ADDIS ABABA UNIVERSITY
SCHOOL OF GRADUATE STUDIES

FERTILITY BEHAVIOUR OF ELITES AND THEIR PERCEPTION OF THE POPULATION PROBLEM IN ETHIOPIA

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ABSTRACT

The rapid population growth in Ethiopia (3 percent per year) in recent years poses serious difficulties in the efforts to achieve economic and social development. To solve this problem, there is a need for pertinent information on knowledge, practice and attitudes of various segments of the population with respect to fertility behaviour and family planning. There is also a need to understand their perception and views regarding the population growth at the national level, their opinions on the interaction of population and environmental deterioration, and their attitude towards the introduction of population and family life education. Such information can indicate focus areas for a population policy and also contribute to its success.

This is an exploratory study which investigated the family planning knowledge, practice and attitudes of Ethiopian elites in Addis Ababa, their perception of the population growth and environment, and their attitude towards the introduction of population and family life education in the high school curricula of the country. The elite play an important role, in spite of their small numbers, in moulding public opinion on every aspect of life including reproductive life and they act as a role-model for other groups.

The elite sub-groups covered in the study were artists, high school teachers, lawyers, medical doctors, Orthodox-Christian and Muslim religious leaders, senior government officials, university lecturers and a women's group. The thesis discusses the target population, the survey methodology and problems encountered in the field. Descriptive analysis was used to discuss knowledge, practice and attitude towards family planning, and the elites' perception of the population problem in the country. Multivariate analysis was applied for examining differentials in mean age at marriage of women and the mean achieved and desired fertility levels among the elite sub-groups. The analysis followed two approaches. The first one was the investigation of differentials in the attitudes towards and practices of family planning and other population related issues by socio-economic and demographic background characteristics. The second approach investigated these differentials within and between elite sub-groups.

The study has shown that knowledge and practice of family planning among elites is widespread, with the exception of the religious leaders. Knowledge of modern methods was found to be high. The pill was the most commonly used modern method followed by the IUD. Among the traditional methods the most commonly used were periodic abstinence and the rhythm methods. Variations in knowledge and practice of family planning were also observed. A negative attitude towards abortion as a family planning method among all elite sub-groups was revealed by the study. This attitude persisted even when most background variables were held constant.

Marriages were found to be stable in the study population with only less than 4 percent married more than once. The mean age at marriage of women was found to be 21.2 years and that of men 28.8 years. Adjusted mean children ever born per woman was 3.7 for the study population, but it ranged from 3.12 children per woman among medical doctors to 4.81 among Muslim religious leaders. The number of children desired was about 4 children per woman. The number of children desired was lowest (3.57 per woman) among Lawyers and highest among Muslim religious leaders (8.43 per woman).

A high level of awareness of the population problems in Ethiopia was observed among the elite sub-groups, with the exception of the religious leaders. Most of the respondents who perceived the current population growth to be bad for the country consider the creation of public awareness as one of the immediate solutions that could be taken by the government.

A considerable level of awareness of the relationship between high population growth and environmental deterioration was evident among the elite sub-groups, with the notable exception of the religious leaders. The predisposition of respondents towards the idea of introducing population and family life education in high school curricula was also observed to be high.

The study underlines the policy implications of the findings and concludes by identifying the need for future research.

ACRONYMS

CBR - Crude birth rate

CEB - Children ever born

CDR - Crude death rate

CSA - Central Statistical Authority

CSO - Central Statistical Office

FGAE - Family Guidance Association of Ethiopia

OPHCC- Office of the Population and Housing Census Commission

PDRE - People's Democratic Republic of Ethiopia

UN - United Nations

UNECA- United Nations Economic Commission for Africa

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CHAPTER ONE

INTRODUCTION AND LITERATURE REVIEW

1.1 - Introduction

Today the population growth rate in sub-Saharan Africa is the highest in the world. It was estimated at 3 percent during the period 1985-90 with a range from 2.1 to 4.3 percent (UN, 1989). Africa is now the only region that has not experienced a fall in population growth rate. Available literature indicates that as a result of the relatively high and constant fertility and declining mortality, the developing countries are experiencing rapid rates of population growth. In the case of Africa, the crude birth rate (CBR) has remained over 45 per thousand in the past three decades whereas the crude death rate (CDR) has declined from 27 to 16.4 per thousand (UN, 1989). The result of such a precipitous decline in mortality while fertility remains unchanged is a rapid acceleration in population growth and a rejuvenation of the population bringing about a still further acceleration in growth rate.

The fertility and mortality experience of Africa and other developing regions contrasts with the experience of the developed countries. In Europe, for example, the CBR in the period 1950-55 was 19.8 per thousand and the CDR was 11.0, but by 1985-90 these had fallen to 10.9 and 10.5, respectively (UN,1989). The decline of fertility and mortality in Europe actually occurred over a long period of time. For Western European countries the changes were explained by what is known as the 'demographic transition theory' (UN, 1973). This theory describes the situation before the Industrial Revolution. It also explains the

changes in fertility and mortality brought about during and after industrialization due to the impact of economic and social factors such as rising standards of living and increased costs of children's upbringing, levels of education, social mobility, urbanization and modernization.

While the idea of demographic transition as a framework for explaining the determinants of fertility has been widely adopted and is frequently used as a general description of the demographic evolutionary process, it has been subjected to a lot of criticism, especially regarding its applicability to the developing countries. In this, Henin (1971) argues, Africa differs from Europe in two main respects. One is that the present level of fertility is much higher in Africa than in Europe at the onset of its decline, as indicated above, and hence will take a long time to reach the present levels prevailing in Europe. The second is the economic and social circumstances which accompanied the European demographic revolution. With the growing socio-economic development in Europe fertility and mortality declined gradually, with the latter more rapidly than the former. However, the speed at which the death rate declined in the developing countries following the end of World War II was much faster than was the case in pre-industrial Europe due to improved knowledge regarding medical care. Thus in the developing countries, Africa in particular, fertility remained high while mortality declined, entailing an increasing population growth.

In Ethiopia, as in most African countries, while mortality has been declining in the past 30 years with the CDR falling from 32 to 23.6 per thousand, fertility has remained persistently high with the CBR at 52.3 per thousand during 1950-55 and 47.3 during 1985-90 (UN, 1989). As a result the population of Ethiopia has increased steadily since the turn of the century (CSA,1988a). The population growth rate of the country has also been accelerating as a result of this high fertility rate and gently declining death rate.

Fertility as measured by the CBR is expected to increase from 47.3 in the period 1985-1990 to 48.1 in 1995-2000 even under the assumption of declining fertility (CSA,1988b). A declining mortality rate is already evident (Mersie, 1989; UN, 1989). It is quite possible that in the course of the next few years there will be further reductions in mortality as a result of increasing medical and sanitation facilities provided both by national and international agencies. If a corresponding decline in fertility does not take place, the population growth rate will accelerate, assuming international migration to be insignificant. The main question in this case would be the ability of the country to absorb such a growth. The prospect of a decline in fertility similar to that in mortality should therefore concern policy makers and planners.

1.2 - Consequences of Rapid Population Growth

It has been shown above that Ethiopia is one of the high fertility countries and that the rate of growth of the population is expected to keep on increasing in the foreseeable future. This section will attempt to show briefly the consequences of such a rapid growth.

High fertility produces a younger population, and decline in mortality often favours young people rather than the elderly. If migration is not significant then a rapid population growth causes the further rejuvenation of a population. The Ethiopian population is young and is getting younger. Children less than 15 years of age constituted about 44 percent of the total population in 1950 and about 46 percent in 1985 (UN,1989; World Bank, 1984).

This age structure which has resulted from a high rate of population growth has two main implications. First, a large share of resources must go to meet the special needs of the

young. A rise in the school age population means a greater demand for more schools and for the training of more teachers. An increased demand for housing has to be satisfied. Employment opportunities have to be created for new entrants into the labour force. More health services have to be established for mothers and children. This implies a substantial proportion of government revenues should be channelled to satisfy the needs of the young. If, for instance, the young adult population increases more rapidly than job opportunities then this may result in a rapid increase in the number of unemployed or underemployed. If their needs are not met then the country may face a turbulent political life. Therefore a rapid population growth not only strains the financial resources of a government but also places a heavy burden on administrative services.

Second, population growth has a built-in momentum. Its growth has a tendency to continue even after a decline in birth rates are attained. Todaro (1987) contends that there are two basic reasons for the built-in hidden momentum. The first is that it takes many years to lower national fertility to desired levels. The second is the age structure of the population of developing countries. In these countries the young constitute as much as 50 percent of the population. According to Todaro, in high fertility populations, young people greatly outnumber their parents, and when their generation reaches adulthood the number of potential parents will inevitably be much larger than the present one. Even if this generation somehow limits its family size to half that of the previous one, the population will still increase substantially before levelling off.

High population growth is generally considered to be a deterrent to rapid economic development. Hence the study of the factors related to high fertility levels and those associated with fertility decline, assumes great importance in view of the high rate of population growth currently experienced by Ethiopia.

One, therefore, needs to know the perception of policy makers and administrators regarding the population problem. Another problem envisaged is the impact of a large and increasing population on the social and ecological systems. Part of the present study focuses on this general issue concerning population in Ethiopia today, by examining the knowledge and attitudes of the professional elites of the country with respect to various questions relating to population.

1.3 - Objective of the Study

The rapid population growth in Ethiopia in recent years poses serious difficulties in the efforts to achieve economic and social development. It is this awareness of the adverse effect of rapid population growth that has led the government of Ethiopia to draft a population policy in 1989 (Afework,1989). The success of a population policy, according to Badrudduza (1967:23), " depends on how well the pertinent knowledge, practice, and attitudes of various segments of the population concerning fertility behaviour and family planning can be identified". To achieve this he suggested research on at least three different populations:

i - the population as a whole;

ii - the leaders at the grass root level or what he called "lower level elite";

iii - the intellectuals or higher level elites.

Fertility behaviour and attitudes of the general population, community leaders and higher level intellectuals have hardly been explored in Ethiopia. There is, therefore, a considerable need for research in these areas. The Central Statistical Authority (CSA) conducted a well planned survey in this direction which covers the first two categories of populations (general population and community leaders) in August 1990. The present study is based on a survey of the third segment of the population, i.e., higher level intellectuals.

The elite in every society plays an important role in moulding public opinion on every aspect of life, including reproductive life, and they act as a role-model for other groups. The elite in any society has an importance for the society far exceeding their numbers. Though they are small in number, it is they who spear-head and facilitate change, or approve and hinder new developments (Bell, 1965). The importance of elites in the society was further summarized by Bell (1965:156) as follows:

> "They [elites] are mediators and communicators, interest articulators and aggregators, creators and disseminators of culture, preservers of values, change leaders, and standard makers for the general population".

Any action taken by the elite to limit the size of their families is ultimately likely to influence directly or indirectly the whole society (Caldwell, 1968). Badrudduza (1967:25) maintains that this group plays 'a critical role in the formulation of (or opposition to) a national population policy and its implementation on the one hand, and on its role as "early innovators" in the process of adoption of new attitude and behaviour relating to the attainment of small family size.'

According to the 'cultural lag' theory, attitudes and practices that tend to limit the family size have been adopted first by the well-to-do, the urban and the better educated and transmitted after a considerable time lag to the poor, less urbanized and less educated groups of the population (UN, 1965, 1973). The study of fertility behaviour among sub-groups is, therefore, a useful means of forecasting fertility trends in high-fertility countries, where emerging differences in fertility levels among population groups displaying certain economic and social characteristics, like those which have already been established as being related to lowered fertility levels in developed countries, may signal an imminent fertility decline (UN, 1973). Studies of attitudes and fertility behaviour are also relevant to any national plan designed to encourage family limitation, although some have expressed doubts as to the reliability and validity of attitude surveys (Okediji, 1974). Since no such study has yet been conducted in Ethiopia, the present study may be considered pioneering in this respect.

One of the objectives of the present study is to examine elites' knowledge, attitudes and practice of family planning methods. Their perception and views on questions relating to the country's population size and its effect on environment and development will also be investigated.

The main topics of concern are:

(i) - the general demographic characteristics of the elites under study;

(ii) - their knowledge, attitude and practice of family planning methods

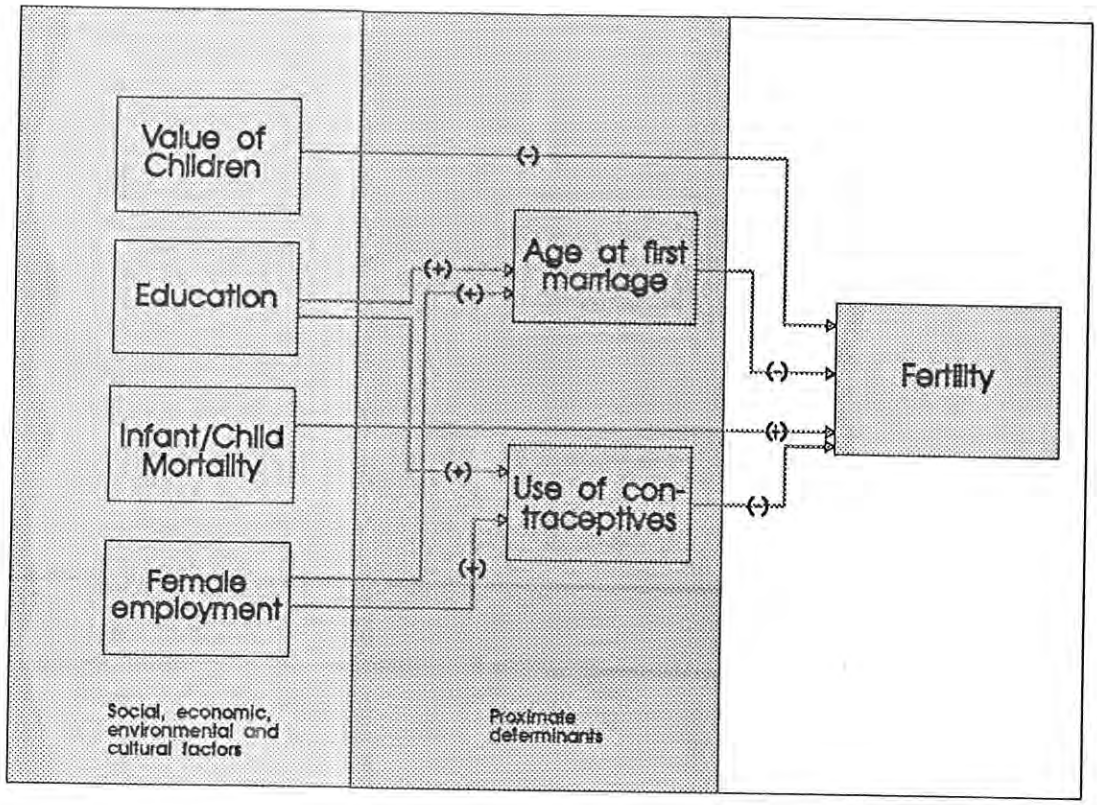
(iii) - their perception of the population growth of the country;

(iv) - their views on the relationship between high population growth on the one hand and the economic development and environmental degradation of the country, on the other.

The study is purely exploratory in nature. Therefore, no specific hypothesis is put forward except to suggest that the fertility behaviour of the elites will be different from that of the general population since the former are the pace setters of society. In other words, the fertility (desired and achieved) and mortality of the elites would be lower than those of the general population. Consistent with this, it is suggested that there will be greater knowledge and practice of contraception among the elites than among the general population. This is because their level of formal education, age at marriage and spouses' participation in the labour force would be expected to be higher than the average population. Infant and child mortality among the elites are also likely to be lower than in the general population. Also the costs (direct and indirect) of raising children are higher among educated elites. All these factors have a depressing effect on fertility and a positive effect on the use of contraception. How each of these socio-demographic factors affects fertility behaviour independently or in combination through direct or indirect means is discussed below along with the review of literature.

1.4 - The Determinants of Fertility: Theoretical Underpinnings and Review of Literature

This review of the literature examines not only the theoretical underpinnings or the (causal) mechanisms through which social, cultural, economic and demographic variables affect fertility behaviour but also presents empirical findings bearing on these relationships. The conceptual framework adopted for assessing the determinants of fertility behaviour of the study population can be schematically shown as follows:



The model envisages that any factor - environmental, social, economic or cultural - which affects fertility must go through one or more of the proximate variables.

Factors affecting fertility can be classified into two broad categories: (a) proximate variables and (b) socio-economic and environmental background variables (Bongaarts *et al*, 1984). The proximate determinants consist of all biological and behavioural factors through which the background variables operate to affect fertility. The socio-economic and environmental background variables include the social, cultural, economic, institutional, psychological, health, and environmental variables (Bongaarts, 1978; Bongaarts and Potter, 1983; Davis and Blake, 1956). In the following section a brief discussion of the proximate and socio-economic determinants of fertility will be presented.

1.4.1 - The Proximate Determinants and Fertility

Observed fertility in every society falls below the biological maximum level through the direct influence of factors affecting exposure to intercourse and exposure to conception, and through factors affecting pregnancy outcomes. These factors have been termed "intermediate variables" (Davis and Blake, 1956) or, more recently "proximate" determinants of fertility (Bongaarts, 1978).

Davis and Blake (1956) identified eleven intermediate variables through which fertility could be affected in any society. These variables were classified into three groups: intercourse variables, conception variables, and gestation variables. Their mainline argument is that the birth of a child is possible only when (i) there has been sexual intercourse, (ii) intercourse has resulted in conception, and (iii) pregnancy has been successfully brought to parturition. One major shortcoming of this design was the omission of an important class of factors affecting the duration of post-partum infecundibility, including the duration of breast-feeding (UN, 1987).

Building on the Davis and Blake model, Bongaarts (1978) developed another one, which restricted the behavioural and biological factors affecting fertility to the four most important variables: marriage, contraception, induced abortion and breastfeeding. He called these variables the 'proximate' determinants of fertility. The other intermediate variables, such as frequency of intercourse, spontaneous intrauterine mortality, natural sterility, pathological sterility, lactational amenorrhea due to breastfeeding and postpartum abstinence, were excluded on the assumption that they would not vary greatly across populations.

The latter three of the proximate variables were, however, claimed to be significant determinants of fertility differentials in sub-Saharan Africa (Frank, 1983). Bongaarts, Frank and Lesthaeghe (1984), however, contend that the urban and educated, such as the surveyed group, generally have a shorter postpartum abstinence period and tend to stop breast feeding earlier or replace breastfeeding altogether with cows milk or solid foods.

The principal characteristic of a proximate determinant is its direct influence on fertility. Socio-economic variables can affect fertility only indirectly by modifying the proximate determinants (Bongaarts, 1978; Bongaarts *et al*, 1984). Two of the four major proximate determinants: age at first marriage and use of contraceptives which are relevant to the study under consideration will be reviewed next.

(a) Age at First Marriage and Fertility

Age at first marriage identifies the commencement of exposure to risk of socially sanctioned childbearing, and hence is a principal determinant of the fertility of a woman (Bongaarts and Potter, 1983; Henry and Poitrow, 1979). Age at marriage and cumulative fertility are negatively related in a non-contracepting population. Raising age at marriage, therefore, reduces the duration of the actual child-bearing years and thus, lowers the fertility.

The determinants of the age at first marriage are many and can differ in strength and direction from country to country and from culture to culture. Three of the variables, among others, which are often cited in the literature as being associated with age at first marriage are education, labour force participation and use of contraceptives.

It is generally held that schooling delays marriage. The longer the time spent in school, the higher the age at first marriage will be. Results from World Fertility Surveys (WFS) indicate, for the 38 developing countries surveyed, that the singulate mean age at first marriage for uneducated women is about four years lower than for women with seven or more years of schooling (UN, 1987; WFS, 1984). Other national findings such as the Demographic and Health Survey of Zimbabwe (CSO, Zimbabwe, 1989) also support the hypothesis. Women may participate in the labour force before marriage to contribute to their own and their families' income. Female labour force participation, therefore, as well as years spent in school can contribute to delayed age at marriage.

In populations or population sub-groups where the age at first marriage is high the fertility level is expected to be low because of lost childbearing years. It is, however, argued that such populations are also likely to be more urbanized and associated with the use of contraceptives. Thus populations with later ages at marriage may show low fertility, not only because of their lost reproductive years but also because of deliberate limitation of fertility (UN, 1987) and other factors which go hand in hand with urbanization. These variables affect fertility indirectly, but the causality may work in either direction. The interaction of each of these variables with age at first marriage will be discussed later.

In short, education, labour force participation and use of contraceptives, among other things, interact with age at first marriage to influence reproductive behaviour. Where the use of contraceptives is low, education and labour force participation may delay age at first marriage and thus lower the number of children a woman can bear. However, in populations where knowledge and use of contraception is wide, delayed

childbearing is easily possible, thus reducing the effects of early age at marriage on fertility.

The foregoing section considered the biological and socio-economic factors linking age at first marriage and fertility. The following section will consider the role of contraceptives in inhibiting fertility.

(b) Use of Contraceptives and Fertility

Measures used to prevent coitus from resulting in conception can be divided in two: (i) chemical-mechanical or appliance methods, also called modern methods, and (ii) natural or non-appliance methods or traditional methods (UN, 1973). The natural methods are the rhythm method, *coitus interruptus* or withdrawal and abstinence. The modern methods consist of female methods such as the pill, intra-uterine devices (IUD), jellies, creams and foams, and the condom used by the male; sterilization used by both sexes.

It is generally accepted that the use of contraceptives was the major intermediate fertility variable responsible for the decline from high to low fertility level during the late and early twentieth century(UN, 1973). Use of contraceptives is a major proximate determinant of levels of fertility within marriage in todays population (Bongaarts, 1978).

Data from numerous fertility surveys have generally shown that the use of contraception is much less frequent in high-fertility populations than in populations where fertility is low (UN, 1973). This, however, is not true for all subgroups of a high fertility population. The use of contraception has been shown to increase with the level of education, degree of urbanization, etc. (London *et al*, 1985). This implies that use of

contraceptives is likely to be more among the educated urban elites than the rest of the population.

1.4.2 - Socio-economic Determinants of Fertility

In this section only those social and economic determinants of fertility assumed to be most significant for the study of fertility behaviour of elites are reviewed. These include education, female labour force participation, the value of children, sex preference, and infant/child mortality.

(a) Education and Fertility

Education is generally reported to be inversely related to fertility (Bogue, 1969; Caldwell, 1967; Chaudhury, 1982; Kasarda *et al*, 1986; Petersen, 1975; UN, 1973). Increase in education has often been cited as one of the major avenues through which reductions in fertility levels have been achieved.

Kasarda *et al* (1986) regard that women's transition from traditional to more modern attitudes and behaviour is *sin quo non* for decline in fertility. They argue that this transition can be brought about by educating women and providing them with the opportunities to make use of their educational achievements in the labour force. Their argument is shared by many others (Caldwell, 1978, 1980; Chaudhury, 1982; Cochrane, 1979, 1983; Graff, 1979; World Bank, 1984).

The indirect influence of education on fertility has been summarized by Holsinger and Kasarda (1971) as follows: it can affect fertility indirectly by raising age at marriage thereby reducing the number of childbearing years of a woman; education may affect the

efficiency of fertility control by increasing a woman's knowledge and use of contraception thereby lessening the divergence between desired and actual family size; it increases aspirations for upward socio-economic mobility, which favours small family size; education improves the opportunity of a woman to work outside the home, which competes with bearing and raising children as a career by increasing the productivity of a woman's time in the labour market related to her time in the home. Education also reduces the perceived economic utility of children, thus lowering the demand of parents for them; it enhances husband-wife communication thus creating an environment conducive to lower fertility; it also affects fertility by reducing infant and child mortality.

There are still other ways in which education influences fertility. Caldwell (1980) postulated that education has its impact on fertility through at least five different mechanisms. Even in the first generation of mass education, it reduces the child's potential for work inside and outside the home; it tends to increase children's costs far beyond the fees, the uniforms and the stationery demanded by the school; it creates dependency both within the family and the society; it speeds up cultural changes and creates new cultures; in the contemporary third world, the school serves as a major instrument probably the major instrument for propagating, not the value of the local middle class but of the western middle class. For Caldwell the first two of these postulates are widely accepted partly because they can be seen to operate even without the recognition of a major restructuring of family morality. But, he claims, it is probably the last three that have most impact in changing family economies from a situation where high fertility is worthwhile to one where it is disastrous.

The degree and pattern of the effect of education on fertility is not, however, simple and well understood particularly when the developed and developing nations are

considered separately. In recent years, the experience of most developed countries converges to a linear and inverse relationship between education and fertility with some variability observed among some of them (Berent, 1983 cited in Kasarda *et al*, 1986:89; Cochrane, 1979).

For developing countries with available data, the evidence points to lack of consistency in the relationship between the two variables. The associations observed have not always been either linear or monotonic like those in most developed countries (Cochrane, 1979; Jain, 1981; UN, 1987).

While several investigators have found a strong negative correlation between women's education on fertility after holding either the husband's education or income or both constant, others have found a positive relation between education and fertility; still others have found no significant correlations between the two variables (Graff, 1979). It is this divergent set of findings that has provided a basis for emphasizing the complexity of the role of women's education in fertility decisions.

A number of studies have also investigated whether the male or female education contributes more to fertility change. Most studies have come up with the conclusion that the wife's education is more strongly correlated with fertility decline than the husband's (Cochrane, 1979, 1983; Kasarda *et al*, 1986; UN, 1975). This proposition has also been supported by WFS studies in several developing countries (Rodriguez and Cleland, 1981).

(b) Female Labour Force Participation and Fertility

Several research works have documented a negative relationship between female labour force participation and fertility in developed countries (Cochrane, 1979; Jones,

1982; Standing, 1983; Stycos and Weller, 1967). Most studies show that the relationship holds whether fertility is measured by number of children born or desired (Kasarda *et al*, 1986). The experience of developing countries has, however, been less conclusive than that of developed countries. Results from the WFS for developing nations is mixed: some studies report an inverse relationship; others find a positive relationship; still others suggest no evidence of an association (Alam and Casterline, 1984).

The concept of 'role incompatibility' or the 'role conflict hypothesis' is often advanced as the basis for the difference in the fertility of women who are in the labour force and those who are not (Chaudhury, 1982; Kasarda *et al*, 1986; Stycos and Weller, 1967). Role incompatibility arises when women engaged in non-domestic enterprises have a conflict between work and time spent in child care. They find the care of children more difficult than those not working and hence tend to restrict their family size more than the latter group.

Chaudhury (1982) contends that when there is role incompatibility, it contributes to reduction in fertility indirectly by promoting the use of contraception. The hypothesis is predicated, he adds, on the following assumptions:

i. that labour force participation creates alternative satisfaction to children (e.g. recreation, creative activity, social and economic rewards, etc.);

ii. work outside the home tends to delay marriage, thus raising the age at marriage, and also increases the proportion of women who never marry by offering economic self-sufficiency;

iii. increases the opportunity cost for every additional child of a working mother;

iv. work improves the chance of a working wife's participation in family-decision making; and

v. reduces or eliminates the view that children are economic security during old age.

Economists explain the lower fertility of working women by the 'opportunity-cost' effect. They propose that working women tend to have lower fertility because the market wage they would forego by interrupting their career to have a child is too high to give up. The increased opportunity cost for the working mother and the role incompatibility for every additional child tend to have a negative bearing on the decision of a family to have an additional child.

The relationship between labour force participation and fertility in developing countries is, however, not as clear cut as that of the developed nations. Ohadike (1960, cited in Mabogunje and Arowolo, 1978) found the relationship between the two variables among Lagos women not to be clearly delineated. Arowolo (1976) drew a similar conclusion from a sample of women in Ibadan city.

One of the explanations for the role conflict theory not operating in contemporary developing nations may be the availability of mother substitutes in the form of grandmothers or other surrogate relatives and domestic help (Arowolo, 1976; Chaudhury, 1982; Stycos and Weller, 1967). In such a situation female workers can easily combine mother and worker roles. Thus working and child care may be compatible and there might not be any significant difference between the fertility of working and non-working mothers (Chaudhury, 1982; Kasarda, 1971; Kasarda *et al*, 1986; Standing, 1983).

Some of the other explanations advanced for the inconclusive findings are the difference in the study design, the source of data and the various measurement instruments (Chaudhury, 1982; Kasarda *et al*, 1986). Among the methodological issues in studying the relation between the two variables is whether labour force participation independently leads to lower fertility. Participation in the labour force and fertility are

related to other antecedent variables such as age, duration of marriage, education, fecundity, husband-wife role relationship, availability and use of contraception, among others. Chaudhury (1982) suggests that there is a need to control those variables which are related to both labour force participation and fertility in order to study the net relationship between them.

Most of the spouses of the urban middle and upper socio-economic groups are expected to participate in the labour force. Although findings on the relationship between labour force participation and fertility in developing countries are not conclusive, it is expected that spouses of elites, such as the surveyed group with a possible exception of the religious leaders, would have lower fertility than the general population.

(c) The Value of Children and Fertility

The cost-benefit approach is used by many researchers to investigate the value of children and its impact on fertility. Arnold *et al* (1975) assume that perceived benefits and costs of children are a major motivational force in reproduction, and with the interaction of situational barriers and facilitators affect family size preferences and fertility. Thus an understanding of the costs and benefits of children to their parents is important to formulate appropriate policies, particularly those related to motives for and deterrents to fertility.

Children involve economic and non-economic costs to their parents. The economic costs involved in raising children can be direct or indirect. The direct cost is the time and money spent in bringing them up. Parents have to bear the recurring expenses of such items as food, clothing, housing, education and medical care.

Indirect economic costs arise in the form of income forgone by a woman while bearing and rearing children. This opportunity cost concept is not, however, so important in economies where roles of worker and mother are compatible as a result of the easily available mother surrogates (Mabogunje and Arowolo, 1978).

Children can also bring non-economic costs to their parents. These are emotional costs such as the responsibility of parenthood; health problems of children; noise, disorder and nuisance; concern over children's future success and happiness (Arnold *et al*, 1975).

On the other hand children can be perceived as a form of investment. In most developing countries children begin working at very young ages. They provide benefits during childhood by assisting in household chores or on the farm in rural areas. In the household they produce services such as gathering and carrying fuel, fetching water, assisting in cooking meals and looking after younger siblings. They help in the farms by weeding the crops, caring for the animals, etc. (Cain, 1977; Caldwell, 1976).

They may also provide long-term benefits by supporting their parents in old age (Arnold *et al*, 1975; World Bank,1984). This is particularly important in a situation where there is little or no institutional support for the aged and physically disabled and where women are economically dependent on men (Chaudhury, 1982).

Children are also a source of non-economic benefits. Parents derive from them pleasure and satisfaction (Kasarda *et al*, 1986; World Bank, 1984). Couples, for instance, may gain respect and acceptance from the community by having children (Arnold *et al*, 1975).

In some societies children may also serve important religious and traditional functions (Kasarda *et al*, 1986). As Caldwell (1976, 1982, 1983) notes, children are of special value in traditional societies as they may provide social strength thus ascertaining economic benefits for the kin group they belong to. Children guarantee the lineage or as a means for transmitting the family name and traditions (Arnold *et al*, 1975).

The applicability of the above hypothesis, however, differs in different settings. For poor parents, the economic costs of children are low whereas the economic benefits are high (World Bank, 1984). This may be one of the main reasons for high fertility in developing countries. Caldwell (1976) contends, that in primitive and traditional societies where the inter-generational wealth flow is from children to parents, economic rationality dictates high fertility. Based on a study of a village in rural Bangladesh, Cain (1977:224; 1980) hypothesized that the benefits derived by parents from children is so important to them that from the perspective of parents 'high fertility and large numbers of surviving children are economically "rational" propositions'.

This does not necessarily mean that children are always economically beneficial in all societies of the developing countries. For instance, in some cultures where the dowry system exists, girls are considered to be more of an economic burden (World Bank, 1984).

In developed societies social security, retirement plans, and savings have replaced children as the primary source of income in old age or in case of disability. Thus investing in children in anticipation of long-term benefits is no longer significant in highly developed societies (Kasarda *et al*, 1986; World Bank, 1984). Thus children in developed nations do not contribute much by working around the house nor are they viewed as old age security. Costs and benefits associated with children may therefore differ across

cultures, by socio-economic groups and by place of residence. In urban areas, where the nuclear family is the norm, children may be more of a burden than in extended families in a rural setting. The economic motivation of having children, for instance, decreases with increase in social status and this also holds in poor societies, particularly among urban elites. Arnold *et al* (1975) found from their cross-national data analysis that the economic motivation for having children was higher among the urban lower class than among the middle class.

The value of children is also hypothesized to diminish with increasing education (Arnold *et al*, 1975). In developing countries education is the best means of securing a well-paid job which in most cases incorporates some kind of retirement plan. The view that children could be financial security in old age or emergencies, therefore, diminishes in importance in the face of access to pensions, insurance, social security benefits and other savings. Moreover, educated urban middle and upper middle class couples aspire to have better educated children which entails higher expenditure per child (Chaudhury, 1982).

The 'opportunity cost' forgone to bring about a child is relatively higher among the urban educated elites and in view of the fact that most of their spouses are engaged in gainful activities outside their home, having children on their part means income forgone. Among the urban middle and upper class educated couples, the cost (direct and indirect) of raising children is very high and they also do not depend on their children in old age security. Therefore, the expected return from children is lower than the cost incurred. The emphasis on the quality of children and the higher 'opportunity cost' of raising their children may thus lead them to restrict their family size. It is,

therefore, suggested that the urban educated elites would tend to have fewer children than the general population.

(d) Sex Preference and Fertility

In some traditional agrarian societies male children participate more in productive activities by helping on family farms (Cain, 1977). In agrarian societies, particularly in patriarchal societies, male children are also considered functional for maximizing economic and non-economic utilities by assuming responsibility for parents in old age; by guaranteeing the continuity of the family name; by performing certain ceremonial death rites and by participating in village factional politics (Chaudhury, 1982). In such societies the sex preference is likely to be in favour of sons.

A situation where there is preference for one sex over the other may encourage higher fertility be it at individual or societal levels. For instance, couples with a strong preference for one sex, or for at least one child of each sex, may go beyond their preferred family size in the event that they do not achieve the sex composition they want by the time the desired number of children is reached.

In traditional agrarian societies sex preference may lead to high fertility. The high fertility scenario may be strengthened in such a society by other factors too. In high fertility areas, mortality is high. Therefore the need may arise in such a situation to ensure the survival of one or more sons thus pushing the achieved family size above the desired size.

The preference for one sex over the other varies from one social and economic setting to another. Men participate more in agriculture in Asia where ploughs and irrigation are largely used for farming, whereas in Africa where hoe agriculture is

predominant, women do much of the farming. Therefore a greater son preference may be observed in Asia than in Africa (Chaudhury, 1982). There may also be son preference in societies where a 'dowry' has to be paid on a daughter's marriage whereas in societies with the 'bride-wealth' system a daughter may be an economic asset.

Empirical findings on the relationship between son preference and fertility are, however, inconclusive. Repetto (1972) found that families that have a high proportion of sons tend to have higher fertility rates. This finding contradicts the generally held view that a negative relationship exists between the number of sons and the family size in agricultural societies.

In industrialized countries the general expectation is that with modernization, preferences for a particular sex becomes less strong (UN, 1987). One of the main reasons is that since children go to school until their late teens their contribution in productive activity around the house is practically nil. Another reason is that parents in industrialized societies do not depend on their children for old age security. Therefore, no sex preference is expected in such societies.

Son preference was also found to be inversely related to socio-economic status (Arnold *et al*, 1975). The indifference to the sex composition among the urban middle and upper class may be due to perceived direct and indirect cost of raising children which would favour a small family size. Where the small family size norm dominates fertility behaviour, it is unlikely that sex preference will be satisfied. One would therefore expect to find the urban elites, excepting possibly the religious leaders, the least concerned about the sex composition of children since an additional child in order to meet sex preference would involve cost.

(e) Infant and Child Mortality and Fertility

It has been hypothesized that infant and child mortality may affect fertility through biological and behavioural mechanisms. It is well documented that reduction of infant and child mortality may lead to a reduction in fertility (Birdsall, 1977; UNECA, 1981; UN, 1988). The major causal mechanisms by which this is achieved are: (i) the biological (or involuntary) effect, (ii) the replacement effect; and (iii) the insurance effect.

Women, generally, have very low probability of getting pregnant after child birth due to lactation amenorrhea during the breast-feeding period. Lactation amenorrhea varies from 10 to 17 months (Chen *et al.*, 1974; Bongaarts and Potter, 1983). If breast-feeding is discontinued, ovulation is likely to resume sooner, so that if contraception is not used, an earlier pregnancy may be expected, keeping other factors constant. Infant mortality will thus tend to compress birth intervals in a non-contracepting society. A decline in infant mortality may, therefore result in wider inter-birth intervals and bring about a fall in fertility. This mortality-induced shortening of intervals between births is called the biological or physiological effect.

The macro-demographic impact of the biological effect is felt more in societies where: (i) no family planning is practiced, (ii) there is a wide practice of breast-feeding and (iii) post-partum sexual abstinence, exceeding the duration of lactation-induced amenorrhea, is observed. This macro-demographic impact is likely to be important in traditional societies where these conditions are fully met and where infant and child mortality is rather high (UN, 1988; Ware, 1977).

The replacement effect involves additional birth(s) in order to replace a child or children who died. This can be accomplished either by narrowing the interval between

births, by extending birth(s) to the end of child-bearing age, or by a combination of both (UN,1988). A decline in child mortality could lead to a decline in fertility in societies practicing family planning and where there are clear and specific reproductive goals, because the need to replace children who have died will occur less frequently (Chaudhury, 1982; Freidlander, 1977).

In societies where mortality is high, parents may set a specific goal well in excess of desired family size in anticipation of child deaths rather than as a response to actual child deaths in the family. Parents in such societies aim at many births to insure the survival of a desired number out of the total children born. The higher the parents' perception of community mortality levels, the greater will be the excess number of births desired. The extra births are needed to achieve a certain level of confidence regarding the survival of the desired number of children. The higher the family size norms the higher the excess number of births will be, suggesting a high insurance effect. Therefore in societies characterized by high child mortality and high family size norms, the macro-demographic impact of the insurance effect is likely to be significant. In modern societies, where mortality and family size norms are low the insurance effect can be considered to be relatively unimportant. Thus, an improvement in children's survival chances is expected to lower the insurance effect (Chaudhury, 1982; Freidlander, 1977; UN, 1988; Ware,1977). The relation of infant and child mortality and fertility is not, however, always unidirectional as indicated by most of the literature. One of the methodological issues that could be raised is that infant and child mortality can also be affected by the level of fertility (Chaudhury, 1982).

The relationship between infant and child mortality and fertility could also emerge from their common dependence on other intervening variables. Infant mortality

and fertility are both inversely related to education. The higher educated have low fertility as well as a low experience of infant mortality. In high mortality countries, the lowest infant mortality rates are found where large proportions of the population are literate and where educational attainment is high (Galway *et al*, 1987; Hobcraft *et al*, 1983). In view of the high level of education and socio-economic status of the study group, it is expected that infant and child mortality will be lower among the study group than among the general population, and therefore the fertility of the former is likely to be lower than the latter.

The foregoing review of literature has touched on the highlights of how socio-economic factors affect fertility through one or several of the proximate determinants. Education, female employment and value of children, among other factors, are inversely correlated to fertility while lower infant and child mortality will lead to lower fertility. These socio-economic background variables tend to raise the age at marriage and increase the use of effective contraception methods, which will in turn lead to a small family size norm. Among high socio-economic groups, where these conditions are prevalent, a general pattern of lower marital fertility is expected, with the possible exception of the religious leaders, than among the general population.

CHAPTER TWO

DATA AND METHOD OF THE STUDY

2.1 - Source of Data

Sample surveys were the sole source of demographic data in Ethiopia before the first-ever population census was undertaken in 1984. Censuses are, however, not generally useful for collecting data on such topics as knowledge, attitude and practice of family planning methods. Except as a source of some parameters to be used for comparative analysis of the general population with elites, the 1984 census data was, therefore, not useful for the proposed study. Similarly, the sample surveys conducted prior to the census did not include questions which could have provided information for the intended study.

In the absence of suitable data for investigating the fertility behaviour of elites a special survey had to be conducted. The present study is based on field work conducted by the researcher among artists, lawyers, senior government officials, university lecturers, senior high school teachers, medical doctors, religious leaders and a women's group. The survey was confined to the city of Addis Ababa and to Ethiopian nationals only and was conducted from April to June 1990.

2.2 Operational Definition of Elite

Webester's dictionary (1965: 736) defines elite as "a segment or group regarded as socially superior" or "a minority group or stratum that exerts influence, authority, or

decisive power". This can be considered as the general meaning of the term 'elite'. Researchers have, however, used their own operational definition in their studies. Caldwell (1968:16), in his study of Ghanaian urban elites, for instance, suggested that elites are "those who have enjoyed superior education, earn superior wages, occupationally hold more prestigeful positions, and live in the suburbs of Ghana's main towns with more expensive housing". He defined elites in his study according to residential area and residence as proxy for socio-economic status of the occupants, because of the problems he encountered in obtaining a complete list of persons by education, income or occupation. Badruduzza (1967) defined the elite as the upper middle class.

For the purpose of this study, elites are defined as those who have acquired a level of education which would enable them to hold superior jobs which can be obtained mainly through high educational attainments. Elites in the study could be government employees or self-employed professionals such as lawyers and artists. The elites are guaranteed a minimum regular income which warrants the enjoyment of a reasonable standard of living. Also included here in the category of elites are those who have not necessarily received a higher level of modern secular education but are considered to have a profound influence on the daily life of the people, such as Orthodox-Christian and Muslim religious leaders. One common feature among the selected groups is their potential to influence others, directly or indirectly, on important issues such as population related matters.

2.3 - Target Population and the Rationale for Choosing It

2.3.1 - Target population

The elite groups covered in the study are the following:

(i) senior government officials consisting of ministers, vice ministers, commissioners and their deputies, department heads of ministries and general managers of government corporations;

(ii) lawyers and judges;

(iii) artists, actors, writers and journalists;

(iv) Addis Ababa university lecturers and research staff;

(v) high school teachers;

(vi) medical doctors;

(vii) women's group; and

(viii) religious leaders of the Orthodox-Christian and Muslim religions.

Some elites such as party members, *Shengo*1/ members and senior military officers whose views on population matters have an important bearing on government programmes as well as public opinion were not included in the universe because of the following reasons:

(i) Most of the Party and/or *Shengo* members reside outside Addis Ababa, spread all over the administrative regions. Some of the members of the selected elites residing in Addis Ababa could also be party and/or *Shengo* members. Thus it was thought advisable to exclude them from the universe to avoid duplication.

1/ *Amharic equivalent for a parliament*

(ii) The senior military officers were preoccupied with more pressing matters of national importance and, therefore, may be unavailable to complete the questionnaires.

A minimum of three years of work experience was used as one criterion of selection in order to exclude new graduates from different learning institutions who, for many practical reasons would not be ready to form a family. Their exclusion from the study does not, however, imply that their attitude is not important. It should in fact be one area of future investigation.

2.3.2- Rationale of the choice of the different elite groups

i) Senior government officials were included as they are directly or indirectly involved in the formulation and implementation of government policies including population policies and programmes. For example, they are directly involved in the formulation and execution of family planning programmes, either at the national or lower administrative levels. Whether they are directly or indirectly involved in the formulation of policies, their active participation is needed in the implementation of any policies and programmes. They are the most important formal agents of change particularly in traditional societies.

ii) Lawyers in this study include government lawyers, judges and privately practicing advocates. Judges and lawyers, occupy traditionally and culturally a highly respected position in the Ethiopian society, and hence, can easily influence public opinion. The inclusion of lawyers in the present study was clearly desirable.

iii) One of the highly respected professions in the country is the medical profession. Many people seek their personal and medical advice inside and outside hospitals and most medical doctors are directly involved in family planning programmes.

iv) High school teachers and university lecturers are not directly involved in family planning programmes. Their knowledge, attitude and practice of family planning is, however, important to know because:

a) These groups play an important role in shaping the outlook of their students, from among whom will emerge the future leaders of the country;

b) Like judges and medical doctors, teachers are also highly respected in the society. They, therefore, can help mould public opinion by setting examples;

c) Professors are often involved in the drafting of/or providing expert advice on important government policies;

d) Teachers are usually called upon by the government in the implementation of important undertakings like, for instance, the Development Through Cooperation Campaign of 1977/78.

v) The artists group in the survey includes painters, actors, writers and journalists. This group can play an important role in shaping public attitudes through their creative arts and their access to the mass media.

vi) Men are dominant in number and status among the elite. Women, for instance, make up less than a seventh of the elite group in the survey, excluding the women's group. It was, therefore, important to raise their number in the survey in order to gain insight into their knowledge and use of contraceptives, and their attitude towards,

inter alia, abortion and population growth. The women's group in the survey were selected on the assumption that a wife shares her husband's socio-economic status.

vii) Religious leaders are looked upon as spiritual leaders by most followers of the faith. To the faithful they represent the will of God. Their sphere of influence is hence wide. For instance, a priest of the Orthodox-Christian church looks after the day-to-day spiritual life of a certain number of households. The priest is called the *Nefis abat*[2] of the household. He gives counsel in times of distress and presides or participates in such important events in the life of a household as baptisms, marriages and burials. It was found during the present survey that a priest is a *Nefis abat* of 87 households on average and the domains of the *Nefis abats* are mutually exclusive. This indicates that priests play an important role in the decision making processes of thousands of households on various matters. Priests also preach on Sundays in churches, make public speeches at marriages and burial ceremonies, and at other related religious occasions. They, therefore, can exert a steady formative influence on ardent followers of the religion by expounding their beliefs and attitudes on such important issues as desired family size, fertility control and other population related issues in such gatherings.

Christian religious leaders in the survey include only Orthodox-Christian church priests. Bishops and other functionaries of the church above the level of head of a church were not included. Priests were chosen mainly because they are the ones who are most in contact with the daily life of most people.

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[2] *The literal meaning is 'spiritual father'.*

The argument for the inclusion of Muslim leaders as one of the study groups is along the same lines as the above. To the faithful they represent the highest standard in religion and in other ways of life. They can, therefore, be considered as opinion leaders and role models to the followers of the Islamic religion.

The underlying assumption in the selection of the above groups is that they include prospectively influential people on issues relating to population problems and policies, among other things.

2.4 - The Sample

Any attempt to draw a representative sample of elites is fraught by lack of a complete listing of elites. Similar problems were encountered by Caldwell (1968) in Ghana, by Badruduzza (1967) in Bangladesh and Siddique (1967) in Pakistan in their studies of the elites. The main reason was that groups such as artists, senior government officials and lawyers are spread over a large number of ministries, commissions, authorities and corporations which do not have a common register of all employees.

It might have been possible to attempt to form a consolidated list of all members of the study groups and then take a random sample of all the elite. In this approach every member of the population would have the same chance of being included in the sample. Such a sampling frame was not, however, compiled because of two main reasons:

i) to compile a complete list of all groups was found to be time consuming and costly;

ii) the outcome of sampling in such a small study may not be typical for all groups and so may not allow intra-group analysis, as more members may be drawn from the larger groups.

As no hundred percent complete sampling frame can ever be achieved, Simon (1969:42-43) advises that the best approach would be to 'fit the sampling frame to your purposes'. In line with this, it was found prudent to take a list of institutions as the first level sampling frame in a multi-stage sampling procedure for groups such as high school teachers and Orthodox-Christian religious leaders while a list of persons was used as a second stage sampling frame to identify respondents. For the rest of the groups, where the number is large enough to allow for sampling, lists of persons were used as sampling frames. The sampling approaches adopted for the different groups are discussed below.

It was intended to survey a sample of 1200 members of the study groups. The decision on how large the sample size should be was dictated mainly by the cost. Since the survey was started from scratch the cost was expected to be high. The sample size was also determined in such a way as to enable the researcher to draw reasonable conclusions from the analysis of the survey data, based on the experience of other researchers. Caldwell (1968), for instance, in his study of Ghanaian elites and Badruduzza (1967) in Bangladesh used sample sizes of 627 and 1191, respectively.

The sample size within each elite sub-group or stratum, differs depending on the size of the population from which it was drawn. Sampling in different proportions in different groups is not uncommon in surveys (Simon 1969). Because of their relatively smaller number, it was also found necessary to take a hundred percent sample of some of the groups such as medical doctors.

In the foregoing discussions, it has been attempted to show how problematic it was to draw a single sampling frame for the elite. An effort has been made to use a random process of selection within groups whenever possible to minimize sampling bias. The approaches used for selecting the members of the different elite sub-groups are discussed in the following.

In the case of high school teachers, a list of government senior high schools (grades 9 to 12) was first compiled. There were twenty two such high schools in Addis Ababa at the time of the survey. A two-stage sampling procedure was used. Using random numbers table one-fourth of the schools were selected: Black Lion, Bole, Entoto, Kokebe Tsibah, and Menelik II. A list of teachers with a minimum of three years teaching experience was compiled from the school administrations of each of the selected schools. Ten percent of these teachers were then selected randomly in each school. This cluster sampling design gives reasonable accuracy at lower cost than sampling at random in each of the twenty two high schools.

To select the sample of senior government officials a list of ministries, commissions and authorities was first compiled. All departments within these institutions were then listed. The questionnaires were distributed at the level of heads of department and higher officials including the general managers of corporations within these ministries.

There were six large hospitals in the city of Addis Ababa at the time of the survey. The hospitals were Menelik II, Yekatit 12, Black Lion, Ghandi, Fil-Woha and Paulos. About 103 medical doctors working in these hospitals were covered in the survey.

To compile a list of lawyers and artists was found to be even more difficult than the compilation of a list of the rest of the professional elite groups since they are spread over different ministries, commissions, authorities and corporations. Some have their own business.

The Ethiopian Artists Association did not have a complete list of the people in the profession. The list obtained from the Association, however, served as a starting point and with the help of some of the members a fairly complete list was compiled. The list of journalists was obtained from the Ministry of Information and that of writers and playwrights from their professional associations.

A fairly complete list of lawyers working in government offices was obtained from the Ministry of Law and Justice. A list of those with private practices was compiled through personal contacts.

It was initially planned to select women elites from the Addis Ababa Women's Association. But it was learnt that the members of the Association were drawn from all socio-economic strata of the society. To identify those who may be considered as elites was found to be rather difficult. It was, therefore, necessary to resort to another way of selecting elite women.

To identify women in the elite group, the approach adopted here was similar to the one used by Caldwell (1968) in his survey of Ghanaian urban elites. He delineated urban elites according to residential area and residence. Residential quality was assumed to be directly correlated to the socio-economic status of the head of the household. In line with this and assuming that a wife in such a household shares her husband's socio-

economic status, two *kebeles*[3] were selected from two wealthier suburbs. These are *kebele* 19 of Higher 17 in the Bole area and *kebele* 12 of Higher 23 in the Old Airport suburb.

It was decided to take a house as a sampling unit and interview only the wife of the head of the household, or female heads of households (spinsters, widows or separated women). A list of houses was obtained from the respective *kebele* offices. A random sample of 5 percent of the listed 2710 houses was taken. The woman of the house was first asked to check with her husband if he had completed the questionnaire at his place of work. If yes or if the head of the household was a bachelor the questionnaire was given to one of the houses adjacent to the one selected provided it was occupied by an Ethiopian national. The same procedure was repeated if the selected house was not a villa or if it was considered sub-standard for the general area.

In the case of the Orthodox-Christian religious leaders, churches in Addis Ababa were first listed excluding those found on the peripheries of the city. There were 38 such churches. One fourth of the churches were selected using random numbers. The selected churches were: St. Gabriel, St. Ghiorghis, Lideta Mariam, Gola Michael, Medhane Alem, Kidist Mariam, Kirkos, Tekle Haimanot, Urael and St. Yared. Since each church has its own administrative office, it was not difficult to get the list of priests from the payroll. It was envisaged to interview 100 persons, thus a cluster-sampling design that samples 10 priests at random in each of the 10 randomly chosen churches was used.

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[3] *Urbans dwellers associations.*

The list of Muslim religious leaders was obtained from the Supreme Council of the Islamic Religion (SCIR). The Council has 75 members. Unfortunately the timing of the survey coincided with the *Haj*, the religious pilgrimage to Mecca-Medina. Only 51 members of the Council could, therefore, be interviewed. To raise the number of persons to be interviewed to 100, the members of the Council present at the time of the survey were requested to supply names of followers of the religion who in their opinion were qualified to be members of the Council, if they chose. It was possible to compile a list of 32 persons from this enquiry, after screening for duplicate names. In addition to these a list of more than 40 members of the *Daawa*[4], some of whom are women, was compiled. From these two lists a random sample of fifty names were taken, of which 35 consented to be interviewed. Altogether 86 Muslim religious leaders were interviewed.

2.5 - The Questionnaire

Two separate questionnaires were developed for this study, one for male and the other for female respondents. The questionnaires, reproduced in Appendix A, are basically the same, except for the different wording for addressing men and women. The questionnaire has the following main parts:

(i) General background characteristics of the respondents: age, sex, age at first marriage, place of birth, education of respondents, education of parents, education and occupation of spouse, etc.

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[4] *A committee under the Ethiopian Islamic Supreme Council, responsible for the teaching and spread of the Koran.*

(ii) Knowledge, attitude and practice of family planning: past and current use of contraception methods, attitudes towards family planning, approval or disapproval of abortion, attitude towards ideal family size and desired sex composition of children.

(iii) Perception about population growth and problem, and views on the relationship between population and environment.

The questionnaires were drafted and prepared in English. Most of the questions were precoded. The original length of the questionnaire was reduced considerably, mainly to reduce the cost of data collection and processing. A pretest was conducted at the end of February 1990. The questionnaires were modified, taking into account the pretest results. The time taken to complete a questionnaire averaged about 20 minutes during the pretest.

A translation of the questionnaire into Amharic, the national language, was done for the religious leaders. The translation was made after the pretest. Modifications were made in the Amharic version of the questionnaire regarding the questions on place of birth, place where a person had lived most of the time until age 12 and number of children desired. In the first two questions respondents were asked to state the name of the places in addition to the pre-coded categories of the English version. This was done to cross-check the responses with other sources. A third category of response, 'it is up to God/Allah', was included in the question on desired number of children since the Amharic version of the questionnaire was prepared to be administered to the religious leaders.

2.6 - Method of Data Collection

The English questionnaires were completed by the respondents themselves. Envelopes were distributed to each respondent in which the completed questionnaires could be sealed to maximize the number of completed returns by assuring confidentiality. Return address labels were pasted on the envelopes in case the respondent wished to mail-in the completed forms.

A covering letter was attached to each questionnaire explaining the purpose of the survey, and assuring the anonymity of the respondent and confidentiality of the information supplied. Instead of the 'mail questionnaire approach', couriers were used to distribute and collect questionnaires for the following reasons:

(i) the mail questionnaire approach has not been successful in developing countries; and

(ii) elites may be too busy to spend time completing and mailing the questionnaires.

Since most of the respondents have a generally high level of education, they had no difficulty in understanding or answering the questionnaire in English. The direct interview method was used only for the religious leaders, where the Amharic version was administered.

Intensive training was given to the couriers and interviewers. In the case of couriers they were informed of the significance of creating a good rapport with the respondent during the first visit. They were advised to be humble and not antagonize respondents by pressing for an instant response. Moreover, anticipating that easy access to some of the elites' place of work might prove to be difficult, two persons with wide contacts in many government offices were recruited as couriers to the senior government

officials. Interviewers of the religious leaders were supplied with a calendar of events to assist them to estimate the age or other date-related questions in case the need arose. The investigator acted as supervisor in all cases. Respondents were approached at random either personally or through the telephone to check whether they had received and completed the questionnaire. No case of default was encountered.

Distribution of questionnaires was done in stages. First the university lecturers were covered. Important lessons were learnt from this first round. The first was not to leave the questionnaire with a secretary or push it under the door of the office if the respondent was not there at the time of visit. Those persons who received the questionnaire in person were found to be polite if they happened not to complete the form when the courier returned to collect them and made a definite appointment for a call-back. Most kept their promises.

The second lesson learnt was that some of the questionnaires returned in sealed envelopes were either blank or not properly completed. Since anonymity was promised it was found rather embarrassing to go back to the respondent and request him/her to furnish the missing information. It was then decided to experiment by requesting the respondents who failed to respond to some of the questions if they would be willing to complete them during the second round of questionnaire distribution.

The group covered after the university teaching and research staff were high school teachers. Couriers with exceptional powers of persuasion were selected from among those who distributed and collected the questionnaires in the first round. The lessons learnt from the first group also proved quite valuable. As a result the distribution and completion of questionnaires was found to be highly satisfactory. Except for those teachers who left the completed questionnaires with the school administration

offices and could not later on be reached easily, the cooperation of the rest in providing information on missing or inconsistent data was very good.

In the third round senior government officials, medical doctors, artists and lawyers were covered. Next, questionnaires were distributed to members of the women's group at their places of residence. Finally interviews were conducted among the Christian-Orthodox and Muslim religious leaders.

Information on religious leaders was collected by the direct interview method. To gain the respondents' confidence, followers of the corresponding religion were used as interviewers. The time of the interview coincided with the Lent fasting period for the priests. It was, therefore, an opportune time to conduct interviews since priests spent most of their time in churches during such fasting periods. Two staff members of the Central Statistical Authority, with extensive experience in the art of data collection, and who were followers of the Christian-Orthodox faith, did the interviewing on a part time basis. This aspect of the data collection operation took about ten days.

Unlike the Orthodox-Christian church, there is no organized religious institution for Islam. Most of the muslim leaders performed their religious activities of the SCIR voluntarily, and more or less on a part-time basis. Their main occupations are varied. Some of the members of this group were: teachers, secular and religious; businessmen; pensioned persons; or judges, to mention but a few. It was, therefore, found difficult to locate them. Some of them were interviewed at their place of work, some at the Council's head office and others at their place of residence. In order to avoid duplication it was found necessary to ask those working in government offices whether they had completed the English version of the questionnaire or not. The interview was

conducted by a follower of the religion who had prior experience in survey data collection. It took him about two weeks to collect the data.

The entire data collection operation took about three months. Almost all the questionnaires were collected by the couriers. More than thirty respondents either mailed the completed questionnaire or delivered them in person at the Demographic Training and Research Centre (DTRC) without waiting for the couriers to come and collect them. The general response rate is discussed below.

2.7 - Response rate

The number of completed questionnaires was less than the intended number. This was caused mainly by the unavailability or lack of time on the part of the respondent rather than lack of willingness to cooperate. Only a few flat refusals were encountered among university staff, medical doctors and senior government officials.

All in all a total of 1079 completed questionnaires were collected out of the 1200 distributed. Thirty-seven were rejected because of large numbers of inconsistencies and non-responses. Considering that the number of completed questionnaires intended to be collected was 1200, an 87 percent return proved to be satisfactory.

The response rates, however, differed from one group to another as shown in the abovetable. The returns from lawyers were the highest. Medical doctors followed by senior government officials were found to be the least accessible of the elites.

Non-responses to one or more of the questions were also observed in some of the completed forms. As a consequence, the number of cases could differ from variable to variable in the final tabulations.

Table 2.1 - Questionnaires Distributed, Collected and Average Number of Callbacks

Elite sub-groups	Questionnaires		% Collected	Average number of call backs
	Distributed	Collected		
Artists	60	53	88	2.4
High school teachers	275	248	90	1.6
Lawyers	70	64	91	2.3
Medical doctors	103	70	68	3.4
Religious leaders				
- Orthodox-Christian	100	99	99	*
- Muslim	100	86	86	*
Senior government Officials	140	110	79	3.1
University lecturers	212	191	90	2.4
Women group	140	121	86	1.9
Total	1200	1042	87	

* - *Direct interview*

2.8 - Field problems

Some of the problems encountered in the field when conducting the survey were:

(i) - difficulties in obtaining access to high socio-economic status groups, such as ministers, vice-ministers, commissioners and general managers. As the place of interview was their place of work, the courier had to pass several hurdles in the form of guards, secretaries, etc., before he/she reached the respondent. The higher the status of the respondent, the more difficult and numerous the hurdles were. These senior government officials usually have a guard either at the door or the corridor which leads to the door of their offices. The courier had to state his/her business to the guard before he/she was admitted to the office of the secretary of the respondent. Then explanations had to be given all over again to the secretaries. Sometimes, this secretary then passed on the case to a second special secretary to the respondent.

In six instances, the couriers were told by the secretaries/or special secretaries that the respondent did not have the time to look at such matters and were sent away. In most cases they were told to return back and check whether the respondent was willing to complete the questionnaire. Except for two flat refusals all respondents were found willing to complete the questionnaire.

(ii) - A similar inaccessibility problem was encountered in the case of the medical doctors, but the nature of the problem was a little different. It is very difficult to enter the hospitals grounds in Addis Ababa because of the large number of out patients. To overcome this problem, it was decided to use medical students as couriers. The survey was started at the Black Lion Hospital, which also houses the Medical School of Addis Ababa University. The students were so discouraged by the reaction of many of their lecturers in their first attempt to distribute the questionnaires they abandoned the whole thing after collecting a few from those who cooperated in completing them. It was even reported that the head of one department went as far as forbidding the medical doctors under him from completing the questionnaires. Another attempt was made to collect completed forms by soliciting the cooperation of other department heads but without much success.

Apart from the problems faced at the gates, couriers did not meet flat refusals in other hospitals. Before the couriers were dispatched, the investigator approached one or two persons from each hospital to facilitate the distribution and collection of the forms. Some of these people also acted as supervisors. The return was, however, below expectation. This was partly because medical doctors have a heavy work load in the hospitals and most of them also work in private clinics after office hours. Considering that the average number of call-backs for this group was the highest among the elite sub-

groups, and the fact that the field of medicine is highly research-oriented, the number of completed questionnaires collected should have been higher than it was.

(iii) - Many of the muslim religious leaders who were listed for interview left on a pilgrimage to Mecca and Medina, when the interview of this group was to begin. Time and resource were lost because of this unforseen event.

(iv) - The number of staff (couriers) turnovers during the field work proved to be high as the number of call-backs became more than initially expected. To reduce the number of turnovers, transportation costs were covered for those who had to travel more than walking distance from one respondent's place of work to another.

This problem might have contributed to low returns in some areas particularly in the case of medical doctors. Redistribution of workloads was not possible because most respondents preferred to return the completed questionnaires to the person who brought it in the first place.

2.9 - Data Processing

The survey was processed using the SPSS/PC+ software package. The different phases of the data processing activities were the following.

i - Data entry

A data entry format was prepared using the data entry module of SPSS/PC+ well in advance of data collection. Ranges and skip functions were set and tested using the results from the pretest survey. Further tests were made using the first fifty completed questionnaires.

ii - Editing

Editing of the survey questionnaire involved making careful checks to ensure that all the information which was sought was recorded, that each question had been completed in the manner specified, and that responses to questions were consistent with each other. Careful checks were made so that skip instructions were followed.

The problem of non-response for some of the variables was tackled during this stage. An attempt to impute answers was made in a very few cases based on a close scrutiny of the whole questionnaire. The editing exercise started as soon as the first batch of completed questionnaires was received in April and went on until the end of July, 1990.

iii - Coding

The coding involved two main activities:

a) transcribing the numbers ticked by the respondent or interviewer to boxes provided on the right hand side of the questionnaire;

b) transcribing information not previously coded into number codes as specified in the coding sheet.

Coding of the survey questionnaires started when editing was well advanced. A coding sheet was prepared for the open ended questions after going through the first fifty questionnaires.

iv - Data cleaning

This stage of the data processing activity proved troublesome and time consuming. First, consistency checks between codes were made. When there was any inconsistency

a check was first made on the questionnaire and the error corrected when possible. Once the consistency checks were done, frequency counts and cross-tabulations were made. Further data cleaning was undertaken based on the inconsistencies observed from this exercise. Illegitimate coding and data entry errors are believed to have been eliminated during data cleaning.

2.10 - Weights

In this study, sample of disproportionate size was drawn from each sub-group of the population (elites) under investigation. For example, where the size of a group was small, one hundred percent cases were selected while in cases where the size of a group was large, a sample was drawn and the sampling fraction used in the selection varied from one sub-group to the other. These unequal sizes, due to disproportionate sampling, therefore, must be allowed for, by applying due weightage to provide estimate on any parameter for the study population as a whole. These weights were the reciprocal of the sampling fraction.

$$\text{Sampling fraction, } f_h = \frac{n_h}{N_h}$$

where n_h = sample size of the h^{th} sample,
N_h = population size of the h^{th} group.

$$\text{and weight, } W_h = 1/f_h = \frac{N_h}{n_h}$$

Final weights were then developed by taking into account the probability of selection (basic weight) and the non-response rate. This is expressed as follows:

$$W_a = W_h \frac{S_h}{I_h}$$

Where W_a is adjusted weight
W_h the basic weight which is the reciprocal of the sampling fraction.
S_h number of sampled elites in stratum h.
I_h number of actually interviewed elites of stratum h.

CHAPTER THREE

BACKGROUND CHARACTERISTICS OF THE RESPONDENTS

In this chapter a brief description of the background characteristics of respondents is presented, to assist in the interpretation of the survey findings presented in subsequent chapters. Due to variations in non-response to different items, from one table to the other, the total number of cases may not be the same in every table.

Elite Sub-groups

The number and percentage distribution of the respondents by sub-group and sex is given in Table 3.1. Only about a quarter of the elites covered in this study are females. Females also constitute less than 15 percent of all the other sub-groups if the women's group is excluded. Males dominate in each elite sub-group as can be observed from the table.

Table 3.1: Percentage (Weighted) Distribution of Respondents by Elite Sub-groups and Sex

Occupation	Sex		Total Number
	Male	Female	
Artists	71.7	28.3	60
High school teachers	80.2	19.8	2225
Lawyers	76.6	23.4	70
Medical doctors	81.4	18.6	103
Religious leaders			
- Orthodox-Christians	100.0	-	576
- Muslims	93.0	7.0	100
Senior government officials	85.5	14.5	140
University lecturers	94.8	5.2	212
Women group	-	100.0	1823
Total	76.5	23.5	5308

Note: Percentages add up to 100 in each row.

Age:

The data on age were obtained by first asking the respondent's age and then the date of birth. The age data were complete for all respondents. Age data error from mis-statement and preference or avoidance of certain digits is believed to be minimal since 87 percent of the respondents were able to give both their age and date of birth and also due to the fact that most of the respondents were highly educated.

All respondents were found to be above age 20. The proportion of respondents increased from 1.7 percent in the age group 20 to 24 years to a peak of 30.8 percent in the ages 35 to 39 and thereafter, the proportion of elites declined with advancing age. The distribution of respondents by age is given in Table 3.2.

Table 3.2: Distribution of Respondents by Age-group (Weighted)

Total	Percent	Number
20 - 24	1.7	90
25 - 29	10.0	531
30 - 34	17.2	913
35 - 39	30.8	1635
40 - 44	17.7	939
45 - 49	12.4	657
50 +	10.2	542
Total	100.0	5308

The median age of the respondents at the time of the survey was found to be 38 years. The median age of male elites was higher than female elites by 4 years, i.e. 40 and 36 years respectively. Male elites' median age was consistently higher than the female elites among different elite sub-groups. The lowest median age difference among the sexes was observed for university lecturers, one year, and the highest difference was observed among artists and Muslim religious leaders, (each 7 years). Table 3.3 gives median ages of the elite groups by sex.

Considering both sexes the median age among the elite sub-groups was highest for the Orthodox religious leaders (50 years) followed by Muslim religious leaders (45 years) and Senior government officials (44 years), while it was lowest among lawyers and medical doctors (each 32 years).

Table 3.3: Median Age of Respondents by Elite Sub-groups

Occupation	Median age
Both sexes	**38.0**
Artists	38.0
High school teachers	39.0
Lawyers	32.0
Medical doctors	32.0
Religious leaders - Orthodox	50.0
Religious leaders - Muslim	45.0
Senior government officials	44.0
University lecturers	37.0
Women group	36.0
Male	**40.0**
Artists	41.0
High school teachers	40.0
Lawyers	33.0
Medical doctors	34.0
Religious leaders - Orthodox	50.0
Religious leaders - Muslim	47.0
Senior government officials	45.0
University lecturers	37.0
Female	**36.0**
Artists	34.0
High school teachers	35.0
Lawyers	29.0
Medical doctors	30.0
Religious leaders - Muslim	34.0
Senior government officials	41.0
University lecturers	36.0
Women group	36.0

Place of birth and place where a respondent had lived for most of the time until age 12:

Of the total elites covered in this study 35.4 percent were born in villages, 22.8 percent in small towns and 41.8 percent in large towns. Place of birth was crudely classified into village, small town and large town by size of population. Large town was defined as a place with a population of more than 5000 and small town with a population of less than 5000. The decision on whether the birth place was a village or not was left to the discretion of the respondents. For the purpose of this study, however, a village is a place where everyone knows everyone else and thus would not be expected to have a population of more than 500.

The majority of the elites in this survey were born in urban areas. This is to be expected because those born in towns are more likely to get better educational opportunities and education is a major route to achievement of higher socio-economic positions.

About 41 percent of the respondents were brought up (i.e., lived most of the time until age 12) in large towns, 40 percent were brought up in small towns and the other 19 percent were raised in villages.

Marital status and number of times married:

The majority of the respondents were married, with single people as the next largest group. The widowed, divorced and separated were very few. The distribution by marital status of the respondents was as follows: married, 77.1 percent; singles, 17.3 percent; widowed, 1.6 percent; divorced, 3.1 percent; and separated, 0.9 percent.

Respondents, other than single people, were asked the number of times they had been married. Ninety-three percent of them were married only once, six percent were

married twice, and less than one percent were married more than twice. Of those who reported to be married or more, about 17 percent were polygynously married and all belonged to the Muslim religious leaders group.

Education:

As may be observed from Table 3.4 more than a third of the study population were university graduates. At the other extreme those who could only read and write constituted less than one percent. Respondents with Church or Koranic education accounted for less than six percent of the total.

The educational background of the spouses of the respondents is also given in Table 3.4. More than 80 percent have educational attainment above grade six. About nine percent were illiterate, of which 94 percent were the spouses of the religious leaders. All of those who can only read and write (1.1 percent) and 83 percent of those with Church/Koranic education were also the spouses of the religious leaders group.

Few of the elites' parents had education of high school level and above (13.6 percent of their fathers and 4.2 percent of their mothers). The great majority of them were illiterate, with the mothers' proportion of illiteracy being higher than the fathers'. The proportion of the fathers of the respondents who had some years of secular and religious education is considerably higher than their spouses. The distribution of the educational attainment of the fathers and mothers of the study groups is given in Table 3.5.

Table 3.4 Highest Level of Education Attained by Respondents and Their Spouses (Weighted)

Educational level	Respondents		Spouses	
	Percent	No.	Percent	No.
MSC/MA and above	9.7	516	8.9	354
BSc/BA	25.8	1370	21.6	855
Diploma and those who joined university but not completed	42.3	2248	29.7	1178
High school (grade 7 to 12)	12.2	649	24.0	952
Elementary school (grade 1-6)	3.9	206	5.3	212
Church/Koranic	5.6	293	0.6	16
Read and Write	0.5	26	1.1	45
Illiterate	-	-	8.8	349
T o t a l	100.0	5308	100.0	3961

Table 3.5 Highest Level of Education Attained by Fathers and Mothers of Respondents (Weighted)

Educational level	Father		Mother	
	Percent	Number	Percent	Number
High school and above	13.0	690	3.6	192
Elementary (Grade 1 to 6)	8.0	427	4.8	254
Church/Koranic	11.8	629	1.7	88
Read and Write and non-formal education	2.5	134	3.7	199
Illiterate	64.7	3428	86.2	4576
T o t a l	100.0	5308	100.0	5308

Work status:

Currently married respondents were asked whether or not their spouses were engaged in any work, apart from household work, at the time of the survey. If they were working, they were further queried about the nature of their occupation, the number of days worked a week, and whether the work was done inside or outside the home.

Of the currently married respondents, 71.7 percent reported that their spouses were working at the time of the survey. Professional, technical and related work turned out to be the most important occupation, engaging about 50 percent of the working spouses of the respondents. The second most important occupational group was the clerical and related workers, engaging 28.1 percent of the working spouses of the surveyed elites. Administrative and managerial and sales workers were the third and fourth largest occupational groups, accounting for 11.9 percent and 6.4 percent respectively of the working spouses. The occupational distribution of spouses is shown in the table below.

Table 3.6: Occupational Distribution of Spouse (Weighted)

Occupation	Percent	Number
Professional, technical and related workers	49.6	1450
Administrative and managerial workers	11.9	349
Clerical and related workers	28.1	824
Sales workers	6.4	189
Service workers	0.8	25
Agriculture	0.6	19
Military	2.6	75
T o t a l	100.0	2931

About 98 percent of the respondents reported that their spouses worked five to six days a week, while the remaining reported that they worked less than five days. In about 98 percent of the cases the work was done outside the home.

Ethnic Composition:

The Amaras constituted nearly three-fifths of the study population (57.8 percent) followed by the Oromos and Tigres which comprised 16.3 percent and 14.6 percent, respectively. These were followed by the Gurages, Aderes, Wolayitas and Kenbatas which made up 5.9, 1.4, 0.5 and 0.5 percent respectively. Members of another 12 ethnic origins made up the remaining 3 percent.

Religious composition:

The question on religion was precoded as Christian, Muslim, Atheist and Others. Christians were further coded as Orthodox-Christian, Catholic and Protestant. The majority of the elites covered in this study were Orthodox-Christians, 71.4 percent, followed by Muslims which accounted for 14 percent. Protestants and Catholics accounted for 6.8 percent and 4.0 percent of the respondents, respectively. The atheists and others accounted for 1.9 percent each. The above distribution of elites by religious groups closely reflects the distribution of the population of Addis Ababa (OPHCC, 1987:29).

CHAPTER FOUR

KNOWLEDGE, PRACTICE AND ATTITUDE TOWARDS FAMILY PLANNING

Family planning activity was first introduced in Ethiopia with the establishment of the Family Guidance Association of Ethiopia (FGAE) in 1966. In spite of its long history the FGAE has not yet achieved nation wide delivery of family planning services (Seyoum, 1989). It can, however, be argued that the urban elite is more likely to have been exposed to knowledge of contraception because of their exposure to modern education well before FGAE came into existence.

Sales of contraceptives are conducted over the counter without prescriptions in most pharmacies and drug stores in Addis Ababa. The use of contraceptive methods is, thus, expected to be high among elites, for they are most likely to have the knowledge of methods and their sources, and can also afford to buy them.

This chapter looks at the knowledge, ever and current use of family planning methods along with attitudes towards family planning and abortion among the elites covered in this study. It begins with an appraisal of the knowledge of family planning and contraceptive methods by different background variables. Then follows ever-use and current use of contraceptive methods by background characteristics. Finally, elites' attitude towards family planning and abortion is investigated.

In this chapter statistical significance test to see whether differences exist in knowledge or use of family planning methods by background variables refer to the chi-

square (χ^2) tests. The tests were based on absolute numbers and were conducted if all cells contained at least 5 cases for one degree of freedom. For degrees of freedom greater than one, only one cell containing less than 5 cases was tolerated (Blalock, 1972; Siegle, 1956). A probability level of 5 percent was used in deciding whether differences were significant or not.

4.1 - Knowledge of Family Planning

Respondents were asked whether they have heard of family planning or not. If the response to this question was affirmative then they were asked to state what they meant by 'family planning'. Following this, respondents were asked about the family planning methods they have heard about. For the sequence of the questions asked see the questionnaire in the annex.

4.1.1 - The Variations in the Knowledge of Family Planning by Background Variables

This section first examines the level of and variations in knowledge of family planning by background variables among elites. The knowledge is measured here only in terms of having ever-heard of family planning. Then the variations in the knowledge of family planning methods to avoid or delay a pregnancy among those who claimed to have heard of family planning is examined. Further classification of the ever-heard groups by type of contraceptive methods they have heard of is also given.

The weighted distribution of responses to the question regarding the knowledge of family planning by background characteristics is given in Table 4.1.1.1. From the

table it can be observed that 86 percent of the respondents have heard of family planning. The proportion of respondents who know of family planning, however, differs by background variables.

A high level of knowledge was reported by those below age 40, those with education above grade 7, the ever-married, working women5/, those whose place of birth was a town, and those who spent most of the time until age 12 in towns. Among the religious groups the knowledge of family planning was reported to be higher for those who belonged to the 'Others'6/ category followed by Protestants and Catholics. The least knowledge was reported by Orthodox-Christians and Muslims. Among the ethnic groups, a higher proportion of Tigres and Gurages reported that they have heard of family planning followed by the 'Others' category7/, the Amaras and Oromos. The variations in the knowledge of family planning by background variables were found to be statistically significant (see Table 4.1.1.1).

For tabulation purpose the family planning methods were categorized into three in this study. These are modern, traditional and 'both' methods. The modern methods comprise the pill, intra uterine device (IUD) commonly known as the loop, injection, condom, male and female sterilization, and other female methods such as the diaphragm, foam tablets and jelly. Traditional methods include male and female periodic abstinence, rhythm and withdrawal. The former category covers those methods which are usually known as 'efficient' methods. The latter category covers the 'inefficient'

5/ *Women refers to female respondents and wives of male respondents.*

6/ *'Others' category includes atheists, those who reported that they belong to religions other than those listed in the questionnaire and the non-responses.*

7/ *That is, all reported ethnic origins other than the Amara, Oromo, Tigre and Gurage.*

methods, with the possible exception of abstinence, which, if carried out for a sufficiently long period of time, can be considered as an effective method. 'Both' refers

Table 4.1.1.1 - Percentage (Weighted) Distribution of Respondents Who Had Heard of Family Planning by Background Characteristics

Background characteristics	Heard of family planning		Total number
	Yes	No	
All groups	86	14	5308
Age			
less than 40	91	9	3169
40 and above	77	23	2139
	χ^2 = 213.263, df=1, S		
Education			
Below grade 7	25	75	526
High school to diploma	91	9	2897
BA/BSc and above	94	6	1885
	χ^2 = 1725.643, df=2, S		
Marital status			
Never married	73	27	933
Ever married	88	12	4375
	χ^2 = 141.301, df=1, S		
Religion			
Orthodox-Christian	84	16	4207
Catholic	95	5	202
Protestant	97	3	388
Muslim	80	20	288
Others	100	0	224
	χ^2 = 115.879, df=4, S		
Ethnic origin			
Amara	84	16	3261
Oromo	84	16	732
Tigre	93	7	860
Gurage	93	7	226
Others	86	14	230
	χ^2 = 62.734, df=4, S		
Work status of women			
Working	97	3	3310
Not working	64	36	1062
	χ^2 = 936.771, df=1, S		
Place of birth			
Town	92	8	3427
Village	74	26	1882
	χ^2 = 315.114, df=1, S		
Place of residence for most of the time until age 12			
Town	93	7	4300
Village	54	46	1008
	χ^2 = 1025.855, df=1, S		

S - Significant at 0.05 level.
df - degree of freedom

to a combination of modern and traditional methods. For instance, some respondents reported that they have heard of the pill and withdrawal. Such responses were categorized as both methods.

Some respondents mentioned the methods of family planning they know of simply as 'contraceptives'. This and other vague responses were categorized as 'Not specified'. Other respondents who wrote down, for instance, the 'pill',etc. were coded as knowing only of modern methods. The incompleteness of such responses might, therefore, lead to an under count of those who know of both modern and traditional methods of contraceptives. However, these cases are few.

As expected, the knowledge of family planning is widespread among the elite. Table 4.1.1.1 shows that 86 percent of the elites have heard of family planning. Over one-third of the respondents who knew of family planning reported that they have heard of at least one modern method and about the same proportion reported knowledge of both modern and traditional methods of contraception (see Table 4.1.1.2). Only about 7 percent of the elites reported that they only had knowledge of one or more traditional methods. Over 15 percent of the respondents reported that they had no knowledge of family planning methods.

Table 4.1.1.2 - Distribution of Respondents by Type of Family Planning Methods Known (Weighted)

Methods	Percentage	Number
Modern	35.2	1868
Traditional	6.7	356
Both modern and traditional	35.6	1891
Not specified	2.8	147
No response	4.2	221
Never heard	15.5	825
T o t a l	100.0	5308

The earlier findings of a very high degree of knowledge of family planning among the elites as a whole and by background characteristics also persist for knowledge of methods (see Table 4.1.1.3). The following section will examine whether the observed pattern holds when background variables were controlled for. However, for the sake of brevity, the discussion will focus mainly on knowledge of family planning methods.

It is apparent from Table 4.1.1.3 that knowledge of both methods (i.e., modern and traditional), and modern methods only, was very high among elites of different social, economic and demographic backgrounds. On the other hand, least knowledge of traditional methods was reported by respondents of all background characteristics. However, the difference in types of method heard of by background variables was not found to be statistically significant except for ethnicity and education.

As mentioned above, least knowledge of traditional methods was reported by all demographic and socio-economic sub-groups of the study population. This could be partly accounted for by the high proportion of those who know of 'both' (modern and traditional) methods.

Although a high proportion of the elite sub-groups reported having heard of family planning, and among these a high level of contraceptive knowledge was observed, variations may exist between the elite sub-groups with varying socio-demographic and economic backgrounds. The following sections will look at the variations in having heard of family planning and in knowledge of family planning methods by selected background characteristics and by elite sub-groups.

Table 4.1.1.3 - Pecentage (Weighted) Distribution of Respondents According to The Family Planning Method They Had Heard About by Background Characteristics

Background characteristics	Family planning method: Ever heard	Never heard	Total number	Type of method heard of: Modern	Tradi-tional	Both	Total number
All groups	84	16	5308	42	42	16	4459
Age							
Less than 40	90	10	3169	44	8	47	2855
40 and above	75	25	2139	48	9	43	1604
	χ^2 = 230.13, df=1, S			χ^2 = 5.665, df=2, NS			
Education							
Below grade 7	25	75	526	39	5	56	131
High school to diploma	90	10	2897	48	11	41	2607
BA/BSc and above	91	9	1885	43	5	52	1721
	χ^2 = 1361.39, df=2, S			χ^2 = 57.419, df=4, S			
Marital status							
Never married	70	30	933	44	4	52	653
Ever married	87	13	4375	46	9	45	3806
	χ^2 = 176.953,df=1, S			χ^2 = 5.199, df=2, NS			
Religion							
Orthodox-Christian	83	17	4206	46	11	44	3449
Catholic	94	6	202	59	-	41	199
Protestant	97	3	388	45	5	50	374
Muslim	79	21	288	41	2	57	226
Others	95	5	224	29	-	71	211
	χ^2 = 99.695, df=4, S						
Ethnic origin							
Amara	83	17	3260	45	11	44	2687
Oromo	84	16	732	48	2	50	609
Tigre	90	10	860	53	5	42	770
Gurage	92	8	226	23	6	72	206
Others	82	18	230	39	12	49	187
	χ^2 = 43.191, df=4, S			χ^2 = 122.674, df=8, S			
Work status of women							
Working	97	3	3310	44	9	47	3211
Non-working	64	36	1062	57	9	34	680
	χ^2 = 774.906, df=1, S			χ^2 = 5.178, df=2, NS			
Place of birth							
Town	91	9	3426	45	8	47	3103
Village	73	27	1882	46	10	44	1356
	χ^2 = 284.516, df=1, S			χ^2 = 5.437, df=2, NS			
Place of residence for most most of the time until age 12							
Town	92	8	4300	46	8	46	3938
Village	53	47	1008	44	10	46	521
	χ^2 = 889.310, df=1, S			χ^2 = 1.192, df=2, NS			

S - Significant at 0.05 level.
NS - Not significant at 0.05 level.
df - degrees of freedom
Note - the chi-square test was not applied when one or more of the cells had less than 5 observations

i) **Age and knowledge of family planning**

Knowledge of family planning is expected to vary inversely with age, i.e. the higher the age the lower the knowledge of family planning (Population Reports, Ser. M. No. 8, 1985). This variation by age may not, however, hold in the case of the elites, mainly because of their exposure to modernizing forces from early ages in schools and later on due to urban living. It is, therefore, difficult to posit a clear cut hypothesis regarding the relationship between knowledge of family planning and age, particularly for the elite group.

Table 4.1.1.1 shows that the percentage of those who have heard of family planning was higher among respondents less than 40 years of age than among those aged 40 and above at the time of the survey. Ninety-one percent of the younger generation had heard of family planning as against seventy-seven percent among the older. This difference was also found to be statistically significant. This shows, even among elites, knowledge of family planning varies inversely with age.

In view of the recency of the introduction of family planning programmes, it is expected that higher knowledge of family planning methods, particularly modern methods, will be found among the younger age groups. Deviations from the expected pattern regarding knowledge of modern methods by age were, however, observed when different background variables were held constant. Data relating to differentials in knowledge of family planning methods by age are presented in annex Table 4.1.1.4. The proportion of respondents who have ever heard of family planning methods was found to be consistently higher for the younger age groups than for those aged 40 years and above, when different background variables were held constant. The pattern was reversed only for university graduates, Catholics, Protestants, and Muslims. The

observed differences in the knowledge of family planning methods by age and by background variables were found to be statistically significant, except for Muslims and those with university education.

The data in annex Table 4.1.1.4 also reveals that the overall finding of higher knowledge of 'both' (i.e. modern and traditional) types of family planning methods among the younger than the older generations also holds even when most background variables were controlled for. The exceptions to this observation were the never-married, Catholics, Muslims, those belonging to the 'Others' religions group, Gurages and working women. For these groups the pattern of variation by age in the knowledge of modern methods of family planning appears to be in the opposite direction (i.e. it increases with age).

A low level of knowledge of traditional family planning method(s) by age was observed for all background variables. This is to be expected among the elite groups as they are more likely to know the effective methods of contraception. Knowledge of traditional methods was, however, observed to be lower among the younger age group, those with education below grade 7, university graduates, never-married, Protestants, Muslims, Tigres, non-working women and those brought up in a village.

Looking at the knowledge of family planning by elite sub-groups and age, it was observed that those aged 40 years and above among the artists, high school teachers, lawyers, senior government officials and university lecturers reported higher knowledge than those belonging to the younger age group. The reverse was observed in the case of Orthodox-Christian and Muslim religious leaders (see Table 4.1.2.2). No variation in knowledge of family planning was observed among medical doctors and the women's group. However, the difference in knowledge of family planning by age is not well

marked within the elite sub-groups except for the Orthodox-Christian and Muslim religious leaders.

ii. Education and knowledge of family planning

It is hypothesized that a person's knowledge of family planning increases with education. This is because educated people can read printed materials on family planning and have easy access to the sources of such materials. A better perception of the costs and benefits of children is also likely to increase with education. Therefore, educated people are more likely to balance the cost and benefit of children and seek information on family planning or be responsive to existing programmes.

The above view is borne out by data presented in Table 4.1.1.1. It is to be noted that only a fourth of respondents with education below grade 7 ever heard of family planning as compared to 91 percent of those with high school to diploma level of education and 94 percent of respondents with degrees. This overall difference was found to be statistically significant.

However, when pair-wise test for differences in having heard of family planning was carried out for the three educational categories, significant differences were observed only between those with education below grade 7 and the other two higher categories independently. No significant difference was observed between those respondents with education ranging from high school to diploma level on the one hand and those with university degrees on the other.

As expected, a positive relationship was observed between education and knowledge of family planning methods (see Table 4.1.1.3). The knowledge of family planning methods increases from 25 percent among the least formally educated

respondents (i.e.,those who have education below grade 7) to 90 percent among the high school graduates and diploma holders, and 92 percent among the university graduates. The overall difference in the knowledge of family planning methods by level of education was found to be statistically significant.

Table 4.1.1.3 also shows the percentage distribution by education of respondents knowing at least one modern or traditional method. Respondents at all levels of education reported less knowledge of traditional than of modern methods. The highest proportion of knowledge of 'both' (i.e., modern and traditional) methods was reported by the least formally educated (56 percent) followed by the university graduates (52 percent). The intermediate position was occupied by high school graduates and diploma holders (41 percent). However, if we consider the knowledge of modern methods only, this is found to be highest among the high school graduates and diploma holders followed by the university graduates and the least formally educated.

The overall finding of a positive relationship between education and knowledge of family planning methods also held when background variables were controlled for (see annex Table 4.1.1.5). The table reveals that knowledge of family planning methods increases consistently with education even when the different background variables were controlled for. Deviations from the general pattern was observed only for Protestants, those belonging to the 'Others' religions group, Oromo and Tigre ethnic groups. Knowledge of modern methods and traditional methods, in most cases, shows an inverted 'U' pattern by education, the highest proportions belonging to those with educational level ranging from high school to diploma. Least knowledge of all methods was observed for those with education less than grade 7 for all background variables, where applicable.

It can also be seen from Table 4.1.2.2 that the proportion of respondents having heard of family planning in each elite sub-group increases with education. The exception to the above observation was senior government officials. However, the difference in the level of knowledge between the two educational levels is marginal.

iii. Marital status and knowledge of family planning

Knowledge of family planning is expected to be higher among the ever-married than the never-married. The ever-married are more exposed to the risk of pregnancy than the never married in a society where births are expected to take place within marriage. Thus the need for family planning is likely to be felt more by the ever-married than the never-married. It is, however, difficult to state that among such groups as the elites, where education and other modernizing forces are high, there would be a significant difference in the knowledge of family planning by marital status.

The respondents were classified into two categories with regard to marital status: never-married and ever-married in view of the small number of cases. The ever-married constituted those who were married, widowed, divorced and separated at the time of the survey.

It was found that 73 percent of the never-married and 88 percent of the ever-married respondents have heard of family planning (Table 4.1.1.1). The difference in the knowledge of family planning between the two categories was found to be statistically significant.

It was hypothesized in the foregoing that knowledge of family planning would be higher among the ever-married than the singles. The same hypothesis is posited

regarding knowledge of family planning methods. This is supported by the data in Table 4.1.1.3 and annex Table 4.1.1.6.

Traditional methods were still found to be the least known methods by the elites when the data were controlled for marital status (see Table 4.1.1.6 in the annex). A fairly high degree of knowledge of 'both' (i.e., modern and traditional) methods and knowledge of modern methods only was reported by elites when investigated by the background variables. Knowledge of 'both' methods was higher among the never-marrieds for all background variables except among those belonging to the 'Others' religions category, Oromos, and working women. Knowledge of modern methods were reported by higher proportions of never marrieds belonging to the younger generation, university graduates, Orthodox-Christians, those belonging to the 'Others' religions category, Amaras and Oromos, working women, the town-born and those who spent their childhood in towns. The differences in knowledge of family planning methods by marital status was found to be statistically significant, when controlled for most of background variables. The only exceptions to the above were respondents with high school to diploma level education and Oromos.

iv. Religion and knowledge of family planning

The Catholic religion teaches that the use of modern family planning methods is sinful (Westoff and Ryder, 1970; Donaldson, 1988). Chang (1974) also claimed that the Orthodox-Christian church has shown resistance to family planning in Ethiopia. Islam, however, does not expressly forbid the use of family planning methods (Chaudhury, 1982). It would be difficult, however, to posit that the stand of the different religions with respect to the use of family planning methods would affect much the knowledge of

family planning of the elites, except possibly for the religious leaders. No *a priori* hypothesis is, therefore, put forward regarding the relation of knowledge of family planning and religion.

The question on religion was precoded as Orthodox, Catholic, Protestant, Muslim, Atheist and Others. For the purpose of the present analysis atheists, other religions and non-responses were merged to form the 'Others' group in view of their small numbers.

Religious groups were observed to vary with regard to their knowledge of family planning. One hundred percent of the respondents categorized as the 'Others' group reported that they had heard of family planning. The corresponding proportions were 97 and 95 percent for Protestants and Catholics, 84 percent for Orthodox-Christians and 80 percent for Muslims respectively (see Table 4.1.1.1). In other words, the knowledge of family planning was higher among the 'Others' religions group while it was lowest among the Orthodox-Christians and Muslims. These differences were found to be statistically significant.

Knowledge of family planning methods was found to be higher among Protestants (97 percent) followed by 'Others' religions group (95 percent), Catholics (94 percent), Orthodox-Christians (83 percent) and Muslims (79 percent) as can be observed from Table 4.1.1.3. This knowledge was also found to be rather high for Protestants, 'Others' religions category and Catholics when almost all background characteristics were held constant (Table 4.1.1.7 in the annex). The knowledge of family planning of the followers of Orthodox-Christian and Islam religions were found to be lower than the rest in most cases.

An attempt was made to examine the effect of religion on the knowledge of family planning by each elite sub-group. Knowledge of family planning was found to be

the least among Orthodox-Christian religious leaders (Table 4.1.2.2). This does not, however, hold for the followers of the Orthodox-Christian faith in the other sub-groups. The knowledge of family planning among Orthodox-Christians, other than religious leaders, however, was observed to be rather high. The influence of religion is possibly dissipated by other factors such as education and modern style of living. On the other hand, the proportion of Muslim religious leaders who had heard of family planning was relatively high (80 percent). The number of Catholics, Protestants, Muslims, and those of the 'Others' religions group by elite sub-groups was found to be too few to merit any discussion.

v) Ethnic origin and knowledge of family planning

In some multi-ethnic countries, there may exist inter-ethnic rivalry that could lead to high fertility (Chaudhury, 1982). This would be particularly true for minority groups who might feel disadvantaged because of their numbers. In such a situation one would expect opposition to family planning on the part of minority ethnic groups. An expression of this opposition may be reflected in the poor practice of family planning. Whether such competition and conflict exists in the Ethiopian context and its implication on fertility is an area for future research. Some ethnic groups might also be more exposed than others to knowledge of family planning because of their proximity to large urban agglomerations, easy access to educational systems and the mass media, availability of health services, among other things.

Among the surveyed group, even if there existed the influence of competition by ethnic origin, it is to be expected that it would be highly diluted by such moderating

factors as education and urbanization. In this exploratory survey, no *a priori* hypothesis is thus posited regarding the influence of ethnic origin on knowledge of family planning.

Table 4.1.1.1 presents data on knowledge of family planning by ethnic background of the respondents. The examination of this data reveals that highest proportion of Tigres and Gurages have heard of family planning followed by the 'Others' category, Oromos and Amaras. About 93 percent of Tigres and Gurages reported that they had heard of family planning. The corresponding proportions among the Oromos and Amaras was 84 percent in each group. The overall difference in knowledge of family planning by ethnic origin was found to be statistically significant. No discernible pattern in the variation in the knowledge of family planning by ethnic origin was, however, evident when the background variables were controlled for (see Table 4.1.1.8 in the annex).

Higher knowledge of 'both' methods and modern methods and lower knowledge of traditional methods still persists when the relation between knowledge of family planning methods and ethnic origin is investigated by controlling for most background variables (see Table 4.1.1.8 of the annex). The exceptions to this observation are the Gurages with least formal education where equal proportions of knowledge of modern and traditional methods were reported.

vi) Work status of women and knowledge of family planning

In this section only currently married couples were considered. Work was defined in the questionnaire to include all activities which earn income aside from household works, such as caring for children, cooking, etc. Male respondents were asked whether

their spouses were working or not while the female respondents were asked to state their occupation at the time of the survey.

Fertility is expected to be lower for women engaged in occupations outside the home than for women working within the home or not working (i.e. rendering domestic chores only), because the former find their work more incompatible with bearing and rearing children than the latter. The higher the role-incompatibility, the lower the fertility and the greater the knowledge and use of contraception. For this study group, it was assumed that education is the main key to employment in productive activities, which also increases the knowledge of family planning. In view of the above and the fact that about 98 percent of the respondents' 'working wives' work outside the home (see Chapter 3), it is hypothesized that working women would have more knowledge of family planning than non-working women.

The finding was in the expected direction as can be seen from data in Table 4.1.1.1. Ninety-seven percent of respondents who have working wives as against sixty-four percent of those who have non-working wives reported that they had heard of family planning. This difference was found to be statistically significant. Similar level and pattern in knowledge of family planning methods by work status of women was also observed (see Table 4.1.1.3). The overall finding of inverse relationship between work status and knowledge of family planning methods also holds even when each of the selected background variables were controlled for (see Table 4.1.1.9 in the annex). The data in the table reveals that the differences were statistically significant in most cases.

The data in Table 4.1.2.2 does not, however, support the above hypothesis for all elite sub-groups for which percentage distributions were computed. The proportion of elites with non-working wives who had heard of family planning was found to be

higher than those with working wives for artists, Orthodox-Christian religious leaders and senior government officials. For the remaining sub-groups the proportion of those who had heard of family planning was higher among those with working than the non-working wives.

vii) Place of birth and knowledge of family planning

It is not clear, at this point, whether place of birth alone could contribute in determining the fertility behaviour of elites, irrespective of the setting where they spent most of their formative years. The latter point will be investigated in the following section. It is not, therefore, possible to posit a clear cut hypothesis with respect to place of birth and knowledge of family planning.

About 92 percent of those born in a town reported that they had heard of family planning as against 74 percent of those born in a village (Table 4.1.1.1). This difference was also found to be statistically significant.

The difference in the knowledge of family planning methods between those who were born in a town and in a village also showed similar pattern as the above (Table 4.1.1.3). The level of knowledge of family planning methods was found to be consistently higher among those who were born in a town than those born in a village, at every level of age, education, marital status and work status of women. The exceptions are followers of the Catholic and Protestant religions, those belonging to Gurage ethnic group and those who were brought up in a town. No variations by place of birth were reported by Tigres. The differences observed in the knowledge of family planning methods between the town-born and village-born among different background

variables were found to be statistically significant, where applicable, except for the Gurage and 'Others' ethnic group (see Table 4.1.1.10 in the annex).

The data in Table 4.1.2.2 shows that, except in the case of religious leaders, a higher proportion of village-born respondents among the elite sub-groups reported that they had heard of family planning than the town-born respondents. No variation in knowledge of family planning method by place of birth was reported among medical doctors and the women's group.

viii) Place of residence for most of the time until age 12 and knowledge of family planning

The effect of early socialization on knowledge of family planning was also indirectly assessed in this study. This was measured in terms of where most time was spent until the age of 12. If a person spends most of his/her early life in urban areas, he/she is likely to inculcate more urban modern values, while a person who spends most of his/her life in a rural setting is likely to inculcate more traditional rural values. It is, therefore, expected that the former is more likely to know of family planning than the latter. This is also supported by the data.

Ninety three percent of those who were brought up in an urban setting reported that they had heard of family planning as against 54 percent of those who were brought up in a rural setting (Table 4.1.1.1). This difference was found to be statistically significant. Knowledge of family planning methods was also higher for those brought up in town than for those brought up in village. The differences were statistically significant (Table 4.1.1.3). This observed difference in level of knowledge of family planning methods was found to persist even when most of the background variables were held

constant (see annex Table 4.1.1.11). The differences were also found to be statistically significant, where applicable, with the exception of those belonging to 'Others' religions group.

Knowledge of family planning was found to be higher among the town-born in the case of high school teachers and religious leaders (Table 4.1.2.2). The reverse pattern was observed for senior government officials and university lecturers. The difference in the proportion of those who reported knowledge of family planning by place of childhood residence was, however, found to be wide only among the religious leaders.

4.1.2- The Variations in Knowledge of Family Planning by Elite Sub-groups

It was observed earlier that 86 percent (weighted) of the respondents reported that they had heard of family planning. Knowledge of family planning could, therefore, be said to be fairly high, as is to be expected, among the elites.

The proportion of those who had heard of family planning, however, differed from one elite sub-group to another (see Table 4.1.2.1). The highest knowledge of family planning was observed among medical doctors and the women's group (100 percent, in each), followed by senior government officials (98 percent) and university lecturers (96 percent). Next in the ranking were lawyers, artists, high school teachers and Muslim religious leaders (95, 91, 87 and 80 percent respectively). The least knowledge was observed among the Orthodox-Christian religious leaders (24 percent).

Table 4.1.2.1 Percentage Distribution of Respondents Who Have Heard of Family Planning by Elite Sub-groups

Elite sub-groups	Heard of family planning		Total Number
	Yes	No	
Artists	91	9	53
High school teachers	87	13	248
Lawyers	95	5	64
Medical doctors	100	-	70
Religious leaders			
- Orthodox	24	76	99
- Muslim	80	20	86
Senior government officials	98	2	110
University lecturers	96	4	191
Women's group	100	-	121

It is not surprising that all medical doctors were knowledgeable about family planning since the profession requires them to be. However, the hundred percent positive response among the elite women and the glaring disparity in the knowledge of family planning between Muslim and Orthodox-Christian religious leaders calls for explanation.

Some elite women were approached to find out if they could shed some light on the possible reason(s) for their higher knowledge of family planning. Aside from the expected sources of knowledge, such as schools and reading materials, it was learnt that *Mahibers*8/ are an important source of knowledge of family planning. In *Mahibers*, women share their knowledge and experiences on such topics as the effectiveness of contraceptives, the latest developments in family planning methods, and other matters which are usually thought to be too private to talk about in public. *Mahibers*, therefore, provide an important source of diffusion of knowledge of family planning among elite women.

8/*Mahibers - are associations usually with no more than 20 members, mostly organized by peers who have attended the same school; or those who live in the same neighbourhood; or for other reasons which would somehow bind them together. The frequency of the meeting of most Mahibers range from twice a month to once every three months. Membership is usually limited to the same sex.*

Four-fifths of Muslim religious leaders as against only one-quarter of Orthodox-Christian religious leaders were observed to have heard of family planning. This could be due to the fact that the former are engaged in diversified occupations such as business, teaching, practicing law, etc., as a source of living and their participation in religious activities is only on part-time basis while for the latter the religious activities are their main occupation. As a result, the former are more likely to be exposed to modern ideas such as family planning than the latter. Moreover, the Ethiopian Orthodox Church has shown some resistance towards family planning in the past (Chang, 1974). On the other hand, Islam does not expressly forbid the voluntary use of contraception. It is, therefore, not surprising to find Orthodox-Christian religious leaders, having the lowest knowledge of family planning among the elite sub-groups.

Table 4.1.2.2 Percentage Distribution of Respondents Who Had Heard of Family Planning by Elite Sub-groups and Background Characteristics

	Age		Education			Marital status		Religion				
	Less than 40	40 and above	Below grade 7	High school to diploma	BA/BSc and above	Never married	Ever married	Orthodox-Christian	Protestant	Catholic	Muslim	Others
Artists	87	96	-	85	96	83	94	93	*	*	*	*
High school teachers	86	88	-	83	91	65	95	86	90	96	69	100
Lawyers	92	94	-	*	95	94	97	93	*	-	*	*
Medical doctors	100	100	-	-	100	100	100	100	100	*	*	*
Religious leaders												
- Orthodox-Christian	41	18	22	35	-	*	24	24	-	-	-	-
- Muslim	93	74	60	100	100	*	79	-	-	-	80	-
Senior government officials	96	99	-	100	98	92	99	98	100	*	*	*
University lecturers	94	99	-	-	96	91	99	95	100	*	*	100
Women group	100	100	-	-	100	*	100	100	*	*	*	*

Table 4.1.2.2 (Cont'd.)

	Ethnic origin					Work status of wife		Place of birth		Place of Childhood residence	
	Amara	Oromo	Tigre	Gurage	Others	Working	Not Working	Town	Village	Town	Village
Artists	91	*	*	*	*	90	100	91	*	90	*
High school teachers	89	74	92	*	87	98	91	86	89	88	81
Lawyers	93	100	*	*	-	91	*	94	100	95	*
Medical doctors	100	100	*	*	*	100	*	100	100	100	*
Religious leaders											
- Orthodox-Christian	25	*	*	-	*	23	26	31	23	53	18
- Muslim	100	72	*	76	73	87	75	87	73	87	61
Senior government officials	100	100	95	*	*	99	100	97	100	98	100
University lecturers	95	96	94	*	100	100	94	93	100	95	100
Women group	100	100	100	*	*	100	*	100	100	100	*

* indicates that percentage was not calculated, because base was less than 10 cases.

Summary

This section examined the knowledge of family planning of the elite sub-group by selected background characteristics.

1. Knowledge of family planning was found to be widespread among elites. Eighty-six percent of all respondents reported that they had heard of family planning. Knowledge of methods, particularly of modern methods, was also found to be high.

2. Variations in knowledge of family planning were observed by background characteristics and by elite sub-groups. Age was found to be inversely related to knowledge while education was most closely related to knowledge of family planning. However, among the elite sub-groups, the least knowledge of family planning by education was reported by Orthodox-Christian religious leaders. Knowledge of modern and 'both' (i.e. modern and traditional) methods was reported by the great majority of respondents even when background variables were held constant.

3. Higher knowledge of family planning and of methods was also observed for the ever-married, working women, the town-born and those brought-up in a towns even after taking account of the effects of background variables.

4. Knowledge of family planning was found to be highest for Protestants, among the 'Others' religions category and Catholics even when controlled for most background variables. The knowledge of family planning among the followers of Orthodox-Christian and Islam religions was found to be much lower than among other religions. Knowledge of family planning was found to be least among Orthodox-Christian religious leaders. This does not, however, hold for followers of the Orthodox-Christian faith in other elite sub-groups.

5. About 93 percent of Tigres and Gurages had heard of family planning. The corresponding proportion among the Oromos and Amaras was 84 percent in each case. Higher knowledge of 'both' methods and modern methods and lower knowledge of traditional methods still persists when the relation between knowledge of family planning methods and ethnic origin is investigated even when most background variables were controlled for. The exceptions to this observation are the Gurages with least formal education (i.e., those with education below grade 7) where equal proportions of knowledge of modern and traditional methods was reported.

6. Ninety-seven percent of respondents who have working wives as against sixty-four percent who have non-working wives reported that they had heard of family planning and had knowledge of family planning methods. This difference holds even when allowance was made for background variables.

4.2 - Response to the Question "What do you mean by family planning?"

Respondents who reported that they had heard of family planning were further questioned to define what they meant by family planning. This was done primarily to ascertain the accuracy of their knowledge.

It is interesting to note how the elites interpreted the concept of family planning. Coding of the responses was based on the following most often repeated descriptions of the term family planning:

- avoiding or delaying pregnancy
- limiting family size for various reasons
- spacing of births
- planning of family size
- determining when and how many children to have
- don't know

Some described family planning in terms of one of the above listed themes, while others attempted to use a combination of two or more of the above. The distribution of the responses is given in Table 4.2.1.

Table 4.2.1 - Percentage (Weighted) Distribution of Elites' Interpretation of 'Family Planning'

Interpretation of family planning	Percent	Total number
Avoiding or delaying pregnancy	6.3	284
Limiting family size	39.9	1821
Spacing of births	21.4	975
Spacing of births and limiting family size	11.9	545
Planning family size	12.4	570
Don't know	1.6	73
No response	6.5	297
T o t a l	100.0	4565

The largest proportion of respondents view family planning as a means of limiting family size (39.9 percent). This was followed by those who look at it as spacing of births (21.4 percent). A little more than a tenth of respondents (11.9 percent) perceived family planning as a combination of both limiting family size and spacing of births. To about 12 percent of the respondents family planning meant planning the size of a family.

Most of the interpretations of family planning given by the respondents tend to circle around limiting the number of births by using some kind of contraception. The perception of most respondents about family planning is in concordance with the worldwide outlook at it as a means to prevent births when family size is complete rather than to space births (Population Reports, Ser. M, No. 8, 1985).

Table 4.2.2 - Percentage Distribution of Elites' Interpretation of 'Family Planning' by Sub-groups.

Elite sub-groups	Avoiding and/or delaying pregnancy	Limiting family size	Spacing of births	Limiting and spacing births	Planning family size	Don't know	No response	Total number
Artists	4	33	16	21	15	-	11	48
High school teachers	6	49	10	9	15	1	10	216
Lawyers	5	48	15	21	8	-	3	61
Medical doctors	6	14	30	24	17	3	6	70
Religious leaders								
- Orthodox-Christian	-	34	42	12	-	-	12	24
- Muslim	3	43	26	14	6	1	7	69
Senior government officials	4	30	26	19	16	1	4	108
University lecturers	3	30	16	22	21	-	8	183
Women's group	9	33	32	13	9	1	3	121
T o t a l								900

Note - Percentage add up to 100 row-wise

Pressat (1985:78), however, define family planning as a conscious effort of couples or individuals to control the number and spacing of births. As Table 4.2.1 indicates, only 12.0 percent of the respondents appear to interpret family planning along these lines.

Table 4.2.2 examines the variation in interpretations of family planning by elite sub-groups. It may be observed that 'limiting family size' was the single most important interpretation of family planning to each of the elite sub-group except for medical doctors and Orthodox-Christian religious leaders. The most important interpretation of family planning to them was spacing of births.

The reasons given for the need to limit family size or spacing of births range from economic concern to health of mothers. Some of the representative responses to the question 'What do you mean by family planning?' as given by the respondents themselves are given below.

- It refers to the various ways and methods that a couple can use to avoid or delay or control a pregnancy or number of children.
- Producing children at a rate the family can afford to bear and bring up properly. To bear means a mother can bear a child without endangering her health and beauty. Afford means without over burdening the economic resources of the family and depriving child of the due care that 20th century permits him/her to have.
- Family planning means limiting the number of children a family should have by using various means of contraceptives.
- To live according to one's income with appropriate saving for every eventualities.
- Giving birth to children in accordance with the income earned i.e. having a family which can be taken care of properly - well fed, educated ...rather than having more children stricken with poverty, destituteness, underfed.
- That a family should have only as many children as it can reasonably supply for the necessities of life, education, medical care, etc.
- Determination of the size of a family based on income, dwelling and availability of social services.
- Giving birth to children depending on the economy of the parents in bringing up their children. If a person is rich enough, it wouldn't matter if he gives birth to children as far as 15 or more. If he, however, is poor he shouldn't have even a child since he can't take care of the child.

- To have much fun in your family life. Not more than 3 children. Save money. Lead a comfortable life.

- Family planning is a means of determining the number of children that a family can afford to have based on one's financial and social standing and government regulation where applicable.

- Limiting the size of one's family on the basis of its income (individual family concern). Limiting the size of a population on the basis of its resources (nation at large).

- It means deciding on the size of your family - more specifically it means limiting the number of children one ought to have depending on several factors i.e. cultural, educational, social, economical, etc.

- Family planning is the method which helps to have limited members, especially of children, in a family to ensure the proper upbringing and sound living condition with the financial or economic resources available.

- Limiting the size or number of children to the extent that it is economically manageable.

- Limiting the number of children, with expert advice, so that it is compatible with the income of the family.

- Planning birth according to ones income and avoiding undesired births using conventional birth control methods.

- Spacing the birth of children and thereby helping parents especially mothers, have the number of children they can adequately care for their social and psychological needs.

- Child spacing and deciding upon ideal number of children a couple should have.

- Enabling, people to give as few births as possible and with appreciable time gap between births and also to avoid or alleviate infertility problems of both sexes.

- Spacing birth or limiting number of children on the basis of ones economic capability to bring them up with sufficient provision for spiritual, material and physical growth and development.

- Spacing child birth to control high population growth of the country.

- Having children in such number and frequency as not to over burden one's family's finances.

- It means having the number of children which you could support adequately and spacing between children so that you can give them the attention they need.

- Regulating the frequency of births and the total number of children that is compatible with the health of the mother and the economic status of the family.

- It is a way of delaying or preventing pregnancy and helps in guiding, teaching and the way of spacing children to a family.

- It is, I believe, a mechanism by which a couple could receive *a priori* information on the size and spacing of births and apply it in order to avoid any complication that could arise on budgeting and raising children.

- Planning for an ideal number of children I wish to have considering my income, house, health of my wife, health and welfare (including education) of my children, and the present economic and social status of my country. Age intervals between children is also part of family planning.

- Having a specified number of children properly spaced according to a plan using appropriate methods to control pregnancy.

- Effort to have only desirable number of children.

- Deciding the number of daughters and sons that you will have in your family.

- Determining the size of a family (mainly number of children to be had) ahead according to the economic status of an individual and the nation at large.

- Planning on how many children to have; on the ideal spacing between births; on the use of contraceptives; on the ideal relationship between parents, and parents and children.

- Adequately spaced births; planned births so as to allow the parents to get engaged in productive activities; limitation on the size of children so as to fit the families economic and other social adequacies.

- Determining when and how many children to have.

4.3 - Use of Family Planning Methods

Thus far elites' knowledge of family planning, knowledge of contraceptive methods and their interpretation of family planning was considered. This section will attempt to investigate the levels of use of family planning methods among elites by social, economic and demographic variables. Attempt will also be made to identify the elite sub-groups who have the highest and lowest levels of use.

Use of contraceptives is the intermediate variable primarily responsible for limiting the size of a family or spacing of birth. Knowledge is, however, expected to precede use of family planning methods. As the elite sub-groups covered in this study demonstrated widespread knowledge of contraceptive methods, as was observed in the foregoing sections, it is expected that their use of methods would also be high. For the purpose of this study, family planning method or contraception is defined as any deliberate practice, including sterilization, undertaken to reduce the risk of conception.

As in the previous chapter, responses to use of methods have also been categorized here into modern and traditional methods. Modern methods, in this report, include pill, IUD, injection, female methods such as the diaphragm, foam and jelly, condom, and male and female sterilization. Traditional methods comprise male and female periodic abstinence, rhythm and withdrawal. Some respondents reported that they have used methods such as the condom and rhythm simultaneously. Such combinations of modern and traditional methods have been grouped as 'both' methods.

Information on ever-use of contraception was processed only for ever-married respondents who reported that they had heard of family planning methods. Those who had heard of the methods were queried as to whether they had ever-used family planning

methods. Respondents were then asked to name the methods that they had last used to delay or prevent pregnancy.

The analysis of current use of family planning methods has been restricted to respondents or their spouses who would be considered to be at risk of conception in the absence of contraception. Female respondents and the male respondents' wives who were pregnant at the time of the survey were excluded from the analysis. In other words, the analysis of current use was focused on 'exposed' couples and excluded single, widowed, divorced and separated respondents. Also excluded were those who reported they or their spouses were not physically capable of having children for reasons other than sterilization for contraceptive purposes.

To identify current use the question posed was "Are you or your spouse currently using any method to prevent or delay a pregnancy?". If the response to this question was affirmative, then respondents were asked to mention the name of the method currently being used. The following contraceptive methods were listed from which the respondents were asked to identify the method they were using at the time of the survey: pill, IUD, injections, condom, diaphragm/foam/jelly, sterilization, male periodic abstinence, female periodic abstinence, rhythm or withdrawal. Respondents were requested to specify the method they were using if it was other than the ones listed above.

The distribution of current users of contraception by method is provided in Table 4.3.1.1. The pill was the most commonly used method among current users. The next most commonly used modern method being an IUD, followed by condoms and sterilization. Among the traditional methods the most popular method was the rhythm followed by periodic abstinence and withdrawal.

Table 4.3.1.1 - Percentage (Weighted) Distribution of Currently Married Respondents Currently Using Contraception by Method

Method	Percentage	Number
Pill	26.6	712
IUD	17.7	474
Injections	0.0	1
Condom	10.1	272
Diaphragm/Foam/Jelly	3.5	95
Sterilization	6.0	160
Periodic abstinence (Male and Female)	13.3	357
Rhythm	13.4	359
Withdrawal	9.4	251
Total	100.0	2681

4.3.1 - Use of Family Planning Methods by Background Characteristics

a) Ever use

For the purpose of the present study ever married respondents were dichotomized into ever-users and never-users of family planning methods. The ever-users were further classified by the type of methods last used, which were categorized as modern, traditional and both methods. Weighted percentage distributions were then computed by controlling for the selected background characteristics.

Survey findings confirm a widespread use of family planning methods among ever-married elites. About two-thirds of these respondents had used family planning methods (Table 4.3.1.2). Out of the ever-users of contraceptives, 68 percent had used modern methods followed by 30 percent who had used traditional methods and 2 percent who

had used both types of methods simultaneously. Variations in the ever-use of family planning methods was, however, observed by background characteristics as noted below.

It may be observed from Table 4.3.1.2 that ever-use of family planning was highest among the younger age group (those aged below 40), the better educated, those belonging to Protestant religion followed by Catholics, Tigres and the 'Others' ethnic group, working women, those born in a town, those who were brought up in a town and those with three to four parity. These variations were found to be statistically significant.

Ever-use of modern methods was highest for the older age group, those with educational levels ranging from high school to diploma level, Muslims followed by Catholics and Protestants, those belonging to the 'Others' and Oromo ethnic groups, working women, the village-born, those who spent most of their childhood in villages and respondents with three to four children ever born to them (see Table 4.3.1.2). The variations in the ever-use of efficient methods was also observed to be statistically significant as shown in the table. Those who reported that they have used 'both' methods were excluded from the statistical test because of the small number of cases per cell.

The proportion of ever-users of modern methods ranges from 60 percent among the least formally educated (i.e. below grade 7) to 92 percent among the 'Other' ethnic group (Table 4.3.1.2). About one-third of all eligible respondents reported that they had ever-used traditional methods. This, however, ranges from a low of 7 percent among the 'Other' ethnic group to 40 percent among those with the lowest formal education.

Table 4.3.1.2 - Percentage (Weighted) Distribution of Respondents Who Had Ever-used a Family Planning Method by Background Characteristics

Background characteristics	Family planning method			Type of method last used			
	Ever used	Never used	Total Number	Modern	Tradi-tional	Both	Total number
All groups	67	33	4357	68	30	2	2933
Age							
Less than 40	76	24	2453	66	31	3	1860
40 and above	56	44	1904	71	28	1	1073
	χ^2 = 184.707, df=1, S			χ^2 = 4.243, df=1, S			
Education							
Below grade 7	5	95	485	60	40	-	24
High school to diploma	72	28	2576	71	27	2	1864
BA/BSc and above	81	19	1296	63	34	3	1045
	χ^2 = 991.709, df=2, S			χ^2 = 16.398, df=2, S			
Religion							
Orthodox-Christian	66	34	3499	65	33	2	2312
Catholic	72	28	161	84	15	1	116
Protestant	77	23	294	82	18	-	226
Muslim	68	32	247	86	12	2	168
Others	71	29	156	61	38	1	111
	χ^2 = 17.384, df=4, S			χ^2 = 65.794, df=4, S			
Ethnic group							
Amara	64	36	2765	61	36	3	1768
Oromo	71	29	575	84	15	1	407
Tigre	75	25	685	74	25	1	514
Gurage	73	27	184	71	28	2	134
Others	74	26	148	92	7	1	111
	χ^2 = 42.606, df=4, S			χ^2 = 111.065, df=4, S			
Work status of women							
Working	77	23	3164	71	28	1	2438
Non-working	45	55	1062	68	30	2	475
	χ^2 = 389.169, df=1, S			χ^2 = 1.236, df=1, NS			
Place of birth							
Town	73	27	2849	64	33	3	2069
Village	57	43	1508	77	22	1	864
	χ^2 = 105.294, df=1, S			χ^2= 37.902, df=1, S			
Place of residence for most of the time until age 12							
Town	74	26	3597	67	30	2	2666
Village	35	65	760	75	24	-	267
	χ^2 = 433.442, df=1, S			χ^2= 5.037, df=1, S			
Parity							
0 to 2	66	34	1521	63	37	1	1006
3 to 4	78	22	1596	72	24	4	1251
5 and above	55	45	1239	69	30	-	676
	χ^2 = 181.485, df=2, S			χ^2= 37.864, df=2, S			

S - Significant at 0.05 level
NS - Not significant at 0.05 level
df - degrees of freedom

b) Current use

Out of the total exposed couples, 60 percent were using a method of contraception at the time of the survey (Table 4.3.1.3). As can be seen in the table, 69 percent of these were using modern method, 27 percent were using traditional methods and only 4 percent were using both modern and traditional methods.

Differentials in current use by selected background characteristics are also summarized in the table. As with ever-use, educational level was positively associated with current use while age and current use were negatively associated. Those belonging to the 'Others' religions affiliations had the highest proportion of current users followed by Protestants, Orthodox-Christians, Catholics and Muslims. Current use by ethnic origin was highest among the 'Others' ethnic origins category followed by Tigres, Oromos, Gurages and Amaras. Again as with ever-use, the highest proportions of current use were observed for working women, the town-born, those who spent most of the time until age 12 in towns and respondents with three to four children. The differentials in current use by the above listed background variables were found to be statistically significant.

In the foregoing, it was observed that ever-use and current use of family planning methods varied in the same direction. The pattern of contraceptive use by type of method were also similar for ever and current users. Further investigation will follow to examine whether the observed overall pattern holds even when background variables were controlled for. For the sake of brevity, the following discussions will concentrate more on current use than on ever-use. It could be observed from Tables 4.3.1.2 and

4.3.1.3 that only a small minority had reported use of 'both' methods of family planning. Statistical tests therefore, excluded the 'both' methods category in this section.

Table 4.3.1.3 - Percentage (Weighted) Distribution of Respondents Who are Currently Using Family Planning Methods by Background Characteristics

Background characteristics	Currently using method			Type of method used			
	Yes	No	Total Number	Modern	Tradi-tional	Both	Total number
All groups	60	40	3937	69	27	4	2383
Age							
Less than 40	69	31	2230	66	28	6	1530
40 and above	50	50	1707	73	24	2	853
	χ^2 = 141.525, df=1, S			χ^2 = 7.422, df=1, S			
Education							
Below grade 7	5	95	455	68	32	-	22
High school to diploma	66	34	2354	72	22	6	1542
BA/BSc and above	73	27	1128	62	36	3	819
	χ^2 = 683.224, df=2, S			χ^2 = 45.188, df=2, S			
Religion							
Orthodox-Christian	59	41	3171	66	30	5	1888
Catholics	58	42	141	98	-	2	83
Protestants	70	30	263	67	24	8	182
Muslims	58	42	219	84	12	5	125
Others	73	27	143	76	24	-	105
	χ^2 = 20.721, df=4, S			χ^2 = 54.094, df=4, S			
Ethnic group							
Amara	57	43	2513	60	33	7	1431
Oromo	66	34	500	88	12	1	332
Tigre	67	33	627	73	26	-	422
Gurage	65	35	155	90	7	2	100
Others	69	31	142	90	6	4	98
	χ^2 = 38.102, df=4, S			χ^2 = 119.457, df=4 S			
Work status of women							
Working	69	31	2901	69	26	5	1995
Non-working	37	63	1036	65	34	2	388
	χ^2 = 314.288, df=1, S			χ^2 = 7.744, df=1, S			
Place of birth							
Town	65	35	2509	63	31	6	1634
Village	52	48	1428	81	17	2	749
	χ^2 = 61.191, df=1, S			χ^2 = 62.009, df=1, S			
Place of residence for most of the time until age 12							
Town	67	33	3229	68	27	5	2158
Village	32	68	708	71	23	5	225
	χ^2 = 297.176, df=1, S			χ^2 = 1.665, df=1, NS			
Parity							
0 to 2	57	43	1253	61	35	4	709
3 to 4	74	26	1490	72	23	5	1108
5 and above	47	53	1194	71	24	5	566
	χ^2 = 209.064, df=2, S			χ^2 = 31.108, df=2, S			

S - Significant at 0.05 level
NS - Not significant at 0.05 level
df - degrees of freedom

i) Use of contraceptives and age

Three-fourths of the ever-married respondents aged less than 40 reported ever-use of contraceptive methods as compared to a little more than one-half of those aged 40 and above (Table 4.3.1.2). This difference was found to be statistically significant.

A majority of two-thirds of each age group reported ever-use of modern methods of contraception, followed by ever-use of traditional methods by about one-third and lastly, about 3 percent of the younger and 1 percent of the older age-groups reported use of 'both' methods.

The incidence of current exposure to family planning methods was also found to be higher among respondents in the younger age group than those in the older age group. Table 4.3.1.3 shows that a little more than two-thirds of respondents in the younger age group reported that they or their spouses were currently using contraceptive methods compared to a little less than half of those belonging to the older age group. This difference was found to be statistically significant.

The highest proportion of current use of contraceptive methods was reported by the younger age group among most of the elite sub-groups (Table 4.3.2.3.). An inverse relationship between current use and age was observed among artists, high school teachers, lawyers, medical doctors, Orthodox-Christians religious leaders and the women's group. This pattern was reversed among Muslim religious leaders, senior government officials and university lecturers.

The current use of family planning methods was found to be consistently higher for the younger age group than for the older age group even when most of the background variables were held constant (see Table 4.3.1.4 in the annex). These differences were found to be statistically significant, with the exception of Muslims. A

reverse in the general pattern of current use of methods by age was observed for Protestants, 'Others' religions group and Oromos. The difference, in these cases, was, however, not found to be statistically significant.

A majority of current users belonging to both age groups reported use of modern methods rather than the traditional methods or a combination of both methods. The proportion of current users of modern methods was, however, larger for the older age group (73 percent) than the younger age group (66 percent) while a slightly higher proportion of those aged below 40 used the traditional methods than those aged 40 and above (Table 4.3.1.3). These differences were found to be statistically significant.

This pattern of current use of modern methods of contraception by age holds for almost all background variables except for Catholics, Protestants, Muslims, all ethnic groups excluding Amaras and higher parity respondents (see Annex Table 4.3.1.4). For these groups, the current use of modern methods of contraceptive was higher among the younger age groups than the older age groups. As expected where use of modern methods was high, use of traditional methods was found to be low and vice versa. The differences in the use of modern and traditional methods by age was found to be statistically significant when most of the background variables were held constant, except for Muslims, Gurages, non-working women, town-born respondents, those whose place of childhood was a village and those with three or four children ever born to them.

An interpretation of the finding of relatively greater use of contraception among the higher age group could be that at higher ages couples are under more pressure to practice efficient family planning methods to avoid the chance of accidental pregnancy because they have either achieved their desired family size or are very close to achieving it.

ii) **Use of contraceptives and education**

Most research findings indicate that the better educated use contraception more frequently and more efficiently. This was also supported by data in Tables 4.3.1.2 and 4.3.1.3 which show that ever-use and current use of contraceptives increase with the level of education. The proportions of ever-users and current users were lowest for the least educated as compared to the intermediate and the most educated respondents. The overall differences and pair wise differences between the least educated and each of the other two categories of education were found to be statistically significant.

As with ever use, it may be observed that, among those currently using contraceptives irrespective of their level of education, a large proportion used modern methods as opposed to traditional methods. Use of a combination of 'both' methods was reported by only a handful of respondents. The overall and pair-wise differences in the type of method used were found to be statistically significant (Tables 4.3.1.2 and 4.3.1.3).

Current use of contraceptives was found to increase consistently with an increase in the level of education of respondents within each of the background variables (Table 4.3.1.5 of the annex). The exceptions to this pattern were observed for Catholics, Protestants, and Tigres. The increases in current use were very large between those with education below grade 7 and those with educational achievement ranging between high school to diploma level, while the increase between the latter and the university graduates was not so large. Pair-wise statistical tests also support this observation.

No uniform pattern in the relation between current use of contraceptives and level of education was observed among the elite sub-groups (Table 4.3.2.3.). Among artists and the women's group current use appears to decrease slightly with level of education

while it increases among high level teachers, religious leaders and senior government officials.

Consistent with the earlier findings, modern methods of contraception show the highest use, followed by traditional methods, at each level of education (Tables 4.3.1.2 and 4.3.1.3). The use of modern methods, however, follows an inverted 'U' pattern as education increases, but this was found to hold only in the case of the younger age group, followers of the Orthodox-Christian faith, the village-born and those with highest (5 and above) parity (Annex Table 4.3.1.5). Current use of modern contraceptive methods appears to vary inversely with the level of education for the older age group, Muslims, 'Others' religions group, all ethnic groups, working and non-working women, those born in towns, those brought up in towns or villages and respondents with less than five children. A positive association between current use of modern methods and education was observed only for Protestants. It is interesting to see that, with the exception of Protestants, a higher proportion of current use of modern methods was reported by respondents with high school to diploma level education than by university graduates even when all background variables were held constant. The reason(s) for the occurrence of this phenomenon is an area for future investigation. The above observed overall and pair-wise differences in the current use of modern and traditional methods were found to be statistically significant as determined by the chi-squared test. For reasons mentioned earlier, the percentage distribution of "both" methods was not included in the statistical test.

iii) Use of contraceptives and religion

It was mentioned earlier that the Catholic and the Orthodox-Christian religions frown upon any use of contraceptive methods. It was, therefore, expected that use of contraceptives would be low among the followers of these two religions.

It was found that Protestants (77 percent) reported greatest ever-use of contraceptives followed by Catholics (72 percent) then by the 'Others' religions group (71 percent) and Muslims (68 percent) (Table 4.3.1.2). The lowest level of ever-use of contraception was reported by Orthodox-Christians (66 percent). The overall differences in ever-use were found to be statistically significant. The finding supports the earlier contention that the largest of the religious groups, i.e. the Orthodox-Christians would have the lowest ever-use of contraception while the high level of ever-use among Catholics was contrary to the expectation.

Highest current use of contraceptive methods was reported by the 'Others' religions group (73 percent) followed by Protestants (70 percent). Next in the ranking were Orthodox-Christians (59 percent). Equal and lowest proportion of current use was reported by Catholics and Muslims (58 percent respectively). Here also the differences in current use by religion were found to be statistically significant.

The current use of contraceptive methods was highest among the 'Others' religions group followed by Protestants in the entire sample (Table 4.3.1.3) while this was not found to be uniformly highest in all sub-groups of the population (Table 4.3.1.6 in the annex). The highest position of the 'Others' religions group was observed only among the older age group, university graduates, Oromo and Tigre ethnic groups, the town-born respondents and those who lived until the age of 12 in town and respondents with parities below four. The lowest ranking were those with high school to diploma

level education, those belonging to the 'Others' ethnic group and those who reported parities of 5 and above. Similarly, the current use of contraception among the Catholics and Muslims was not found to be lowest in all sub-groups of the population. These variations were found to be statistically significant for all background variables, except for the younger age group.

However, the overall finding of higher current use of modern methods of contraceptive among respondents of all religious affiliations holds even when background variables were controlled for (Table 4.3.1.6 in the annex). Consistent with the overall findings it was also found to be lowest among the Orthodox-Christians and Protestants religion groups, while it was highest among Catholics. These differences in the current use of contraception among religion groups were found to be statistically significant where applicable. It is also to be noted that a majority of the respondents, irrespective of their religious affiliation, are currently using modern contraceptive methods.

iv) Use of contraceptives and ethnic origin

For reasons given in the previous section, no *a priori* hypothesis is posited regarding relation between ethnic origin and use of contraceptives. The Tigres reported greater ever-use of family planning methods (75 percent) than respondents of other ethnic origins (Table 4.3.1.2). This was followed by the 'Others' ethnic group, Gurages and Oromos, whose percentage distribution was 74, 73 and 71 percent, respectively. Least use of contraceptives was reported by respondents of the Amara ethnic origin (64 percent).

Highest current use of contraceptives was, however, reported by respondents belonging to ethnic origins categorized as 'Others' followed by Tigres, Oromos, Gurages

and Amaras (Table 4.3.1.3). No clear pattern of differences in the current use of family planning methods by ethnic origin has, however, emerged when the different background variables were held constant. For example, current use of contraceptives was not found to be consistently highest by all background variables for respondents belonging to the 'Others' ethnic origin category (Table 4.3.1.7 in the annex). The highest position of current use for the 'Others' ethnic group was observed only among university graduates, Catholics, Muslims, working women and those whose place of childhood was a village, while they ranked lowest among Orthodox-Christians, the 'Others' religions group and those brought up in a towns. However, current use was least among Amaras by most background variables. These differences were found to be statistically significant, where applicable, as determined by the chi-square test. The exceptions to the above were those with high school education and diploma holders.

The overall finding of higher current use of modern methods of contraception among respondents of all ethnic origins hold even when background variables were controlled for (see Table 4.3.1.7in the annex). The above overall findings regarding the use of modern methods observed in Table 4.3.1.3were not found to be consistent when all the background variables were controlled for. However, respondents of 'Others' and Gurage ethnic origin reported highest current use of contraceptives when most of the background variables were held constant. On the other hand, Amaras followed by Tigres reported least use of modern contraceptive methods.

v) Use of contraceptives and work status of women

Use of contraceptives is generally positively associated with the work status of women. Thus it was expected that a higher proportion of working women would have

used family planning methods than non-working women. This is also supported by data in Tables 4.3.1.2 and 4.3.1.3. More than three-quarters of the working women have used contraceptives as opposed to less than half of the non-working women. As with ever-use, a higher proportion of current use of contraceptive methods was also observed among working women (69 percent) than among non-working women (37 percent). The difference in ever and current use of contraceptives by work status of women was found to be statistically significant.

Ever-use of modern methods was reported to be higher than those of the traditional methods irrespective of work status of women (Table 4.3.1.2). However, the chi-square test indicated that there was no significant difference in the type of contraceptives used by work status of women.

Consistent with the overall finding there was also higher current use of modern contraceptive methods followed by traditional methods among the population under study irrespective of work status of women (Table 4.3.1.3). Only a minority reported current use of 'both' methods. However, current use of modern contraceptive methods was found to be higher among working than non-working women and this difference was found to be statistically significant where applicable.

The observed pattern in the difference in current use of contraceptives by work status of women was found to hold when allowance was made for most of the selected background characteristics (Table 4.3.1.8 in the annex). The pattern was reversed only for the least educated, Catholics and Protestants. The variation in current use of different methods and work status of women by most background variables was also found to be statistically significant where applicable. In other words, work status of women was one of the factors that determine the current use of contraceptives.

Working women showed higher current use of modern methods and lower use of traditional methods when most of the background variables were held constant. The finding of higher use of modern methods and conversely lower use of traditional methods by working women holds even when background variables were held constant. The exceptions to the above were followers of the Catholic and Protestant faiths, those belonging to the 'Others' religions and ethnic origin categories, the town-born, and women of parity two or less. The chi-square test, showed that these differences were statistically significant, where applicable, with the exceptions of the older age group, Orthodox-Christians, Amara and Tigre ethnic groups, the town-born and women of parity two or less. Equal proportion of use of modern methods by work status was observed among the highly educated and those belonging to the Gurage ethnic origin. Only a minority reported current use of 'both' methods, which also holds even when allowance is made for the effect of other variables. Use of 'both' methods was excluded from the statistical test because of too few cases per cell.

vi) Use of contraceptives and place of birth

Place of birth may be associated with contraceptive use. That is, people born in urban areas are more prone to use contraceptives to limit and/or space births than those born in rural settings. It is not, however, clear whether this applies to urban elites such as the study population.

Data in Table 4.3.1.2 suggests that there is a clear difference in the ever-use of family planning methods by place of birth. Town-born respondents show a higher proportion of ever-users (72 percent) than village-born (56 percent). This difference was

found to be statistically significant. A higher proportion of town-born respondents also reported having heard of family planning methods (see Section 4.1.1(vii)).

A considerable proportion of both village-born and town-born respondents reported use of modern methods of contraception although their use was reported to be higher by the former than the latter. Seventy-seven percent of the village-born respondents reported use of modern method against 64 percent of the town-born respondents. The difference was found to be statistically significant (Table 4.3.1.2).

As with ever-use, current use of contraceptives was found to be higher among the town-born respondents than the village-born (Table 4.3.1.3). This difference was found to be statistically significant. Similarly, a considerable proportion of both town-born and village-born respondents reported use of modern methods of contraception. However, a higher proportion of village-born respondents reported current use of modern contraceptives while current use of traditional methods was higher among town-born respondents.

The variation in current use of contraceptives observed for the overall sample was, however, not found to be consistent when the background variables were held constant (Table 4.3.1.9in the annex). The highest levels of current use of contraceptives was evident among the town-born at all ages, for the better educated, Orthodox-Christians, Muslims, Amaras and Tigres, non-working women, those who spent their childhood in villages and at all levels of parities. The pattern was reversed in all other sub-groups of the population under study i.e.,the current use of contraception was higher among the village-born than the town-born.

The overall finding of higher current use of contraception among both town-born and village-born respondents was also evident for all sub-groups of population under

study except for respondents with least formal education (Annex Table 4.3.1.9). Consistent with the overall finding, we also note relatively higher ever-use of modern methods of contraception among the village-born than among town-born respondents in almost all sub-groups of the study population except for Muslims, non-working women, those who lived in village until the age of 12 and those with more than 4 children. In these cases, the current use of modern methods of contraception was higher among the town-born than among village born respondents. The variations in current use of contraceptives by place of birth were found to be statistically significant for most background variables, except for non-working women and those with most children.

vii) Use of contraceptives and place of residence for most of the time until age 12

The respondents who lived in town until they were 12 years old had appreciably higher ever-use of contraception methods than those who lived about a similar number of years in a village. Nearly three-quarters of the former ever-used contraception methods as against only a third of the latter. This difference in ever-use of methods was found to be statistically significant (Table 4.3.1.2).

As with ever use, the proportion of current users of contraceptives who were brought up in a town was considerably higher than those brought up in a rural setting (Table 4.3.1.3). More than two-thirds of those who were brought up in a town claimed that they were using contraceptives at the time of the survey. On the other hand, only a third of the respondents who spent most of their childhood in villages reported current use of family planning methods. The difference in the level of current use was found to be statistically significant.

The above observed overall variation in current use of contraception by place of childhood was found to persist when most of the background variables were held constant (Table 4.3.1.10 in the annex). Deviations from the observed pattern were observed for the highly educated, Catholics, Protestants, 'Others' religions group, Gurages and those belonging to the 'Others' ethnic origins. The differences were found to be statistically significant in most cases except among the highly educated elites (university graduates and above).

It is also to be noted here that the majority of the respondents, irrespective of the place where they were raised until 12 years of age, currently used modern methods of contraceptives, although this proportion was slightly higher among those who were raised in villages. The differences in current use of contraception by type of method and by place of childhood were found to be significant among ever-users while there were not significant among current users. A very small proportion of respondents reported that they were currently using both methods at the same time.

The above observed variations were found to hold when most of the background variables were controlled for. The exceptions were university graduates, Orthodox-Christians, Muslims, Amaras, non-working women and the village-born. The variations were, however, statistically significant only for respondents with high school to diploma level education, Orthodox-Christians, Amaras and the village-born respondents.

viii) Use of contraceptives and parity

Use of contraceptives is expected to be positively associated with the number of surviving children. This hypothesis is posited in view of the assumption that couples tend to limit their family size by using family planning methods as the achieved number of

children reaches the desired number. In other words, family size may be a determinant of current use of contraceptives among urban elites. The relationship may well work in both directions, for use of contraceptives is also a proximate determinant of fertility.

For the purpose of this study the number of children ever born, or parity, was categorized into three. These are, low parity respondents with two or less ever born children, those with three or four ever born children, and high parity couples with five or more children.

Tables 4.3.1.2 and 4.3.1.3 show that the data supports the above hypothesis for the first two categories of parity among ever and current users of contraception. The proportion who ever-used methods of contraception increased from 66 percent to 78 percent and then declined to 55 percent as parity progressed from the lowest to the highest category. Similarly, the proportion currently using contraceptive methods increased from 57 percent for low parity (0 to 2 children ever born) couples to 74 percent for those with 3 to 4 parity and dropped to 47 percent for high parity (5 or more children) couples. These differences in use of methods by parity were found to be statistically significant.

Ever-use of modern methods also follows an inverted 'U' pattern as parity increases. Highest ever-use of modern contraceptive methods was reported by those with parity three to four (72 percent), followed by the least parity couples (63 percent) and by highest parity couples (69 percent).

The current use of modern contraceptives also increases with the number of children, rising sharply after the first two children and tapering off gently after the fourth child (Table 4.3.1.3). On the other hand, the use of traditional methods decreases from the first parity category to the second and then shows a small increase among the high

parity category. However, the majority of elites, irrespective of parity, use modern methods of contraception followed by traditional methods. The overall and pair-wise difference between current use of modern and traditional method by parity was found to be statistically significant.

Table 4.3.1.11 in the annex shows the percentage distribution of exposed couples who are currently using any contraception method by parity when background variables were held constant. It can be seen from the table that the proportion currently using contraceptive methods by most background variables follows the inverted 'U' pattern consistent with what was observed for the overall exposed population under study. The exceptions to this are Catholics and Protestants, and those of the Oromo and Tigre ethnic origins. For these sub-groups current use of contraceptives was positively associated with the number of children ever born. The difference in current use of methods by parity was found to be statistically significant for all sub-groups of the population where applicable.

The overall finding of current use of modern contraceptive methods for the medium parity respondents was not found to be uniformly higher than the lowest and highest parity groups for all sub-groups of the study population when controlled for background variables. It was, however, evident for most of the sub-groups of the study population, except for the younger age-group, those with high school education and diploma holders, Catholics, Protestants, Amara and 'Others' ethnic groups, among working and non-working women, the village-born, and those who were brought up in villages. The variations in current use of modern methods by parity was found to be statistically significant for most of the control variables, except for those with

intermediate level of education, Muslims, non-working women, and those who spent their childhood in villages.

4.3.2- Use of Family Planning by Elite Sub-groups

It was observed in the foregoing that a high proportion of ever-married respondents had used contraceptive methods (67 percent) at one time or another while 60 percent of the currently married couples reported current use. Furthermore, out of the total ever-users 68 percent reported that they have used efficient methods while current use of modern methods among currently married respondents was 69 percent. From the data it appears that the elites are highly motivated to use contraceptives. This section will investigate the variation of ever-use of family planning methods within elite sub-groups. The tabulations presented here are based on unweighted data.

A large majority of the elite sub-groups under study, with the exception of the religious leaders, were ever-users of contraception (Table 4.3.2.1). The ever-use of contraceptives was found to be highest among medical doctors (95 percent) followed by senior government officials (88 percent) and university lecturers (82 percent). Next in the ranking comes artists, the women's group, high school teachers and lawyers with 77, 77, 74 and 68 percent respectively. The lowest percentage of ever-use of contraceptives was reported by Orthodox-Christian religious leaders (5 percent) followed by Muslim religious leaders (36 percent).

It is also to be noted here that the majority of elites irrespective of their sub-group had used modern methods of contraception. This is, however, to be expected for

such highly motivated couples as elites would opt for the most efficient methods to reduce the risk of conception.

Table 4.3.2.1 Percentage Distribution of Respondents Who Had Ever-used a Family Planning Method by Elite Sub-groups

Elite sub-groups	Family planning method			Type of method last used			
	Never used	Ever used	Total number	Modern	Tradi-tional	Both	Total number
Artists	23	77	35	56	41	4	27
High school teachers	26	74	182	70	30	-	135
Lawyers	32	68	31	52	33	14	21
Medical doctors	5	95	37	74	26	-	35
Religious leaders							
- Orthodox-Christian	95	5	92	*	*	*	5
- Muslim	64	36	81	55	34	10	29
Senior government officials	12	88	98	62	36	2	86
University lecturers	18	82	115	69	28	3	94
Women's group	23	77	115	67	29	3	89

** - indicates that percentage was not calculated, because base was less than 10 cases.*

It can be observed from Table 4.3.2.2 that current use of contraceptives generally, and of modern methods in particular, was high among all sub-groups with the exception of religious leaders and lawyers. the highest proportion of current use was reported by artists (83 percent), medical doctors and senior government officials (76 percent, each) high school teachers and university lecturers (72 percent, each), and the women's group (67 percent). As for ever-users, the lowest proportion of current users was observed among Orthodox-Christian religious leaders (6 percent) and Muslim religious leaders (26 percent).

The low proportion of ever and current use of contraceptive among the Orthodox-Christian and Muslim religious leaders could be a reflection of the influence of their respective religions. However, both ever and current-use was higher among the Muslim than among the Orthodox-Christian religious leaders. This could be, because as mentioned earlier, the Muslim religion does not expressly forbid the use of family

planning methods or due to the exposure of these religious leaders to modernizing factors as a result of their diversified main occupations. On the other hand, the low proportion of ever and current use of contraception among the Orthodox-Christian religious leaders could show the degree of disapproval of use of deliberate birth control method by the Orthodox-Christian Church.

The majority of current users within each sub-group reported that they use modern methods. A considerable but lower proportion of current users also reported use of traditional methods within each of the elite sub-groups. Only a minority, within each elite group, reported current use of 'both' methods (Table 4.3.2.2).

Table 4.3.2.2 - Percentage Distribution of Respondents Who Are Currently Using Family Planning Method by Elite Sub-groups

Elite sub-groups	Family planning method			Type of method last used			
	Yes	No	Total number	Modern	Tradi-tional	Both	Total number
Artists	83	17	29	50	42	8	24
High school teachers	72	28	162	69	29	2	116
Lawyers	46	54	26	43	42	16	12
Medical doctors	76	24	34	65	31	4	26
Religious leaders							
- Orthodox-Christian	6	94	87	*	*	*	5
- Muslim	26	74	74	47	32	21	19
Senior government officials	76	24	85	63	34	3	65
University lecturers	72	28	95	69	26	4	68
Women's group	67	33	104	70	23	7	70

* - *indicates that percentage was not calculated, because base was less than 10 cases.*

It was observed in the foregoing that within each elite sub-group use of contraceptive methods was wide spread with the exception of the religious leaders. It was also noted that modern methods were preferred among the current users within all sub-groups. In the following we will look at the variation in the current use of modern methods by background variables within each of the sub-groups. Table 4.3.2.3 presents the percentage distribution of the current use of modern methods by elite sub-groups and background variables.

Table 4.3.2.3 Percentage Distribution of Current Use of Modern Contraceptive methods by Elite Sub-groups and by Background Characteristics

Elite sub-group	Age		Education			Religion				
	Less than 40	40 and above	Below grade 7	High school to diploma	BA/BSc and above	Orthodox-Christian	Protestant	Catholic	Muslim	Others
Artists	90	79	-	85	81	*	*	*	*	*
High school teachers	78	65	-	69	75	72	71	*	*	*
Lawyers	50	40	-	*	44	50	*	-	-	-
Medical doctors	80	71	-	-	76	87	*	*	*	*
Religious leaders										
- Orthodox-Christian	*	*	*	*	*	*	*	*	*	-
- Muslim	26	25	10	41	55	-	-	-	26	-
Senior government officials	64	78	-	70	77	75	*	*	*	77
University lecturers	65	76	-	*	71	70	60	*	*	*
Women's group	70	57	-	68	64	67	*	*	*	*

Table 4.3.2.3continued

Elite sub-group	Ethnic origin					Work status of women		Place of birth		Place of Childhood residence	
	Amara	Oromo	Tigre	Gurage	Others	Working	Not Working	Town	Village	Town	Village
Artists	81	*	*	*	*	79	90	83	*	81	*
High school teachers	73	68	68	*	*	76	63	70	75	72	71
Lawyers	41	*	*	-	*	45	*	53	*	46	*
Medical doctors	81	70	*	*	*	76	*	85	*	76	*
Religious leaders											
- Orthodox-Christian	*	*	*	*	*	*	*	*	*	*	*
- Muslim	32	21	*	36	20	41	19	30	22	25	26
Senior government officials	72	87	88	*	*	76	79	80	70	79	64
University lecturers	68	73	67	*	*	70	78	72	71	71	75
Women's group	65	73	71	*	*	-	-	64	78	66	*

** indicates that percentage was not calculated, because base was less than 10 cases.*

A higher proportion of the younger age-group was observed to use modern methods than the older age-group among all elite sub-groups except among senior government officials and university lecturers. Current use of modern methods was found to increase with level of education among high school teachers, Muslim religious leaders and senior government officials. Current use of modern methods and education were inversely related among artists and the women's group.

Summary

The major factors which came to the forefront from this investigation were:

1. The pill was the most commonly used method among current users, followed by the IUD, then condoms and sterilization. Among traditional methods the most commonly used were periodic abstinence and the rhythm method followed by withdrawal.

2. Survey findings confirm a widespread use of family planning methods among ever-married and currently married elites. About two-thirds of ever-married respondents have used family planning methods. Of these, over two-thirds reported ever-use of modern methods as opposed to less than a third who used traditional methods. Among the currently married couples, three-fifths were using contraception at the time of the survey. More than two-thirds of these were using modern methods whereas a little less than a third were using traditional methods. Only a minority of ever and current users resorted to 'both' methods.

3. In the study of differentials in current use of contraceptive methods by background variables:

The incidence of current use of family planning methods was found to be consistently higher for the younger age group than the older age group even when most of the background variables were held constant.

Current use of contraceptives was found to increase consistently with an increase in the level of education of respondents within most of the background variables. The increases in current use were very large between those with education below grade 7 and those with high school to diploma level, while the increase between the latter and the university graduates was not so large. No uniform pattern was observed in the relation between current use of contraceptives and level of education among the elite sub-groups.

Highest current use of contraceptive methods was reported by the 'Others' religions group followed by Protestants, and Orthodox-Christians. Equal and lowest proportion of current use was reported by Catholics and Muslims. The Tigres reported greater ever-use of family planning methods than respondents of other ethnic origins. This was followed by the 'Others' ethnic group, Gurages and Oromos. Least use of contraceptives was reported by respondents of Amara ethnic origin. Highest current use of contraceptives was, however, reported by respondents belonging to ethnic origins categorized as 'Others' followed by Tigres, Oromos, Gurages and Amaras. No clear pattern of differences in the current use of family planning methods by ethnic origin emerged, however, when the different background variables were held constant.

The ever and current use of contraception was significantly higher among the working than the non-working women. Ever-use and current use of modern methods was reported to be higher than those of the traditional methods irrespective of work status

of women. However, a higher proportion of working women reported that they had used modern methods than non-working women. The difference in the current use of contraceptives by work status of women was also found to hold when allowance was made for most of the selected background characteristics.

A clear difference in the ever-use of family planning methods was observed by place of birth. Town-born respondents show a higher proportion of ever-users and of current users. This was also evident for all sub-groups of population under study except for respondents with the least formal education.

The proportion of ever-users and current users of contraceptives who were brought up in a town was considerably higher than those brought up in a rural setting. The overall variation in current use of contraception by place of childhood was found to persist even when most of the background variables were held constant.

Highest ever-use and current use of contraceptive methods was reported by those with three to four children, followed by the least parity couples with 0 to 2 children ever born and by highest parity couples (5 and above). Ever-use of modern methods follows an inverted 'U' pattern as parity increases. Modern contraceptive use also increases with the number of children ever born, rising sharply after the first two children and tapering off gently after the fourth child. On the other hand, the use of traditional methods decreases from the first parity category to the second and then shows a little increase among the high parity category. However, the overwhelming majority of elites, irrespective of parity, use modern methods of contraception followed by traditional methods. This also held when most of the background variables were controlled for. Only a small minority had reported use of 'both' methods.

4.4 Attitude Towards Abortion as a Method of Family Planning

Abortion is illegal in Ethiopia. It is permissible only if a committee of at least two medical doctors confirms that no alternative other than abortion exists for saving the life of the expectant mother (Penal Code, 1957). In all other cases, abortion is a criminal offence punishable with imprisonment. A strong social stigma is also attached to the practice of abortion in many Ethiopian societies.

Abortion, however, is considered to have a strong demographic impact by restricting the number of births. The draft national population policy of Ethiopia has also hinted towards the liberalization of the law on abortion for specific reasons (PDRE, 1990). However, after the International Conference on Population in Mexico City in 1984, abortion is a controversial policy issue in many countries, particularly with respect to the morality of its use and the rights of pregnant women.

It is against this background that the attitudes of the elites towards abortion is discussed. In this analysis, unless otherwise noted, the term "abortion" refers to induced abortion. At present it is not known to what degree legalization of abortion would receive support from the members of the society in general and from the elites in particular. To fill in the above vacuum partially, an attempt is made in this section to look at the attitude of elites towards abortion as a method of family planning.

This was investigated by asking the question: 'Do you approve of abortion as a method of family planning?'. This question was posed only to those respondents who had heard of family planning. It was assumed that respondents who did not know of family planning would not resort to induced abortion to restrict family size. It is to be

noted here that the analysis of abortion from unqualified questions may suffer from conceptual limitations. Attitude of elites towards abortion for other reasons, including economic and human rights should be an area for future research.

No attempt was made to measure the extent of the practice of abortion, for two reasons. First, asking such a sensitive question might affect the overall rate of responses. Secondly, there might be considerable under reporting since most respondents are males who might not be aware of some occurrences of abortion.

Table 4.4.1.1 - Distribution of Attitudes of Respondents Towards Abortion as a Method of Family Planning (Weighted)

Response	Percentage	Number
Approve	12.6	581
Do not approve	83.7	3797
No response	3.7	167
Total	100.0	4545

Table 4.4.1.1 shows that the absolute majority of the respondents disapprove of abortion as a method of family planning while a sizeable minority (12.6 percent) endorse it. Most of the non-responses were, however, followed by written qualified responses to the question. Some, for instance, reported that they would approve of abortion if the birth of a child would endanger the mother's life. These responses were, for the purpose of this study, taken as disapproval of abortion as a family planning method.

4.4.1 - Attitude Towards Abortion as a Method of Family Planning by Background Characteristics

The majority of respondents were found to disapprove of abortion as a family planning method (87 percent), and this also holds for various sub-groups of the elites. An overwhelming majority of elites irrespective of their background characteristics disapprove of abortion as a method of family planning (Table 4.4.1.2).

Differentials were, however, observed regarding attitudes towards abortion by the different selected background characteristics given in Table 4.4.1.2. Disapproval of abortion as a family planning method was higher for the younger age group, the least educated, Catholics, the ever-married, Amaras and Tigres, the town-born and those brought up in a village. Not much difference in disapproval of abortion by work status of women was observed.

Among those elites who approved of abortion as a method of family planning the following come to the forefront: The 'Others' ethnic and 'Others' religions groups, Gurages, university graduates and the never-married. Two-fifths of the 'Others' ethnic group and about one-third of the 'Others' religions group approve of abortion as a method of family planning, while over one-fifth of the university graduates and the never married endorse it.

The difference in approval or disapproval of abortion by most background variables were found to be statistically significant. No significant difference was observed by work status of women.

The overall attitude of the elites towards abortion has been discussed, but this, however, might conceal variations by different background variables of the respondents.

Table 4.4.1.2 - Percentage (Weighted) Distribution of Attitude of Respondents Towards Abortion as a Method of Family Planning by Background Characteristics

Background characteristics	Approve of abortion (%) Yes	No	Total number
All groups	13	87	4545
Age			
Less than 40	11	89	2897
40 and above	15	85	1648
	χ^2= 12.546, df=1, S		
Education			
Below grade 7	1	99	134
High/school to diploma	8	92	2630
BA/BSc and above	21	79	1780
	χ^2= 202.632, df=2, S		
Marital status			
Never married	21	79	683
Ever married	11	89	3861
	χ^2= 43.177, df=1, S		
Religion			
Orthodox-Christian	12	88	3520
Catholic	2	98	192
Protestant	15	85	378
Muslim	16	84	231
Others	27	73	224
	χ^2 = 65.822, df=4, S		
Ethnic Origin			
Amara	10	90	2724
Oromo	17	83	613
Tigre	10	90	801
Gurage	21	79	210
Others	40	60	197
	χ^2 = 184.311, df=4, S		
Work status of women			
Working	11	89	3224
Not working	12	88	680
	χ^2 = 0.492, df=1, NS		
Place of birth			
Town	10	90	3151
Village	17	83	1394
	χ^2 = 41.414, df=1, S		
Place of residence for most of the time until the age of 12			
Town	13	87	4003
Village	10	90	542
	χ^2 = 3.922, df=1, S		

S - Significant at 0.05 level
NS - Not significant at 0.05 level
df - Degrees of freedom

In the following, attitude towards abortion as a method of family planning is presented by the different background variables.

i) Attitude towards abortion by age

It was expected that age would be inversely related to approval of abortion, on the assumption that older people are likely to adhere more to traditional ideas and views than younger people, keeping other factors constant. It was not, however, clear whether the hypothesis would apply to the urban elites which have been exposed to modernizing forces. On the other hand, most of respondents in the younger age group (below 40) may not have yet achieved their desired family size and thus have little need for abortion. Hence, their attitude towards liberalization of abortion may be negative or indifferent. No *a priori* hypothesis is, therefore, posited with respect to age and approval of abortion regarding the elite.

Table 4.4.1.2 shows that the percentage distribution of the negative attitude towards abortion as a method of family planning by age was higher for the young than the older respondents. It is to be noted that disapproval of abortion for the overwhelming majority of respondents held even when age and other background variables were controlled for (Table 4.4.1.3 in the annex). However, approval of abortion as a family planning method seems to vary inversely with age for the least formally educated (i.e. below grade 7), the never-married, Catholics, Muslims, ' Others' religion group, Gurages and non-working women. Statistical test where applicable, indicated that the difference in attitudes towards abortion by age was significant for all the above listed variables except for the never-married, 'Others' religions group, Oromos and those whose place of childhood residence was a village.

Attitude towards abortion as a birth control method was observed not to vary by age for the highly educated, the Tigres and the town-born. In all other cases, positive attitude towards abortion was found to vary positively with age. Among these,

statistically significant variations were observed for those with intermediate level education (high school to diploma level), ever-married, Orthodox-Christians, Protestants, Amaras, those belonging to the 'Others' ethnic category, working women, the village-born and those brought up in a town.

ii) Attitude towards abortion by education

It was expected that approval of abortion as a family planning method would be directly related to education. This hypothesis is posited in view of the assumption that the well educated would be more open to new ideas than the less well educated. Thus the conservative attitude towards abortion is likely to erode with the increasing exposure to formal education.

Barring the fact that an overwhelming majority of the respondents disapprove of abortion as a method of family planning, elites attitude towards abortion still varies positively with education. For example, the approval of abortion increases from 1 percent among the least educated to 8 and 21 percent among those with education of high school to diploma level, and university graduates respectively (Table 4.4.1.2).

These differences were found to be statistically significant. The pair-wise test for difference in attitude towards abortion was also found to be statistically significant between those with intermediate education and the highly educated. The following section examines if the above observed difference in attitude towards abortion by education holds when other background variables are controlled.

The positive association observed between education and support for abortion as a family planning method holds even when almost all of the background variables were held constant (Table 4.4.1.4 in the annex). These variations were found to be

statistically significant, using the chi-square test, when almost all selected background variables were controlled. The only exceptions were respondents with Oromo and Tigre ethnic origins.

The analysis of attitude towards abortion by educational attainment leads to the conclusion that education of the respondents makes an important difference. Although the better educated are more liberal in their attitude towards abortion, it should not be forgotten that the majority of respondents at all levels of education were opposed to abortion as a method of family planning.

iii) Attitude towards abortion by marital status

Married couples are more exposed to the risk of having a child than single people particularly in a society like the Ethiopian one, where sex outside marriage is culturally frowned upon. The former would, therefore, be more concerned about controlling their family size than the latter. It was thus expected that married couples would be more predisposed to the use of abortion as a means of family planning method than the singles. However, one can also argue that since having birth outside wedlock is not sanctioned, the singles would be more favourably predisposed towards abortion to terminate any unwanted or accidental pregnancy to avoid social sanctions. The singles who predominantly belong to the younger age group are more likely to be receptive to new ideas, such as abortion as a method of family planning. It is, therefore, difficult to posit any *a priori* clear cut hypothesis between marital status and attitude towards abortion.

It has been seen that an overwhelming majority of respondents, 87 percent, irrespective of marital status do not approve of abortion. Variations were, however,

observed regarding attitude towards abortion by marital status of respondents. The data in Table 4.4.1.2 revealed that, the never-married respondents were more favourably predisposed to the use of abortion as a means of birth control than the ever-married. The difference in attitude between the two groups was found to be statistically significant. Traditionally strong taboos against pre-marital conception, could to a large extent, account for the higher proportion of approval by the singles than the ever-married. The other interpretation could be that some of the ever married have the experience of going through the arduous process of getting an abortion where it is illegal and, therefore, exercise more restraint in approving of abortion.

The above observed difference holds even when allowances were made for most of the background variables (Table 4.4.1.5 in the annex). Approval of abortion was found to be higher among singles than ever-marrieds at all ages, among the educated (above grade 7), for all religions except Muslims, among the Amara and Tigre ethnic origins, the town-born, and those who were brought up in a town. These observations were found to be statistically significant for all with the exception of respondents aged 40 and above, the highly educated, and working women.

A relatively higher level of approval of abortion among the ever-married than the singles was noticed among Muslims, Gurages and 'Others' ethnic origins and the village-born but the differences were not found to be statistically significant. It can, therefore, be said that support for abortion is higher among the singles than the ever-married for the majority cases even when most of the selected background variables were held constant.

iv) Attitude towards abortion by religion

Religion can be expected to affect the attitude towards abortion as a family planning method. Pronatalist religions such as the Catholic religion teach that abortion is a sin. It is, however, difficult to hold that the above expressed view can apply to urban educated elites, aside from the religious leaders. No *a priori* hypothesis is, therefore, forwarded regarding the relationship between religion and attitude towards abortion as a birth control method.

Table 4.4.1.2 shows that the proportion of those who approved of abortion was much smaller than those who disapproved by religious affiliation, a finding consistent with the overall observation. Variations were, however, observed in approval of abortion by religion. Over a quarter of respondents (27 percent) belonging to the 'Others' religions group approved of abortion followed by Muslims, Protestants and Orthodox-Christians, with 16 percent, 15 percent and 12 percent respectively. Least approval was accorded by Catholics (2 percent). The difference in attitude towards abortion as a family planning method by religion was also found to be statistically significant except among the never-married.

The attitude of the Catholics and 'Others' religions group towards abortion was found to hold even when allowances were made for the different background variables listed in Table 4.5.1.6 in the annex. Approval of abortion was least among Catholics and relatively high among those belonging to the 'Others' religious category when most of the background variables were controlled. This attitude is consistent with Catholic teaching against abortion. No distinct pattern emerged with respect to the attitude towards abortion for the Orthodox-Christians, Protestants and Muslims when controlled for other background variables. The variations in approval of abortion by religion were

found to be statistically significant for each of the background variables where applicable.

v) Attitude towards abortion by ethnic origin

In countries where there is inter-ethnic rivalry because of numbers, the numerically disadvantaged group may resort to norms and values that would promote high fertility (Chaudhury, 1982). The majority group may also do the same to sustain its supremacy. It is, however, unlikely that even if such a rivalry exists in the country it will manifest itself among urban educated elites such as the current study population. No *a priori* hypothesis is, therefore, put forward regarding ethnic origin and attitude towards abortion.

The data in Table 4.4.1.2 shows that a relatively high proportion of those belonging to the 'Other' ethnic origins (40 percent) support abortion as a birth control method. This was followed by Gurages and Oromos, 21 percent and 17 percent, respectively. Equal proportions of Amaras and Tigres approved of abortion (10 percent). The differences in attitudes towards abortion by ethnic origin were found to be statistically significant.

Consistent with the above observation, abortion was supported as a method of family planning by a high proportion of respondents belonging to the 'Others' religions category even when most of the background variables were held constant (see Table 4.4.1.7 in the annex). Similarly, a low level of approval of abortion by those of Amara and Tigre ethnic origins was observed within most of the background variables. The variations in approval of abortion were found to be statistically significant where applicable for all of the background variables with the exception of the never-married respondents.

vi) Attitude towards abortion by work status of women

It is expected that women who work outside the home for remuneration would be more supportive of abortion as a birth control method. The above is posited on the ground that a working woman may find work outside the home incompatible with her role as a mother. It is also assumed that husbands share the views of their wives in this respect. Hence, respondents who are working women and male respondents with working wives may be more tolerant towards abortion than those with non-working women.

Consistent with earlier observations, the majority of women disapproved of abortion irrespective of their work status (Table 4.4.1.2). However, contrary to expectation, it was found that the overall attitude of non-working women was more liberal towards abortion than those with working women. The difference in attitude towards abortion by work status of women was, however, not found to be statistically significant. It could, therefore, be said that work status of women has no bearing on attitude towards abortion among elites or that the role of mother surrogates, which is common in developing countries, could have offset the pressure usually created by role incompatibility.

These overall differences in attitude, however, do not hold when allowance is made for the different background variables (see Table 4.4.1.8 in the annex). Higher approval of abortion was observed among working women than non-working women for the older generation, those with an intermediate level of education (high school to diploma holders), Orthodox-Christians and the Catholics, Oromo and Gurage ethnic groups, the village-born and those brought up in a village. Except for those with intermediate level education and those who spent their childhood in villages, the

difference in approval of abortion by work status of women was found to be statistically significant where applicable. Where a higher proportion of non-working women or male respondents with non-working wives expressed more tolerant attitudes towards abortion, the difference was found to be statistically significant only among the younger age group and Tigres.

vii) Attitude towards abortion by place of birth

It is not clear whether differences in place of birth are related to approval or disapproval of abortion as a family planning method. No *a priori* hypothesis is, hence, posited regarding the effect of place of birth on the attitude of respondents towards abortion.

Table 4.4.1.2 shows higher endorsement for abortion among the village-born (17 percent) than the town-born (10 percent). This difference in the effect of place of birth on the attitude towards abortion was found to be statistically significant.

It is interesting to note that a higher proportion of the village-born showed support for abortion compared to town-born respondents at all ages, at every level of education, the ever-married, for those who belong to Orthodox-Christian and Protestant faiths, all ethnic origins except Tigres, among working women and by place of childhood (see Table 4.4.1.9 in the annex). These variations were found to be statistically significant in all cases except for ethnic origin.

viii) Attitude towards abortion by place of residence for most of the time until age 12

It is to be expected that respondents brought up in villages will tend to be less liberal in their attitude towards abortion as a method of family planning compared to those brought up in a town. Many findings suggest that traditional rural societies tend to have high fertility because of the social and economic advantages to be gained from having many children. It can, therefore, be assumed that norms and values in rural settings will be against factors such as abortion which would tend to reduce the family size. Thus, in view of the above assumption, respondents who spent most of their formative years in villages are likely to be more traditional in their outlook and may therefore oppose to abortion as a family planning method.

The hypothesis is supported by data in Table 4.4.1.2. A higher proportion of those brought up in a town (13 percent) approved of abortion as compared to those who spent their childhood in villages (10 percent). The above difference was found to be statistically significant.

The observed variation regarding attitudes towards abortion by place of childhood residence was found to hold when most of the selected background variables were controlled for (see Table 4.4.1.10 in the annex). A higher percentage of those brought up in a town approved of abortion when allowance was made for age, marital status, religion, except Catholics and Protestants, ethnic origin, and place of birth. A higher proportion of respondents brought up in a town with an intermediate level of education (high school to diploma holders) and non-working women also approved of abortion. Statistically significant differences, were, however, observed for those belonging to the older age-groups, the never-married, Orthodox-Christians and 'Others' religions

followers, Amaras and Oromos, and the village-born. Contrary to expectation, approval of abortion as a method of family planning among those who were raised in villages was higher than those raised in town among the least and highly educated, Catholics, Protestants and working women.

It can, therefore, be said that those who had spent most of their childhood in town have higher support for abortion in the majority of cases than those brought up in villages. In other words, the difference observed in approval of abortion by childhood residence was in the expected direction. It is, however, to be noted that the overwhelming majority of respondents disapprove of abortion irrespective of their place of childhood. The disapproval also holds even when the background variables were controlled for.

4.4.2 - Attitude Towards Abortion as a Method of Family Planning by Elite Sub-groups

The interest of this section is to examine the variations in attitudes towards abortion by elite sub-groups. No *a priori* hypothesis is, therefore, posited in this direction. Attitude towards abortion is further examined by cross-classifying elite sub-groups by selected background variables.

An overwhelmingly disapproval of abortion as a method of family planning prevails in all elite sub-groups although its degree varies from one sub-group to another (see Table 4.4.2.1). The disapproval was highest for the two religious leaders groups, Orthodox-Christians (100 percent) and Muslims (94 percent) followed by the Women's group (93 percent). This was followed by high school teachers (87 percent), artists (77

percent), senior government officials (65 percent), lawyers (62 percent) and medical doctors and university lecturers (61 percent, respectively).

Among those who approved of abortion as a method of family planning the medical doctors, university lecturers, lawyers and senior government officials stand in the forefront. About two-fifths of medical doctors, university lecturers and lawyers and more than one-third of senior government officials approved of abortion as a method of family planning. And this finding holds even when allowance was made for other socio-demographic variables, with some exceptions (Table 4.4.2.2).

Table 4.4.2.1 - Percentage Distribution of Attitude of Respondents Towards Abortion as a Method of Family Planning by Elite Sub-groups

Elite sub-group	Approve of abortion		Total number
	Yes	No	
Artists	23	77	48
High school teachers	13	87	216
Lawyers	38	62	61
Medical doctors	39	61	70
Religious leaders			
- Orthodox-Christian	-	100	24
- Muslim	6	94	69
Senior government officials	35	65	183
University lecturers	39	61	138
Women's group	7	93	121

The finding of highest disapproval of abortion among the religious leaders followed by women's group holds for all socio-demographic variables. That the majority of other elite sub-groups also disapprove of abortion as a method of family planning also held when various other socio-demographic variables were controlled for, except the older medical doctors, university lecturers belonging to the 'Others' ethnic group, medical doctors of rural origin and non-working wives of university lecturers. Among

these groups, the support of abortion as a method of family planning is 50 percent or more. Among the supporters of abortion as a method of family planning, doctors, university lecturers and lawyers still constituted the forerunners even when other socio-demographic variables were controlled for.

Summary

This section on abortion revealed negative attitudes towards abortion as a family planning method among the elite groups. The negative attitude was found to persist even when most of the selected socio-economic and demographic background variables were held constant. The data by each surveyed group also revealed disapproval of abortion to be high, even though the level differed from group to group.

The major findings that emerge on the question of introduction of abortion as a method of family planning are as follows:

a) An unfavourable attitude towards abortion was reported by the majority of the elites (87 percent). However, the proportion of respondents who approved of it was not negligible (12 percent), although the degree of disapproval varies from one elite sub-group to the other.

b) Among those who approve of abortion the determining background characteristics appear to be education, marital status, place of birth and place of childhood residence. Education was found to be directly associated with approval of abortion while higher endorsement for abortion was observed among singles, the village-born and those who spent most of the time until age 12 in towns.

Table 4.4.2.2 - Percentage Distribution of Respondents Who Approved of Abortion as a Family Planning Method by Elite sub-groups and Background Characteristics

Elite sub-groups	Age		Education			Marital status		Religion				
	Less than 40	40 and above	Below grade 7	High school to diploma	BA/BSc and above	Never married	Ever married	Orthodox-Christian	Protestant	Catholic	Muslim	Others
Artists	19	27	..	9	36	20	24	23	*	*	*	*
High school teachers	13	13	..	12	14	14	13	11	22	*	*	31
Lawyers	41	25	..	*	38	42	33	37	*	-	*	*
Medical doctors	35	53	..	..	39	36	41	48	30	*	*	*
Religious leaders												
- Orthodox-Christian	-	-	..	*	..	*	-	-	..	..	-	..
- Muslim	4	7	3	4	15	*	6	..	..	..	6	..
Senior government officials	17	40	..	15	38	45	34	37	20	*	*	38
University lecturers	36	43	..	*	39	39	39	38	24	*	*	58
Women's group	6	8	..	5	16	*	6	7	*	*	*	*

Table 4.4.2.2continued

Elite sub-groups	Ethnic origin					Work status of women		Place of birth		Place of Childhood residence	
	Amara	Oromo	Tigre	Gurage	Others	Working	Not Working	Town	Village	Town	Village
Artists	23	*	*	*	*	23	18	*	25	23	*
High school teachers	12	10	13	*	38	12	12	10	18	14	6
Lawyers	42	25	*	*	..	31	*	38	38	36	*
Medical doctors	42	31	*	*	*	37	*	32	59	38	*
Religious leaders											
- Orthodox-Christian	-	*	*	..	..	*	-	*	-	-	-
- Muslim	8	10	*	-	*	-	9	5	7	5	7
Senior government officials	37	30	29	*	*	35	20	37	31	35	35
University lecturers	33	48	45	*	53	34	53	35	44	37	47
Women's group	23	20	-	*	*	7	*	13	5	7	*

* *indicates that percentage was not calculated, because base was less than 10 cases.*
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CHAPTER FIVE

NUPTIALITY AND FERTILITY

5.1 - Nuptiality

Marriage is universal in Ethiopia. Very few men and still fewer women remain single throughout their lives. Traditionally marriages are arranged by parents of the bride and the bride-groom. Through marriage a person can rise in social status. Divorce is, therefore, not generally encouraged and marriages are to a large extent stable.

To collect information on nuptiality, respondents were asked about their marital status, number of times married (if not single), their and their spouses' age at first marriage. For the type and sequence of the questions see the questionnaire in the annex.

5.1.1 - Current marital status and marital stability

Fertility could be affected by disruption in exposure to risk of child bearing when marriage is dissolved and remarriage does not follow immediately. However, since divorce, separation and the incidence of widowhood is small among the study population, the discussion on marital status focusses mainly on single and currently married respondents.

a - Current marital status

The percentage distribution of respondents according to their current marital status is given in Table 5.1.1. About a sixth of the respondents have never been married, while more than three-quarters were currently married, and the remaining six percent were either widowed, divorced or separated.

Variations in current marital status by background variables and sub-groups of the population under study were observed (Table 5.1.1and Table 5.1.2). The percentage of currently married respondents declines steadily with education, while the number of single persons increases. The proportion of currently married respondents was highest for Orthodox-Christians and Muslims followed by Catholics, Protestants, and those belonging to the 'Others' religion group.

Among the ethnic groups, the proportion married was highest among the Amara followed by Gurage, Tigre, Oromo and 'Others' ethnic groups. Surprisingly, lower proportions of single people were observed for the town-born and those who spent most of their childhood in towns. One would have expected that those with a village background would tend to retain some of the traditional values and tend to marry early. The proportion currently married was almost the same for those born in a town or in a village. A high proportion of those who were brought up in town were currently married. Dissolution of marriages was higher among both the town-born and those brought up in town than among the village-born and those who were brought up in a village.

The majority of the elite sub-groups in the study population were married at the time of the survey. From Table 5.1.2, it can be observed that a high proportion of

Table 5.1.1 - Percentage (Standardized*) Distribution of Respondents by Marital Status and Background Characteristics (Weighted)

Background characteristics	Marital status			Total number
	Single	Married	Others**	
All groups	17	77	6	5308
Age* **				
Less than 40	22	74	3	3169
40 and above	11	81	8	2139
	χ^2 = 161.617, df=2, S			
Education				
Below grade 7	9	85	6	526
High school to diploma	11	84	5	2897
BA/BSc and above	30	65	5	1885
	χ^2 = 363.251, df=4, S			
Religion				
Orthodox-Christian	16	79	5	4206
Catholic	19	73	8	202
Protestant	21	70	9	388
Muslim	19	74	7	288
Others	28	67	5	224
	χ^2 = 67.056, df=8, S			
Ethnic origin				
Amara	15	81	5	3260
Oromo	21	70	9	732
Tigre	20	74	6	860
Gurage	19	76	5	226
Others	30	69	1	230
	χ^2 = 110.184, df=8, S			
Place of birth				
Town	15	78	7	3426
Village	21	77	2	1882
	χ^2 = 60.494, df=2, S			
Place of residence for most of the time until age 12				
Town	15	79	6	4300
Village	33	64	3	1008
	χ^2 = 43.772, df=2, S			

* *Standardized on the basis of the age distribution of the entire population.*
** *'Others' includes widowed, divorced and separated respondents*
*** *Reported.*
S - Significant at 0.05 level.
df - degrees of freedom

Muslim religious leaders (92 percent), the women's group (90 percent) and Orthodox-Christian religious leaders (89 percent) were married. Only 52 percent of lawyers and 60 percent of artists reported that they were married at the time of the survey.

The highest proportion of single people were observed among lawyers (39 percent) and university lecturers (35 percent) followed by artists (32 percent), medical doctors (29 percent), high school teachers (26 percent) and senior government officials (16 percent). The proportion of single people was low among the women's group (4 percent), Orthodox-Christian religious leaders (6 percent) and Muslim religious leaders (9 percent). Only a minority reported dissolution of marriage either through death, divorce or separation.

Table 5.1.2 - Percentage (Standardized*) Distribution of Respondents by Marital Status and Elite Sub-groups

Elite sub-groups	Marital status			Total number
	Single	Married	Others**	
Artists	32	60	8	53
High school teachers	26	69	6	248
Lawyers	39	52	9	64
Medical doctors	29	67	4	70
Religious leaders				
- Orthodox-Christian	7	89	4	99
- Muslim	6	92	3	86
Senior government officials	16	71	13	110
University lecturers	35	61	4	191
Women's group	4	90	6	121

* *Standardized on the basis of the age distribution of the entire population*

** *'Others' includes widowed, divorced and separated respondents*

b - Marital Stability

The first marriage of 93 percent of the respondents has remained intact at the time of the survey indicating that marriages are stable among the elites (Table 5.1.3). About six percent of respondents whose first marriages were dissolved had remarried by the time of the survey. Only less than one percent of respondents had been married more than twice. Some differentials in the frequency of marriages were, however, observed among the social and demographic sub-groups of the study population.

The proportions of first marriages appear to be inversely related to age and level of education (Table 5.1.3). Among the religions, the highest proportion of marriages remaining intact was observed for Orthodox-Christians (94 percent) followed by those belonging to the 'Others' religion group (93 percent). Next in the ranking were Protestants (91 percent), Catholics (88 percent) and Muslims (87 percent). Among the ethnic groups the highest proportion of first marriages was reported by respondents belonging to the 'Others' ethnic group category followed by Amaras (94 percent), Oromos and Tigres (93 percent each) and Gurages (90 percent). The village-born respondents and those who spent most of their childhood in villages showed a higher percentage of intact first marriages than the town-born and those who were brought up in towns.

The proportion of elites who married twice increased with age and with level of education. The highest proportion of remarriage was reported by Muslims (not including polygamous marriage) followed by Catholics, Protestants, 'Others' religions group and Orthodox-Christians. Respondents married more than twice were too few (16 cases among all ever-married respondents) to merit any discussion.

Table 5.1.3 - Percentage (Standardized*) Distribution of Respondents by Number of Times Married and Background Characteristics (Weighted)

Background characteristics	Number of times married**		Total number
	Once	Twice	
All groups	94	6	4375
Age* **			
Less than 40	96	3	2462
40 and above	90	10	1913
Education			
Below grade 7	100	-	485
High school to diploma	94	6	2585
BA/BSc and above	91	9	1305
Religion			
Orthodox-Christian	94	5	3508
Catholic	88	11	161
Protestant	91	9	303
Muslim	87	13	247
Others	93	7	156
Ethnic origin			
Amara	94	6	2774
Oromo	93	6	584
Tigre	93	7	685
Gurage	90	10	184
Others	99	1	148
Place of birth			
Town	93	7	2867
Village	95	5	1508
Place of residence for most of the time until age 12			
Town	93	7	3615
Village	96	4	760

* *Standardized on the basis of the age distribution of the entire population.*
** *Respondents who married more than twice constituted less than 0.4 percent of the overall ever-married study population.*
*** *Reported.*

A very high proportion of ever-married couples among the elite sub-groups reported to have been married only once (Table 5.1.4). None of the Orthodox-Christian religious leaders were married more than once. This could be a result of the Church's sanction against divorce. Once a priest is divorced he looses his priesthood and looses the respect accorded to him in the society. Twice marrieds were a minority in the study population. However, they were higher among high school teachers and lawyers followed by senior government officials. Very few respondents were married more than twice and

this occurred only among university lecturers and the women's group and they were excluded from further analysis.

Table 5.1.4 - Percentage (Standardized*) Distribution of Respondents by Number of Times Married and Elite Sub-groups

Elite sub-groups	Number of times married		Total number
	Once	Twice	
Artists	93	7	35
High school teachers	90	10	182
Lawyers	90	10	31
Medical doctors	98	2	37
Religious leaders			
- Orthodox-Christian	100	-	92
- Muslim	98	2	81
Senior government officials	95	5	98
University lecturers	97	3	115
Women's group	95	5	115

* *Standardized on the basis of the age distribution of the entire population.*

5.1.2 - Age at First Marriage

Age at first marriage is one of the major intermediate variables that affects the level of fertility. Trussel *et al* (1982) have demonstrated using a model that in a non-contracepting monogamous society where little birth takes place out of wedlock, each one-year increase in age at marriage reduces total fertility by 5.4 percent.

The date of first marriage for women indicates the onset of exposure to child-bearing in many societies. Although illegitimate births are high in urban centres of Ethiopia (Yacob, 1991) it is assumed that births in the study population are confined to

intervals of marriage and hence, age at marriage determines the onset of exposure to conception. Thus the analysis focuses only on ever-married respondents.

In societies where child-bearing takes place within marriages, the age at which women marry has a direct bearing on their reproductive performance, provided that other factors that affect intensity and persistence of exposure to the risk of conception are held constant. Factors that determine the degree to which women of reproductive age are exposed to the risk of child-bearing, following the first entry into a marital union are stability of marriage, coital frequency, adolescent sterility, primary and secondary sterility, patterns of sexual abstinence and use of contraceptives (Bongaarts, Frank and Lesthaeghe, 1984).

Social, economic, demographic and cultural factors jointly or independently determine the age at marriage in a society. Among the modern urban elite, it is expected to find a relatively free choice of marital partner and thus age at first marriage and age at consummation of marriage could be taken to be identical. The literature also indicates that age at marriage is higher in urban than in rural areas (Bongaarts, Frank and Lesthaeghe, 1984; OPHCC, 1989a, 1989b, 1989c, 1989d, 1990a, 1990b, 1991). Age at first marriage is, therefore, expected to be higher among the urban elite than the general population.

In this section currently married women refers to both women respondents and spouses of male respondents. Table 5.1.5 shows the percentage distribution of all currently married women by age at first marriage and by various social, economic and demographic background variables. In the table, mean ages at marriage of women are also presented by selected background characteristics.

Table 5.1.5 - Percentage (Weighted) Distribution of Currently Married Women by Age at First Marriage, Mean Age at Marriage and Background Characteristics

Elite Sub-groups	Age at first marriage					Total number	Mean age at marriage	F-values
	< 15	15-19	20-24	25-29	30 +			
All groups	7	27	40	22	4	4087	21.2	
Age of women								
less than 40	5	27	45	21	2	3097	21.3	56.54*
40 and above	16	28	27	22	7	991	20.7	
	χ^2= 237.413, df=4, S							
Education of women								
Illiterate	51	39	10	-	-	349	14.6	790.24*
Below grade 7	33	38	20	9	-	276	17.1	
High school to diploma	-	28	48	22	2	2922	21.8	
BA/BSc and above	-	11	30	45	13	473	24.9	
Ethnicity								
Amara	10	27	38	22	3	2641	21.0	15.75**
Oromo	2	29	46	19	4	487	21.7	
Tigre	2	24	45	26	3	654	22.2	
Gurage	2	39	41	19	-	181	20.6	
Others	9	34	40	14	2	124	19.5	
	χ^2= 120.517, df=16, S							
Work status of women								
Working	2	22	45	27	4	3025	22.4	945.93*
Not working	24	42	28	7	-	1062	17.6	
	χ^2= 823.141, df=4, S							

* - *Significant at less than 0.001 level*
** - *Significant at 0.066 level*
S - *Significant at 0.05 level*
df - *degrees of freedom*

From Table 5.1.5 it is observed that 40 percent of the women had married for the first time at ages between 20 and 24 followed by those who had married between ages 15 and 19 (27 percent) and 25 and 29 (22 percent). The proportion of women who had married at young ages (below age 15) was 7 percent while those who had married at the age of 30 and above was only 4 percent. It is interesting to note from the above, that the great majority of the women were married before age 30. The overall mean age at first marriage for women was found to be 21.2 years and for men was 28.8 years.

As mentioned in the foregoing, social, economic, demographic and cultural factors interact to determine the age at first marriage. The following section investigate which of the selected background variables bring about variations in age at first marriage.

Table 5.1.5 shows the percentage distribution of age at first marriage and mean age at first marriage of currently married women. The table shows significant differences in the age at first marriage between the two age groups. Among the older age group, the highest proportion were first married between ages 15 and 19 (28 percent). On the other hand, the highest proportion of age at first marriage for the younger age group was concentrated between ages 20 and 24 (45 percent). This may indicate a shift towards delayed age at marriage. It is also interesting to note a significant decline in marriage at ages below 15. Mean age at marriage shows a 0.6 year difference between the two age groups, a further evidence for a shift towards later age at marriage for recent cohorts. The difference was found to be statistically significant as determined by the F-test.

The literature confirms that education has the effect of raising age at marriage, especially that of females. This is in view of the fact that marriage is usually deferred by at least the number of years spent in school. Education also brings new positive attitudes concerning choice of partners, economic independence through employment, and other factors that lead towards later age at marriage. This view is supported by data in Table 5.1.5. About half of the illiterate women were married before age 15, about 40 percent of them between ages 15 and 19 and a tenth between age 20 and 24. All illiterate women in the sample population were married before they reached their 25th birth day. The proportion married by age showed an inverted 'U' shape relationship among women with some education. A third of the women with education below grade 7 married below the age of 15, while 38 percent married between ages 15 and 19, 20 percent married between ages 20 and 24 and the remaining 9 percent married between 25 and 29. Among women with high school and diploma level of education only 1

percent were married below the age of 15, rising sharply to 27 percent for those who married between ages 15 and 19, reaching a peak of 48 percent between ages 20 and 24, declining to 22 percent between ages 25 and 29 with only 2 percent married at 30 years and above. Among the university graduates, 11 percent got married between age 15 and 19, rising to 30 percent in the age interval 20 and 24, reaching a peak of 45 percent between ages 25 and 29 and then declining to 13 percent at ages 30 and above. From the above it may be observed that the peak age of marriage for illiterate women was below 15, rises to the age interval 15 and 19 for those with elementary education (i.e. below grade 7) and the age interval 20 and 24 for those with education ranging from high school level to diploma holders and then to the age interval 25 and 29 for those with university and above education.

The mean age at marriage varies directly with educational level. It was found to be 14.6 for illiterate women, 17.1 for those with education below grade 7, 21.8 for those with education ranging from high school to diploma level, and 24.9 for university graduates. It is also interesting to note a difference of a little more than ten years in the mean age at marriage between the least educated women and the university graduates. The differences were found to be statistically significant as determined by the F-test.

For every ethnic group, the proportion of women married for the first time at ages below 15 was low, climbed, in some cases steeply, between ages 15 and 19 and reached a peak in the interval 20 to 24 years then declined with advancing age. However, even though the pattern of age at first marriage was the same for all ethnic groups, variations were observed from one group to another. A higher proportion of first marriages below age 15 was observed among the Amara and 'Others' ethnic groups (10 percent each) while it was lowest for Oromos, Tigres and Gurages (2 percent each).

The highest proportion of first marriages in the ages 15 to 19 was reported by Gurages (39 percent) followed by the 'Others' ethnic group (35 percent), Oromos (29 percent), Amaras (27 percent), and Tigres (24 percent). Although a high proportion of first marriages was observed at ages 20 to 24 for all ethnic groups, the highest proportion was reported by Oromos (46 percent) followed by Tigres (45 percent), Gurages (41 percent), 'Others' ethnic group (40 percent) and by Amaras (38 percent). Among those who married for the first time at ages 25 to 29, Tigres and Amaras showed high proportions (26 and 21 percent respectively), followed by Oromos, Gurages and 'Others' ethnic origins (19, 18 and 13 percent respectively). The mean age at marriage was found to be highest among Tigre women while this was lowest among women belonging to the 'Others' ethnic group. The differences in mean age at marriage between ethnic groups was found to be statistically significant as determined by the F-test.

Working women revealed the highest concentration of first marriages at ages 20 to 24 while the highest proportion for non-working women was between 15 and 19. The proportion of non-working women by age at first marriage rises rapidly at ages below 15 (24 percent), reaches a plateau at ages 15 to 19 (42 percent) and declines continuously at ages 20 to 24 and 25 to 29 (28 percent and 6 percent respectively). On the other hand the incidence of first marriage was low at early ages among working women, increases gently until it reaches a peak in the age interval 20 to 24 and then tapers off gently with age. The mean age at first marriage was 17.6 years among non-working women and 22.4 years among working women. In short, non-working women tend to marry about 5 years earlier than working women (assuming that the latter were also working at the time of their first marriage). The differences in mean at marriage by work status of women was found to be statistically significant as determined by the F-test.

The age at first marriage of currently married women by elite sub-groups is given in Table 5.1.6. The age at first marriage of women was observed to be above 15 for all elite sub-groups with the exception of wives of religious leaders. A little more than fifty percent of Orthodox-Christian religious leaders' wives were below the age of 15 when they first got married, 38 percent were between ages 15 and 19 and the remaining 10 percent were between ages 20 and 24. Among the Muslim religious leaders 22 percent reported age at marriage of wives below 15, followed by 39 percent between ages 15 and 19, 29 percent between ages 20 and 24 and 10 percent between ages 25 and 29.

Among the elite sub-groups, the mean age at first marriage was found to be lowest for the Orthodox-Christian religious leaders (14.6 years) followed by Muslim religious leaders (18.7 years) while it was highest among lawyers (26.2 years) followed by university lecturers (24.9 years).

Table 5.1.6 - Percentage Distribution of Currently Married Women by Age at First Marriage, Mean Age at Marriage and by Elite Sub-groups

Elite sub-groups	Age at first marriage					Total number	Mean age at marriage
	< 15	15-19	20-24	25-29	30 +		
Artists	-	16	29	48	7	31	23.9
High school teachers	-	30	44	22	4	167	21.9
Lawyers	-	4	32	43	21	28	26.2
Medical doctors	-	11	43	37	9	35	24.1
Religious leaders							
- Orthodox-Christian	51	38	11	-	-	87	14.6
- Muslim	22	39	29	10	-	79	18.7
Senior government officials	-	110	46	31	12	89	23.9
University lecturers	-	7	35	50	8	107	24.9
Women's group	-	25	48	24	3	109	22.0

Enquiry was made, after the survey, to seek the reasons for such a young age at marriage among the religious leaders. One explanation given by some Orthodox-Christian religious leaders was that to avoid divorce, which traditionally follows if a girl

is found not to be a virgin at the time of her first wedding, priests usually opt for young brides. As mentioned earlier, divorce has a negative impact on the social life of an Orthodox-Christian priest. Many Orthodox-Christian and Muslim religious leaders have also said that this is what tradition and culture requires of them and one has to follow the ways of the fore-fathers.

Most first marriages among the rest of the elite sub-groups took place between ages 20 and 29. The highest proportion of artists, lawyers, and university lecturers wives married between ages 25 and 29 while the wives of high school teachers, medical doctors, senior government officials and members of the women's group married in the age interval 20 to 24. Only a minority reported late age at first marriage (30 and above) and this was highest among lawyers followed by senior government officials.

5.1.3 - Difference in Age at Marriage Between Husband and Wife

Communication between husband and wife has been found to be an important factor influencing contraceptive practices, and hence fertility. Studies have demonstrated that free flow of inter-spousal communication was significantly related to contraceptive use and fertility (Chaudhury, 1978; Rainwater, 1969). Free-flow of communication is necessary both for agreement on family goals and for behaviour designed to achieve these goals. Generally it is easier for people to communicate with each other if the age difference between them is small. It is, therefore, expected that as the difference in age at marriage between husband and wife becomes narrow, communication between them also becomes easier.

Table 5.1.7 shows that for about half of the respondents (48 percent) the age differences between them and their spouses at their first marriage was between 5 and 9 years, about a third reported that this difference was ten or more years while one-fifth have age differences of less than five years. The mean age difference between spouses was found to be 8 years. Variations were, however, observed when the background variables were controlled for.

As was noted for the entire sample, the highest concentration of inter-spousal age differences was also reported to be in the age range of 5 to 9 years for each sub-group of the population under study (Table 5.1.7) although the magnitude of this varies between sub-groups. It was higher for the younger age group, those with high school and diploma level education, Protestants, Gurages, non-working women, the village-born and those who spent most of their childhood in a town.

The mean difference in ages between spouses slightly increased with age while it declined with education. It was higher for non-working than for working women, for village-born and those who were brought up in a village. Among ethnic groups, the difference in ages between spouses was found to be higher among Tigres followed by Amaras and Gurages while it was lowest among Oromos followed by the 'Others' ethnic group. Among the religion groups, the mean differences in ages between spouses was found to be highest among the 'Others' religion category followed by Orthodox-Christians and Muslims while it was lowest among Protestants followed by Catholics. The differences in mean ages between spouses were also found to be statistically significant for all background variables except for age.

A high proportion of all elite sub-groups also reported that the age difference with their spouses was between 5 and 9 years (Table 5.1.8). The highest proportion was,

however, observed for lawyers (54 percent), senior government officials and the women's group (53 percent, each) while a low proportion was reported by artists and university lecturers (36 percent, each).

Table 5.1.7 - Percentage (Weighted) Distribution of Currently Married Couples by Difference in Age at First Marriage and by Background Characteristics

Background characteristics	Age difference 0-4	5-9	10+	Mean age difference	F-value	Total number
All groups	20	48	32	8.0		4087
Age						
Less than 40	18	48	34	7.9	0.039*	2350
40 and above	22	47	31	8.0		1737
	χ^2 = 9.791, df=2, S					
Education						
Below grade 7	9	44	47	10.2	108.76**	455
High school to diploma	18	49	33	8.0		2440
BA/BSc and above	27	47	26	7.0		1193
	χ^2 = 109.675, df=4, S					
Religion						
Orthodox-Christian	19	47	34	8.1	12.20**	3311
Catholic	26	48	26	7.6		142
Protestant	28	62	10	6.5		265
Muslim	19	45	36	8.0		224
Others	14	45	41	8.4		144
	χ^2 = 78.703, df=8, S					
Ethnic origin						
Amara	17	52	31	8.0	12.01**	2623
Oromo	34	37	29	7.2		512
Tigre	22	44	34	8.4		630
Gurage	12	61	27	8.0		172
Others	13	61	26	7.6		146
	χ^2 = 164.919, df=8, S					
Work status of women						
Working	22	47	31	7.6	75.54**	3025
Not working	13	49	38	8.9		1062
	χ^2 = 47.474, df=2, S					
Place of birth						
Town	20	48	32	7.9	7.51***	2622
Village	18	49	33	8.1		1465
	χ^2 = 2.193, df=2, NS					
Place of residence for most of the time until age 12						
Town	21	48	31	7.7	55.21**	3370
Village	16	46	38	9.1		717
	χ^2 = 15.789, df=2, S					

S - Significant at 0.05 level
NS - Not significant at 0.05 level
df - degrees of freedom
* - *No significant difference*
** - *Significant at less than 0.001 level*
*** - *Significant at 0.006 level*

An age difference of less than 5 years was highest among lawyers (39 percent) and least among Orthodox-Christian religious leaders (7 percent). A high proportion of wide age difference (10 years and above) was reported by Orthodox-Christian religious leaders (44 percent) followed by Muslim religious leaders (33 percent) while the least proportion was reported by artists (7 percent). The mean difference in ages between spouses was found to be low among lawyers (5.5 years) followed by medical doctors (6.2 years) and university lecturers (6.6 years) while this was found to be the highest among Orthodox-Christian leaders (10.0 years) followed by the women's group (8.1 years) and Muslim religious leaders (7.9 years). The intermediate positions were occupied by senior government officials (7.4 years), high school teachers (7.3 years) and artists (7.1 years). These mean differences in ages were found to be statistically significant. The finding of poor inter-spousal communication, as implied by the high mean age difference at marriage, among the Orthodox-Christian religious leaders could be one of the factors explaining their lower use of contraception.

Table 5.1.8 - Percentage Distribution of Currently Married Couples by Age Difference and Elite Sub-groups

Elite sub-groups	Age difference			Mean age difference	Total number
	0-4	5-9	10+		
Artists	34	36	29	7.1	31
High school teachers	26	43	31	7.3	167
Lawyers	39	54	7	5.5	28
Medical doctors	31	49	20	6.2	35
Religious leaders					
- Orthodox-Christian	7	49	44	10.0	87
- Muslim	28	39	33	7.9	79
Senior government officials	19	53	28	7.4	89
University lecturers	37	36	26	6.6	107
Women's group	15	53	32	8.1	109

5.2 - Fertility

There are generally two approaches to the measurement of fertility. These are the cohort or cumulative approach, and the period or cross-sectional approach. Cohort measurements express the cumulative number of live births to groups or cohorts of women as they progress through their child-bearing years. In the period or cross-sectional approach, fertility is measured by the number of live births which occur to a defined population during a specified calendar year or a fixed time period. Fertility measurements using the period approach are also referred to as current fertility.

Fertility level of elites, in this study, is measured using the cumulative approach. In other words, fertility is measured on the basis of total number of children ever born alive. The information was obtained from responses to three independent questions about the outcome of each live birth. The questions were: Of the total number of children born to you alive (i) how many of them are presently living with you? (ii) how many of them are living elsewhere? and (iii) how many of them were born alive but died later? Respondents were also asked to state the sex of each child in their answer.

Data on total number of children ever born alive are usually understated because of recall lapse. This is likely to vary with level of education, age and other factors. Attempts have, however, been made to reduce it to a minimum, by including probing questions. Moreover, omission of births due to recall lapse is expected to be minimal among the study population. However, since most of the respondents were males possible omission of children that died shortly after birth could not be ruled out. On the other hand, it is assumed that most respondents would have completed the questionnaire

in consultation with their spouses. Therefore, omission of live births is expected to be minimal, if not nil.

In the following, an attempt will be made to understand determinants of fertility by examining the difference in fertility by social, economic and demographic components of the study population. The discussion of findings focusses on the relation of cumulative fertility to the background characteristics of respondents.

Statistical Analysis

(a) Fertility by background characteristics

This section examines the relationship between fertility and various background characteristics. The technique employed is the Multiple Classification Analysis (MCA). This technique is useful for examining the interrelationships between several independent variables and a dependent variable, assuming an additive model. Among the advantages of MCA over other multivariate methods are that it can handle nominal variables as independent and that it deals with linear and non-linear relationships among the independent variables and the dependent variable. Its limitations include the requirement of a large number of cases for obtaining reliable estimates of means, and that results could be distorted if there is high intercorrelation between independent variables (Andrews *et al*, 1973).

The general model used is of the following form:

$$Y_{ij\ldots_n} = \bar{Y} + a_i + b_j + \ldots + e_{ij\ldots_n}$$

where

$Y_{ij\ldots_n}$ = The score (on the dependent variable) of individual x who falls in the i^{th} category of predictor A and j^{th} category of predictor B, ...,etc.

$\bar{Y}$ = grand mean of the dependent variable.
a_i = the "effect" of membership in the i^{th} category of predictor A.
b_j = the "effect" of membership in the j^{th} category of predictor B.
$e_{ij\cdots_n}$ = error term for individual x.

In the present analysis, the number of children ever born was used as the dependent variable. The independent variables used in the analysis were: education of women, ethnic origin, work status of women and age at first marriage of women. The predictors were categorized into the groups indicated in Table 5.2.1.

The relationship between the number of children ever born and the predictor variables is given in Table 5.2.1. The numbers shown under the unadjusted and adjusted columns are expressed as deviations from the grand mean. For example, 1.26 at the top of column 5 in Table 5.2.1 means that illiterate women have 1.26 children more than the average. The unadjusted deviation indicates the difference between the raw mean for the category and the grand mean. This deviation shows the gross or unadjusted effect of the independent variable. The adjusted deviation of category mean from the grand mean shows the effect of the independent variable alone after controlling for the effects of all other independent variables considered and their intercorrelations (Andrews *et al.*, 1973).

The adjusted data showed a declining trend in fertility with an increase in the educational level, except for the first two levels, women with less than grade 7 education exhibiting higher fertility than women with no schooling. The independent effect of education while adjusting for other predictor variables including the covariate (age) is shown under column 5. The continuous inverse relationship observed between female education and fertility at bivariate level, however, assumed a discontinuous form when adjustment was made for the effect of other variables and age was cosidered as a

Table 5.2.1 - Unadjusted and Adjusted Deviations From Mean Number of Children Ever Born* by Background Characteristics (Weighted)

Independent variables (1)	Number of cases (weighted) (2)	MCA Coefficients: Unadjusted deviations (3)	Adjusted for independent variables (4)	Adjusted for independents and covariate** (5)
Education of women				
Illiterate	349	3.00	2.89	1.26
Below grade 7	276	1.90	1.94	1.49
High school to diploma	2922	-0.33	-0.36	-0.18
BA/BSc and above	473	-1.27	-1.05	-0.67
Beta			*0.46*	*0.21*
Age at first marriage				
Less than 15	281	2.64	1.06	0.99
15 - 19	1085	0.89	0.77	0.84
20 - 24	1608	-0.37	-0.20	-0.11
25 - 29	884	-1.05	-0.76	-0.83
30 and above	161	-1.53	-1.11	-2.03
Beta			*0.28*	*0.31*
Ethnic origin				
Amara	2594	0.05	-0.09	-0.09
Oromo	496	-0.09	-0.15	0.23
Tigre	621	-0.39	0.05	0.00
Gurage	163	0.32	0.39	0.24
Others	146	0.64	0.43	0.59
Beta			*0.06*	*0.01*
Work status of women				
Working	3016	-0.30	0.25	0.10
Not working	1004	0.89	-0.74	-0.29
Beta			*0.18*	*0.00*
**Grand Mean* *3.71*				
Multiple R^2			*0.30*	*0.50*
Multiple R			*0.55*	*0.70*

** *Covariate here is age of wife*

Adjusted mean = Grand mean + adjusted deviations

covariate. According to the adjusted series, illiterate women average about two (1.83) more children than university graduates, but slightly fewer than those with education below grade 7. Bongaarts *et al* (1984) also found higher fertility among women in Sub-Saharan Africa with a few years of schooling than among women with no schooling and gave shorter durations of postpartum abstinence, breast-feeding and perhaps lower levels of pathological sterility as possible reasons. They argue that the effect may be large enough to offset fertility reduction gained by the impact of education. It is also

apparent from this study that although fertility declines as level of education increases, particularly after first two levels, the decline is not very steep between the intermediate and highest levels. In other words, the fertility of those with high school to diploma level education is not appreciably higher than that of university graduates, according to the adjusted series. The fertility difference is highest between those with less than primary education and university graduates. Women with less than primary level education average 2.16 more children than university graduates.

Age at first marriage is one of the most important determinants of fertility, particularly in a society where the great majority of births take place within marriage. In a non-contracepting society, delayed marriage may affect cumulative fertility by shortening the birth-giving age span. Consistent with expectations, age at first marriage was found to be inversely related to fertility. This was found to hold both at bivariate level and when allowance was made for the effect of other variables. According to the unadjusted series, the difference between those who were married at the youngest ages (i.e. below 15 years) and those married at highest ages (i.e. 30 years and above) was about four children (4.17) on average and this reduced to about three children (3.02) when adjustment was made for the effect of other variables. It may also be noted here that there were no notable differences in fertility between those married at early ages and those married at the next higher ages, according to the adjusted series. It seems that the effect of age on fertility does not become apparent if marriage is contracted before age 20.

Unadjusted data in Table 5.2.1 show higher fertility for respondents belonging to the 'Others' ethnic group followed by Gurages, Amaras, Oromos and Tigres. However, this ranking changes when allowance was made for the effect of other variables, with the

exception of the 'Others' ethnic origin (Column 5 of Table 5.2.1). According to the adjusted series, fertility is highest among the 'Other' ethnic group and lowest among the Amaras followed by Tigres. The Gurages and Oromos occupied the intermediary position.

It was generally expected that women working in productive sectors would have lower fertility than non-working women because of the incompatibility between the roles of mother and worker. Data, according to the unadjusted series, confirm the hypothesized relationship between work status and fertility. Women with work experience had on the average 1.19 fewer children than those with no work experience. However, this relationship between work experience and fertility changed from inverse to positive, when adjustment was made for the effect of other variables (Table 5.2.1, column 5). According to the adjusted series, women with work experience average 0.34 more children than those with no work experience.

Considering the beta values which show the degree of relationship between the independent and dependent variables while controlling for the effect of other variables, age at marriage turns out to be the most important predictor of fertility, followed by level of education of women.

b) Fertility by elite sub-groups

Table 5.2.2 presents data on the mean number of children ever born per currently married woman for each elite sub-group of the population under investigation. Women, here, refers to female respondents and wives of male respondents. According to the unadjusted series fertility was found to be highest for Muslim religious leaders

followed by Orthodox-Christian religious leaders with 6.55 and 5.82 children per woman respectively. The lowest fertility was observed for lawyers, 2.04 children per woman, followed by medical doctors, 2.14 children per woman and senior government officials, 2.35 children per woman. The intermediary positions were occupied by university lecturers and high school teachers with 3.07 and 3.15 children per woman respectively.

The rank order, however, changed when adjustment was made for the effect of the independent variables. According to the adjusted series, fertility of Muslim religious leaders still turns out to be highest followed by artists and the women's group with 4.81, 4.07 and 4.01 children per woman, respectively. The intermediate positions were occupied by high school teachers, Orthodox-Christian religious leaders and lawyers with 3.68, 3.49 and 3.41 children per woman, respectively. The lowest fertility levels were observed among university lecturers, senior government officials and medical doctors with 3.34, 3.23 and 3.12 children per woman respectively.

Table 5.2.2 - Unadjusted and Adjusted Deviations from Mean Number of Children Ever born by Elite Sub-groups

Elite sub-groups	Number of cases	Mean number of children ever born	Deviations from grand mean		Adjusted mean[b]
			Unadjusted	Adjusted[a]	
Artists	30	3.30	-0.40	0.37	4.07
High school teachers	160	3.15	-0.55	-0.02	3.68
Lawyers	28	2.04	-1.67	-0.29	3.41
Medical doctors	35	2.14	-1.56	-0.58	3.12
Religious leaders					
- Orthodox-Christian	87	5.83	2.12	-0.21	3.49
- Muslim	78	6.55	2.85	1.11	4.81
Senior government officials	106	2.35	-1.36	-0.47	3.23
University lecturers	88	3.07	-0.64	-0.36	3.34
Women's group	102	3.66	-0.04	-0.31	4.01
Grand mean	*3.71*				
Multiple R^2					*0.61*
Multiple R					*0.78*

a - Adjusted deviation from grand mean, adjusted for (i) education of women, (ii) wife's age at first marriage, (iii) ethnic origin of women, (iv) work status of women, and (v) age of women.

b - Adjusted mean = Grand mean + adjusted deviation from mean.

5.3 - Desired Number of Children

The previous section looked at the fertility behaviour of the study population by background characteristics and among the elite sub-groups. This section investigates the respondents' desired number of children. The information was obtained from the responses to the question "If you could have as many as you wished, how many children would you like to have?"

The question on desired number of children was intended to measure personal attitudes on ideal number of children. The reliability of this approach as an indicator of future fertility behaviour is, however, questioned. Coombs (1975:31) contended that "for people in developing cultures the idea of [limiting] family size is a Western culture import and that there is lack of realism in asking how many children are wanted". Freedman and Takeshita (1969) also argued that women in developing countries with a large number of children would not be willing to express fewer desired number of children than they already have, because if they do it would mean, according to folklore, that they wished their last children dead. However, it is less likely that such attitudes will exist among the study population considering their high level of education and exposure to modern life. Even if it exists it is likely to be weak. Secondly, from the high level of ever and current use of contraceptives, it can be deduced that family building is subject to conscious planning among the study population. In view of the above, the data on desired number of children could be an indicator of completed fertility.

a) Mean number of children desired by background characteristics

The data on the number of children desired in relation to education of women, age at marriage of women, ethnic origin and work status of women are presented in Table 5.3.1. The results mostly resemble those obtained for mean number of children ever born. Ethnicity, education of women and age at first marriage turn out to be the most important factors determining desired number of children The mean number of children desired was highest among Gurages, followed by Oromos, Tigres, Amaras and the 'Others' ethnic group. The Gurages are the minority among the four ethnic groups. Whether there is any relationship between a high number of children desired and membership of a small ethnic group is an area for future research. Based on the unadjusted deviation the mean number of children desired decreased as level of education rose. Those who have no formal education averaged two more desired children than those who are university graduates. In contrast, the difference between those married at the youngest ages (less than 15) and highest ages was at least one desired child (1.36) and between those with work experience and no work experience was only 0.52. This pattern still held when allowances were made for the effects of other independent variables except for the relationship between education and desired number of children. According to the adjusted series, the relationship between education and desired number of children becomes discontinuous. In this case, women with less than primary education (below grade 7) desired a slightly higher number of children than women with no formal schooling. A similar pattern of relationship was observed between education and fertility.

Table 5.3.1 - Unadjusted and Adjusted Deviations From Mean Number of Children Desired* by Background Characteristics (Weighted)

Independent variables (1)	Number of cases (weighted) (2)	MCA Coefficients: Unadjusted deviations (3)	Adjusted for independent variables (4)	Adjusted for independent and covariate** (5)
Education of women				
Illiterate	95	1.75	1.79	1.06
Below grade 7	121	1.67	1.73	1.27
High school to diploma	2654	-0.08	-0.10	-0.09
BA/BSc and above	450	-0.34	-0.25	-0.05
Beta			*0.21*	*0.14*
Age at first marriage				
Less than 15	96	1.04	0.08	0.53
15 - 19	792	0.39	0.36	0.39
20 - 24	1515	-0.08	-0.05	-0.02
25 - 29	809	-0.32	-0.25	-0.29
30 and above	108	-0.32	-0.12	-0.88
Beta			*0.10*	*0.14*
Ethnic origin				
Amara	2031	-0.16	-0.19	-0.19
Oromo	445	0.35	0.34	0.38
Tigre	558	-0.01	0.12	0.10
Gurage	159	1.41	1.38	1.28
Others	128	-0.31	-0.47	-0.30
Beta			*0.17*	*0.16*
Work status of women				
Working	2745	-0.09	0.02	-0.03
Not working	576	0.43	-0.10	0.16
Beta			*0.02*	*0.03*
**Grand Mean*	*4.31*			
Multiple R^2			*0.08*	*0.15*
Multiple R			*0.29*	*0.39*

** *Covariate here is age of wife*
Adjusted mean = Grand mean + adjusted deviations

b) Mean number of children desired by elite sub-group

Among the elite sub-groups, the number of children desired was found to be highest among Muslim religious leaders (9.62 children per woman) followed by Orthodox-Christian religious leaders (4.32) and the women's group (4.43, each), high school teachers (4.07), artists (4.00), medical doctors (3.66), university lecturers (3.55), senior government officials (3.44) and lawyers (3.32). This rank order remains almost

unchanged when allowances were made for the effect of other variables, with the notable exception of the Orthodox-Christian religious leaders. The rank order of the Orthodox-Christian leaders with respect to desired number of children changes from second highest in the unadjusted series to fifth in the adjusted series when allowances are made for education, age at marriage, ethnicity and work status of women.

Although the mean number of children ever born is expected to be less than the completed fertility, the achieved level was found to be higher than the desired for such elite sub-groups as the artists and Orthodox-Christian leaders indicating unmet need for family planning.

Table 5.3.2 - Unadjusted and Adjusted Deviations From Mean Number of Children Desired* by Background Characteristics

Independent variables	Number of cases	MCA Coefficients		
		Unadjusted deviations	Adjusted for independent variables	Adjusted for independents and covariate**
(1)	(2)	(3)	(4)	(5)
Artists	29	-0.45	-0.41	-0.37
High school teachers	142	0.38	-0.24	-0.18
Lawyers	28	-1.13	-0.95	-0.83
Medical doctors	33	-0.79	-0.53	-0.43
Religious leaders				
- Orthodox-Christian	17	0.02	-2.29	-1.88
- Muslim	57	5.32	3.89	3.98
University lecturers	86	-0.90	-0.63	-0.84
Senior government officials	98	-1.01	-0.74	-0.73
Women's group	103	-0.02	0.32	0.23
* *Grand mean*		*4.45*		
Multiple R^2			*0.41*	*0.43*
Multiple R			*0.64*	*0.66*

** *Covariate here is age of wife*
Adjusted mean = Grand mean + adjusted deviations

Summary

Some of the important findings of this chapter were:

1. Marriages were found to be highly stable in the study population. The variations observed by background characteristics or within the elite sub-groups were not considerable.

2. The majority of women (i.e. female respondents and wives of male respondents) married between ages 20 and 24 (40 percent), followed by those who married between ages 15 and 19, (27 percent), and ages 25 and 29 (22 percent). The mean age at first marriage of women was found to be 21.2 years and for men 28.8 years.

3. An apparent shift towards delayed age at first marriage of women was observed. The mean age at marriage of women aged 40 and above was 20.7 while that of the younger age group was 21.3.

4. The age difference between spouses for the majority of the study population was 5 to 9 years. The overall mean age difference was 8 years. The highest mean age difference was observed for the Orthodox-Christian religious leaders (10 years) and the lowest for lawyers (5.5 years).

5. Data adjusted for the effect of background variables showed a declining trend in fertility with an increase in the educational level, except for the first two levels, women with less than grade 7 education exhibiting higher fertility than women with no schooling. It was also observed that women with less than primary level education average about two children more than university graduates. Among the background variables those which were most closely related to number of children ever born were age at first marriage and education.

Fertility was highest for Muslim religious leaders followed by Orthodox-Christian religious leaders with 6.55 and 5.82 children per woman respectively at the bivariate level. When allowance was made for background variables and age, fertility of Muslim religious leaders still turns out to be highest followed by artists and the women's group with 4.81,4.07 and 4.01 children per woman. The lowest fertility in the unadjusted series was observed for lawyers at 2.03 children per woman, followed by medical doctors, 2.14 children per woman. In the adjusted series, the lowest fertility was that of medical doctors followed by senior government officials, 3.12 and 3.23 children per woman respectively.

6. The number of children desired was found to be highest among Muslim religious leaders (9.62 children per woman) followed by Orthodox-Christian religious leaders (4.47) and the women's group (4.43) at the bivariate level. The rank order remains almost unchanged when allowances were made for the effect of other variables, with the notable exception of the Orthodox-Christian religious leaders. The number of children desired, according to the adjusted series, is about four for most of the elite sub-groups.

CHAPTER SIX

ELITES' PERCEPTION OF POPULATION GROWTH AND ITS IMPLICATIONS IN ETHIOPIA

The first-ever census showed that the population of Ethiopia in 1984 was 42 million and the annual rate of population growth was estimated at 2.9 percent (OPHCC, 1984). At this rate of increase the population will double in 24 years. The population in April 1991 was estimated to have reached about 51 million. This puts Ethiopia third among Africa's most populous countries, after Nigeria and Egypt (UN,1989).

As in most developing countries, high and stable fertility and a gently declining mortality have largely influenced the rapid population growth of the country (Mersie, 1989; UN, 1989). One of the most critical aspects of a high population growth rate is that it results in a high concentration in the younger age groups. Based on the 1984 census, the young dependent population (aged 0 to 14 years) estimated for 1987 was 48 percent of the country's population (CSA, 1990). For the same year, the young dependency burden, i.e.,the number of young dependents supported by 100 persons of work-force age (15 to 64 years) was 102. This is the outcome of an unbalanced age structure which results mainly from a high birth rate.

A sustained high fertility, therefore, leads to an increasingly large number of infants and children who require food, clothing, health services, education and employment opportunities in the future. A high proportion of young people, besides creating pressure on an already weak national economy such as Ethiopia's, also continues to contribute to the growth of the population for some time even if the fertility were to decline to the replacement level.

The Government of Ethiopia's awareness of the adverse effects of high population growth on economic and social development has increased in recent years. The many press conferences, workshops and seminars organized with the direct participation of the government since 1987 can serve as an indication of the increasing official awareness of the interrelationship between population and development factors (Seyoum, 1989). The increasing concern of the population has also led the government to draft a population policy (PDRE, 1990) and it is hoped that, the culmination of these activities will be the promulgation and implementation of the policy to curb population growth and thereby reduce the grave social and economic challenges of a high population growth rate. It is, therefore, important to understand the perception of the elite regarding the present population size and its future implications for "the success of the national policy for population control largely depends on how seriously the elite view or are to view this growth" (Badruduzza, 1961).

6.1 - Elites' Perception of Population Growth and Its Impact

In this section an attempt will be made to examine the perception of the elite regarding population growth. The questions asked were:

i. The population of Ethiopia was 42 million in 1984 and it is now about 49 million. Do you think that the population of the whole country is growing fast or growing slowly?
   1. fast 2. slowly 3. about right 4. don't know

ii. Given the current schedule of fertility and mortality, the population of Ethiopia will double in size from 49 million in 1989 to about 100 million in the year 2013 (i.e. in about 24 years time). If this happens, do you believe that it would be good or bad for the country?
   1. good 2. bad 3. neutral

As can be observed from the above questions, respondents were informed or reminded about the present population size of Ethiopia and its rate of growth, and then asked their opinions on its effect on the country. If they looked upon the growth as good or bad they were then asked to give their reasons. Those who believed that such a growth is bad for the country were also asked to give their opinions on what the Government should do about the problem. The next sections will outline the nature of the perceptions of the study population on the above questions by different background variables and then by elite sub-groups. Samples of the opinions will also be given in a following section.

i) Elites' perception of population growth and its impact by background characteristics

An absolute majority of the respondents (85 percent) perceived the population growth in the 1984-1989 period to be fast (Table 6.1.1). Only a minority believed that the growth was slow (3 percent) or it was about right (5 percent). A small proportion (7 percent) of "don't know" responses was also noted. Those who replied that they "don't know" whether the population growth was fast, slow or moderate might not have understood the question or could not relate the effect of a growing population to the social, economic and environmental consequences at the national level.

Similarly, more than three-quarters of respondents perceived that if the population growth were to continue as in the past it would be bad for the country (Table 6.1.2). On the other hand, a small proportion of elites perceived such future growth to be good for the country (12 percent) while an equal proportion took a neutral position.

Table 6.1.1 - Percentage (Weighted) Distribution of Elites' Perception of Population Growth in Ethiopia in the 1984-1989 Period by Background Characteristics

Background characteristics	Perceived growth during 1984-89				
	Fast	Slow	About right	Don't know	Total number
All groups	85	3	5	6	5269
Age					
Less than 40	87	3	4	6	3148
40 and above	83	4	6	7	2121
	χ^2 = 15.529, df=3, S				
Education					
Below grade 7	64	12	6	18	526
High school to diploma	86	4	5	6	2863
BA/Bsc and above	91	-	5	4	1880
	χ^2 = 335.565, df=6, S				
Marital status					
Never married	89	-	6	4	922
Ever married	84	4	5	7	4347
	χ^2 = 46.225, df=3, S				
Religion					
Orthodox-Christian	85	3	4	7	4184
Catholic	67	6	18	9	187
Protestant	90	-	3	6	388
Muslim	81	8	5	6	286
Others	90	-	10	-	224
Ethnic origin					
Amara	85	5	5	5	3249
Oromo	89	1	3	7	732
Tigre	84	3	5	8	833
Gurage	81	2	10	7	226
Others	87	2	6	5	229
Work status of women					
Working	86	3	5	6	3285
Non-working	80	7	5	8	1060
	χ^2 = 37.713, df=3, S				
Place of birth					
Town	87	2	4	6	3388
Village	82	5	7	7	1882
	χ^2 = 41.648, df=3, S				
Place of residence for most of the time until age 12					
Town	87	2	5	6	4261
Village	78	7	5	9	1008
	χ^2 = 80.913, df=3, S				

S - Significant at 0.05 level
NS - Not significant at 0.05 level
df - degrees of freedom
Note - Non responses were excluded from the analysis.

Elites' perception of rapid population growth during the past five years was found to persist even when background variables were controlled for (Table 6.1.1). Variations were, however, observed within the background variables. For instance, the younger generation, the better educated, the never-married, Protestants and those belonging to

the 'Others' religion groups, working women, the town-born, and those brought up in town were more likely to perceive the population growth as fast.

It should be noted that the proportions of respondents who believed that the population has grown slowly or moderately are very small, even by background variables with the exception of those with the least formal education, Catholics and 'Others' religions category. Over one tenth of the least educated group considered the population growth during the period 1984-89, was slow. A small but considerable proportion of Catholics (18 percent) and those belonging to the 'Others' (10 percent) category believed that the population growth was moderate during the reference period. These differences were also found to be statistically significant, as determined by the chi-square test, where applicable.

An overwhelming majority of the study population perceived the resulting population size would be bad for the country if the current schedule of fertility and mortality were to continue in the future. This was found to hold for most of the background variables except for the least formally educated (Table 6.1.2). However, elites' perception of the implication of future population size, if the dynamics of population growth are to continue at the current rate, were observed to vary by background characteristics.

The pattern and direction of the variation of the perceived future population growth by background variables was found to be similar to respondents' understanding of population growth in the past five years. That is, the younger generation, the better educated, the never-married, those belonging to the 'Others' religions category, Protestants, Oromos and Tigres, working-women, the town-born, and respondents who

spent most of their childhood until age 12 in town believed that if the population were to grow in the future at the current rate it would be bad for the country.

Table 6.1.2 - Percentage (Weighted) Distribution of Elites' Perception of the Implication of Current Population Growth in Ethiopia by Background Characteristics

Background characteristics	Good	Bad	Neutral	Total number
All groups	12	76	12	5198
Age				
Less than 40	7	82	11	3059
40 and above	20	67	13	2139
	χ^2 = 184.421, df=2, S			
Education				
Below grade 7	60	22	18	526
High school to diploma	7	82	11	2804
BA/Bsc and above	6	84	10	1868
	χ^2 = 139.251, df=4, S			
Marital status				
Never married	9	79	12	923
Ever married	13	75	11	4274
	χ^2 = 9.002, df=2, S			
Religion				
Orthodox-Christian	14	76	10	4126
Catholic	9	66	25	202
Protestant	4	80	16	373
Muslim	13	72	14	288
Others	3	88	10	209
	χ^2 = 98.734, df=8, S			
Ethnic origin				
Amara	17	71	12	3166
Oromo	5	86	7	732
Tigre	6	87	7	843
Gurage	4	69	27	226
Others	5	78	17	230
	χ^2 = 228.589, df=8, S			
Work status of women				
Working	6	82	11	3210
Non-working	33	57	10	1062
	χ^2 = 496.623, df=2, S			
Place of birth				
Town	7	80	13	3325
Village	22	68	10	1873
	χ^2 = 241.261, df=2, S			
Place of residence for most of the time until age 12				
Town	7	82	11	4198
Village	33	54	13	999
	χ^2 = 493.162, df=2, S			

S - Significant at 0.05 level
NS - Not significant at 0.05 level
df - degrees of freedom

The notable exception was the least educated group. It is to be noted that a majority (60 percent) of respondents with formal education below grade 7 believed that it would be good for the country if the population were to grow at the current rate, even

if it means doubling in less than a quarter of a century. A smaller proportion of the older generation, the ever-married, Orthodox-Christians, Muslims, Amaras, non-working women, the village-born and those brought up in town also concur with the view of the above sub-group.

More than a tenth of the respondents replied that they are indifferent to the effect of future population growth. This neutral position was, however, observed to vary by background variables and was higher among the older age group, the least formally educated, the never-married, Catholics, Gurages, the town-born, and those who were brought up in town. The variations in perception by background variables were found to be statistically significant as determined by the chi-square test, where applicable.

It appears from the preceding findings that the majority of elites perceived the population growth in the last five years to have been fast (85 percent) and if this population growth is to continue at the same fast pace it would be bad for the country (76 percent). It is also very interesting to note that the proportion of elites who thought that the population was growing fast was higher than that of the proportion who considered its effect in future would be bad. Therefore, some elites, even though they considered the population was growing fast, did not necessarily consider this was bad for the country.

(ii) Perception of population growth by elite sub-groups

Understanding of elites' views of population growth and its possible impact on the country by background characteristics is essential to identify those variables which play leading roles in shaping their attitudes. It would, however, be more meaningful and of interest to understand perception of the past population growth and the implication of

current population growth for the different sub-groups of elites since these groups play a pivotal role in formulating and implementing policies at national or sub-national levels.

It may be observed from Table 6.1.3 that the majority of respondents within each of the elite sub-groups reported that the population growth in the 1984-1989 period was fast. This proportion was highest among medical doctors and university lecturers (93 percent each) followed by high school teachers and senior government officials (89 percent each), artists (86 percent) and the women's group (85 percent). The corresponding proportions among Orthodox-Christian and Muslim religious leaders were 69 and 61 percent, respectively.

Table 6.1.3 - Percentage Distribution of Elites' Perception of Population Growth in Ethiopia in 1984-1989 Period by Elite Sub-groups

Elite sub-group	Perceived population growth				Total number
	Fast	Slow	About right	Don't know	
Artists	86	2	4	8	52
High school teachers	89	2	5	4	246
Lawyers	87	2	2	9	63
Medical doctors	93	1	5	1	70
Religious leaders					
- Orthodox-Christian	69	11	6	14	99
- Muslim	61	8	16	15	86
Senior government officials	89	1	5	5	109
University lecturers	93	1	3	3	189
Women's group	85	3	4	8	120

Note - Percentages add up to 100 row-wise

With the exception of the religious leaders, a negligible proportion among the rest of the elite sub-groups reported that the population growth during the specified period was slow or moderate. The small proportion of 'don't know' responses were given mainly by the religious leaders.

The majority of each of the elite sub-groups also felt that the rapid population growth would have a negative implication for the country in the future (Table 6.1.4). The only exceptions to this view were the religious leaders, particularly the Orthodox-Christian leaders. Only one-quarter of the Orthodox-Christian religious leaders and half of the Muslim religious leaders felt that the current rate of population growth might be bad for the country. Among the elite sub-groups those who considered that a continued high rate of population growth would be bad for the country, senior government officials (89 percent) and medical doctors (88 percent) topped the list.

Table 6.1.4 - Percentage Distribution of Elites' Perception of the Future Implication of Current Population Growth in Ethiopia by Elite Sub-groups

Elite sub-group	Good	Bad	Neutral	Total number
Artist	11	78	11	53
High school teachers	6	85	9	246
Lawyers	5	84	11	63
Medical doctors	6	88	6	70
Religious leaders				
- Orthodox-Christian	60	26	14	99
- Muslim	36	50	14	86
Senior government officials	4	89	7	110
University lecturers	6	82	12	190
Women's group	5	81	14	115

Note - Percentages add up to 100 row-wise

It was noted from Table 6.1.2 that a majority of the overall respondents of all religious affiliations reported that it would be bad for the country if the population continues to grow at the current fast rate. However, from Table 6.1.4 it was observed that the above view was not generally endorsed by the religious leaders of the Orthodox-Christian and Muslim faith, particularly the former. One possible explanation for this observed deviation could be that the elite sub-groups, other than the religious leaders,

might have responded to the question by considering the implications of population growth, whereas the religious leaders might have looked at the question from the stand point of the scriptures. It was noted earlier that the Ethiopian Orthodox-Christian Church has a pronatalist stand. Therefore, it is not surprising to find 60 percent of the church leaders perceive the present population growth to be good for the country.

The following section examines the variations in elites' perception of past population growth and its future implications for the country controlling for age, education and other background variables.

(iii) Elites' perception of rapid population growth in the 1984-1989 period and its future implications for the country

It should be noted that, consistent with previous findings, a large majority of respondents among the elite sub-groups, irrespective of their background characteristics as indicated in Table 6.1.5, considered the population growth during the last five years (1984-89) to have been fast. The only exception was the group of least educated Muslim religious leaders.

Awareness of fast population growth during the specified period was found to vary directly with level of education among all elite sub-groups (Table 6.1.5). No distinct pattern of variation was, however, observed among the elite sub-groups who perceived a fast population growth during the 1984-1989 period when allowance was made for the other background variables.

It was observed from Table 6.1.4 that a considerable proportion of elites within most sub-groups, with the exception of the religious leaders, particularly Orthodox-Christian leaders, perceived the implication of the current rapid population growth to

be bad. This was found to hold even when allowance was made for all background variables (Table 6.1.6). However, variations were observed in the relation between perceived outcome of a fast population growth and the background variables within each of the elite sub-groups.

It is interesting to note that among the sub-groups of elites the proportion which considered population growth was fast in the past five years was mostly greater than the proportion which considered the implications of the current population growth to be bad for the country, when most of the background variables were held constant. For instance, 85 percent of the young Orthodox-Christian leaders felt that the population was growing fast in the 1984-1989 period (Table 6.1.5). On the other hand, only 41 percent of this sub-group perceived that such a population growth would be bad for the country (Table 6.1.6).

To sum up, it could be discerned from the foregoing that the majority of the elite sub-groups perceived a fast population growth in the country during the 1984-1989 period even when the background variables were held constant. The only exception to the above were the Muslim religious leaders with the least formal education. It was also observed that perceived fast population growth was positively related to level of education. No discernible pattern was, however, observed within the rest of the background variables among the elite sub-groups. Similarly, the majority of the elite sub-groups, with the exception of the religious leaders, particularly Orthodox-Christian leaders, perceived that the current population growth would be bad for the country, even when the background variables were held constant.

Table 6.1.5 - Percentage Distribution of Respondents Who Perceived a Fast Population Growth in Ethiopia During the 1984-1989 Period by Sub-group and Background Characteristics

Elite sub-group	Age		Education			Marital status		Religion				
	Less than 40	40 and above	Below grade 7	High school to diploma	BA/BSc and above	Never married	Ever married	Orthodox-Christian	Protestant	Catholic	Muslim	Others
Artists	83	91	-	85	88	76	91	85	*	*	*	*
High school teachers	88	91	-	87	92	88	90	90	70	92	100	85
Lawyers	88	85	-	*	87	88	87	87	*	..	*	*
Medical doctors	93	93	-	-	93	91	95	94	*	*	*	*
Religious leaders												
- Orthodox-Christian	85	63	66	82	-	*	67	69	..	..	..	..
- Muslim	68	57	43	74	85	*	58	..	..	..	61	..
Senior government officials	88	89	-	77	91	100	88	90	90	*	*	77
University lecturers	93	93	-	-	93	93	93	94	88	*	*	95
Women's group	86	83	-	84	85	*	84	86	*	*	*	*

Table 6.1.5continued

Elite sub-groups	Ethnic origin					Work status of women		Place of birth		Place of Childhood residence	
	Amara	Oromo	Tigre	Gurage	Others	Working	Not Working	Town	Village	Town	Village
Artists	84	*	*	*	*	93	91	88	*	88	*
High school teachers	89	92	88	*	93	91	89	90	88	89	91
Lawyers	83	92	*	*	..	88	*	85	94	85	*
Medical doctors	97	92	78	*	*	94	*	94	88	94	*
Religious leaders											
- Orthodox-Christian	72	*	*	..	*	54	70	85	66	74	68
- Muslim	75	59	*	59	55	65	56	59	63	65	59
Senior government officials	89	90	86	*	*	86	93	89	89	89	88
University lecturers	92	100	90	*	93	92	100	91	97	92	100
Women's group	85	93	78	*	*	85	*	84	88	85	*

** indicates that percentage was not calculated, because base was less than 10 cases.*

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Table 6.1.6 Percentage Distribution of Respondents Who Perceived Bad Future Implication of Current Population Growth in Ethiopia by Elites' Sub-groups and Background Characteristics

Elite sub-group	Age		Education			Marital status		Religion				
	Less than 40	40 and above	Below grade 7	High school to diploma	BA/BSc and above	Never married	Ever married	Orthodox-Christian	Protestant	Catholic	Muslim	Others
Artists	73	83	-	78	77	89	71	81	*	*	*	*
High school teachers	88	82	-	87	83	82	86	87	60	79	92	85
Lawyers	82	92	-	*	84	85	93	85	*	..	*	*
Medical doctors	85	100	-	-	89	85	92	90	*	100	*	*
Religious leaders												
- Orthodox-Christian	41	21	22	47	-	*	25	26	..	..	..	..
- Muslim	71	40	29	61	92	*	48	..	..	..	50	..
Senior government officials	88	90	-	69	92	92	89	90	*	70	*	92
University lecturers	83	80	-	-	82	81	83	85	*	76	*	68
Women's group	82	75	-	80	83	*	82	81	*	*	*	*

Table 6.1.6continued

Elite sub-group	Ethnic origin					Work status of women		Place of birth		Place of Childhood residence	
	Amara	Oromo	Tigre	Gurage	Others	Working	Not Working	Town	Village	Town	Village
Artists	79	*	*	*	*	79	64	80	*	76	*
High school teachers	80	90	90	*	93	88	86	85	85	85	83
Lawyers	80	92	*	*	..	76	*	83	88	82	*
Medical doctors	94	100	*	*	*	94	*	89	88	90	*
Religious leaders											
- Orthodox-Christian	27	*	*	..	*	31	23	31	26	37	24
- Muslim	58	59	*	35	45	70	42	61	38	52	43
Senior government officials	87	95	86	*	*	90	93	88	91	89	88
University lecturers	80	89	80	*	80	81	83	78	90	79	97
Women's group	80	93	89	*	*	81	*	79	88	81	*

** indicates that percentage was not calculated, because base was less than 10 cases.*
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6.2 - Rationale of Respondents for Considering Population Growth in Ethiopia to be Bad or Good for the Country

The perception of elites on the implication of Ethiopia's present and future population size and growth has been reviewed by background variables and elites sub-groups. The following section examines the views of the study population concerning the complexities of a rapid population growth.

In preceding sections it was shown that the majority of respondents, excepting religious leaders, particularly the Orthodox-Christian leaders, considered that the current population growth would be bad for the country, whereas a minority believed it would be good. These respondents were further asked to give the reasons for their responses. Those respondents who perceived the population growth to be bad for the country were further queried on what the Government should do about the problem.

- Population growth considered as bad

The predominant feeling of most elite sub-groups with the exception of the religious leaders was that the growth of the population at the current pace would pose a problem for the country. Keeping in view the responses given, the reasons were broadly categorized into economic; social; economic and social; economic, social and environmental; and others. The major reasons given by the respondents are summarized in Table 6.2.1.

Table 6.2.1 - Reasons Given for Considering Current Population Growth in Ethiopia to be Bad for the Country (Weighted figures)

Reasons	Percent	Total number
Economic	37	1393
Social	6	214
Economic and social	47	1785
Economic, social and environmental	8	333
Others	2	82
Total	100	3807

Note - non-responses were excluded from the analysis.

The main concern of the elite, as indicated in Table 6.2.1, is that rapid population growth would threaten the economic and social development of the country. To many respondents population growth is a deterrent to economic development. Some considered that the country would face various economic, social and environmental problems if the current rate of growth were to continue in the future.

Table 6.2.2 presents the percentage distribution of the reasons given by the elite sub-groups for considering that the current population growth would be bad for the country. The majority of artists, high school teachers, lawyers, medical doctors and the women's group felt that the country would face economic and social problems, if the population is to continue growing at the current rate. A higher proportion of respondents among the religious leaders, senior government officials and university lecturers considered the major problems would only be economic. Other possible consequences of rapid population growth were mentioned by a few among different elite sub-groups.

Table 6.2.2 - Reasons given by Elite Sub-groups for Considering Population Growth in Ethiopia to be Bad (percent distribution)

Elite Sub-groups	Economic	Social	Economic and social	Economic social, and enviro-nmental	Other	Total number
Artists	28	10	41	8	13	39
High school teachers	37	8	42	10	3	200
Lawyers	14	5	69	12	-	42
Medical doctors	25	3	52	15	5	61
Religious leaders						
- Orthodox-Christian	52	-	30	18	-	21
- Muslim	45	7	36	10	2	42
Senior government officials	62	1	20	17	-	95
University lectures	53	1	35	10	1	154
Women's group	32	3	58	6	1	91

Note - non-responses were excluded from the analysis.

A few examples of concern expressed by elites on the possible perceived adverse effect of a high population growth on the country are given below:

- The more the population, the more accommodation, health, food, etc. required and I don't think the country will satisfy all these needs. Therefore, more population implies more problem.

- For a country like Ethiopia, if the population is growing at this rate, it would be difficult to feed its people properly as its development is retrogressive.

- As an Ethiopian proverb goes it is like "mumps over goiter" because even with present population we are the poorest with the lowest per capita income and we have yet to build our economy even to feed and satisfy the basic human needs of the present population.

- The available service giving areas and institutions like elementary schools, secondary schools, universities, clinics, hospitals, basic needs like food, shelter (housing) and work facilities and technological development are not growing at the same pace as that of the growth of population resulting in overcrowding, scarcity and then different disaster.

- The rate of growth of the Gross National Product is far less corresponding to the rate of growth of population.

- The living standard of the family must be the type that can afford the living condition of the children. Between the family and children there should not arise any psychological conflicts that affect the children's need and also should not be burden to the family's income.

- Increasing people but decreasing economy of the country entails, decreasing natural health, increasing perinatal mortality and decreased work force due to pregnancy and delivery period.

- In all aspects, from the economic point of view, social aspect, and also in dealing with health problems as well as political problems to the country.

- Ethiopia is an extremely poor country. I feel that population growth has to be in conformity with economic growth. All the new born need schools to go to, good health facilities, food, etc. The country at its current state is not capable of providing everything that is required to sustain a large population.

- Population growth and socio-economic development need to be balanced. In our case, socio-economic development is very slow whereas population growth rate is faster.

- If our economic, social and political situation remains the same, the per capita expenditure will decrease and the overall situation will be disastrous. Though, it is a known fact that young population growth is essential but it depends on lot of factors.

- Ethiopia is an under-developed country. The national economy cannot sustain the growing population. This alarming growth of population, therefore, will lead us to unwanted poverty.

- It would be bad because as the number of the population increases the living standard will decrease because of the sharing of the natural resources of the nation among the large number of population.

- Unfortunately our country [Ethiopia] is on the leading list of poor countries in the world. If to that is added the problem of doubling of the population within a span of a quarter of a century then that would mean problems DOUBLED unless one is indifferent enough to believe that problems do seek their own solution. Remember a rich country doesn't mean rich people.

- Overcrowding is one of the predisposing factors for disease transmission and malnutrition.

- The prevailing low level of socio-economic development (in terms of food supply, income, education and health services, employment opportunities etc...) is hardly favourable to the present population, let alone when it doubles.

- The economic development of the country lies behind the population growth.

- The infrastructure we have at present is very poor in all sectors of the economy and no indication of positive progress exists. War, famine and backwardness are crawling and much progress is not expected in the coming two decades.

- Since the rate at which the country's economy grows is very low and the resource is limited, too much population would mean, a baby going to bed without dinner.

- With the current mode of agricultural production starvation will follow.

- Fast population growth implies high percentage of non productive members for the society. These members while they don't contribute to the national wealth (in the near future) they share a great deal of what is produced. Investment and capital accumulation will be curtailed. Proper training can not be given to them (limited institutes). As such most will be worthless.

- The nation is already unable to feed and educate its present population. To make or convert its millions into a viable and productive work force, the nation needs to go through major restructuring.

- The rate of growth of the population should be compatible with the stage of development of a country. As long as you produce more mouths to feed you will have less resources for development. It should be carefully planned.

- The country has not been able to support even the present population leave alone 100 million. It is the poorest of all countries and the future is not bright. Civil wars are destroying the existing infrastructures. Funds are allocated for wars not for development. The strong and working men become soldiers. Thus, many will starve.

- Given the present economic growth of the country, increasing the population means further lowering the already poor standard of living of the citizens. This means poverty, disease and what not.

- The country's arable land would be overcrowded. Food production that is already below the current population needs will be further worsened. The environment will be degraded further. The risk for further increase in population will be augmented.

- Population growth considered as good

It has been noted earlier that only a minority of respondents perceived the population growth as beneficial to the country. It is, however, interesting to look at the distribution of responses and the rationale given for considering the population growth as good.

Table 6.2.3-Percentage (Weighted) Distribution of the Rationale of Respondents for Considering Current Population Growth to be Good for the country

Rationale	Percent	Total number
More manpower for trade, industry, etc.	9.6	38
Plenty of land to cultivate	11.4	45
Military might	12.7	51
God's will	60.2	240
Insurance against de-population	6.1	24
Total	100.0	398

Table 6.2.3 shows that the majority of respondents who considered rapid population growth to be good for the country, argued that this was God's will and, hence, no one could do anything about it. Some respondents argued that Ethiopia needs more people to cultivate the vast arable land which is lying idle. Others equated a large population with military might. Some of the arguments, as given by respondents, are outlined below.

- It is good, when population grows productive forces increase and labour becomes cheap. Even though Ethiopia has been struck by repeated drought for many years it has a vast area of intact fertile land and many natural resources that can be exploited by its population.

- Ethiopia needs a trained manpower. So by giving the appropriate education at the right time a lot of benefit can be gained from a large population.

- Ethiopia is rich in natural wealth and there is no scarcity of land to live on. She needs many educated people to make the wealth useful. That is why I said it would be good if the population grew fast.

- It is good since the first dependable resource, to my mind, are the people both for its development and defense capability.

It may be observed from Table 6.2.4 that the great majority of the respondents who perceived the current population growth as beneficial to the country were the

religious leaders, particularly the Orthodox-Christian leaders. A very small proportion of respondents belonging to the other elite sub-groups supported the above view.

Table 6.2.4 Percentage Distribution of the Rationale of Respondents for Considering Population Growth in Ethiopia to be Good by Elites Sub-groups

Elite Sub-groups	Reason why it is good if the population doubles in 24 yrs					
	More manpower for ind., trade, etc.	Plenty of land to cultivate	Military might	God's will	Insurance against depopu-lation	Total number
Artists	*	*	*	*	*	1
High school teachers	*	*	*	*	*	1
Religious leaders						
- Orthodox-Christian	7	9	9	68	7	57
- Muslim	27	27	13	30	3	30
Senior government officials	*	*	*	*	*	3
University lectures	*	*	*	*	*	7

** indicates that percentage was not calculated, because base was less than 10 cases.*
Note - Percentage add up to 100 row-wise

A majority of Orthodox-Christian leaders (68 percent) reported that it was God's will that population should grow at such a fast rate. Many of them said during the interview, the Bible teaches that God has commanded man to "multiply and fill the earth". So, they argued, it is man's duty to fulfill God's wishes.

Though the Muslim religious leaders did not argue along this line, a considerable proportion (30 percent) of them subscribed to the above view. Some mentioned that everyone is born into this world with his/her own *rizk* (or blueprint of one's life) and it is not up to Man to interfere in His wishes. Still others mentioned that children are blessings of God/Allah and one has to be grateful from them.

It can be observed from the above that religious teaching has to a large extent influenced the ideas of the religious leaders, particularly the Orthodox-Christian religious leaders, on matters related to population growth and its consequences. It can safely be

assumed, that what these groups believe is what they teach to their followers. This implies that they view current rapid population growth as a fulfillment of God's commands and hence are not concerned or aware of its consequences.

There are about 240,000 Orthodox-Christian priests in the whole of Ethiopia (Ethiopian Herald, Vol. XLVII, No. 36, 1990). It was also mentioned in Chapter Two, that a priest in Addis Ababa is a *Nefis Abat* of more than 80 households. If it is assumed that a priest in other parts of Ethiopia is a *Nefis Abat* of, say, five households1/ on the average then all the priests could command the ears of over a million households.

One important deduction that could be drawn from the above observations is that a family planning programme supported by Orthodox-Christians leaders will have a greater success than a programme without their support. Although the influence of the Muslim religious leaders through the network of mosques throughout the country is not known and is an area for future investigation, it is not a negligible one. As a policy implication, this suggests that creating consciousness among the religious leaders about the population problem and fostering a favourable attitude towards measures of population control might facilitate the efforts to stem the rapid population growth.

1/ *No study has been done on the number of households a priest would be responsible for in the rural areas or other urban centres of the country. However, taking into account the scattered nature of the population distribution in rural areas and the lower population density in other urban centres than in Addis Ababa a priest was assigned arbitrarilyan average of five households.*

6.3 - Elites' Opinions on the Role of the Government to Slow Down the Current Population Growth

It may be recalled that the overwhelming majority of the study population including all the sub-groups except the religious leaders, considered that the current rate of population growth would have an adverse effect on the country. Respondents who believed that the population growth would be bad for the country were further asked what, in their opinion, should the Government do about it. These views on the possible solutions that could be undertaken by the Government to combat the high rate of population growth are examined below.

A debate has been going on since the Bucharest Conference in 1974 to determine the best possible approach to lowering the population growth and enhancing economic development in developing countries. One school of thought argued that a demographic transition could be achieved in developing countries through structural changes in the social and economic spheres. The opponents maintain that fertility transition could be brought about by the introduction of contraception without developmental interventions (Bogue, 1969). The proponents of the former view, base their argument on the historical experience of Western European countries during the industrial revolution. They maintain that economic growth through improved standards of living, reduced death rates, urbanization and better education would lead to population stabilization (UN, 1973).

Several scholars have, however, argued that important differences exist between the experiences of Western countries in the 18th century and the recent demographic

trends in developing countries. Third World countries at present have higher birth rates than did Western Europe. While it took more than a century for death rates to reach the present level in Europe, they dropped precipitously in developing countries in the post World War II period. As a result an unprecedented population growth is taking place in developing countries today. In addition, many developing countries are starting from a larger population base than did Western European countries at a comparable stage of economic development (Population, No. 14, 1985).

While recognizing the importance of the interrelationship between economic development and fertility decline, the proponents of family planning argue that in the shorter term the promotion of means of fertility control offers the best prospect for fertility reduction. Their argument is strengthened by the fact that economic growth of Third World countries, in particular Africa, has been slow during the 1960s and worsened by the economic shock wave of the 1970's oil crisis and the world wide recession of the early 1980s, while population growth was increasing at a rapid rate. With a growing population and a weak economy there would be little money available for savings and thus contributions towards capital formation would be too little, making economic growth for such countries very small. For such countries, which cannot afford to wait until economic growth is achieved and fertility lowered, family planning, although it would not be a panacea, at least offers the best prospect.

Having briefly reviewed the different schools of thoughts on how to slow down a rapid population growth, the next section examines the views of respondents on the possible steps that should be taken by the Government to alleviate the population problem in Ethiopia. It should be noted here that opinions were expressed only by those

respondents who believed that the current population growth would pose a problem for the country. The responses were categorized into the following five general areas:

i) introduce family planning
ii) create public awareness of the population problem through mass media, mass organizations, religious institutions, and the like.
iii) create job opportunities
iv) formulate a population policy
v) others

Data on table 6.3.1 reveal that 34 percent of the elites were for creating public awareness, 29 percent for creating job opportunities, 25 percent for introducing family planning measures while formulation of population policy and others were reported by 8 and 5 percent of respondents, respectively. A break down by elite sub-groups indicated that the majority of artists, high school teachers, lawyers, medical doctors and women's group suggested that the Government could solve the perceived population problem by creating awareness of the problem among the public through mass media, mass organizations (such as Women's Associations, *Kebeles*, Farmers Associations, etc.), religious institutions, schools and factories. Almost a third of elites of all sub-groups, particularly those who suggested creation of greater public awareness, also suggested creation of job opportunities, particularly for women, as the best possible solution, to the problem.

Introduction of family planning was considered to be the best measure by fifty percent of those Orthodox-Christian leaders who believed that the present growth rate would be bad for the country. It should, however, be remembered that the majority of this group reported that the current growth would be good for the country.

Introduction of family planning was also endorsed by a high proportion of senior government officials. Over forty percent considered introduction of family planning by

the government as a major step towards the solution of the population problem. Over one-fifth of the government officials also asked for the formulation of a population policy to tackle the population problems. It is also worth noting here that over one-sixth of the government officials also suggested creation of job opportunities and public awareness as steps towards solving the population problems.

The majority of Muslim religious leaders (56 percent) held the view that the best way to curb the current runaway population growth rate is by creating job opportunities for all. Over a quarter (28 percent) of them suggested that population growth could be slowed down by the creation of awareness of the problem among the general public.

The creation of job opportunities as a solution to the population problem was also suggested by over one-third of the university lecturers, while over a quarter of them suggested creation of public awareness. Over one-fifth of them still endorsed the idea of the introduction of family planning as solution to the problem.

Table 6.3.1 - Percentage Distribution of Responses Regarding the Measures that Should be Taken by the Government to Alleviate the Perceived Population Problem by Elite Sub-groups

Elite Sub-groups	Introduce family planning	Create public awareness	Create job opportunity	Formulate popula-tion policy	Others	Total number
Artists	9	46	28	10	7	46
High school teachers	25	38	27	3	7	213
Lawyers	16	44	31	4	5	43
Medical doctors	31	37	24	-	8	62
Religious leaders						
- Orthodox-Christian	50	30	20	-	-	20
- Muslim	5	28	56	-	11	43
Senior government officials	40	16	17	22	5	91
University lectures	24	27	33	13	3	160
Women's group	20	44	27	9	-	98
Total(Weighted)						
- Number	584	1471	942	232	138	3367
- Percentages	17	44	28	7	4	100

Note: Percentages add up to 100 row-wise

Some examples of measures that the government should take to alleviate the perceived population problem, as suggested by elites, are given below:

- The government should encourage the introduction of family planning throughout the country.

- It has to teach people in schools, through Radio, TV and through other institutions, Family planning services should be extended to all areas. If the government wants to avoid population explosion the work should start now, otherwise it will be forced to set a law on the future generation which will not be fair as it was not their fault but that of the previous generation.

- If the government introduces the policy of incentive to the family having small number of children, and in addition to this facilitates for the individual to get without any problem the methods of birth control freely, families may use it and stop birth when they want to.

- The government of Ethiopia should widely give lessons about family planning for both urban and rural dwellers, so that every family will be able to use them.

- The government should teach and propagate through different media and convince religious organizations in order to convey its messages to the mass.

- i) Mass media including *kebeles* should teach about family planning
  ii) Family planning service should be freely available
  iii) Some of the barrier methods are useful in preventing transmission of venereal diseases even AIDS. I think family planning should be taught in schools because the girls and boys at certain age don't know what to do.

- In my opinion the government should have to formulate a population policy which must be set into operation through different means, i.e. like the Chinese experience to control the existing high birth rate.

- Introduce family planning in a practical way. The government should try to raise public awareness about the danger of population explosion. The central theme for the campaign would be "The more children you have, the more you grow poorer."

- I think, the government should strictly find a means of contacting each family and educate them about family planning and the government should make a kind of incentive programme that promotes the family planning. The other possibility is to have the course given to high school students.

- In my opinion the government should open schools and small scale industries in the various remote areas of the country which could minimize the unemployment in the future.

- Besides implementing a new economic policy, it is my opinion the government should launch a new intensive family planning program to control the present very high natural increase.

- Adopt appropriate population policy in order to have balanced population growth. Teach mothers, younger generations about family planning in MCH centres, schools, etc., provide contraceptives; encourage forestation; provide recreation centres for the public, etc.

- Introduce a family planning programme and implement it vigorously.

- So far the government has given deaf ears to developing a sound population policy. The government should formulate sound population policy consistent with economic and social development, based on a firm awareness of the importance of family planning. Adequate government resources should be allocated for family planning services, i.e. to promote family planning services through population education.

- The government should have an explicit population policy and the necessary mechanisms to implement it. It should also take the demographic factors seriously and try to match it with the economy of the country.

- The government must introduce population policy and at the same time developmental activities.

- i) Educate the people
  ii) Support family planning agencies to expand their services in the country side
  iii) Adopt a population policy.

- Formulate and put into practice a reasonable population policy.

- Take stringent policy measures to decrease the existing growth rate.

- The government should have population policy to avoid the problems of social crisis of the country.

- i) Forbid polygamy,
  ii) Postpone the marrying age (25 years for girls and 28 to 30 years for boys),
  iii) Make all kinds of contraceptives easily and cheaply available and
  iv) Put more emphasis in education on the danger of population growth.

- Formulate some kind of population policy - a policy that would take birth control practices to the remotest villages in the country. Given the present conditions of the country this might seem totally unthinkable or unattainable. But it is high time that they are started! I think we should not fool ourselves until conditions are too bad to reverse!

- Family planning education should be conducted in *Kebeles* and Peasant Associations and also in high schools. Mass-media and churches have a great role to play in family planning education. Before the problem reach to the highest stage. The government must put forward a policy in controlling number of children in a family.

- The government should limit the number of children for each family i.e. two to three only.

- Introduce forced family planning scheme such as sterilization after a given family size. Perhaps attach scheme to ration food i.e. ration not available after a given family size.

- Teach the people about family planning, provide contraceptive materials for free, legalize abortion, introduce courses about sexual intercourse and how to prevent pregnancy in high schools etc.

- Mobilize all resources and create favourable atmosphere to accelerate economic growth and make people time-conscious and work oriented.

- It is advisable to take two measures. The first one should be a short-term one and that is the introduction of effective family planning services at the national level. In the long run, the government should be devoted to introduction of viable economic development projects so as to enhance the economic standard living of the people. In the long run living of the people will have a depressing effect on fertility.

- Intense family planning campaign; do every thing to bring about rapid economic growth; expand education.

- . Provide the right information to everyone
  . Make family planning methods available
  . Provide health services so that the few born could survive and making it unnecessary to have too many children to have a few of them survive.

- Allow the people private ownership and give the necessary support as well as education. The government should do all it can to stop the war! Reduce the unproductive sectors.

- Change the system, stop the war and start thinking seriously about the welfare of the broad masses. Unless these are resolved there is no point in discussing family planning. This questionnaire assumes as if things are quite normal in the country. One could even argue for a need for increase in population if the war, etc., continue.

- Modernization of its economy and provision of population education and environment conservation.

- To be able to maintain the country's peace and unity by political means, then direct the resources for a better use like education, health care and development work to produce more to cope with growing population.

- Changing the present economic and political situation (policy) of the country would be the only solution.

- . promote population education or family planning
  . promote investment and development fast enough,
  . improve geographical distribution of population,
  . improve health conditions.

- . Be conscientious enough and stabilize political situations
  . Socio-economic and political reforms should be made
  . Restore and maintain peace and order
  . Make the proper use of skilled manpower
  . Boost productivity and raise the living standard
  . Raise the consciousness level of the society and instill family planning.

- Any government (the problem being not unique to the existing one) should sincerely admit that "our theoretical bread basketship of East Africa" has been "rich country poor people-ness" in practical terms. It should also believe that such a situation is a crying shame from our part and get concerned to better it. Remember there always are reasons for everything, but reason(s) do not necessarily mean excuses.

- Should let the people work for the country honestly in all the economic sectors so that the living condition of the people will be improved and family planning will be consequently employed within the people themselves.

- Family planning and psychology of sex should be given to students as one basic subject and family planning and sex education should be introduced to the people freely and widely through mass medias.

- It should introduce family planning education in schools even in the lower ones, i.e. junior high schools. It also has to start teaching family planning in rural and urban areas through main organizations, churches, clubs, what have you. Moreover it has to legalize abortion and facilitate it through all the means that it can.

- Curtailing the fast rate of growth by educating the society through mass media and in schools and in whatever conditions possible.

- Should encourage family planning. If this doesn't work, it should follow the present Chinese policy.

- Fight it in two ways: (a) Regulate and enforce each person to work and produce and hence improve the economy (b) Teach the people family planning.

- I think the government should educate the people and indicate the various problems that will be encountered, if the population growth is not controlled. This education should be given in schools too, where the young generation could prepare itself for the coming eventuality.

- Promote the concept of family planning. Find ways and means of supplying contraceptives at a reasonable price or free. Device ways and means of effecting family planning. These can take a number of forms.

- The government shall enact severe population policy sooner. In addition, it should teach the people about family planning.

- They should make aware the public about the importance of population policy. It is badly needed. More social service institutes should be developed to reach the broad rural masses to make effective interventions in line with the execution of the above policy.

- The government has to officially make legal the use of pills and other means of birth control. Legal abortion should also be permitted if both husband and wife agreed.

- Nothing.

- Try to solve the civil war peacefully. Try to solve the ethnic problems. Encourage everyone to work for unity and development. Make conditions attractive for foreign as well as local investors so that they could develop the agricultural and industrial sectors thereby creating jobs for the unemployed. Follow the foot steps of Gorbachev!

6.4 - Elites Attitude Towards the Relationship Between High Population Growth and Environmental Deterioration in Ethiopia

It was revealed in the preceding section that the majority of respondents perceived that the current high population growth would have adverse effects on the socio-economic development of the country. In this section we further explore whether the respondents see any relationship (direct or indirect) between high population growth and environmental deterioration in Ethiopia. The respondents who replied that they saw no relationship, were further asked to give reasons for their opinion.

Environmental problems can take many forms. Some of these, which are of major concern in developing countries, include deforestation, soil erosion, deterioration of water resources and salinization. These largely man-made problems erode the natural resource base on which sustainable development critically depends, since the relationships between the economy and the environment are more direct in developing countries (UNECA, 1989). Rapid population growth could contribute to environmental degradation by exacerbating some of the above problems.

Urbanization and industrialization have also, as in developed countries, brought air, water, and noise pollution to developing countries (World Bank, 1984). However, since the mainstay of the economy of most developing countries is agriculture their immediate and major problems are deforestation and soil degradation.

The major cause of deforestation is the clearing of forests to expand agriculture and to provide wood for construction purposes. Both of these are primarily a response to population pressures. This leads to soil degradation and erosion. Ethiopia has one of the most serious soil erosion problems in Africa, "where topsoil losses of up to 290 metric tons a hectare have been reported for steep slopes" (World Bank; 1989: 101).

Satisfying the demand for firewood is another major cause of deforestation especially when people must cut firewood to meet their daily energy needs faster than it can be replaced by natural growth. For instance, the depletion of forests compounded with population growth increased the price of wood tenfold during the 1970s and claimed up to 20 percent of the average household income in Addis Ababa (World Bank, 1984).

Poor cultivation practices, overgrazing, and deforestation, usually resulting from the pressures of rapid population growth, are the main causes of soil degradation. According to Daniel Gamechu (1989), on top of extensive deforestation by using fire to clear the land for cultivation, the great number of livestock in excess of the carrying capacity and the consequent overgrazing has resulted in soil erosion and land degradation in the highlands of Ethiopia.

The opinions of the study population must be viewed against the above summary of the environmental and population problems faced by the country today. A considerable awareness is revealed among the respondents regarding the relationship between high population growth and environmental deterioration in the country. More than four-fifths of the study population were aware of the relationship while the rest reported there was no relationship between high population growth and the degradation of the environment (Table 6.4.1). It can also be observed from the table that these opinions hold even when allowance is made for most of the background variables. The exceptions to this were the least formally educated and those who spent most of their childhood in a rural setting. The great majority of the least educated (96 percent) and more than half of those who were brought up in a village felt that there was no relationship between the two variables (i.e., high population growth and the degradation of the environment).

Table 6.4.1 - Percentage (Weighted) Distribution of Elites' Attitude Towards the Relationship Between High Population Growth and Environmental Deterioration

Background characteristics	There is a relationship	There is no relationship	Total number
All groups	81	19	4861
Age			
Less than 40	87	13	2850
40 and above	72	28	2011
	χ^2 = 149,112, df=1, S		
Education			
Below grade 7	4	96	512
High school to diploma	88	12	2544
BA/BSc and above	93	7	1804
	χ^2 = 2218.541, df=2, S		
Marital status			
Never married	89	11	902
Ever married	79	21	3958
	χ^2 = 50.237, df=1, S		
Religion			
Orthodox-Christian	79	21	3856
Catholic	95	5	191
Protestant	96	4	346
Muslim	65	35	268
Others	100	-	199
	χ^2 = 177.418, df=4, S		
Ethnic origin			
Amara	76	24	3026
Oromo	89	11	680
Tigre	90	10	747
Gurage	87	13	193
Others	83	17	214
	χ^2 = 106.998, df=4, S		
Working status of women			
Working	89	11	2927
Non-working	52	48	1034
	χ^2 = 1027.572, df=1, S		
Place of birth			
Town	91	9	3083
Village	63	37	1777
	χ^2 = 659.001, df=1, S		
Place of residence for most of the time until age 12			
Town	89	11	3868
Village	49	51	992
	χ^2 = 777.669, df=1, S		

S - Significant at 0.05 level
df - degrees of freedom

Variations were, however, observed between elites of different backgrounds regarding their opinion on the degree of relationship between high population growth and environmental deterioration. For instance, the awareness of the adverse effect of high population growth on the environment was greater among the younger age group,

the highly educated, the never-married, 'Others' religion group, Protestants and Catholics, Tigres, the town-born and those brought up in an urban setting. The differences were found to be statistically significant as determined by chi-square test.

A high level of awareness of the relationship between high population growth and environmental deterioration is very much evident among all elite sub-groups, except for the religious leaders, as could be observed from Table 6.4.2. An overwhelming majority of the Orthodox-Christian (96 percent) and a smaller majority of Muslim religious leaders (68 percent) reported that they could find no relationship between high population growth and environmental deterioration.

Table 6.4.2 - Percentage Distribution of Views Towards the Relationship Between High Population Growth and Environmental Deterioration by Elite Sub-groups

Elite sub-groups	There is a relationship	There is no relationship	Total number
Artists	94	6	49
High school teachers	91	9	235
Lawyers	95	5	57
Medical doctors	97	3	68
Religious leaders			
- Orthodox-Christian	4	96	99
- Muslim	32	68	71
Senior government officials	94	6	108
University lectures	97	3	183
Women's group	93	7	102

Elites' awareness of the relationship between high population growth and environmental deterioration was found to persist even when the background variables were held constant within each sub group, with the exception of the religious leaders (Table 6.4.3).

Table 6.4.3 - Percentage Distribution of Elites Who Reported That There is a Relationship Between High Population Growth and Environmental Degradation by Sub-group and Background Characteristics

Elite sub-group	Age		Education			Marital status		Religion				
	Less than 40	40 and above	Below grade 7	High school to diploma	BA/BSc and above	Never married	Ever married	Orthodox-Christian	Protestant	Catholic	Muslim	Others
Artists	92	100	..	95	96	87	100	95	*	*	*	*
High school teachers	91	92	..	90	93	95	90	92	100	*	69	100
Lawyers	98	85	..	*	95	100	89	96	*	..	*	*
Medical doctors	96	100	..	..	97	97	97	98	*	100	*	*
Religious leaders												
- Orthodox-Christian	7	3	4	6	..	-	4	4	..	..	..	..
- Muslim	67	18	17	43	46	75	30	..	..	..	32	..
Senior government officials	88	96	..	100	94	83	96	92	100	*	*	100
University lecturers	96	99	..	100	97	95	98	97	100	*	*	*
Women's group	91	100	..	93	94	83	94	93	*	*	*	*

Table 6.4.3continued

Elite sub-group	Ethnic origin					Work status of women		Place of birth		Place of Childhood residence	
	Amara	Oromo	Tigre	Gurage	Others	Working	Not Working	Town	Village	Town	Village
Artists	93	*	*	*	*	96	100	95	*	96	*
High school teachers	92	92	92	*	86	89	91	93	88	91	93
Lawyers	92	100	*	*	..	93	*	93	100	94	*
Medical doctors	97	100	*	*	*	94	*	96	100	97	*
Religious leaders											
- Orthodox-Christian	4	*	*	..	*	-	4	-	5	5	4
- Muslim	42	38	*	*	*	33	31	43	21	37	21
Senior government officials	94	90	100	*	*	96	93	96	91	95	94
University lecturers	98	96	96	*	93	97	100	96	99	96	100
Women's group	91	100	92	*	*	93	*	94	91	93	*

** indicates that percentage was not calculated, because base was less than 10 cases.*

..empty cell

Although some variations were observed between elites of different backgrounds with respect to their degree of awareness of the relationship between high population growth and environmental degradation, when background variables were controlled for, the overall awareness still remained very high among elites of different backgrounds, with the very marked exception of the religious leaders. The low level of awareness among the religious leaders also persisted even when the background variables were held constant. However, the awareness indicated by Muslim religious leaders is higher than that of Orthodox-Christian religious leaders.

Some of the comments given by respondents who reported that they saw no relationship between high population growth and environmental deterioration in the country are as follows:

- It is not my duty or job to investigate whether any relationship exists between population growth and environment. This is God's/Allah's work and I can not have any opinion on such matters.
- I do not want to comment on matters that concern God.
- All are God's/Allah's creation and He is the one to decide whether the population should grow or not and what to do with the environment.
- Nature has [her] own laws. [She] has [her] own way of administering things and if there is drought or famine it is not because of high population growth but because nature has to fulfill her laws.
- The majority of the population being dependent on agriculture, industrial pollution is not yet a critical problem in our country, however, we should start to develop our awareness in the environmental production sphere.

- I rather see that there is strong relationship between the level of education and population growth and also standard of living and population growth.

- Not necessarily.

- The environmental deterioration is not caused by high population growth rather it is caused by not working and producing. The people do not replace even what they consume. e.g. trees.

- Environmental deteriorations is caused to my mind because of lack of education and low level of economic development.

From the above comments it can be observed that some respondents take a resigned stand regarding the environmental deterioration. Others view it as a consequence of disinterest or lack of education on the part of the people thus hinting towards the need for intervention by the Government or other concerned bodies.

6.5 - Attitude Towards the Introduction of Population and Family Life Education in the High School Curricula of Ethiopia

There is an increasing awareness of the importance of population issues in many developing countries. This is clearly evident from the increasing number of countries with national population policies and the number of countries incorporating population variables in their national development plans. An increasing number of countries, some without a national population policy, have adopted population and family life education programmes in their school curricula to help students to develop responsible attitudes and behaviour on population related issues at family, community and national levels.

Many workshops and conferences have dealt with the definition of population education. For instance, the conference of African Parliamentarians on Population and Development defined population education as:

> "an educational programme which helps individuals and groups ... to define for themselves the nature of the problems involved in demographic process...and to determine the means which society as a whole, and they themselves as individuals and/or groups, could use in order to react to those processes and influence them with a view to improving the quality of life, both present and future." (Quoted in Population Reports, Special Topics, Series M. No. 6; 1982: M207).

The goal of population and family life education is centred around raising the knowledge and understanding of population issues and their

inter-relationship with social and economic development. However, the emphasis and approaches to achieve this end vary among countries who have integrated population and family life education in to existing educational systems. In some countries the emphasis is on the current population situation, in others demographic concepts are stressed, while in others the focus is on the determinants and consequences of population change. Some countries include human reproduction and family planning in the courses. The focus and emphasis of population education programmes is usually dictated by political, cultural and religious considerations, and the nature of the country's population problem (Population Reports, Special Topics, Series M. No. 6; 1982).

The predisposition of respondents towards the idea of introducing population and family life education in high school curricula was observed to be very high. As Table 6.5.1 shows 96 percent of the study population were in favour, and the proportion remains persistently high, without any exceptions, for each background variable controlled for. Variations in support were, however, observed within the background variables. More favourable support for the introduction of population and family life education was observed among the younger age group, the better educated, the never-married, Orthodox-Christians, those of 'Others' ethnic origins, working women, the town-born, and those brought up in town. Except for marital status, ethnic origin and work status of women, the variations in support observed by other background variables were found to be statistically significant as determined by the chi-square test.

Table 6.5.1 - Percentage (Weighted) Distribution of Elites' Attitude Towards the Introduction of Population and Family Life Education

Background characteristics	It should be introduced	It should not be introduced	Total number
All groups	96	4	5085
Age			
Less than 40	97	3	3014
40 and above	94	6	2071
	χ^2 = 21.954, df=1, S		
Education			
Below grade 7	88	12	510
High school to diploma	95	5	2753
BA/BSc and above	98	2	1822
	χ^2 = 98.445, df=1, S		
Marital status			
Never married	97	3	915
Ever married	95	5	4170
	χ^2 = 2.955, df=1, NS		
Religion			
Orthodox-Christian	97	3	4039
Catholic	84	16	201
Protestant	96	4	372
Muslim	91	9	280
Others	89	11	193
	χ^2 = 109.876, df=4, S		
Ethnic origin			
Amara	96	4	3118
Oromo	95	5	690
Tigre	95	5	827
Gurage	92	8	223
Others	97	3	227
	χ^2 = 9,122, df=4, NS		
Work status of women			
Working	96	4	3136
Non-working	95	5	1041
	χ^2 = 1.515, df=1, NS		
Place of birth			
Town	96	4	3242
Village	95	5	1843
	χ^2 = 4.183, df=1, S		
Place of residence for most of the time until age 12			
Town	96	4	4114
Village	94	6	971
	χ^2 = 9.897, df=1, S		

S - Significant at 0.05 level
NS - Not significant at 0.05 level
df - degrees of freedom

When subdivided by elite sub-groups (Table 6.5.2),an overwhelming majority of each elite sub-group supported the introduction of such a programme. This favourable attitude persisted for each sub-group of elites even when the background variables were held constant (Table 6.5.3).

Table 6.5.2 Percentage Distribution of Elites' Attitude Towards the Introduction of Population and Family Life Education in Ethiopia by Sub-groups

Elite sub-groups	It should be introduced	It should not be introduced	Total number
Artists	98	2	53
High school teachers	97	3	240
Lawyers	95	5	62
Medical doctors	100	-	68
Religious leaders			
- Orthodox-Christian	90	10	97
- Muslim	88	13	80
Senior government officials	100	-	108
University lectures	96	4	187
Women's group	96	4	113

Table 6.5.3 Percentage Distribution of Elites' Who Believe That Population and Family Life Education Should Be Introduced in the High School Curricula by Sub-group and Background Characteristics

Elite sub-group	Age		Education			Marital status		Religion				
	Less than 40	40 and above	Below grade 7	High school to diploma	BA/BSc and above	Never married	Ever married	Orthodox-Christian	Protestant	Catholic	Muslim	Others
Artists	97	100	..	100	96	94	100	98	*	*	*	*
High school teachers	97	97	..	96	98	97	97	97	100	100	100	85
Lawyers	96	92	..	*	95	94	97	96	*	..	*	*
Medical doctors	100	100	..	*	100	100	100	100	100	*	*	*
Religious leaders												
- Orthodox-Christian	96	87	89	94	..	*	90	90	..	..	..	..
- Muslim	93	85	82	97	85	*	87	..	..	..	88	..
Senior government officials	100	100	..	100	100	100	100	100	100	*	*	100
University lecturers	97	96	..	..	96	96	96	96	100	*	*	95
Women's group	97	91	..	95	100	*	95	99	*	*	*	*

Table 6.5.3continued

Elite sub-group	Ethnic origin					Work status of women		Place of birth		Place of Childhood residence	
	Amara	Oromo	Tigre	Gurage	Others	Working	Not Working	Town	Village	Town	Village
Artists	97	*	*	*	*	100	100	98	*	98	*
High school teachers	98	91	98	*	100	96	98	99	94	97	95
Lawyers	95	91	*	..	*	100	*	93	100	94	*
Medical doctors	100	100	*	*	*	100	*	100	100	100	*
Religious leaders											
- Orthodox-Christian	90	*	*	..	*	77	92	77	92	79	92
- Muslim	88	89	*	87	*	95	85	88	86	90	81
Senior government officials	100	100	100	*	*	100	100	100	100	100	100
University lecturers	95	96	97	*	100	96	100	96	97	97	94
Women's group	97	100	88	*	*	96	*	94	100	95	*

* indicates that percentage was not calculated, because base was less than 10 cases.
..empty cell

Summary

The main conclusions to be drawn from this chapter are as follows:

1. It was found that a large majority of elites perceived the population growth during the 1984-1989 period to have been fast (85 percent) and if this population growth were to continue at the same fast pace it would be bad for the country (76 percent). This observation held even when the background variables were controlled for. It is very interesting to note that the proportion of elites who thought that the population was growing fast was higher than that of the proportion who considered its effect in the future would be bad.

2. The majority of respondents within each of the elite sub-groups, considered that the population growth in the 1984-1989 period was fast. The majority of each of the groups also felt that the rapid population growth would have a negative implication for the country in the future. The only exceptions to this view were the religious leaders, particularly the Orthodox-Christian leaders. Only one-quarter of the Orthodox-Christian religious leaders and half of the Muslim religious leaders felt that the current rate of population growth might be bad for the country.

3. The predominant feeling among most elite sub-groups, with the exception of the religious leaders, was that the growth of the population at the current pace would pose a problem for the country. The main concern was that rapid population growth would threaten the economic and social development of the country. To many respondents population growth was a deterrent to economic development only. Some considered that the country would face various economic, social and environmental problems if the current rate of growth were to continue in the future.

4. A considerable level of awareness was revealed among the respondents regarding the relationship between high population growth and environmental deterioration in the country. More than four-fifths of the study population who responded to the question were aware of the relationship, while the rest reported there was no relationship between high population growth and the degradation of the environment. It was also observed that the opinion of elites, towards the relationship between rapid population growth and environmental deterioration, held even when allowance was made for most of the background variables. The exceptions to this were the least formally educated and those who spent most of their childhood in a rural setting.

5. A high level of awareness of the relationship between high population growth and environmental deterioration is very evident among all elite sub-groups, except for the religious leaders. An overwhelming majority of the Orthodox-Christian and Muslim religious leaders reported that they could find no relationship between high population growth and environmental deterioration. These opinions were found to persist even when the background variables were held constant within each sub-group.

6. The predisposition of respondents towards the idea of introducing population and family life education in high school curricula was observed to be very high. Ninety-six percent of the study population supported the idea. It was also revealed that this support remained persistently high, without any exceptions, for each background variable controlled for, and within each of the elite sub-groups. A large majority of each elite sub-group displayed support for the introduction of such a programme. This attitude persisted for each sub-group of elites even when the background variables were held constant.

CHAPTER 7

SUMMARY OF FINDINGS AND CONCLUSION

Very few studies have been conducted on knowledge, attitude and practice of family planning in Ethiopia (UNECA, 1990). The first organized survey, which was undertaken by Chang in 1970, covered a sample of the Addis Ababa population, two villages in Shoa province and a village in Hararge province. An inter-censal demographic survey, entitled National Family and Fertility Survey, which covered almost all regions of the country, was launched by CSA in 1990 and its results are still awaited.

The present study has investigated the knowledge and practice of family planning among the Ethiopian elites living in the capital city, Addis Ababa. Attitudes towards the population problem facing the country and its possible solutions as envisaged by respondents were also investigated.

Elites' knowledge of family planning was examined according to background characteristics. The great majority of respondents reported that they had heard of family planning, but variations in knowledge were observed by background characteristics and by elite sub-groups. Education was most closely related to knowledge of family planning, while age was found to be inversely related. Knowledge of modern methods was reported by the great majority of respondents even when background variables were held constant. Knowledge of family planning was greatest among the ever-married, working women, the town-born and those brought-up in towns, even after taking account of the effects of background variables. The

proportion who had heard of family planning was also found to be rather high among most religions groups, but not among religious leaders, when most background characteristics were held constant. Among ethnic groups, the Tigres and Gurages had the highest proportion who had heard of family planning. No discernible pattern in the variation in the knowledge of family planning by ethnic origin was, however, evident when the background variables were held constant. A greater majority of working women as compared to non-working women reported that they had heard of family planning and had knowledge of family planning methods. This difference held even when allowances were made for background variables.

Knowledge of family planning was high among all elite sub-groups with the exception of Orthodox-Christian religious leaders. *Mahibers* were found to be a major source of family planning information among the women's group, suggesting that inter-friends communications are important in the diffusion of family planning knowledge.

Knowledge of methods, particularly of modern methods, was also found to be high. The pill was the most commonly used method among current users, followed by the IUD and condoms. Among traditional methods the most commonly used were periodic abstinence and the rhythm method followed by withdrawal.

The incidence of ever and current use of family planning methods was found to be consistently higher for the younger age group than the older age group and it was found to increase consistently with an increase in the level of education of respondents within most of the background variables. The increase in current use was very large between those with education below grade 7 and those with high school to diploma level, while the increase between the latter and the university graduates was not so large. No uniform pattern was observed in the relation between current use of

contraceptives and age and with the level of education among the elite sub-groups.

Survey findings confirm a widespread use of family planning methods among ever-married and currently married elites. About two-thirds of ever-married respondents have used family planning methods. Of these, over two-thirds reported ever-use of modern methods as opposed to less than a third who used traditional methods. Among the currently married couples, three-fifths were using contraception at the time of the survey. More than two-thirds of these were using modern methods whereas a little less than a third were using traditional methods. Only a minority of ever and current users resorted to 'both' methods.

The highest current use of contraceptive methods was reported by the 'Others' religions group followed by Protestants and Orthodox-Christians. Equal and lowest proportion of current use was reported by Catholics and Muslims.

The Tigres reported greater ever-use of family planning methods than respondents of other ethnic origins followed by the 'Others' ethnic group, Gurages and Oromos while the least use of contraceptives was reported by Amaras. Highest current use of contraceptives was, however, reported by respondents belonging to ethnic origins categorized as 'Others' followed by Tigres, Oromos, Gurages and Amaras. No clear pattern of differences in the current use of family planning methods by ethnic origin emerged, however, when the different background variables were held constant.

The current use of contraception and the use of modern methods were significantly higher among working than among non-working women. Ever-use and current use of modern methods was higher than use of the traditional methods, irrespective of work status of women. These differences were found to hold when allowance was made for most of the selected background characteristics. Similarly, a

clear difference in the use of family planning methods was observed by place of birth. Town-born respondents show a higher proportion of ever-users and of current users. This was also evident for all sub-groups of the population under study except for respondents with the least formal education. The proportion of ever-users and current users of contraceptives who were brought up in a town was considerably higher than those brought up in a rural setting. The overall variation in current use of contraception by place of childhood was found to persist even when most of the background variables were held constant.

Highest ever-use and current use of contraceptive methods was reported by those with three to four children, followed by the least parity couples (with 0 to 2 children) and then by highest parity couples (5 and above). Ever-use of modern methods follows an inverted 'U' pattern as parity increases. Modern contraceptive use also increased with the number of children ever born, rising sharply after the first two children and tapering off gently after the fourth child. On the other hand, the use of traditional methods decreases from the first parity category to the second and then showed a slight increase among the high parity category. However, the overwhelming majority of elites, irrespective of parity, used modern methods of contraception followed by traditional methods. This also held when most of the background variables were controlled for. Only a small minority reported use of both methods.

It appears that the term 'family planning' implied mainly the idea of limiting family size among the elites, followed by those who looked at it as spacing of births. Some interpreted it as a mechanism for both child spacing and limiting family size. Many of the respondents believed that if the family was small then the children would be better educated and healthier.

One of the major findings that emerged on the question of introduction of abortion as a method of family planning was that an unfavourable attitude towards abortion was reported by the majority of the elites (87 percent). However, the proportion of respondents who approved of it was not negligible (13 percent), although the degree of disapproval varied between elite groups. The other finding was that among those who approved of abortion, the determining background characteristics appeared to be education, marital status, place of birth and place of childhood residence. Approval of abortion was directly associated with a high level of education, single people, the village-born and those who spent most of the time until age 12 in a town.

Marriages were found to be highly stable in the study population. Less than 4 percent had been divorced or separated. The majority of women (i.e. female respondents and wives of male respondents), married between ages 20 and 24 (40 percent), followed by those who married between ages 15 and 19 (27 percent), and ages 25 and 29 (22 percent). The mean age at first marriage of women was found to be 21.2 years and that of men was 28.8 years.

An apparent shift towards delayed age at first marriage was observed. The mean age at marriage for respondents aged 40 and above was 20.7 while that of the younger age group was 21.3. The age difference between spouses for the majority of the study population was 5 to 9 years.

It was found that a large majority of elites perceived the population growth of 3 percent, during the 1984-1989 period, to have been fast (85 percent) and if this population growth were to continue at the same fast pace it would be bad for the country (76 percent). This observation held even when the background variables were

controlled for. It is very interesting to note that the proportion of elites which thought that the population was growing fast was higher than that of the proportion who considered its effect in the future would be bad.

Within each of the elite sub-groups, the majority of respondents considered that the population growth in the 1984-1989 period was fast, and also felt that the rapid population growth would have negative implications for the country in the future. The only exceptions to this view were the religious leaders, particularly the Orthodox-Christian leaders. Only one-quarter of the Christian-Orthodox religious leaders and half of the Muslim religious leaders felt that the current rate of population growth might be bad for the country.

The main concern of the majority of respondents who thought that population was growing fast was that it would threaten the economic and social development of the country, although many respondents thought that population growth was only a deterrent to economic development. Some considered that the country would face various economic, social and environmental problems if the current rate of growth were to continue in the future.

A considerable level of awareness was revealed among the respondents regarding the relationship between high population growth and environmental deterioration in the country. More than four-fifths of the study population who responded to the question were aware of the relationship, and this opinion held even when allowance was made for most background variables. The one-fifth who considered there was no relationship between high population growth and the degradation of the environment were the least formally educated and those who spent most of their childhood in a rural setting.

This high level of awareness of the relationship between high population growth and environmental deterioration was very evident among all elite sub-groups, except for the religious leaders. An overwhelming majority of the Orthodox-Christian and Muslim religious leaders reported that they could find no relationship between high population growth and environmental deterioration. These opinions were found to persist even when the background variables were held constant within each sub-group.

The predisposition of respondents towards the idea of introducing population and family life education in high school curricula was observed to be very high. Ninety-six percent of the study population supported the idea. It was also revealed that this support remained persistently high, without any exceptions, for each background variable controlled for, and within each of the elite sub-groups. A large majority of each elite sub-group supported the introduction of such a programme.

To summarize, high levels of knowledge and use of family planning were observed among the elite sub-groups, with the exception of religious leaders. Fertility levels of elite sub-groups who used contraceptives were found to be lower than those of the non-contraceptors. The mean number of children desired by the elites was around four. The elites were aware of the population problem in the country and they considered that one of the immediate solutions, as a priority, should be the creation of public awareness.

Implications for Policy Formulation and Programme Development

The objectives of this study were to investigate elites' knowledge and practice of family planning, their fertility behaviour, and their perception of the population problems in the country. Elitist opinions could determine, to a large extent, the decisions and types of action to be taken towards resolving the population problems. This was why Sadik (1991) indicated that one reason well-managed family planning programmes have been successful in the past two decades was because of the support they enjoyed from political and social leaders at all levels. In the following policy focus areas, which evolved from the findings of the survey, that would possibly contribute to the success of measures that could reduce fertility and alleviate the perceived population problem are discussed.

1. The study revealed that, among the elite sub-groups, knowledge of family planning was low only among the religious leaders. In view of the large numbers of followers of these two religions in the country and the influential positions of the spiritual leaders in the community, it is of paramount importance to sensitize them about the advantages of a smaller family size and how best to achieve it.

The policy priority, therefore, could be to convince religious leaders that it is morally right to regulate fertility in order to improve quality of life. Once convinced these groups could be potential promoters of family planning, particularly in rural areas, where their influence is largely felt and where fertility is almost at the natural level.

2. It was observed that the women's group showed an extremely high knowledge of family planning. The most important source of knowledge for them was

Mahiber which could be used as important means of diffusing knowledge of family planning and may also be used as distribution outlets of family planning services by concerned bodies such as the FGAE.

3. Abortion has a strong demographic impact by restricting births. The majority of respondents, in particular the religious leaders, are opposed to abortion as a method of family planning. The policy implication of this finding is that even among educated urban elites the introduction of liberal abortion policies as a family planning method would encounter opposition unless undertaken slowly.

4. Fertility was observed to have been influenced by age at first marriage. The decline in the mean number of children ever born is particularly marked for women marrying at ages 20 and above. Introducing a policy to raise age at marriage could help bring about a decline in the fertility level. Although appealing to policy makers, this is difficult to implement. Thus the Government should pursue different approaches which would indirectly raise age at marraige, for instance, by encouraging women's education beyond the primary level and by raising female labour force participation in outside of home. These factors would lead to delayed age at marraige.

5. There is a widespread awareness of the rapid population growth in Ethiopia among the elites. Most respondents, wth the exception of the religious leaders, consider this rapid growth to be bad for the country, especially on economic and social grounds. The priority measure that should be taken by the government to solve the population problem, as suggested by most of the elite sub-groups, is the creation of public awareness of the problem. The next emphasis was on economic development followed by introduction of family planning and the formulation of a population policy. The policy implication of this finding is that the government should focus on creating

awareness among the general population about the problem on a priority basis through whatever means available. This could be facilitated through existing institutions such as the news-media, mass organizations such as *Kebeles*, youth and women's associations, farmers' associations, etc. under the guidance competent agencies such as th FGAE.

A note of caution here is that public awareness *per se* is not a panacea for the population problem. Efforts should be made towards intensifying family planning programmes and economic development. Although the experience of the West European countries shows that population growth declines with level of development, the question remains whether an underdeveloped country like Ethiopia can afford to wait until it develops to curb the rapid population growth. The population growth itself frustrates the development effort. Therefore, in line with the concensus reached in the International Conference on Population in Mexico City in 1984, population programmes must be integrated in the development planning, for family planning and economic development are not alternatives but complementary necessities (Wahren, 1991).

6. Another priority area is to find a balance between a large and rapidly increasing population and the limited natural resources in the country. The majority of the elite sub-groups, with the exception of the religious leaders, were aware of the fact that population pressures put a strain on the limted natural resources. The government has to assume the responsibility for creating awareness of the environmental problems and their consequences, among the people. Population sub-groups, such as the religious leaders, have to be educated and convinced that they have a responsibility not only to man, but to all living-beings, and that allowing the present rapid population growth to continue will cause destruction of other resources and will

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