CHAPTER I

INTRODUCTION
Among the countries of the world, India holds a unique position for its cultural, linguistic, socio-economic demographic diversities. Among all these diversities, demographic diversity has a special meaning. Given India's federal structure and heterogeneity, very diverse cultures, social structures and stages of economic development, a fair degree of demographic diversity is only to be expected.

There has been a growing interest of social scientists in the ever-increasing demographic problem especially in developing countries like India. India's demographic problems have been a matter of considerable concern in recent years. Here, growth-rate of population is very high which must be reduced by one way or other to defend the country-men from miseries created by over-population. Over-population is the biggest enigma facing the 20th Century. The rapid population growth is taking place in the world as a whole, but has more significance or repercussions especially in the developing countries. Therefore, fertility is the main component of this population growth and decline in population growth stems from a reduction in birth-rate. It is clear that the future growth of population will depend more on the trend in fertility than on the trend in mortality.

An important aspect of fertility research is the study of fertility differentials among population groups.
classified in terms of various socio-economic and cultural characteristics. Information about such differentials is necessary to identify the factors and assess the prospects for change in the composition of population in the various groups. It is also useful for identifying the major determinants of the fertility level of the population. Further, it provides clues with regard to future trends of the population.

Differential fertility according to demographers, is the study of systematic variations in fertility which are observed within or between populations. If every woman in a population has to bear an identical number of children, there would not be any fertility differentials. But in reality people of different social categories tend to have different fertility rates. Past studies have shown that there is considerable woman to woman variation in fertility; and it is this variation, which gives rise to the need for a study on differential fertility.

The study of differential fertility is of special significance in view of economic development and national planning. It is also important from the point of view of implementation of family planning programme because it helps to identify high fertility groups on which the programme efforts can be concentrated.
STATEMENT OF THE PROBLEM

India, like other developing countries has been facing the acute problem of rapid population growth in the face of declining mortality. Today, in the world, India ranks second in population numbers and seventh in land area. Every addition to the population, it may be contended, is sure to result in untold tragedy to the existing population. The population explosion washes away in its tidal wave whatever progress the plans have delivered to the country.

The population of India earlier grew very slowly or remained stationary and began to increase rapidly since 1951. The trend of population growth is really alarming and this situation has become a matter of great concern not only for planners, but also for the social scientists and demographers. Inspite of planned effort through family welfare programme to curtail the population growth, the result is not quite satisfactory and population growth continues to pose a serious problem. Hence the study of fertility is gaining importance in recent years.

It is rightly said that India lives in villages. About 80 per cent of its population is distributed over the country-side in the far flung rural habitations constituting
about 5,67,000 villages. The prosperity of the country as a whole, depends upon the fortunes of rural people. The 1991 census reveals that population growth in rural areas is higher than that in urban areas. This trend is not helpful for rural prosperity. Many Welfare schemes have been introduced to improve the living conditions of the people, especially in the rural areas. Special efforts have been made in recent years to formulate programmes to meet the essential needs of the people. Still, there is a perceptible gap between the aspirations of the people and the achievements from planned economic developments due to rapid growth of population. The studies on fertility so far are mostly confined to urban areas. The rural areas are not systematically surveyed, so as to identify the factors accounting, for higher fertility rate and higher population growth rate.

The economy of Andhra Pradesh is primarily dependent on agricultural sector without any significant industrial progress. It is not, therefore, surprising that per capita income in Andhra Pradesh remains to be lower than that in the industrially developed States. In a backward State like Andhra Pradesh, there is a pressing need to check the population growth. It is, therefore, essential to make a deep study of population problem in Andhra Pradesh. In Andhra Pradesh, the fertility studies are very negligible,
particularly in rural areas. The present study is an attempt in this direction.

REVIEW OF LITERATURE

There has been rapid growth of interest in the study of differentials and determinants of fertility and family planning in recent years. Significant difference have always existed among the fertility rates of different populations. The actual number of children is reduced by birth control, institutional patterns and value systems that influence fertility. Fertility control is an important aspect of meeting the challenging problems of poverty arising from over population in India. India is the first country in the world to have a national policy and a programme of population control. The National Family Planning Programme was initiated in 1952, as a part of the over-all aim of achieving socio-economic development. From the inception of the family planning programme in India, research has been undertaken covering demographic, biomedical and motivation aspects of family planning. Information on fertility is available from certain surveys in this field.

Differential fertility provides a detailed analysis of different variables which affect the general fertility level. The importance of such analysis is that it provides
an insight into the process of permeation of pattern of fertility behaviour for formulating population policy more systematically and in a realistic way. In fact, a variety of factors have been identified as being directly or indirectly responsible for fertility differentials at various levels and notable among them are: social, cultural, economic, demographic factors and family planning interventions. Several of these factors have been considered in various studies which exhibit the relationship between the variables and fertility behaviour.

The pattern of review is on the basis of specific variables. It may be examined under four sections i.e., (i) Socio-economic variables and fertility (education, type of family, income, occupational status and employment of women), (ii) Demographic variables and fertility (age at marriage and infant mortality, (iii) Cultural variables and fertility (religion and caste) and (iv) Family planning programme.

(I) SOCIO-ECONOMIC VARIABLES AND FERTILITY

The influence of socio-economic variables on fertility has received worldwide attention in the past for the study of demographic factors and considerable amount of literature has been generated to understand their relationship (Kiser 1942, 1952; Whelpton and Kiser, 1946, 1958;
Historically there has been an inverse rather than a positive relationship between socio-economic status and fertility in the west during the period of industrialization and urbanization. Large families were more prevalent among the uneducated and poor. Recently, these differentials have been narrowed down in certain developed countries. This change was predicted by a number of researchers (Mayer, 1959; Freedman, 1959; Deborah Freedman, 1963) for two reasons; (a) as the population has become more universally educated and urbanised, knowledge of contraception is no longer limited to the higher socio-economic groups so that an effective choice of desired number of children is possible for all strata of the society and (b) as our economy has lost its rural character, children have lost their economic utility. This in turn has induced widespread acceptance of small family norms.

Most of the Indian studies reflect the negative association between socio-economic status and fertility. (Das Gupta, 1955; Agarwala, 1960; Chandrasekharan and George, 1962; Chandrasekharan 1964).

Under these circumstances in the following paragraph some of the important and specific socio-economic variables have been considered for detailed review in order
to examine their relevance and possible consideration in the present study.

EDUCATION

Education is one of the most important variables in studies of differential fertility; unlike other variables. Education once obtained does not change over time. It is contended to be a major driving force behind fertility control. Education can promote a change of values and adaptability to a new environment.

Educational level of women appears to be one of the strongest factors affecting fertility especially in high fertility countries. Demographers have gathered plenty of data with regard to relationship between fertility and educational attainment.

Many studies showed the persisting strong inverse relationship between education and fertility. (Grabil et.al., 1958; Kiser, 1960; Agarwala, 1966; Black, 1967; Styicos and Weller, 1967; Minkler, 1970; Mandelbaum, 1974; Bhatnagar, 1975; Bhuyan and Bhuyan, 197; Choudhury, 1977; Cochrane, 1979).

Bogue (1967) while analysing the percentage of demographic transition in relation to selected variables for
a large number of countries in the world found, education to be the single most important variable in explaining the fertility decline. Although education of both husband and wife are important in the decision on the number and spacing of children, the educational level of the wife is more strongly correlated with measures of fertility and contraceptive-use than the educational level of the husband (Dinkel, 1965; Schultz, 1973; U.N. 1975; Chowdhury, 1977).

Martin (1987) by considering data from 1975 Bangladesh survey stated that keeping a girl in school through secondary school and graduation does overt births. Kowaliski (1987) analysed the relation between illiteracy and fertility in developing countries using published U.N. data and noted that countries with high rates of illiteracy also exhibit high fertility.

The fertility survey of 1972 in Poland (Smolinski, 1974) shows a clear negative relation between fertility and education. Likewise, some surveys performed in the Soviet Union indicate a similar i.e., traditional, negative relationship in that country.

The world fertility survey had furnished massive confirmation of the educational fertility link at the individual level (U.N. 1986). In Latin America and the Arab
States, there was a uniform decline in fertility with increasing parental education. Even among mothers with incomplete primary schooling there was an appreciably lower level of child bearing than mothers with no schooling because of their greater practice of family planning. In the U.N. study, Latin America stood out as the region having on average, the largest differentials in fertility by women's education.

Ageyi & Manya (1989) using data from the 1977-78 Kenya fertility survey found that education and fertility were inversely related. At the national level women with no education had 3.12 children more than those who had secondary or higher education. If the level of education rises beyond primary education, stronger fertility differentials with respect to education will become evident.

Sathar & Mason (1989), from the study in the data from the Karachi, Pakistan observed that the education of women, especially at the secondary level appeared to be powerful force for fertility change in the urban Pakistan and perhaps in the rural areas as well. Higher educated women bear fewer children than the less educated women.

In India, many studies had shown inverse relationship between education and fertility. Dhindsa (1986), from his survey on Punjab stated that males education was found to
influence the fertility behaviour of the couples. Rath & Mahapatra (1986) stated significant negative correlations between education and fertility. Krishnan, et.al., (1986) found that education was a significant predictor of fertility in both rural and urban areas. Talukdar (1982) observed that high fertility was prevalent in people with low position in the caste hierarchy, low economic and educational status. Nishikawa (1984) by analysing the factors affecting the Indian State of Kerala, stated that both educational and the provision of health services have led to significant declines in fertility.

Number of studies have shown that female education was having a strong or direct relation with fertility than the male education in India and abroad (Clelland & Rodríguez, 1988; Weinberger, 1987; U.N. 1987; Jain and Nag, 1985; Casterline, 1984; Casterline et.al., 1983; Jain 1981; Vendetwalle, 1980.

The Mysore Population Study (1961) indicated that average number of children born to ever-married women above the age of 45 was 5.4 for illiterate women whereas it was 3.9 for women with high school and college education.

A study conducted in Kerala (Mehrotra, 1965) regarding the effect of education on fertility revealed the
existence of fertility differentials by education, the differentials being more marked in respect of women's education. Driver (1965) in Nagpur district among three educational categories of women—illiterates, primary school, above primary school also has shown a sharp decline in fertility in the highest category, Hussain (1970) in his study of Lucknow city found a clear negative relation between fertility and educational status.

Jain and Nag (1985) stated that female education in India monotonically increased the use of contraception and age at marriage both of which, in turn decreased fertility. Radhadevi (1988) from a survey on currently working married women aged 20-49 years in 1976 also found that education was an important variable indirectly affecting fertility by placing women at higher occupational levels, by raising age at marriage and by reducing the number of children desired.

Nayar (1983), stated that education has contributed in several ways to fertility decline. It has raised the age at marriage of women, caused better understanding of contraception and family responsibilities and also promoted adoption of family planning.

According to Nag (1982) differential fertility at both individual and aggregate levels had shown that
education, particularly female education was more influential than any other factor in decreasing fertility.

Rele and Kanitkar (1980), in their fertility and family planning survey of Greater Bombay found that female education having greater depressing effect on fertility than male education. The standard average number of children ever born was 3.39 for illiterate women or literate with non-formal education, 3.07 for women with primary upto matriculation and 1.90 for women of matriculation and above as against 3.32, 3.37 and 2.74 live births for men of corresponding educational level. Bhargava and Saxena (1987) has found their survey in Bombay city that, women's educational status was the main factor associated with fertility differentials, followed by age at marriage.

Various other studies also provided evidence to the effect that the number of children born to less educated women was higher than the women of higher educational levels (Anand, 1966; Jolly & Jacob, 1968; Rao & Namboothiri, 1967; Agarwala, 1977; Sakesena, 1973, Zachariah, 1984).

The preceding studies reviewed are consistent with general expectations i.e., the higher the level of education, the lower is fertility in most cases. Fertility differentials analysis had shown increased adoption of family
planning practices and consequently decreased family size among people of higher educational status, especially women.

**TYPE OF FAMILY**

Type of family is usually considered an important variable which influence fertility. The family is the most crucial social institution and it has a direct bearing on the people's attitude towards fertility and its control. Therefore, the study of fertility in a given society involves a study of the family and its institutional characteristics. Such study has assumed special significance in recent years in a number of underdeveloped countries faced with the problems of rapid population growth.

The concept of various kinds of family as it is understood in the west is very much different in the context of Indian society. Generally, there are, three basic types of family in India viz., the joint family, the extended and the nuclear. A nuclear family typically consists of a husband and a wife and their unmarried children. An extended family includes the father, mother the siblings and their families. The extended family may involve joint households or separate domiciles clustered together to form a large family household. The joint family household includes several related nuclear and extended families in the same
household. The study of fertility as influenced by the family type.

In India, interest in the study of family structure in relation to fertility is of very recent origin. A lot of empirical studies are generated, but the findings of the studies are diverse. There are mainly two schools of thought i.e., some studies have found the joint family to be associated with higher fertility (Lorimer, 1954; Davis, 1955; Nag, 1967; Pakrasi and Malakar, 1967; Stockel and Choudhry 1969; Bebarta, 1967; Hashmi, 1965; Goyal, 1968; Mosena and Stockel, 1972; Karkal, 1972; Karim, 1974; Cain and Devries, 1976), while others have found the opposite or little relationship between them (Stycos, 1950; Liv, 1967; Karkal, 1972; Palmore, 1972).

Historically, the hypothesis is that the extended or joint family is associated with high fertility and conversely nuclear family is related to low fertility. This is because joint families provide a better conjugal atmosphere for higher fertility as the economic cost and burden of rearing and bearing of children are shared by other members of the family. On the other hand, in nuclear families, couples have to bear the cost of bearing and rearing of children themselves. According to other point of view, the extended or joint family operates to depress fertility for
various reasons. For example, privacy is more in the nuclear than in the joint family. The freedom of a couple to meet in privacy is to a large extent curtailed in a joint family by the traditional pattern of behaviour enforced by the elders of the family.

The available information is fragmentary and the findings are often contradictory. Yet most of the studies conducted in different regions of India, came out with common finding i.e., that the joint family registers lower fertility in comparison to the nuclear family.

The earliest work on the empirical relationship of family type with fertility at micro level seems to have been undertaken by Potti and Dutta as early as in 1956 in a survey in West Bengal. They classified the families into the three categories as referred to nuclear, joint and extended families. Among these categories, the joint family showed the lowest fertility.

Nag (1967) collected data in West Bengal from ever married women living in seven villages which showed that the average number of children in joint families was less than that in the nuclear families, when women of all ages are considered. Pakrasi and Malakar (1967) also collected data from couples belonging to three major socio-economic groups.
in Calcutta city. They reported similar findings; the joint family being less fertile than the nuclear family.

Goyal (1968), from his survey in Western Uttar Pradesh, found that women in nuclear families were more fertile than those in joint families. Karkal (1972), in her survey of women in nuclear and joint families from 27 villages in Nasik district of Maharashtra State found that the joint family had on an average 4.4 and 4.8 children in contrast to the averages of 4.3 and 4.2 for the nuclear family. On the other hand, two studies, one from Singur, a rural area in West Bengal and the other from Central India, carried out by Driver, have reported no significant relationship between family type and fertility.

The preceding findings indicating the relationship of family structure with fertility behaviour confirmed two types of relationships over the years. Before the 1950's joint families invariably manifested high fertility for several reasons. But during the last five decades, after the introduction of the five year plans and the consequent socio-economic development, the earlier pattern of relationship between family type and fertility has completely changed, leading to higher fertility in nuclear families and lesser fertility in joint families. In this changing scenario of Indian society it is necessary to re-examine the
relationship of family structure with fertility. Therefore, this variable assumes great importance in the present study.

OCCUPATIONAL STATUS

Occupational status is an index of social and economic status of an individual and thereby it may be expected to influence fertility. Fertility is not uniform across different occupations. It varied from one occupation to another because different occupations create different socio-economic environments and thus different attitudes towards family size. Generally, people engaged in traditional and low paid jobs had higher fertility as compared to those in non-agricultural and modern jobs.

Notestein and Sydenstricker (1930) in a study of native white married women in United States, found that there were large differences in size of family as between economic and social classes. The proportion of wives aged 40-44 in 1910 who had born one or two children, or none, was significantly higher in the business and professional classes (63.1 per cent) than in farmer and unskilled labour classes (42.3 per cent). On the other hand, the proportion of wives of business and professional men who had born five or more children (9.6 per cent) was much lower for the wives of farmers and unskilled labourers (30.8 per cent).
Bogue (1969) in his study of differential fertility in the United States found that the mean number of children was 2.3 among clerical staff and 3.9 among agricultural labourers.

Kiser (1942) using data collected in urban communities in the National Health Survey in United States, showed substantial fertility differentials among professional business, skilled and semi-skilled, and unskilled occupational groups.

Ajami (1976) in his study in six Iranian villages found that the mean number of children ever born was 5.1 among farmers and it was 3.9 for labourers. Similar relationship was also noticed in one of the African societies (Ware, 1977).

A report of the United Nations (1981) Department of Economic and Social Affairs demonstrated the fertility differences among husbands following various occupations namely professional and clerical, sales and service, agriculture, skilled and unskilled occupations in different countries. For example, the mean number of children ever born to agricultural categories was 4.4 in Fiji and Pakistan, 5.3 in Mexico and Panama, 4.3 in Thailand and Sri Lanka; 4.6 in Republic of Korea and Malaysia. In case of professionals and
clerical categories it was 2.7 in Panama; 2.9 in Thailand and Republic Korea; 3.0 in Srilanka; 3.2 in Malaysia and Fiji, 3.3 in Mexico and 3.9 in Pakistan.

In Iran, Paydaffar and Sarram (1970) observed a strong inverse relationship between occupations of males and fertility. They had grouped males into four categories: (a) Professional, managerial and technical; (b) Clerical, services; (c) Skilled and semi-skilled and (d) Unskilled. More than 60 per cent of the husbands in the highest occupational category had two or three children as against five or more children to those in the lowest occupational group.

A survey conducted in 1970 in Delhi (Desai, 1970) found that the total fertility rate was inversely related to the position of the husband's occupation in the status hierarchy. The total fertility rate was 6.7 for unskilled workers, 5.6 for petty shop keepers, 5.0 for clerical workers, 4.5 for lower professional workers and 3.3 for senior professionals and executives.

Anand (1966) found that clericals followed by petty shopkeepers had large families relative to the administrators, businessmen and professionals. But, here it must be
noted that the occupational status was also closely associated with their educational levels.

George (1976) in a rural community of Kerala State found that the high ranking officials had lower fertility when compared to other classes, namely unskilled, semi-skilled and landlords.

Agarwala (1970) found that cultivators and labourers had 7.4 children while those who were in the service and in the professionals had only 6.6 children.

Driver (1963) in the Central Indian study, found the lowest fertility in the clerical group and the highest in the agricultural group. However, when standardised for age, the differences in fertility between these two groups was found to be insignificant.

Dandekar and Dandekar (1953) from their sample surveys of Kolhapur city in Poona district of Maharashtra, reported that high fertility was associated with both higher grade occupations and large income.

Saxena (1965) observed an inverse relation between occupational status of husband and fertility. Highest fertility was exhibited by wives of the labourers and agriculturists; the lowest by the wives whose husbands were employed in
the service sector. The business men and artisans had an intermediate level of fertility between these two extremes.

In several studies it was noticed that occupations like agriculture, agricultural labourers, other unskilled workers etc., had high fertility and employees, professionals skilled personnel, executives etc., manifested low fertility (Srivastava, 1970; Mahadevan, 1972; Haw, 1977).

The above review of studies showed that occupational differences influence fertility levels differentially. The analysis to a certain extent supports the assumption that persons engaged in modern and high paid jobs have lower fertility while labourers, cultivators and others engaged in traditional and low paid jobs have higher fertility. However, findings are inconclusive and in some cases contradictory.

INCOME

The income is conceived here as the economic status. Income is a composite variable which has different types of associations with fertility according to the situations. Income is usually closely correlated with other socio-economic variables which are associated with fertility and it is difficult to separate the particular role of income from that of education and female labour force participation.
A wide array of results are found in studies that attempt to relate income to fertility. Some found a positive, others negative and still others a curvilinear relationship as family income rises and in a few studies no relationship at all is found. One of these reasons for these mixed results is the poor quality of data. However, the most important reason for the contradiction of results - both at the micro and macro level - is that income is strongly correlated to several other variables. Practically all socio-economic variables that might be important in explaining fertility are correlated with income.

Many cross-sectional and time series studies, however, had in fact observed a positive relationship between economic status and fertility particularly in less developed and agricultural economies. Stys (1957); Jain (1939); and Hull (1977), may be cited as examples of studies for a positive or ambiguous relationship between economic status and fertility.

A number of studies had found negative relationship between farm income and fertility (Khuda, 1988; Samper, 1988; Aramburu, 1988; Kocher, 1973; Lee and Sun, 1973).

From 17 household studies reviewed by Mueller and Short (1983) a clear pattern emerged of positive income
effects in rural areas and negative effects in urban areas. Less consistently, the review suggested that fertility may be related positively to income at low income levels and negatively at higher levels.

Driver (1963) in the central India found similar fertility in the lowest and the highest income groups indicated the absence of any direct or indirect association between fertility and income.

Mahadevan (1979) in rural area of Tamil Nadu found a positive association of income with fertility. However, a study conducted by Rele and Kanitkar (1980) found a strong inverse relationship between the economic status of the family with fertility.

Jorapur (1967) in his Dharwad study observed higher fertility in the higher income strata than in the lower strata.

Dhindsa (1986) from his survey in rural Punjab stated that the level of income was found to be significantly related to the fertility rate of rural population.

From a demographic survey of six urbanised villages near Delhi, Agarwala (1970) observed no variations in fertility in relations to income levels.
Patnaik (1985) by analyzing the socio-economic correlates of fertility stated that high fertility was associated with low education, low occupational status and low income.

Balasubramaniam (1984) stated that the primary reason for higher fertility among Muslims was their lower socio-economic status, which rendered, themselves to respond to modernisation pressures that help to bring about the transition to lower levels of fertility and that was the reason for the more pronounced difference in the late 1960s and 1970s than was the case in the 1940's and 1950's.

Analyse of the effect of income on fertility showed differing results and indicated the difficulties posed by income in fertility research. However, today more number of women were engaged in economically productive activities, trying to meet their present and future family needs. This type of attitude among larger number of people towards raising their income and aspiring to live more comfortably would have negative impact on the fertility behaviour of the individuals, thus resulting in small number of high quality children rather than a large number of low quality children.
Women's participation in the labour force has been considered as another important predictor of fertility. Many studies had shown both positive and negative relationship between female employment and fertility. When a women worked, she increased household income: this income effect induces increased fertility. However, the opportunity cost of children also increased, and this price or substitution effect could lower fertility. On the other hand, women who had expanded opportunities to carryout various roles, include working outside the home, would have less inclination to devote working outside the home, would have less inclination to devote themselves solely to home and children and would therefore have lower fertility.

The present review discussed both the positive and negative aspects of female employment on fertility.

Andras and Gonzalen (1976) from their study found women participation in economic activity as a strategic factor of change in fertility. They stated that both costa Rica and Mexico experienced rapid declines in mortality from 1940 onwards, but by 1970 costa Rica's birth rate was much lower than that of Mexico for 1960 and 1970 and of costa Rica.
for 1963 and 1973 to explore the variations in women's participation in economic activity as a factor in explaining the difference in reproductive behaviour.

Goldstein (1972), in Bangkok found that the fertility level of economically active women was markedly below that of housewives, in contrast to the rest of Thailand.

Gainful employment of married women outside the home has been found to be inversely related to fertility according to a number of studies conducted in different parts of the world (Ridley, 1957; Grabill et.al., 1958; Namboodri, 1964; U.N. 1961; Heer and Turner, 1965; Blake, 1967; Desai, 1970; Gendell, et.al., 1970; Kupinsky, 1971).

From the results of the fertility surveys in three Latin American cities, Mirro and Rath (1965) showed that working women had lower fertility than non-working women.

Gendell, et.al., (1970) in a study in Guatemala city found that economically active women had considerably lower fertility than economically inactive women.

Many studies in Russia and Eastern Europe also confirmed the hypothesis that working women had lower fertility than others (Szabady, 1964; Urlanis, 1967; Sadvokasov, 1967; Davtyan, 1967). A number of studies in Puerto Rico, Peru and Turkey had also shown that experience in the labour
force reduced fertility of both the upper and lower class working women (Stycos, 1965; Stycos and Weller, 1967; Weller, 1968).

Several studies found positive relationship between women's work and fertility in rural areas also. This was the conclusion of studies in Soviet Union, Czechoslovakia and Italy (Pinelli, 1971). Thailand (Goldstein, 1972), Egypt (Bindary et al., 1973). In Italy a regression analysis suggested that regional fertility rates were related to the female occupational activity rate positively in the case of agricultural work and negatively in the case of other occupations (Federici, 1967; Pinelli, 1971) found that Italian women working in agriculture had higher fertility rates than those who were economically inactive.

Pinelli (1971) indicated that women in permanent agricultural jobs had lower fertility than those doing temporary agricultural work. This observation suggested that many poor working class women did not leave their jobs when they had children.

For the rural and small urban areas in Chile, Columbia and Mexico, Miro and Martins (1968) found no clear-cut differences in fertility between working and non-working women.
The Mysore population study (1961) revealed a definite negative association between working status of women and fertility, the average number of live births being systematically lower in all age groups and in all communities - for gainfully occupied women than for women performing mainly household duties.

The Delhi fertility survey (Desai, 1970) showed that the total fertility rate was 5.5 for non-working housewives 6.9 for manual workers and 2.7 for other workers.

Thus these studies do not provide uniform support to the hypothesis of female employment and fertility. But generally, we find an inverse relationship between fertility and female employment.

II. DEMOGRAPHIC VARIABLES

Under this section two important demographic variables that related to fertility behaviour i.e., age at marriage and infant mortality are reviewed.

AGE AT MARRIAGE

Malthus was the first person to recognise age at marriage as an important factor for population growth and
suggested late marriage as a 'preventive check' for the growth of population. Age at marriage occupies a prominent place in population studies as one of the proximate determinants of fertility. Observing the marriage patterns all over the world both late marriage and a high proportion of unmarried people had long been observed as characteristics of Western Europe. East Asia has by far, the lowest prevalence of early marriage. Latin America occupied second place regarding the lowest prevalence of early marriage. But Indian sub-continent ranks first, followed by African continent, in the prevalence of early marriage.


In Srilanka, a notable factor in recent years has been the postponement of marriage among women. The change in age at marriage is responsible for a significant decline in Srilanka's crude birth rate which was 40 per 1000 in 1950, and 27 in 1975 (Immerwahr, 1977). Raising the age at marriage is also considered one of the major contributory factors for the reported dramatic decline in fertility of the
people's Republic of China (Tien, 1972); Hong Kong, Korea and Singapore (Ross, et.al., 1972). Major declines in the birth rates of Japan and the U.S. were also attributed largely to changing age at marriage, at least in the initial stages.

Ageyi & Manya (1989) using data from the 1977-78 Kenya fertility survey found that age at first marriage was the main determinant of cumulative fertility. Early age at marriage was related to high fertility. Women who married between age 10 and 17 years had at least one child more than who married at ages 23 years and above. Age at marriage was inversely related to cumulative fertility; women who married between the ages of 10 and 17 years had at least 0.63 children more on average than those who married at 23 years old and over women marrying between ages 10 and 17 has 0.88 more children than those marrying between 18 and 22 and 2.14 children more than those marrying at 23 years old and over.

Bhuyan & Bhuyan (1984) from his survey in Bangladesh stated that, there existed positive correlation between female age at marriage and family planning practice and an inverse relationship between age at marriage and fertility. Several studies have shown that an increase in the age at marriage or decline in the percentage of ever married women in certain age groups, was an important factor in the decline
of fertility in developing countries (Caldwell, 1963; Caldwell et.al., 1982; Tein, 1968; Smith, 1980; Mc Cathy, 1982).

Nazrul Islam Mian (1981) in his study of Bangladesh found that age at marriage was one of the significant variable taken into consideration for differential fertility level. An increase in age at marriage was found to be one of the factors contributing to a lower fertility rate, the relationship between fertility and mean age at marriage is an inverse.

Bumpass (1961) found interesting interaction effects between age at marriage and some socio-economic characteristics on fertility of U.S. women.

In India several studies had been conducted to estimate the effects of higher female age at marriage on fertility (Hatti and Ohlesson, 1984; Fakhrual Islam, 1984; Caldwell, et.al., 1982; Agarwala, 1977; Mahadevan, 1976; Goyal, 1975).

Nair & Koteswar (1987) in their study on age at marriage in rural Northern Karnataka stated that the median age at marriage was 16 years. Further, two-thirds of the girls were married before 18 years and nearly one-fourth of the marriages were even pre-puberty cases. This was due to the various socio-cultural, socio-psychological and economic
factors responsible for the perpetuation of very early marriages in the study area inspite of the child marriage restraint act.

Fakhrul Islam (1984) from his study in Uttar Pradesh village stated that the study indicated 91.8 per cent of the respondents were married before the age of 21 years, as many as 61.2 per cent having been married before the age of 15 years. The majority of such respondent were from the backward and Scheduled Castes. The age at marriage was comparatively higher among upper caste Hindus such as Brahmans and Kayasthas. A change in age at marriage, has been noticed at two levels first, the age at marriage of the eldest son/daughter was higher than the age at marriage of the parents, respondents. Secondly, age at marriage of the youngest son/daughter was higher than the age at marriage of the eldest son/daughter of the respondent. Thus there was a raising trend of higher age at marriage among all castes and status groups.

Many studies in India (U.N. 1961; Majumdar, 1962; Driver, 1963; Jain, 1964; Agarwala, 1965; Wyon and Gordon, 1971) have shown significant inverse relationship between age at marriage and fertility.
Chandrasekaran (1986) on the basis of data obtained by the Mysore population study stated that the estimate of overall fertility would be reduced by roughly 15 percent, if no women married before 18 and if the fertility pattern after 18 did not change further.

Krishna Murthy (1974) in his study found that age at marriage has a significant negative relationship with fertility even when education and economic status were controlled. Education and economic status affected fertility mostly through age at marriage. Mahadevan (1976) in his study in Tamil Nadu found higher age at marriage among greater proportion of the Gounders, as against the rest of the population. He is found that it influenced their fertility significantly. The inverse relation of age at marriage with family size norms was generally found in all the three caste groups. Kadi (1987) observed that during the preceding two decades, Indian population had witnessed a major change in its social attitudes with regard to the age at marriage. The incidence of child marriage was of the decline. The mean age at marriage was on the increase. It increased from 15.4 years in 1971 to 16.5 years in 1981. This was likely to influence fertility behaviour significantly.
Singh, et.al., (1978) in their study found that age at marriage played an important role in the fertility performance of a couple. Higher age at marriage lowered the fertility level and vice versa. The number of couples with females of age 20 or over at return marriage was small and hence this age was not included in the analysis. The female in different return marriage groups had differing exposure periods which explained the corresponding variation in fertility performances. It was concluded that the female married at younger ages had higher fertility at ages less than 35, while those in the 17-19 years compensated the deficiency in births during the later part of the reproductive period.

Audinarayana (1981, 1985) observed a negative relationship between age at marriage of females and fertility among the caste Hindus as well as Scheduled Castes in Andhra Pradesh. The mean number of live births for the caste Hindus and the Scheduled Caste women who married below 14 years of age 3.7 and 3.8 respectively which were reduced to 2.8 and 2.4 when their marriage ages were raised to 18 years and above.

The above cited studies revealed that by improving the socio-economic status, there would be social change which in turn would lead to greater exposure to modern ideas and
change of attitude from the traditional way of life, and these would in turn increase the age at marriage. It was quite obvious that increase in age at marriage would reduce the level of fertility.

INFANT MORTALITY

The influence of infant and child mortality on fertility behaviour and attitudes is considered one of the most important areas of policy oriented population research. Demographers argue that one of the necessary conditions for decline of fertility is on account of the control of infant mortality. The mortality level of a society is known to be related to its fertility level because fertility and mortality interact in various ways.

High infant and child mortality is considered one of the deterrent factors in the adoption of small family size norm in developing countries because successful reproduction requires high fertility to offset high mortality, (Davis, 1945, Notestein, 1945). Lower infant mortality implies the requirement of fewer births to produce a given number of children. In other words, the same number of births will result in more children surviving to any given age, and pressure is created for fertility control. Thus infant
mortality seem to have a decisive influence on the reproductive behaviour of families.

National Academy of Science (1971) in the following words "policies and programmes aimed at reducing infant and child mortality considerably below present level may be an essential underpinning of Government programme for fertility control". Therefore, decline in infant mortality appears to be a necessary precondition for the acceptance of small family norm in developing countries.

Studies done with both aggregate and individual data demonstrate a positive association of infant and child mortality on fertility. In a cross-cultural regression analysis, Heer (1966) found that the infant mortality level is one of the strongest and most consistent predictors of the fertility level. Schultz (1974) found a clear statistical relationship between mortality and fertility for several developing countries. Taylor, et.al., (1976) using data from 53 countries drawn from Asia, Africa and Latin America, also found a close relationship between the rate of decline infant mortality and fertility decline.

Infant mortality may influence fertility through several means. The most important may be the psychological or 'biological' effect. The death of a child that is being
breastfed terminates the mother's lactation prematurely, and this may reduce the post partum period, a time when she is likely to ovulate. The longer her child lives and is breastfed, the more time will lapse between pregnancies.

The 'child replacement' effect involves a deliberate decision by couples to compensate for dead children. In other words, couples continue bearing children until they replace the ones who died at a young age. As a result, the mother is likely to end up with more births because she had shorter birth intervals. Many studies have proved that one of the best predictors of infant mortality is the survivorship history of infants of the same mother (Stockel and Chowdhury, 1972; Heady et.al., 1955). These findings suggest that a reduction in infant mortality could possibly lead to a reduction in fertility. By examining retrospective pregnancy histories, Hassan (1966) in Egypt, Adlakha (1970) in Turkey; Wyon and Gordon (1971) in India; Harrington (1971) in West Africa, Khan (1974) in Pakistan, Rustein (1974) in Taiwan, and Chowdary et.al., (1976) in Bangladesh, all found higher fertility among women who lost children compared with those whose children survived and concluded that the observed differentials in fertility were due to a desire to replace the children who had died.

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Finally the 'insurance effect' assumes that couples adjust their fertility because they expect some of their children to ensure the survival of the minimum number of children desired. The insurance against mortality will lead to higher fertility. Heer and Smith (1968) found that, given the mortality schedule in India in 1950, a family had to have 7 or 9 male children to ensure that one son would survive till the father reached 65. Rutein (1971), also using Taiwanese data, developed an index of child mortality and found it inversely related to number of subsequent births.

III. CULTURAL VARIABLES

Fertility is influenced by a variety of cultural factors and the cultural aspects of population growth constitute an important area of research. Cultural values affect the reproductive behaviour either as an independent variable or in some case as an intervening variable. In recent years several theories have been formulated in an attempt to discover the cultural factors that have a specific relationship to human fertility. Two of the important factors that have had a strong impact on fertility according to several studies are religion and caste. These have been considered here.
Among the various cultural factors influencing fertility, religion occupies a prime place. Religion prescribes a code of life, refers to a system of beliefs, attitudes and practices which individuals share in groups, and through this orientation towards life and death, is supposed to affect one's fertility behaviour. "Religion has a great hold on the masses of India. It is a thing with which he grows and lives, and which conditions his actions at least all the important actions of his life" (Agarwala, 1962).

There are a number of reasons why religious affiliation is particularly worthwhile dimension with which to investigate fertility. First, in many countries (e.g., India, Greenland, Israel, Philippines, Mauritius, Lebanon, etc.,) it is a characteristic that has immense social, political and economic significance. Secondly religious affiliation has considerable theoretical bearing on fertility. Religion can influence reproduction in two ways: through stimulation of behaviour which furthers reproduction and through restraint of behaviour which inhibits reproduction (Westoff, 1959). Thirdly, substantial religious differentials in fertility have been empirically documented in a large number of countries e.g., Sinha (1957) in India, Yaukey
Many studies have shown that Catholics have higher fertility than non-Catholics in Europe, Canada, United States, South Africa, New Zealand and Australia. (Ryder and Westoff, 1966; Burch, 1966; Glass, 1968). Data from the growth of American families studies of 1955 and 1960, suggest a growing differentials in fertility between Catholics and non-Catholics. Based on this data, Freedman, Goldberg, and Sbesinger (1965) stated "In contrast to the contraction of fertility differentials, religious differentials in fertility are large and are apparently growing larger".

Busia (1954) noted no differences between Muslim and Christian fertility in Ghana. Driver (1963) found no significant difference between Muslim and Hindu fertility in India. Also, in an investigation of 1960 Census of Thailand, Goldstein (1970) reported Muslim fertility to be lower than that of either Buddhists or Confucianists. A possible explanation for such mixed results is that the effect of religion on fertility is generally by the simultaneous effects of other variables. Though fertility studies have revealed the existence of differences in fertility by religion, there has been little effort to explore the role of religion in
influencing fertility, by controlling the effect of the associated socio-economic and demographic variables.

A number of sociologists, following Dumont, have hypothesized that religious minorities shown higher fertility than those around them. Such experience, however, need not be universal. According to Indian studies, the Parsis of Bombay who are Zoroastrians and a minority group have the lowest fertility (El Badry, 1967). The same is true of the Jewish community in the United States. A condition contributing to high fertility of the religious minorities of the country is the resistance created by their religious faith in the assimilation of culture.

In India, religion is a frequently mentioned factor in the investigation into fertility differences. Religious fertility differences mean the differences in a fertility between Hindus, Muslims and Christians. In many Indian studies recent as well as earlier - the existence of differential fertility among various religions has been observed. It has been observed that, among the three major religious groups, viz., Hindu, Muslim and Christian, the Muslims have had the highest fertility. Muslims showed higher fertility rate than the Hindus in the census reports of undivided India (Davis, 1951). Since then most of the surveys done corroborate the above differentials (Stockel and

The Mysore population study (1961) conducted in 1951-52 under the auspices of the United Nations, indicated that in Bangalore city, the pregnancy rate for Muslim women was 69 per 100 years of exposure as compared to 59 for Hindu women. The difference is small but the same was true of towns as well as rural areas.

Edwin Driver's study (1963) of differential fertility conducted during 1958 in Nagapur district, revealed that the average number of children born to Hindu and Muslim couples (standardised for age) was 4.5 and 4.6 respectively. The difference between Hindu and Muslim fertility was thus very small.

A sample survey of married women in Lucknow, conducted in 1954-55 by Mukherjee and Singh (1961), indicated that the number of pregnant per mother was 3.9 for Muslims than 3.6 for Hindus; and further that the proportion of pregnancies resulting in live births was higher among Muslims than among Hindus.
Kirk (1966) also found that, in general, Muslims in most parts of the world commonly manifest high fertility, often higher than that of their neighbours.

Zachariah (1983) in his study conducted in Kerala found that the average parity of Muslim women was 4.1, while that of Hindus was only 2.9 i.e., a difference of 1.2 children per woman. The completed fertility of these two groups differs by 2.5 children.

Thus, from the above studies it is clear that religion plays a significant role in influencing the fertility.

CASTE

Caste, as a principal socio-cultural characteristic in India, exercises a tremendous influence over its members as it touches a man's life in all his socio-cultural relationships. Hindu castes are mostly endogamous groups. According to Hindu Lawgivers and the Smritis, a person should by preference marry a girl of his own varna (caste), but also allows the marriage of a person with a girl of another varna (caste) which is lower than his own caste. Caste is a major determinant of fertility in Indian society.
The major population of South Central India belongs to several cultural groups namely the caste Hindus, the Scheduled Castes, the tribals and the Muslims. Sample registration scheme, census and other studies (U.N. 1961; Mahadevan, 1979; Rele and Kanitkar, 1979) have confirmed the existence of differential fertility among these communities.

In central India, Driver (1963) observed that the higher caste groups have the low fertility and the lower caste groups have the higher fertility. Rele (1963) conducted a study in Uttar Pradesh and found that the high caste Hindus and Kshatriyas had lowest fertility and Muslims the highest.

K.M. Pillai (1972) in his study conducted in Tamilnadu contended that caste by its persistence and rigidity has become a sub-culture within the society and the fertility behaviour of an individual is more in conservance with the norm of the caste than with his socio-economic status. They found fertility differences between different caste groups - gounders, scheduled castes and others. Gounders have low fertility compared to low status group scheduled castes.

Heer (1966) has reported lower fertility in higher caste people than low caste people. Sinha, J.N. (1967)
states that social status of any group greatly influences the incidence of fertility and mortality.

Thus, from the above studies shows that caste is a major determinant of fertility in Indian society.

IV. FAMILY PLANNING PROGRAMME

One of the most important reasons for the fertility declines might be the impact of family planning programme. It constitutes the corner-stone of most antinatalist fertility policies and is a key element in the population control strategies of developing countries like India. In this field India is the pioneer among developing countries. India was the first country in the world to have launched an official family planning programme as early as in 1951 to contain its population growth through curtailment of birth rate.

The effectiveness of family planning programme in lowering birth rates have been widely acknowledged in certain States in India, viz., Kerala, Punjab, Haryana, Tamilnadu and Maharashtra, but not in the rest of the States in India.

In a number of developing countries birth rates have fallen rapidly the last three decades as was the case in Europe during the whole of the 19th century. In all these
countries a key factor in declining fertility has been organised family planning programmes. Family planning programmes on the other hand, have a direct impact on fertility behaviour. The effective practice of family planning can prevent most unwanted pregnancies.

It has been established that significant decline in fertility is already taking place in a number of countries where family planning programmes are in operation. Certain countries such as Thailand, China, Indonesia and Srilanka have achieved impressive fertility declines, despite lower per capita income and a predominantly rural population.

Inter-country analysis have been carried out by Mauldin and Berelson (1978) Sui and Bogue (1978), Curtright and Kelly (1981) and several other authors. After looking at countries for which data were available, Mauldin and Berelson found that, between 1965 and 1975, countries with both significant family planning effort and high social setting had an average of crude birth rate decline of about 30 per cent, those with high social setting alone a drop of 5 per cent, those with neither a zero change. Zenasikis concluded from the same data that the family planning programme is associated about three to four times with fertility decline compared to all other social factors. All these studies confirm the
decline of birth rate of 10 per cent or more, with the intervention of a moderate family planning programme.

Several studies were conducted in India (Rele & Kanitkar, 1969; Suri, 1970; Simmons, 1971; Agarwala, 1971; Chandrasekharan, 1972; Srinivasa, 1972; Jain, 1974; Misra, 1974) to find out the impact of family planning programme on the reduction in fertility. In all these studies, it was found that family planning has its own effect although the magnitude varies.

Zachariah, (1983) in his study carried out in Kerala provides enough evidence to show that the official family planning programme made a significant contribution to the drop in the marital fertility of Kerala women, especially middle and lower strata.

Kurup and Cecil (1976) attributed the decline in birth rate in Kerala mainly to increased acceptance of family planning programme.

CONCLUSION

Thus the above review reveals that there is an increasing need for fertility studies so as to understand and contain the population problem, and there exists significant
differences among different populations in terms of their fertility behaviour. And that in this context mention may be made that very few studies have been conducted in the State of Andhra Pradesh.

Therefore there is a need to study the differential fertility and family planning in different communities. Hence the present study is a humble attempt to study the fertility differentials and family planning among forward castes, backward castes and scheduled castes of Anantapur district.

SIGNIFICANCE OF THE STUDY

The study of differential fertility is of special significance in view of economic development and national planning. It is also important from the point of view of implementation of family planning programme because it helps to identify high fertility groups on which the programme efforts can be concentrated.

In Western countries much concentration has been devoted to study the fertility differentials of various groups of the population of a country but unfortunately in India not only the statistics on overall fertility are lacking but differential fertility rates are also rare. In India
differentials are not yet greatly affected by such variables viz, caste, occupation, education and economic status. There are, however, indications that the western pattern will also be repeated in India in course of time.

Studies on fertility differentials and family planning have not been undertaken in rural areas of Rayalaseema region of Andhra Pradesh, though such studies have been carried out elsewhere in India and abroad. Therefore, the present effort is innovative. It deals with Anantapur district in Rayalaseema region of Andhra Pradesh. Anantapur district is so backward and got the second position in the country for drought prone conditions. Keeping in view of these things in mind the present thesis is formulated.

PLAN OF THE STUDY

The present study has been divided into six chapters.

Chapter I deals with introduction. It begins with the statement of problem and review of the literature pertinent to the theories and empirical research related to fertility differentials carried out in developed and developing countries, particularly in India. It also includes significance of the study.
Chapter II presents the methodology, which deals with the objectives of the study, hypotheses, location of the study, sample frame and size and selection of respondents, tools of data collection, analysis of data and limitations of the study.

Chapter III highlights the socio-economic and demographic characteristics of the selected communities.

Chapter IV discusses fertility differentials among the forward caste, backward caste and scheduled caste respondents.

Chapter V gives information about knowledge, attitude and practice of family planning among the respondents.

Chapter VI contains the summary and conclusions of the present study. Major findings of this study were summarised in a concised form and suggestions were also given suitably.