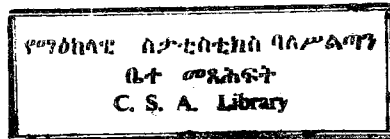


45
100
45
150

TRANSITIONAL GOVERNMENT
OF ETHIOPIA
CENTRAL STATISTICAL AUTHORITY
POPULATION ANALYSIS AND STUDIES CENTER

THE 1990 NATIONAL FAMILY AND
FERTILITY SURVEY REPORT



JUNE 1993
ADDIS ABABA

9/9/93

C.S

PREPARED AND PRINTED BY
CENTRAL STATISTICAL AUTHORITY
- P.O. BOX 1143 ADDIS ABABA

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 report is based on the data compiled from the analyses of the women's questionnaire. The report consists of ten chapters:

Chapter I - briefly discusses the history of demographic data collection in the country and presents the objectives of the survey. It also discusses the sample design and procedures; development of data collection instruments and quality control measures adopted in data collection and data management.

Chapter II - investigates the quality of the data collected during the survey.

Chapter III - briefly treats the background characteristics of the survey women such as age, marital status, literacy status, school attendance, work status ethnic and religious composition.

Chapter IV - describes the nuptiality pattern of the population and the attitudes about ideal ages at marriage.

Chapter V - deals with the fertility levels, patterns and differential and presents estimates of fertility levels.

Chapter VI - presents the levels and patterns of breast-feeding, post partum ammenorrhea and abstinence.

Chapter VII - 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.

Chapter VIII - treats family size preferences of women including number of children desired, additional number of children and preference for the sex of children.

Chapter IX - deals with Child health care and survival and investigates the levels and trends in infant and child mortality.

Chapter X - presents the summary of major findings and in conclusins it briefly points out the policy implications of the findings.

Appendix I - treats the methodology for calculation of sampling errors and presents estimates of sampling errors for selected variables.

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 8,757 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 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 "sample design and procedures" part of Chapter I and the sampling errors section presented in appendix I 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.

Abdulahi Hasen (Ph.D.)
Haed, Population Analyses
And Studies Center
And
Acting General Manager
Central Statistical Authority

TABLE OF CONTENTS

	<u>Page</u>
Preface	i
Table of Contents	iv
List of Tables	ix
List of Figures	xxi
CHAPTER I - <u>ORGANIZATION OF THE 1990 NATIONAL FAMILY AND FERTILITY SURVEY</u>	1
1.1 Introduction	1
1.1.1 History of Demographic Data Collection	1
1.1.2 Objectives of the Survey (FFS)	5
1.2 Methodology	5
1.2.1 The Sample Design and Procedures	5
1.2.2 Development of Data Collection Instruments	15
1.2.3 Quality Control	18
1.2.4 Recruitment and Training of Field Staff	21
1.2.5 Field Work	25
1.2.6 Data Management	27
CHAPTER II - <u>DATA QUALITY</u>	28
2.1 Introduction	28
2.2 Age Reporting	28
2.3 Sex Ratio at Birth	33
2.4 Reporting of Births	35
2.5 Age at Death	41

	<u>Page</u>
CHAPTER III - <u>CHARACTERISTICS OF HOUSEHOLD AND INDIVIDUAL</u>	
<u>SAMPLE</u>	44
3.1 Introduction	44
3.2 Population Characteristics	45
3.2.1 Age/Sex Composition of the Population	45
3.2.2 Age/Sex Distribution by Place of Residence	49
3.2.3 Sex Ratio: General Pattern	51
3.2.4 Sex Ratio by Age and Rural/Urban Areas	52
3.3 Characteristics of the Individual Sample	56
3.3.1 Age Distribution	57
3.3.2 Socio-Economic Characteristics	58
3.3.3 Possession of Specified Household Items	71
3.3.4 Access to Safe Drinking Water Facilities, Sanitary and Housing Conditions of Households	74
3.4 Representativeness of the Sample Population ..	81
3.4.1 Age	81
3.4.2 Sex Ratio	83
3.4.3 Formal Education	84
3.4.4 Ethnic and Religious Composition	85
CHAPTER IV - <u>NUPTIALITY PATTERNS</u>	87
4.1 Current Marital Status	87
4.2 Age at First Marriage	93
4.3 Ideal Age at First Marriage	96
4.4 Polygny	100
4.5 Marriage Stability	104
CHAPTER V - <u>FERTILITY PATTERNS, LEVELS, TRENDS AND</u>	
<u>DIFFERENTIALS</u>	109
5.1 Introduction	109

	<u>Page</u>
5.2 Onset and Timing of the First Birth	110
5.3 The Age Pattern and Shape of Fertility	116
5.4 Reported Fertility Levels and Trends	119
5.4.1 Evaluation of Fertility Data	119
5.4.2 Current Fertility	120
5.4.3 Cumulative Fertility	121
5.4.4 Fertility Trends	124
5.5 Estimated Fertility Levels and their plausibility	132
5.6 Fertility Differentials	138
5.6.1 Marriage and Fertility	139
5.6.2 Place of Residence and Fertility	143
5.6.3 Ethnicity and Fertility	144
5.6.4 Religion and Fertility	148
5.6.5 Education and Fertility	149
5.6.6 Work Status and Fertility	150
5.6.7 Occupation and Fertility	151
5.6.8 Place of Residence During Childhood and Fertility	152
 CHAPTER VI - <u>BREASTFEEDING PRACTICES</u>	 154
6.1 Introduction	154
6.2 Extent of Breastfeeding	155
6.3 Length of Breastfeeding and Amenorrhoea	165
 CHAPTER VII - <u>CONTRACEPTIVE KNOWLEDGE, USE AND UNMET NEED</u>	 169
7.1 Knowledge of Contraceptive	169
7.1.1 Overall Knowledge of Contraception.....	170
7.1.2 Knowledge of Specific Family Planning Methods	175
7.2 Ever Use of Contraception	180

	<u>Page</u>
7.2.1 Ever Use of Contraception by Specific Method	186
7.3 Current Use of Contraception	191
7.3.1 Differential Use of Contraceptives by Socio-demographic Variables	193
7.4 Methods Used	211
7.5 Choice of Methods Among Current Contraceptive Users	215
7.6 Current Use: Husbands' Response	219
7.7 Future Intention to Use Contraceptives	223
7.7.1 Method Preferred by Future Users	226
7.7.2 Reasons For No Intention of Using a Method	229
7.8 Unmet Need for Contraception	231
7.8.1 Reasons for not using a method, Although wanted No More Children	232
7.8.2 Differentials	233
 CHAPTER VIII - <u>FERTILITY PREFERENCE</u>	 237
8.1 Introduction	237
8.2 Desire for Additional Children	237
8.3 Differentials in Proportion Wanting No More Children	239
8.4 Differentials in Mean Additional Number of Children Wanted	244

	<u>Page</u>
8.5 Desired Time for the Next Child	250
8.6 Total Number of Children Desired	250
8.7 Preference for the Sex of the Next Child	253
CHAPTER IX - <u>CHILD HEALTH CARE AND SURVIVAL</u>	256
9.1 Introduction	256
9.2 Ante-natal and Maternity Care	257
9.2.1 Ante-natal Care	257
9.2.2 Maternity Care	261
9.3 Child Health Indicators	266
9.3.1 Immunization of Children	266
9.3.2 Diarrhoea	276
9.4 Infant/Childhood Mortality	279
9.4.1 Infant/Child Mortality Trends	280
9.4.2 Infant Mortality Differentials	291
CHAPTER X - <u>SUMMARY AND CONCLUSIONS</u>	296
10.1 Summary of the Major Findings	296
10.2 Conclusions and Policy Implications	303
APPENDIX I	305
REFERENCES	314

List of Tables

<u>Table</u>		<u>Page</u>
<u>Number</u>	<u>Title</u>	
<u>Chapter I</u>		
1.1	The Planned and Actual Sample Size for the FFS	12
1.2	Response Rate by Domain	13
<u>Chapter II</u>		
2.1	Distribution of Response to Question "In what Month and Year Were You Born? "by Type of Residence, 1990 FFS	29
2.2	Single Year Age Distribution of Women Aged 15-49 Years, 1990 FFS	30
2.3	Myers' Blended Index of Terminal Digit Preference by Type of Residence, 1990 FFS	33
2.4	Sex Ratios at Birth for Ethiopia as a whole and Places of Residence by Years Before the Survey, 1990 FFS ...	34
2.5	Reported Mean Number of Children Ever Born and the Number Derived from Synthetic Births in the Past 12 Months by Single - Year of Currently married Women Aged 15-49, 1990 FFS	36
2.6	Percent Distribution of Age at Death in Months Ethiopia, FFS 1990	43

Chapter III

3.1	Percentage Distribution of the Enumerated (DEJURE) Population by Age and Sex, 1984 Census and 1990 FFS ..	47
3.2	Distribution of the Dejure Population by Broad Age Groups, Sex and Place of Residence, 1990 FFS	49
3.3	Sex-ratio of Total Population and Sex-ratio of Children Under one Year From 1990 FFS and 1984 Census by Place of Residence	52
3.4	Sex ratio of Addis Ababa, Other Urban, Rural and Total Population, 1990 FFS	53
3.5	Percentage Distribution of Women Aged 15-49 by Age Group and Place of Residence, 1990 FFS	58
3.6	Distribution of the Respondents According to Some Selected Background Characteristics by Rural/Urban Residence, FFS 1990 (Percentage Distribution and Number of Women	60
3.7	Percentage of Women Who Have Specified Household Possessions, by Place of Residence, FFS 1990	72
3.8	Access to Safe Drinking Facilities, Sanitary and Housing Conditions of the Households of Selected Women, FFS 1990 (Percentage Distribution)	77
3.9	Percentage of Women Aged 15-49 in the 1990 Family and Fertility Survey (FFS) and 1984 Census	82

Chapter IV

4.1	Percentage Distribution of Never Married Women by Current Age and Place of Residence, 1990 FFS	88
4.2	Percentage Distribution of Currently Married Women by Current Age and Place of Residence, 1990 FFS	90
4.3	Percentage Distribution of Separated Women by Current Age and Place of Residence, 1990 FFS	91
4.4	Percentage Distribution of Divorced Women by Current Age and Place of Residence, 1990 FFS	92
4.5	Percentage Distribution of Widowed Women by Current Age and place of residence, 1990 FFS	92
4.6	Percentage Distribution of Ever Married Women According to Age at First Marriage and Place of Residence, 1990 FFS	93
4.7	Mean Age at First Marriage by Year of Marriage and Place of Residence, 1990 FFS	95
4.8	Median Age at First Marriage of Ever Married Women aged 20-49 Years by Some Background Variables, 1990 FFS ...	96
4.9	Mean Ideal Age at First Marriage for Girls and Boys by Background Variables and Places of Residence, 1990 FFS	98
4.10	Percentage of Currently Married Women Who are in Polygynous Union by Current Age and Place of Residence, 1990 FFS	101

	<u>Page</u>
4.11 Percentage of Currently Married Women Who are in Polygynous Union by Background Variables, 199 FFS ...	103
4.12 Percentage Distribution of Ever Married Women by Status of First Marriage, 1990 FFS	104
4.13 Percentage of Ever Married Women by Status of First Marriage and Place of Residence, 1990 FFS	105
4.14 Percentage of Ever Married Women Whose First Marriage Dissolved Due to Divorce by Background Variables and Place of Residence, 1990 FFS	107

Chapter V

5.1 Percentage Distribution of Women and Median Age at First Birth by Place of Residence and Age at First Birth, 1990 FFS	112
5.2 Percentage Distribution of Women Who Married at Least Five Years Ago According to Interval From First Marriage to First Birth by Age at First Marriage and Place of Residence, 1990 FFS	114
5.3 Percentage Distribution of Reported Age Specific Fertility Rate (ASFR), TFR and the Mean Age of Child bearing (M) by Place of Residence, 1990 FFS	117
5.4 Percentage Distribution of Women by Number of Children Ever Born, Current Age and Place of Residence, 1990 FFS	122
5.5 Reported Age Specific Fertility Rates Per 1000 Women and Mean Parity in the 1990 FFS and the 1984 Population Casus by Place of Residence	126

	<u>Page</u>
5.6 Ratio of Parity to Cumulative Current Fertility (P/F) by Current Age of Women and Place of Residence, 1990 FFS	128
5.7 Cohort-Period Fertility Rates by Age Cohort at the time of the Survey by Place of Residences, 1990 FFS	130
5.8 Total Fertility Rates Estimated by Brass Relational Gompertz Model, Brass P/F Ratio and Brass Arriage Method by Place of Residence, 1990 FFS	134
5.9 Reported and Standardized Mean Parity by Current Marital Status, Type of Marital Union, Age at First Marriage, Duration of Marriage and Broad Age Group, 1990 FFS	142
5.10 Reported and Standardized Mean Parity of Women Aged 15-49 by Background Variables, 1990 FFS	145
5.11 Reported and Standardized Mean Parity of Women Aged 15-49 by Background Variables, Urban areas, 1990 FFS	147

Chapter VI

6.1 Percentage of Ever-married Women who Had Breastfed their Last Child by Current Age and Selected Background Variables, 1990 FFS	156
6.2 Percentage of Ever Married Women who Never Breastfed their Last Child by Main Reason for Having Never Breastfed and Place of Residence, 1990 FFS	158

	<u>Page</u>
6.3 Proportion (%) of Ultimate Births Who Were Still Breastfeeding by Age of Child and Selected Background Variables, 1990 FFS	160
6.4 The Percentage of Women Who Breastfed for 24 Months or More in the Last Closed Birth Interval by Background Variables, 1990 FFS	162
6.5 Percentage of Ever Married Women Who Ever Breastfed the Penultimate Child by Main Reason for Discontinuing Breastfeeding and Place of Residence, 1990 FFS	164
6.6 Prevalence/Incidence of Estimates of Mean Duration of Breastfeeding of Last Live Births by Selected Background Variables, 1990 FFS	166

Chapter VII

7.1 Percent (Weighted) Distribution of Women, 15-49 Years of Age, Knowing At Least one Method of Contraception by Background Variables, 1990 FFS	171
7.2 Percentage of Women, 15-49 Years of Age, Knowing Specific Method of Contraception (Modern and Traditional) by type of Residence, 1990 FFS	176
7.3 Percent (Weighted) Distribution of Women, Aged 15-49 Years, by Age and Knowledge of Specific Family Planning Method, FFS 1990	178
7.4 Percent (Weighted) Distribution of Women, 15-49 Years of Age, by Number of Living Children and Knowledge of Specific Family Planning Method, 1990 FFS	179

	<u>Page</u>
7.5 Percent (Weighted) of Women Aged 15-49 Years Reporting Ever Use of a Method of Contraception by Selected Variables, 1990 FFS	182
7.6 Percentage (Weighted) of Women Aged 15-49 Years Who Have Ever Used Specific Family Planning Methods by Place of Residence, 1990 FFS	187
7.7 Percentage (Weighted) of Women Aged 15-49 Years Who Have Ever Used Specific Family Planning Methods by Age of the Respondent, 1990 FFS	189
7.8 Percentage (Weighted) of Women Aged 15-49 Years Who Have Ever Used Specific Family Planning Methods by Number of Living Children, 1990 FFS	190
7.9 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	192
7.10 Percentage of Current Contraceptive Use in Selected Countries (analysis is restricted to all Women aged 15-49 Years)	193
7.11 Percent of Currently Married Non-Pregnant Women Aged 15-49 Years Currently Using a Family Planning Method for Selected Variables, Ethiopia, 1990 FFS	194
7.12 Percentage (Weighted) of Currently Married Non-Pregnant Woman Aged 15-49 Using Contraception Method by Selected Background Variables, Controlling for Place of Residence, 1990 FFS	199

	<u>Page</u>
7.13 Percentage (Weighted) Distribution of Currently Married Non-Pregnant Women Aged 15-49, by Method Being Currently Used and Place of Residence, 1990 FFS	212
7.14 Current Use of Specific Methods of Contraception Among Currently Married and Non-Pregnant Women by Age, Ethiopia, 1990 FFS	214
7.15 Current Use of Specific Methods (Modern and Traditional) of Contraception Among Currently Married and Non-Pregnant Women by Level of Education of Respondents, Ethiopia, 1990 FFS	215
7.16 Percentage (Weighted) Distribution of Current Users by Method Being Used and Place of Residence, 1990 FFS ..	217
7.17 Percentage (Weighted) Distribution of Current Users by Method Being Used, Age, Rural/Urban Residence, 1990 FFS.....	220
7.18 Percentage Distribution of Current Users by Contraceptive Methods Currently Being Used and Number of Living Children, 1990 FFS	221
7.19 Percent of Current Contraceptive Use by Place of Residence Based on Responses Provided by Husbands and Wives, 1990 FFS	222
7.20 Percentage (Weighted) Distribution of the Response to the Question "Have you or Your Spouse Thought of Using Any Family Planning Method in the Future?" Asked to Women Who Knew a Method But Never Used it, By Selected Background Characteristics, 1990 FFS	225

	<u>Page</u>
7.21 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 Place of Residence, 1990 FFS	227
7.22 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 Age, 1990 FFS.....	228
7.23 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 Level of Education, 1990 FFS	229
7.24 Percentage Distribution of Reasons For No INTENTION of Using Family Planning Method in the Future, 1990 FFS.....	230
7.25 Percentage (Weighted) Distribution of Non-Pregnant Women Who are Sexually Active, Fecund, Not Post-Partum Amenorrhoeic and Want No More Children But Were Not Using Any Contraceptive Method by Main Reason for Not Using, 1990 FFS	233
7.26 Of All Currently Married Women, the Percentage who want No More Children But are Using No Method of Contraception, 1990 FFS	234

Chapter VIII

8.1 Percentage Distribution of Currently Married Fecund Women by Number of Additional Children Desired and Number of Living Children (Including Current Pregnancy), 1990 FFS	238
--	-----

	<u>Page</u>
8.2 Percentage Distribution of Currently Married Fecund Women Who Wanted No More Children by Number of Living Children (Including Current Pregnancy) and Background Variables, 1990 FFS	240
8.3 Mean Additional Number of Children Wanted by Currently Married Fecund Women, Number of Living Children (Including Current Pregnancy) and Background Variables, 1990 FFS	245
8.4 Percentage Distribution of Currently Married Fecund Women Who Want Additional Child by Number of Living Children and How Soon the Next Child is Wanted (Including Current Pregnancy), 1990 FFS	251
8.5 Percentage Distribution of Women According to Total Number of Children Desired by Number of Living Children, 1990 FFS	252
8.6 Preference for the Sex of the Next Child by Family Composition Among Currently Married Fecund Women Who Wanted Another Child, 1990 FFS	254

Chapter IX

9.1 Among Penultimate and Ultimate Children, the Percentage of Mothers Receiving Tetanus Toxoid Injection, by Age of the Child, 1990 FFS	258
9.2 Among Ultimate (last) Births the Percentage of Mothers Receiving Tetanus Toxoid Injection, by Selected Background Variables, 1990 FFS	260
9.3 Percent Distribution of Penultimate and Ultimate Children by Age and Type of Assistance Received by Mothers During Delivery, 1990 FFS	262

	<u>Page</u>
9.4 Percent Distribution of Ultimate Births and Type of Assistance Received by Mothers During Delivery by Selected Background Variables, 1990 FFS	263
9.5 Among all Surviving Children, the Percentage With Health Cards Seen by Interviewer and the Percentage Who are Immunized as Recorded on a Health Card or as Reported by the Mother, 1990 FFS	268
9.6 Among all Surviving Children with Health Cards the Percentage for Whom BCG, DPT, POLIO and MEASLE Immunizations are Recorded on the Health Card by Age of the Child, 1990 FFS	270
9.7 Among all Surviving Ultimate (last Births) Children, the Percentage With Health Cards Seen by Interviewer, the Percentage Who are Immunized as Recorded on a Health Card or as Reported by the Mother, and, Among Children With Health Cards, the Percentage for Whom BCG, DPT, POLIO and MEEASLE Immunizations are Recorded on the Health Card by Some Background Variables, 1990 FFS ..	274
9.8 Percentage (Weighted) of Penultimate/Ultime Children Having a Diarrhoea Episode Within Last 24 Hours by Age of the Child, 1990 FFS	277
9.9 Percentage (Weighted) of Ultimate Children (Last Births) Having a Diarrhoea Episode Within Last 24 Hours by Some Background Variables, 1990 FFS	278
9.10 Infant Death/Mortality Rates by Tears of Birth Under Various Methods, 1990 FFS	281

	<u>Page</u>
9.11 Infant Death/Mortality Rates Under Various Methods for a Combined Base Period of Five Years, 1990 FFS	286
9.12 Adjusted Infant Death/Mortality Rates for the Combined Period of Five Years Preceding the Survey, 1990 FFS ..	288
9.13 Indirect Estimation of Infant Mortality Rates Using Trussell Equation and Coale-Demney West Model Life Table, 1990 FFS	289
9.14 Neo-natal, Infant and Childhood Mortality for the Combined Period of Five Calendar Years Preceding the Survey, 1975-89, 1990 FFS	291
9.15 Infant Mortality Rates (Direct) by Background Characteristics of the Mother For the 5-Year Period (1985-89) Preceding the Survey, 1990 FFS	292
9.16 Mean Number of Children Ever Born, Surviving, and Dead, and Proportion of Children Dead Among those Born, by Age of Women, 1990 FFS	295

List of Figures

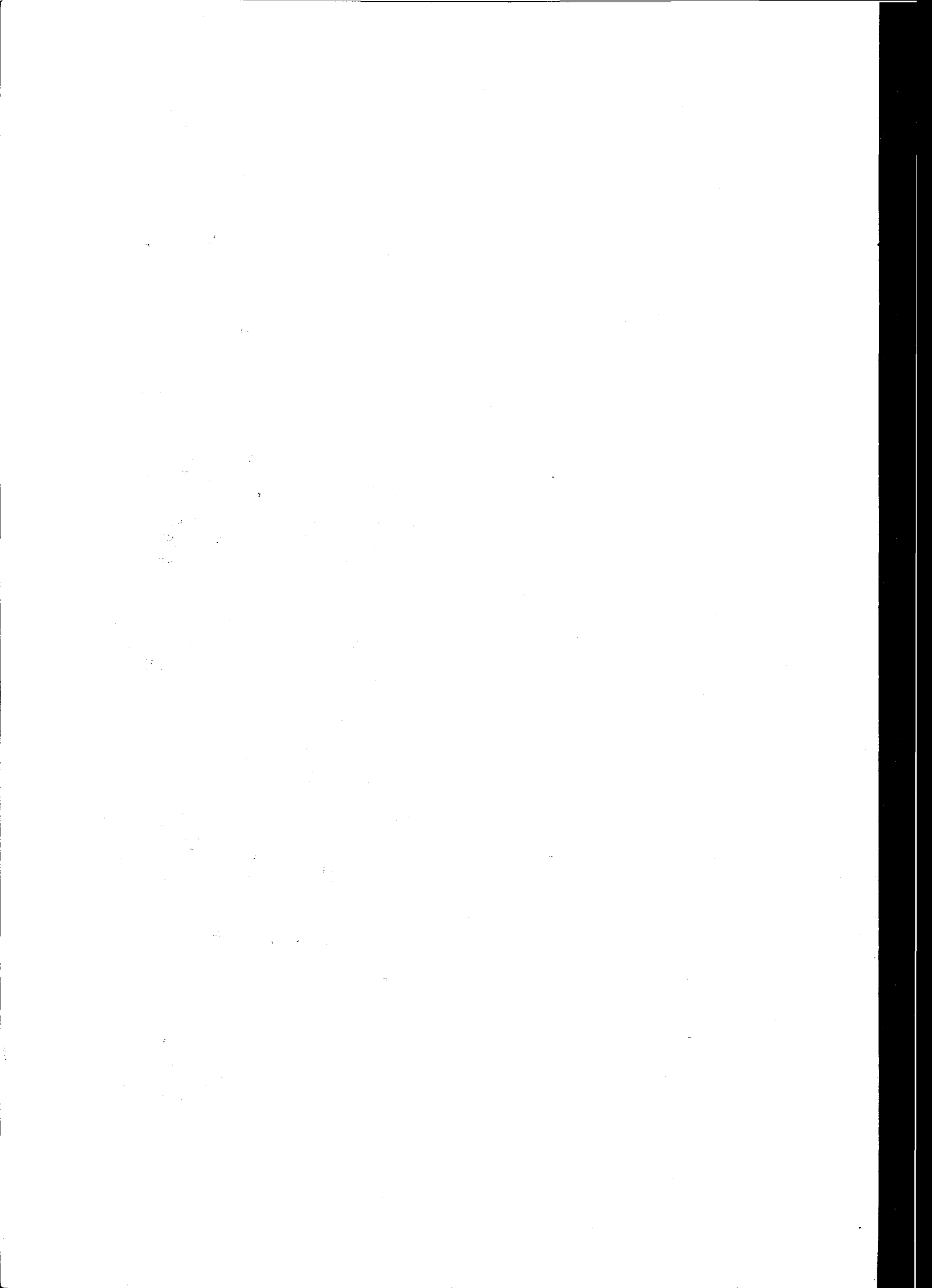
<u>Figure</u>	<u>Title</u>	<u>Page</u>
<u>Number</u>		
<u>Chapter II</u>		
2.1	Percentage Distribution of Women by Single Year of Age, Ethiopia, 1990	31
2.2	Reported and Synthetic Number of Children Ever Born by Single Year of Age of Women, Ethiopia, 1990 FFS	37
2.3	Reported and Synthetic Number of Children Ever Born by Single Year of Age of Women, Rural Ethiopia, 1990 FFS	39
2.4	Reported and Synthetic Number of Children Ever Born by Single Year of Age of Women, Urban Ethiopia, 1990 FFS	40
2.5	Percent Distribution of Deaths by Months (Deaths at '0' Month are not Shown)	42
<u>Chapter III</u>		
3.1	Population Pyramid of Ethiopia, 1990 FFS	48
3.2	Sex Ratio of Addis Ababa, Other Urban, Rural and Total Population, 1990 FFS	54
<u>Chapter VII</u>		
7.1	Percentage of Currently Married Non-Pregnant Women Who are Using any Contraceptive Method by Age, 1990 FFS	197

	<u>Page</u>
7.2 Percentage of Currently Married Non-Pregnant Women Who are Using any Contraceptive Method By Education of Respondent and Husband, 1990 FFS ..	204
7.3 Percentage of Currently Married Non-Pregnant Women Who Are Using Any Contraceptive Method By Occupation of Respondent and Husband, 1990 FFS	208
7.4 Percentage of Currently Married Non-Pregnant Women Who are Using any Contraceptive Method By Place of Residence, 1990 FFS	210
7.5 Percentage of Current Contraceptive Users by Method Being Used and Number of Living Children, 1990 FFS	216
7.6 Percentage of Current Contraceptive Users by Method Being Used and Number of Living Children 1990 FFS	218

Chapter IX

9.1 Immunization Coverage of Penuitimate Children With Health Cards, 1990 FFS	269
9.2 Immunization Coverage of Ultimate Children With Health Cards, 1990 FFS	271
9.3 Infant Death/Mortality Rates by Year of Birth, Under Various Methods, 1990 FFS	282
9.4 Infant Death/Mortality Rate Under Various Methods for a Combined Base Period of Five Years, 1990 FFS.....	287

	<u>Page</u>
9.5 Trends in Infant and Child Mortality	290
9.6 Infant Mortality Rates (Direct) by Background Characteristics of the Mothers fiord the 5-Year Period (1984-89) Preceding the Survey, Ethiopia 1990	293



CHAPTER I
ORGANIZATION OF THE 1990 NATIONAL FAMILY
AND FERTILITY SURVEY

1.1 INTRODUCTION

1.1.1 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, 1971a: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 centers (CSO, 1974:3). Both the first and the second rounds multi-purpose National Sample Surveys covered various topics such as agriculture (crop and livestock

* Currently Central Statistical Authority.

production, size of landholding, land tenure, utilization of land ... etc), demography, indebtedness,...etc.

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 the 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 programs. 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 Program to collect socio-economic data on a continuous basis. Under this program, 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 program 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 analysis of the results of the census was presented in a preliminary report produced in 1984 (CSO, 1984) and various regional analytical reports. The analytical report at national level was produced in 1991 (CSA, 1991) and presents the size and characteristics of the population, which include age and sex distribution, ethnic and religious distribution, education, disability, migration, economic activity, fertility, mortality, housing characteristics and population projection.

After the 1984 census, the office (CSA) has carried out a number of socio-economic surveys one of which is 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 was estimated to be 7.5 children per woman, the

crude death rate was about 18.00 per 1000 population, and the rate of growth of the population was found to be around 3.0 percent per annum. In July 1990, the population of Ethiopia was 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 draft 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 programs.

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 (FFS). The survey was conducted with the financial assistance from UNFPA and technical support from UNDTCD.

1.1.2 Objectives of the Survey (FFS)

The major objectives of the survey, in the short term, (were):

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 geographical domain, socio-economic status and other characteristics.

In the long term, it is expected that the 1990 FFS 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.

1.2 METHODOLOGY

1.2.1 The Sample Design and Procedures

Introduction

The 1990 FFS 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 were 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 actually be 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 1990 FFS.

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

Sampling Frame

At the time of undertaking the 1990 FFS, the country was divided into 25 administrative regions and five 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 1990 FFS.

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

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 programs, it was 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 West Gojjam, North Gondar and South Gondar.

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 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 of 2,150 women was assumed for each of the domains. 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 targeted, 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 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 less than 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 result. 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 1.1. From the table, considerable differences between the targeted and actual size of sample, can be observed. The FFS proposed to cover 14,680 women aged 15-49, although it succeeded in covering only 9,104

Table 1.1 The Planned and Actual Sample Size for the FFS

Domain	Expected Sample FA/Kebele	Covered Sample FA/Kebele	Household			Women		
			Planned	Sampled	Interviewed	Planned	Sampled	Interviewed
Urban	153	123	3702	2735	2576	4300	3022	2844
I	56	56	1654	1394	1314	2150	1663	1551
II	97	67	2048	1341	1262	2150	1359	1293
Rural	308	248	10980	6679	6530	10380	6082	5913
I	55	48	6830	1479	1445	1730	1373	1316
II	44	44	1830	1432	1402	1730	1400	1378
III	53	52	1830	1410	1368	1730	1234	1234
IV	55	53	1830	1190	1180	1730	1029	980
V	53	16	1830	516	506	1730	406	400
VI	48	35	1830	652	629	1730	620	605
Total (Urban + Rural)	461	371	14682	9414	9106	14680	9104	8757

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 category) and 60 Farmers' Associations from the rural domain (mostly from the north-east and north-west highlands domain) selected for the survey could not be covered because of security reasons.

e) Response Rate

Table 1.2 shows the response rates (i.e., ratios of actually interviewed households/women to sampled 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 1.2: 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 and the rural areas are treated as a group instead of separately.

Weighing 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 (woman) level.

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

$$W_A = W_B * \frac{m}{m'} * \frac{S_H}{I_H} * \frac{S_W}{I_W}$$

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_H = 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.

1.2.2 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

It 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 de jure and de facto basis. For each person listed in the household schedule, information on age, sex, marital status, relationship to head of the household, ... etc, were recorded.

b. The Questionnaire on the Socio-economic Characteristics of the Household

This was administered mainly to obtain 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

It was 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

d. The Husband's Questionnaire

This 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

It 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 This 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.

1.2.3 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 assessment 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 questionnaires 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 Programming Bureau of the Ministry of Health; Statistics Department and Medical Faculty of Addis Ababa University; Population Division and Statistics Division 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 were 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, were organized into three teams-one each for Addis Ababa, Arssi and Gojjam. Each team was composed 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 that 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.

1.2.4 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 the main survey. 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-week 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 10 out of 14 regions of the country. The major responsibilities of the female enumerators were to administer the household questionnaire, the questionnaire on the socio-economic characteristics 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 program 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, Injectable,... 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 field practices 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.

1.2.5 Field Work

a. Deployment of Field Staff

The field staff was organized into teams and each team consisted 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, stationery, 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 farmers' 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 was necessary to ensure that the core members of the enumeration teams have clearly understood their roles and can accomplish 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.

1.2.6 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 that was printed in August, 1991 (CSA, 1991).

The analysis of the data of the main questionnaires started with manual editing and coding. The coding and editing activity was performed by the coding editing staff of the office with close supervision by senior professionals. Data entry was made using the ISSA (Integrated System for Survey Analysis) computer package program using personal computers. Senior data entry staff of the office were utilized for this purpose and close supervision of the activities of the data entry staff was maintained. This was possible because only three personal computers were used during data entry. Tabulation of the results was made using SPSS programs.

CHAPTER II
DATA QUALITY

2.1 Introduction

This chapter examines the quality of data collected in the 1990 Family and Fertility Survey of Ethiopia. It is very pertinent to assess the quality of data, particularly with respect to age, births and deaths reported by women in the reproductive ages, 15-49 years, before the estimates of fertility and mortality are provided. These estimates may be seriously distorted by misreporting of age and omissions of births and deaths.

2.2 Age Reporting

Age is one of the most important variables in the demographic analysis. The quality of age data is usually in suspect in developing countries, and Ethiopia is no exception to it. Although an utmost care was taken in the collection of age data in the 1990 Family and Fertility Survey, it is very difficult to ensure its quality, particularly in a situation where the absolute majority of the respondents are illiterate. A very few Ethiopian women could report their exact date of birth either in terms of year or month of birth. Data in Table 2.1 shows that only 7 percent of women aged 15-49 could report the year in which they were born. The proportion of women who could report their year of birth is lowest in rural areas while this was highest in Addis Ababa, the capital

city followed by 'other urban areas'. These proportions were 3.9, 14.6 and 31.5 percent in rural, "other urban areas" and Addis Ababa

Table 2.1 Distribution of Responses to Question, "In What Month and Year Were You Born?" by Type of Residence, 1990 FFS

Residence	Date of Birth Reported (% Distribution)	
	Year	Month
Total	6.6	13.2
Rural	3.9	10.4
Addis Ababa	31.5	41.7
Other Urban	14.6	19.3
Urban	21.4	28.5

respectively. The reporting of exact date of birth marginally improves if women were asked to report their ages in terms of month rather than year in which they were born. And this finding holds for each place of residence. The proportion of women who could report the month in which they were born rises from lowest 10.4 percent in rural areas to 41.7 and 19.3 percent in Addis Ababa and 'other urban centers' respectively. In a situation where the overwhelming majority of the respondents couldn't state their exact date of birth, the accuracy in age reporting is in serious suspect. An evidence of this can be clearly seen in the single year age distribution of women. The single year age distribution, in the absence of drastic reduction in mortality and exodus of population and given that age is accurately reported, is expected to assume a descending pattern of distribution as age increases. However, the age data of respondents don't fit-in with the general trend as the

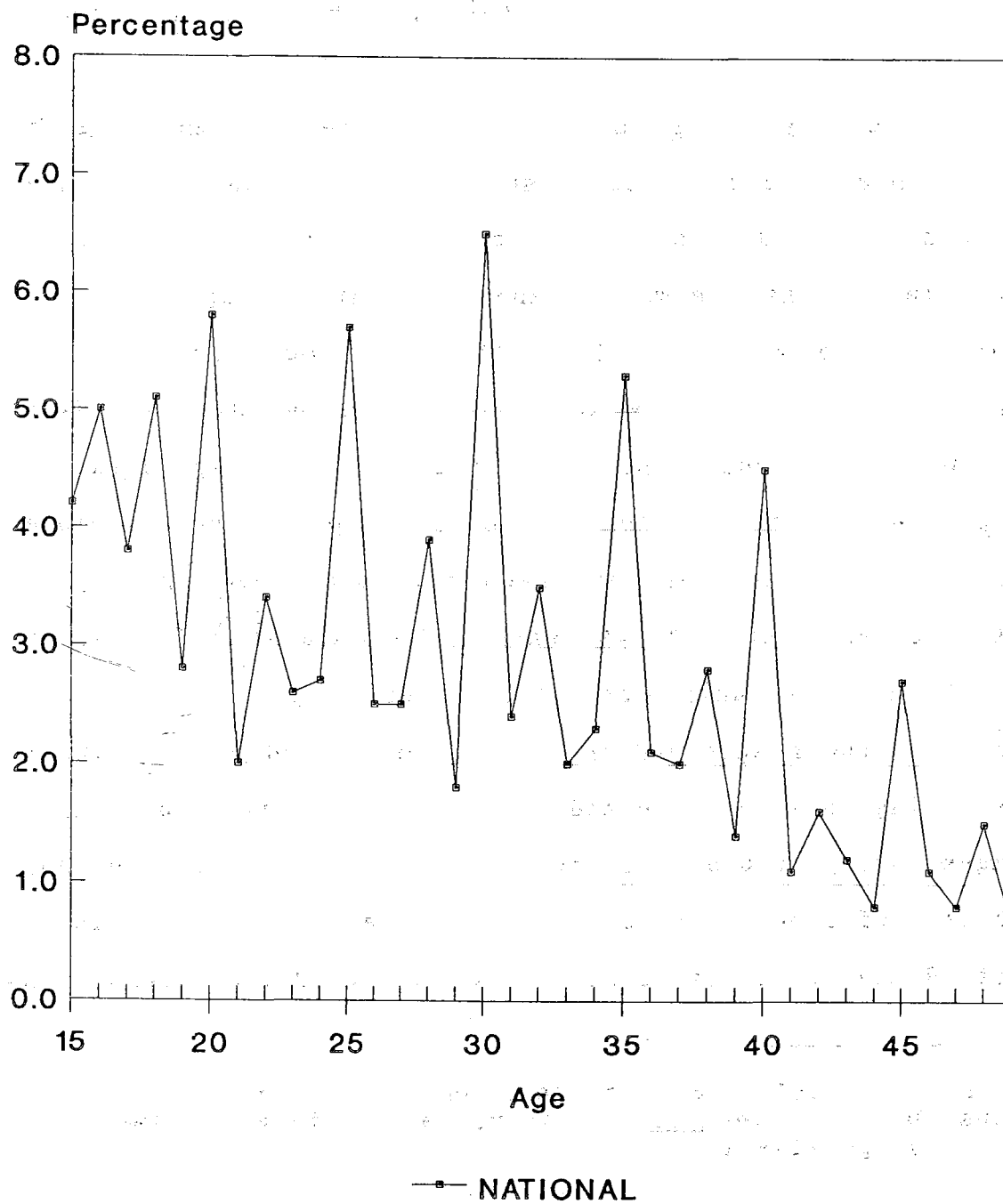
heaping at ages ending in zero and five is clearly evident from Figure 2.1 and Table 2.2. The heaping is also marked, although to

Table 2.2 Single Year Age Distribution of Women Aged 15-49 Years, 1990 FFS.

Age	Number weighted)	Percent
15	247,986	4.2
16	296,104	5.0
17	223,792	3.8
18	305,207	5.1
19	164,632	2.8
20	343,293	5.8
21	118,547	2.0
22	205,310	3.4
23	152,710	2.6
24	158,276	2.7
25	337,376	5.7
26	149,311	2.5
27	151,269	2.5
28	232,004	3.9
29	109,663	1.8
30	386,280	6.5
31	140,032	2.4
32	206,057	3.5
33	118,583	2.0
34	138,741	2.3
35	314,771	5.3
36	125,125	2.1
37	121,679	2.0
38	168,618	2.8
39	84,050	1.4
40	269,760	4.5
41	67,865	1.1
42	92,483	1.6
43	72,624	1.2
44	46,149	0.8
45	159,474	2.7
46	65,606	1.1
47	48,898	0.8
48	90,865	1.5
49	41,697	0.7
Total	5,945,838	100.0

FIGURE 2.1

PERCENTAGE DISTRIBUTION OF WOMEN BY
SINGLE YEAR OF AGE, ETHIOPIA, 1990



a lesser degree, at ages ending in even numbers, particularly at ages ending in 2 and 8. A similar pattern of age-heaping was noted in the earlier findings reported in 1981 Demographic Sample Survey and 1984 Population Housing Census. The peaks and troughs observed in the single year age distribution of the respondents clearly indicate preferences and dislikes for ages, ending in certain digits respectively rather than for any other genuine reason(s).

The quality of age data is also assessed employing Myers' blended index¹. This index measures the preferences and dislikes for each of the digits from 0 to 9. The theoretical values of Myers' index range between 0 and 90; value 0 represents no age heaping, while value would be 90 if all ages are reported as numbers ending in the same digit. In other-words, the lower the value of Myers' index, the higher the quality of age data. Table 2.3 presents Myers' Blended Index of Digit preference by place of residence. The indices have been calculated over the age range that extended from 20 to 49 years. The data show a tendency for women in the reproductive ages (20-49 years) in all study areas, to over-state their ages ending in 0; 5 and 8 and under-state their ages ending in 1, 9, 3, 6 and 7. The highest age heaping occurred at ages ending in 0 and terminal digit 5 received the second highest preference. The most avoided ages are those ending in digits 9 and 1. It is to be further observed from summary index

¹/ Myers, R.J. 1940. "Errors and Bias in the Reporting of Ages in Census Data", Transactions, Actuarial Society of America, 41, pt.2(104): pp.411-415

Table 2.3 Myers' Blended Index of Terminal Digit Preference by Type of Residence, 1990 FFS.

Terminal Digit(x)	Deviation of Percent from 10.0				
	Rural	Urban	Addis Ababa	Other Urban Areas	Total
0	+7.8	+7.7	+6.3	+8.6	+8.3
1	-3.9	-5.1	-6.0	-4.5	-3.8
2	-0.8	+0.2	+0.8	+0.3	-0.4
3	-3.4	-3.9	-2.6	-4.7	-3.3
4	-3.2	-3.0	-1.8	-3.8	-3.0
5	+7.2	+9.1	+7.5	+10.2	+8.0
6	-2.2	-3.2	-2.6	-3.6	-2.2
7	-2.5	-2.6	-2.1	-2.9	-2.3
8	+1.7	+4.5	+5.2	+4.1	+2.4
9	-0.7	-3.7	-4.7	-3.1	-3.7
Summary Index	16.7	21.5	19.8	22.9	18.7

that quality of age reporting is better in rural than in urban areas, better in Addis Ababa than in 'other urban areas'. These tests clearly show that the single year age data collected by 1990 FFS are subject to digit preference.

2.3 Sex Ratio at Birth

Examination of sex-ratios at birth will give us some idea of completeness of births reported by women. The sex-ratio at birth is found to be commonly around 105 males per 100 females and varies within a narrow range for countries having reasonably good vital registration system (United Nations, 1973). The sex ratio at birth that was universally observed is also found in Ethiopia as the data of the present survey testify. Among births that occurred in the past 12 months preceding the survey, the sex ratio at birth was 105

males per 100 females (see Table 2.4). This overall finding also holds for rural Ethiopia. However, for urban areas in general and Addis Ababa in particular the sex-ratios at birth are not consistent with the expected pattern in that the ratios are unexpectedly low indicating under-reporting of male births in these areas. The finding of unexpectedly low sex-ratio in Addis Ababa could also result from small sample size² on which Addis Ababa observation was based upon. The sex ratio at birth observed in urban areas, either in Addis Ababa or other urban areas, has always been off the expected value irrespective of the time period preceding the survey one uses to arrive at this ratio, except for the period 1-4 years preceding the survey (see Table 2.4). The sex-ratio observed between 1-4 years before the survey for urban areas, either for Addis Ababa or for other urban areas, was within the expected value. This could be an exception rather than the rule. It is also evident from the table that in rural areas and

Table 2.4 Sex Ratios at Birth for Ethiopia as a Whole and Places of Residence by Years Before the Survey, 1990 FFS.

Years Before the Survey	Rural	Urban	Other		Total
			Addis Ababa	Urban	
Less than 1 year	105.7	101.9	90.2	107.4	105.4
1-4 Years	107.4	105.4	107.0	104.7	107.3
5-9 Years	105.3	100.7	111.8	95.5	104.8
10-14 Years	96.7	95.1	98.8	93.1	96.5
15-19 Years	126.9	123.0	132.1	118.7	126.40
More than 20 Years	111.4	122.9	113.1	129.4	111.10

^{2/} Addis Ababa observation was based on 1551 women in the reproductive ages (15-49 years).

for the whole of Ethiopia, sex-ratios at birth occurring between 1-9 years preceding the survey were also within the expected pattern: the values ranging between 105 and 107. However, deviation from this expected pattern is also observed for rural areas and for the whole country for those births which occurred 10 years or more preceding the survey, due mainly to recall lapse.

2.4 Reporting of Births

In the survey, two independent measures of fertility were provided: cumulative fertility and current fertility. Cumulative fertility is derived from information on number of children ever born while current fertility is obtained from birth history.

Table 2.5 compares the reported number of children ever born and the number estimated from synthetic births last year. If these two measures of fertility don't coincide with each other, this has to be explained either due to omission in reporting of births or decline in fertility. The cumulative fertility, based on information on number of children ever born, usually tends to be downwardly biased due to memory lapse of women, particularly among women of higher ages. The older women tend to omit children who either died very young or are no longer living with them at the time of the survey. On the other hand, synthetic estimates of children ever born, based on recent births, are likely to be more complete. Examination of data in Table 2.5 and Figure 2.2 show that synthetic estimate of mean number of children ever born for

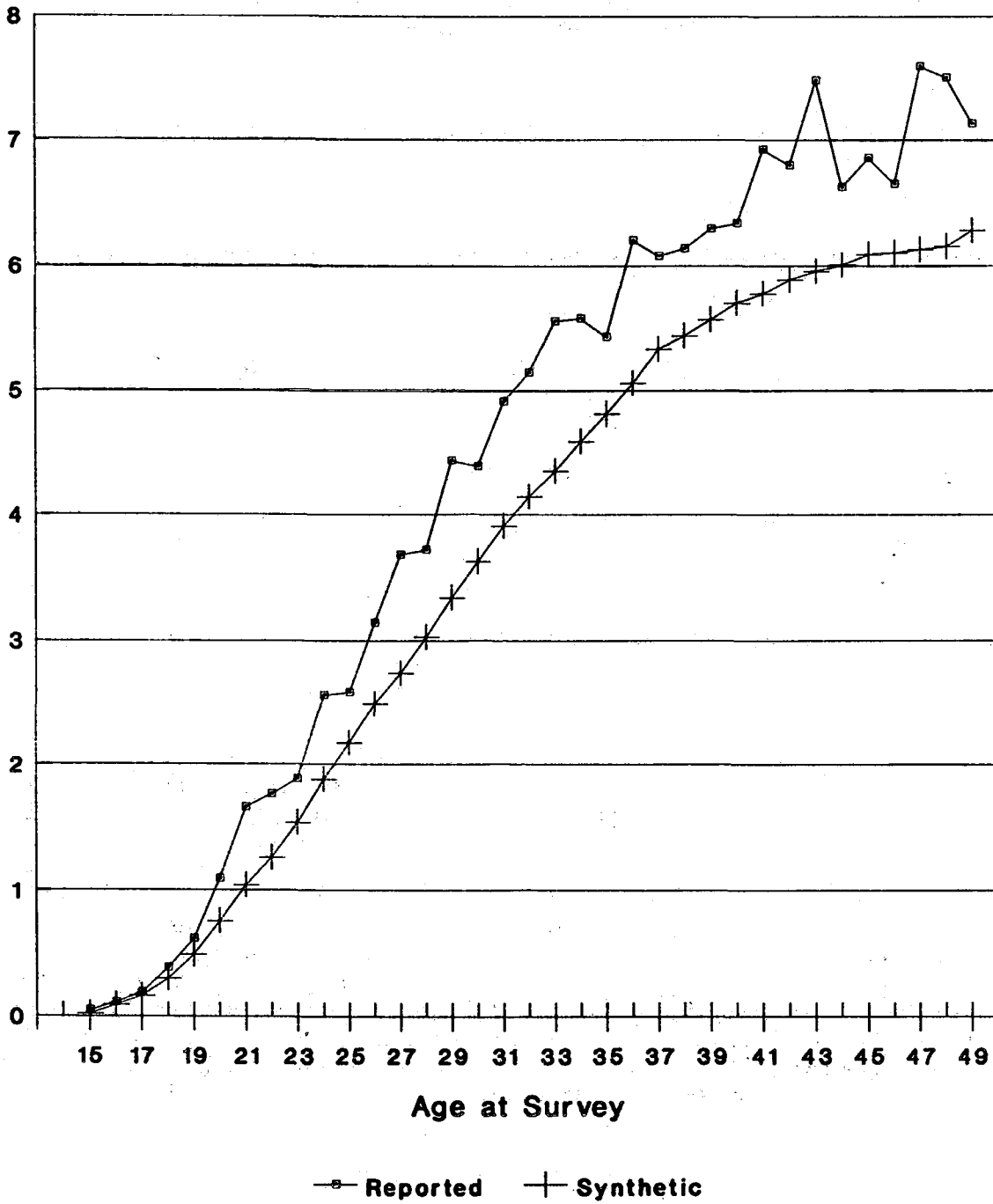
Table 2.5 Reported Mean Number of Children Ever Born and the Number Derived from Synthetic Births in the Past 12 Months by Single-Year of Currently Married Women Aged 15-49, 1990 FFS.

Age of Women	Reported CEB (a)	Synthetic CEB (b)	Difference (a)-(b)
15	0.045	0.0191	+0.03
16	0.109	0.0917	+0.02
17	0.190	0.1639	+0.03
18	0.386	0.3008	+0.09
19	0.619	0.4893	+0.13
20	1.095	0.7559	+0.34
21	1.666	1.0423	+0.62
22	1.765	1.2647	+0.50
23	1.888	1.5439	+0.34
24	2.557	1.8837	+0.67
25	2.582	2.1769	+0.41
26	3.144	2.4905	+0.65
27	3.682	2.7395	+0.94
28	3.724	3.0293	+0.69
29	4.442	3.3468	+1.10
30	4.395	3.6337	+0.76
31	4.912	3.9131	+1.00
32	5.147	4.1495	+1.00
33	5.559	4.3574	+1.20
34	5.584	4.5936	+0.99
35	5.434	4.8154	+0.62
36	6.204	5.0595	+1.14
37	6.080	5.3366	+0.74
38	6.140	5.4412	+0.70
39	6.297	5.5716	+0.73
40	6.335	5.7021	+0.63
41	6.928	5.7809	+1.15
42	6.803	5.8930	+0.91
43	7.481	5.9582	+1.52
44	6.631	6.0080	+0.62
45	6.863	6.0920	+0.77
46	6.658	6.1060	+0.55
47	7.593	6.1310	+1.46
48	7.503	6.1580	+1.35
49	7.135	6.2847	+0.85

FIGURE 2.2

Reported and Synthetic Number of Children Ever Born by
Single Year of Age of Women, Ethiopia, 1990 FFS

CEB



each age of women are consistently lower than the reported number, although the differences between reported and synthetic estimates are small at adolescent ages, 15-19 years but it increases thereafter with age, reaching its highest at ages 29 years and above. At these ages(i.e., 29 years and above) the differences are at least one child per woman. The finding of synthetic values lower than reported values can be explained, as stated earlier, either by omissions in the reporting of births or decline in fertility. Since the latter is difficult to accept given the low contraceptive use³ and universal marriage⁴ that are prevailing in the country, the former i.e., omission of births may be considered more plausible explanation of finding synthetic estimate of mean number of children ever born at each age lower than the reported numbers. This omission in reporting of births appears to be of major concern in urban Ethiopia than in rural Ethiopia, as indicated by greater disparity between synthetic and reported estimates of mean number of children in the former than in the latter (see Figures 2.3 and 2.4).

3/

Only 4.0 percent of currently married women in the reproductive ages (15-49 years) were reported to be currently practicing contraception in 1990 (See Chapter 4 of the present report).

4/ According to 1984 Population & Housing Census, there are few persons remaining unmarried past the age of 40 years, indicating universal marriage pattern. It is not only that marriage is universal but also begins at an early age. The singulate mean age at marriage as estimated from 1984 census turned out to be 17.6 years for females (CSA, 1991). In a non-contraceptive society where marriage is universal and begins early, ceteris paribus, fertility is likely to be high.

FIGURE 2.3

Reported and Synthetic Number of Children Ever Born by
Single Year of Age of Women ,Rural Ethiopia, 1990 FFS

CEB

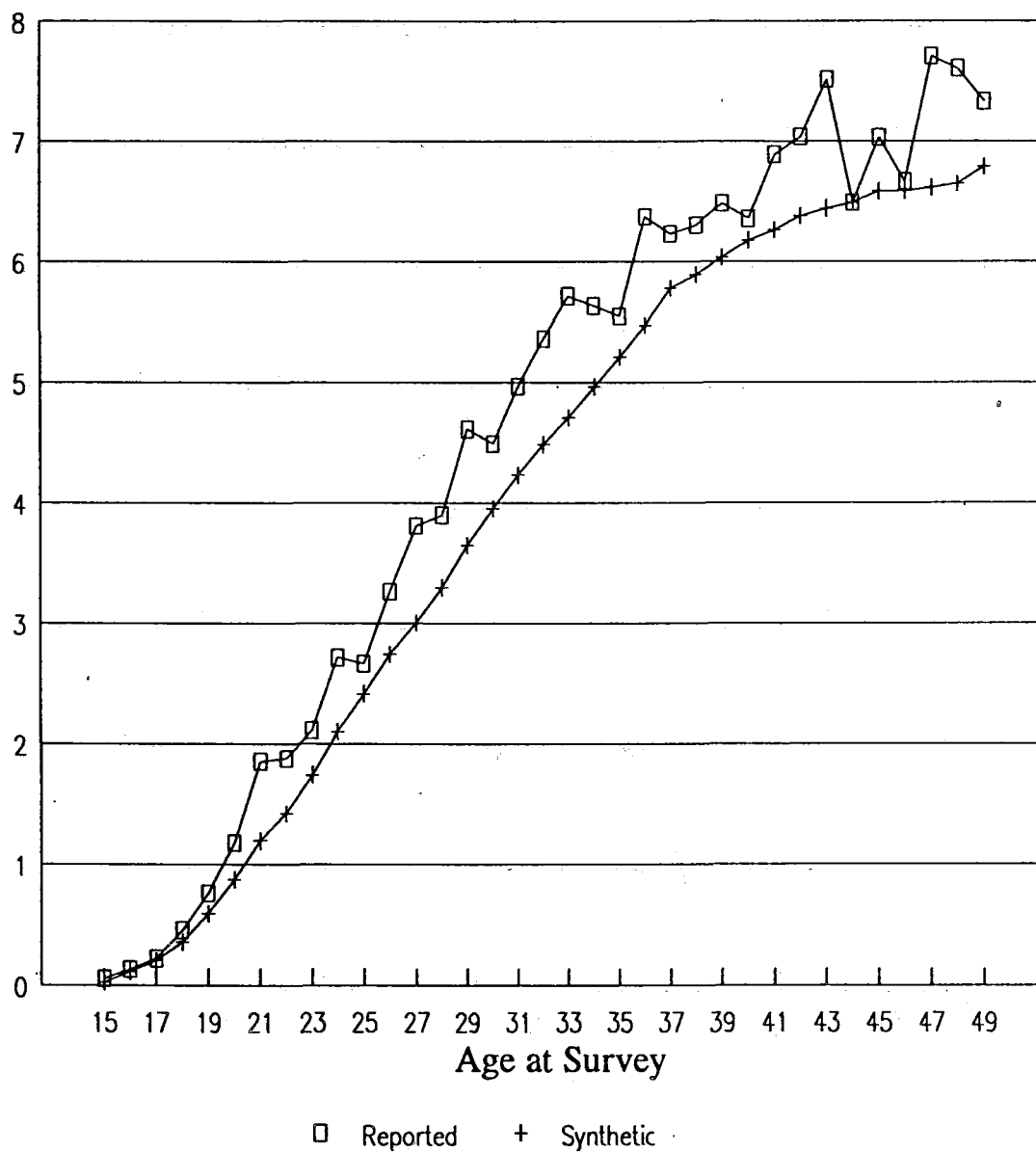
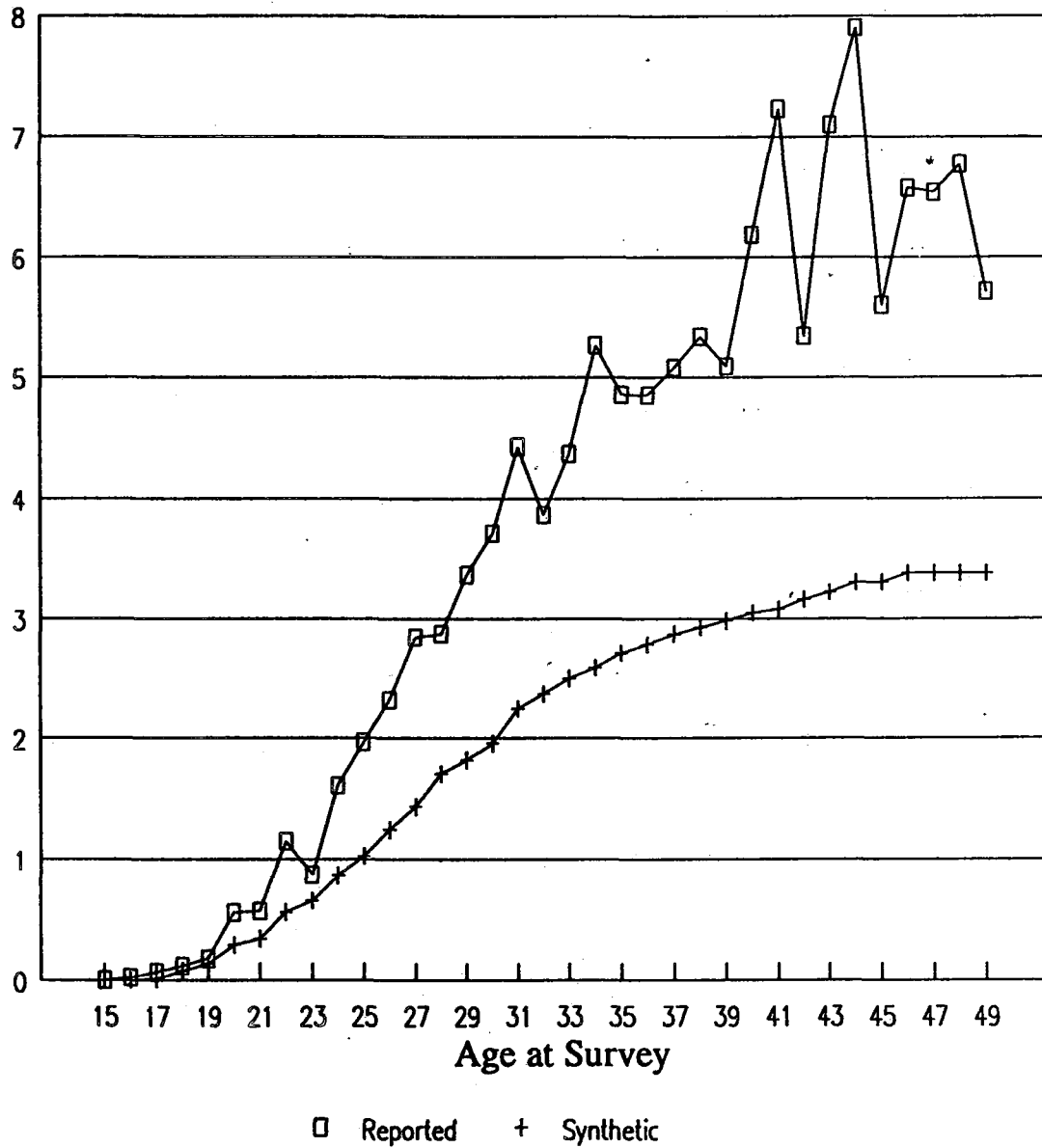


FIGURE 2.4

Reported and Synthetic Number of Children Ever Born by
Single Year of Age of Women ,Urban Ethiopia, 1990 FFS

CEB



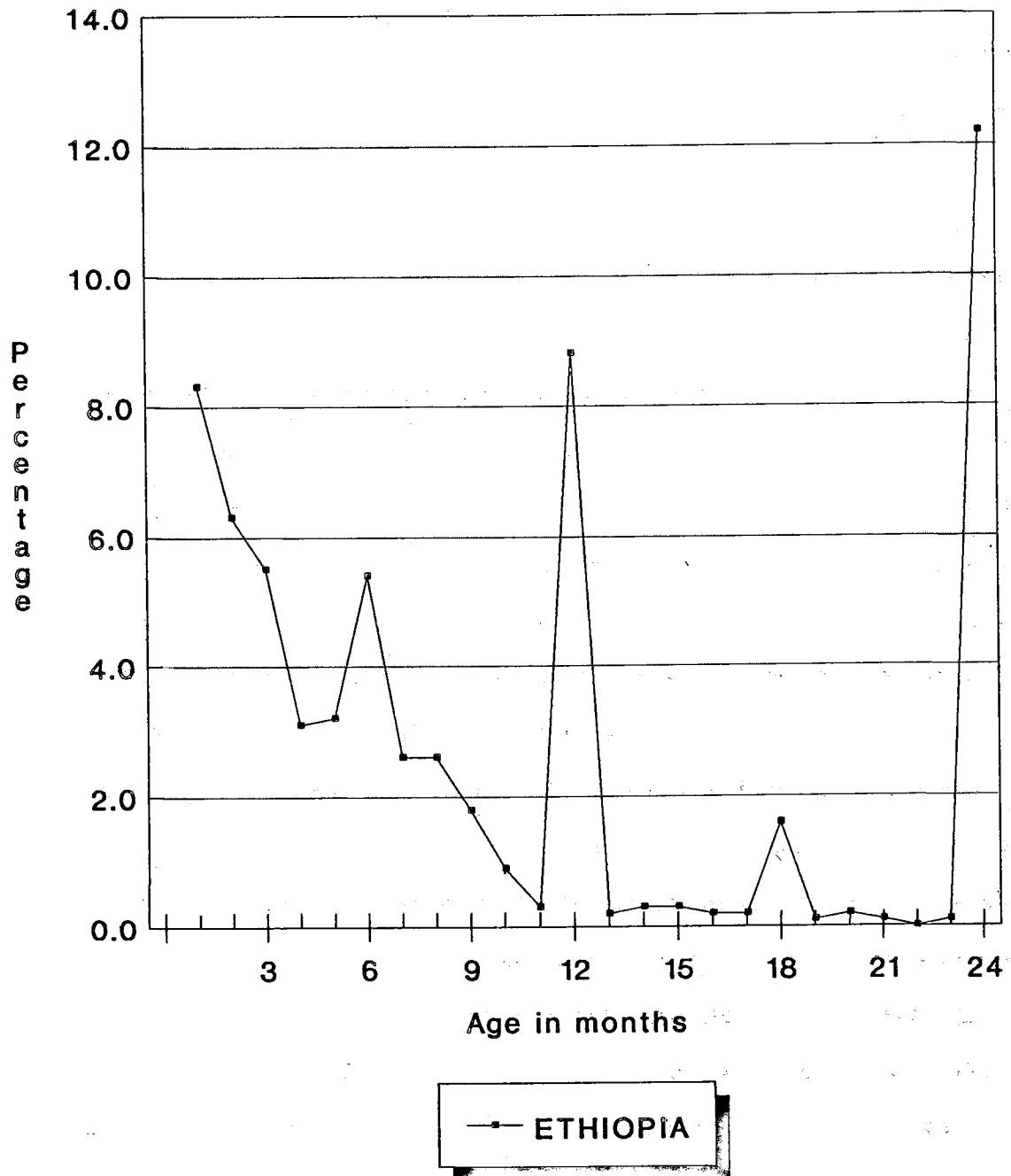
2.5 Age at Death

Experiences from other surveys suggest that infant deaths are subject to omission and misplacement (Goldman, et. al., 1979; Thapa and Retherford, 1982; Gobhaju., et.al., 1987). Data with these types of errors are likely to under-estimate infant mortality rate. Omission of infant death is more severe which could lead to both under-reporting of births as well as infant deaths in a situation when a child died soon after birth and remain un-reported.

Under-reporting of infant death can also arise due to misplacement of age of deaths. Examination of survey data on age at death in months from other countries shows heaping of deaths in certain months. Ethiopia is no exception to it . The distribution of deaths in months for first two years of life occurred before the survey presented in Table 2.6 and Figure 2.5 reveals heapings of deaths reported at age 12 and 24 while a few deaths were reported at ages 11 and 23. There is no a priori reason to believe that only few deaths will take place at 11 and 23 months while these will be shot up at 12 and 24 months. The heapings of deaths at 12 and 24 months were due to mis-placement of events i.e., some of the deaths which took place before or after age 12 and 24 months were reported to have taken place at 12 and 24 months. The misplacement of events will have the effect of distorting infant mortality rate. For example, children who have died at 10 or 11 months but were reported to have died at 12 months will lead to an under estimation of infant mortality rate. It, therefore, calls for taking due

FIGURE 2.5

PERCENT DISTRIBUTION OF DEATHS BY MONTHS
(Deaths at '0'month are not shown)



considerations of misplacement of age at death while estimating infant mortality rate.

Table 2.6 Percent Distribution of Age at Death in Months
Ethiopia, FFS 1990

Months	Number (weighted)	Percent
0	1,313,049	35.5
1	307,952	8.3
2	232,721	6.3
3	203,436	5.5
4	116,181	3.1
5	117,549	3.2
6	199,864	5.4
7	96,488	2.6
8	95,100	2.6
9	66,602	1.8
10	31,566	0.9
11	10,679	0.3
12	325,357	8.8
13	8,733	0.2
14	10,346	0.3
15	12,157	0.3
16	8,231	0.2
17	6,042	0.2
18	60,470	1.6
19	4,321	0.1
20	9,060	0.2
21	3,015	0.1
22	636	0.0
23	5,151	0.1
24	450,947	12.2
Total	3,695,655	100.0

CHAPTER III

CHARACTERISTICS OF HOUSEHOLD AND INDIVIDUAL SAMPLE

3.1 Introduction

In this chapter information are provided on some background characteristics of the FFS sample to enable the readers to place the findings presented in the subsequent chapters in its proper perspective. These information were collected using Household and Individual Survey Questionnaires. The primary purpose of the household enumeration, as stated earlier, was to identify women in the reproductive ages, 15-49 years, who were eligible for the individual interview. In the course of household enumeration some basic information of all persons in each selected household were collected. These include data on age and sex composition of the population and those on marital status of all enumerated persons aged 10 years and above. In the following section (3.2) we discuss only the data on age/sex composition of the population and compare those with similar data collected by the 1984 Population and Housing Census.

The 1990 FFS has collected a wide array of socio-economic, cultural and demographic information at household and individual level for every selected woman using the questionnaire on Household Socio-economic Characteristics and that of Woman's Questionnaire respectively. Some of these characteristics will be discussed in section 3.3 of the present chapter.

3.2 Population Characteristics

3.2.1 Age/Sex Composition of the Population

The 1990 FFS enumerated all the members of the household, including those away temporarily and visitors present on the previous night, on a joint defacto and dejure basis. Under defacto approach people were counted as the residents of the place (i.e., household) where they were found i.e., slept in the household on the night prior to the enumeration, while under dejure approach, people were counted in their usual place of residence (i.e., the place where they have been living at least for six months continuously), even if they were temporarily away. The 'visitors' present on the night prior to the enumeration were counted in the house where they were found in the case of defacto and in their usual place of residence in the case of dejure. Analysis of data in this chapter and all subsequent chapters are based on dejure population.

The total (unweighted) dejure population enumerated in the 1990 FFS were 46,489, of whom 23,035 were males and 23,454 were females - resulting in a sex-ratio of 98 males per 100 females. The overall sex-ratio observed in the 1990 FFS was somewhat lower than that of the sex-ratio noted in the 1984 Population and Housing Census, which was 100.6. The average household size reported in the 1990 FFS was higher compared to that obtained in the 1984 Population Census result. These figures reported by 1990 FFS and

1984 Census were 5.1 and 4.8 respectively. Better count in the survey than in the census may explain this finding of higher average family size in the former than in the latter.

Age data are very important not only for demographic analysis but also for social and economic planning of a country. The perspective planning of a country, to large extent, is based on the present and future age distribution of the population. Given the many and varied use of age data, information regarding age has been one of the core items canvassed in most censuses and surveys, and also in the 1990 Family and Fertility Survey. Table 3.1 shows the distribution of the de jure population of 1990 FFS with the corresponding census results for comparison. The pattern of age distribution obtained by 1990 FFS and 1984 census closely resembles each other (see Table 3.1). Both show a pattern of age distribution, with a large proportion of children under 15 years and a very small proportion of elderly persons. This is the typical age structure of the population of a developing country characterised by high fertility and declining but high mortality. The young age structure of the population is vividly depicted in the population pyramid presented in Figure 3.1. Children under 15 accounted for 50 and 48 percent of the population enumerated by the 1990 FFS & 1984 Census respectively, while the elderly population 65 years and above accounted for 7 and 6 percent of the population enumerated by 1984 Census and 1990 FFS.

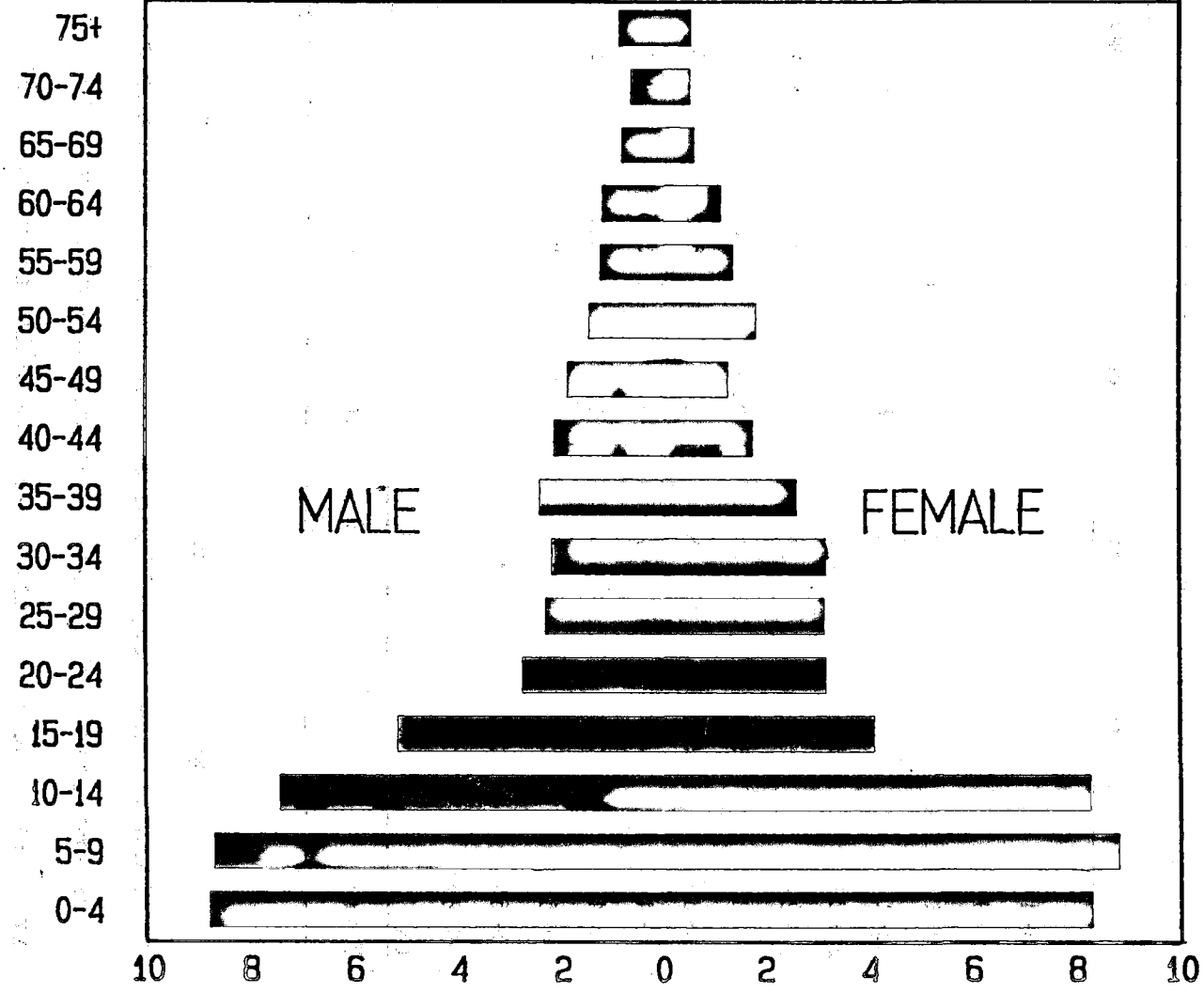
Table 3.1 Percentage Distribution of the Enumerated (DEJURE)
Population by Age and Sex, 1984 Census and 1990 FFS.

Age Group	Percentage Distribution of Population					
	Males		Females		Both	
	1984	1990	1984	1990	1984	1990
0-4	18.7	17.7	18.4	16.4	18.5	17.0
5-9	18.7	17.5	17.1	17.4	17.9	17.5
10-14	12.4	15.0	11.0	16.3	11.7	15.6
15-19	8.1	10.4	8.0	8.1	8.0	9.2
20-24	5.8	5.5	6.5	6.3	6.2	5.9
25-29	5.3	2.4	7.0	4.1	6.1	3.2
30-34	5.1	4.4	6.5	6.3	5.8	5.3
35-39	5.3	4.8	5.6	5.2	5.5	5.0
40-44	4.4	4.2	4.6	3.5	4.5	3.9
45-49	3.5	3.7	3.1	2.5	3.3	3.1
50-54	3.1	2.9	3.5	3.6	3.3	3.2
55-59	2.2	2.4	1.9	2.7	2.0	2.6
60-64	2.4	2.3	2.5	2.2	2.4	2.3
65+	5.0	6.8	4.4	5.4	4.8	6.2
Total	100.0	100.0	100.0	100.0	100.0	100.0

Although the pattern of age/sex distribution of the population obtained by the 1990 FFS and 1984 Population Census is the same, there are some differences between the two distributions. The main difference between the two distributions is that the 1990 FFS enumerated fewer children under 10 particularly those under 4 than the 1984 Census while the former over counted the adolescents (10-19 years) particularly the early adolescents (10-14 years) than the

FIGURE 3.1 POPULATION PYRAMID OF ETHIOPIA, 1990 FFS

AGE GROUP



latter. For example, children under 10 and adolescents aged 10-19 years accounted for 36.4 and 19.70 percent of the population enumerated by 1984 Census. The corresponding figures from the 1990 FFS were 34.50 and 24.80 percent respectively.

The dependency ratio, defined as the ratio of the population aged 0-14 and 60 years and above to the population of working ages 15-59, is found to be 129 and 124 in the 1990 FFS and 1984 Census respectively.

3.2.2 Age/Sex Distribution by Place of Residence

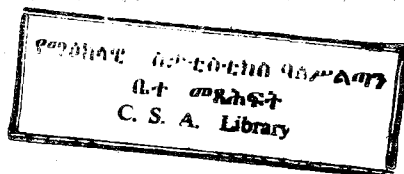
The percentage distribution of the de jure population by broad age group and place of residence (rural, Addis Ababa and other urban centers) are presented in Table 3.2.

Table 3.2 Distribution of the DEJURE Population by Broad Age Groups, Sex and Place of Residence, 1990 FFS

Broad Age Group	Place of Residence							
	Rural		Addis Ababa		Other Urban		Total	
	Male	Female	Male	Female	Male	Female	Male	Female
0-9	35.9	34.9	26.6	23.1	32.7	28.6	35.2	33.8
10-24	30.3	29.6	37.2	41.6	34.2	35.9	30.9	30.7
25-59	26.8	30.0	30.6	30.6	27.0	28.9	24.8	27.9
60+	7.0	5.5	5.6	4.7	6.1	6.6	9.1	7.6
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

It may be observed from the data in the table that the age distribution of the rural, Addis Ababa (capital city) and other urban areas, particularly those of rural and other urban areas, are almost the same except for the children below 10 years and those at

adolescent and young adult ages (10-24 years). Children under 10 years form a higher proportion in the rural areas, compared to Addis Ababa, the capital city, and other urban areas. The proportion of children below 10 years in the total population constitutes the lowest in Addis Ababa followed by other urban centers. On the other hand, persons in the adolescent and young adult ages constitute the highest in Addis Ababa followed by other urban centers and rural areas. Various reasons could be adduced to explain these differences in age structure by place of residence. The finding of a lower proportion of children in Addis Ababa and other urban centers, particularly the former than in the rural areas, may result from lower fertility in the urban areas, particularly Addis Ababa. The finding of a higher proportion of adolescents and young adults in Addis Ababa and other urban centers, particularly the former than in the rural population, may be attributed to the exodus of people in the adolescent and young adult ages from the rural to the urban areas, particularly Addis Ababa in search of jobs, pursuing education/training, ... etc. The proportion of persons in the working age groups particularly in the adult ages (25-59) are about evenly distributed between places of residence excepting that this proportion for males in Addis Ababa is higher than the corresponding proportion in rural and other urban areas. This could still be attributed to higher exodus of adult males from rural and other urban centers to Addis Ababa in search of employment and pursuing higher education. It should be further noted here that the proportion of adolescents and young adults (10-24 years) are not only higher in Addis Ababa and other



urban centers compared to rural areas but also this proportion is higher for females than males, indicating predominance of females among migrants into urban areas. These findings are also consistent with those reported in 1984 Census.

3.2.3 Sex Ratio: General Pattern

In normal circumstances, the overall sex ratio is expected to be 100. Evidence suggests that at birth there are more males than females which will produce a sex ratio at birth of over 100. This will, however, cancel out as the age advances. At higher ages males tend to die more frequently than females which will produce a sex ratio below 100. As a result, the overall sex-ratio is expected to be 100. The data collected by 1990 Family and Fertility Survey yielded a sex-ratio of 98.2 for the country as a whole, indicating a slight excess of females. Although for rural areas, there shows a slight excess of males (100.3). Substantial deficit of males is also noticed in Addis Ababa (85.5) and other urban areas (84.8) (see Table 3.3). The lower sex ratio for urban areas could be due to female dominated migrants into urban areas. The sex ratios reported in the 1990 Family and Fertility Survey slightly differ from those reported in 1984 census, particularly in terms of overall sex ratio. Unlike the 1990 FFS, the 1984 Census reported a sex ratio of little over 100 (100.6) for the country as a whole. Except, for this departure the pattern of sex ratio is observed to be the same for 1990 FFS and 1984 Census in rural, Addis Ababa and other urban areas, although the magnitude of sex

ratio varied by sources (see Table 3.3). The expected pattern of sex ratio at birth (i.e., slight excess of males over females) is confirmed by data obtained by both sources (census and survey) excepting the ratio reported in Addis Ababa by 1990 FFS.

Table 3.3 Sex-ratio of Total Population and Sex-ratio of Children Under One Year from 1990 FFS and 1984 Census by Place of Residence

Residence	Sex-ratio	
	1990 FFS	1984 Census
	<u>Overall Sex ratio</u>	
Ethiopia	98.2	100.6
Rural	100.3	102.3
Addis Ababa	85.5	92.8
Other Urban Areas	84.5	92.8
Urban	85.06	88.2
	<u>Sex-ratio Under One Year</u>	
Ethiopia	105.4	102.1
Rural	105.7	102.3
Addis Ababa	90.2	107.1
Other Urban Areas	107.4	101.0
Urban	101.9	101.0

3.2.4 Sex Ratio by Age and Rural/Urban Areas

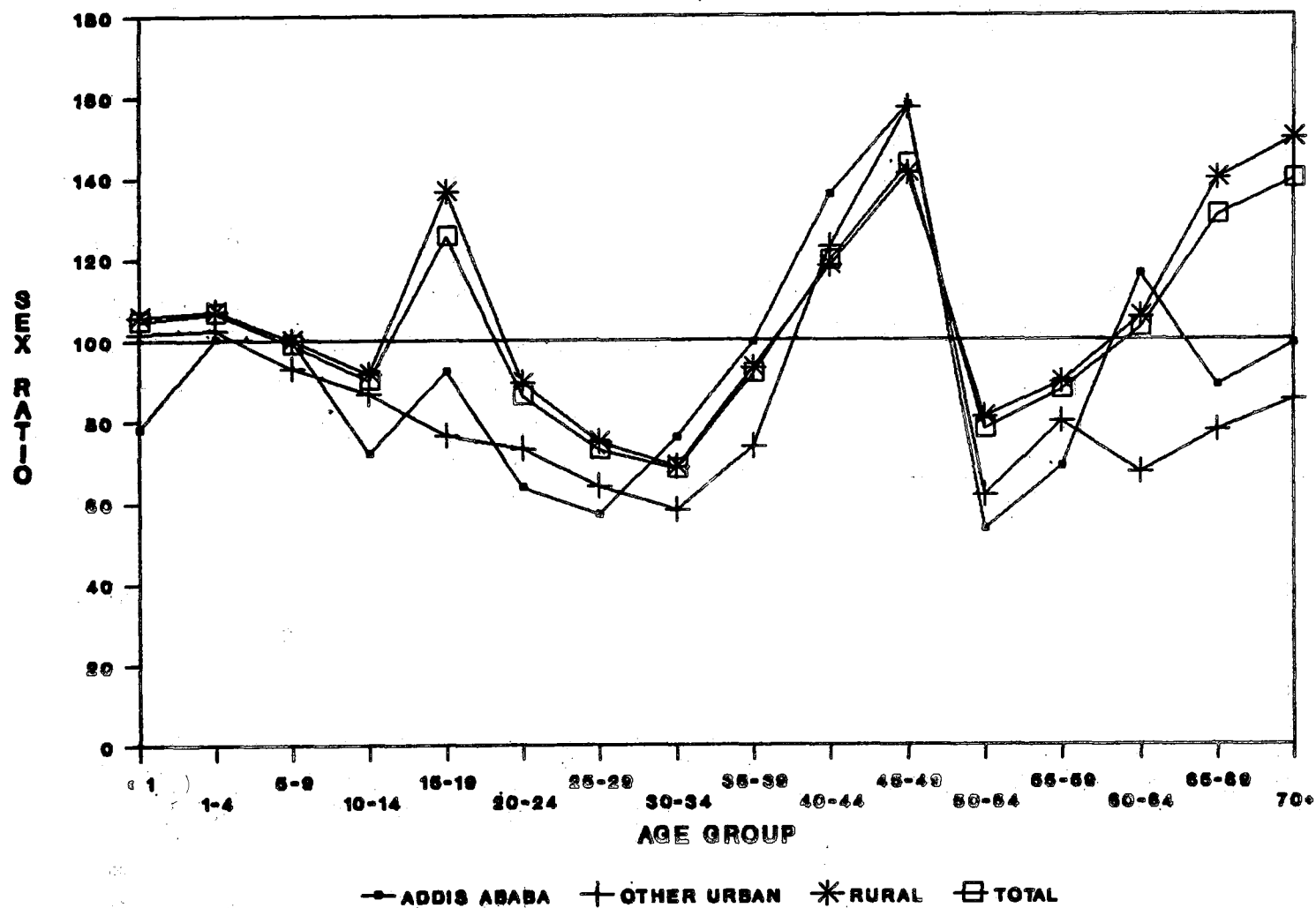
Table 3.4 and Figure 3.2 present sex ratios by five year age-group and rural/urban areas. In normal situation sex ratio will decrease from high to low with increasing age in populations which

Table 3.4 Sex Ratio of Addis Ababa, Other Urban, Rural and Total Population, 1990 FFS.

Age Group	Place of Residence			
	Addis Ababa	Other Urban	Rural	Total
Under 1	78.2	101.6	105.8	104.8
1-4	100.3	102.5	107.1	106.6
5-9	99.9	93.1	99.9	98.9
10-14	72.1	86.7	91.8	90.1
15-19	92.4	76.4	136.5	125.4
20-24	63.7	73.2	89.4	86.3
25-29	57.0	64.1	74.8	72.9
30-34	75.9	58.1	68.8	68.3
35-39	99.6	73.8	93.2	91.8
40-44	135.8	123.0	118.3	119.5
45-49	158.0	157.2	141.1	143.1
50-54	53.4	61.8	80.9	77.8
55-59	68.7	79.7	89.4	87.6
60-64	116.2	67.4	105.5	102.7
65-69	88.6	77.6	139.7	130.6
70+	99.0	85.0	149.5	139.2
Total FFS	85.5	84.8	100.3	98.2
1984 Census	92.8	86.3	102.7	100.6

have not experienced substantial migration (Shryrock and Siegel, 1973: 105-110). However, this is not supported by data collected by 1990 FFS which shows a considerable variation in sex-ratios by age groups (see Table 3.4). The sex ratios in rural areas reveal excess of males in the early age groups i.e., under 1 and 1-4 years and also in the late adolescent (15-19 years) age group. However, the sex ratios are lower than 100 (indicating deficit of males) in the age-group 5-9 years and also in early adolescent (10-14 years), young adult and early middle ages (i.e., from 20-24 to 35-39

FIGURE 3.2 SEX RATIO OF ADDIS ABABA, OTHER URBAN, RURAL AND TOTAL POPULATION



years). Similarly, the sex ratios are lower than 100 in the age groups 50-54 and 55-59 years. In the remaining ages i.e., in the early and late forties and in the ages 60 years and above, the ratios are over 100 indicating excess of males. In the urban areas, whether this is in Addis Ababa or other urban centers, the data reveal excess of females over males in most of the age groups except for the age-groups 40-44 and 45-49, and in early age-groups (under 1 and 1-4 years) in other urban areas and in age-groups 1-4 and 60-64 years in Addis Ababa, where there is excess of males over females. The lower sex ratios for urban areas have to be explained largely by the higher proportion of females among the migrants into urban areas. On the other hand, the finding of markedly low ratio in the young adult and early middle ages (20-24 to 35-39 years) may be attributed to excess male mortality and/or heavy exodus of males from these age groups due to war that was prevailing in the country for over the last 15 years. Some of these deficits could also result from mis-reporting of ages of males of young adult ages to avoid conscription in the army. The fratricidal war that was prevailing in the country not only took heavy toll of life of young men but also forced them to flee away from the country to avoid military conscription. The excess of females in the absolute majority of the age-groups in urban areas and deficit of males in the young adult and early middle ages in rural areas observed in 1990 FFS were also reported in the 1984 Census (see National Analytical Report, CSA 1991).

3.3 Characteristics of the Individual Sample

This section provides some key socio-economic and demographic characteristics of the respondents of 1990 FFS. The background characteristics of women are closely associated with their fertility performance, contraceptive use, breast-feeding practices and chances of child survival,... etc. For example, age and duration of marriage are positively related to fertility. The higher the age of women, the higher the fertility. Age at marriage is expected to be negatively related to fertility. Similarly, a woman's exposure to formal education is likely to have a profound effect on her contraceptive use, fertility performance and chances of survival of her children. Females participation in labour force is expected to have a depressing effect on her fertility behaviour. Likewise, cultural identity of a woman, such as religion and ethnic origin, is likely to have a bearing on various aspects of life including reproductive behaviour. It is, therefore, of paramount importance to study the background variables regarding the women covered in this study.

The 1990 Family and Fertility Survey had collected a wide range of socio-economic, cultural and demographic information about each selected woman and her household using woman's questionnaire and questionnaire on household's socio-economic characteristics. Some of these characteristics will be discussed here. We include here only those characteristics which are often discussed in various chapters of this report. The selection of these

characteristics are based on the criteria of their broad descriptive value, their relevance to policy formulations and expected bearings on demographic outcomes. The key socio-economic and demographic variables examined here include age, education of respondent, education of respondent's husband, labour force participation, occupation, religion and ethnicity,... etc. These are presented by three major areas of residence (Addis Ababa, Capital city, Other Urban Areas and Rural). The characteristics of the study population examined here are also compared with those of the national population data provided by 1984 Population and Housing Census. A comparison of this kind will give us an idea how far the sample population represent the national population.

3.3.1 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 3.5). 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 slightly larger number compared to those in the 25-29 year age range in rural areas. It is to be also noted that there is no marked difference in the age distributions between residential categories, excepting that in the urban areas there are proportionately more women in the adolescent ages (15-19 years) than in the rural areas. While in the early middle (25-34 years)

and higher ages (40-49 years) there are proportionately more women in rural than in urban areas. The finding of higher proportion of women in the adolescent ages (15-19) in urban than in rural areas may be attributed to migration of young women from the latter to the former.

Table 3.5 Percentage Distribution of Women Aged 15-49 by Age Group and Place of Residence, 1990 FFS

Age Group	Rural	Addis Ababa	Other Urban	Total
15-19	20.0	27.0	30.0	21.0
20-24	16.5	19.4	14.4	16.5
25-29	16.6	14.9	14.8	16.3
30-34	16.9	13.4	14.0	16.4
35-39	13.6	12.8	13.8	13.7
40-44	9.5	7.1	7.7	9.1
45-49	6.9	5.4	5.3	7.7

3.3.2 Socio-economic Characteristics

Socio-economic characteristics of the successfully interviewed women in the reproductive ages (15-49 years) are presented in Table 3.6. The data are presented by place of major residential areas: rural; urban; Addis Ababa, other urban areas and for the country as a whole. Out of 8757 successfully interviewed women, 84.8 percent

originated from the rural areas while the remaining 15.2 percent were from the urban areas. Addis Ababa and 'other urban areas' accounted for 6.1 and 9.1 percent of the successfully interviewed women. The pattern of rural-urban distribution of the study population appears to be in accord with the rural/urban distribution of the national female population in reproductive ages reported in the 1984 census, although the component of the rural population is higher in the former than in the latter. In other-words, rural female population is slightly over-represented in the sample¹.

As expected, the overwhelming majority (85%) of the respondents are illiterate. Only a small minority (15%) of them are literate (i.e., this proportion includes those who had completed formal education of grade six and above including those who had completed some formal education (less than grade six) or attended non-formal education programmes and were able to read and write a letter or simple statement in any language easily). There shows a striking difference in level of education between rural and urban respondents. The majority (59.4%) of the urban women are literate while the absolute majority (92.9%) of the rural women are illiterate. As consistent with a prior expectation, the absolute majority (71.0%) of the respondents from capital city, Addis Ababa,

¹ According to 1984 census, the female population at reproductive age groups (15-49) in the rural areas accounted for 84 percent of the total female population enumerated at these age groups. The corresponding proportion in the sample was 85 percent.

Table 3.6 Distribution of the Respondents According to Some Selected Background Characteristics by Rural/Urban Residence, FFS 1990 (Percentage Distribution and Number of Women)

Characteristics	Residence				
	Rural	Urban	Addis Ababa	Other Urban	Total
<u>Literacy Status (Respondent)</u>					
Illiterate	92.9 (4690998)	40.6 (367594)	28.8 (103811)	48.4 (263783)	85.0 (5058592)
Literate	7.1 (357363)	59.4 (537741)	71.2 (256854)	51.6 (280887)	15.0 (895104)
Not Stated	0.0 (1142)	-	-	-	0.0 (1142)
Total	100.0 (5049503)	100.0 (905335)	100.0 (360665)	100.0 (544670)	100.0 (5954838)
<u>Educational Attainment (Respondent)</u>					
Primary (1-6 grade)	3.8 (193607)	20.0 (180587)	20.0 (72086)	19.9 (108501)	6.3 (374194)
Junior Secondary (7-8 grade)	1.4 (72317)	13.0 (118187)	12.9 (46683)	13.1 (71504)	3.2 (190504)
Senior Secondary (9-12 grade)	0.9 (47252)	22.9 (207329)	33.1 (119260)	16.2 (88069)	4.3 (254581)
University and higher	0.1 (3227)	1.5 (13738)	3.4 (12407)	0.2 (1331)	0.3 (16965)
Non-Formal Education	0.8 (40960)	2.0 (17900)	1.8 (6418)	2.1 (11482)	1.0 (58860)
Illiterate	92.9 (4690998)	40.6 (367594)	28.8 (103811)	48.4 (263783)	84.9 (5058592)
Not Stated	0.0 (1142)	-	-	-	0.0 (1142)
Total	100.0 (5049503)	100.0 (905335)	100.0 (360665)	100.0 (544670)	100.0 (5954838)

Table 3.6 (Contd.)

Characteristics	Residence				
	Rural	Urban	Addis Ababa	Other Urban	Total
Husband's Education					
Illiterate	75.6 (3275090)	27.7 (160030)	19.4 (39886)	32.4 (120144)	70.0 (3435120)
Literate	24.4 (1054555)	72.2 (416601)	80.6 (165855)	67.5 (250746)	30.0 (1471156)
Not Stated	0.0 (780)	0.1 (536)	- -	0.1 (536)	0.0 (1316)
Total	100.0 (4330425)	100.0 (577167)	100.0 (205741)	100.0 (371426)	100.0 (4907592)
Husband's Educational Attainment					
Primary (1-6 grade)	10.7 (461355)	26.7 (153999)	26.8 (55114)	26.6 (98885)	12.5 (615354)
Junior Secondary (7-8 grade)	2.4 (102432)	9.5 (54806)	9.2 (18990)	9.6 (35816)	3.2 (157238)
Higher Secondary (9-12 grade)	1.7 (74892)	19.9 (114804)	24.6 (50537)	17.3 (642267)	3.9 (189696)
University/Higher	0.1 (4720)	5.6 (32422)	9.5 (19633)	3.4 (12789)	0.8 (37142)
Illiterate	75.6 (3275089)	27.7 (160030)	19.4 (39886)	32.4 (120144)	70.0 (3435119)
Non-formal	9.5 (411157)	10.5 (60570)	10.5 (21581)	10.5 (38989)	9.6 (471727)
Not Stated	0.0 (780)	0.1 (536)	- -	0.1 (536)	0.0 (1316)
Total	100.0 (4330425)	100.0 (577167)	100.0 (205741)	100.0 (371426)	100.0 (4907592)

Table 3.6 (Contd.)

Characteristics	Rural	Urban	Addis Ababa	Other Urban	Total
Ethnicity					
Amara	20.4 (1027906)	52.9 (478798)	56.2 (202856)	50.6 (275942)	25.3 (1506703)
Oromo	42.1 (2127690)	21.3 (192431)	19.5 (70420)	22.4 (122011)	39.0 (2320121)
Tigre	0.5 (25892)	5.2 (46701)	10.0 (36016)	2.0 (10685)	1.2 (72593)
Kembata	3.5 (174702)	0.5 (4666)	0.5 (1877)	0.5 (2789)	3.0 (179368)
Welayta	3.6 (180738)	2.4 (21693)	0.5 (1743)	3.7 (19950)	3.4 (202432)
Sidama	5.8 (295420)	0.6 (5523)	- -	1.0 (5523)	5.0 (300943)
Gurage	6.6 (334098)	10.0 (90373)	10.6 (38257)	9.6 (52116)	7.1 (424471)
Agew	1.0 (52296)	1.9 (17093)	0.1 (240)	3.1 (16853)	1.2 (69389)
Gedeo	2.5 (125432)	- (410)	- -	- (410)	2.1 (125842)
Hadiya	4.5 (225,375)	- (411)	- -	- (411)	3.8 (225786)
Bencho	1.2 (63577)	- -	- -	- -	1.1 (63577)
Keffa	1.3 (63922)	1.2 (10569)	- -	1.9 (10569)	1.3 (74491)
Somali	0.4 (20157)	1.3 (12075)	- -	2.2 (12075)	0.5 (32232)
Damete	0.6 (31748)	0.7 (6551)	- -	1.2 (6551)	0.6 (38299)

Table 3.6 (Contd.)

Characteristics	Rural	Urban	Addis Ababa	Other Urban	Total
Gamo	1.8 (91214)	0.0 (382)	- -	- (382)	1.5 (91596)
Dorze	- (2182)	0.4 (3453)	1.0 (3453)	- -	1.0 (5635)
Others	3.9 (197256)	1.4 (12681)	1.4 (5188)	1.4 (7493)	3.5 (209937)
Not Stated	0.2 (9898)	0.2 (1525)	0.2 (615)	0.2 (910)	0.2 (11423)
Total	100.0 (5049503)	100.0 (905335)	100.0 (360665)	100.0 (544670)	100.0 (5954838)
Religion					
Christian (Total)	62.7 (3166587)	86.3 (780889)	93.2 (336244)	81.6 (444645)	66.3 (3947476)
Christian (Orthodox)	47.7 (2409667)	81.03 (733592)	87.2 (314443)	77.0 (419149)	52.8 (3143259)
Christian (Protestant)	12.1 (612791)	3.4 (31007)	4.6 (16604)	2.6 (14403)	10.8 (643798)
Christian (Others)	2.9 (144129)	1.8 (16290)	1.4 (5197)	2.0 (11093)	2.7 (160419)
Muslim	30.1 (1521590)	13.4 (120818)	6.2 (22471)	18.1 (98347)	27.6 (1642407)
Animist/ Traditional	3.5 (177385)	- (411)	- -	0.1 (411)	3.0 (177796)
Atheist	0.3 (13636)	- (515)	0.1 (515)	- -	0.2 (14151)
Other religion	3.3 (169069)	0.3 (2385)	0.3 (1118)	0.2 (1267)	2.9 (171454)
Not Stated	- (1237)	- (317)	- (317)	- -	- (1554)
Total	100.0 (5049503)	100.0 (905335)	100.0 (360665)	100.0 (544670)	100.0 (5954838)
Migration Status					
Non-Migrants	53.0 (2677696)	40.3 (364366)	45.2 (162901)	37.0 (201465)	51.1 (3042062)
Migrants	47.0 (2371155)	59.7 (540055)	54.6 (196850)	63.0 (343205)	48.9 (2911210)
Not Stated	- (652)	- (914)	- (914)	- -	- (1566)

Table 3.6 (Contd.)

Characteristics	Rural	Urban	Addis Ababa	Other Urban	Total
<u>Origin of Migrants</u>					
Rural	96.5 (2288850)	63.7 (344069)	64.7 (127431)	63.1 (216638)	90.4 (2632919)
Urban	3.5 (82305)	36.3 (195986)	35.3 (69419)	36.9 (126567)	9.6 (278291)
Total	100.0 (2371155)	100.0 (540055)	100.0 (196850)	100.0 (343205)	100.0 (2911210)
<u>Work History</u>					
Never Worked	31.6 (1593753)	48.7 (441054)	52.8 (190350)	46.0 (250704)	34.2 (2034807)
Ever Worked	68.3 (3448978)	51.1 (462341)	46.8 (168911)	53.9 (293430)	65.7 (3911319)
Not Stated	0.1 (6772)	0.2 (1940)	0.4 (1404)	0.1 (536)	0.1 (8712)
Total	100.0 (5049503)	100.0 (905335)	100.0 (360665)	100.0 (544670)	100.0 (5954838)
<u>Current Work Status</u>					
Currently Working	62.3 (3144585)	42.0 (380208)	35.6 (128264)	46.3 (251944)	59.2 (3524793)
Currently Not Working	37.7 (1904918)	58.0 (525127)	64.4 (232401)	53.7 (292726)	40.8 (2430045)
Total	100.0 (5049503)	100.0 (905335)	100.0 (360665)	100.0 (544670)	100.0 (5954838)
<u>Work Place of Currently Working Women</u>					
At Home	13.5 (424000)	43.9 (166860)	33.6 (43042)	49.2 (123818)	16.8 (590860)
Away from Home	86.3 (2713182)	55.7 (211798)	65.9 (84517)	50.5 (127281)	83.0 (2924980)
Not Stated	0.2 (7403)	0.4 (1550)	0.5 (705)	0.3 (845)	0.3 (8953)
Total	100.0 (3144585)	100.0 (380208)	100.0 (128264)	100.0 (251944)	100.0 (3524793)

Table 3.6 (Contd.)

Characteristics	Rural	Urban	Addis Ababa	Other Urban	Total
<u>Occupation Group (Working Women)</u>					
Professional and Technical	0.2 (5458)	5.7 (21672)	9.7 (12405)	3.7 (9267)	0.8 (27130)
Administrative and Managerial	0.0 (1259)	0.7 (2715)	0.9 (1090)	0.6 (1625)	0.1 (3974)
Clerical & Related	0.2 (5993)	7.2 (27549)	12.4 (15888)	4.6 (11661)	1.0 (33542)
Sales Worker	16.5 (518834)	44.8 (170360)	16.5 (21183)	59.2 (149177)	19.6 (689194)
Social Service	0.9 (27429)	22.5 (85428)	39.1 (50189)	14.0 (35239)	3.2 (112857)
Agricultural & Related	78.5 (2466985)	4.4 (16763)	1.2 (1500)	6.1 (15263)	70.5 (2483749)
Production Transport & Related	3.5 (110930)	14.0 (53122)	19.1 (24545)	11.3 (28577)	4.7 (164052)
Not Stated	0.2 (7696)	0.7 (2599)	11.1 (1465)	0.5 (1134)	0.3 (10295)
Total Working Women	100.0 (3144585)	100.0 (380208)	100.0 (128264)	100.0 (251944)	100.0 (3524793)

Note: The figure in parenthesis refers to number (weighted) of cases.

are literate. A similar pattern of difference in level of literacy between rural and urban areas was reported in the 1984 census.

The level of education of husbands appears to be higher than that of the educational level of women. Thirty percent of husbands are literate compared to 15 percent of the successfully interviewed women. Again, husbands in the urban areas have higher literacy rate than their rural counterparts. These proportions were found to be 24.4, 80.6 and 67.6 in rural, Addis Ababa and other urban

areas respectively.

Women with formal education are very few in the sample. Only about one-sixteenth and one-twelfth of them have completed primary and middle level education and above. Formal education among urban women is also limited, although markedly higher than their rural counterparts. One-fifth and over one-third of urban women had completed primary level and junior secondary and higher level education. The corresponding figures in rural areas are about one out of twenty-five and one out of fifty respectively.

Women with formal education, as expected, is higher in Addis Ababa. Over one-third of selected women from Addis Ababa had completed senior secondary (9-12 grade) level education. The corresponding figures in rural and 'other urban areas' were 0.9 and 16.2 percent respectively.

The formal education level of husband, particularly at the lower level, is higher than that of women. For example, about one-eighth of husband completed primary level education while one-sixteenth of women have had the same level of education. However, at the higher level of education the differences, between men and women, are surprisingly not apparent. For example, only 7.9 percent of husbands and 7.8 percent of women completed junior secondary level education and above. Again, husbands in the urban areas have higher educational attainment than their rural counterparts. For example, nearly 20 percent of husbands in urban

areas have had completed higher secondary education compared to only 1.7 percent of rural husbands having the same level of education.

The data also show that husbands in the capital city have higher educational attainment compared to other areas. For example, one-tenth of husbands of capital city had completed university/higher level education. The similar level of education is attained by only 0.1 percent and 3.4 percent of husbands in rural and 'other urban areas' respectively. This is what one would also expect to find given the fact that a large proportion of formally educated men and women are usually concentrated in the urban areas particularly in the capital city for better opportunities in life.

The ethnic distribution of the respondents shows that Oromos constitute the single largest group (39.0%) in the sample followed by Amaras (25.3%), Gurages (7.1%) and Sidamas (5.0%). The pattern of ethnic distribution observed for the total sample population also holds, in general, for rural areas in which Oromos constitute the single largest group followed by Amaras, Gurages and Sidamas. However, this rank-order of ethnic distribution of sample population is reversed in urban areas except for the third position. In urban areas, Amaras constituted the single largest group followed by Oromos. Gurages still occupied the third position while the fourth position was occupied by Tigrawais.

The rank-order of the ethnic distribution, particularly the first and second position, observed in the sample population closely corresponds to the ethnic distribution of the national population reported in the 1984 census. However, the third and fourth largest ethnic groups noted in the census differed from those found in the sample population. The 1984 population census reported Tigrawais as the third largest ethnic group in both rural and urban areas. However, the Gurages constituted the third largest group in both rural and urban sample population¹. The fourth largest ethnic group reported in the census were Somalies in rural areas and Gurages in urban areas. Tigrawais occupied the fourth largest group in the urban sample while this was occupied by Sidamas in rural sample. It is to be also noted here that Amaras and Tigrawais were under-represented while Oromos and Gurages were over-represented in the sample population compared to the national population. According to 1984 population census, Oromos, Amaras, Tigrawais and Gurages constituted 29.06, 28.29, 9.74 and 4.36 percent respectively of the national population. These proportions in the sample population are 39.0, 25.0, 1.2 and 7.1, in that order. The under-representation of Amaras and Tigrawais and the corresponding over-representation of Oromos and Gurages is due to under-coverage of Amara and Tigrawai areas² in the northern region.

^{1/} This was mainly due to the fact that areas inhabited by the Tigrawais (such as Tigray region, Northern Wello and Northern Gondar) were not covered by the sample.

² Wello and Gondar regions, that are predominantly the Amara land, were not covered in the survey.

of the country in the sample due to security reasons. The Oromo and Gurage areas are well covered in the sample.

The distribution of the sample population by religion shows that Christians particularly Orthodox Christians constitute the single largest group (52.8%) followed by Muslims (27.6%) and Protestant Christians (10.8%). The data in table 3.6 shows that over fifty percent of the respondents were Orthodox Christians while about one-third and one-tenth of the respondents were Muslims and Protestants respectively. The pattern of religious distribution of the sample population observed for the country as a whole also holds for rural and urban sample population. The pattern of religious distribution observed in the sample population clearly corresponds to that of the pattern of religious distribution noted in the 1984 Population and Housing Census, although differs in magnitude of representation. For example, compared to national distribution, Christians particularly Protestants were over-represented while Muslims were under-represented in the sample population. The Christians, Protestants and Muslims accounted for 60.5, 5.5 and 32.9 percent of the national population respectively in the census. The corresponding figures in the sample population are 66.3, 10.8 and 27.6 percent, in that order.

Considering the migratory status of the respondents, the data show that a majority (53.0%) of the respondents from rural areas

are non-migrants while the majority of respondents (59.7%) from urban areas are migrants. The proportion migrants among urban sample is higher in 'other urban areas' than in capital city, Addis Ababa. These proportions were 54.6 and 63.0 percent in Addis Ababa and 'other urban areas' respectively.

In the survey, data were also collected whether respondents were engaged in gainful activities and the data show that about three-fifths of the respondents were reported to be engaged in any gainful activities other than those of domestic chores at the time of the survey. Rural women tend to report participation in gainful activities more frequently than their urban counterparts. Over sixty two percent of the rural respondents reported to have participated in any gainful activities at the time of the survey. The corresponding proportions were 35.6 and 46.3 percent of respondents from Addis Ababa and 'other urban areas' respectively.

The majority of the currently working women from both rural and urban areas are engaged in gainful activities outside the house at the time of survey. However, the proportion of women working outside the home is higher in rural than in urban areas. Eighty-six percent of currently working women from rural areas are engaged in gainful activities outside the home. The corresponding proportions in Addis Ababa and 'other urban areas' are 65.9 and 50.5 percent respectively.

The absolute majority of the currently working women from rural areas are engaged in 'agriculture and related occupations' while the majority of working women from 'other urban areas' are engaged in 'sales works'. 'Social service' is the single most important occupation of the working women of Addis Ababa followed by 'Production, Transport' and 'Sales Works'.

3.3.3 Possession of Specified Household Items

The 1990 Family and Fertility Survey has not attempted to measure household income directly because it is difficult to measure income in one shot survey and moreover, it is mostly time consuming to arrive at a meaningful measure of income. Therefore, income was indirectly measured by ascertaining possession of specified household items. All respondents were asked whether their households possessed each of the 14 items. The nature of these items and percentage ownership are shown in Table 3.7. Economic condition, measured in terms of possession of household goods/items, is found to be very poor for the rural respondents compared to their urban counterparts. A very few rural households own consumer durable. Six out of 14 items were owned by less than one percent of rural households. These include all the electric items, excluding radio and tape-recorder, along with the possession of sofa set. Radio, the most important method of communication, is owned by only 9 percent of the rural households. Only two percent of the rural households own tape-recorders. The item that is owned by highest proportion of rural households is bed. This is also reported to be owned by only one-third of the rural respondents.

Table 3.7 Percentage of Women Who Have Specified Household Possessions, by Place of Residence, FFS 1990

Characteristics	Residence				
	Rural	Urban	Addis Ababa	Other Urban	Total
Household Possession(%)	(5049503)	(905335)	(360665)	(544670)	(5954838)
Tape Recorder	2.0	22.0	52.9	36.6	8.3
Radio	8.6	64.9	79.0	55.5	17.2
Television	0.2	10.9	22.4	3.3	1.9
Telephone	0.2	12.4	24.9	4.1	2.1
Refrigerator	0.1	8.4	13.5	5.0	1.4
Electric Stove	0.3	4.7	7.9	2.7	1.0
Gas Stove	0.6	15.0	22.4	10.1	2.8
Electric Mitad	0.6	24.7	52.4	6.4	4.2
Kerosene Stove	1.8	52.0	87.4	28.5	9.4
Table	14.4	78.6	87.1	73.1	24.2
Chair	27.7	76.3	89.1	67.7	35.0
Sofa Set	0.6	20.6	38.2	8.9	3.7
Bed	33.7	91.4	98.0	87.1	42.5
Clock/Watch	15.5	70.3	80.1	63.7	23.8
<u>Mean Possession of Animals</u>					
Milking Cow	1.24	0.37	0.14	0.52	1.11
Pack Animals	0.45	0.08	0.02	0.12	0.40
Goat/Sheep	1.42	0.54	0.14	0.80	1.28
Camel	0.02	0.00	0.00	0.00	0.02
Poultry	2.22	0.91	0.38	1.27	2.02

Note: Figure in parenthesis refers to number (weighted) of cases.

The next popular item owned by rural household is chair followed by table and clock/watch. Chair is owned by over one-quarter of the respondents while Table and Clock/watch are owned by 15 percent of the rural households each.

The ownership of each item of consumer durables is higher in urban than in rural areas. In other-words, the proportion of households owning each unit of consumer durable is higher in urban than in rural areas. Over fifty percent of the urban housing units own six of the consumer items. These include radio, kerosene stove, table, chair, sofa set, bed and clock/watch. It is to be, however, noted that although possession of electric goods is higher for urban than rural households, this is also found to be still modest in urban areas. Most of these items were owned by only 5 to 25 percent of the households except for radio, electric mitad and tape recorder. Radio is owned by over three-fifths of the urban households while electric mitad and tape recorder is owned by 25 and 22 percent of the urban households respectively. It appears from these findings that the overall economic conditions of the households are poor and this is more glaring for rural than urban households.

The urban households in the sample seem to be slightly better off in terms of possession of some consumer durables such as radio, telephone and kerosene stove,... etc, compared to the urban households in the national population reported in 1984 census. The proportion of urban households in the sample owning radio,

telephone and kerosene stove accounted for 65, 12 and 52 percent. The corresponding proportions in the urban households reported in the 1984 census were 45.6, 8.4 and 26.4 percent respectively.

The mean possession of animals per household also shows a dismal picture. The average milking cow per household is found to be only 1.24 in rural and 0.37 in urban areas. Goat/Sheep available per household is 1.4 in rural areas and 0.54 in urban areas.

A household in rural and urban areas owns on average 0.45 and 0.08 pack animals respectively. The availability of camel is found to be the lowest while poultry is found to be the highest. A rural household, on average, owns 2.2 poultry compared to 0.91 owned by an urban household. As expected the mean possession of animals per household is lowest in Addis Ababa followed by 'other urban areas'.

3.3.4 Access to Safe Drinking Water Facilities, Sanitary and Housing Conditions of Households.

The absolute majority of the households particularly those of rural areas have had no access to safe drinking water and sanitary toilet facilities (see Table 3.8). Unprotected well/spring and river/lake are the major sources of drinking water of nearly 86 percent of rural households while 72 percent of the households have no toilet facilities. Contrary to rural situation, the majority of

urban households in the sample have had access to safe drinking water facilities and sanitary toilet facilities. Eighty-Six percent of urban households have had access to tap water facilities. These proportions were 98.7% and 77.5% in Addis Ababa and 'other urban areas' respectively. Seventy-three percent of urban households have had access to pit (shared and private) toilet facilities. These proportions were 77 and 71 percent in Addis Ababa and 'other urban areas' respectively. The urban households in the sample appear to have better toilet facilities than those of the urban households reported in the 1984 census. According to 1984 census, about half (49.7%) of the urban housing units reported to have had no toilet facilities. This proportion for the urban households in sample was only 21 percent. It should be also noted here that only 2 percent of rural and 4 percent of urban households reported to have had treated water before drinking.

The data reveal that only 30 percent of rural households have had access to soap as against 74 percent of urban households. The proportion of households reported to have had access to soap were 92 and 62 percent in Addis Ababa and 'other urban centers' respectively.

Table 3.8 further showed that only two percent of rural households reported to have had access to electricity as against 74 percent of households in urban areas. The proportion of households reported to have had access to electricity were 98 and 75 percent in Addis Ababa and 'other urban areas' respectively.

In the survey data were has also collected on the principal materials used in the construction of wall, roofs and floors. An evaluation of these data will provide an indication of the physical quality of housing units and indirectly economic conditions of the households. Data on housing units by structural type is shown in Table 3.8. It may be observed from the table that an absolute majority of the housing units in the sample, particularly those of rural areas, are temporary or semi-temporary in nature i.e., their walls are mostly made of wood and mud, while their roofs are mostly thatched. The walls of about four-fifths of rural housing units are made of wood and mud. A similar proportion (80 percent) of housing units in rural areas are with thatched roofs. Wood and mud were also used in the construction of wall of the absolute majority (84%) of the housing units in urban areas, while the roof of the absolute majority (93%) of housing units in urban areas was made of corrugated iron sheet.

The majority of the housing units in the sample had earth/mud floor. However, this proportion is higher in rural than in urban areas. For example, 98 percent of housing units in rural areas had earth/mud floor compared to only 56.5 percent of housing units in urban areas. Twenty-percent of urban housing units in the sample had cement/cement tile floor while only about one percent of rural housing units had cement/cement tile floor. The proportion of urban housing units with floor made of earth/mud varies between 42.3 percent in Addis Ababa to 66.0 percent in 'other urban areas. About one-third of housing units in Addis Ababa had wooden floor

Table 3.8 Access to Safe Drinking Facilities, Sanitary and Housing Conditions of the Households of Selected Women, FFS 1990 (Percentage Distribution).

Characteristics	Residence				
	Rural	Urban	Addis Ababa	Other Urban Areas	Total
<u>Total Number of Women</u>	(5049503)	(905335)	(360665)	(544670)	(5954838)
<u>Sources of Drinking Water</u>					
Tap	6.4	85.9	98.7	77.5	18.5
Protected Well/Spring	7.4	5.8	0.7	9.2	7.1
Unprotected Well/Spring	37.3	3.9	0.2	6.4	32.3
River/Lake	48.5	4.0	0.2	6.5	41.8
Others	0.3	0.3	0.1	0.4	0.3
Not Stated	0.1	0.1	0.2	-	0.1
Total	100.0	100.0	100.0	100.0	100.0
<u>Treat Water Before Drinking</u>					
Yes	2.2	3.8	2.5	4.8	2.5
No	97.8	96.2	97.5	95.2	97.5
Total	100.0	100.0	100.0	100.0	100.0
<u>Toilet Facilities</u>					
Flush Private	-	4.5	9.3	1.3	0.7
Flush Shared	-	0.8	1.2	0.5	0.1
Pit Private	16.8	41.9	32.7	48.0	20.6
Pit Shared	8.5	31.1	44.1	22.5	11.9
In the Open	71.6	20.5	10.7	27.1	63.8
Others	3.1	1.0	1.7	0.6	2.8
Not Stated	0.0	0.2	0.3	-	0.1
Total	100.0	100.0	100.0	100.0	100.0

Table 3.8 (Contd.)

Characteristics	Residence				
	Rural	Urban	Addis Ababa	Other Urban Areas	Total
<u>Availability of Soap in the Household</u>					
Yes	30.1	73.6	91.6	61.8	36.7
No	69.9	26.4	8.4	38.2	63.3
Total	100.0	100.0	100.0	100.0	100.0
<u>Electricity</u>					
Yes	1.9	84.0	97.5	75.0	14.4
No	98.1	16.0	2.5	25.0	85.6
Total	100.0	100.0	100.0	100.0	100.0
<u>Ownership of Housing Unit</u>					
Owned	98.4	51.4	44.6	56.0	91.2
Rented	0.8	46.2	53.9	41.1	7.7
Others	0.8	2.2	1.1	2.9	1.0
Not Stated	0.1	0.2	0.4	-	0.1
Total	100.0	100.0	100.0	100.0	100.0
<u>Mean # of Rooms in Housing Unit</u>	1.37	2.45	2.77	2.23	1.54
<u>Material Used in the Construction of Roof</u>					
Corrugated Iron	13.6	92.7	96.3	90.3	25.6
Concrete/Cement	0.1	1.3	3.0	0.2	0.2
Wood/Mud	0.9	0.7	0.1	1.1	0.8
Thatch	81.2	4.4	0.1	7.2	69.5
Others	4.3	0.7	-	1.2	3.8
Not Stated	0.0	0.2	0.5	-	0.1
Total	100.	100.0	100.0	100.0	100.0

Table 3.8 (contd.)

Characteristics	Residence				
	Rural	Urban	Addis Ababa	Other Urban Areas	Total
<u>Material Used in the Construction of Walls</u>					
Concrete/Stone/Brick	0.4	11.9	14.2	10.4	2.1
Wood & Mud	79.9	83.9	83.7	84.1	80.5
Bamboo + Mud/Reed	7.1	0.5	0.1	0.7	6.1
Corrugated Iron	0.3	1.3	1.5	1.2	0.4
Others	12.3	2.3	0.4	3.5	10.8
Not Stated	0.0	0.1	0.2	-	-
Total	100.0	100.0	100.0	100.0	100.0
<u>Materials of the Floors</u>					
Earth	98.2	56.5	42.3	66.0	91.8
Cement/Cement tiles	1.2	20.0	18.9	20.7	4.0
Stone/Brick	0.1	2.8	3.0	2.7	0.5
Plastic Tiles-Vinyl	-	2.4	3.7	1.6	0.4
Wood	0.1	14.5	29.7	4.4	2.3
Others	0.4	3.7	2.3	4.6	0.9
Not Stated	-	0.1	0.2	-	0.0
Total	100.0	100.0	100.0	100.0	100.0

Note: The figure in parenthesis refers to number (weighted) of cases.

against only 4.4 percent and 0.1 percent in 'other-urban areas' and rural areas respectively.

The pattern of distribution of the principal materials used in the construction of roof, wall and floor observed for the sample

housing units also corresponds to the pattern of the distribution of materials used in the construction of roof, wall and floor reported in the 1984 census, particularly for rural areas. However, some discrepancies are noted in the materials used in the construction of roof and floor of urban housing units reported in the sample and that of the census. According to the 1984 census, nearly 81 percent of roof and 64 percent of floor were made of corrugated iron sheet and earth/mud respectively. The corresponding figures for roof and floor reported in the sample were 93 and 57 percent respectively. Nearly 23 percent of urban housing units in the sample used cement/cement tile/stone/brick in the construction of floor. The corresponding figure in the 1984 census was only 17 percent. The finding of greater use of corrugated iron sheet and concrete/cement in the construction of roof and floor by urban housing units in the sample compared to those used by total urban housing units reported in the 1984 Census, indicates that the conditions of the housing units of the former are slightly better off than the latter.

The majority of the housing units in the sample are owner-occupied particularly in the rural areas. Over 98 percent of the housing units in rural areas in the sample are owner-occupied. The corresponding proportions in 'other urban areas' and Addis Ababa were 56.0 and 45 percent respectively. The majority (54 percent) of the housing units in Addis Ababa were rented. The tenurial status of the housing units in urban areas obtained in the survey almost corresponds to that was reported for urban housing units in

the 1984 census. According to 1984 census, nearly 47 percent of the urban housing units were rented. The corresponding proportion in the sample was 46 percent.

The average number of rooms per housing unit in the sample is found to be slightly lower than that was obtained in the 1984 census. The average number of rooms per housing unit in the sample is found to be 1.37, 2.45 and 1.54 in rural, urban and for the entire country respectively. The corresponding figures reported in the census were 2.1, 3.6 and 2.3 in that order.

3.4 Representativeness of the Sample Population

In this section of the chapter, an attempt is made to examine the degree to which the sample population represents the national population by comparing some of the FFS sample characteristics with those of the corresponding characteristics of national population reported in the 1984 Population and Housing census. The characteristics chosen for comparison include i) age; ii) sex-ratio, iii) education, iv) ethnicity and v) religion.

3.4.1. Age:

The five-year age distribution (in percentages) of the 1990 FFS sample population i.e., women in the reproductive ages, 15-49 years by major places of residence is compared with the age-distribution of the corresponding national

Table 3.9. Percentage of Women Aged 15-49 in the 1990 Family and Fertility Survey (FFS) and 1984 Census.

Age Group	Rural		Urban		Addis Ababa		Other Urban Areas		Total	
	FFS	Cen	FFS	Cen	FFS	Cen	FFS	Cen	FFS	Cen
15-19	20.0	18.0	28.8	26.5	27.0	28.0	30.0	25.5	21.3	19.2
20-24	16.5	16.1	16.4	16.3	19.4	17.3	14.4	15.6	16.5	16.2
25-29	16.6	17.7	14.8	15.3	14.9	15.3	14.8	15.3	16.3	17.3
30-34	16.9	15.9	13.8	15.1	13.4	16.1	14.0	14.5	16.4	15.8
35-39	13.6	13.6	13.4	13.2	12.8	12.2	13.8	13.8	13.6	13.5
40-44	9.5	11.3	7.4	7.8	7.1	6.4	7.7	8.7	9.2	10.8
45-49	6.9	7.4	5.4	5.8	5.4	4.7	5.3	6.6	6.7	7.2
Total	100	100	100	100	100	100	100	100	100	100

N.B. Cen = Census.

population reported in 1984 population census and the data are presented in Table 3.9. The result of the comparison at national level shows a close correspondence between the two age distributions in which the differences observed in any single age group doesn't exceed beyond two percentage points (in most cases, it is less than one percentage point) which could be attributed to mere chance factor. A similar closeness in the distribution of age reported in the sample and census also emerges even when the

comparison is made at each major place of residence. The largest difference observed was about 5 percentage points among adolescent women (15-19 years) in 'other urban areas'. The proportion of adolescent women (15-19 years) in 'other urban areas' is reported to be higher than that in the census. This is an exception rather than the rule, which could be also due to sampling variations. It appears that FFS, 1990 sample of women in the reproductive ages, is well represented according to major place of residence, at least in terms of age distribution.

3.4.2. Sex-ratio:

The overall sex-ratio based on the FFS, 1990 is found to be higher than that of the corresponding sex ratio derived from the 1984 census data (see Table 3.3). This overall finding also holds for every major place of residence. However, reverse is the situation in case of sex ratio at birth, which is found to be higher in the 1990 FFS than in the 1984 census. This overall finding also holds for rural areas but in urban areas the sex ratio at birth is found to be higher in the 1984 census than in the 1990 FFS. These differences in sex ratios obtained using survey and census data are, however, minimal, ranging between 2 to 3 percentage points in most cases, with the exception of the difference observed in Addis Ababa in case of overall sex ratio, which was about 7 percentage points (see Table 3.3).

3.4.3. Formal Education

The sample population seems to be more formally educated than the corresponding national population reported in the 1984 census. As shown below only 6.3 percent of the sample population had

Grades Completed	Percent	
	1990 FFS	1984 Census
1-6	6.3	11.3
7-8	3.2	1.4
9-12	4.3	2.1
University/ higher	0.3	0.4

had primary education compared to 11.3 percent of the corresponding national population in the 1984 census. The proportion of the sample population completed junior secondary (7-8 grade) and higher secondary (9-12 grade) education constituted 3.2 and 4.3 percent respectively. The corresponding proportions for the national female population in the reproductive ages, reported in the 1984 census, were 1.4 and 2.1 percent respectively.

3.4.4 Ethnic and religious composition

As was pointed out in the previous section of the chapter that the ethnic and religious composition of the sample population are different from those of the national population reported in the 1984 census. Amaras and Tigrawais were under-represented while Oromos and Gurages were over-reported in the 1990 FFS sample population compared to the national population reported in the 1984 census. According to 1984 population census, Oromos, Amaras, Tigrawais and Gurages constituted 29.06, 28.29, 9.74 and 4.36 percent respectively. These proportions in 1990 FFS were 39.0, 25.0, 1.2 and 7.1 in that order.

Similarly, Christians particularly Protestants were over-represented while Muslims were under represented in the sample population compared to the national population. Christians as a whole, Protestants and Muslims accounted for 60.5, 5.5 and 32.9 percent of the national population respectively in the census. The corresponding figures in the sample population are 66.3, 10.8 and 27.6 percent in that order.

It was also noted earlier that the sample housing units are relatively better off than the national housing units, reported in 1984 census, in terms of possession of consumer durables, particularly those of electronic items (see Table 3.7) and access to other amenities of life such as sanitary facilities and housing conditions (see Table 3.8).

From these comparisons, it appears that the characteristics of the 1990 sample population in most cases do not closely correspond to the characteristics of the national population reported in the 1984 census, with the exception of age distribution. Various reasons could be adduced to explain these small variations. Firstly, the differences observed between the FFS, 1990 and Census, 1984 may result from actual changes in characteristics of the population over the years. The Census was conducted in 1984 while the FFS was conducted six years later in 1990. During this period, one may expect some genuine changes, although very unlikely, in the characteristics of the population. Secondly, it may be due to sampling variations and random error in reporting. Thirdly, these differences particularly those on ethnic distribution, may also arise due to large[†] under-coverage of northern areas in the sample.

* See footnotes on page 68

CHAPTER IV
NUPTIALITY PATTERNS

4.1 Current Marital Status

In a society like in Ethiopia where most of the childbearing takes place within marriage and contraceptive prevalence is very low (see Chapter on Contraceptive Prevalence) it is necessary to study the pattern of marriage in order to understand the pattern and trends of fertility in the society. In the 1990 Family and Fertility Survey (FFS) detailed data were collected on marriage history, age at first marriage, polygyny and ideal age at first marriage for girls and boys.

In the survey data on marital status for all women in the age groups 15-49 years were obtained under six categories. That is, single (never married), currently married, 'living with a man', separated, divorced and widowed. Since the number of women in the category 'living with a man' at the time of the survey was found only in Addis Ababa and the number of cases were negligible (0.7 percent of Addis Ababa women in the age groups 15-49 years), hence this category was combined with those women who were "currently married".

Tables 4.1 - 4.5 present percentage distribution of women by marital status for the country, rural, urban, Addis Ababa and other urban areas. The data revealed that marriage is universal in

Ethiopia and begins at early age. As has been observed in the 1984 Population and Housing Census nearly ninety (89.1) percent of the population 10 years and above were married by the age of 25-29 years (CSA, 1991). At the ages of 40 years and above only negligible proportion of persons remained as never married. The FFS result confirms the above finding. That is, the FFS survey data also indicate universal marriage pattern particularly in rural areas of Ethiopia. In the country, above eighty percent (82.4%) of the women in the age group 15-49 years have entered into marital union. Only 17.6 percent of the women have never entered into marital union (Table 4.1). The proportion never married was even lower in rural areas (14.2 percent). However, in the case of urban

Table 4.1 Percentage Distribution of Never Married Women by Current Age and Place of Residence, 1990 FFS

Age Group	Rural	Urban	Addis Ababa	Other Urban	Total
15-19	59.4	90.2	96.3	86.5	65.8
20-24	12.2	49.6	65.7	35.7	17.7
25-29	3.2	15.1	27.1	7.5	4.8
30-34	0.2	3.2	5.6	1.6	0.6
35-39	0.2	0.8	1.1	0.6	0.3
40-44	0.5	0.4	1.0	-	0.5
45-49	0.4	0.4	1.0	-	0.4
Total %	14.2	36.2	43.0	31.8	17.6
Number	719,078	328,167	154,924	173,243	1,047,246

area the proportion never married was relatively higher compared to that in the rural areas. In Addis Ababa, nearly half (43.0 percent) of the women in the age groups 15-49 years were never married. The proportion never married were 36.2 and 31.8 percent in all urban and other urban areas respectively.

An examination of the marital status distribution by current age of the women shows some variations (see Table 4.1). The proportion of women who never married decreases substantially with increasing age, from 65.8 percent for women in the age group 15-19 to only less than one percent for those in the ages of 30 years and above. The proportion never married was higher for urban areas (3.6 %) compared to rural areas (14.2%) and a similar pattern of marital status distribution by age was found for women in both rural and urban areas. That is, the proportion of women never married substantially decreases with increase in age. At the age group 45-49 almost all women were married, that is, 99 percent of women in rural, urban and Addis Ababa and one hundred percent of women in other urban areas were married.

Data in Table 4.2 reveal percentage distribution of currently married women by age group and place of residence. The table indicates that almost 72 percent of the women 15-49 years were currently married. The proportion currently married was 76.4 percent in rural areas, 46.0 percent in urban areas and was almost 50 percent in other urban areas and about 41 percent in Addis Ababa. The proportion currently married women increase with age

upto the age group 30-34 or 35-39 and the proportion declines with increasing age group.

Table 4.2 Percentage Distribution of Currently Married Women by Current Age and Place of Residence, 1990 FFS

Age Group	Rural	Urban	Addis Ababa	Other Urban	Total
15-19	35.8	5.3	2.1	7.2	29.5
20-24	79.7	36.8	22.7	48.9	73.4
25-29	89.9	68.7	57.2	75.9	86.9
30-34	91.2	73.9	72.9	74.6	89.0
35-39	89.4	96.8	69.4	70.1	86.4
40-44	82.6	68.3	67.9	68.6	80.8
45-49	79.5	57.7	56.0	58.8	76.8
Total	% 76.4	46.0	40.6	49.5	71.8
	Number 3,859,027	415,812	146,358	2,694,454	4,274,838

The percentage distribution of separated, divorced and widowed women by age group are presented in Tables 4.3, 4.4 and 4.5, respectively. At the time of the survey 1.4, 5.6, and 3.6 percent of women in the age groups 15-49 were separated, divorced and widowed, respectively. In urban areas the proportion of women who were divorced and separated were about twice as that of the rural areas (see Tables 4.3 and 4.4). Among urban women, the proportion divorced was relatively lower for Addis Ababa (9.2%) compared to those in 'other urban areas' (12.4%). The percentage of widowed

Table 4.3 Percentage Distribution of Separated Women by Current Age and Place of Residence, 1990 FFS

Age Group	Rural	Urban	Addis Ababa	Other Urban	Total
15-19	1.0	0.7	0.5	0.8	1.0
20-24	2.1	1.7	2.5	1.0	2.0
25-29	1.4	2.8	2.4	3.0	1.6
30-34	0.9	2.5	2.9	2.2	1.1
35-39	0.8	4.0	5.4	3.1	1.3
40-44	1.5	3.3	5.7	1.8	1.7
45-49	1.4	4.4	4.3	4.5	1.8
Total %	1.3	2.3	2.7	2.0	1.4
Number	64,748	20,596	9,834	10,763	85,344

was also relatively higher among urban women (4.4) than rural women (3.4%) (see Table 4.5). This finding is contrary to one's expectation. One may expect higher proportion of widowed women in rural areas than urban areas because of higher level of mortality in rural areas (CSA, 1991). However, this could be due to higher chances of remarriage for women in rural areas. This situation could also be attributed to influx of widowed women from rural to urban areas in search of job opportunities.

Table 4.4 Percentage Distribution of Divorced Women by Current Age and Place of Residence, 1990 FFS

Age Group	Rural	Urban	Addis Ababa	Other Urban	Total
15-19	3.4	3.7	1.1	5.3	3.4
20-24	5.5	11.3	9.0	13.2	6.3
25-29	4.0	12.2	11.5	12.6	5.2
30-34	3.9	16.5	13.8	18.2	5.5
35-39	4.7	15.8	14.6	16.5	6.4
40-44	7.8	15.7	14.2	16.6	8.8
45-49	5.2	13.8	10.8	15.8	6.3
Total %	4.7	11.1	9.2	12.4	5.6
Number	235,260	100,600	33,027	67,573	335,861

Table 4.5 Percentage Distribution of Widowed Women by Current Age and Place of Residence, 1990 FFS

Age Group	Rural	Urban	Addis Ababa	Other Urban	Total
15-19	0.4	0.2	-	0.2	0.4
20-24	0.5	0.6	-	1.1	0.5
25-29	1.5	1.2	1.7	2.9	1.5
30-34	3.7	3.9	4.8	3.3	3.7
35-39	4.9	9.6	9.5	9.7	5.6
40-44	7.5	12.3	11.3	12.9	8.1
45-49	13.4	23.7	78.0	20.9	14.7
Total %	3.4	4.4	4.6	4.3	3.6
Number	171,391	40,159	16,523	23,636	211,550

4.2. Age At First Marriage

All ever married women were asked the month and year of first marriage and subsequent marriages if there were any. If they could not remember the year, they were asked how old they were when the marriage took place or how many years ago did the marriage took place.

The percentage distribution of ever married women in the reproductive age groups 15-49 years by age at first marriage and place of residence are presented in Table 4.6. The data reveal

Table 4.6 Percentage Distribution of Ever Married Women According to Age at First Marriage and Place of Residence, 1990 FFS

Age at First Marriage	Place of Residence				Total
	Rural	Urban	Addis Ababa	Other Urban	
Under 15	33.6	38.5	33.5	41.2	34.1
15-17	42.2	35.4	31.4	37.6	41.4
18-19	11.6	11.2	12.8	10.4	11.6
20-21	6.4	6.6	8.8	5.3	6.4
22-24	3.6	4.2	6.6	2.8	3.7
25-29	1.7	2.5	3.1	2.2	1.8
30+	0.2	0.3	0.8	-	0.2
Not Stated	0.7	1.3	2.9	0.5	0.8
Total %	100.0	100.0	100.0	100.0	100.0
Number	4,330,425	577,167	205,741	371,426	4,907,592

that over one-third of the women married before the age of 15 years and 41.1 percent of women entered into marital union between ages 15-17 years. Furthermore, the data showed that three-quarter of the ever married women entered into first union before reaching age 18 years. About 12 percent (11.6%) entered into marriage between ages 18-19 years while 12.1 percent married at age 20 or older. The pattern of age at first marriage is observed to be the same in both rural and urban areas. That is, most of the first marriages took place before the women attained 18 years of age. Over one-third of ever married women in both rural and urban areas were married before the age of 15 years. The proportion of women who entered into marital union before the age of 18 years was relatively lower in Addis Ababa (64.9%) while this was higher in other urban areas (78.8%).

According to the data in Table 4.7 the mean age at first marriage was 15.6 years for the country as well as for rural and urban areas. It was slightly higher for Addis Ababa (16.2 years). An examination of the mean age at first marriage by calendar year indicates that age at first marriage was increasing overtime. Those women who married in 1976 and after entered into marital union at a relatively higher age than those married earlier. This increase is evident in both rural and urban areas although more pronounced in the latter than in the former. The average increase in age at marriage observed for those women who married before the year 1966, and for those who married in 1976 and after was about two years in urban areas and five years in rural areas.

Table 4.7 Mean Age at First Marriage by Year of Marriage
and Place of Residence, 1990 FFS

Year of Marriage	Place of Residence				Total
	Rural	Urban	Addis Ababa	Other Urban	
Before 1966	15.1	14.2	14.4	14.2	14.9
1966-1970	15.5	15.8	16.8	15.3	15.5
1971-1975	15.7	16.3	17.5	15.7	15.8
1976 +	16.9	19.1	20.6	18.3	17.1
Total	15.6	15.6	16.2	15.3	15.6

The median age at first marriage of ever married women aged 20-49 years is examined by inter-relating it with some background variables (see Table 4.8). Among the background variables examined the level of education seems to be highly correlated with age at first marriage. the higher the level of education the higher the median age at first marriage. Those women who attained university or higher level of education marry at much higher age (19 years) than those women who have had no education (15 years). Further examination of the data also reveals that among the major ethnic groups covered in the survey the Amara and the Sidama women had lowest median age at first marriage (14 years) while the Hadiya and the Kembata women had the highest (17 years). The data also showed the existence of little variation in median age at first marriage by rural-urban residence, religious groups, childhood place of residence, migration status and pattern of work.

Table 4.8 Median Age at First Marriage of Ever Married Women Aged 20-49 years by some Background Variables, 1990 FFS

Background Variables	Median Age	Background Variables	Median Age
<u>Urban-Rural</u>			
Urban	16	<u>Religion</u>	
Rural	15	Christians	
		Orthodox	15
		Protestant	15
		Catholic	16
		Other Christian	15
		Muslim	16
		Traditional Religion	15
		Other Religion	15
<u>Educational attainment</u>			
Illiterate	15	<u>Childhood Place of Residence</u>	
Non-formal	15	Non-migrants	15
Primary	16	Rural Areas	15
Junior Secondary	17	Small Urban	16
Senior Secondary	18	Large Urban	16
University/Higher	19		
<u>Ethnic Group</u>			
Oromo	16	<u>Migration Status</u>	
Amara	14	Non-Migrants	15
Gurage	16	Within Same Awraja	15
Sidama	14	Within Same Region	15
Hadiya	17	Outside region	15
Welayita	15		
Kembata	17	<u>Pattern of work</u>	
Gedeo	15	After marriage	15
		Before marriage	15
		Before and After	16
		Never worked	15

4.3 Ideal Age At First Marriage

In the FFS, all women were asked 'what is the ideal age at first marriage for boys and girls?'. For the country as a whole the age at first marriage considered to be ideal was 16.1 years for

girls and 21.2 years for boys. The ideal age at first marriage suggested by urban women was higher than that suggested by their rural counterparts and this holds for both the boys and the girls (Table 4.9). For urban women the ideal age at first marriage was 24.0 years for boys and 18.7 years for girls. The corresponding age to a rural women was 20.7 years for boys and 15.7 years for girls.

The ideal age at first marriage is examined by some background variables of the respondents. There shows a positive relationship between suggested ideal mean age at first marriage and the level of education. In other words, the higher the level of education the higher the suggested mean age at first marriage. The mean age at first marriage considered to be ideal for boys increases from 20.7 years among women with no education to 22.4, 23.9, 26.2 and 30.5 years among women with primary, junior secondary, senior secondary and university/higher level of education, respectively. Similarly the age at first marriage considered ideal for girls increases from 15.7 years among illiterate women to 17.0, 18.6, 20.5 and 22.8 years among women with primary, junior secondary, senior secondary and university/higher level of education respectively. This finding indicates that given higher education to women will foster support for late age at marriage.

The examination of ideal age at first marriage by eight major ethnic groups covered in the survey shows little variation. The highest age at first marriage for both the boys (23.0 years) and the girls (17.6 years) was reported by Kembata women while this was

Table 4.9 Mean Ideal Age at First Marriage for Girls and Boys by Background Variables and Place of Residence, 1990 FFS

Background Variables	Mean Ideal Age at First Marriage									
	Rural		Urban		Addis Ababa		Other Urban		Total	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
<u>Current Age</u>										
<20	16.1	20.6	18.7	24.0	20.9	26.4	17.4	22.6	16.7	21.3
20-24	15.6	20.4	18.8	24.9	21.0	27.4	16.9	22.7	16.0	21.1
25-29	15.6	20.7	18.0	24.6	20.1	27.1	16.7	23.0	15.9	21.2
30-34	15.6	20.9	17.6	23.7	19.4	26.5	16.4	21.9	15.8	21.3
35-39	15.7	20.7	17.3	23.3	19.4	25.3	15.9	21.9	15.9	21.1
40-44	15.8	21.0	17.3	23.7	18.5	25.4	16.5	22.5	16.0	21.3
45-49	16.0	20.9	16.8	23.3	18.5	25.4	15.6	21.9	16.1	21.2
<u>Educational Attainment</u>										
Illiterate	15.6	20.6	16.3	22.1	17.9	24.1	15.6	21.3	15.7	20.7
Literacy Prog.	16.0	21.7	17.0	23.1	18.9	25.7	15.9	21.7	16.2	22.1
Other Non-Formal	-	-	16.4	22.8	16.9	25.5	16.0	20.4	16.4	22.8
Primary	16.5	21.3	17.5	23.6	19.1	25.5	16.5	22.4	17.0	22.4
Junior Secondary	17.7	22.1	19.2	25.1	21.0	27.1	18.0	23.8	18.6	23.9
Senior Secondary	18.9	23.3	20.8	26.9	22.0	28.3	19.3	24.9	20.5	26.2
University/Higher	22.4	32.6	22.9	30.1	23.3	30.6	19.4	25.0	22.8	30.5
<u>Ethnic Group</u>										
Oromo	16.3	21.0	17.7	23.3	20.0	25.8	16.4	21.9	16.4	21.2
Amara	14.0	19.1	18.4	24.4	20.3	26.8	16.9	22.7	15.4	20.8
Gurage	16.7	22.3	18.3	24.3	19.7	25.5	17.2	23.4	17.0	22.7
Sidama	14.9	20.0	16.5	22.0	-	-	16.5	22.0	14.9	20.0
Hadiya	16.9	22.5	17.0	20.0	-	-	17.0	20.0	16.9	22.5
Welaiyita	15.4	20.4	16.7	22.7	20.3	25.5	16.4	22.5	15.5	20.6
Kembata	17.5	22.9	18.6	24.1	18.9	25.3	18.3	23.4	17.6	23.0
Gedeo	15.8	20.1	18.0	25.0	-	-	18.0	25.0	15.8	20.1
<u>Religion</u>										
Ortodox Christian	15.3	20.3	18.2	24.3	20.0	26.4	16.8	22.7	16.0	21.2
Protestant	16.5	21.6	19.4	25.2	21.1	27.7	17.4	22.4	16.7	21.8
Catholic	16.4	22.2	18.8	24.8	20.9	26.6	17.6	23.8	16.7	22.5
Other Christian	16.3	21.0	19.2	25.4	24.3	31.1	17.5	23.6	16.6	21.4
Muslim	16.0	21.0	16.7	22.1	19.3	25.4	16.1	21.3	16.1	21.1
Traditional religion	15.9	21.1	15.0	18.0	-	-	15.0	18.0	15.9	21.1
Atheist	16.1	21.2	19.8	25.6	19.8	25.6	-	-	16.2	21.3
Other religion	15.4	19.9	20.3	26.5	25.2	30.2	16.0	23.3	15.5	20.0

Table 4.9 (Contd.)

Mean Ideal Age At First Marriage										
Background Variables	Rural		Urban		Addis Ababa		Other Urban		Total	
	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys
<u>Childhood Place of Residence</u>										
Non-migrants	15.8	20.6	19.1	25.1	21.4	27.7	17.3	22.9	16.2	21.1
Rural Areas	15.6	20.8	-	-	18.3	24.6	15.7	21.4	15.8	21.0
Small Urban	16.7	22.4	17.6	23.5	19.1	25.8	17.0	22.6	17.2	23.1
Large Urban	18.0	24.0	19.0	25.4	20.8	27.3	17.8	24.2	18.8	25.1
<u>Work Status</u>										
Never Worked	16.1	21.1	18.4	24.1	20.1	26.2	17.1	22.6	16.6	21.7
Working in the Past	15.3	20.5	17.9	24.3	19.5	26.1	16.3	22.6	15.8	21.3
Currently working	15.6	20.6	17.7	23.8	20.3	26.8	16.4	22.3	15.8	20.9
<u>Marital Status</u>										
Never Married	17.1	21.7	19.6	25.2	21.4	27.3	18.0	23.3	17.9	22.8
Currently Married	15.5	20.6	17.3	23.5	19.3	26.0	16.2	22.2	15.7	20.9
Living with a Man	15.5	19.3	17.9	22.9	19.2	25.4	16.8	20.9	16.6	20.9
Widowed	15.2	19.8	17.1	23.2	17.9	24.3	16.5	22.4	15.6	20.5
Divorced	15.3	20.4	16.9	22.7	18.8	25.4	15.8	21.3	15.7	21.1
Separated	15.9	20.7	17.2	23.7	18.9	26.0	15.6	21.6	16.2	21.4
Total	15.7	20.7	18.1	24.0	20.1	26.4	16.7	22.4	16.1	21.2

reported to be lowest by Sidama women, that is, 14.9 years for the girls and 20.0 years for the boys.

As the data indicate almost all women from different religious groups reported similar ideal age at first marriage, about 16 years for girls and 21 years for boys.

Childhood place of residence has been considered as one of the characteristics which could bring variation in ideal age at first

marriage. According to the data those women whose childhood place of residence was in rural areas support early marriage whereas those women brought up in urban areas, particularly in large urban areas, favor relatively late marriage.

Ideal age at first marriage was also investigated based on current age, marital status and work status of women. However, on the basis of these variables, the data showed no substantial variations in the ideal age at first marriage.

4.4 Polygny

Women who were either currently married or living with a man were asked whether their husbands/partners had other wives. The analysis of the data indicates that 14.3 percent of these women are in polygynous unions (see Table 4.10). A further examination of the data also revealed that the percentage of women who are in polygynous unions increases with age, that is, from 4.6 percent for those women in the age group 15-19 to 20.7 percent for those in the age group 40-44 and a slight decline to those in the age group 45-49 (17.8%). The above finding may indicate that the practice of polygynous marriage is declining. On the other hand, the data may also simply indicate that the women at older ages are more likely to be in polygynous union, that is, when the women get older their husbands are more likely to marry a second wife. As might be expected the prevalence of polygynous union is substantially higher in rural areas (15.2%) than in urban areas (6.8%). Except in the

Table 4.10 Percentage of Currently Married Women Who are in Polygynous Union by Current Age and Place of Residence.

1990 FFS

Current Age	Rural	Urban Ababa	Addis Urban	Other	Total
Under 20	4.6	3.2	-	3.7	4.6
20-24	9.9	5.2	3.2	6.0	9.5
25-29	14.2	3.6	0.9	4.9	13.0
30-34	17.8	7.1	6.6	7.2	16.7
35-39	18.8	8.1	3.8	10.7	17.5
40-44	22.0	10.5	5.0	14.0	20.7
45-49	18.4	11.8	4.8	16.2	17.8
Total	15.2	6.8	4.0	8.4	14.3
Currently Married Women	3,859,027	415,811	143,824	269,454	4,274,838

age groups 20-24 in urban areas and 45-49 in rural areas, the percentage of women in polygynous union is observed to increase with age in both rural and urban areas. In Addis Ababa, the percentage of women in polygynous union is relatively very low, that is, 4.0 percent.

The distribution of women in polygynous union was also examined by background variables (see Table 4.11). According to the data, polygynous union was most common among the illiterate

women and least common among women who attained higher level of education. About 15 percent of the illiterate women practice polygyny while only 0.6 percent of women who attained senior secondary school level of education entered in such union. None of the women with university or higher level of education are in polygynous union. One may conclude from this finding that women with higher level of education are less likely to be in polygynous union. It is evident from the data in Table 4.11 that polygyny is most common among women whose husbands are sales worker (16.3 %) and least common among those women whose husbands are engaged in administrative and managerial work (2.3%). The data in the table also present the prevalence of polygyny by ethnic and religious groups. Among the women covered in the survey, only eight major ethnic groups are presented here. Polygyny seems to be more common among the Sidama (27.5%) followed by the Kembata (25.8%), Gedeo (24.5%) and the Welaiyta (23.8%) women. It is found to be least common among the Amara women (1.8 %). From the data one can further observe that 15.8, 16.5 and 18.5 percent of the Oromo, Gurage and Hadiva women are in polygynous union, respectively. An examination of polygynous union by different religious groups reveals that polygyny was highest among women who follow traditional religion (32.0%) and lowest among Orthodox women (8.9%). Among Muslim women the prevalence of polygynous union was 19.0 percent. The data indicate that about 16 percent of Catholic and Protestant women were in polygynous marriage. This might be due to the limited number of cases involved among these two religious groups. If the women in Wello, Gondar and Tigray regions

had been covered in the survey, the percentage of women in polygynous union among the Amara and followers of the Orthodox Christians would have been lower than what was indicated in the results of this survey.

Table 4.11 Percentage of Currently Married Women who are in Polygynous Union by Background Variables. 1990 FFS

Background Variables	Percent	Background Variables	Percent
<u>Place of Residence</u>		<u>Occupation of Husband</u>	
Total	14.3	Never worked	5.9
Rural	15.2	Professional and Technical	9.0
Urban	6.8	Administrative and Managerial	-
Addis Ababa	4.0	Clerical & Related	6.7
Other Urban	8.4	Sales worker	16.2
<u>Educational Attainment of women</u>		Social Service	2.5
Illiterate	15.2	Agricultural and Related	15.6
Literacy program	6.1	Production and Transport	6.5
Primary	4.7	<u>Ethnic Group</u>	
Junior		Oromo	15.8
Secondary	2.4	Amara	1.8
Senior		Gurage	16.5
Secondary	0.6	Sidama	27.4
University/		Hadiy	18.5
Higher	-	Welaiyta	23.8
<u>Educational Attainment of Husband</u>		Kembata	25.8
Illiterate	16.2	Gedeo	24.5
Literacy Program	9.9	<u>Religion</u>	
Other Non-formal	9.8	Orthodox	8.9
Primary	15.1	Protestant	16.6
Junior	6.7	Catholic	16.0
Senior		Other-Christians	18.7
Secondary	4.3	Muslim	19.0
University/		Traditional religion	32.0
Higher	-	Other Religion	24.8

4.5 Marriage Stability

This section examines the stability of first marriage by place of residence and some background variables. In a society marriage dissolution occurs due to divorce or death of a spouse. According to the data given in Table 4.12 about two-third (61.3%) of the first marriage of women aged 15-49 years was intact, that is, still they are with their first husband. While about one-third of the first marriage dissolved due to divorce and separation and 7.5 percent due to death of a spouse. An examination of the data by age at first marriage of the women reveals that the dissolution of first marriages due to divorce and separation were higher for those who got married at younger ages, that is, under age of 15 years and 15-17 years. Among women who got married before the age of 15 years and between 15-17 years, about 47 and 25 percent of their

Table 4.12 Percentage Distribution of Ever Married Women by Status of First Marriage, 1990 FFS

Age at first Marriage	Status of First Marriage				Total
	Intact	Spouse died	Separated/ Divorced	Not Stated	
<15	45.8	7.0	47.3	-	100.0
15-17	66.2	8.4	25.3	0.0	100.0
18-19	74.1	7.1	18.7	0.1	100.0
20-21	76.7	5.2	18.1	0.1	100.0
22-24	78.3	7.0	14.6	-	100.0
25-29	73.8	7.9	17.5	0.7	100.0
30+	64.9	10.0	25.0	-	100.0
Total	% 61.3	7.5	31.1	0.0	100.0
Number	3,008,390	369,449	1,367,968	2,358	4,907,592