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**CENTRAL STATISTICAL AUTHORITY  
POPULATION ANALYSES AND STUDIES  
CENTER**

**THE 1990 FAMILY AND FERTILITY SURVEY  
PRELIMINARY REPORT**

**ADDIS ABABA  
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## P R E F A C E

The 1990 National Family and Fertility Survey is the first of its kind ever conducted in the country. This survey, among other information, attempted to collect data on basic socio-economic characteristics of the population in the sample households; detailed data on fertility levels and determinants (socio-economic characteristics of women 15-49, current and retrospective fertility performance or birth history; marriage history; health and breastfeeding practices; knowledge, attitude and practice concerning family planning; ... etc.); fertility preference; woman's work history; husband's background characteristics; sexual practices; ... etc.

The preliminary report of the survey is based on the data compiled from the summary sheets of the women's questionnaires. The summary sheets included data on major variables collected in the women's questionnaires. The data were edited, coded and entered into computer. These were further machine edited for consistency checks and a number of statistical tables were produced. The preliminary report consists of six sections:

SECTION I - briefly discusses the history of demographic data collection in the country and presents the objectives of the survey.

SECTION II - deals with sample design and procedures; development of data collection instruments and quality

control measures adopted in data collection and data management.

SECTION III - briefly treats the background characteristics of the survey women such as age, marital status, literacy status and school attendance.

SECTION IV - deals with contraceptive knowledge and use: ever and current use of contraception, socio-economic differentials in the use of contraceptives and intention to use contraception in future.

SECTION V - briefly discusses fertility and survivorship of children: on-set of childbearing, current and retrospective fertility, fertility differentials (socio-economic) and survivorship of children.

SECTION VI - presents some concluding remarks and points out the policy implications of the survey findings.

The 1990 National family and fertility survey was undertaken with the assistance of many individuals and organizations. The survey would not have been successfully completed without the help of the 8,770 women aged 15-49 who have fully cooperated in giving responses to the numerous, difficult and at times too personal questions. The excellent contributions of the headquarters' staff and the regional office staff towards the success of the survey are recognized and highly appreciated. Also, the sincere efforts of the field staff (enumerators, field editors and supervisors) who have discharged their responsibilities in

collecting the data under very difficult situations are deeply appreciated.

This Preliminary Report of the survey is mainly prepared by the staff of Population Analyses and Studies Center of Central Statistical Authority and their contributions are highly appreciated. Also, the Methodology Department of Central Statistical Authority, in addition to the preparation of "survey design and procedures" part of Section II of this report, was involved in designing and drawing the sample for the survey. Their contributions are well recognized.

The technical assistance provided by the National Household Survey Capability Programme (NHSCP) of the United Nations Statistical Office and Population Branch of the United Nations Department of Technical Cooperation for Development (UNDTCD) are gratefully appreciated.

The survey was carried out with substantial financial assistance from the United Nations Fund for Population Activities (UNFPA). The assistance obtained from the UNFPA was very important in undertaking the project and their contributions are highly appreciated. The staff of the UNFPA office in Addis Ababa have given unreserved support in facilitating the procurement of equipment and supplies required for the project. As a matter of fact, without the active cooperation of these individuals it would have not been easy to carry out the survey on time and their contributions are well recognized.

Finally, the staff of Central Statistical Authority in general and Population Analyses and Studies Center in particular deserve heartfelt congratulations for successfully conducting the survey and preparing this report.

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THE 1990 NATIONAL FAMILY AND FERTILITY SURVEY  
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I. INTRODUCTION

1.1 History of Demographic Data Collection

Demographic data collection in Ethiopia began with the establishment of Central Statistical Office\* (CSO) in 1960. The first ever involvement of CSO in the collection of socio-demographic data were the population and housing census of Addis Ababa and Asmara cities in 1961 and 1963 respectively. These censuses were conducted by respective city authorities under the technical guidance of CSO. In these operations, basic demographic data on fertility, mortality and migration have been collected (Municipality of Addis Ababa, 1961 and CSO, 1971: 54). Following these two operations, CSO launched the first-round of multi-purpose National Sample Survey in 1964. The operations of these surveys continued only for four years, i.e., 1964-1967. These surveys covered the settled rural population of all the regions (except Eritrea and Bale) and 195 urban centers (CSO, 1968:1). The second round of the National Sample Survey was conducted during 1969-1970 and covered the settled rural population in all the regions (except Eritrea) and 91 major urban centres (CSO, 1974:3). Both the first and the second rounds multi-purpose National Sample Surveys covered various topics such as agriculture (crop and livestock production, size of landholding, land tenure, utilization of land ... etc), demography, indebtedness,... etc.

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\* Now Central Statistical Authority.

In 1976 CSO carried out a Manpower and Housing Survey in Addis Ababa. Similar surveys were conducted by the Office (CSO) in 17 other major urban centers of the country in 1978. Further, the Office undertook a demographic survey of capital city, Addis Ababa in 1978. These surveys collected basic demographic data including data on fertility, mortality and migration (CSO, 1980 and CSO, 1979).

At the beginning of the 1980's, due to the fundamental socio-economic changes in the country, there was a great need for statistical information for the preparation of socio-economic plans, and for monitoring and evaluation of development programmes. The demand for data further increased with the launching of the national socio-economic development campaigns and the preparation of the medium and long term development plans for the country. To meet this data need, CSO in 1980 conceived a National Integrated Household Survey Programme to collect socio-economic data on a continuous basis. Under this programme, the Office (CSO) has carried out surveys on agriculture; demography; manpower; health; nutrition; household income, consumption and expenditure; prices; and community level variables. The 1981 demographic survey that was carried out under this programme covered the settled rural population of all the regions (except Eritrea and Tigray).

In order to further fulfill the demand for socio demographic data particularly the latter, the government through CSO made the necessary preparations to carry out the first ever National Population and Housing Census.

This was carried out in 1984 with May 9th serving as the "census night." The census field work was completed, in about two weeks, on the 25th of May 1984. The successfully completed historic 1984 Population and Housing Census of Ethiopia unravelled the long little known population size of the nation as 42.2 million (CSO, 1984: 22) in 1984. The population of Ethiopia is predominantly rural with only 11.3% of the population are resident of urban areas.

After the 1984 census, the office (CSA) has carried out the 1986/87 Rural Labour Force Survey. This survey was carried out on quarterly basis for a period of one year, and covered the rural population of all regions, except for Eritrea and Tigray. In this survey basic population data along with data on economic activity, occupation, industry, employment ..., etc were collected.

The censuses and the demographic surveys conducted so far revealed that as in most of the other developing countries, fertility and mortality levels in Ethiopia are high. The total fertility rate is estimated to be 7.5 children per woman, the crude death rate about 18.00 per 1000 population, and the rate of growth of the population to be around 3.0 percent per annum. In July 1990, the population of Ethiopia is estimated to have reached 51.0 million, and if it continues to increase at the observed rate of growth, it is expected to reach about 67.8 million by the turn of the century. The estimated rate of growth poses a serious challenge to the nation, particularly in the provision of health, educational services, employment, and environmental degradation, both in medium and long term perspectives. Thus, the annual rate of population growth

must be moderated by reducing the prevailing high fertility. The government has realized the adverse effect of rapid population growth on the national economy and has recently formulated a population policy. Although the existing data suggest that fertility is high, there is still a great need for detailed information on the underlying causes of high fertility, fertility variation among regions, and reproductive processes prevailing in different sectors of the society. Such data are needed for the formulation and evaluation of population policies and programmes.

To fill in this data gap and to generate a wealth of information on fertility, infant and child mortality and its determinants, CSA in 1990 conducted National Family and Fertility Survey (NFFS). The survey was conducted with the financial assistance from UNFPA and technical support from UNDTCD.

## 1.2 Objectives of the Survey (NFFS)

The major objectives of the survey, in the short term, are:

- i) to obtain reliable information on the current level of fertility, mortality and contraceptive use.
- ii) to collect information on variations in fertility, infant/child mortality and contraceptive use by domain, residence, socio-economic status and other characteristics.

In the long term, it is expected that NFFS will form the basis upon which similar but more specialized enquiries can be designed. It is hoped that this survey will be the first of a series of similar surveys to be conducted at regular intervals of five years.



## II. METHODOLOGY

### 2.1 The Sample Design and Procedures

#### 2.1.1 Introduction

The NFFS was designed to provide data on relevant socio-economic and demographic characteristics for the nation as a whole with urban\* and rural breakdown and separately for each of the specified domains. A total of eight domains were identified - two urban and six rural.

The prime target of the study was women aged 15-49 found in non-institutionalized households. In addition, husbands currently married to women aged 15-49, community leaders and communities were also covered by the survey. The survey coverage was designed to be national excluding Eritrea, Tigray, Asseb and Ogaden autonomous regions. These areas were not considered for inclusion at the survey design stage, because of security and other reasons. However, on the other hand, Northern Gondar, Southern Gondar, Northern Wello, and Southern Wello that were expected to be covered by the survey during the survey design stage, couldn't be actually covered at the field operation level, due to security problems. Nomadic areas and areas that were not covered during the 1984 National Population and Housing Census were also not covered during the NFFS.

The sample size at the national level was fixed at 14,680 women aged 15-49 with an allocation of 4,300 and

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\* An urban area refers to a locality that is accorded an urban status by the Ministry of Housing and Urban Development. A rural area refers to a locality which was classified to be rural during the 1984 National Population and Housing Census, i.e. an area in which a Farmers' Association has been formed.

10,380 women for urban and rural domains respectively, including allowance for non-response. Roughly equal size sample was then allocated to the domains with consideration of providing equally reliable estimates for each of the domains.

The sample design for the survey was a multi-stage stratified design and self-weighting within domains. The ultimate sampling unit was the household which served as a means for accessing women and husbands to be interviewed.

#### 2.1.2 Sampling Frame

The country is divided into 30 administrative and autonomous regions, which in turn is divided into awrajas (sub-administrative regions). Farmers' Associations (FA) and Urban Dwellers' Associations (Kebeles) constitute the lowest administrative unit in rural and urban areas respectively. These area units, having recognized and distinct boundaries, have been adopted as a base in the formation of the area sampling frame required for the NFFS.

The construction of the area frame was based on the 1984 population census results, with further updating of the rural-parts to take into account changes, due to the re-settlement programmes that took place after 1984.

#### 2.1.3 Sampling Plan and Implementation

##### a) Sampling Domains

Taking into account the size of the country and

heterogeneity of its population with respect to socio-economic and demographic characteristics as well as with consideration of its varying ecology believed to have differential effects on fertility behaviour and therefore, to provide a firm basis for evolving appropriate policies and programmes, it as felt necessary to divide the country into eight (two urban and six rural) domains.

Urban areas were divided into two domains, that is, A) Addis Ababa and B) other urban areas. The other urban areas were further classified into three groups using the 1989 projected population size.

- i) Urban areas with population of over 50,000 excluding Addis Ababa (#11)
- ii) Urban areas with population of between 10,000 and 50,000 (#58)
- iii) urban areas with population of less than 10,000 (#213)

When it comes to the rural areas, six domains were created by considering geographical location and type of area. The first five domains are composed of highland areas and the remaining covered lowland areas. These domains include the following administrative and autonomous regions:-

- A. Central highlands: North Shewa, Addis Ababa (rural), East Shewa, South Shewa and West Shewa.
- B. South - west highlands: Wellega and Illubabor.
- C. Southern highlands: Keffa, Sidamo, North

Omo and South Omo.

- D. East and South-east highlands: West Hararghe, East Hararghe, Arssi and Bale.
- E. North - east and North - west highlands: North Wello, South Wello, East Gojjam and West Gojjam.
- F. Low land areas: Assosa, Metekel, Gambela, Borena and Dire Dawa.

b) Sample Size

The sample size planned for the survey was determined with critical considerations of the number of domains for reporting the survey results, cost, logistical feasibility and the need for data of high quality. In light of this, a decision was made to cover a total sample size of 14,680 women, of which 4,300 women were allocated to the urban domains and 10,380 to the rural domains. These were expected to be found in 14,682 households.

Under the urban domain category, a sample size of 2,150 women was assumed for each of the domain. In view of this, about 3,702 households had to be sampled of which 1,654 were from Addis Ababa and 2,048 from other urban areas.

For the rural survey, the planned sample size per domain was about 1,730 women. To achieve this size, a sample of 1,830 households per domain was targetted, giving around 11,000 households for the entire rural domains.

c) Sampling Stages

In selecting the sample, a multi-stage stratified design was adopted for reasons of administrative convenience and economy. The number of stages involved varied from urban to rural areas. For the urban domain, two sampling procedures were put into effect with consideration of varying population size and number of kebeles of the urban areas. Addis Ababa had a two stage design:- selection of kebeles at the first stage and selection of households at the second stage. Before selection, kebeles were stratified by Higher Kebeles.

In the urban areas, categorized as "other urban areas," a two stage design was used (selection of kebele at the first stage and selection of households at the second stage) except for the group of urban areas with population of 10,000 - 50,000 which had a three stage design:- selection of urban areas at the first stage, selection of kebeles at the second stage and selection of households at the third stage. The basis of stratification was population size of urban areas as defined above.

In the rural areas, a two stage design was applied:- selection of Farmers' Associations at the first stage and selection of households at the second stage.

Farmers' Associations in rural areas and Kebeles in urban areas were sampled with probability proportional to size, size being the number of

households obtained from the 1984 population census. Using this sampling procedure, a total of 153 Kebeles (urban) and 308 Farmers' Associations were selected.

In each covered Kebele and Farmers' Association, a listing of non-institutionalized households was carried out by going from house to house. Using the household lists, a systematic sample of households was drawn randomly based on a pre-determined household sampling interval, with a view to achieving a self-weighted design within domains. The household sampling interval, applied in each of the sampled Kebele and Farmers' Association, was provided to the enumerators at the time of field deployment.

An interview of selected households, prior to the individual interview, was used as a means for identifying eligible women and husbands to be included in the survey. Individual questionnaires were then filled in for all women aged 15-49 found in the selected households.

#### d) Sample Implementation

Details of the sample implementation, against what was planned, are presented in table 2.1. From the table, differences between the targetted and actual size of sample, can be observed. The NFFS proposed to cover 14,680 women aged 15-49, although it succeeded in covering only 9,104 women or 62% of the expected number. This was mostly due to non-coverage of sampled areas due to security problems. Thirty Kebeles from the urban domain (other urban areas

Table 2.1 The Planned and Actual Sample Size for the FFS

Domain	Expected Sample FA/Kebele	Covered Sample FA/Kebele	Households				Women	
			Planned	Sampled	Interviewed	Planned	Sampled	Interviewed
Urban	153	123	3702	2735	2580	4300	3022	2853
I	56	56	1654	1394	1314	2150	1663	1556
II	97	67	2048	1341	1266	2150	1359	1297
Rural	308	248	10980	6679	6538	10380	6082	5917
I	55	48	1830	1479	1446	1730	1373	1314
II	44	44	1830	1432	1402	1730	1400	1381
III	53	52	1830	1410	1369	1730	1254	1235
IV	55	53	1830	1190	1181	1730	1029	980
V	53	16	1830	516	508	1730	406	400
VI	48	35	1830	652	632	1730	620	607
Total (Urban + Rural)	461	371	14682	9414	9118	14680	9104	8770

category) and 60 Farmers' Associations from the rural domain (mostly from domain V and the rest from domain I and VI) selected for the survey could not be covered because of security reasons.

e) Response Rate

Table 2.2 shows the response rates (i.e., ratios of households/women sampled to actually interviewed expressed in 100) for each of the domains. From the table it appears that the response rates are relatively higher in the rural than in the urban areas and, generally, all are quite of reasonable magnitude.

Table 2.2: Response Rate by Domain

Domain	Response Rate	
	Households (%)	Women (%)
Urban		
A	94.3	93.6
B	94.4	95.4
Rural		
A	97.8	95.7
B	97.9	98.6
C	97.1	98.5
D	99.2	95.2
E	98.4	98.5
F	96.9	97.9



Taking all together, the reduction in sample size would of course have an effect on the precision of the survey results. However, no serious loss of precision is anticipated, since most of the results are to be presented in terms of rates, ratios, proportions and percentages. Although this may not apply to domain V which has an overall sample size much below the number of households and women that was considered necessary to provide reliable estimates. A provisional decision is, therefore, made to combine the survey results of domain V with domain I.

#### 2.1.4 Weighting of the Sample Results

In tabulating the survey results, weights are applied to the sample cases. The weights are developed by taking into account the probability of selection (basic weight) and the non-response rate of the sample units. Non-responses were identified at three levels: area unit level, household level and individual (women) level.

The weight adjustment is done separately for each of the domains at Kebele and Farmers' Association level, using the following procedure:-

$$W_A = W_b \cdot \frac{m}{m'} \cdot \frac{S_H}{I_H} \cdot \frac{S_W}{I_W}$$

Where:-

$W_b$  = basic weight of a given domain.

$m$  = number of Kebeles/Farmers' Associations  
selected for the survey.

$m'$  = number of sampled Kebeles/Farmers' Associations

covered by the survey.

$S_H$  = number of households selected (sampled) from Kebele/Farmers' Association for the survey.

$I_H$  = number of sampled households from Kebele/Farmers' Association actually interviewed.

$S_W$  = number of women selected (sampled) from Kebele/Farmers' Association for the survey.

$I_W$  = number of sampled women from Kebele/Farmers' Association actually interviewed.

$W_A$  = adjusted weight of a given domain.

In the case of a three-stage design, since urban areas were selected at the first stage, adjustment for the non-coverage of the area is required. Hence,  $n/n'$  is applied to  $W_A$  which is given above, where:-

$n$  = number of urban areas selected (sampled) for the survey.

$n'$  = number of sampled urban areas actually covered by the survey.

## 2.2 Development of Data Collection Instruments

The National Family and Fertility Survey administered as many as six questionnaires for data collection. These were:-

- a. Household questionnaire,
- b. Socio-economic characteristics of the household questionnaire,
- c. Woman's questionnaire,
- d. Husband's questionnaire,
- e. Community leader's questionnaire and
- f. Community questionnaire.

a. The household questionnaire was primarily designed to identify women eligible for the individual interview. All usual members of the household, including those away temporarily and visitors present on the previous night, were listed on a joint dejure and defacto basis. For each person listed in the household schedule, information on age, sex, marital status, relationship with head of the household, etc, were recorded.

b. The questionnaire on the socio-economic characteristics of the household was administered mainly to obtain a pen picture of household's overall socio-economic situation. It included questions on socio-demographic characteristics of the household, household's sanitary conditions, sources of drinking water, possession of livestock by type; ownership of other household's consumer durables and type and quality of housing unit, etc.

c. The woman's questionnaire is exclusively administered to women in the reproductive ages, 15-49 years. It has seven sections and these are:

- i. Respondent's background (age, sex, educational attainment, etc);
- ii. Marriage history;
- iii. Birth history;
- iv. Health and breastfeeding practices;
- v. Knowledge, attitude and practice of family planning;
- vi. Fertility preference; woman's work history; husband's background characteristics and sexual practices of woman.

- d. The husband's questionnaire was administered to husbands of selected group of women who were already covered in the survey. The husband's questionnaire also has the following four sections:
- i. Respondent's background (age, sex, educational attainment, occupation, marriage history, etc);
  - ii. Knowledge, attitude and practice of family planning,
  - iii. Knowledge and practice of abortion and;
  - iv. Fertility preferences and sexual practices.
- e. The Community leader's questionnaire was addressed to the chairperson of a Kebele or Farmer's Association and chair person of the Ethiopian Women's Association at Kebele or Farmers Association level. It consists of questions that help to generate information on the attitude of the community leaders towards the size of the population and population growth of the country and population size and growth of their own community. If they think that the observed population growth for the country or their own community poses a problem, then they were further asked what the government and what they themselves should do to resolve this problem. Information on knowledge, attitude and practice of family planning of community leaders as well as information on social and cultural aspects of the community were ascertained.
- f. The community questionnaire was administered at the Kebele or Farmers' Association level. It consists of questions that are meant to generate information on

the size of the population of the community, the settlement pattern in the community, the natural resources such as forest, river, lakes, minerals, ...etc., the availability of all weather or dry weather roads, health facilities, educational facilities, information on recent outbreak of famines and communicable diseases, etc.

### 2.3 Quality Control

A number of quality control steps were taken to ensure quality of data of this survey. The first step taken in this direction was to prepare questionnaires which were precise, conceptually clear and easy to comprehend. A careful review of questionnaires employed by major international demographic and health surveys such as WFS, DHS and PAP-CHILD, was made before designing the survey instruments of the present survey. On the basis of the critical assessment of previous survey questionnaires in the socio-cultural context of Ethiopia and in view of the needs of the country, a first draft of the questionnaires was prepared in English. After critical assesment of the contents of the first draft some improvements, re-wording and re-ordering of the contents, were made and a second draft of the questionnaires was prepared. After the second draft of the questionnaire was prepared, a one-day seminar was organized to receive comments and suggestions from experts in the field and/or data users on the draft questionnaires. The seminar was attended by 30 participants, drawing representatives from various departments of CSA; MCH Department and Planning and Programing Bureau of the Ministry of Health; Statistics

Department and Medical Faculty of Addis Ababa University; Population and Statistics Divisions of ECA; UNICEF; FAO;... etc. The participants had a day long discussions and useful comments and suggestions were made on the contents of the draft questionnaires. On the basis of these comments and suggestions, the questionnaires were revised and a third draft was prepared in English, and was translated into Amharic for pre-test. Further, based on these draft questionnaires, instruction manuals for enumerators, field editors and supervisors were prepared.

The pre-test was carried out in rural and urban areas of three regions (Addis Ababa, Arssi and Gojjam) involving 15 female enumerators, 6 field editors and 6 male supervisors. Supervisors and field editors were drawn from regular field staff of CSA while female enumerators were recruited exclusively for the purpose of pre-testing only. The enumerators have completed an educational level of grade 12 and above and were aged 20 years and above and could speak the language of the region where they were expected to be deployed. The minimum educational qualification of the field editors and supervisors are high school education and above. The members of the team were subjected to a rigorous training, given by senior staff members of Population Analysis and Studies Center (PASC), before they were sent out to the field for pre-testing. The training period was organized for a period of two-weeks (15-31 December 1989). The training included classroom discussions, mock interview and field practice in filling out the questionnaires in urban and rural areas.

The field staff, who have successfully completed the

training, was organized into three teams-one each for Addis Ababa, Arssi and Gojjam. Each team is constituted of four female enumerators, one female field editor and one male supervisor.

The data collection operation was undertaken during the first two weeks of January, 1991. At the time of data collection, each team was accompanied by a senior research staff of the center who has closely monitored administering each questionnaire. This has helped in identifying questions that required re-wording and those which were difficult to administer or received poor responses. The pilot survey has successfully administered 193 household questionnaires, 181 socio-economic characteristics of the household questionnaires, 205 women's questionnaires and 12 Husbands' questionnaires. On the basis of lessons learnt during the pre-testing period and the discussions followed thereafter, the questionnaires were, then, finalized in English and subsequently, translated into Amharic. The manuals of enumerators, field editors and supervisors were also revised and finalized.

#### 2.4 Recruitment and Training of Field Staff

The selection criteria of enumerators, particularly age and education, for the main survey were the same as that of pilot survey, excepting the enumerators in the main survey included only those who have completed their high school education through regular day school and belong to age-group 20-30 years. Pilot survey included some enumerators who were students of night schools and/or aged 40 years and above. These interviewers (i.e., those who received high school education by attending night schools and those aged

40 years and above) were found to be poor performers and therefore, were excluded while recruiting new batch of enumerators for main survey. With these modifications as the the criteria to qualify as enumerator for the main survey, the regional statistical offices were instructed to enlist potential candidates who could serve as enumerators in their respective regions. In order to allow for variations in language, culture and climate, as much as possible, candidates were recruited at awraja level.

For every enumerator needed, 3-4 candidates were enlisted. The senior staff members of the center were involved in the selection of the top ones from the roster of enlisted candidates for three-weeks training.

The number of persons selected for training were higher than the number actually required as enumerators. This was to compensate for the losses due to failure to cope with the requirements of training and for other reasons. Following these procedures, 120 enumerators were selected for training from 23 out of 30 regions of the country.

The major responsibilities of female enumerators were to administer the household questionnaire, the questionnaire on the socio-economic characteristic of the household and the woman's questionnaire.

To monitor the tasks of enumeration, and to ensure that the field work is done properly, field supervisors and field editors were assigned to work with each team of enumerators. The female field editors were selected from the regular pool of female enumerators of the regional offices of CSA. Thus, a total of 30 best female enumerators



were selected from a group of over 100 female regular enumerators to serve as field-editors. The responsibilities of the female field editors were to check whether all the questions were asked and the responses were recorded properly and to make consistency checks i.e., whether responses are in logical sequence, and if need arises to instruct the enumerators to return to the household (respondent) to make the necessary corrections or obtain information on items in the questionnaire not answered. In order to ensure the collection of higher quality data, the field-editors were also required to make spot-checking during the interview, and re-interviewing some households covered in each peasant or urban dwellers' association. They were also responsible for preparing a one page summary of the woman's questionnaire.

A total of 30 best supervisors were selected among 85 regular field supervisors working in the regional offices of CSA. The responsibilities of the supervisors, in addition to handling the administrative and financial management of field work, were to administer the husband's questionnaire, the community leader's and the community questionnaires and prepare a one page summary of the husband's questionnaire.

A comprehensive training programme was organized for 120 female enumerators, 30 female field-editors, 30 field supervisors, 12 regional coordinators, a number of support staff and junior professional staff of the center, a number of support and professional staff of other departments of CSA. The training was organized in four centers: Addis Ababa, Jimma, Awassa and Harar. The field staff of Shewa, Addis Ababa, and Gojjam regions were given training in Addis

Ababa; those of Wellega, Keffa and Illubabor regions were trained in Awassa; and those of Hararge region were trained in Harar.

The training was given by 15 senior staff of CSA (10 from the center, three from field operations division, one from agricultural department, and one from the methodology department of CSA) and six support staff of the center. The woman's questionnaire included some sensitive questions, like frequency of sexual practices, that can only be asked by females and in order to ensure that these questions and similar other sensitive questions are properly asked by female enumerators, each classroom had a senior female professional staff trainer.

The training consisted of discussions in classroom, filling in the questionnaires in the classroom through mock interview, and actual field testing of the questionnaires.

The classroom discussion concentrated on the elaboration of the terms and concepts used in the various questionnaires, discussions and elaboration of the contents of each questionnaire ... and encouraging the trainees to raise issues and questions. Also the classroom sessions included half a day lecture on description of methods of family planning and its use, given by senior staff of the Ethiopian Family Guidance Association. This lecture included demonstration of the various types of family planning devices (the Pill, the IUD, Diaphragm, Condom, Injectables,... etc) including showing video film on the subject.

The mock interview constituted filling in all the

questionnaires by the trainers in the classroom, whereby one of the trainees acted as an enumerator and another trainee or one of the trainers acted as respondent. While this interview session was in progress, the other trainees were also given a copy of the relevant questionnaire to fill-in simultaneously. Through this practice the trainees were given the necessary guidance in the act of interviewing. Also, the filled-in questionnaires were checked and corrections were made and the omissions were pointed out to the trainees, so that these were not repeated.

Considering the importance of hand-on-training in administering questionnaire in real life situation, each trainee was asked to fill-in at least five sets of questionnaires in urban and rural areas. Then the filled-in questionnaires were checked by the trainers and its mistakes were discussed in the classroom. At the end of the training, a final examination was given to the trainees and only the successful candidates were deployed to carry-out the survey.

## 2.5 Field Work

### a. Deployment of Field Staff

The field staff was organized into teams and each team was constituted of four female enumerators, a female field-editor, a supervisor, a cook and a driver. The team was provided with a four-wheel drive vehicle, camping equipment, cooking utensils, ...etc. The number of teams deployed in a region was dependent on the size of a region. For example, as many as seven teams were deployed in Shewa

while only one such team was assigned each for Bale and Arssi. Each team was assigned to cover about 4-5 enumeration units, on average. Each region had a Coordinator who served as a liaison officer between the team(s) deployed in the region and the head office in Addis Ababa. The coordinators were responsible for handling survey equipment, documents and supplies (questionnaires, forms, stationary, bags,...etc) and thereby for the distribution of these materials to the field staff. They were also responsible for the collection of these materials from the field staff and dispatch them onward to the head office after the completion of the field work.

Prior to deployment of the teams, the head of the trainers in each center, divided the number of peasant associations and urban dwellers' association areas and thereby the number of households equally among the teams deployed in the region.

#### b. Data Collection

The data collection started around mid-May 1990. The trainers accompanied the team during the first 4-5 weeks of data collection operation. This early supervision on the part of trainers is necessary to ensure that the core members of the enumeration team have clearly understood their roles and can render their tasks efficiently and take remedial measures, if necessary, at the early stage of data collection, to avoid any pitfalls at the later stage.

The data collection activities that have started in mid-May 1990 were completed in most of the regions by mid August and in some of the regions it was completed by the

end of August 1991. During this period of data collection, the senior staff of the center and the field operations division of the CSA made a number of supervisory field trips to visit the survey field staff and to check on the quality of their work.

## 2.6 Data Management

All completed questionnaires were brought back to Addis Ababa for final editing, coding and processing. A task force was created to edit, code and process the Family and Fertility Survey data during the last quarter of 1990. At the beginning, summary data collected from woman's and husband's questionnaires were edited and coded. However, only the summary data obtained from woman's questionnaire were processed to bring out the Preliminary Report of the survey. The summary sheet prepared from woman's questionnaire included data on her age, literacy status; highest grade completed; marital status; children ever born; children surviving; date of birth of last child; pregnancy status; knowledge, attitude and practice of family planning; and fecundity status. These data were available by region, awraja, peasant association, and Kebele.

The editing and coding instructions were prepared in Amharic and the senior staff of the Population Analysis and Studies Center (PASC) were involved in training the editing and coding staff. Data were manually edited, coded and verified before they were entered into computer. Specification for data entry was developed to do the range and skip checks. The data on summary sheet were entered into Hewlett Packard (HP 3000 series 925) Mainframe Computer

using the Form Specification Software (FORMSPEC) Version B 5.02. The data were compiled into 8 domains, comprising 6 rural domains (1 to 6) and 2 urban domains (7-8), according to the number of cases as follows:

<u>Domains</u>	<u>Cases</u>
1. Central	1315
2. Western	1381
3. South Western	1235
4. Eastern	980
5. Northern	400
6. Lowlands	607
7. Addis Ababa	1556
8. Other Urban	1295

Later, the data were transferred on to floppy diskettes for further cleaning and processing at PASC's computer laboratory with IBM PS/2 and HP Vectra ES/12 personal computers. After the data set was cleaned, all the statistical tables were produced using software, "SPSSPC+".

Since the data set was created in a file with "American Standard Code for Information Interchange (ASCII)" the data would be easily accessible to the researchers. The SPSS System file, the tabulation programmes and all the output listing were saved on the floppy diskettes adequately. The manual editing, coding and data entry were managed by the Data Processing Department of Central Statistical Authority while cleaning and processing of data were done at the PASC's computer laboratory by PASC staff.

### III. BACKGROUND CHARACTERISTICS OF THE SURVEY WOMEN

#### 3.1. Introduction

The background characteristics of the women are closely associated with their fertility performance. Age is directly related with fertility level, i.e. the higher the age of women the higher their fertility. Marriage has an impact on the fertility level of a society particularly in a non-contraceptive society where most of the reproduction takes place within marital union. Marital stability affects fertility, i.e. women in stable marriages are expected to have higher fertility; fertility is positively related with duration of marriage, ... etc. Similarly, literacy and educational level of women have a remarkable impact on the fertility level of a society. Fertility is negatively associated with educational attainment of women. Thus, it is of paramount importance to study the background variables regarding the women covered in the study.

This section of the report examines the background characteristics of the women covered in the survey. These include age, marital status, literacy and educational attainment. These characteristics are not only useful information on their own, but are expected to give some indications on the quality of the data collected.

#### 3.2. Age Distribution

The age distribution of the women who were interviewed during the survey showed a typical pattern observed in a rapidly growing population (Table 3.1). The distribution





indicates a large proportion in the lower age groups and a decreasing proportion as age advances. Each successive age group showed a smaller proportion of women except in the age group 30-34, which showed a larger number compared to those in the 25-29 year age range in the rural areas. Another striking observation in the age distribution is a significantly large proportion of women aged 15-19 in the urban areas compared to those aged 20-24. The table also presents the age distribution recorded in the 1984 National Population and Housing Census, for comparative purposes. The pattern of age distribution obtained by the census closely resembles to that of the pattern obtained by FFS.

### 3.3. Marital Status

The distribution of the marital status of the women covered in the rural, Addis Ababa, other urban, all urban and all areas is presented in Table 3.2. The table for the rural areas indicates that marriage takes place at young ages and is almost universal. In the age group 30-34, only 0.2% of the women were still unmarried. Marriage is also universal in the urban areas, even though it is relatively more delayed compared to the rural areas. In the age group 30-34, only 3.5% and in the age group 35-39 only 1.9% of the women in the urban areas were still single. The major variation in the proportion married between the rural and urban areas is observed among the teenagers. In the rural areas 40% of the women aged 15-19 were already married while in urban areas only 10.0% were already married. In Addis Ababa the proportion married at this age group were even smaller with only 3.6% reported as married.

TABLE 3.2 NUMBER AND PERCENTAGE OF WOMEN BY AGE AND MARITAL STATUS

MARITAL STATUS		AGE OF WOMEN							TOTAL
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	
<u>RURAL</u>									
NEVER MARRIED	No	586593	101539	25860	1966	1250	2565	908	720681
	%	59.7	12.1	3.1	.2	.2	.5	.3	14.3
CURRENTLY MARRIED	No	351630	669578	749356	789654	608680	395943	284444	3849285
	%	35.8	79.7	89.5	90.9	88.9	82.8	80.2	76.3
LIVING WITH A MAN	No	1343	778	585	397	1707			4810
	%	.1	.1	.1	.0	.2			.1
WIDOWED	No	1898	3368	11535	35814	33098	35991	43756	165460
	%	.2	.4	1.4	4.1	4.8	7.5	12.3	3.3
DIVORCED	No	31204	47524	36245	31790	33298	37773	20652	238486
	%	3.2	5.7	4.3	3.7	4.9	7.9	5.8	4.7
SEPARATED	No	9340	17255	13470	8655	6599	6074	5035	66428
	%	1.0	2.1	1.6	1.0	1.0	1.3	1.4	1.3
TOTAL	No	982008	840042	837051	868276	684632	478346	354795	5045150
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<hr/>									
<u>ALL URBAN</u>									
NEVER MARRIED	No	231285	71847	20916	4360	2342	552	201	331503
	%	90.2	49.9	15.4	3.5	1.9	.8	.4	36.7
CURRENTLY MARRIED	No	13469	52354	92889	89987	84868	46948	28186	408700
	%	5.3	36.4	68.3	72.4	68.2	68.6	56.0	45.2
LIVING WITH A MAN	No		422	730	976	234		424	2787
	%		.3	.5	.8	.2		.8	.3
WIDOWED	No	364	883	1683	4220	12108	8375	11849	39482
	%	.1	.6	1.2	3.4	9.7	12.2	23.5	4.4
DIVORCED	No	9625	16091	16328	21575	19475	10227	7670	100991
	%	3.8	11.2	12.0	17.4	15.6	14.9	15.2	11.2
SEPARATED	No	1721	2258	3526	3140	5433	2323	2017	20418
	%	.7	1.6	2.6	2.5	4.4	3.4	4.0	2.3
TOTAL	No	256465	143855	136072	124258	124460	68424	50347	903881
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3.2 (CONTD.)

MARITAL STATUS		AGE OF WOMEN							TOTAL
		15-19	20-24	25-29	30-34	35-39	40-44	45-49	
<u>ADDIS ABABA</u>									
NEVER MARRIED	No	93298	44086	14173	3185	1414	552	201	156910
	%	96.4	66.2	27.0	6.5	2.9	2.0	1.0	43.5
CURRENTLY MARRIED	No	2006	14737	30108	33919	33173	17989	11273	143205
	%	2.1	22.1	57.4	69.7	67.9	66.3	56.0	39.7
LIVING WITH A MAN	No			240	600	234			1074
	%			.5	1.2	.5			.3
WIDOWED	No			898	2571	4454	2915	5619	16457
	%			1.7	5.3	9.1	10.7	27.9	4.6
DIVORCED	No	1085	5843	5557	7004	6500	4135	2365	32488
	%	1.1	8.8	10.6	14.4	13.3	15.2	11.7	9.0
SEPARATED	No	439	1879	1522	1415	3075	1550	671	10551
	%	.5	2.8	2.9	2.9	6.3	5.7	3.3	2.9
TOTAL	No	96827	66545	52498	48694	48849	27142	20130	360685
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
<hr/>									
<u>OTHER URBAN</u>									
NEVER MARRIED	No	137987	27761	6742	1174	928			174594
	%	86.4	35.9	8.1	1.6	1.2			32.1
CURRENTLY MARRIED	No	11463	37617	62781	56068	51696	28958	16912	265495
	%	7.2	48.7	75.1	74.2	68.4	70.1	56.0	48.9
LIVING WITH A MAN	No		422	490	376			424	1713
	%		.5	.6	.5			1.4	.3
WIDOWED	No	364	883	786	1649	7654	5460	6230	23025
	%	.2	1.1	.9	2.2	10.1	13.2	20.6	4.2
DIVORCED	No	8540	10248	10772	14571	12976	6091	5305	68503
	%	5.3	13.3	12.9	19.3	17.2	14.8	17.6	12.6
SEPARATED	No	1283	378	2004	1725	2358	773	1346	9867
	%	.8	.5	2.4	2.3	3.1	1.9	4.5	1.8
TOTAL	No	159638	77309	83575	75564	75611	41282	30218	543196
	%	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0



A similar picture was obtained using the 1984 National Population Census.

The delay in marriage in the urban areas can also be observed in the singulate mean age at marriage (the number of years lived in the single state by women who marry before age 50) which was 18.4 years in the rural, 24.8 years in Addis Ababa, 22.5 years in 'other urban areas', 23.0 years in all urban and 19.5 years for the study population as a whole. This can also be verified by data on median age at marriage, which was 18.5 years for the rural, 24.6 years for Addis Ababa, 21.2 years for 'other urban', 22.5 years for all urban and 19.7 years for the entire study areas.

The urban areas were also observed to have large proportions of widowed, divorced and separated compared to those in the rural areas. In the rural areas only 11.0% of the ever married women were not in union while in Addis Ababa and 'other urban areas', the corresponding proportions were 30 % and 28%, respectively. The reason for the discrepancy may be due to migration from rural areas to urban areas which is selective of those whose marriages were dissolved. However, detailed analysis in this area will have to wait until the completion of the analysis of the main survey.

#### 3.4. Literacy Status

The level of literacy of the population under investigation indicates that 19% were literate (Table 3.3). The literacy level shows a substantial variation between the rural and urban areas, with the rural areas showing a literacy rate of 10%, Addis Ababa 76%, and the other urban

TABLE 3.3 NUMBER OF WOMEN BY AGE AND LITERACY STATUS

LITERACY STATUS	AGE GROUP							TOTAL
	15 - 19	20 - 24	25 - 29	30 - 34	35 - 39	40 - 44	45 - 49	
RURAL								
LITERATE	272078	141487	81012	19967	8113	1745	908	525309
ILLITERATE	709930	698555	756040	848309	676519	476600	353886	4519840
TOTAL	982008	840042	837052	868276	684632	478345	354794	5045149
% LITERATE	27.7	16.8	9.7	2.3	1.2	0.4	0.3	10.4
ALL URBAN								
LITERATE	222079	117662	92601	63506	49199	18398	11224	574669
ILLITERATE	34386	26192	43471	60752	75261	50026	39124	329212
TOTAL	256465	143855	136072	124258	124460	68424	50347	903881
% LITERATE	86.6	81.8	68.1	51.1	39.5	26.9	22.3	63.6
ADDIS ABABA								
LITERATE	89700	61093	43851	32430	28134	9156	7915	272279
ILLITERATE	7127	5452	8647	16264	20715	17985	12215	88405
TOTAL	96827	66545	52498	48694	48849	27142	20130	360685
% LITERATE	92.6	91.8	83.5	66.6	57.6	33.7	39.3	75.5
OTHER URBAN								
LITERATE	132379	56569	48750	31076	21065	9241	3309	302390
ILLITERATE	27259	20740	34825	44488	54546	32041	26909	240807
TOTAL	159638	77309	83575	75564	75611	41282	30218	543196
% LITERATE	82.9	73.2	58.3	41.1	27.9	22.4	11.0	55.7
TOTAL								
LITERATE	494156	259149	173613	83473	57312	20143	12132	1099978
ILLITERATE	744361	724748	799511	909061	751780	526626	393010	4849052
TOTAL	1238473	983897	973124	992534	809092	546769	405142	5949030
% LITERATE	39.9	26.3	17.8	8.4	7.1	3.7	3.0	18.5

areas 56%. A similar level of literacy was also reported by the 1984 National Population Census. The level of literacy also shows variation by age of women, with those in the young age groups showing higher rates. This is a reflection of the increase in the level of educational services in the recent years, particularly following the 1974 revolution.

### 3.5 School Attendance

Information was collected on whether each woman had ever attended any formal education and if so, the highest grade attended. This is presented in Table 3.4 and the categories presented are primary (grades 1-6), junior secondary (grades 7-8), senior secondary (grades 9-12), higher education (University, Colleges, and other higher educational institutions) and no formal education/no education (includes those who pursued no education at all and those who attended the literacy programme and those who attended religious or other non formal education).

The level of school attended shows a similar variation as the condition of literacy with respect to variation between the rural and urban areas and those in different ages. Thus compared to the rural areas more women in the urban areas were observed to have attended formal education (65 percent in the urban compared to 7 percent in the rural) and proportionately a higher number of urban women to have attended higher levels of education. A larger proportion of women in the younger age groups were also observed to have attended higher levels of education.

TABLE 3.4 NUMBER AND PERCENTAGE OF WOMEN BY AGE AND HIGHEST GRADE COMPLETED

	AGE GROUP							TOTAL
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
<b>RURAL</b>								
PRIMARY	239518 24.4	135041 16.1	75176 9.0	18084 2.1	7540 1.1	2598 0.5	1679 0.5	479635 9.5
JUNIOR SECONDARY	49232 5.0	13535 1.6	9366 1.1	797 0.1	1224 0.2	-	-	74154 1.5
SENIOR SECONDARY	23240 2.4	11607 1.4	8764 1.0	2827 0.3	780 0.1	-	-	47219 0.9
UNIVERSITY/HIGHER EDUCATION	-	778 0.1	1224 0.1	1224 0.1	-	-	-	3227 0.1
NO EDUCATION/NO FORMAL EDUCATION	729914 80.9	743633 91.5	841918 94.4	767361 96.1	661935 96.6	558826 97.9	367654 98.2	4671241 92.8
TOTAL	982008 100.0	840042 100.0	837052 100.0	868276 100.0	684632 100.0	478345 100.0	354794 100.0	5045149 100.0
<b>ALL URBAN</b>								
PRIMARY	68901 26.9	37161 25.8	42238 31.0	39303 31.6	36335 29.2	14900 21.8	10112 20.1	248950 27.5
JUNIOR SECONDARY	66305 25.9	23304 16.2	11248 8.3	6845 5.5	6339 5.1	2559 3.7	1277 2.5	117878 13.0
SENIOR SECONDARY	89273 34.8	56896 39.6	35331 26.0	15268 12.3	6617 5.3	1129 1.6	-	204513 22.6
UNIVERSITY/HIGHER EDUCATION	225 0.1	1155 0.8	5363 3.9	3201 2.6	1117 0.9	748 1.1	674 1.3	12482 1.4
NO EDUCATION/NO FORMAL EDUCATION	31761 12.4	25339 17.6	41892 30.8	59641 48.0	74053 59.5	49089 71.7	38285 76.0	320058 35.4
TOTAL	256465 100.0	143855 100.0	136072 100.0	124258 100.0	124460 100.0	68424 100.0	50347 100.0	903881 100.0



Table 3.4 (Contd.)

<b>ADDIS ABABA</b>									
PRIMARY	17906	14682	16412	18448	20156	6097	6384	100085	
	18.5	22.1	31.3	37.9	41.3	22.5	31.7	27.7	
JUNIOR SECONDARY	22433	9300	5244	3758	3041	1639	1277	46693	
	23.2	14.0	10.0	7.7	6.2	6.0	6.3	12.9	
SENIOR SECONDARY	49594	35957	18802	8175	5028	1129	-	118685	
	51.2	54.0	35.8	16.8	10.3	4.2	-	32.9	
UNIVERSITY/HIGHER EDUCATION	225	1155	4072	2779	1117	748	674	10769	
	0.2	1.7	7.8	5.7	2.3	2.8	3.3	3.0	
NO EDUCATION/NO FORMAL EDUCATION	6669	5452	7968	15334	19507	17529	11795	84454	
	6.9	8.2	15.2	31.9	39.9	64.6	58.6	23.4	
TOTAL	96827	66545	52498	48694	48849	27142	20130	360685	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>OTHER URBAN</b>									
PRIMARY	50996	22479	25826	20855	16179	8803	3728	148865	
	31.9	29.1	30.9	27.6	21.4	21.3	12.3	27.4	
JUNIOR SECONDARY	43872	14005	6004	3086	3298	920	-	71185	
	27.5	18.1	7.2	4.1	4.4	2.2	-	13.1	
SENIOR SECONDARY	39678	20939	16529	7093	1589	-	-	85828	
	24.9	27.1	19.8	9.4	2.1	-	-	15.8	
UNIVERSITY/HIGHER EDUCATION	-	-	1291	422	-	-	-	1713	
	-	-	1.5	0.6	-	-	-	0.3	
NO EDUCATION/NO FORMAL EDUCATION	25091	19886	33924	44107	54546	31559	26490	235604	
	15.7	25.7	40.6	58.4	72.1	76.4	87.7	43.4	
TOTAL	159638	77309	83575	75564	75611	41282	30218	543196	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
<b>ALL AREAS</b>									
PRIMARY	308419	172202	117414	57387	43875	17498	11790	728584	
	24.9	17.5	12.1	5.8	5.4	3.2	2.9	12.2	
JUNIOR SECONDARY	113538	36839	20614	7642	7563	2559	1277	192032	
	9.3	3.7	2.1	0.8	0.9	0.5	0.3	3.2	
SENIOR SECONDARY	112515	68503	44095	18095	7396	1129	-	251733	
	9.1	7.0	4.5	1.8	0.9	0.2	-	4.2	
UNIVERSITY/HIGHER EDUCATION	225	1933	6587	4425	1117	748	674	15709	
	0.0	0.2	0.7	0.4	0.1	0.1	0.2	0.3	
NO EDUCATION/NO FORMAL EDUCATION	701776	704420	784414	904985	749141	524836	391400	4760972	
	56.7	71.6	80.6	91.2	92.6	96.0	96.6	80.0	
TOTAL	1238473	983897	973124	992534	809092	546769	405142	5949030	
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

#### IV CONTRACEPTIVE KNOWLEDGE AND USE

This section of the report presents data on contraceptive knowledge, practice and intention of future use. It examines how widespread the knowledge of contraceptive is and how widely it is being used. It also shows variation in use across different demographic and social characteristics and place of residence.

##### 4.1 Knowledge of contraceptive

Information about knowledge of contraceptive was collected on unprompted and prompted basis. Women aged 15-49 were asked whether they have had heard of ways or methods that a couple could use to delay or avoid a pregnancy. If the response to the above question was yes, the respondents were further asked to name these methods and if they could name at least one method, they were considered to have unprompted knowledge of family planning. However, those who reported they have not heard of any family planning method, were given the names and description of a series of family planning methods and were asked to identify the method (s). After the probing, if the respondent recognized a method, she was considered to have prompted knowledge of family planning. Those who could not recognize any method even after probing were considered to have had no knowledge of family planning.

##### 4.2 Ever and current use of contraceptive

Respondents who said that they had heard of a particular method of family planning were further asked: a) whether they had ever used a contraceptive method and a) whether they were using a contraceptive method during the

time of the survey. As indicated by Table 4.1 only about 8 percent of all women and currently married women aged 15-49 reported to have ever used a contraceptive method. This proportion rises by only one percentage point, if the analysis is confined to ever married women. Only about 9 percent of ever married women aged 15-49 reported to have ever used a contraceptive method.

TABLE 4.1 NUMBER AND PERCENTAGE (WEIGHTED) OF ALL WOMEN, CURRENTLY MARRIED AND EVER MARRIED WOMEN AGED 15-49 BY CURRENT USE, EVER USE AND KNOWLEDGE OF CONTRACEPTIVE METHODS

	Current use %	Ever use %	Have Knowledge %	N
All women (15-49)	4.0	7.6	61.8	5,949,030
Currently married women	4.3	7.9	62.0	4,265,582
Ever married women	4.4	8.8	62.2	4,896,845
All women currently exposed (i.e. women who are fecund and not currently pregnant)	5.0	8.4	62.7	3,368,796

Regarding current use of contraception, only 4.0 percent of women in the reproductive age (15-49), irrespective of their marital status, reported that they were currently using a contraceptive method. This proportion merely rises to 5.0 percent if the analysis is confined to women aged 15-49 who are not currently pregnant and reported to be fecund.

\*-----  
A woman is considered to be fecund if she has reported that it is physically possible for her to have children.

As expected the current use of contraceptives is lower in rural than in urban areas. The use of contraceptives is highest in the capital city, Addis Ababa. This finding holds for all groups of women irrespective of their marital status, exposure and fecundity status. For example, as shown in Table 4.2 only two percent of women aged 15-49, irrespective of their marital status currently practice contraception in rural areas. These figures for all women, currently married and ever married women in "other urban areas" are 12.7, 17.5 and 17.2 percent, respectively. When this analysis is confined to non pregnant fecund women, the current use of contraception rises from mere 2.7 percent in rural areas to 21.6 percent in "other urban areas". The current use of contraception is highest in the capital city.

TABLE 4.2 NUMBER AND PERCENTAGE (WEIGHTED) OF WOMEN AGED  
15-49 WHO ARE CURRENTLY USING CONTRACEPTIVE  
METHOD BY DOMAIN

	Rural Domain	Urban Domain	Addis Ababa	Other Urban	Total
All women	2.1 (5,045,149)	14.6 (903,881)	17.4 (360,685)	12.7 (543,196)	4.0 (5,949,030)
Currently Married Women	2.4 (3,854,095)	22.2 (411,487)	30.7 (144,279)	17.5 (267,208)	4.3 (4,265,582)
Ever Married Women	2.3 (4,324,467)	20.3 (572,378)	25.9 (203,776)	17.2 (368,602)	4.4 (4,896,845)
All women currently exposed (ie. women who are fecund and not currently pregnant)	2.7 (3,037,240)	26.3 (331,556)	34.6 (120,494)	21.6 (211,062)	5.0 (3,368,796)

Note:- Figure in brackets refer to total number of women.

That is, in Addis Ababa 17.4 percent of women aged 15-49 reported to be currently using contraception. The corresponding figures among currently married and ever married women were 30.7 and 25.9 percent, respectively. Over one third (34.6 percent) of non pregnant fecund women in Addis Ababa reported to be currently using contraception.

The overall use of contraception in Ethiopia is found to be lower compared with other African countries (See Table 4.3). This low prevalence rate of contraceptive in Ethiopia may be attributed to the recency of the introduction of family planning in the country, among other factors. Although some limited family planning services were provided by the Family Guidance Association of Ethiopia in urban areas, there was very limited family planning activities on the part of the Ethiopian government until very recently. It was only in 1980 that the government had introduced MCH/FP programme as a component of the National Health Care system. Therefore, the finding of very low use of contraception in the country is in conformity with one's expectation.

TABLE 4.3 PERCENTAGE OF CURRENT CONTRACEPTIVE USE  
IN SELECTED COUNTRIES

Country	Year	Current Use %
Ethiopia	1990	4.0
Ghana	1988	12.3
Kenya	1989	23.2
Liberia	1986	8.4
Uganda	1988/89	5.5
Zimbabwe	1988	32.2

Source:- UNECA, Statistical Compendium of Contraceptive Prevalence in African Countries, Addis Ababa, 1990.

#### 4.3 Differential use of contraceptives by socio-demographic Variables

The level of current use of contraception by selected variables is shown in Table 4.4. The analysis is confined to currently married women only.

##### a) Age, parity and current use

As expected, contraception is less common among younger women and those with small families than among older women, with larger number of children. As shown in Table 4.4 relatively low percentage of current use among the younger and low parity women clearly suggests that the concept of spacing has not been popular among younger and low parity women and the majority of women adopt family planning to terminate their fertility rather than for spacing.

Current use of contraception shows an inverted "U" shape relationship with age and parity indicating that the current use is relatively lower at the age and parity extremities while it is higher at the age/parity group in between. The proportion of women who are currently using contraception increases with age from only 2.2 percent at the age group 15-19 to 5.6 percent at the age group 25-29 and then slowly decreases to 1.3 percent at the age group 45-49 (see Fig.4.1).

Among couples with no children, one in 100 is practicing contraception, this proportion rises to nearly one in twentieth among couples with 1 to 4 children and then tapers off gradually as the parity increases (see Fig.4.2). The finding of relatively lower use of contraception among older women and women with large families may be attributed

TABLE 4.4 PERCENTAGE (WEIGHTED) OF CURRENTLY MARRIED WOMEN  
WHO ARE USING ANY CONTRACEPTIVE METHOD BY SELECTED  
CHARACTERISTICS

Characteristics	% Using	Currently Married Women	Characteristics	% Using	Currently Married Women
<u>Age</u>			<u>Place of Residence</u>		
15-19	2.2	366,442	Rural domain	2.4	3,854,095
20-24	4.0	723,132	Urban domain	22.2	411,487
25-29	5.6	843,559	Addis Ababa	30.7	144,279
30-34	5.1	881,014	Other urban	17.5	267,208
35-39	4.8	695,489	TOTAL	4.3	4,265,582
40-44	3.5	442,891			
45-49	1.3	313,055			
TOTAL	4.3	4,265,582			
<u>Children ever born</u>			<u>Number of living children</u>		
0	1.1	304,212	0	1.1	388,615
1-2	4.8	977,265	1-2	4.2	1,296,973
3-4	4.8	1,053,436	3-4	4.2	1,286,331
5-6	4.5	946,011	5-6	5.9	857,615
7+	4.0	984,658	7+	4.7	436,048
TOTAL	4.3	4,265,582	TOTAL	4.3	4,265,582

FIG.4.1: PERCENTAGE OF CURRENTLY MARRIED WOMEN WHO ARE USING ANY CONTRACEPTIVE METHOD BY AGE

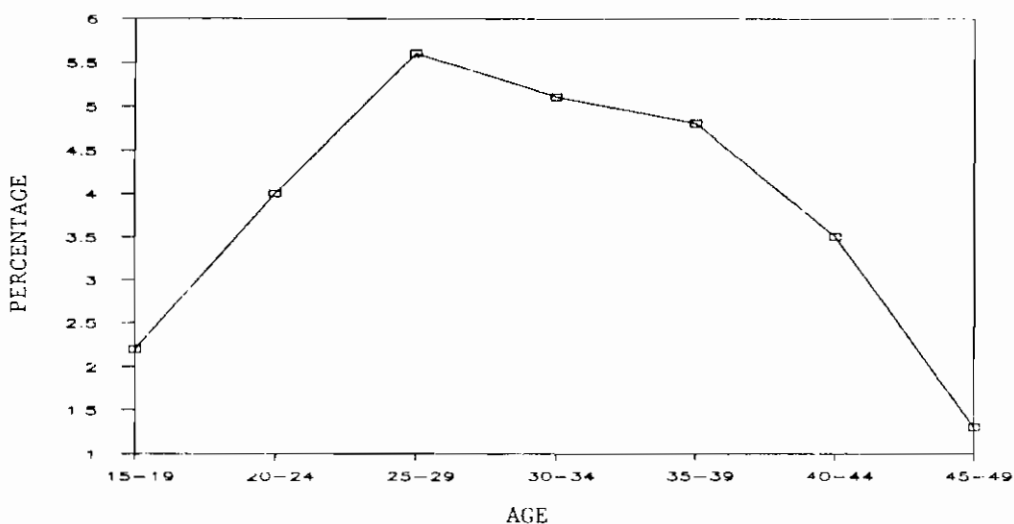
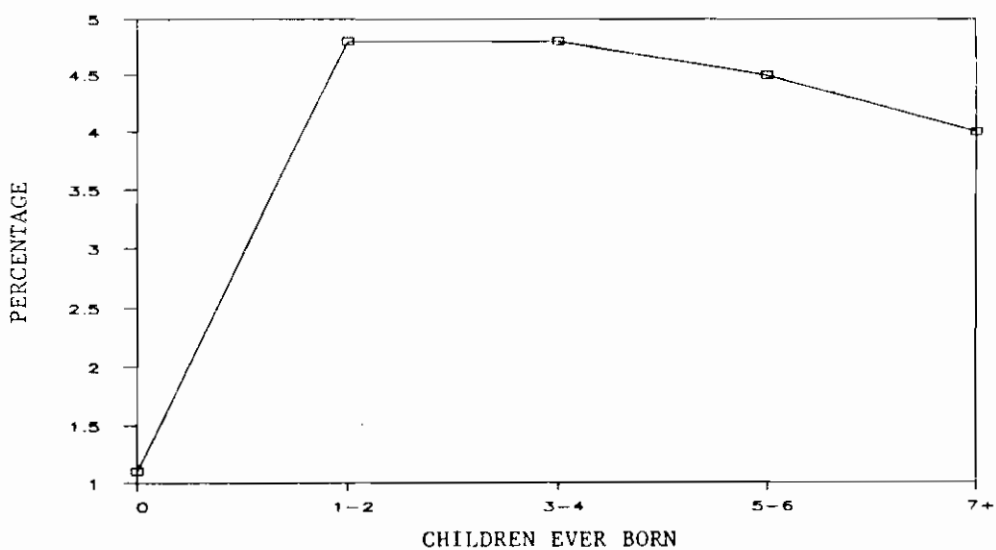


FIG.4.2: PERCENTAGE OF CURRENTLY MARRIED WOMEN WHO ARE USING CONTRACEPTIVE METHOD BY CHILDREN EVER BORN





to the following factors: i) older women are likely to be more tradition oriented, therefore, more likely to be reluctant to use contraception, and ii) secondary sterility increases with age. Some women may already be infecund or they may feel they are infecund and therefore, may not use contraception. However, these are empirical issues and require verification.

b) Number of living children and use of contraception

The current use of contraception shows a positive relationship with number of living children as the size of living children increases, the level of current use also increases and reaches its peak at 5-6 living children and declines thereafter. The proportion of women using contraception increases from mere one percent among those who have had no surviving children, 5.9 percent among those who have had 5-6 children and thereafter it declines to 4.7 percent among women who have had 7 or more surviving children (see Fig. 4.3 and Table 4.4).

c) Place of residence and use of contraception

The data in Table 4.4 reveal that there is a strong positive relationship between place of residence and use of contraception. The proportion of women currently using contraception increases from mere 2.4 percent in rural areas to 17.5 percent and 30.7 percent in "other urban areas" and Addis Ababa, the capital city, respectively (see also Fig. 4.4).

d) Level of education and use of contraception

The level of education shows a strong positive

FIG.4.3: PERCENTAGE OF CURRENTLY MARRIED WOMEN WHO ARE USING ANY CONTRACEPTIVE METHOD BY NUMBER OF LIVING CHILDREN

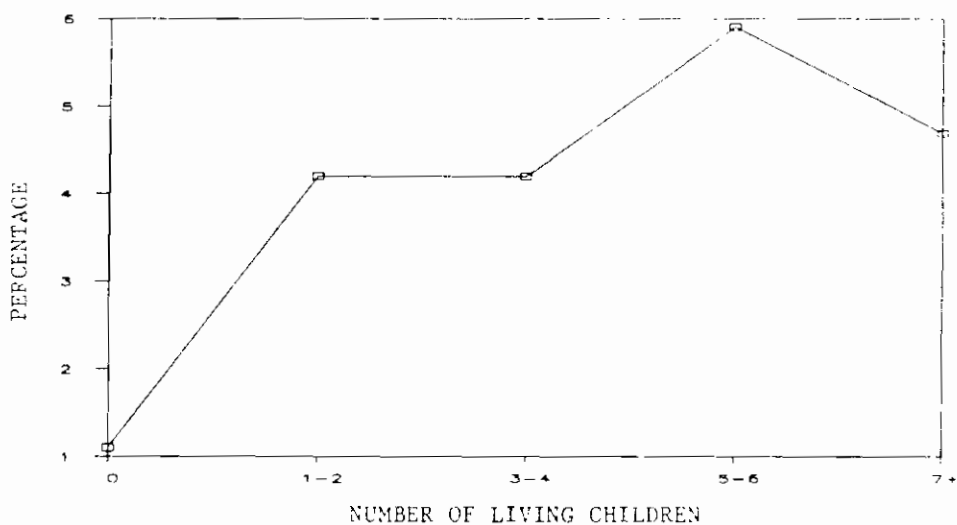
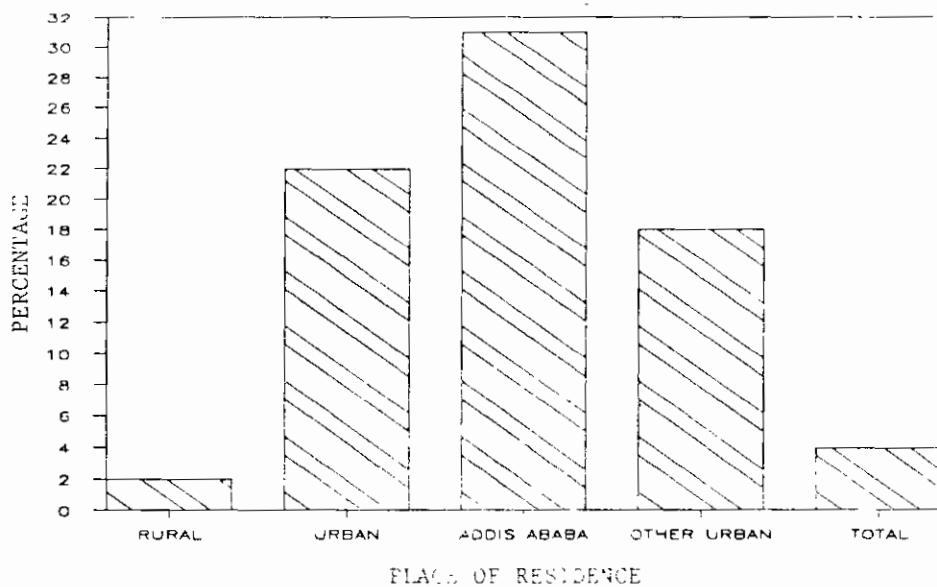


FIG.4.4: PERCENTAGE OF CURRENTLY MARRIED WOMEN WHO ARE USING ANY CONTRACEPTIVE METHOD BY PLACE OF RESIDENCE



relationship with prevalence rate. The proportion of currently married women using contraception rises from only 2.1 percent among those with no formal education to 12.9; 32.4; 52.2 and 61.7 percent with primary, junior secondary, senior secondary and university/higher level education, respectively. The positive relationship observed between current use of contraception and level of education holds even when place of residence is allowed for (see Table 4.5). In other words, the positive relationship between level of education and use of contraception observed for the entire population also holds for rural, urban, Addis Ababa and "other urban areas". This finding is in conformity with the expected direction. It is very likely that educated women are more exposed to mass media communication and receptive to new ideas such as acceptance of family planning.

#### 4.4 Methods used

Table 4.6 shows the distribution of current users of contraception by specific method used. As shown by the table, pill turns out to be the most frequently used method, followed by sexual abstinence\*, periodic abstinence\*\* and IUD. Forty five percent of the current users use pill, while sexual abstinence and periodic abstinence is practiced by 26.1 and 10.6 percent of the users, respectively. IUD users accounted for only 7.0 percent (see Fig. 4.5).

Consistent with the overall pattern we also find pill to be the most frequently used method in all places of

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\* Couples avoid having sexual intercourse on certain days of the month when the woman is more likely to be pregnant.

\*\* Couples avoid having sexual intercourse continuously for a long time to prevent the woman from becoming pregnant.

TABLE 4.5 NUMBER AND PERCENTAGE (WEIGHTED) OF CURRENTLY MARRIED  
WOMEN USING CONTRACEPTIVE METHOD BY EDUCATION AND PLACE  
OF RESIDENCE

	Rural Domain	Urban Domain	Addis Ababa	Other Urban	Total
No education/ no formal education (3,556,661)	1.7 (263,229)	9.9 (125,427)	14.1 (51,912)	8.5 (73,514)	2.1 (388,656)
Primary (1-6)	6.6 (263,229)	26.1 (125,427)	33.5 (51,912)	20.9 (73,514)	12.9 (388,656)
Junior (7-8) Secondary	26.2 (15,443)	35.8 (28,284)	37.3 (10,798)	34.9 (17,486)	32.4 (43,727)
Senior (9-12) Secondary	61.1 (15,535)	49.4 (49,126)	48.4 (26,268)	50.5 (22,858)	52.2 (64,660)
University / higher education (3,227)	62.1 (3,227)	61.5 (6,559)	60.1 (5,265)	67.4 (1,294)	61.7 (9,786)
TOTAL	2.4 (3,854,095)	22.2 (411,487)	30.7 (144,279)	17.5 (267,208)	4.3 (4,265,582)

Note:- Figures in brackets refer to total number of women.

TABLE 4.6 PERCENTAGE (WEIGHTED) DISTRIBUTION OF CURRENTLY MARRIED WOMEN WHO ARE CURRENTLY USING CONTRACEPTIVE METHOD BY METHOD BEING USED AND DOMAIN

Method	Rural Domain	Urban Domain	Addis Ababa	Other Urban	Total
<u>Modern reversible</u>					
Pill	39.8	50.2	42.2	57.7	45.0
IUD	2.9	11.2	14.8	7.7	7.0
Injection	0	0.9	0	1.8	0.5
Vaginal Methods	0	0.4	0	0.9	0.2
Condom	1.3	2.7	1.5	3.8	2.0
Sub Total	44.0	65.4	58.5	71.9	54.7
<u>Modern irreversible</u>					
Tubectomy	7.2	3.2	4.8	1.7	5.2
Vasectomy	0	0	0	0	0
Sub Total	7.2	3.2	4.8	1.7	5.2
<u>Traditional</u>					
Periodic Abstinence	4.2	16.9	24.5	9.8	10.6
Sexual Abstinence	42.9	9.1	6.1	12.0	26.1
Withdrawal	0.7	3.8	5.0	2.6	2.2
Douche	0	1.0	1.1	1.0	0.5
Traditional methods	0	0.5	0	0.9	0.2
Sub Total	47.8	31.3	36.7	26.3	40.0
<u>Others</u>	0.9	0	0	0	0.4
<u>TOTAL</u>	100.0	100.0	100.0	100.0	100.0
Weighted Number	91,581	91,195	44,343	46,852	182,776

FIG.4.5: PERCENTAGE OF CURRENTLY MARRIED WOMEN WHO ARE USING CONTRACEPTIVE METHOD BY METHOD BEING USED (TOTAL COUNTRY)

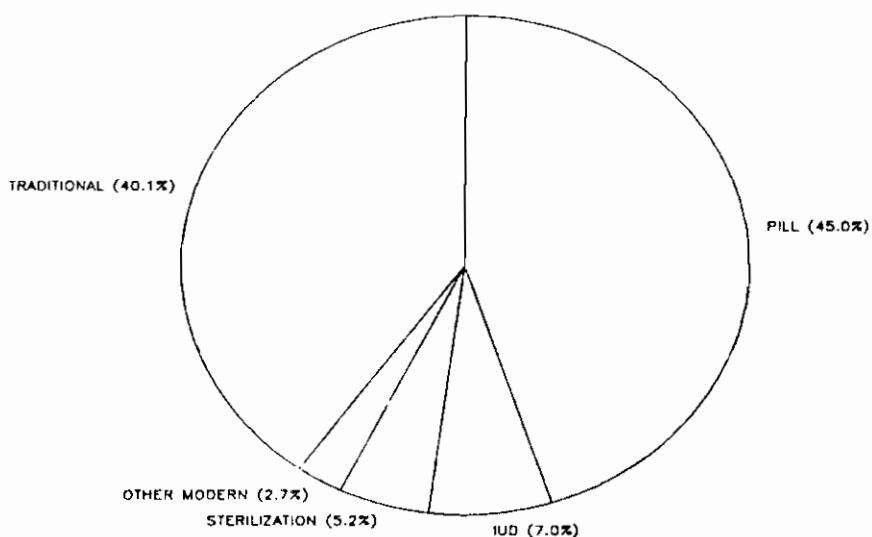
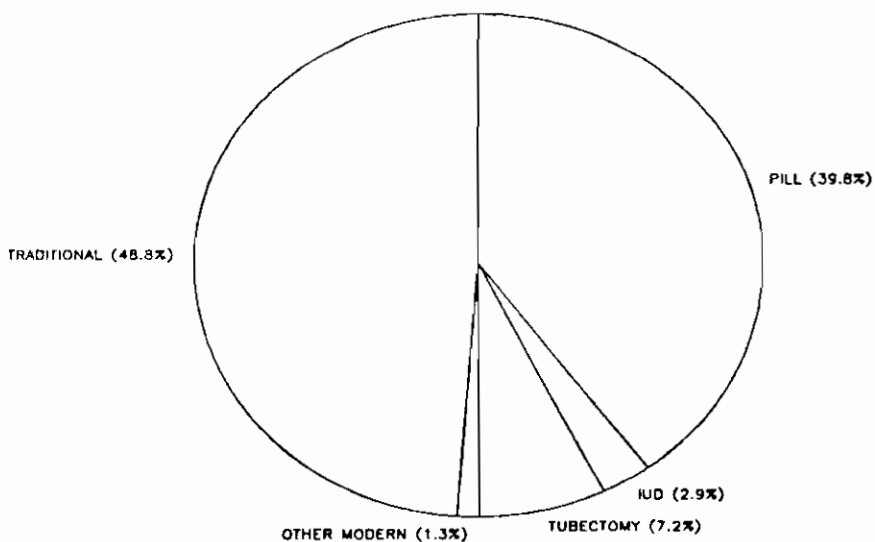


FIG.4.6: PERCENTAGE OF CURRENTLY MARRIED WOMEN WHO ARE USING CONTRACEPTIVE METHOD BY METHOD BEING USED (RURAL DOMAIN)



residence except for rural areas. In rural areas, the most frequently used method was sexual abstinence, followed by pill, while tubectomy emerges as the third most popular method. Among current users in urban areas particularly in Addis Ababa, the second most frequently used method was periodic abstinence, followed by IUD, while in "other urban areas", sexual abstinence is the second most important method, followed by periodic abstinence. From the preceeding findings, it appears that the contraceptive users in urban areas tend to use more modern methods particularly those of reversible ones while those in rural areas mostly tend to use traditional methods particularly sexual abstinence (see Fig.4.6 and 4.7).

This rural-urban difference in pattern of use of methods holds at each level of education except for those with secondary level education in rural areas. Among women with secondary education in rural areas, the pill is the most popular method. In urban areas, pill is widely used by women at all education level (see Table 4.7).

#### 4.5 Future intention to use contraceptives

Women who knew about a method of contraception but never used contraceptives were asked if they or their spouses had thought of using family planning method in the future. Information of this kind can shed some light on the future demand for family planning. Data in Table 4.8 show that 25 percent of women who had heard about a family planning method but never used it, intend to use in the future. The percentage of never users who intend to use contraception in the future declines with advancing age.

TABLE 4.7 PERCENTAGE (WEIGHTED) DISTRIBUTION OF CURRENTLY MARRIED WOMEN WHO ARE CURRENTLY USING CONTRACEPTIVE METHOD BY METHOD BEING USED, EDUCATION AND RURAL/URBAN RESIDENCE

	No education/ no formal education	Primary (1-6)	Secondary (7-12)	Higher 12+	Total
<u>Rural</u>					
Pill	34.58	39.87	62.38	38.86	39.78
IUD	2.50	7.07	0	0	2.94
Condom	0	0	9.05	0	1.34
Sterilization	9.13	0	9.05	0	7.19
Other Modern	0	0	0	0	0
Traditional	52.35	53.06	19.53	61.14	47.83
Others	1.43	0	0	0	.92
TOTAL	100.00	100.00	100.00	100.00	100.00
WEIGHTED NO.	58,736	17,312	13,531	2,002	91,581
<u>Urban</u>					
Pill	62.16	53.28	41.71	38.25	50.20
IUD	4.75	12.13	12.70	21.87	11.15
Condom	0	1.29	5.26	5.60	2.69
Sterilization	7.97	2.78	1.27	0	3.23
Other Modern	0	1.45	2.30	0	1.39
Traditional	25.12	29.07	36.77	34.28	31.33
Others	0	0	0	0	0
TOTAL	100.00	100.00	100.00	100.00	100.00
Weighted No.	20,035	32,745	34,378	4,037	91,195
<u>Total</u>					
Pill	41.60	48.64	47.55	38.45	44.98
IUD	3.07	10.38	9.11	14.62	7.04
Condom	0	0.84	6.33	3.74	2.01
Sterilization	8.84	1.82	3.46	0	5.22
Other Modern	0	0.95	1.65	0	0.69
Traditional	45.43	37.37	31.90	43.19	39.60
Others	1.07	0	0	0	0.46
TOTAL	100.00	100.00	100.00	100.00	100.00
Weighted No.	78,771	50,057	47,909	6,039	182,776



FIG.4.7: PERCENTAGE OF CURRENTLY MARRIED WOMEN WHO ARE USING CONTRACEPTIVE METHOD BY METHOD BEING USED (URBAN DOMAIN)

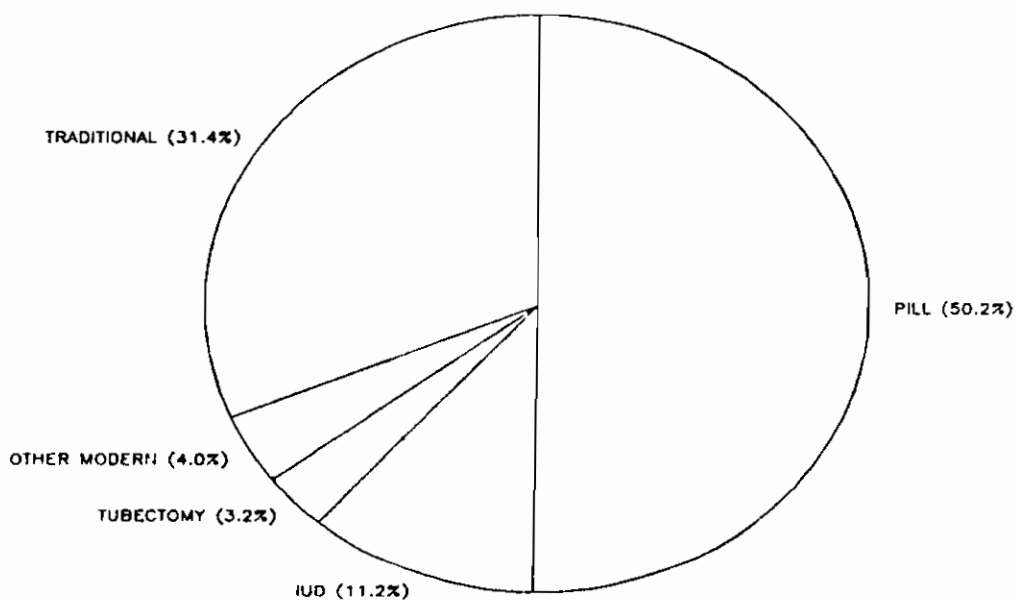


TABLE 4.8 PERCENTAGE (WEIGHTED) DISTRIBUTION OF THE RESPONSE  
TO THE QUESTION, "HAVE YOU OR YOUR SPOUSE THOUGHT  
OF USING ANY FAMILY PLANING METHOD IN THE  
FUTURE?" ASKED TO WOMEN WHO KNEW A METHOD  
BUT NEVER USED IT, BY SELECTED  
CHARACTERISTICS

Characteristics	% (intend to use in the future)	Weighted Number
Age		
15-19	35.7	690,378
20-24	29.0	581,632
25-29	25.2	534,747
30-34	21.9	531,613
35-39	20.1	433,289
40-44	13.8	249,072
45-49	8.4	207,320
TOTAL	24.9	3,228,052
<u>Place of Residence</u>		
Rural Domain	22.0	2,621,553
Urban Domain	37.7	606,499
Addis Ababa	42.7	244,858
Other urban	34.3	361,641
TOTAL	24.9	3,228,052

There is also variation in intention to use by place of residence. The future users, among those who knew a method but never used one, accounted for 22.0; 37.7; 42.7 and 34.3

percent in rural, urban, Addis Ababa and "other urban areas" respectively.

Type of method preferred by future users of contraceptives is shown in Table 4.9. In both rural and urban areas, the future users who knew a method but never practiced it intend to use more frequently the modern methods rather than the traditional methods.' Among the modern methods the pill is the most preferred method. Injection is the second most preferred method among the future users in rural areas while in Addis Ababa and other small towns (i.e, other urban areas) the second most preferred method among future users was periodic abstinence, followed by injection.

TABLE 4.9 PERCENTAGE (WEIGHTED) DISTRIBUTION OF WOMEN WHO KNEW A CONTRACEPTIVE METHOD BUT NEVER USED IT BUT WHO INTEND TO USE IN THE FUTURE BY METHOD PREFERRED AND DOMAIN

Method	Rural Domain	Urban Domain	Addis Ababa	Other Urban	Total
<u>Modern reversible</u>					
Pill	77.8	60.1	53.3	65.9	72.8
IUD	0.6	3.0	4.5	1.7	1.3
Injection	12.7	12.9	12.5	13.3	12.8
Vaginal Methods	—	—	—	—	—
Condom	—	1.6	2.8	0.7	0.5
Sub Total	88.8	78.2	73.4	82.0	86.2
<u>Modern irreversible</u>					
Tubectomy	1.7	2.0	2.6	1.4	1.8
Vasectomy	0	0	0	0	0
Sub Total	1.7	2.0	2.6	1.4	1.8
<u>Traditional</u>					
Periodic Abstinence	1.6	17.5	21.0	14.5	6.1
Sexual Abstinence	0.7	1.3	2.0	0.7	0.9
Withdrawal	—	0.2	—	0.4	0.1
Douche	0.1	0.1	0.2	—	0.1
Traditional methods	0.4	0.1	0.2	—	0.3
Sub Total	2.6	18.8	23.3	15.2	6.7
<u>Others</u>	4.3	1.1	0.8	1.4	3.4
Not stated	0.1	—	—	—	0.1
<u>TOTAL</u>	100.0	100.0	100.0	100.0	100.0
Weighted Number	576,781	104,440	124,085	228,525	805,306

## V. FERTILITY AND SURVIVORSHIP OF CHILDREN

### 5.1 Introduction

The analysis in this section will be based on information obtained on current and retrospective fertility. Current fertility was obtained on the basis of data on date of births of children. That is, births that had occurred during the twelve months preceding the survey date were selected and classified by age of women to provide age specific fertility rates (ASFR). The age specific fertility rates are used to provide total fertility rates (TFR), which indicate the number of children a woman is likely to produce at the end of her reproductive period assuming that she will follow the current pattern of age specific fertility throughout her reproductive life-span.

Retrospective fertility is derived from information on total number of children ever born per woman. This information was collected by asking women whether they have ever given birth to a live baby, and if so, they were asked to state the number of children staying at home, those staying elsewhere, and those who are dead. This section will also provide information on the survivorship of children which is obtained from information collected on number of children ever born and children surviving.

A full analysis of current fertility levels and recent trends in age-specific and total fertility rates will have to wait the detailed results from the complete birth histories collected in the NFFS. In this preliminary report, provisional estimates of current fertility rates based on the reported date of births and retrospective

fertility, based on number of children ever born, are presented. The data on current and retrospective fertility should be treated with considerable caution. The experience with the past surveys has shown that mothers frequently misreport the ages, or birth dates, of young children in such a way that recent fertility levels are under estimated. The data on number of children ever born are also usually underestimated due to recall lapse and this tends to vary with level of education, age and other factors. We have no means of estimating the level of understatement or its differential impact. However, the sequential approach adopted by NFFS to build full birth history should enable women to re-construct birth history more accurately since it helps to minimize memory lapse and misplacement of events. Availability of these data should enable cross checks, and adjustments where necessary, to be made. However, these data are not available at this preliminary stage of reporting, and therefore, no such adjustments can be made.

## 5.2 Onset Of Childbearing

As has been presented in section 3 of this report, in the rural areas marriage takes place at young ages and is almost universal. The proportion never married in the rural areas is 12% in the age group 20-24 and only 3% in the age group 25 - 29. The singulate mean age at marriage (average number of years lived by a cohort of women before their first marriage) for the rural areas was found to be 19.1 years. The fact that there is an early and universal marriage, and a very low use of contraception in the rural areas (only two percent of currently married rural women

were current users of contraception) sets the pre-condition for very high fertility.

Marriage conditions in the urban areas differ widely from those observed in the rural areas. In Addis Ababa the proportion of women still single was observed to be 66% in the age group 20 - 24 and 27% in the age group 25 - 29. The corresponding proportions in the 'other urban areas' were 36% for ages 20 - 24, and 8% for ages 25 - 29. The singulate mean age at marriage for Addis Ababa was 24.8 years, while for the 'other urban areas' it was 22.5 years. These factors indicate that the fertility level in the urban areas would be lower compared to those in the rural areas, because births among the never married are very small. In addition to this factor, the use of contraception in the urban areas was found to be relatively high. Current users of contraception among the currently married was 31% in Addis Ababa and 18% in the 'other urban areas', 22% in all the urban areas while it was only 4% among the total population. This may also create conditions for lower fertility in the urban areas.

### 5.3 Current Fertility

The current fertility level in NFFS was measured on the basis of data on number of births given in the twelve months preceding the survey date. As the mid-point of NFFS field work is the beginning of July 1990, the results may be assumed to refer to that date. Using this information, age-specific fertility rates and total fertility rate were calculated. Age-specific fertility rate refers to the number of births occurring to women of five year age groups, per 1000 women of the same age-group, in a given year.

Total fertility rate refers to the number of children a woman is likely to produce at the end of her reproductive period given the current age schedule of fertility.

The reported age specific fertility rates (ASFR) are presented in Table 5.1 and Figure 5.1. The rates in the rural areas indicate that childbearing starts at young ages and has very high values between the ages 20-34. The fertility levels observed in the age groups 15-19, 35-39 and 40-44 were comparatively lower, although not insignificant. The lowest rate of fertility was observed in the age group 45-49.

Fertility levels in Addis Ababa showed comparatively high rates between the ages 20-39, low value in the age group 40-44 and very low value in the age groups 45-49 and 15-19. The ASFR observed in Addis Ababa was consistently lower than what was observed in the rural areas in all age groups but more significantly in the age groups 15-19 and 45-49. A large part of the difference may be due to the existence of high proportion of never married women in Addis Ababa, particularly in the lower age groups. A good proportion of women at higher ages in Addis Ababa are also widowed and divorced. In Addis Ababa the widowed and divorced accounted for 43% of women aged 45-49 while in the rural areas the corresponding figure was 20%. The use of contraception in Addis Ababa is also very high compared to other areas.

The "other urban areas" showed a slightly higher fertility rate compared to Addis Ababa in all age groups but much lower than that of rural areas, in all age groups. As in the case for Addis Ababa a good proportion of women

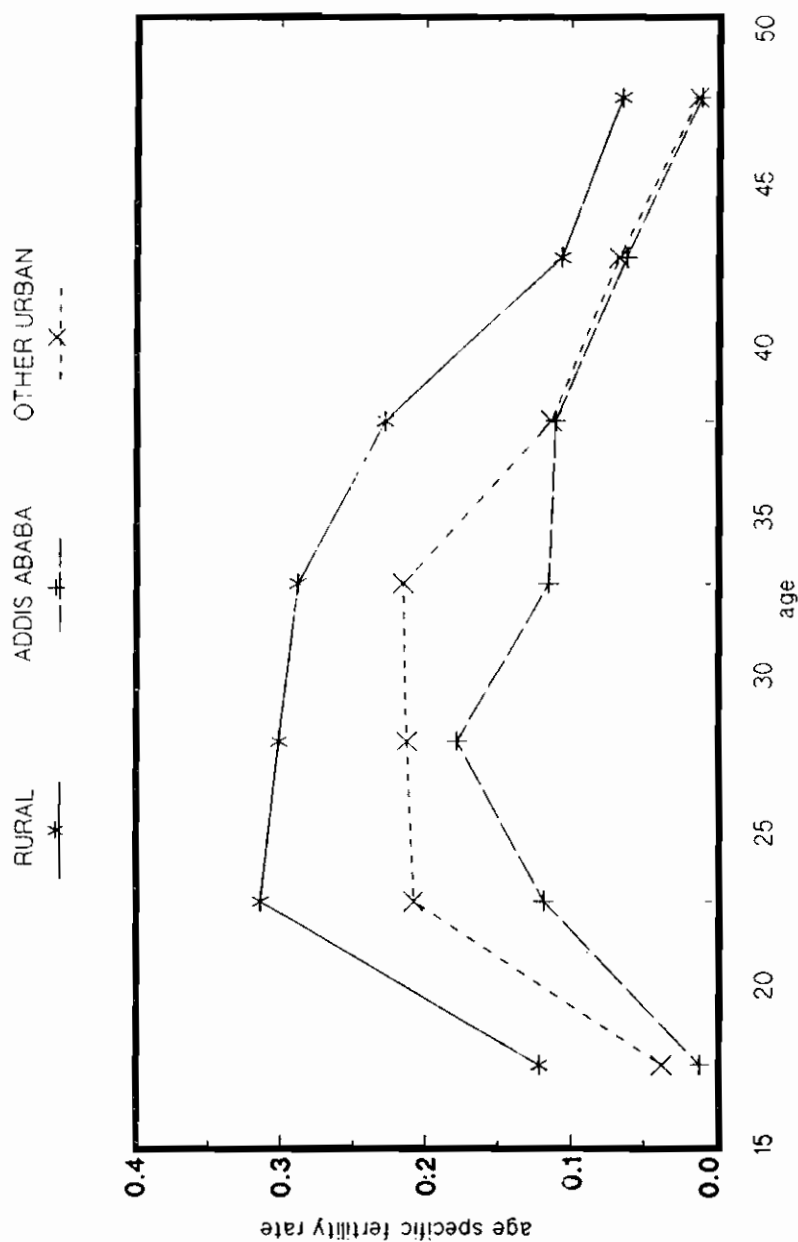


Table 5.1 Age specific and total fertility rates by type of residence.

Age Group	Rural	Urban			All Areas
		All Urban	Addis Ababa	Other Urban	
15 - 19	0.1218	0.0279	0.0116	0.0378	0.1024
20 - 24	0.3140	0.1666	0.1184	0.2081	0.2925
25 - 29	0.3013	0.1996	0.1783	0.2130	0.2871
30 - 34	0.2884	0.1762	0.1152	0.2155	0.2744
35 - 39	0.2281	0.1124	0.1107	0.1134	0.2103
40 - 44	0.1062	0.0647	0.0616	0.0668	0.1010
45 - 49	0.0645	0.0118	0.0104	0.0126	0.0579
TFR	7.1	3.8	3.0	4.3	6.6

FIGURE 5.1 AGE SPECIFIC FERTILITY RATES

(ALL WOMEN)



(particularly in the young age groups) in 'other urban areas' are never married. The proportion of currently married women who are using contraception in 'other urban areas' was also considerably higher compared to those in the rural areas, which may induce lower fertility in 'other urban areas'.

The reported age specific fertility rate implies a total fertility rate of 7.1 children per woman for the rural population. This indicates that a woman in the rural areas is expected to have 7.1 children by the end of her reproductive period, assuming that the current pattern of age specific fertility rate prevails during her entire reproductive span. The corresponding figures for Addis Ababa and 'other urban centers' were 3.0 and 4.3, respectively. The data clearly show an inverse relationship between level of urbanization and fertility.

Considering the peak age of fertility, rural areas showed an early peak (i.e., maximum fertility rate occurs in the age group 20-24 years while Addis Ababa and other urban areas exhibited a late peak in which maximum fertility is observed in the age-groups 25-29 and 30-34, respectively (see figure 5.1). However, the mean age at childbearing (also known as the mean age of the fertility schedule) is very similar in all areas. Among the total population the mean age at childbearing was observed to be 30 years. This was also the case in the rural areas, the 'other urban', and the total urban areas. The corresponding figure for Addis Ababa was only slightly higher, with a value of 31 years.

#### 5.4 Retrospective Fertility

Retrospective fertility is derived from information on total number of children ever born per woman. This information was obtained from answers 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 are presently living with you? (ii) how many are living elsewhere? and (iii) how many were born alive but died later? The data on total number of children ever born are usually understated because of recall lapse. This is likely to vary with level of education, age and other factors. We have no means of estimating the level of understatement, or its differential impact. However, attempts have been made to reduce it to a minimum, by introducing rigorous probing questions.

##### a) Fertility in Progress

Table 5.2 shows the number of children ever born to all women by age group. Among the teenage population, are 80 percent still have no child, and most of the remainder have given birth to only one child. This finding of higher proportion of teenage women remaining childless is due to the fact that most of these women are un-married and childbearing outside marriage is not culturally condoned. However, as age advances and the proportion married increases childlessness sharply drops. For example, at age 20-24, 47.0 per cent of women have delivered at least two children, and about 28 per cent already have three or more live births. By ages 25 to 29, about 67 per cent have three or more births. The data in Table 5.2 also confirm that the level of primary infertility remains very low in Ethiopia.

Table 5.2 Percent distribution of all women according to number of children ever born and age.

CEB	Age Group							Total
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
0	80.5	24.8	8.0	2.1	2.7	2.6	3.8	23.4
1	14.6	22.1	8.8	3.8	3.2	3.6	3.7	9.8
2	4.3	24.9	16.4	7.3	5.0	4.8	3.0	10.2
3	0.5	18.9	21.2	11.3	6.8	4.2	5.4	10.3
4	0.1	6.9	19.9	17.8	10.2	7.6	4.9	9.8
5	-	1.6	15.1	18.9	14.2	10.8	8.7	9.4
6	-	0.6	6.9	18.5	17.2	12.1	10.2	8.5
7	-	-	2.7	11.0	14.7	12.8	10.7	6.2
8 +	-	0.1	1.0	9.4	26.0	41.5	49.6	12.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Mean	0.25	1.69	3.29	4.87	5.86	6.61	6.99	3.56

Only 4 percent of older women report that they have had no children.

b) Cumulative and Completed Fertility

Completed fertility may be imputed from data on number of children ever born by women aged 45-49 years because such women are reaching the end of their childbearing careers and are unlikely to bear any more children. The number of children ever born by age of women is given in Table 5.3. In general, the mean number of children ever born rises monotonically as the age advances, reaching its peak in the age group 45-49. And this finding holds for almost all study areas except for 'other urban centers'. In this case, women aged 45-49 reported lower mean parity compared to those aged 40-44. This could be attributed to under-reporting of births on the part of higher aged women due to recall lapse.

The distribution of the information on mean number of children ever born per woman by type of residence indicates that in the rural areas women aged 15-49 had 3.7 children, those in Addis Ababa had 2.2 children and those in the 'other urban areas' had 2.8 children. The completed fertility implied by mean number of children ever born to women at the end of their reproductive ages indicate a mean of 7.1 children for the rural women, 5.8 children for those in Addis Ababa, 6.0 for those in the 'other urban areas' and for urban areas as a whole. Only a small difference in completed fertility was observed between Addis Ababa and the 'other urban' group. However, the completed fertility of rural women was higher than urban women by one child on

average. The mean number of children born to women aged 45-49 for the entire population was observed to be around 7 children. The average figure, however, does not show the variation around the mean. This has been well demonstrated in Figure 5.2, which shows a considerable dispersion in the number of live births. A considerable proportion of women had between 6 to 9 births, with a modal value of 8 live births. Over twenty percent of women had given ten or more births against only four percent who had only one live birth.

In the rural areas total fertility rates obtained from the ASFR and the mean number of children ever born by women aged 45-49 are comparable (Table 5.4). When the information on mean number of children ever born per woman is compared with the cumulative ASFR for each age group of women the rates were found to be close to unity in the age groups beyond 24. However, in the first two age groups, particularly in the youngest age group (15-19), the cumulative age specific fertility levels were higher. The picture is very different in the urban areas where the cumulative current fertility rate is much lower than the mean number of children ever born in the age groups beyond 24 years. This may indicate recent decline in fertility levels in urban areas. However, in the age group 15-19, the cumulative current fertility information was observed to be higher than the reported mean number of children ever born in both rural and urban areas.

### 5.5 Fertility And Marital Status

Most births in the country take place within marriage as can be observed in the very low incidence of births among

Table 5.3 Mean number of children ever born  
by type of residence.

Age Group	Rural	Urban			All Areas
		All Urban	Addis Ababa	Other Urban	
15 - 19	0.30	0.07	0.04	0.09	0.25
20 - 24	1.81	0.94	0.61	1.22	1.69
25 - 29	3.41	2.54	2.06	2.85	3.29
30 - 34	4.98	4.09	3.74	4.32	4.87
35 - 39	6.01	5.03	4.37	5.45	5.86
40 - 44	6.69	6.02	5.10	6.62	6.61
45 - 49	7.14	5.90	5.78	5.98	6.99
Total	3.74	2.59	2.23	2.83	3.56

Table 5.4 Ratio of reported parity (P) to cumulated age specific fertility (F) by type of residence.

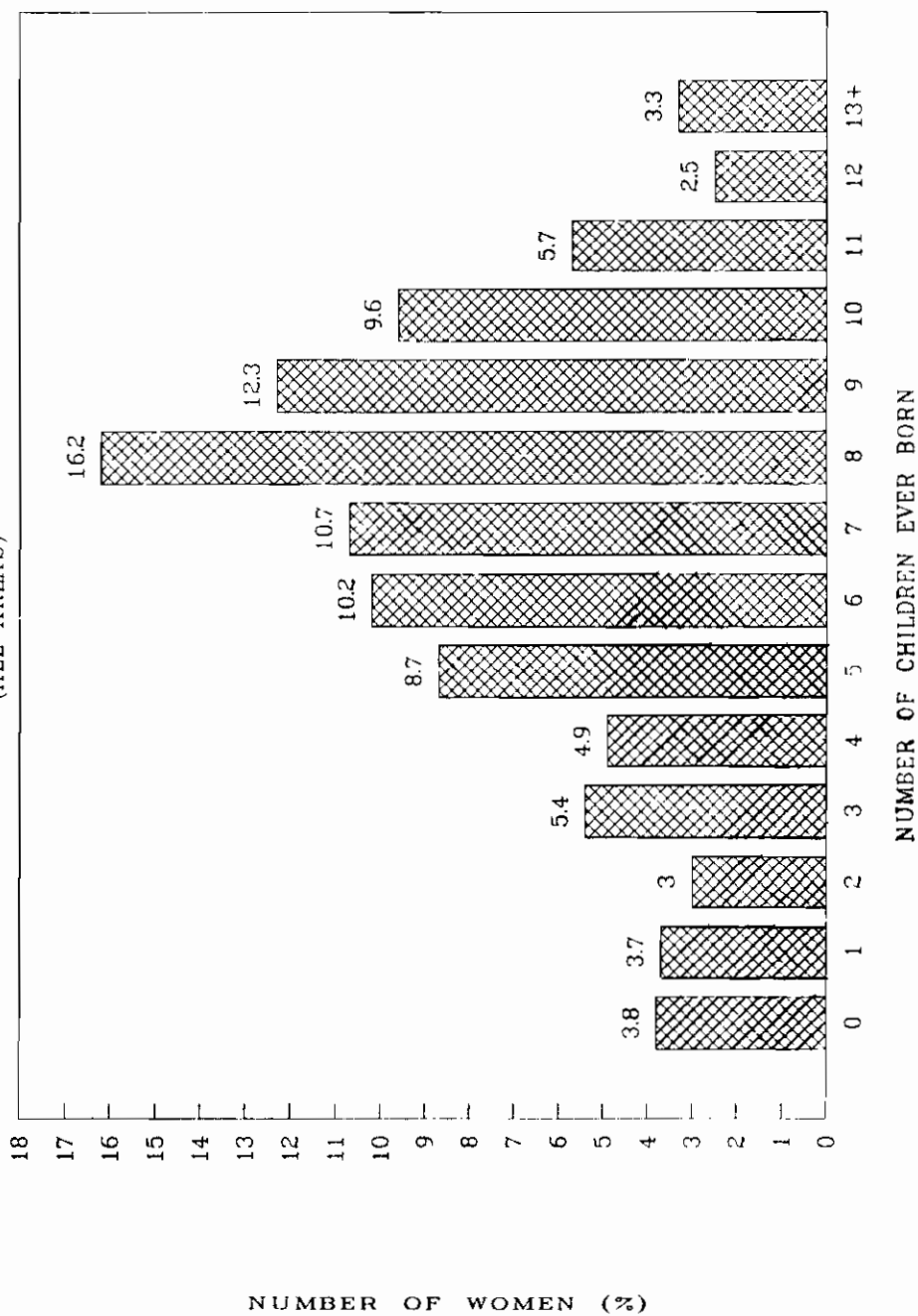
Age Group	Rural	Urban			All Areas
		All Urban	Addis Ababa	Other Urban	
15 - 19	0.49	0.52	0.66	0.50	0.49
20 - 24	0.84	0.96	0.94	0.99	0.86
25 - 29	0.93	1.29	1.33	1.24	0.96
30 - 34	0.97	1.44	1.77	1.28	1.02
35 - 39	0.96	1.47	1.64	1.38	1.00
40 - 44	0.98	1.61	1.70	1.55	1.04
45 - 49	1.00	1.55	1.90	1.38	1.05



FIGURE 5.2

# CEB OF ALL WOMEN AGED 45-49

(ALL AREAS)



the never married (Table 5.5). On average, never married women reproduce on average 0.02 children in the rural areas, 0.15 children in Addis Ababa, 0.10 children in the 'other urban areas', 0.12 children in all the urban areas and 0.05 children in the entire study population. The mean number of children born among the currently married women was very similar in all the study areas, indicating that the differences in the fertility levels observed between rural areas, Addis Ababa and 'other urban areas', was mostly due to the differences in the pattern of marriages, particularly the proportion who were still single. The percentage of women who were single was observed to vary between 14% for the rural areas, 32% for the 'other urban' and 44% for Addis Ababa.

#### 5.6 Fertility And School Attendance

Differentials between women of varying educational backgrounds in the mean number of children ever born is presented in Table 5.6. The fertility level was observed to vary inversely by level of school attendance of women. In the population under study, those women who had never attended any formal education had 4.1 children, those who had primary education only had 1.8 children and those who had higher education had 0.9 children. This pattern remains the same in the rural, Addis Ababa and the 'other urban areas'. This finding is unadjusted for age. Age is positively related to fertility and inversely with the level of education. Women who have higher education also tend to be younger and therefore have lower fertility. This calls for standardization for age while examining the relationship

Table 5.5 Mean number of children ever born by marital status, and place of residence.

Marital Status	Rural	Urban			All Areas
		All Urban	Addis Ababa	Other Urban	
All women	3.74	2.59	2.23	2.83	3.56
Ever married	4.35	4.02	3.83	4.13	4.32
Currently married	4.39	4.36	4.18	4.16	4.39
Widowed & Divorced	4.21	3.18	3.06	3.25	3.95
Never married	0.02	0.12	0.15	0.10	0.05
Percent single	14	37	44	32	17

between education and fertility. This is also done and the result is presented in the last column of the table. The inverse relationship observed between education and fertility still holds, although attenuated after standardization for age. After standardization for age, the fertility level in the rural areas was observed to be highest for those who had no education, followed by those who had only primary education and to be lowest for those who had higher educational level. In the urban areas women who had education beyond primary were observed to have lower fertility compared to the rest. One of the reasons for this may be higher ages at marriage in the urban areas for the more educated women (This can be observed in the singulate mean age at marriage which was 19.7 years for those who had no education, 21.0 years for those who had primary education and 25.2 years for those who had higher education). However, in urban areas primary education has shown little impact on fertility when standardized for age, while among the small number of women with higher education fertility is relatively lower (see Table 5.6). The level of contraceptive use is also observed to rise with educational level of women. It is to be also noted that at higher level, effect of education seems to have greater impinging effect on fertility of rural than urban women. At higher level of education, women in rural areas have fewer children than women in urban areas. However, no firm conclusion can be arrived before other factors associated with fertility in rural and urban areas were controlled for.

#### 5.7 Proportion Dead Among Children Ever Born

Information on the mean number of children surviving

Table 5.6 Mean number of children ever born by school attendance  
and place of residence.

Education/ place of residence	Age Group					Standardized mean
	15-19	20-24	25-29	30-34	35-39	
						45-49 Total
Rural						
None	0.33	1.95	3.50	5.00	6.03	4.09
Primary	0.27	1.38	2.82	4.78	4.65	1.26
Higher	0.11	0.14	1.95	3.69	5.86	0.75
Total	0.30	1.82	3.41	4.99	6.01	3.74
Urban						
All urban						
None	0.11	1.78	2.98	4.51	5.32	4.20
Primary	0.10	1.43	3.02	3.93	4.81	2.68
Higher	0.05	1.20	2.54	3.37	4.04	0.99
Total	0.07	0.94	2.54	4.09	5.03	2.59
Addis Ababa						
None	0.12	0.86	2.78	4.24	4.13	4.02
Primary	0.06	1.14	2.66	3.77	4.77	2.88
Higher	0.02	0.41	1.50	3.19	4.02	2.21
Total	0.04	0.61	2.06	3.74	4.37	2.53
Other urban						
None	0.11	1.27	3.03	4.61	5.75	4.26
Primary	0.11	1.63	3.24	4.07	4.86	2.55
Higher	0.08	0.93	2.16	3.62	4.06	0.98
Total	0.06	1.03	2.42	5.65	4.33	2.31
All areas						
None	0.32	1.92	3.48	4.96	5.96	4.09
Primary	0.23	1.39	2.89	4.20	4.78	1.75
Higher	0.07	0.66	1.84	3.42	4.24	0.92
Total	0.25	2.69	3.29	4.87	5.86	3.56

\* Age-distribution of all women are used as standard.

is compared to the mean number of children ever born in Table 5.7. As expected, the proportion dead among children ever born is higher in rural than in urban areas. Addis Ababa, the capital city, has had the highest proportion of surviving children. Over twenty three percent (23.4%) of the children born to women in the rural areas were dead. The corresponding figures for Addis Ababa, and the 'other urban', all urban, and all the study areas were 11.3%, 18.5%, 16.0% and 22.6%, respectively. As can be expected, the proportion dead increases directly with the age of women in the rural areas. Addis Ababa also had the same pattern, except in the first age group. The pattern in the 'other urban' category was observed to be less clear.

Table 5.7 Mean Number of children ever born and surviving by  
type of residence.

Age Group	Rural	Urban			All Areas
		All urban	Addis Ababa	Other Urban	
15 - 19					
Ever born	0.2964	0.0730	0.0381	0.0942	0.2502
Surviving	0.2552	0.0633	0.0336	0.0813	0.2154
Proportion dead	0.1390	0.1329	0.1181	0.1369	0.1391
20 - 24					
Ever born	1.8193	0.9354	0.6078	1.2175	1.6905
Surviving	1.5064	0.8169	0.5735	1.0264	1.4056
Proportion dead	0.1722	0.1267	0.0564	0.1570	0.1685
25 - 29					
Ever born	3.4073	2.5423	2.0590	2.8459	3.2864
Surviving	2.7574	2.2214	1.9100	2.4169	2.6824
Proportion dead	0.1907	0.1262	0.0724	0.1507	0.1838
30 - 34					
Ever born	4.9851	4.0945	3.7437	4.3206	4.8736
Surviving	3.8711	3.5601	3.4276	3.6454	3.8322
Proportion dead	0.2235	0.1305	0.0844	0.1563	0.2137
35 - 39					
Ever born	6.0104	5.0266	4.3736	5.4485	5.8591
Surviving	4.6059	4.1750	3.9402	4.3268	4.5396
Proportion dead	0.2337	0.1694	0.0991	0.2059	0.2252
40 - 44					
Ever born	6.6900	6.0191	5.1026	6.5217	6.6060
Surviving	4.8133	4.9482	4.3596	5.3352	4.8302
Proportion dead	0.2805	0.1779	0.1456	0.1943	0.2688
45 - 49					
Ever born	7.1396	5.8963	5.7765	5.9760	6.9851
Surviving	5.0447	4.5803	4.6157	4.5567	4.9870
Proportion dead	0.2934	0.2232	0.2009	0.2375	0.2861
Total					
Ever born	3.7360	2.5914	2.2262	2.8339	3.5621
Surviving	2.8604	2.1764	1.9749	2.3102	2.7564
Proportion dead	0.2344	0.1601	0.1129	0.1848	0.2262

## VI CONCLUSIONS AND POLICY IMPLICATIONS

The main conclusion that emerges from these preliminary findings of 1990 Family and Fertility Survey, is the persistence of high fertility in the country, particularly in the rural areas. This is also consistent with the findings of very low level of contraceptive use, universal marriage and early age at marriage. The reported age-specific fertility rates imply a total fertility of about 6.6 and 7.1 children per woman for the study areas as a whole and rural areas, respectively. Only 2.0 percent of rural and 4.0 percent of all women in the reproductive ages (15-49) currently practice contraception and 40% of the current users practice in-efficient traditional methods. Around 34% of women aged 15-19 were in marital union and by the age of 30-34 years, over 99% had already married. The singulate mean age at marriage for women was very low, with 19.5 years and 18.4 years for the entire study population and rural areas, respectively. In a non-contraceptive society where most of the births take place within marriage, early age at marriage will lead to high fertility, as is observed in Ethiopia.

It is to be also noted here that fertility is found to be lower in urban than in rural areas while the use of contraceptive is found to be higher in urban than in rural areas. The singulate mean age at marriage is also found to be higher in urban than in rural areas. Female education is found to be positively associated with the use of contraception and negatively with fertility. Education is also positively associated with age at marriage. However, it should be borne in mind that the urban population



accounts for a small fraction of the total population and only a few women received higher education. Therefore, the effect of urbanization and education on overall fertility i.e., in the context of total population, is minimal. Moreover, it takes a long time before the effect of education and urbanization on fertility is felt.

Given the circumstances, the most practical option left out for the moment is to foster small family size norm and to create conditions to increase the level of contraceptive use, to effectively control high fertility prevailing in the country and thereby halting its deterrent effect on socio-economic development of the country. And there is an ample room for increasing contraceptive use in the country. Nearly 62 percent of the eligible study population, (i.e., women in the age-group 15-49) reported to have knowledge about contraceptive methods, but only 4 percent were practicing contraception. This gap between knowledge and practice should be bridged by motivating non-users to use contraception and by making family planning and its follow up services easily available. While asking non-users to practice contraception, they should be encouraged to use modern methods of contraception, to have greater effect on averting births.

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# C O R R I G E N D U M

Page 19, 2<sup>nd</sup> Para, 2<sup>nd</sup> line, For 1991 Read 1990.

Page 22, 1<sup>st</sup> and 2<sup>nd</sup> line on the top, For Ababa; those of Wellega, Keffa and Illubabor regions were trained in Awassa; ...

Read Ababa; those of Wellega, Keffa and Illubabor regions were trained in Jimma; those of Bale, Arssi, Sidamo and Gamo Gofa in Awassa; ...

Page 25, 1<sup>st</sup> line on the top, For 1991 Read 1990.

Page 35, 3.5 School Attendance, 2<sup>nd</sup> Para, line 6, For 7 percent Read 12 percent.

Page 36, Table 3.4 No Education/No Formal Education, line 5:

For 729914 743633 841918 767361 661935 558826 367654 4671241  
80.9 91.5 94.4 96.1 96.6 97.9 98.2 92.8

Read 670016 679082 742522 845344 675088 475747 353115 4440914  
68.2 80.8 88.7 97.4 98.6 99.5 99.5 88.0

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