82.72	81.93	68.85
Muslim	11.21	8.40	14.12
Christian	2.60	1.42	6.28
Sikhs	1.89	.20	.71
Buddhists	.70	6.47	4.76
Jains	.47	1.39	4.09
Other Religions	.40	.15	1.15
Religion not stated	.01	.01	
All Religions	100.00	100.00	100.00

SOURCE: Government of India,1972. Census of India,1971.

*Maharashtra is one of the States in India, and Bombay is its Capital.

People in India normally take religion seriously. Be they Hindu, Muslim, or Catholic, their way of life is very much governed by religion, and this inspite of being exposed to the influences of modernization and secularization. No wonder, then, that Bombay is teeming with Temples, Mosques, and Churches. Many foreigners are amazed by the religiosity of the Bombayite: churches are packed on weekdays as well as on Sundays, and Mosques overflow during the Friday's Namaz. Even though there is no such thing as compulsory going to the Temple in Hinduism, the long queues of devout Hindus-- men and women --in various temples of Bombay in certain days of

the week waiting to have a darshan of the deity speak for the religiosity of the average Hindu Bombayite. Hence, Bombay was a natural choice for the present survey.

Situated in the Western Coast of India and spread over 603 square kilometres, Bombay[1] had 5.97 million inhabitants in 1971 (Government of India,1972), occupying second place among the most populous cities of India. Table 4 shows the area, population, and density of Bombay City and Suburbs. It may be noticed that Bombay City with the smallest area, has the highest density; the Suburbs, on the contrary, with the largest area, have the lowest density.

Table 4. Population, Area and Density of Population of Bombay in 1971

Area Unit	Area (sq.km)	Population	Density (per sq.km)
Bombay City	68.71	3,070,378	44,686
Suburbs	534.29	2,900,197	5,428
Total (Greater Bombay)	603.00	5,970,575	9,901

SOURCE: Government of India,1972. Census of India,1971, Greater Bombay, Primary Census Abstract, pp.xx-xxiii.

1. The city took its name from the local goddess Mumba-- a form of Parvati, the consort of Shiva, one of the principal gods of Hinduism-- whose temple stood in the southeast of contemporary Bombay.

The population of Greater Bombay has grown to its present size from 0.9 million in 1901. The relatively fast growth of the population at the turn of the century slowly dwindled to negligible growth in the decade 1921-31, as can be observed from Table 5.

Table 5. Population of Bombay City and Suburbs 1901-1971

Year	Bombay City	Suburbs	Total (Greater Bombay)
1901	776,006	151,988	927,994
1911	979,445	169,312	1,148,757
1921	1,175,914	204,534	1,380,448
1931	1,161,383	236,429	1,397,812
1941	1,489,883	311,473	1,801,356
1951	2,329,020	665,424	2,994,444
1961	2,771,933	1,380,123	4,152,056
1971	3,070,378	2,900,197	5,970,575

SOURCE: Government of India,1972. Census of India, 1901 through 1971.

The population growth was arrested because of the influenza epidemic of 1918 in the decade 1911-21 and by further severe epidemics and business trade depressions during the last years of the decade 1921-31. The depression necessitated the exodus of the unemployed and their families to their native villages (Government of India, Census of India, General Report,1931:3). Since 1931 the population of Bombay City and

Suburbs is growing at an unprecedented rate. The rate of population growth was lower in 1951-61 compared to the earlier decade because the migration, which was unduly large in 1941-51, diminished in the last decade. According to the 1961 and 1971 censuses of India, the population of Greater Bombay was 4.15 and 5.97 million, respectively.

Objectives of the Study

The primary objective of the present survey is to study the trends in the differential fertility of Bombay by Religion and other related variables. It will seek to discover the effects of Religion on the fertility pattern of its adherents, as well as to offer a comparative study of the differential fertility among them. Specifically, it will deal with three major Religions of India: Hinduism, Islam and Catholicism.

Secondly, it will test the hypothesis that fertility and religiosity are positively correlated (Siddh,1974; Sabagh and Lopez,1980). To do so an effort will be made to study the validity of the operationalization of religiosity as evolved by Glock (1965) for Hindus, Muslims, and Catholics alike. This is particularly relevant in the context of a recent discussion on the subject (Johnson and Aigner,1979) which specifically stated that Glock's Five Dimensions of Religiosity "inadequately indicate the religiosity of people who are non-Christians" (p.9).

Thirdly, it is also the purpose of this survey to ascertain the impact of other socio-economic variables such as the

education and the income of the spouses, housing, occupation of the respondents on fertility, after controlling for Religion.

The Interview Schedule

The data were collected through an interviewing schedule (see Appendix I). The questions were structured, mostly based on previous studies on the subject. Those of a more general nature, like one's religion, caste, marital status, number of children, etc., were placed first in order, while those of a more personal and intimate nature, such as those related to the practice of family planning, were kept near the end. This was done with a view to first, gaining the confidence of the respondent and then, maintaining rapport for more personal questions.

Care was taken to insert number of duplicate questions at a distance from one another; these act as cross-checks to measure the consistancy of the interviewee's response. These refer mainly to their age at marriage, present age, and the number and ages of the children living and dead.

Pretesting of the draft helped to delete irrelevant questions and to modify its language when it was found out that the language some of them were formulated was not easily intelligible to the respondents. For example, declaration of assets and liabilities was dropped when it became evident of the respondents' unwillingness to cooperate.

The Interviewing Process

Thirty-three investigators were employed to conduct the

interviews. Although some of the interviews-- especially those of Catholics of the lower strata --were done personally by me, most of the data came through the help of five professional and semi-professional interviewers who had done similar work for the International Institute for Population Studies, Bombay. Add to them the twenty Faculty members of the Complex of the Agnel Technical Institutions and seven personal friends of mine. All the investigators had a college degree, some even an M.A., and all of them were proficient in English as well as the language of the interviewee. The one interviewer who was not very well versed in English used a carefully edited Marathi translation of the schedule, as that was the language of the respondents he would interview. The interviews were conducted in English, Hindi, Urdu, Marathi, and Konkani.

The interviewers were informed of the purpose of the survey, the meaning of each item on the schedule, and the rationale behind the arrangement of the items. They were instructed as to how to establish a rapport with the interviewer, as well as in the interviewing techniques. Mock interviews were usually conducted before they went to do the field work. Every week a reviewing session was held with the purpose of ensuring proper understanding of the items on the schedule, as well as evaluating the progress of the survey. The data were collected from June 14, 1980 to August 19, 1980.

Some of the suggestions put forward by Das Gupta (In Kiser, 1962:437) were used as guidelines for the interviewing process: care was taken that the investigators' biases were not influencing the respondent; that the investigators' age

distribution was roughly the same as that of the sample; that there was due representation in the sample of married men and women, etc.

Most interviews were conducted in the interviewees' homes, although a few of them took place in the interviewees' places of work, such as hospitals, schools, etc. The higher social strata and more educated people generally sought privacy during the interview, for which the anonymity of the schedule was very helpful. For the lower strata, which usually included the illiterate and/or semi-illiterate, the lack of privacy during the interview was not a problem at all. As one illiterate middle-aged lady, living in a small hut in a slum area, told me during the course of the interview when I called her attention to the presence of the children; "Their presence or absence makes no difference. There is nothing I am going to tell you that they do not know".

Regarding the cooperation of the interviewees, I thought it appropriate to reproduce here two of the five written reports I got from the interviewers. These two were selected because of their quality and representativeness. Wrote one (Tilloo,1980):

> It was a great pleasure working for this thesis. To interview different people and get to know their views on Religion and fertility was quite interesting.
>
> Generally the respondents were cooperative. Especially in higher income groups, whether it was Hindu, Muslim, or Catholic, women answered all the questions quite freely. In some cases they even discussed the questionnaire

> with me and they answered almost all questions with great enthusiasm. But in lower income groups, sometimes I found that women were very reluctant to answer the questions. When I went to J.J.Hospital to collect data on Muslims, I was received with mixed reactions. Some women thought I was a doctor, so they came out freely and some of them even asked for my advice on their personal problems. But some other women thought that I was coming from some Government Institution and so they were very suspicious. They would not speak freely and I had great difficulty in getting answers from them. I had to convince them that this survey had nothing to do with the Government, and that no one would pursue the matter.
>
> Most of the women found the questionnaire quite lengthy. For illiterate women to answer 93 questions was too much. They would just get bored after answering 15 to 20 questions. But overall, I can say, I got a good response and cooperation as I was generally well received.

The second report (Chitanand,1980) reads:

> It has been a valuable experience for me, nay an education by itself, to help you in collecting the data for your survey, even though the inclement rainy weather made the task difficult, especially when it came to contacting people in their huts and dirty tenements in the slum areas.
>
> The response was mixed: while some cooperated whole-heartedly once the purpose of the survey was explained to them, others were reluctant to open up on the subject in the beginning, though they got along well afterwards. Others thought that I had come to sterilize them and would not cooperate. Still others were aggressive and insulting.

The average time involved in completing one interview was 30 minutes, although many times it took 45 minutes to over an hour for respondents of the lower strata.

The way in which different respondents were approached is indicated in the Table 6 given below.

Table 6. How the Respondents Were Approached

Approached Through	Number of Interviewers	Number of Respondents	Percentage
Professional, Semi-professionals	5	410	49.3
Faculty members of Agnel Complex of Technical Institutions	20	302	36.3
Friends	7	40	4.9
Self	1	79	9.5
Total	33	831	100.0

The quality of the interviews obtained through the professionals/semi-professional interviewers was the best, while those self-administered left much to be desired. Some of them failed to complete the instrument on the grounds that the questions asked were "too personal", even though complete anonymity was assured to them and no name or addressed was asked.

It may be noted that in the beginning I tried to emphasize the voluntary nature of cooperation in administering the questionnaire, and large proportions of those invited (347 out of 500) failed to return completed questionnaires. It was then that I turned to the professional/semi-professional interviewers.

Out of the 831 respondents, 12 schedules have been discarded due to errors in the punching of IBM cards, and three because the interviewer thought, given the various contradictory statements, the information the respondents gave was not reliable.

The data for the present survey hence are those collected from 815 respondents from Bombay City and Suburbs, commonly known as Greater Bombay.

Adequacy of the Sample

A sample of one percent which has been selected in a random or stratified, random manner, usually provides an accurate picture of how socio-religious characteristics are distributed in the total population. When a sample, such as mine, is purposive (convenient), not random, then it is important to assess its adequacy. This assessment ordinarily can be made by comparing the distribution characteristics (religious preference, literacy, marital status) in the sample and in the relevant census reports.

As far as the comparison between the Hindus, Muslims, and Catholics is concerned, this is not possible for two reasons: first, as stated earlier, Census data group together all the Christian denominations under the common heading of "Christian"; secondly, putting Christians and Catholics at par as far as their fertility values are concerned could be misleading, as other Christian Churches usually support artificial methods of family planning, while the Catholic Church strongly opposes them. This is confirmed by Rele and Kanitkar (1980:130) who

found that the average ideal family size stated by Catholic wives in Bombay was 4.49 as against 3.88 by wives of other Christian denominations.

Table 7 makes it possible for us to compare the population of India, Maharashtra, and Bombay, respectively, with our sample and thus to assess the adequacy of the sample religion-wise.

Table 7. Percentage Distribution of Population by Religion for India, Maharashtra, Bombay and the sample.

Religion	India	Maharashtra	Bombay	Sample
Hindus	82.72	81.93	68.85	41.0
Muslims	11.21	8.40	14.12	29.4
Christians	2.60	1.42	6.28	-
Catholics*	1.60	-	-	28.8

SOURCE: Government of India,1972. Census of India,1971.

*Data for Catholics as of 1980 from the Catholic Directory of India,New Delhi: Catholic Bishops' Conference Publication,1981.

Hindus constitute 83 percent of the entire Indian population. Their percentage in Maharashtra is 82 percent. However, Bombay has only 68.85 percent Hindus. Muslims and Christians are overrepresented in Bombay with 14.12 percent and 6.28 percent when they are just 11.21 percent and 2.60 percent in India and 8.40 percent and 1.42 percent in Maharashtra. This is due to the influx of the minority religious groups to the urban areas, as already observed in the Mysore Study

(Davis,1951; UN,1961). The overrepresentation of the Catholic population in the sample (28.8 percent) is explained by the fact that the data for Catholics were collected in Bandra, a suburb that has a heavy Catholic population.

As the data for Catholics are not available from the Census for reasons already mentioned elsewhere, an attempt has been made to ascertain the Catholic population of Bombay by adding the Catholic population of the 71 parishes from the data in the Catholic Directory of India (1981). According to this source, as of 1980, there were 9,981,183 Catholics in India, of which the above 71 parishes from Greater Bombay had 379,896. Catholics constituted 1.6 percent of the Indian population in 1980 according to the same source.

Other comparisons show that the sample, while adequate in some respects, is rather inadequate in others. This is particularly true when literacy is considered (Table 8). The sample shows a high literacy percentage: according to the 1971 Census, the percentage of illiteracy in Bombay was 30 percent for the male and 44 percent for the female. The percentage of illiteracy for the males and females is 8 percent and 23 percent, respectively. This may be due to two factors: Increased literacy on the one hand in the last decade and/or the high percentage of literacy in Bandra, where most of the data were gathered. The proportionately high percentage of those with High School (10 years of education) and College (4 years) reflects the higher literacy.

Table 8. Percentage Distribution of Population by Literacy of Males and Females of Greater Bombay and Sample.

Education	1971		Sample	
	Male	Female	Male	Female
Illiterate	30.34	44.28	9.5	22.7
Literate without level	12.81	12.86	-	-
Primary	18.73	16.23	19.4	16.1
Middle	20.33	15.25	12.5	11.9
High	13.39	8.74	27.0	25.0
College and above	3.70	2.15	31.0	22.5

SOURCE: Government of India,1972. Census of India,1971.

The adequacy of the sample is further strengthened when a comparison is made, (Table 9), between ages of husband and wife as of Census 1971, and the samples, assuming that the 1980 population is distributed similarly to that of 1971. The relative small percentage of wives of 45 and over is explained by our concern to get as far as possible female respondents before they complete their fecund period.

Table 9. Number and Percentage Distribution of Married Women by Age for Bombay and the Sample.

Age Group	1971 Census		Sample	
	Number	Percentage	Number	Percentage
Below 14	2,919	.15	19	2.3
15 - 19	54,604	5.10	23	2.8
20 - 24	189,832	17.75	99	12.1
25 - 29	223,626	20.91	170	20.9
30 - 34	180,937	16.92	177	21.7
35 - 39	154,363	14.43	147	18.0
40 - 44	101,142	9.45	148	18.2
45 and over	161,806	15.13	32	3.9

SOURCE: Government of India,1972. Census of India,1971.

Table 10. Number and Percentage Distribution of Married Men by Age for Bombay and the Sample.

Age Group	1971 Census		Sample	
	Number	Percentage	Number	Percentage
Below 14	1,160	.07	-	-
15 - 19	19,246	1.21	26	3.2
20 - 24	125,817	7.92	14	1.7
25 - 29	253,397	15.95	98	12.0
30 - 34	275,295	17.33	154	18.9
35 - 39	264,160	16.62	175	21.5
40 - 44	211,096	13.28	152	18.7
45 and over	438,347	27.59	196	24.0

SOURCE: Government of India,1972. Census of India,1971.

As for the adequacy of the sample regarding other characteristics, such as occupation of husband and wife, other religious variables, etc., no such data are available for comparisons from the Census of 1971 or any other survey data. Some of these characteristics of the sample will be summarized in the context of pertinent discussions in subsequent chapters.

Religious Preference of the Sample

The religious preference of the present sample by sex is shown in Table 11.

Table 11. Religious Preference of the Sample by Sex in Number and Percentages.

Religion	Number		Percentages	
	Males	Females	Males	Females
Hindus	173	161	20.61	19.75
Muslims	167	73	20.37	8.96
Catholics	115	120	14.11	14.72
Non-believers	3	3	.37	.37
Total	458	357	55.83	43.80

Although the original draft of the questionnaire had included only three religious preferences, namely, Hindus, Muslims, and Catholics, during its pre-testing stage it was suggested that a fourth category -- that of Non-believers -- should be added, as two interviewers independently came across with such respondents. Four of this category were

Hindus by birth, one Muslim and one, while not disclosing the religion of his birth, declared himself as an atheist.

For the purpose of operationalization, the religion that one actually professes and practices was taken as one's religious preference. As a result, for future computerization, the six respondents who identified themselves as Non-believers will be dropped from the sample, except when relevant.

While the differentials by Religion and Sex in the sample are more or less even for Hindus and Catholics, the number of Muslim males outnumber that of Muslim females by 11 percentage points. This is because given the purdah system prevailing among the Muslims it was not possible for the male investigator to have a free access to the Muslim women.

Limitations of the Study

A note of caution may be sounded here; this study is based on a convenience sample, mostly confined to Bandra, a suburb of Bombay, although data have also been collected from other suburbs as well as from the city of Bombay. The choice of Bandra was natural to me, not only because of the limitations of time and money and because I lived there for seven years, but because of its heterogeneous and pluralistic character. There a large number of Hindus, Muslims, and Catholics of all social strata can easily be identified. The sample cannot be considered representative of the State of Maharashtra, let alone of India, nor even of Bombay.

A fertility study is more reliable when the husbands and wives are interviewed separately. This has not been done in

the present survey. Instead only one of the spouses of a marriage has been interviewed, considering the additional cost in terms of time and money involved in interviewing both the spouses.

Another variable that has been overlooked for the same reasons is the ethnic characteristic within the religious preference which is said to influence the fertility behaviour (Sabagh and Lopez,1980; Goldscheider and Uhlenberg,1969; Alvirez,1973).

For the purpose of data analysis, the questionnaires were edited and key-punched on hollerith cards for entry into the Sigma 9 Computer of Marquette University. During the analysis, missing variables (individual questions that were not answered) were dropped from the calculations. The same method was used for dealing with the small number (2 percent) of erroneous entries (invalid punches) that could not be corrected without huge expenditure of time and effort. It was assumed that the missing answers and erroneous data are distributed similarly to those that are available.

It may also be observed that some of the columns of percentages do not add to precisely 100.0 percent as a result of the rounding of figures which were given to two decimal points on the computer printouts.

There have been few instances in which the respondents did not know their present age and/or of that of their spouse, even though they knew the age at marriage, be it their own or that of their consort. In these cases, their present age was computed on the basis of the spouses' age at marriage,

the age of the first child, and the elapsed time between the marriage and birth of the first child.

As the data collected have a wider scope than the present thesis namely my doctoral dissertation, etc., not all the data available from the questionnaires will be used for the present study.

CHAPTER 4

RELIGION AND FERTILITY

The complex process of child-bearing involves a series of physiological events, starting with the union of the ovum and the sperm as a consequence of heterosexual intercourse, resulting in conception, and terminating with childbirth after the successful gestation of the foetus. Each of these processes is niological in nature, yet is affected by religious, social, and cultural factors.

The Analytical Framework

Various attempts have been made, particularly in the last three decades (Davis and Blake,1956; Hill, Stycos and Back, 1959; Westoff et al,1961; Freedman,1967), to develop conceptual schemes that incorporate the relevant sociological variables. Given its exhaustive classification, the widely acclaimed model devised by Kingsley Davis and Judith Blake (1956) will be used in the present study to explain the way in which the above mentioned non-physiological factors affect fertility. This model classifies the "intermediate variables" through which religious, social, and cultural factors affect all the stages of child-bearing:

I. Factors affecting exposure to intercourse ("Intercourse variables").

   A. Those governing the formation and dissolution of union in the reproductive period.

      1. Age of entry into sexual union.

2. Permanent celibacy: proportion of women never entering sexual union.

3. Amount of reproductive period spent after or between unions.

   a. When unions are broken by divorce, separation or desertion.

   b. When unions are broken by death of spouse.

B. Those governing the exposure to intercourse within unions

4. Voluntary abstinence.

5. Involuntary abstinence (from impotence, illness, unavoidable but temporary separations).

6. Coital frequency (excluding periods of abstinence).

II. Factors affecting exposure to conception (Conception variables).

7. Fecundity or infecundity as affected by involuntary causes.

8. Use or non-use of contraception.

   a. By mechanical and chemical means.

   b. By other means.

9. Fecundity or infecundity as affected by voluntary causes (sterilisation, subincision, medical treatment, etc.).

III Factors affecting gestation and successful parturition ("Gestation variables").

10. Foetal mortality from involuntary causes.

11. Foetal mortality from voluntary causes.

No attempt has been made here to examine all factors unfluencing fertility differences given by Davis and Blake (1956) analytical framework. As the present study deals basically with the impact of Religion and Religion-related variables on fertility behaviour, only variables relevant to that context

will be used.

The Institutional Model

A Model have been developed to study the correlation between Religion and fertility: The Institutional Model. According to this model, the impact of fertility operates with particular doctrine or ideology on norms on birth control, contraceptive practice usage, and norms of family size. Hence, if religious group A has higher fertility than religious group B, the higher fertility is a function of those particular religious doctrines of religious group A in contrast to those of group B about birth control and family size ideals. This study will test the hypothesis: Fertility is related to the tenets of one's religious affiliation.

Formal affiliation is an important factor in all three Religions under study. Westoff et al. (1961:78) have observed:

> The concept of religious affiliation implies a system of values which can affect family size via several routes: (a) by imposing sanctions on the practice of birth control or legitimizing the practice of less effective methods only; or (b) by indoctrinating its members with a moral and social philosophy of marriage and the family which emphasizes the virtue of reproduction.

Hinduism, Islam, and Catholicism support such a system of values, although in different degrees, at least at a theoretical level. Because individuals vary in the degree to which they meet the formal membership requirements of their respective Religions, one would predict differences in behaviour based on varying degrees of formal affiliation,i.e., the

degree to which one fulfills the requirements that determine the minimum standards for membership in good standing.

"Intermediate Variables" and the Sample

The Institutional Model will test the hypothesis: Fertility is related to the tenets of one's religious affiliation. Its basis is the concept of religious affiliation that implies a system of values which can affect family size via several routes (Westoff et al.,1961:78). These routes will be examined here within the analytical framework of the "Intermediate Variables" (Davis and Blake,1959) of

1. Intercourse Variables:
   a. Wife's age at marriage.
   b. Perceived religious influence on fertility.
   c. Sexual abstinence for religious reasons.
2. Conception Variables:
   a. Attitude towards contraceptive practice.
   b. Use of contraceptive means.
3. Gestation Variables:
   a. Foetal mortality from voluntary causes.

The "Intercourse Variables"

Table 12. Percentage Distribution of Wife's Age at Marriage by Religion

Religious Preference	Age Groups							
	Below 14	15-19	20-24	25-29	30-34	35-39	40-44	45 and over
Hindus	4.5	48.8	33.5	10.5	0.9	0.3	0	1.5
Muslims	6.7	66.7	20.5	4.6	0.9	0	0.4	0.4
Catholics	0.8	16.7	46.0	30.7	3.4	0.4	0.4	1.7

Muslim women marry at an earlier age than Hindus and Catholics, shows that 73 percent of the Muslim wives married before they reached 20, compared to 53 percent of Hindus and 17 percent of Catholics. Only 25 percent of the Muslims married between 20-29 years of age, in contrast to 44 percent of the Hindus and 76 percent of Catholics. The percentage of the wives who married after age 30 is 3 percent for the Muslims, 2 percent for Hindus and 6 percent for Catholics.

Table 12 shows that marriage takes place at a very much younger age (before 20) among the Muslims, as compared to Hindus and Catholics. Again there is a sizeable difference between the age at marriage, be it between the Muslims and the Catholics, and Hindus and Catholics, the latter marrying later. The difference between the age at marriage between Hindus and Muslims is also large. Muslims marry youngest, followed by the Hindus and then Catholics.

Table 13 shows the difference in percentage among the three religious preferences an answer to the question: "In your case, did religion play a role with regards to the number of your children"?

Table 13. Perceived Religious Influence in Determining the Number of Children by Religion in Percentages

Religion	Did Influence	Did Not Influence
Hindus	15.0	78.0
Muslims	27.0	69.1
Catholics	37.0	58.7

Generally it shows that in the majority of cases respondents state Religion did not influence the number of their children. This is particularly true among Hindus (78 percent). Catholics had the highest proportion (37 percent) who stated that Religion did influence the number of children. Only 27 percent of the Muslims and 15 percent of the Hindus shared this belief. More religious influence is recognized on Catholic fertility than on that of Muslims or Hindus.

Sexual Abstinence for Religious Reasons

In order to investigate whether Religion influences marital intercourse, it was asked: "Do you avoid sex with your wife/husband for religious reasons"? The answers are tabulated in Table 14 which shows that two-fifths of the Muslims avoid sexual relationship with their wives/husbands for religious reasons, whereas less than a fifth of Hindus and Catholics do so.

Islam specifically presribes sexual abstinence during the periods of fasting, which occur from the rime when a white thread may be distinguished from a black one hour before sunrise and sunset (Farah,1970:144).

> Then strictly observe the fast till nightfall and touch them not,(i.e., opposite sex), but be at your devotions in the mosques (Koran 2:157).

Table 14. Percentage Distribution of Those who Abstain from Sexual Intercourse for Religious Reasons by Religion

Religion	Yes	No
Hindus	15.8	80.2
Muslims	40.8	57.5
Catholics	14.0	82.5

The religiously-based sexual abstinence among Hindus and Catholics is not limited to the day-time but extends over the night as well because the meaning behind it is different. As summarised by a Hindu respondent,

> Fasting basically involves abstention of worldly pleasures in order to enter into a personal communication with God. Therefore fast for me means abstention al all worldly pleasure, including food and sex.

According to one respondent, Hindu women are supposed to keep fasts on the following days:

1. Wata Poornima - on full moon day in the month of June. Women pray to God that they should get the same man as their husband in every next birth.

2. Nag Panchami - on the fifth day of Shrawan month. Woman worship Nag (snake cobra) for the health of their brothers.

3. Every Friday in the month of Shrawan. Women worship their goddess and pray for the health of their children.

4. Every Tuesday in the month of Shrawan. Newly married girls are supposed to keep this fast for five years after their marriage. They worship their goddess for a long and a happy married life.

5. Haritalika in the month of Bhadrapada (September). All women, especially unmarried girls, keep fast on this day to get a good husband. They worship goddess Parvathi.

6. Rishi Panchami in the month of Bhadrapada, on the next day of Ganesh Chaturthi. All women above 15 years of age are supposed to keep fast on this day.

According to the same respondent, both Hindu men and women are supposed to fast on the following occasions:

1. Ashadhi Ekadashi, in the month of Ashadha.

2. Kartiki Ekadashi, in the month of Kartika.

3. Mahashivratra, in the month of Pausha.

4. Shravan Somwar (Monday). Every Monday of Shrawan month.

5. Shrawan Shaniwar (Saturday). Every Saturday of the month of Shrawan.

6. Gokul Asthami in the month of Shrawan.

Another Hindu respondent (Shekar,1980) offered the following comments on the rationale of the above fasts and the consequent abstention of sexual intercourse during the fasting days:

> According to the Vedas, the springs from which Hindu philosophy is watered, a person indulges in sex only with one aim in mind - to bring

> forth a child. This is illustrated by many anecdotes in which, when the world needs a certain kind of person to restore the balance between the evil and the good, the Devas (gods) choose the parents accordingly, and a child is born out of this predestined parenthood.
>
> At the same time, the philosophy has taken into consideration the human tendency and inclinations, especially since he has a physical body. Hence the philosophy does not taboo the relationship between the husband and wife, even otherwise. It safeguards, however the quality of the child produced at this time by laying down certain conditions which people will not find difficult to follow and incorporate into their sex life. This is achieved by taking the help of the position of the stars into consideration, which influence human life.
>
> It is my firm belief that stars influence human behaviour, physical and mental. I believe that the physical and mental characteristics of the child born during a certain stellar and planetary position can be predicted to almost an accuracy of 80 percent. This being the case, the Hindu calendar has marked some days and even time of the day where the influences are so bad that a human being of almost devilish character or of physical deformity will be born. These days are taboo days for married couples, and are given a religious status to make them pious and abstain from sexual activities, knowing only well that the faith in religion will make them adhere to abstinence on these days. Even some religious stories are built around these days so that they are considered as strictly religious.

Table 14 also denotes that an overwhelming majority of over four-fifths of Hindus and Catholics, religious fasts or festivals have nothing to do with frequency of their sexual relationship. Under three-fifths of the Muslims shared this belief.

Hindus abstained from marital sex when performing puja, a

religious ritual (6.5 percent), fasting (7.5 percent) and other religious and/or inauspicious days,e.g. during eclipses (1 percent). Muslims mentioned festivities of Moharram (21.6 percent) and the fasts of Ramadan (12 percent) as religious occasions when sexual intercourse is avoided. Catholic respondents abstained from intercourse during the Church-prescribed fasts (2.5 percent, Good Friday (4.6 percent), Holy Week (0.8 percent) and Lent (1.7 percent). The one occasion common among all three religions on which sexual relationships are avoided is fasts.

The above findings contradict Chandrasekaran (1952:78) who reported on the frequency of coitus among married couples in Lodi Colony (an urban area of New Delhi) and Ramanagaram (a rural area in South India):

> Avoidance of coitus associated with religious festivals and fast days was quite common in both Ramanagaram and Lodi Colony, 50 percent of persons interviewed reported such avoidance. The phase of the moon plays a role also. New moon days, full moon days, and Ekadashi,i.e. the eleventh day after the new and the full moon were frequently mentioned in Ramanagaram. Specific days of the week were mentioned by some in this area, specially Sunday, Monday and Saturday... . The reasons for avoidance in Lodi Colony related to the phase of the moon or of well known festivals. The number of days of avoidance for religious reasons mentioned by individuals ranged from 2 to 120 per year in Ramanagaram and 1 to 79 in Lodi Colony.

One possible explanation for this contradiction is that when the couple is away from the influence of the elders in the traditional family, it is expected that traditional restrictions would be discarded and the sex act remain a matter

of individual desire. Logically, this would imply an increased frequency of sexual relationships in urban areas (Bhende:1975:36). It is also possible that secularization has occurred since Chandrasekaran's (1952) study and that regional differences are found between his territories and Bombay.

"Conception Variables"

The following questions were asked to assess the respondents' attitudes towards contraceptive practices:

1. Family Planning is 1. Good 2. Bad.
2. Sterilization is 1. Good 2. Bad.
3. Should married couples "plan" their families? 1. Yes 2. No.
4. If Yes, when?
   1. After 1 child.
   2. After 2 children.
   3. After 3 children.
5. Do you practice or did you ever practice family planning? 1. Yes 2. No.

The findings of each are discussed below.

Table 15. Attitudes Towards Family Planning (FP) by Religion in Percentages

Religion	FP is Good	FP is Bad
Hindus	95.2	2.1
Muslims	81.2	16.0
Catholics	90.0	8.0

According to Table 15, the respondents of all three Religions overwhelmingly showed a positive attitude towards Family Planning: 95 percent of the Hindus, 90 percent of the Catholics, and 81 percent of the Muslims said that Family Planning is good. Muslims scored high on the negative answer, with 16 percent saying that Family Planning is bad, followed by Catholics (8 percent) and Hindus (2 percent).

Table 16. Attitudes Towards Sterilization by Religion in Percentages

Religion	Sterilization is Good	Sterilization is Bad
Hindus	74.8	17.6
Muslims	38.7	52.9
Catholics	31.9	60.0

Attitudes towards sterilization are crosstabulated with religion in Table 16. Over three-fourths of the Hindus stated that sterilization is good. This belief was shared by almost two-fifths of the Muslims and one-third of the Catholics. This shows that Hindus overwhelmingly support sterilization, while Muslims and Catholics are strongly opposed to it. The strongest opposition is from Catholics.

Table 17. Percentages of Answers to the Question "Should Married Couples "Plan" their Families"? by Religion

Religion	Yes	No
Hindus	96.1	1.5
Muslims	82.0	17.0
Catholics	93.0	6.8

As shown in Table 17, nearly all Hundu (96 percent) and Catholic (93 percent) respondents felt that married couples should "plan" their families. Muslims who felt the same way percentaged 82 percent. It shows that the reluctance among the Muslim couples to "plan" their families is greater than among the Catholics and Hindus.

Table 18. "When Should Married Couples "Plan" their Families"? Answer by Religion in Percentages

Religion	After 1 Child	After 2 Children	After 3 or More Children
Hindus	21.8	31.1	41.3
Muslims	13.0	10.8	57.9
Catholics	42.9	31.9	17.4

Table 18 shows that many Catholics believe they should start planning their families after one child, Hindus after two children, and the Muslims after a third or later child. 58 percent of the Muslims said the couples should plan their

families after 3 or more children. The Hindu percentage for the same answer was 41 percent and the Catholic 17 percent. This means that over two-fifths of Catholics, couples should plan their families after 1 child. Only one-fifth of the Hindus would say so, the percentage being still low for Muslims (13 percent).

Gestation Variables

Respondents' attitude towards abortion by Religion is presented in Table 19.

Table 19. Attitude Towards Abortion by Religion

Religion	Abortion Against Religion	Abortion Not Against Religion	Dont Know
Hindus	25.4	62.5	10.0
Muslims	70.4	23.3	5.4
Catholics	78.0	14.4	7.6

That a great majority of Muslims (70 percent) and still more Catholics (78 percent) believe that abortion is against their Religion is shown in Table 19. This is in sharp contrast with the Hindus only 25 of whom think that abortion is against the tenets of their Religion. While the sacred Scriptures of all three Religions expressly mention the sacredness of human life in general, Islam and Catholicism expressly and emphatically condemn abortion. This explains the strong negative attitude towards it.

Fertility Rates

Table 20. Relation between Religious Preference and Fertility

Religious Preference	Family Units	Number of Children Ever Born Alive	Standardized Number of Children per 100 Family Units
Hindus	334	749	224
Muslims	240	862	359
Catholics	235	683	290

The standardized number of children born per hundred family units has been computed by dividing the total number of births by the number of family units and multiplying by 100.

Table 20 reveals that Muslims have the highest fertility rate, namely 359 children per hundred families, followed by Catholics with 290 and Hindus with 224. The difference between the fertility of Muslims and Catholics is slightly larger than the difference between the fertility of Hindus and Catholics.

The present survey confirms the findings of El-Badry (1967); Visaria (1947); and Bele and Kanitkar (1980) whose surveys conducted in Bombay established that Muslims have the highest fertility rate compared to that of Hindus and Catholics.

Kirk (1967) had already observed that Muslim fertility throughout the world has been universally high, the range of crude birth rates being from 40 to 60 per 1,000 population. In prepartitioned India (1947), higher rates of natural

increase were always recorded for the muslims. Other Indian fertility surveys with the exception of one in Poona, a predominantly Hindu area, (Dandekar and Dandekar,1953:63,101) also reveal higher fertility for the Muslims (UN,1961:120; Sinha,1957:157-169; Rele,1963:183-200; George,1959).

Catholics ranked after the Muslims in this survey with 290 children per 100 family units. As there have been no previous studies to determine the level of Catholic fertility in Bombay, it is not possible to establish comparisons with the other two religions. Data however are available on Christian fertility. El-Badry (1967) found that Christian wives in Bombay had lower standardized parity than the Hindus. Rele and Kanitkar (1980) found that Hindus (3.06) and Christians (3.04) had almost identical fertility, with Hindus ranking below Muslims but above Christians.

The present findings differ. The difference between the Catholics and Hindu fertility rate is nearly as big as that between Catholic and Muslim fertility, and this inspite of the fact that Catholics marry later than the Hindus.

A possible explanation for this phenomenon is the negative attitude of Catholics towards Family Planning as compared to the Hindus (Table 21).

Table 21. Differences in Attitude Towards Family Planning and other Fertility Variables between Hindus and Catholics, in Percentages

Religion	Family Planning is good	Sterilization is good	Abortion is Against Religion	Children are Gift of God	Religion did Influence in Determining Family Size
Hindus	95	75	25	41	15
Catholics	90	32	78	91	37

More Hindus (95 percent) favour Family Planning than Catholics (90 percent) although the difference is not great. Three-fourths of the Hindus favour sterilization compared to one-third of the Catholics, over three-fourths of whom believe abortion is against their religion, but only one-fourth of the Hindus. An overwhelming majority of Catholics (91 percent) believe that children are a gift from God; only 41 percent of the Hindus share in this belief. Furthermore, nearly two-fifths of Catholics (37 percent) stated that the tenets of their religion had a bearing on them in determining family size. The negative attitude of the Catholics towards Family Planning, and their positive attitudes towards fertility is a reflection of the conservative official attitude of the Church towards contraception, be it at the macro level of the universal Church or at the micro level of the parishes in the Church in India. Also it has to be borne in mind that Indian Catholics by and large are theologically illiterate. Their bishops' passive obedience to the Vatican is proverbial, which is probably an aftermath of colonization.

Rele and Kanitkar (1980) found almost identical fertility rates among the Hindus and Christians of Bombay. The fact that this Survey has found a substantial difference between Hindu and Catholic fertility is an indication that there likely exists a substantial difference between the overall Christian fertility and Catholic fertility in Bombay. Does this trend substantiate the hypothesis based on Institutional Model, namely, the closer the formal affiliation, the larger the family? Before answering the question, it is advisable to state the fertility tenets of each Religion.

Religious Tenets on Fertility

Although Islam, like Hinduism, has no central religious authority, nevertheless it has been a more effective barrier to the diffusion of family planning than any other Religion. Kirk (1966:570) attributes this to the tenets inherent in Islam:

> Moslem doctrine holds that pleasures of the flesh, and specifically sexual intercourse, are a God-given virtue to be enjoyed and conjugal obligation to be fulfilled. The great medieval theologian Al-Ghazzali held that Mohammed was superior to Christ in that the latter never successfully integrated family life and sexual pleasure into Christian belief. While Mohammedanism imposed dietary restrictions and restraints relating to art and music, there is a striking absence of the value that is placed on sexual asceticism in Christianity, in Buddhism, and in Hinduism. A celibate clergy or celibate religious orders are foreign to Islam. In traditional Moslem belief the permanent state of celibacy is abnormal for men and unthinkable for able-bodied women.

The official Catholic attitude towards fertility is well

known. The Catholic Church, although acknowledging that there may be situations when married couples should not have children, as per rule always fostered the doctrine of large families. The use of artificial contraceptives is considered to be a grave sin, while sexual relations during the agenetic periods of women is allowed only for grave reasons.

In Hinduism, the purpose of marriage is not companionship but procreation. Swami Nikhilananda (1956:369) observes:

> Marriage is extolled because, it is a discipline for self-control, enabling men to give up the animal life of promiscuity. Thus the purpose of marriage is not the satisfaction of lust, but of creating a healthy society through righteous children.

Marriage is regarded as universally necessary, and those who die unmarried are considered to have led an incomplete life (Srinivas,1952). That orthodox Hinduism has been opposed to all the methods of artificial birth control can be inferred from the fact that Mahatma Gandhi, its leading exponent, was against all artificial contraception and in favour of population control by abstinence.

> There can be no two opinions about the necessity of birth control. But the only method handed down from ages past is self-control or Brahmacharya. It is an infallible sovereign remedy doing good to those who practise it. The union is meant not for pleasure but for bringing forth progeny. An union is criminal when the desire for progeny is absent.

It is this strong religious orthodox view against artificial contraception that led the Government of India in to opt for the Rhythm method as a means of controlling the population.

It was soon a failure, though, and had to be given up by 1954.

Conclusion

As the validity of our hypothesis, "fertility is related to the tenets of one's religious affiliation", rests on the extent of acceptance of the above tenets on fertility by its adherents, it is pertinent to examine the fertility values of the sample.

The respondents of all three Religions seem to reflect the fertility patterns of their religious preference. This can be gauged from their answers to the questions related to the "intermediate variables" (Davis and Blake,1956). Fewer Muslims (81 percent) than Hindus (95 percent) and Catholics (90 percent) felt that it was a good thing to plan a family. A great number of Muslims (41 percent) stated that their Religion tells them to have as many children as possible; only 16 percent of the Hindus and 14 percent of the Catholics shared in the same belief. On the question whether married couples should "plan" their families, 17 percent of the Muslims replied in negative against the 7 percent of the Catholics and 1 percent of the Hindus. Of those Muslims who opted for planning their families, a substantial number (58 percent) felt that couples should plan their families after 3 or more children, whereas 41 percent of Hindus anf 17 percent of Catholics opined the same way. (The clustering of Muslims and Hindus in this answer is partly explained from the fact that Hindus (41 percent) and Muslims (37 percent) have higher infant mortality than Catholics (21 percent) in the sample). Regarding abortion, the

projection of the attitude of the respective religion is still clearer in the sample: 78 percent Catholics opposed abortion, followed by Muslims (70 percent) and Hindus (25 percent).

Although the sample does reflect the fertility values of one's religion, these affect the family size in different ways. Hinduism and Islam, given the lack of a central authority, indoctrinate their members with a moral and social philosophy of marriage and the family which emphasizes the virtue of reproduction. Catholicism imposes sanctions on the practice of birth control and legitimizes only the practice of less effective methods of family planning.

It is against this background that the high fertility of Muslims, followed by that of Catholics and Hindus, can be explained. Therefore the hypothesis, "Fertility is related to the tenets of one's religious affiliation", has been confirmed in this study.

CHAPTER 5

RELIGIOSITY AND FERTILITY

The relation between religious preference, religiosity, socio-economic status and family size is one of the main themes dealt with in fertility research. The first variable has been dealt with in Chapter 4. The relation between religiosity and the family size will be the object of discussion in the present chapter. Socio-economic status and fertility will be the subject of Cahpter 6.

The Religiosity Model

It is generally recognized that religiosity has been a relatively important predictor of Catholic fertility and family size preferences (Freedman et al.,1959:281; Westoff et al., 1961:195-198; Whelpton et al.,1966:82-83; Westoff et al.,1963: 82-83,93). Would this factor affect the family size of Hindus and Muslims? To put the question in a different way: Is there a positive correlation between the degree of religiosity of Hindus, Muslims, and Catholics, and their family size? This is pertinent, as it recently has been argued (Potwin and Burch,1968:28) that the positive correlation observed between religiosity and family size in Catholic fertility studies, cannot be generalized to other Religions.

Hence, two hypotheses will be tested within this "Religiosity Model" (Alvirez,1973): (1) Religiosity is positively correlated with fertility; and (2) Religiosity is positively correlated with fertility irrespective of the Religion.

Religion involves more than the mere fulfillment of certain requirements of formal affiliation (the Institutional Model) if it is to influence all of life. It includes a variety of religious practices that may be subsumed under the concept of religiosity (personal religiousness). Religiosity emphasizes the socio-psychological variables that reflect the total personal religious orientation and practices of the individual. These variables should reflect in greater depth the influence of Religion on a person's daily behaviour and hence could have a greater effect on fertility patterns than formal affiliation.

Although formal affiliation and religiosity may be closely correlated, the two are not synonymous. One can fulfill the formal requirements of one given religion, say the Catholic Church, without being very devout. Conversely, religiosity may be a strong factor in a person's life without his meeting all the formal requirements set by his religion. Hence, it is necessary to distinguish between the two to see if their effects on fertility patterns differ.

The Religiosity Concept

What is the concept of religiosity? Faulkner and DeJong (1966), and Glock (1962) conclude that the first and primary requirement in the conceptual investigation of Religiosity is that social researchers establish the relevant dimensions in which one can be religious. Glock (1962) states that past research on the concept has failed (for the most part) to address this fundamental question.

Most researchers agree that Religiosity is a multi-dimensional construct, but there the agreement stops. Some operationalize Religiosity as only church attendance, while others generate nine or more dimension to represent religiosity. Rarely are open-ended questions or in-depth interviews used. For example, belief in a Deity may be utilized as the "identifying factor" of the devoutly religious. Or church attendance may be combined with belief in God to form a two-dimensional index of religiosity. Others may conceptualize religiosity in terms of one's knowledge of "religious material", or combine knowledge with belief in God and church attendance, and the like. Hence, one can discern that there is a great deal of dissimilarity and disagreement among researchers on the conceptualization of Religiosity.

Three Representative Approaches

At this point a brief review of three representative, widely used religiosity scales is in order: (1) Individuals' "orientations and involvement" (Lenski,1961); (2) "Dimensions of Religious Commitment" (Stark and Glock,1966); and (3) the "Dimensions of Religiosity" (King and Hunt,1972).

Lenski's (1961) notion was that to systematically assess the salience of religious commitments (religiosity in part) it is also necessary to study the influence of different religious orientations (e.g.,mystical, devotional, ascetic, ceremonial, doctrinally orthodox, millennial, and ethical). Attempting to fit "religious orientation" to the issue at hand, Lenski held that there was defensible reason for

believing that diverse religious orientations lead to differentiated patterns of thought and action in the secular realm. For instance, one would hardly expect to find enthusiam for political reform among millennialists, but one might among ethicalists. Thus, ethicalism was of concern. However, the four areas he most emphasized were devotionalism, communalism, doctrinal orthodoxy, and associationism. Devotionalism refers to a behavioural religious orientation, while doctrinal orthodoxy is an intellectual orientation. These two separate orientations were selected because (1) they appeared a priori to contrast with one another; (2) they were widely accepted, and (3) they were potentially salient.

Glock (1962:98-110) "5-D Religiosity" went beyond Lenski's four-dimensional model to a five-dimensional. He felt that religious or irreligious orientations should be characterized and conceptualized by (1) the experiential (feelings, emotions); the ritualistic (religious behaviour like "attending church"); (3) the ideological (religious beliefs); (4) the intellectual (religious knowledge) and (5) the consequential (the effects in the secular world of the prior four dimensions).

King and Hunt (1972) originally conceived of religiosity as a uni-dimensional phenomenon. Hence they used eleven possible dimension with the idea that one would come out on top. They found indeed the comcept was multi-dimensional, involving religious belief, commitment, and participation. From the original eleven, their dimensions eventually (through a series of articles) evolved into ten dimensions: (1) Creedal

Assent; (2) Devotionalism; (3) Church Attendance, (4) Organizational Activity, and (5) Financial Support; (6) Religious Knowledge; (7) Growth and Striving, and (8) Extrinsic; (9) Behaviour, and (10) Cognition.

Glock's dimensions of religiosity (Glock and Stark,1965, 1966) have been used in the present study to build a Religiosity Scale for the purpose of measuring the religiosity of the respondents of all three religions of the sample, because, in Glock's own words,

> within one or another of these dimensions all of the many and diverse manifestations of religiosity prescribed by the different religions of the world can be ordered (Glock and Stark,1965:20).

Moberg (1967:26) spoke of "an uneasiness" when he read the above statement and cautioned that

> Measuring each of the five dimensions of religiosity and all of their conceivable sub-dimensions hence is not fully equivalent to measuring man's ultimate concern, religious faith, or existential commitment. The scientific study of these dimensions can lead to the invalid implication that the totality of religion has been analyzed, if the researcher fails to recognize the limitations of empirical study in this area of religious life.

Johnson and Aigner (1979:9), criticizing Glock and Stark, observed that "problem of construct validity can be detected in the scales used in 1966 and 1968 studies of Glock and Stark".

> Glock and Stark employed questions that dealt with "church-going habits", "receiving Holy Communion", "Confirmation", reading the Bible (as opposed to other holy books),

> knowledge of the Bible, beliefs about Jesus, and so forth. In observing this line of questions one can see an obvious bias toward White, traditionally (main-line), church-going Christianity. These questions inadequately indicate the religiosity of people who are non-Christians or who advocate emergent neo-Christian ideologies.

This chapter will enable us to see whether their argument is tenable. It uses Glock's "5-D of Religiosity" as the basis for a common scale to measure the religiosity of Hindus, Muslims, and Catholics.

Difficulty

A major difficulty in using survey data to relate religiosity to actual family-size is that current religiosity is being correlated with past fertility performance. This implies that religiosity is stable over time, which is debatable.

Religiosity Scale

In order to assess the religiosity of the respondents of all three Religions, a religiosity scale based on Glock's "5-D Religiosity" has been built, with a potential range of scores from 7 to 23. The rationale behind choosing Glock's "5-D Religiosity" is that it "represents a tremendous advance upon earlier studies of religion" (Moberg,1967:27). This is especially true if one recognizes the limitations of earlier empirical studies in this area of religious research. Further, Glock's claim that all of

> the many and diverse manifestations of religiosity prescribed by the different religions of the world can be ordered

under these dimensions makes this a relevant framework for research in comparative religious.

Instead of all five, only three of these dimensions have been used in this study, namely ideological, ritualistic, and intellectual. Experiential dimension has not been used as some of its aspects are not equally emphasized by all three Religions under study (Glock and Stark,1965:31-32). The consequential dimension has been excluded because it could be debatable whether it belongs to the category of independent variable (Stark and Glock,1968:16).

The scale was with scores assigned (weights) built of the following components with their questions from the survey:

1. Ideological (what religious people believe):		Scores
a. How important is Religion to you?	Very Important	1
	Important	2
	Not Important	3
b. Children are gift from God.	True	1
	False	2
2. Ritualistic (religious practices-- what people who are religious do in the external expression of their Religion):		
a. How often do you go to a Temple, Mosque or Church?	Daily	1
	Often in a week	1
	Once a week	1
	Over a month	2
	Once a year	3
	Never	4
b. How often do you worship/ offer namaz/pray?	Every day	1
	Once a week	2
	Once a month	3
	Often a month	3
	Rarely	4
	Never	4
c. Do you keep fasts prescribed by your Religion?	Yes	1
	No	3

3. Intellectual (the cognitive dimension: what people know about their religion, church, etc.):		Scores
a. Do you think abortion is against your Religion?	Yes	1
	No	4
	Dont know	3
b. Does your Religion tell you to have as many children as possible?	Yes	1
	No	2

The scale has been divided into three categories: High, Medium, and Low: the lower one scores, the higher religiosity one will have. The actual scores ranged from 7 to 23. Scores from 7 to 10 constitute "high religiosity", 11 to 13, "medium religiosity", those from 14 to 23, would belong to "low religiosity". The cutting of the scores of the categories was decided on the basis of the clustering of respondents into the above three categories.

Johnson and Aigner (1979:9) had argued that the five dimensions of religiosity of Glock suffer from the problem of construct validity because the questions employed by them had a Christian bias. Therefore they argued that using them would "inadequately indicate the religiosity of people who are non-Christians".

This argument is untenable. The scale used in this study shows how questions without the bias of Judeo-Christian tradition can be framed and the dimensions measured without any major problem of construct validity. If Glock and Stark's own questions had Christian bias, it could be because they were addressed to a predominantly Christian audience.

This, however, does not mean that Glock and Stark's class-

ification is without weaknesses. One such was pointed out by Moberg (1967:26), namely, the absence of the spiritual component of religiousness which is the very essence of religious life, or as the eminent Italian Sociologist Sturzo (1947) would say "the true life".

> The supernatural is not made a separate section of social life, something juxtaposed to the natural, which individuals may accept or reject at will. In studying society in the concrete, it is found to exist within the atmosphere of the supernatural.

The Religiosity Characteristics of the Sample

In order to study the importance of Religion, the following question was asked: "How important is Religion to you"? (Table 22). A comparison between Hindus, Muslims, and Catholics regarding the religious "salience" among the adherents of the three Religions shows that more Catholics (63 percent) than Muslims (55 percent) or Hindus (44 percent) feel that their religion is very important to them.

Table 22. Self-Evaluated Importance of Religion in Percentages

Religion	Very Important	Important	Not Important
Hindus	44.3	47.0	7.1
Muslims	55.4	42.0	2.0
Catholics	63.0	34.0	3.8

Differences by Religion are evident in Religion and attitude towards children as shown in Table 23. Among Catholics, 91 percent believe that children are God's gift. This belief is shared by three-fourths of the Muslims but only two-fifths of the Hindus.

Table 23. Responses to the True-false Statement, "Children are the Gift of God" in Percentages

Religion	True	False
Hindus	41.0	56.2
Muslims	73.0	24.1
Catholics	91.4	7.2

Table 24 presents frequencies of visiting a Temple, Mosque or Church. It may be observed that there is no such thing as compulsory going to the Temple for worship purposes in Hinduism. This helps to explain their overall lower rate of attendance as compared to the Muslims who are asked to pray five times a day and to offer Namaz in the Mosque once a week on Fridays. Catholics have an obligation to attend the Sunday Mass every week. About as many Muslims (24 percent) visit their Mosques daily as Catholics (22 percent) their Church. Although a Muslim may pray wherever he finds himself at the prescribed time, city dwellers usually gather in Mosques to pray (Farah,1970:135).

Table 24. Percentage Distribution of the Frequency of Visits to a Temple, Mosque, or Church by Religion

Religion	Daily	Often Week	Once Week	Once Month	Once Year	Never
Hindua	8.3	10.8	25.1	35.3	15.0	4.4
Muslims	24.1	5.4	36.6	6.6	5.8	20.0
Catholics	11.5	22.1	59.5	4.2	2.1	-

Frequency of Prayer. Question: "How often do you worship/offer Namaz/pray"? As the Table 25 shows, a high percentage of the Muslims (89 percent) as well as of the Catholics (84 percent) pray every day. The compulsory five-times-a-day prayer in Islam explains their highest rates. According to Farah (1970:135) ritual prayer is an essential obligation of Muslim worship and the supreme act of righteousness. Without rendering it, the Muslim ceases to be a Muslim in practice. There is no such thing as compulsory prayer in Hinduism and Catholicism, although there is a custom among Hindus to perform the puja (worship of God) each morning, which is equivalent to the morning prayer among the Catholics.

Table 25. Frequency of Prayer in Percentages

Religion	Daily	Once Week	Once Month	Often Month	Rarely	Never
Hindus	71.8	12.8	5.4	3.0	5.0	.9
Muslims	89.0	6.6	0	1.6	3.0	0
Catholics	84.2	8.5	1.7	3.0	2.1	.4

The practice or religious fasting is prevalent among Hindus, Muslims, and Catholics (Table 26). Question: "Do you keep the fasts prescribed by your Religion"?

Table 26. Practice of Religious Fasts, by Percentages

Religion	Yes	No
Hindus	76.0	22.1
Muslims	94.5	4.5
Catholics	76.1	23.8

Compliance with the religious fasts is very high among people of all three Religions, with Muslims scoring the highest (94 percent). There is no difference between the percentages of Hindus and Catholics (76 percent). It may be noted, however, that fasting for religious purposes is characteristic of the Hindu and the Muslim cultures, not of Catholics.

Religiosity Levels

The religiosity characteristics of the sample are summarized in Tables 27 and 28.

Table 27. Ritualistic Religiosity by Religion by Percentage

Religion	Frequency of Visits to Church	Frequency of Prayer	Keeping of Fasts
Hindus	8.3	71.8	76.0
Muslims	24.1	88.7	94.5
Catholics	11.5	84.2	76.1

Table 28. Ideological Religiosity by Religion by Percentage

Religion	Importance of Religion	Belief that Children are a Gift of God	Belief that Abortion is Against Religion
Hindus	44.3	40.7	25.4
Muslims	55.4	72.9	70.4
Catholics	62.9	91.4	77.8

Table 27 reveals that the Muslim sample scores highest in the ritualistic dimension of religiosity: they top the list in their frequency of visiting the Mosque, as well in the frequency of prayer and fasting. Catholics rank first with regards to all items of the ideological dimension, namely the importance of religion, the belief that children are a gift of God, and the assertion that abortion is against their

Religion.

The overall distribution on the religiosity scale of the respondents of the sample by religion is given in Table 29.

Religiosity and Fertility

The hypotheses to be tested within the Religiosity Model were: (1) Religiosity is positively correlated with fertility; and (2) Religiosity is positively correlated with fertility irrespective of the Religion.

The a priori implications are that Muslims would have the highest fertility rate, followed by the Catholics and Hindus. The findings of the present survey confirm those aprioristic assumptions: (Table 30) Muslims had the highest fertility rate (359 children per 100 family units; Catholics ranking second with 290 (Table 31), and Hindus last with 224 (Table 32). Therefore, the hypothesis that "Religiosity is positively correlated with fertility" is confirmed.

The second hypothesis is that personal religiosity is positively correlated with fertility irrespective of religion. Tables 30, 31, and 32 present cross-tabulations of personal religiosity and the respective fertility rate among Muslims, Catholics, and Hindus.

Table 29. Religiosity Scores of the Sample by Religion in Percentages

Religion	High	Medium	Low
Hindus	20	31	49
Muslims	57	25	18
Catholics	37	49	14

As the Table 29 shows, 57 percent of the Muslims scored "high" on the religiosity scale; they are followed by Catholics (37 percent) and trailed far by Hindus (20 percent). In the "low" category, Hindus top the list with 49 percent. Muslims are the distant second (18 percent) and Catholics quite close to them with 14 percent. In between the extremes, the middle position is taken most by Catholics with 49 percent, followed by Hindus (31 percent) and Muslims (25 percent). Hence from the analysis of the religiosity characteristics of the sample one could state that within the sample, Muslims are more religious than Catholics, and Catholics are more religious than Hindus.

Table 30. Religiosity and Fertility among Muslims

Religiosity	Family Units	Children ever Born Alive	Fertility Rate
High	137	583	425
Medium	59	166	281
Low	44	113	256
Muslims Total	240	862	359

The relationship between religiosity and fertility among Muslims is cross-tabulated on Table 30. It shows that the 137 Muslim family units which had "high" scores on the religiosity scale also had the highest number of children ever born alive (583). Their fertility rate was 425 children per 100 family units. The 59 family units which belong to the category of "medium religiosity" had borne 166 children for a fertility rate of 281. The 44 family units with "low religiosity" produced 113 children; their rate was 256.

One notices a big difference between the families with "high" and the "medium" religiosity scores; the fertility rates are 425 for "high" and 281 for "medium". There is not such a great difference between "medium" and "low though. About three-fifths of the 240 respondents scored "high", while only one-fourth scored "medium" and one-sixth "low". This suggests that a substantial majority of the Muslims are highly religious.

Table 31. Religiosity and Fertility among Catholics

Religiosity	Family Units	Children ever Born Alive	Fertility Rate
High	89	271	304
Medium	32	93	290
Low	114	319	279
Catholic Total	235	683	290

Almost half (49 percent) of the Catholics (Table 31) of the sample have low religiosity, 38 percent "high", and 14 percent "medium religiosity". The Catholics who scored high in religiosity had the highest fertility rate (304). Those of "medium religiosity" had a fertility rate of 290, and those who scored "low" had a fertility rate of 279. Although the range is not as great as among the Muslims, the same direct relationship of fertility to religiosity is clearly evident.

Table 32. Religiosity and Fertility among Hindus

Religiosity	Family Units	Children ever Born Alive	Fertility Rate
High	105	263	250
Medium	67	152	226
Low	162	334	206
Hindus Total	334	749	224

As shown in the Table 32, most of the Hindu respondents are clustered in two extremes: 105 scored "high" and 162 "low", with only 67 "medium" on religiosity. Those who scored high had a fertility rate of 250. Those who scored medium had a rate of 226, and the low respondents had the lowest fertility rate, 206.

Conclusion

The analysis of the findings supports the existence of a positive correlation with fertility irrespective of Religion: not only are the high fertility rate of the Muslims and Hindus positively correlated with their high religiosity, but within Islam and Hinduism itself religiosity is closely correlated with the family size. The more religious a Muslim is, the more children he has: This also holds good for Hindus. Hence the proposition of Potwin and Burch (1968:28) that

> the positive correlation seen in the Catholic fertility between religiosity and family size cannot be generalized to other religions.

cannot be supported in the light of the present findings, at least with regards to Hinduism and Islam.

CHAPTER 6

SOCIO-ECONOMIC STATUS AND FERTILITY

Among the major determinants of fertility, socio-economic variables occupy a prominent place. In preceding chapters two of these, namely Religion and religiosity of Hindus, Muslims, and Catholics of Bombay have been studied to discover their effect of fertility. The present chapter will deal with another major socio-economic variable: socio-economic status (SES) and its impact on the family size of the sample.

Previous Studies

There is no unanimity among scholars regarding the relationship between SES and fertility, even though studies conducted in many Western countries have shown an inverse correlation. Recent studies (Johnson,1960; Deborah Freedman, 1963; Whelpton,1966) have emphasized the lessening of differences in fertility. Even the negative correlation between education and fertility is diminishing, if not disappearing, in developed countries, with higher education not necessarily being associated with fewer children.

In India, women of lower and poorer groups tend to bear more children, in part because more of their children die in infancy, so these women have shorter lactation and an ovulatory (nonovulatory) periods before becoming fecund again, and in part because they need more children to replace those they lose. So they continue to bear children at later ages (Mandelbaum,1974:42). This difference is demonstrated in the

Khanna Study, where the higher ranking Jat women who were married through their whole child-bearing period had an average of 7.0 live births, and the lower-ranking Chamar women averaged 8.2, some 15 percent more (Potter et al.,1965: 196; Wyon and Gordon,1971:140).

Reports based on the National Sample Survey (a sample of 16,289 urban couples) showed a regular decrease in fertility rates among classes with increasing income. Couples in the richest quintile had an average of 2.84 children born alive, and those in the poorest had 4.53.

The effect of education in depressing fertility has been visible only among those with an education beyond the level of high school (UN,1961:122,128). This is in part because, as a result of education, the age at marriage of wife and husband goes up automatically. The influence of the husband's level of education on the wife's fertility is much less than that of her own education.

In Bombay, an analysis by Rele and Kanitkar (1980:79) revealed that, as far as the educational attainment of the husband and wife and the economic condition of the family were concerned among the three Religions under study, Hindus had the highest level of achievement, followed by Christians and Muslims. They also noted the existence of an inverse relationship between educational attainment and fertility; that relationship was more pronounced when the educational attainment of the wife was taken into condideration. The very fact that within each religion, the standardized average number of children ever born decreased with each degree of

educational attainment, indicated the high importance of education as a determinant of fertility level, irrespective of the Religion (Rele and Kanitkar,1980:80).

They also found an inverse relationship between the SES of the family and fertility.

Socio-economic Characteristics of the Sample

Various variables are taken into account for the study of differential fertility. As the purpose of this chapter is to measure the SES and its impact on fertility in Bombay, the variables related to SES have been identified and selected in order to assess and measure the level of SES.

According to the model proposed by Wagner (1960:39-42) they are the income of the spouses, occupation of husband, housing, and dwelling place. This model has been adopted for the present study with some modification to fit the situation in Bombay. Education has been added. It has a definite bearing on the socio-economicstatus (Rele and Kanitkar,1980), as it is a part of an "urban mentality." Dwelling area has been dropped because the existence of a few pockets of slums in and around rich neighbourhoods in Bombay is a distinct possibility, even though this may be an exception rather than rule.

Therefore, the socio-economic status of the respondents will be gauged by studying (1) the education of the spouses of the sample (Tables 33 and 34), (2) the income of the spouses (Tables 35 and 36), (3) occupation of the respondent (Table 37), and (4) the quality and type of dwelling (Table 38).

Table 33. Percentage Distribution of Wives' Education by Religion

Religion	Never Attended Primary School	Middle School	High School	University
Hindus	39.8	22.4	25.4	9.8
Muslims	54.8	18.7	15.0	10.8
Catholics	28.9	35.3	11.4	22.5

Catholic wives of the sample have the highest educational achievement; Muslim wives have the lowest (Table 33). Muslim wives rate 55 percent with no school or only a Primary education while their Hindu and Catholic counterparts rate 40 and 29 percent each, respectively. Twenty-three percent of the Catholic wives have a University education, compared to only 10 percent of the Hindu wives and 11 percent of the Muslim wives.

Table 34. Percentage Distribution of Husbands' Education by Religion

Religion	Never Attended Primary School	Middle School	High School	University
Hindus	35.0	24.8	23.9	11.3
Muslims	42.5	22.9	19.5	13.3
Catholics	15.7	12.7	33.1	37.8

According to the cross-tabulation in Table 34, 43 percent of the husbands of the Muslim sample are without schooling or

have a level of education up to the Primary level. Thirty-five percent of Hindu and 16 percent of Catholic husbands belong to the same level. The proportion of Catholic husbands who attended the University is very high (38 percent) compared to the Hindus (11 percent) and Muslims (13 percent). Catholic husbands have a higher educational level than Hindus, and Hindus a better one than the Muslims.

Table 35. Percentage Distribution of Husbands' Income by Religion

Religion	Below Rs.500	Rs.500-1,000	Rs.1,000-2,000	Rs.2,000 or More
Hindus	14.0	17.0	29.9	37.1
Muslims	21.1	17.9	35.0	26.2
Catholics	17.8	21.2	25.5	32.7

Subdividing the income categories into "Low" (Below Rs.500), "Middle" (betweem Rs.500 and Rs.2,000) and "Upper Middle" (Rs.2,000 or More), more Muslims (21 percent) than Hindus (14 percent) and Catholics (18 percent) belong to the "Low" category, (Table 35). More Muslims (53 percent) belong to the "Middle" categories than Hindus and Catholics (47 percent each). But more Hindus (37 percent) than Catholics (33 percent) and Muslims (26 percent) belong to the "Upper Middle" category. Accordingly, we can conclude that Hindus have a higher income than Catholics, and Catholics than Muslims.

Table 36. Percentage Distribution of Wives' Income by Religion

Religion	Below Rs.500	Rs.500-1,000	Rs.1,000-2,000	Rs.2,000 or More
Hindus	0.9	3.2	6.5	12.5
Muslims	2.0	2.0	3.7	7.9
Catholics	4.6	6.8	14.0	25.1

A glance at Table 36 shows that the percentage of wives working outside their homes in all three Religions is very small. Proportionately, more Catholic wives work, than their Hindu and Muslim counterparts. With regard to income: Catholic wives in all three categories exceed those of other Religions in both the percentage working and in the amount earned.

Table 37. Distribution of Respondents' Occupations by Religion in Percentages

Religion	Unskilled Worker	Skilled Worker	Clerk/ Teacher	Manag./ Dir./Prof.
Hindus	19.7	17.9	4.1	29.6
Muslims	25.9	34.8	17.4	14.8
Catholics	25.4	12.5	12.9	28.3

Table 37 shows that the percentages for Muslims and Catholics in the lowest occupational category of unskilled worker are the same (25 percent), while Catholics who belong

to the higher category are nearly double (28 percent) than the Muslims (15 percent). Hindus have lesser percentage in the category of unskilled, and they number ahead of Catholics in the higher category of Manager/Director/Professor by two percentage points (30 percent). Therefore, from the data in Table 37 we can surmise that nearly an equal number of Catholics and Hindus occupy high positions compared to Muslims.

Table 38. Percentage Distribution of Quality and Type of Housing by Religion

Religion	Kuccha Rented	Kuccha Owned	Pucca Own/Rented	Own Apartment 2 Rooms or More
Hindus	29.3	61.9	4.1	2.9
Muslims	21.2	70.4	7.0	1.2
Catholics	35.0	39.1	20.2	4.2

Table 38 shows that more Catholics (35 percent) of the sample live in rented "kuccha" (thatched roof huts usually in slum areas) than Hindus (29 percent) and Muslims (21 percent). More Muslims (70 percent) own the huts they live in, than Hindus (62 percent) and Catholics (39 percent). However, more Catholics (24 percent) live in rented or owned apartments than Muslims (8 percent) and Hindus (7 percent). A higher percentage of Catholics than Hindus and Muslims of the sample live in better houses: seventy-four percent of the Catholics live in "kuccha" huts (in the slums), compared to

91 percent of Hindus and 91 percent of Muslims.

Tables 33 through 38 present the cross-tabulations of Religion and the socio-economic characteristics of the sample. They reveal that Catholics have a lower percentage of uneducated people and a higher percentage with University education. This is consistent with the findings of various other studies (UN,1961; Rele and Kanitkar,1980). When it comes to occupation, percentages for Catholics and Hindus for the category of Manager/Director/Professional are more or less even (28 percent and 29 percent, respectively) with Muslims ranking a distant third with 14 percent. Cross-tabulations by income reveal that the percentage of Hindus earning Rs.2,000 and above is higher (37 percent) than that of Catholics (32 percent and Muslims (26 percent). Regarding the characteristics of housing, a higher percentage of Catholics than Hindus and Muslims of the sample live in better houses: 74 percent of the Catholics live in "kuccha" huts (in the slums), compared to 91 percent of Hindus and 91 percent of Muslims. Again the percentage of Catholics who own or rent "pucca" (brick and cement houses) houses is 20 percent, compared to 4 percent of the Hindus and 7 percent of the Muslims.

A pattern common to all three Religions develops when we study the sample by education: the percentage of wives who are without school or lesser educated is higher than that of the husbands, and this in all three Religions. The proportions are also different. Husbands are better educated than the wives. This is a reflection of the cultural trend in

India which discriminates against girls regards to education. The most important function of a wife is to bear children; her status in her home depends on her success in her reproductive career, and especially in her ability to bear male children. Hence it is felt that education is not essential to fulfil this role. This trend however is changing very fast, with people realizing the value and importance of education.

Measurement of Socio-economic Status

A scale to measure the socio-economic status of the respondents has been built along the lines proposed by Wagner (1960) with due modification to adapt it to the situation in Bombay. The categories ans assigned scores of the scale are as follows:

The education of the husband and wife has been weighted separately and scored as per the following categories:

	Scores
Never went to school or Primary Education only	4
Middle School	3
High School	2
University	1

The income of the husband and wife has been weighted separately and scored as per the following categories:

Earning less than Rs.500	4
Earning Rs.500-1,000	3
Earning Rs.1,000-2,000	2
Earning over Rs.2,000	1

The occupation of the respondent has been weighted and scored as per the following categories:

	Scores
Unskilled labourer	4
Skilled labourer	3
Clerk/Teacher	2
Manager/Director/ Professional	1

The type and quality of the housing has been weighted and scored as per the following categories:

Rented house "kuccha" (with Thatched roof)	4
Own house (one room)	3
Own house/rented apartment (more than one room)	2
Ownership apartment	1

Table 39. Socio-economic Scores of the Sample by Religion in percentages

Religion	Socio-economic Status		
	High	Middle	Low
Hindus	12	45	33
Muslims	10	49	41
Catholics	11	63	26

The cross-tabulations (Table 39) show that there is little difference in the proportions scoring high (12 percent of the Hindus, 10 percent of the Muslims, and 11 percent of the Catholics). However, the Catholic percentage in the category of "medium" is very high (63 percent) while the Hindu (45 per-

cent) and Muslim (49 percent) percentages are more or less even with a small difference of four percentage points. The Muslim percentage of those who scored "low" is 41; the Hindu percentage is 33, and the Catholic percentage, 26. This means that in the present sample Muslims tend to have a lower socio-economic status than the Hindus and Catholics.

It is not crystal clear whether the Hindus or the Catholics have the highest socio-economic status. Hindu respondents slightly top the level of "high" but are below Catholics in the levels of "medium" and "low".

Socio-economic Status and Fertility

The primary purpose of this Chapter is to ascertain the impact of the socio-economic status of the sample on fertility. Tables 40, 41, and 42 provide cross-tabulations of the findings.

Table 40. Socio-economic Status and Fertility among Hindus

Socio-economic Levels	No. of Family Units	No. of Children Ever Born Alive	Fertility Rate
High	72	118	163
Medium	152	304	200
Low	110	327	297

Table 40 shows the relation between SES and fertility among Hindus. The 72 family units belonging to the "high" level have produced 118 children and had a fertility rate of 163 children per 100 family units, or an average of 1.63

children per family. The 152 family units which had "medium" SES scores gave birth to 304 children. This represents a fertility rate of 200 per 100 family units, or an average of 2.0 children per family. Those family units belong to the "low" level numbered 110. They bore 327 children with a fertility rate of 297 per 100 family units, or 2.97 children per family. This reveals that there is an inverse relationship between the socio-economic status and fertility: the higher the SES, the lower the fertility rate.

Table 41. Socio-economic Status and Fertility among Muslims

Socio-economic Levels	No. of Family Units	No. of Children Ever Born Alive	Fertility Rate
High	23	62	269
Medium	117	410	350
Low	100	390	390

Table 41 shows that there is also a negative correlation between socio-economic status and Religion among the Muslim sample: the higher the socio-economic status, the lower their fertility rate.

The 23 family units with high SES had 62 children, thus having a fertility rate of 269 per 100 family units, or an average of 2.69 children per family. Those who scored "medium" numbered 117. They had 410 children and a corresponding fertility rate of 350 per 100 family units, or an average of 3.50 children per family. The 100 low SES family

units produced 390 children. Their fertility rate was 390 per 100 family units, representing an average of 3.90 children per family.

Table 42. Socio-economic Status and Fertility among Catholics

Socio-economic Levels	No. of Family Units	No. of Children Ever Born Alive	Fertility Rate
High	25	55	220
Medium	148	404	272
Low	62	224	361

The relationship between socio-economic status and fertility among the Catholics of the sample has been cross-tabulated in Table 42. A consistent negative relationship between the two variables is evident. The higher the Catholic family units scored in the SES scale, the lower their fertility rate.

The 25 family units scoring "high" had 55 children with a fertility rate of 220 per 100 family units, or an average of 2.20 children per family. Those falling into the category of "medium" numbered 148; 404 children were born to them. Their fertility rate was 272 children per 100 family units: an average of 2.72 children per family. The 62 units with low SES produced 224 children for a fertility rate of 361 per 100 family units, or an average of 3.61 children per family.

Conclusion

The relationship of socio-economic status and fertility has been studied in this Chapter. The paradigm proposed by Wagner (1960) was used to build the SES scale with minor modifications to suit to the situation in Bombay. The variables used to build the scale were (1) the education of husband and wife, (2) the income of husband and wife, (3) the occupation of the respondent, and (4) the type and the quality of housing.

A consistent inverse relationship was found between the socio-economic status and fertility in the total sample and within each of these Religions themselves. Those who scored "low" in SES had higher fertility than those who scored "medium", and those scoring "medium" had higher fertility than those who scored "high".

It was also found that overall, Muslims had lower socio-economic status than Catholics, and Catholics lower than Hindus, the difference between Catholics and Hindus being relatively small. The proportion of those family units that scored "high" in all three Religions is smaller than those that scored "low", with a substantial number of family units in all three Religions clustering in the "medium".

These finding support those of Rele and Kanitkar (1980) who also found an inverse relationship between socio-economic status and fertility in India.

In the beginning of this Chapter reference was made to the fact that recent studies (Johnson,1960; Deborah Freedman,1963;

Whelpton,1966) have shown a lessening, if not the end, of an earlier inverse relationship between socio-economic status and fertility. This study shows that the trend should not be generalized, at least not before a vital qualification, namely, that those findings hold good for developed countries only, not to developing ones like India. This is particularly true, as education is playing an important role in depressing the fertility in India, which is not the case of many developed countries where higher education is not necessarily linked with fewer children.

CHAPTER 7

SUMMARY AND CONCLUSIONS

There were three objectives in the present study. One, to study trends in the differential fertility of Bombay by Religion and other related variables, by discovering the effects of Religion on the fertility patterns of its adherents. Two, to test the hypothesis that fertility and religiosity are positively correlated. Three, to ascertain the impact of other socio-economic variables, such as education and income of the spouses, occupation of the respondent, and housing, on fertility while controlling for Religion. The three Religions of India are involved in the present study: Hinduism, Islam, and Catholicism.

Relevant data were collected in Bombay from a purposive sample from June to August 1980. It consisted of 815 respondents drawn from all three Religions and all socio-economic strata.

Religion and Fertility

The impact of Religion on fertility was studied by using the analytical framework of the "intermediate variables" model evolved by Davis and Blake (1956). Variables studied within this model are (1) Intercourse Variables: age at marriage, religious tenets on fertility values, voluntary sexual abstinence for religious reasons; (2) Conception Variables: attitude towards family planning, attitude towards sterilization; (3) Gestation Variables: attitudes towards

abortion.

It was found that the respondents of all three Religions reflected the fertility patterns of their respective religious preferences: Muslims had the highest fertility rate - 359 per 100 family units, followed by Catholics with a fertility rate of 290 per 100 family units. The Hindu fertility rate was 224 per 100 family units.

The high Muslim fertility of the sample follows the general pattern of fertility among Muslims around the world, which as Kirk (1967) observed is universally high. Fewer Muslims favour family planning, and even when they do, it is generally after three or more children. More Muslims think that sterilization is bad. These attitudes are a reflection of the strong pro-natalist religious tenets of Islam.

Catholics, too, had relatively high fertility rate. Following the tenets of their Religion, which fosters the doctrine of large families, a substantial number asserted that their Religion exercised an influence with regards to the number of children. This is evident from their rather negative attitude towards family planning. An overwhelming majority of Catholics believe that children are a gift of God.

Rele and Kanitkar (1980) found that there was hardly any difference between Christian and Hindu fertility in India. Findings of this study, however, reveal that there is a substantial difference between the two fertility rates. One possible explanation could be the existence of a marked

difference between the Catholic and Christian fertility in Bombay. This distinction should not be overlooked, as various fertility studies in the West have shown the existence of differences between Catholics and Protestants, even though they are dwindling. Against this background, any arbitrary assessment of Catholic fertility as at par with Christian fertility may be misleading.

Hindus of the sample have the lowest fertility rate. Although Hindu scriptures emphasize that having numerous children is a blessing from God, the lack of a central authority to enforce those tenets leave plenty of room for the most liberal or the most orthodox interpretations. No wonder, then, that Hindus generally have a positive attitude towards family planning, sterilization, abortion, etc.

Religiosity and Fertility

The second purpose of this study was to test the hypothesis that "religiosity is positively correlated with fertility". In order to do that, a scale based on Glock's 5-D religiosity was built. It has been argued that Glock's scale would not be valid for non-Christian religions. This study has shown that this argument is untenable. Based on Glock's paradigm, a scale was constructed and the religiosity of the respondents of all three Religions was measured without any major problems of construct validity.

It was found that 57 percent of the Muslims scored in the "high" level of religiosity, compared to 37 percent of the Catholics and 20 percent of the Hindus (Table 29).

Correspondingly, Muslims had a higher fertility rate (359) than Catholics (290), and Catholics higher than Hindus (224). Within all three Religions, fertility was positively correlated with religiosity: the higher each category scored in religiosity, the more children it had. Therefore, the hypothesis propounding a positive correlation between religiosity and fertility was confirmed. The proposition by Potwin and Burch (1968:28) that

> the positive correlation seen in Catholic fertility between religiosity and family size cannot be generalized to other religions

must be rejected in the light of the above findings,

SES and Fertility

The third objective of the present study was to ascertain the impact of other such socio-economic variables as education and income of the spouses, occupation of the respondent, and housing on fertility after controlling for Religion. This is pertinent, as recent studies have emphasized the lessening of the close differences between SES and fertility. Based upon these variables, the model proposed by Wagner (1960) to measure SES was adapted.

Cross-tabulation of SES by Religion revealed that there is hardly any difference in the "high" level between Hindus, Muslims, and Catholics, but the difference between the "medium" and "low" levels is striking with 63 percent of Catholics belonging to "medium" levels as against 45 percent

Hindus and 49 percent Muslims. The Muslim percentage of "low" level is higher (41 percent) than that of Hindus (33 percent) and Catholics (26 percent).

A negative relationship was found between SES and fertility within all three Religions: the higher the SES the smaller the number of children. However, when comparing the SES and fertility rates among the three Religions, a slightly different pattern develops.

There is not much of a difference in the "high" level of SES between the three Religions. Hindus scored 12, Muslims 10 and Catholics 11. However, their fertility rates differ widely. As shown in Table 43, Hindus, Muslims, and Catholics who scored more or less equally in the "high" level of the SES scale have fertility rates of 163, 269 and 220, respectively.

Table 43. Fertility Rate by SES Controlling for Religion

Religion	Fertility Rate		
	High	Medium	Low
Hindus	163	200	297
Muslims	269	350	390
Catholics	220	272	361

This amounts to saying that the influence of Religion on fertility in Bombay is stronger than that of socio-economic status. This is contrary to what Mandelbaum (1974:46) argued for in India:

> The relation between Religion and fertility seems to have as much to do with levels of income and education among the followers of a Religion as it does with any specific precepts of that religion.

Limitations of This Research

No study is perfect, more so when done in a field like Religion and religiosity, where any serious research suffers from limitations of an empirical study. A number of limitations have already been mentioned earlier, but one particularly important qualification should be borne in mind in any use of the findings.

Given that this study is based on purposive sampling, the present findings must not be generalised to all Hindus, Muslims, and Catholics of Bombay and much less of India. It is even possible that some of the differences observed among the subgroups may reflect unique characteristics of the particular sample of people which was studied.

Many other variables, such as ethnicity, family structure, and rural-urban differentials, which are known to have an impact on fertility, were not mentioned in this study. This was only because its purpose was to study Religion and other related variables *per se* in order to fill a long-felt lacuna.

Mention has already been made of the fact that a major difficulty in using survey data to relate Religion to actual family size is that current religiosity is being correlated with past fertility performance. This implies that religiosity is stable over time, which is debatable.

Future Research

An effort was made in the present Study to evolve a religiosity scale based on Glock's "5-D Religiosity". Although no major problems of construct validity were found in applying the scale to measure the religiosity of Catholics and non-Christians alike --specifically Hindus and Muslims-- nevertheless, as Moberg (1967:26) rightly observed, it is not without weaknesses. One such he pointed out is the absence of the "spiritual" component of religiosity. Given the fact that Indian spirituality is based on mysticism, efforts should be made in future research to integrate this important aspect of the Indian spirituality into the religiosity scale.

Another fertile area future research should attempt to study is the impact of modernism and secularization on Religion and religiosity in relationship to fertility in all three Religions, but especially for Catholics. Given the ever growing emphasis on the quality of life, one could even hypothesize that growing modernization and secularization could lead to a shift in fertility values: from the number of children to the quality of children. By "debunking" the myths associated with "numerous offspring", one could return to the "true" Religion and religiosity, which would refuse to bring a child into the world if that child could not be given an opportunity to live, leave alone to live with a reasonable level of human dignity. In a changed modern world, this would be the most sacred duty, nay, the "heretical imperative" of the progenitors. That this is going to be the

future trend is clearly seen by the efforts made by theologians, both within Islam and Catholicism, in re-interpreting the doctrine on contraception. Akhter Hameed Kahn (1967:63-64) wrote:

> If the Ulemas of today would study carefully the new economic and social factors and if they would respond properly to the new challenge, they would advise the Muslims to discard the old preference for many wives and children and to adopt family planning as a policy for the common welfare. The Ulemas of today would find no religious injunctions against this view. Control of birth, as Al-Ghazzali and Ibn Kaiyim point out is not prohibited. On the contrary, it is permitted by tradition, and by the consensus of leading theologians. The real obstacle is the weight and inertia of custom, and the uninformed minds of the blindly conservative moulvis. Their training is almost entirely in medieval disciplines, and, as a class, they are blissfully unaware of the problems of political economy. But the welfare of the community demands fresh thinking, not inhibited by imaginary prejudices, and not divorced from contemporary knowledge.

In the Catholic Church, this trend is even more explicit. The Vatican Council adopted the principle of "Responsible Parenthood" and stated:

> They (the parents) will thoughtfully take into account both their own welfare and that of their children, those already born and those which may be foreseen. For this accounting they will reckon with both the material and spiritual conditions of times as well as of their state of life. Finally, they will consult the interest of the family group, of temporal society, and of the Church herself (Gaudium et Spes, N.50).

There even exists a text of great importance that emphazises the Conciliar position regarding the children in the context of the comminity of love, when it cautions the parents against

> breaking off the intimacy of married love (when they) may find themselves in circumstances where at least for the time being, the number of children should not be increased. (Gaudium et Spes, N.50).

Conclusion

The impact of Religion on fertility among the Hindus, Muslims and Catholics in Bombay has been studied in the present survey, from a purposive sample of 815 respondents. The observed differences in fertility behaviour have been found statistically significant at the one percent level.

Our findings support what Westoff (1962:188) has stated:

> Religion has proved to be the social attribute of greatest single importance in connection with the components of fertility just described. It exerts much more influence, for example, than does occupational class or, for that matter, any of the socio-economic variables.

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APPENDIX I

Dear Friends,

I am specializing in "Sociology of Religion" in the Marquette University (USA), and presently I am in India to collect data for my thesis. Your cooperation in answering the following questionnaire will make this thesis possible. Thank you very much for your help.

Fr. A. Gracias

RESEARCH QUESTIONNAIRE FOR THE THESIS "THE IMPACT OF RELIGION ON FERTILITY AMONG HINDUS, MUSLIMS AND CATHOLICS: A COMPARATIVE STUDY."

(Please check (✓) the appropriate answer.

1. Male_____ 1a. Female_____

2. Caste

3. Place of birth: 1. Village_____ 2. Town_____ 3. City_____

4. Place of residence: 1. Village___2. Town____ 3. City_____

5. I am a 1. Hindu_____ 2. Muslim_____ 3. Catholic_____
   4. I am a_____, but I do not believe in it.

6. How important is Religion to you: 1. Very important_____
   2. Important_____
   3. Not important_____

7. In your case, did religion play a role with regards to the number of your children? 1. Yes_____ 2. No_____

8. How often do you go to a Temple, Mosque or Church:
   1. Daily_____
   2. Often in a week_____
   3. Once in a week_____
   4. At least once in a month_____
   5. Once in a year_____
   6. Never_____

9. How often do you worship/offer namaz/pray?
   1. Every day_____
   2. Once in a week_____
   3. Once in a month_____
   4. Often in a month_____
   5. Rarely_____

10. Do you keep the fasts prescribed by your religion?
1. Yes_____ 2.No_____

11. How much donations do you give for religious and charitable purposes in an average per year?
1. None_____
2. Rs. 1 to Rs. 10_____
3. Rs. 10 to Rs. 100_____
4. Rs. 100 to Rs. 1,000_____
5. Over Rs. 1,000_____

12. Are artificial methods of Birth Control against your religion? 1. Yes_____ 2. No_____ 3. Don't know_____

13. If YES, even though your religion is against them, do you or will you use them if need be? 1. Yes___ 2. No_____

14. Is Barreness a curse from God? 1. Yes_____ 2. No_____

15. Children are a Gift from God 1. True_____ 2.False___

16. One should have as many children as one can beget:
1. True_____ 2. False_____

17. Do you think that abortion is against your religion?
1. Yes_____ 2. No_____ 3. Don't know_____

18. Does your religion tell you to have as many children as possible? 1. Yes_____ 2. No_____

19. Do you avoid sex with your wife/husband for religious reasons? 1. Yes_____ 2. No_____

20. If YES, on what occasions/feasts?_____

21. Do you live in: 1. Your own house Yes_____ No_____
2. If YES, then Kuccha__ Pucca_____
3. Rented House Yes_____ No_____
4. Ownership apartment Yes__ No____
5. Rented apartment Yes__ No____

22. How many rooms does your house have(ex: if a house has 1 kitchen 1 sleeping room, one dining room and one drawing room, each separated by a wall which is not collapsible, the answer will be 4 rooms)
1. One_____ 2. Two_____ 3. Three_____ 4. Four_____
5. Five____ 6. Six_____ 7. Seven_____ 8. Eight____

23. How many persons live in your house/apartment? Give totals, including babies and children._____

24. Fuel: 1. Wood_____ 3. Kerosene_____
2. Coal_____ 4. Gas_____ 5. Electricity___

25. Does it have a water tap? 1. Yes_____ 2. No_____

26. What is the monthly income of the husband in your family:
1. less than Rs. 100_____
2. over Rs. 100 but less than Rs. 500_____
3. over Rs. 500 but less than Rs. 1,000_____
4. over Rs. 1,000 but less than Rs. 2,000_____
5. Rs. 2,000 and above_____

27. What is the monthly income of the wife?
1. less than Rs. 100_____
2. over Rs. 100 but less than Rs. 500_____
3. over Rs. 500 but less than Rs. 1,000_____
4. over Rs. 1,000 but less than Rs. 2,000_____
5. Rs. 2,000 and above

28. How many children do you think should be ideal in a family with a monthly income of

	boys	girls
1. Rs. 100 to Rs. 150	_____	_____
2. up to 500	_____	_____
3. Rs. 500+	_____	_____
4. Rs. 1,000+	_____	_____
5. Rs. 2,000+	_____	_____

29. Vehicles: 1. Car_____ 2. Scooter_____
3. Motor Cycle_____ 4. Cycle_____
5. Bullock Cart_____ 6. None_____

30. Number of fans 1. Nil_____ 2. One_____ 3. Two_____
4. _____

31. Domestic servants 1. Nil_____
2. Part time_____
3. Full time_____

32. Is it true or false that the more one earns, the fewer children one wants to have. 1. True_____ 2. False_____

33. Which of these is closest to your position in your place of work:
1. unskilled labourer_____
2. skilled, labourer_____
3. clerk,_____
4. teacher_____
5. managerial_____
6. director_____
7. professional_____
8. retired_____

34. Husband's education:
    1. never went to school_____
    2. primary school_____
    3. middle school_____
    4. high school_____
    5. university_____

35. Wife's education:
    1. never went to school_____
    2. primary school_____
    3. middle school_____
    4. high school_____
    5. university_____

36. The more the education, the less the children one wants to have. 1. True_____ 2. False_____

37. Are you 1. married (monogamy)_____
    2. married (polygamy)_____
    3. separated/divorced_____
    4. widow/widower_____
    5. re-married_____

38. Husband's age at marriage_____

39. Wife's age at marriage_____

40. Wife's age at "Gauna" (consumation)_____

41. Husband's age at present_____

42. Wife's age at present_____

43. Are you living in a 1. joint family_____
    2. Single family_____

44. How many living children do you have:
    1. Boys_____ 2. Girls_____

45. Their age_____

46. Was it your wish that your first child were
    1. Boy_____ 2. Girl_____ 3. Indifferent_____

47. If BOY, what is the reason for your wish: (<u>if more than one</u> of the reasons apply, then number them according to priorities, with 1. as the most important, 2. next most, etc..)
    1-religious, for ex. to light the funeral pyre_____
    2-continuation of the family line_____
    3-parent's security in old age_____
    4-family bread winner_____
    5-other (explain)_____

48. When you got married did you decide to have children:
    1. as soon as possible_____
    2. in the second year_____
    3. in the third year_____
    4. in the fourth year or later_____

49. If within the year then give reasons:
    1.-religious_____
    2.-to prove that you or your wife was not barren_____
    3.-enhance yours and specially your wife's status in your family or in your social circle._____
    4.-What other reasons_____

50. Did your parents or in-laws or social circle influence you to have children? 1. Yes_____ 2. No_____

51. Would you like to have more children?
    1. Yes_____ 2. No_____

52. If YES check the reasons according to priorities, (<u>if more than one</u> of the reasons apply, then number them according to the priorities:)
    1-to be taken care of in old age_____
    2-to help increase family income_____
    3-for household helps_____
    4-to ensure family survival_____
    5-to make home happier_____
    6-for companionship to the existing children_____
    7-desire for son_____
    8-desire for daughter_____
    9-to follow family tradition, community's tradition or friend's pattern_____
    10-wife/husband wants more_____

53. If NO check the reasons according to priorities (as above):
    1-it is difficult to obtain basic necessities_____
    2-desired minimum standard of living is yet to be attained_____
    3-present standard will be adversely affected_____
    4-mobility will decline_____
    5-unable to give education to children_____
    6-it is difficult to meet daughter's marriage expenses__
    7-Family property is inadequate to support more children_____
    8-husband's health does not permit_____
    9-wife's health does not permit_____
    10-wife had complications in previous pregnancies_____
    11-wife/husband does not want more children_____
    12-satisfied with present family size_____
    13-too old to have more children_____
    14-widowed/separated/divorced_____

54. If you do not have children, how many would you like to have. 1. Boys_____ 2. Girls_____

55. For your income, how many children would constitute the "ideal size" according to your opinion? 1. Boys___ 2. Girls__

56. How many of your children have died? 1. Boys__ 2. Girls__

57. At what age? 1. boy's age_____ 2. girl's age_____

58. Of what illness?_____

59. How many abortion(s) has the wife in your family had?
1. Never_____ 2. One_____ 3. Two_____

60. How many miscarriage(s) has the wife in your family had?
1. Never_____ 2. One_____ 3. Two_____

61. Do you subscribe a daily paper? 1. Yes_____ 2. No_____

62. Do you read a newspaper daily? 1. Yes_____ 2. No_____

63. Name the newspapers you read regularly:
1._____
2._____
3._____

64. In which language 1. Konkani_____
2. Marathi_____
3. Hindi_____
4. Urdu_____
5. Punjabi_____
6. Kannada_____
7. Malayalam___
8. Tamil_____
9. English_____
10. _____

65. Do you own a radio? 1. Yes_____ 2. No_____

66. Do you listen to the Family Planning programmes in the Radio? 1. Yes_____ 2. No_____

67. Are you a regular film goer? 1. Yes_____ 2. No_____

68. What is your attitude towards films advertising the Family Planning Programme? 1. I like them__2. I don't like them__
3. Indifferent_____

69. Do you own a TV? 1. Yes_____ 2. No_____

70. How often do you watch TV: 1. Less than an hour a day___
2. More than an hour a day___

71. Which of the following sources have given you information about Family Planning:
__ 1. Friends
__ 2. Posters

__ 3. Relatives
__ 4. Doctor
__ 5. Books
__ 6. Newspapers
__ 7. Magazines
__ 8. Radio
__ 9. Film
__10. TV
__11. Family Planning Centre
__12. Exhibition
__13. School
__14. Family Planning Camp
__15. Other (what?)

72. Which of the following sources influenced you to decide about the size of your family?
__ 1. Friends
__ 2. Posters
__ 3. Relatives
__ 4. Doctor
__ 5. Books
__ 6. Newspapers
__ 7. Magazines
__ 8. Radio
__ 9. Film
__10. TV
__11. Family Planning Centre
__12. Exhibition
__13. School
__14. Family Planning Camp
__15. Other (what?)

73. Family Planning is 1. Good_____ 2. Bad_____

74. Family Planning should be voluntary: 1. Agree_____
2. Disagree_____

75. Sterilization is 1. Good_____ 2. Bad_____

76. If GOOD, because: 1. reliable and successful_____
2. most desirable in the present circumstances_____

77. If BAD, because: 1. tubectomy/vasectomy creates complications and affects health___
2. it is against the nature_____
3. it is against the religion_____
4. it is against the social custom_____
5. elders in the family are against it_
6. when other methods are available, why sterilization?_____
7. Afraid of consequences_____
8. Other (what?)_____

78. Induced abortion is 1. Right_____ 2. Wrong_____

79. If RIGHT, because:
1. health of the mother is saved_____
2. effective method of reducing births_____
3. a small family is a happy family_____
4. socially accepted_____
5. it is legal_____

80. If WRONG, because:
1. affects mother's health_____
2. morally wrong _____
3. socially undesirable_____
4. against religion_____
5. against nature_____

81. Below we give various types of families. How many more children should each have?

	Boys	Girls	Total
1. Just husband and wife	____	_____	_____
2. 2 boys and 1 girl	____	_____	_____
3. 2 girls and 1 boy	____	_____	_____
4. only 1 boy	____	_____	_____
5. only 1 girl	____	_____	_____
6. three boys	____	_____	_____
7. three girls	____	_____	_____

82. Should married couples "plan" their families.
1. Yes_____ 2. No_____

83. If Yes, when?
1. after 1 child_____
2. after 2 children_____
3. after 3 children_____

84. Regarding the use of methods of Family Planning, the choice should be left to
1. the couple_____
2. the doctor_____
3. the Priest/Guru/Imam_____

85. Some years back the Indian Government passed the Pregnancy Termination Act, legalizing abortion. Do you approve of this law? 1. Yes_____ 2. No_____

86. Which of these Family Planning methods are you familiar with?
1. Rhythm_____
2. Ovulation_____
3. Pills_____
4. Condom_____
5. IUD_____
6. Withdrawal_____
7. Foam tablet_____
8. Jelly_____

9. Diaphragm_____
10. Sterilization_____
11. abortion_____
12. _____

87. If you are not familiar with any methods, would you like to know a method whereby you could stop having children?
1. Yes_____ 2. No_____

88. Do you practise or did you ever practise Family Planning?
1. Yes_____ 2. No_____

89. If YES, which method
1. Rhythm_____
2. Ovulation_____
3. Pills_____
4. Condom_____
5. IUD_____
6. Withdrawal_____
7. Foam Tablet_____
8. Jelly_____
9. Diaphragm_____
10. Sterilization_____
11. Abortion_____
12. Other (what?)_____

90. If someone had come to consult you on methods of Family Planning which ones would you recommend? (in order of priorities, with 1 for the highest)
1._____
2._____
3._____
4._____

91. Suppose a couple opted for sterilization. If that couple were you, would you have opted for the sterilization of
1. husband_____ 2. wife_____ 3. both_____

92. Reasons for husband' sterilization:
1. it is simpler_____
2. no hospitalization is required_____
3. costs less_____
4. get incentive from the Government_____

93. Reasons for wife's sterilization:
1. husband must work. He is the bread winner_____
2. husband's wish_____
3. husband thinks that if he is operated, he will lose virility_____
4. wife's operation can be performed during the childbirth_____
5. get incentive from the Government_____

Thank you very much for your cooperation.