

**CENSUS OF POPULATION,  
HOUSING AND AGRICULTURE  
1990**

**VOLUME 4**

**SOUTHERN PROVINCE  
ANALYTICAL REPORT**

CENTRAL STATISTICAL OFFICE  
P. O. BOX 31908,  
LUSAKA, ZAMBIA.

9TH AUGUST, 1995



# P R E F A C E

The Census of Population, Housing and Agriculture was conducted from 20th August to 5th September, 1990. However, an allowance of one week was allowed to cover very remote rural areas. This was the third Census since independence in 1964. The other two were carried out in 1969 and 1980. Census operations were undertaken with the use of grade 12 pupils (In some cases, Grade 11 or lower grade pupils were used) as enumerators, secondary and primary school teachers as supervisors while professional and technical staff of the Central Statistical Office undertook various technical and professional tasks.

This publication is one of the 10 in the series of analytical reports produced by the Central Statistical Office (CSO). The report contains data on Population and Housing for Southern Province, while data on Agriculture is contained in separate reports.

The various census stages i.e. preparations, data collection, processing, verification, analysis and production of this report was carried out by mainly CSO local personnel. For the first time in the history of Census taking in Zambia, the 1990 Census of Population, Housing and Agriculture was processed using micro-computers.

A Census of Population is usually a massive and costly exercise involving nearly everybody in the country in one way or another. In this regard, I wish to thank the people of Zambia for cooperating in providing the valuable information asked of them. In a similar vein, thanks to the four thousand primary and secondary school teachers who supervised the enumerators during the data collection stage. My thanks are also extended to the sixteen thousand senior secondary school pupils who took leave from their studies to be census enumerators.

My sincere thanks go to donor agencies, namely UNFPA, USAID, NORAD, UNDP and the World Bank for providing financial, material and technical assistance which enabled the CSO carry out the Census.

I extend my gratitude to the Government of Zambia for funding the Census as well as providing the mandate to conduct the Census appropriately in 1990.

Thanks to all those CSO professional and technical staff who bore the blunt of carrying out all the census activities from start to finish. Special mention should be made of personnel in the Population and Demography Division of CSO who provided guidance and plans for implementing the stages of Census operations, especially for writing up this report.

Finally many thanks to all those who contributed directly or indirectly, but not mentioned above, to the success of the Census and in the production of this report.

The statistical data obtained from 1990 Census is massive and rich allowing for extensive use and applications. As such what is contained in the report is not the whole but only a very small portion. I urge all users of the Census data to feel free and request CSO for any data not found in this publication but was collected in the Census.

**David S. Diangamo**  
**DIRECTOR OF CENSUS & STATISTICS**

Lusaka, ZAMBIA  
August 10th, 1995.

# CONTENTS

PREFACE .....	(i)
CONTENTS .....	(ii)
LIST OF TABLES .....	(v)
LIST OF FIGURES .....	(xi)
EXECUTIVE SUMMARY .....	(xiii)
MAP OF ZAMBIA .....	(xv)

## CHAPTER 1: BACKGROUND

1.1	Geography .....	1
1.2	People .....	1
1.3	Economy .....	2
1.4	Education .....	4
1.5	Health .....	5

## CHAPTER 2: EVALUATION OF COVERAGE AND CONTENT ERRORS

2.1	Introduction .....	7
2.2	Definition of Concepts .....	7
2.3	Methods of Evaluation .....	8
2.4	Summary .....	19

## CHAPTER 3: POPULATION SIZE, GROWTH AND COMPOSITION

3.1	Introduction .....	20
3.2	Population Size and Growth .....	20
3.3	Population Composition .....	22
3.4	Summary .....	28

## CHAPTER 4: LANGUAGE OF COMMUNICATION

4.1	Introduction .....	29
4.2	Predominant Language of Communication .....	29
4.3	Predominant Language Group .....	30
4.4	Second Language of Communication .....	32
4.5	Summary .....	34



## CHAPTER 5: EDUCATIONAL CHARACTERISTICS

5.1	Introduction	35
5.2	Concepts and Definitions	35
5.3	Literacy Status	36
5.4	School Attendance	40
5.5	Previously Attended School Population	47
5.6	Highest Level of Education Completed	51
5.7	Selected Fields of Study	53
5.8	Summary	55

## CHAPTER 6: ECONOMIC CHARACTERISTICS

6.1	Introduction	57
6.2	Working-Age Population	57
6.3	Economically Active Population	58
6.4	Economically Inactive Population	61
6.5	Labour Force Participation Rates	63
6.6	Employment Status	65
6.7	Working Population by Occupation	67
6.8	Working Population by Industry	68
6.9	Unemployment	71
6.10	Summary	75

## CHAPTER 7: CHILDREN, YOUTH AND WOMEN

7.1	Introduction	77
7.2	Population Change, Composition and Distribution of Children and Youth	77
7.3	Social and Economic Characteristics of Children and Youth	80
7.4	Social and Economic Characteristics of Women	84
7.5	Summary	87

## CHAPTER 8: NUPTIALITY AND FERTILITY

8.1	Introduction	89
8.2	Concepts and Definitions	89
8.3	Nuptiality	90
8.4	Fertility	94
8.5	Fertility Differentials	99
8.6	Summary	100

## CHAPTER 9: MORTALITY

9.1	Introduction	101
9.2	Definitions and Concepts	101
9.3	Crude Death Rate (CDR)	102
9.4	Period Measures	102
9.5	Mortality by Selected Background Characteristics	105
9.6	Mortality Trends	110
9.7	Adult Mortality	114
9.8	Summary	117

## **CHAPTER 10: DISABILITY**

10.1	Introduction . . . . .	118
10.2	Concepts and Definitions . . . . .	118
10.3	Distribution of Disabled Persons . . . . .	119
10.4	Characteristics of Disabled Persons . . . . .	120
10.5	Summary . . . . .	124

## **CHAPTER 11: HOUSEHOLDS AND HOUSING CHARACTERISTICS**

11.1	Introduction . . . . .	125
11.2	Concepts and Definitions . . . . .	125
11.3	Housing Characteristics . . . . .	125
11.4	Ownership Status of Housing Units . . . . .	136
11.5	Household Size and Composition . . . . .	138
11.6	Summary . . . . .	144

REFERENCES . . . . .	146
----------------------	-----

APPENDIX I: PERSONS INVOLVED IN THE ANALYSIS . . . . .	150
--	-----

APPENDIX II: 1990 CENSUS QUESTIONNAIRE . . . . .	151
--	-----

# LIST OF TABLES

## CHAPTER 1: BACKGROUND

Table 1.1	Population, Area, Density, Percent Distribution and Annual Growth Rate by District, 1969, 1980 and 1990	1
Table 1.2	Major Crops Grown, Southern Province, 1988-90	3
Table 1.3	Livestock Population by Sector, Southern Province, 1980-1989	3
Table 1.4	Schools, Teachers and Enrolment, Southern Province 1980 - 1986	5
Table 1.5	Enrolment Ratios of Primary Schools, Southern Province, 1980-1987	5
Table 1.6	Number of Health Institutions, Beds and Cots by Type of Health Institution, District and year, Southern Province, 1986, 1988 and 1990	6
Table 1.7	Immunisations of Children Below 1 Year, Southern Province, 1985-1988	6

## CHAPTER 2: EVALUATION OF COVERAGE AND CONTENT ERRORS

Table 2.1	Population Distribution by Broad Age Groups, Southern Province, 1980 and 1990	8
Table 2.2	Dependency Ratios and Child-Woman Ratio for Southern Province, 1980 and 1990	9
Table 2.3	Myers' Index for Digit Preference in Age Data, Southern Province, 1980 and 1990	10
Table 2.4	Summary of Myers' Indices for Digit Preference in Age Data by Rural/Urban, Southern Province, 1980 and 1990	11
Table 2.5	Most Preferred Digits, Southern Province, 1980 and 1990	11
Table 2.6	Overall Sex Ratios for Southern Province, 1980 and 1990	14
Table 2.7	Population by Five Year Age Group, Sex, Age Ratio and the Age-Sex Accuracy Index, Southern Province, 1980	15
Table 2.8	Population by Five Year Age Group, Sex, Age and the Age-Sex Accuracy Index, Southern Province, 1990	16
Table 2.9	Cohort Survival Ratios by Sex, Southern Province, 1980-1990	17
Table 2.10	Overall Survival Ratios by Sex, Southern Province, 1980 - 1990	18

## CHAPTER 3: POPULATION SIZE, GROWTH AND COMPOSITION

Table 3.1	Population Size by Sex, Residence and District, Southern Province, 1990	20
Table 3.2	Population Size and Growth Rates, Southern Province, 1969, 1980 and 1990	21
Table 3.3	Area and Population Density by District and Population Census Year, Southern Province, 1969, 1980 and 1990	22
Table 3.4	Age-Distribution of Population by Rural, Urban and Districts, (Percent), Southern Province, 1990	24
Table 3.5	Ethnic Composition of the Population of Southern Province, 1990	24
Table 3.6	Foreign Population (1990) of Southern Province by Citizenship, Percentage of Foreign Citizens, 1980	25
Table 3.7	Crude Activity Ratio, Southern Province, 1990	25
Table 3.8	Age-Sex Specific Activity Ratio (ASSAR), Southern Province, 1990	26



## CHAPTER 4: LANGUAGE OF COMMUNICATION

Table 4.1	Predominant Language of Communication by District, (Percent), Southern Province, 1990 . . . . .	30
Table 4.2	Predominant Language Groups by Sex and Rural/Urban, (Percent), Southern Province, 1990 . . . . .	31
Table 4.3	Predominant Language Groups by Year, (Percent), Southern Province, 1980 and 1990 . . . . .	31
Table 4.4	Second Language of Communication by District, (Percent), Southern Province, 1990 . . . . .	32
Table 4.5	Second Language Groups by Sex and Rural/Urban, (Percent), Southern Province, 1990 . . . . .	33
Table 4.6	Second Language Groups, (Percent), Southern Province, 1980 and 1990 . . . . .	33
Table 4.7	Rank Order of Predominant and Second Language of Communication by District, Southern Province, 1990 . . . . .	34

## CHAPTER 5: EDUCATIONAL CHARACTERISTICS

Table 5.1	Literate Population by Age Group, Sex and Residence, (Percent), Southern Province, 1990 . . . . .	37
Table 5.2	Population Presently Attending School by Sex, Age and Residence, (Percent), Southern Province, 1990 . . . . .	41
Table 5.3	Population Presently Attending School by Sex, Age and Residence, (Percent), Southern Province, 1980 . . . . .	42
Table 5.4	Presently Attending School Population (5 Years and Older) by Age, Sex, Level of Education Completed and Residence, (Percent) Southern Province, 1990 . . . . .	44
Table 5.5	Presently Attending School Population (5 Years and Older) by Age, Sex, Level of Education Completed and Residence, (Percent), Southern Province, 1980 . . . . .	46
Table 5.6	Previously Attended School Population by Sex, Age and Residence, Southern Province, 1990 . . . . .	48
Table 5.7	Previously Attended School Population by Sex, Age and Residence, Southern Province, 1980 . . . . .	50
Table 5.8	Population (15 Years and Older) by Highest Level of Education Completed, Sex and Age Group, (Percent), Southern Province, 1990 . . . . .	51
Table 5.9	Population (15 Years and Older) by Highest Level of Education Completed, Sex and Age Group, (Percent), Southern Province, 1980 . . . . .	53
Table 5.10	Selected Fields of Study by Level of Education Completed, (Percent), Southern Province, 1990 . . . . .	54
Table 5.11	Certificates and Diplomas by Level of Education, Sex and Rural/Urban, (Percent), Southern Province, 1990 . . . . .	55

## CHAPTER 6: ECONOMIC CHARACTERISTICS

Table 6.1	Population 12 Years and Over by Broad Age Groups, Residence and Sex, (Percent), Southern Province, 1980 and 1990 . . . . .	58
Table 6.2	Currently Economically Active Population 12 Years and Over by Residence and Sex, Southern Province, 1980 and 1990 . . . . .	59
Table 6.3	Currently Economically Active Population 12 Years and Over by Age and Sex, Southern Province, 1990 . . . . .	61
Table 6.4	Currently Economically Inactive Population by Reason for Inactivity, Residence and Sex, Southern Province, 1990 . . . . .	62

Table 6.5	Current Economically inactive Population by Reason for Inactivity, Residence, Southern Province, 1990	63
Table 6.6	Current Labour Force Participation Rates by Age, Sex and Residence, Southern Province, 1980 and 1990	64
Table 6.7	Usually Working Population 12 Years and Over by Employment Status, Sex and Residence, Southern Province, 1980 and 1990	66
Table 6.8	Usually Working Population by Occupation, Sex and Residence, Southern Province, 1980 and 1990	68
Table 6.9	Usually Working Population 12 Years and Over by Employment Status and Industry, Southern Province, 1980 and 1990	69
Table 6.10	Usually Working Population 12 Years and Over by Industry and Employment Status, Southern Province, 1980 and 1990	71
Table 6.11	Current Unemployment Rates by Sex and Residence, Southern Province, 1980 and 1990	72
Table 6.12	Current Unemployment Rates by Age, Sex and Residence, Southern Province, 1990	73
Table 6.13	Usually Unemployed by Level of Education Completed and Age, Southern Province, 1990	73
Table 6.14	Currently Unemployed by Marital Status, Sex and Southern Province, 1990	74

## CHAPTER 7: CHILDREN, YOUTH AND WOMEN

Table 7.1	Population Size and Growth Rate of Children and Youth by Broad Age Group, Southern Province, 1980 and 1990	77
Table 7.2	Population Under 25 Years as a Proportion of Total Population by Sex and Broad Age Group, Southern Province, 1990	78
Table 7.3	Population Distribution and Sex Ratio of Children and Youth by District, Southern Province, 1990	79
Table 7.4	Age-Sex Ratio of the Children and Youth, Southern Province, 1990	80
Table 7.5	Youth by Age, Sex, Marital Status and Residence, (Percent), Southern Province, 1990	80
Table 7.6	Age Specific Fertility Rates for the Youth, Southern Province, 1990	81
Table 7.7	Usually Working Children and Youth (12-24 years) by Age, Sex and Highest Level of Education Completed, Southern Province, 1990	81
Table 7.8	Usually Working Children and Youth (12-24 years) by Age, Sex and Economic Activity, Southern Province, 1990	82
Table 7.9	Female Household Heads as a Proportion of Total Household Heads by Residence and Marital Status, (Percent), Southern Province, 1990	84
Table 7.10	Female Household Heads by Highest Level of Education Completed, Rural/Urban, (Percent), Southern Province, 1990	85
Table 7.11	Usually Working Females (12 Years and Older) as a Proportion of Total Usually Working Population by Employment Status, (Percent), Southern Province, 1990	85
Table 7.12	Usually Working Females (12 Years and Older), as a Proportion of Total Usually Working Population by Occupation and Employment Status, (Percent), Southern Province, 1990	86
Table 7.13	Usually Working Females (12 Years and Older) as a Proportion of Total Usually Working Population by Industrial Category and Employment Status, (Percent), Southern Province, 1990	87



## CHAPTER 8: NUPTIALITY AND FERTILITY

Table 8.1	Adult Population Classified by Age, Sex and Marital Status, (Percent), Southern Province, 1990	91
Table 8.2	Adult Male Population by Age and Marital Status, Rural-Urban Areas, (Percent), Southern Province, 1990	92
Table 8.3	Adult Female Population by Age and Marital Status, Rural-Urban Areas, (Percent), Southern Province, 1990	92
Table 8.4	Adult Population (15 Years and Over by Sex and Marital Status, Rural/Urban and Districts, (Percent), Southern Province, 1990	93
Table 8.5	Singulate Mean Age at Marriage Classified by Sex and Residence, Southern Province, 1990	93
Table 8.6	Singulate Mean Age at First Marriage by Educational Attainment and Residence, (Females), Southern Province, 1990	94
Table 8.7	Summary Fertility Measures, Southern Province, 1980 and 1990	96
Table 8.8	Age-Specific Fertility Rates (ASFR), Southern Province, 1990	97
Table 8.9	Net Reproduction Rate (NRR), Southern Province, 1990	98
Table 8.10	Average Parity, (Observed), Southern Province, 1990	98
Table 8.11	Completed Family Size by Level of Education of Women, Southern Province, 1990	100

## CHAPTER 9: MORTALITY

Table 9.1	Crude Death Rate by Sex, Southern Province, 1980 and 1990	102
Table 9.2	Estimates of Probabilities of Dying and Surviving by Sex, Implied Mortality Levels and Reference Dates, North Model Southern Province, 1990	103
Table 9.3	Estimates of Probabilities of Dying and Surviving by Sex, Implied Mortality Levels and Reference Dates, North Model Southern Province, 1980	104
Table 9.4	Infant and Child Mortality Rates by Five Year Period Preceding the Census, Southern Province, 1980 and 1990	104
Table 9.5	Infant and Child Mortality Rates for the 5 Year Period Preceding the Census, by Selected Background Characteristics, Southern Province, 1980 and 1990	106
Table 9.6	Expectation of Life at Birth for the 5 Year Period Preceding the Census, by Selected Background Characteristics, Southern Province, 1980 and 1990	109
Table 9.7	Trends of Infant, Child and Expectation of life at Birth, Southern Province, 1990	110
Table 9.8	Trends of Infant, Child and Expectation of life at Birth, Southern Province, 1980	111
Table 9.9	Coale and Demeny North Model Life Table for Southern Province - Males, 1990	115
Table 9.10	Coale and Demeny North Model Life Table for Southern Province - Females, 1990	116



## CHAPTER 10: DISABILITY

Table 10.1	Disabled Persons by Type of Disability Sex, Residence, (Percent), Southern Province, 1990	119
Table 10.2	Disabled Persons as a Proportion of Total Population by Residence and Type of Disability, (Percent), Southern Province, 1990	120
Table 10.3	Sex Ratio of Disabled Persons by Residence and Type of Disability, Southern Province, 1990	121
Table 10.4	Disabled Persons by Type of Disability and Age Group, (Percent) Southern Province, 1990	121
Table 10.5	Disabled Persons (12 Years and Older) by Type of Disability and Usual Economic Activity, (Percent), Southern Province, 1990	122
Table 10.6	Disabled Household Heads Usually Economically Active by Disability and Employment Status, (Percent), Southern Province, 1990	123
Table 10.7	Disabled Persons (5 Years and Older) by Type of Disability and Level of Education Completed, (Percent), Southern Province, 1990	123

## CHAPTER 11: HOUSEHOLDS AND HOUSING CHARACTERISTICS

Table 11.1	Households by Number of Rooms, Rural/Urban and Districts (Percent), Southern Province, 1990	126
Table 11.2	Households by Household Size, Number of Rooms and Residence, (Percent), Southern Province, 1990	127
Table 11.3	Occupied Housing Units by Construction Materials of Walls and Roofs, (Percent), Southern Province, 1990	128
Table 11.4	Occupied Housing Units by Construction Materials of Walls and Roofs, (Percent), Southern Province, 1990	129
Table 11.5	Occupied Housing Units by Construction Materials of Walls and Floors, (Percent), Southern Province, 1990	130
Table 11.6	Occupied Housing Units by Construction Materials of Walls and Floors, (Percent) Southern Province, 1990	131
Table 11.7	Households by Main Source of Water Supply, (Percent), Southern Province, 1980 and 1990	132
Table 11.8	Households by Type of Toilet and Residence, (Percent), Southern Province, 1990	133
Table 11.9	Households by Main Source of Energy used for Cooking, Residence and District, (Percent), Southern Province, 1990	134
Table 11.10	Households by Main Source of Energy for Cooking, (Percent) Southern Province, 1980 and 1990	135
Table 11.11	Housing Units by Main Source of Energy Used for Lighting, (Percent) Southern Province, 1990	135
Table 11.12	Occupied Housing Units by Ownership Status and District, (Percent), Southern Province, 1990	136
Table 11.13	Households in Rented Housing Units by Residence and Ownership, (Percent), Southern Province, 1990	137
Table 11.14	Households by Size and Sex of Head, (Percent), Southern Province, 1990	138
Table 11.15	Average Household Size by Residence and Sex of Household Head, Southern Province, 1980 and 1990	139
Table 11.16	Household Size, (Percent) Southern Province, 1980 and 1990	139
Table 11.17	Household Heads by Marital Status, Sex and Residence, (Percent), Southern Province, 1990	140
Table 11.18	Household Heads by Marital Status, Age and Sex, (Percent), Southern Province, 1990	141
Table 11.19	Household Heads by Level of Education Completed, (Percent) Southern Province, 1990	141

Table	11.20	Households by Size and Number of Members Economically Active, (Percent), Southern Province, 1990 . . . . .	142
Table /	11.21	Households by Relationship to Household Head and Number of Persons, (Percent), Southern Province, 1990 . . . . .	143
Table	11.22	Households by Sex of Heads and Number of Members Below 12 Years of Age, (Percent), Southern Province, 1990 . . . . .	144

# LIST OF FIGURES

## CHAPTER 1: BACKGROUND

Figure 1.1	Livestock by Sector, Southern Province, 1989	4
------------	--	---

## CHAPTER 2: EVALUATION OF COVERAGE AND CONTENT ERRORS

Figure 2.1	Population Distribution by Broad Age Groups, Southern Province, 1980 and 1990	9
Figure 2.2	Population Distribution of Southern Province in Single Years, 1980	12
Figure 2.3	Population Distribution of Southern Province in Single Years, 1990	12
Figure 2.4	Population Distribution of Southern Province by 5 Year Age Group, 1980	13
Figure 2.5	Population Distribution of Southern Province by 5 Year Age Group, 1990	13
Figure 2.6	Population Distribution of Southern Province by Sex Ratio, 1980 and 1990	15
Figure 2.7	Cohort Survival Ratios by Sex, Southern Province, 1980-1990	17
Figure 2.8	Overall Survival Ratios by Sex, Southern Province, 1980-1990	18

## CHAPTER 3: POPULATION SIZE, GROWTH AND COMPOSITION

Figure 3.1	Population Distribution by Districts, Southern Province, 1990	21
Figure 3.2	Population Pyramid, Southern Province, 1980	23
Figure 3.3	Population Pyramid, Southern Province, 1990	23
Figure 3.4	Age-Sex Specific Activity Ratio, Southern Province, 1990, Rural	27
Figure 3.5	Age-Sex Specific Activity Ratio, Southern Province, 1990, Urban	27

## CHAPTER 5: EDUCATIONAL CHARACTERISTICS

Figure 5.1	Literate Population by Age Group, Southern Province Rural, 1990	38
Figure 5.2	Literate Population by Age Group, Southern Province Urban, 1990	38
Figure 5.3	Population Presently Attending School, Southern Province Rural, 1990	39
Figure 5.4	Population Presently Attending School, Southern Province Urban, 1990	40
Figure 5.5	Population 15 Years and Older by Highest Level of Education Completed, Southern Province, 1980	52
Figure 5.6	Population 15 Years and Older by Highest Level of Education Completed, Southern Province, 1990	52

## CHAPTER 6: ECONOMIC CHARACTERISTICS

Figure 6.1	Economically Active Population 12 Years and Over, Southern Province, 1980	60
Figure 6.2	Current Economically Active Population 12 Years and Over, Southern Province, 1990	60
Figure 6.3	Current Labour Force Participation Rates, Southern Province, 1990, Rural	64
Figure 6.4	Current Labour Force Participation Rates, Southern Province, 1990, Urban	65
Figure 6.5	Usually Working Population 12 Years and Above by Employment Status Southern Province	67
Figure 6.6	Usually Working Population 12 Years and Over by Industry, Southern Province	70
Figure 6.7	Usually Unemployed by Sex, Southern Province, 1990	74
Figure 6.8	Currently Unemployed by Marital Status, Southern Province, 1990	75



## CHAPTER 7: CHILDREN, YOUTH AND WOMEN

Figure 7.1	Population of Children and Youth by Residence, Southern Province, 1990	78
Figure 7.2	Population Distribution of Children and Youth, by District, Southern Province, 1990	79
Figure 7.3	Economic Activity of Youth (15-19 Years) by Sex, Southern Province, 1990	83
Figure 7.4	Economic Activity of Youth, (20-24 Years) by Sex, Southern Province, 1990	83
Figure 7.5	Usually Working Females (12 Years and Above) by Employment Status (Percent), of all Working Persons, Southern Province, 1990	86

## CHAPTER 8: NUPTIALITY AND FERTILITY

Figure 8.1	Adult Population by Marital Status, Southern Province, 1990	91
Figure 8.2	Age-Specific Fertility Rates, (Observed), Southern Province, 1990	97
Figure 8.3	Average Parity, Southern Province, 1990	99

## CHAPTER 9: MORTALITY

Figure 9.1	Infant Mortality Rates, Southern Province, 1965 - 1990	111
Figure 9.2	Child Mortality Rates, Southern Province, 1965 - 1990	112
Figure 9.3	Under-Five Mortality Rates, Southern Province, 1965 - 1990	113
Figure 9.4	Expectation of Life at Birth, Southern Province, 1965-1990	114
Figure 9.5	Expectation of Life at Exact Age, Southern Province, 1990	116

## CHAPTER 10: DISABILITY

Figure 10.1	Usual Economic Activity of Disabled Persons, Southern Province, 1990	122
-------------	--	-----

## CHAPTER 11: HOUSEHOLDS AND HOUSING CHARACTERISTICS

Figure 11.1	Households by Districts, Southern Province, 1990	126
Figure 11.2	Households by Household Size, Southern Province, 1990	128
Figure 11.3	Households by Main Source of Water Supply, Southern Province	133
Figure 11.4	Household in Rented Housing Units, Southern Province, 1990	137
Figure 11.5	Household Heads by Marital Status, Southern Province, 1990	140

## EXECUTIVE SUMMARY

Southern Province has a population of 907,150 of whom 443,315 are male and 463,835 are female. The majority of people in Southern Province are in rural areas. Between 1969 and 1980, population increased by 2.8 percent and between 1980 and 1990, it increased by 3 percent. With a median age of 15.9 years, population in Southern Province may be termed young. The population is predominantly African. About 99 percent of the population in the province are of African origin. About 72 percent of the population in Southern Province speak Tonga as their predominant language of communication. As a second language of communication, Tonga is the third most spoken language after Nyanja and English.

Of the persons aged 5 years and older, 58 percent are literate. The proportion of the literate is higher for males (64 percent) than for females (53 percent). In urban areas, 74 percent are literate compared to 52 percent in rural areas. Proportions of those who have had no schooling increase with increasing age. Of the persons aged 45 years and above, 58 percent have never attended formal schooling compared to 21 percent of those aged 15-19 years. The most common field of study among males is teacher training followed by Agriculture/forestry/fisheries and engineering while among females, teacher training, nursing and secretarial training are the most common.

Between 1980 and 1990, labour force increased by 36 percent. Out of a labour force of 280,447, 89 percent are employed and 11 percent are unemployed. The majority of the labour force (78 percent) are in rural areas. Of the working age population in 1990, 47 percent are inactive. The most common reason for inactivity is home making while studying is the least common. Two thirds of the work force are either self employed or unpaid family workers while one third comprises employers and employees.

Marriage in Southern Province is near universal. Of the males, 5.2 percent and 2.8 percent of the females aged 12 years and above have never been married. The Singulate Mean Age at Marriage is 25.8 years for males and 21.3 years for females. Total Fertility Rate (TFR) has declined from 7.1 in 1980 to 7.0 in 1990. That of rural areas has declined from 7.9 to 7.2 while that of urban areas has declined from 7.5 to 6.3 during the intercensal period 1980-90. Fertility varies with residence and education level. In the province, TFR is higher in rural than urban areas. Among women who have completed secondary education, TFR is lower than that of women who have only completed primary education.

Mortality has increased over the intercensal period 1980-90. Crude Death Rate (CDR) has increased from 12.8 deaths in 1980 to 14.6 in 1990. That of males is higher than that of females. Infant and child mortality rates have also increased. Life expectancy has, hence, declined from 53.1 years to 52.5 years. Infant Mortality Rate (IMR), Child Mortality Rate (CMR) and Life Expectancy vary with mothers' level of education, residence, economic activity, marital status and sex of child. IMR and CMR are higher in rural than urban areas. The two rates decrease with increasing level of education of mother. Life expectancy for males is lower than that of females and is higher in urban than rural areas. The level of education completed and life expectancy are directly related.

The total number of persons recorded as disabled in the province is 8,874 which is only 1 percent of the provincial population. Although there are more females than males in the province, there are more disabled males than females. The largest number of the disabled have multiple disabilities while the smallest are mentally retarded. About one third of the disabled aged 12 years and above are not available for work and another third are working. The remaining one third comprises home makers, students, those seeking work and those available for work. Of the disabled persons aged 5 years and above, about 58 percent have not had any formal education, 32 percent have completed primary education, 7.6 percent have completed secondary education and 0.1 percent have completed higher education.

Households in Southern Province are concentrated in two roomed housing units. The most common construction materials are grass, unburnt/mud bricks and mud for roofs, walls and floors, respectively. Wells/boreholes are the most common sources of water supply in the province. They are used by 33.7 percent of households. Toilet facilities in the "other" category are the most commonly used (59.3 percent). The main sources of energy used for cooking and lighting are wood and paraffin used by 80 percent of households and in 79 percent of housing units, respectively.

Over three-quarters of housing units are owned by individuals. The smallest proportion (3.1 percent) is owned by private organisations. Although individuals own the largest proportion of housing units, they rent out the second largest proportion after the district council.

Male headed households out-number female headed households. Female household heads are concentrated in the widowed (33 percent) and divorced (76 percent) categories while most of their male counterparts are married (81 percent). The vast majority of household heads have either had no formal education (34 percent) or have only completed primary education (40 percent).



# CHAPTER 1

## BACKGROUND

### 1.1 GEOGRAPHY

The Southern province covers an area of 85,283 sq.km representing about 11.8 percent of the country's total land. In 1990 the province had nine administrative districts namely Choma, Gwembe, Kalomo, Livingstone, Mazabuka, Monze, Namwala, Siavonga and Sinazongwe.

The Southern Province is in the low rainfall zone of Zambia. The rainy season ranges from about November to March. The province has temperatures which are high with maximum temperatures which are about 35 degrees centigrade.

The soils found in most parts of the province are plateau soils (sandy loam). The province has four main types of topography which are, valley, plateau, escarpment and the Kafue flats. The Kalahari sands are found in the western part of the province.

### 1.2 PEOPLE

The population of Southern Province in 1990 was 907,150. It increased from 671,923 in 1980, and this represents a growth rate of 3.0 percent. The provincial headquarters of Southern province is Livingstone and had a population of 82,952 in 1990. The district with the highest population is Choma and the one with the lowest is Siavonga.

The population density of Southern province has increased from 5.8 in 1969, 7.9 in 1980 and to 10.6 persons per square kilometres in 1990.

Table 1.1

Population, Area, Density, Percentage Distribution and Annual Growth Rate by District, 1969, 1980 and 1990

District	Population			Area (Sq.Km)	Density			Percentage Distribution			Growth Rate (%)	
	1969	1980	1990		1969	1980	1990	1969	1980	1990	1969-80	1980-90
Choma	97,980	130,416	163,050	7,296	13.4	17.9	22.3	19.8	19.5	18.0	2.9	2.3
Gwembe	76,451	20,666	35,462	12,611	6.1	4.1	2.8	15.4	3.1	3.9	-12.3	5.5
Kalomo	76,571	97,177	162,674	31,103	3.5	3.1	5.2	15.4	14.5	18.0	2.4	5.3
Livingstone	49,063	71,521	82,952	1,427	34.4	50.1	58.1	9.9	10.6	9.1	3.8	1.5
Mazabuka	159,376	112,258	155,436	6,842	23.3	16.4	22.7	32.1	16.4	17.1	-3.4	3.3
Monze	-	110,423	126,039	4,854	-	22.8	25.9	-	16.4	13.9	-	1.3
Namwala	36,600	56,058	83,075	21,751	1.7	2.6	3.8	7.4	8.3	9.2	4.4	4.0
Siavonga	-	29,633	34,876	2,614	-	11.3	13.3	-	4.4	3.8	-	1.6
Sinazongwe	-	43,771	63,586	4,964	-	8.8	12.8	-	6.5	7.0	-	3.8
Total	496,041	671,923	907,150	85,283	5.8	7.9	10.6	100.0	100.0	100.0		3.0

Source: CSO (1973): 1969 Census of population and housing; CSC (1985): 1980 Census of Population and housing, Final report Volume II; CSO (1985): 1980 Census of Population and Housing; General Population and Migration Tables, Volume I.

Table 1.1 is indicative of the fact that during the 1969 - 80 intercensal period, Choma, Kalomo, Livingstone and Namwala districts had their population increased while reductions occurred in Gwembe and Mazabuka.

The 1980 - 90 intercensal period brought population increases in all the districts. Figures pertaining to geographical areas show that Kalomo is the biggest district extending across 31,103 square kilometre and the smallest district is Monze which covers only 4,854 square kilometres.

The 1969 Census figures indicate Livingstone to be the most densely populated with 34.4 persons per square kilometre and the least densely populated was Namwala with 1.7 persons per square kilometre. The pattern was similar in the 1980 Census figures which show Livingstone to have the highest density of 50.1 and Namwala having the least density of 2.6 persons per kilometre. From the 1990 figures, it is noted that Livingstone is still the most densely populated with 58.1 persons per square kilometre while Gwembe is the least densely populated having 2.8 persons per square kilometre.

During the 1969-80 intercensal period Namwala had the highest population growth rate of 4.4 percent per annum.

The smallest growth rate of -12.3 percent per annum is associated with Gwembe district. The 1980-90 intercensal period saw Gwembe registering the highest population growth rate of 5.5 percent per annum and over the same period the least growth rate occurred in Monze at a rate of 1.3 percent per annum.

### 1.3 ECONOMY

The main economic activity in the province is Agriculture. The province has been the main producer of Zambia's staple food (maize). The agricultural industry in the province has been supported by the early development of a transport network (railway, highway and a web of feeder roads) and the emergence of a strong albeit small commercial farming community.

The tourist capital of Zambia, Livingstone is in Southern Province. Africa's greatest single attraction, the 'Victoria falls' locally called Mosi-oa-Tunya is found in Livingstone. There are new developments that have extended the appeal of the falls and these are the introduction of the wild water rafting along the gorges just below the falls up to the man made lake Kariba in 1981 and the development of the sobek expedition below the falls.

The Zoological Park, National Museum, Maramba Cultural Village, National Monuments and the Railway Museum, River cruise and the Mukuni village are some of the other additional attractions in Livingstone. The other tourist attractions in the province are the abundant wildlife present in the South Kafue National Park which is one of the largest game sanctuaries in the World and the Lochnivar National Park which is popularly known as the "bird watcher's paradise".

The province has a coal mine which is Zambia's only producer of coal called the Maamba Coal Mine. This mine is found in the Gwembe valley.

#### *Agriculture*

The soils in Southern Province have a large potential for dry rice, wheat, maize and vegetable production. The crop production has been quite encouraging and the major crops produced in the province are, Maize, Tobacco, Cotton, Sunflower, Soyabeans, Groundnuts and wheat. Table 1.2 shows the production and marketing of some crops in the province for selected years.

Table 1.2

## Major Crops Grown, Southern Province, 1988-90

Crops	Unit	Production and Marketing (90kg Bags)					
		1988		1989		1990	
		Produced	Marketed	Produced	Marketed	Produced	Marketed
Maize	90kg Bags	5,986,996	3,422,495	5,087,577	3,358,390	3,193,963	1,705,171
Tobacco	Kgs	-	-	271,651	252,051	1,149,600	1,203,023
Cotton	Kgs	21,952,940	21,925,940	14,313,781	14,313,781	14,173,269	14,173,269
Sunflower	50Kg Bags	156,847	142,620	162,839	43,247	159,161	45,324
Soyabean	90Kg Bags	29,850	25,906	27,054	66	52,634	489
Groundnut	80Kg Bags	41,329	0	101,626	0	55,218	0
Wheat	90Kg Bags	118,668	26,985	170,510	163,904	173,091	166,632

Note: (-) Figures not Available.

Source: 1989/90 Agricultural Statistics Bulletin.

The people in Southern Province also rear livestock, on both commercial and traditional bases. The livestock mainly reared in the province is cattle, sheep, goats and pigs.

Details on livestock are given in Table 1.3

Table 1.3

## Livestock Population by Sector, Southern Province, 1980-89

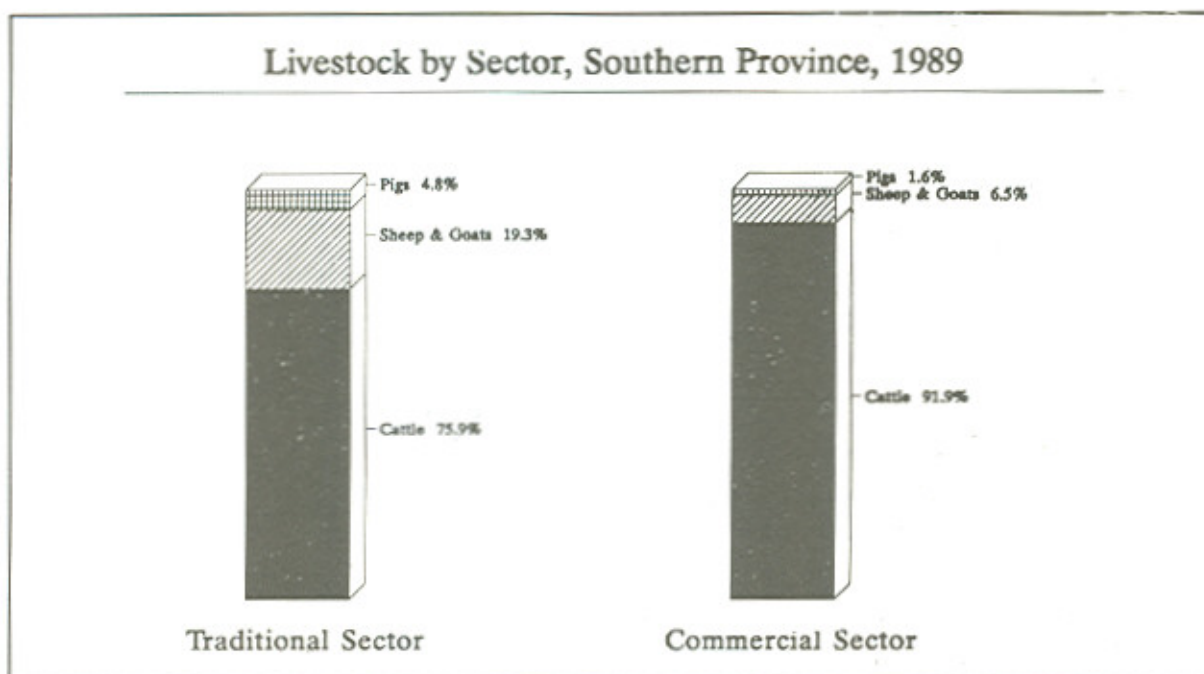
Sector	Year					
	1980	1985	1986	1987	1988	1989
<b>Traditional</b>						
Cattle	763,546	890,839	908,656	926,829	924,277	891,495
Sheep & Goats	71,046	201,237	221,361	243,497	267,897	226,746
Pigs	24,985	30,091	33,100	36,410	40,051	56,436
<b>Commercial</b>						
Cattle	-	179,874	188,868	198,311	173,354	189,711
Sheep & Goats	-	13,126	14,439	16,883	17,471	13,451
Pigs	-	5,028	5,531	6,084	6,692	3,240

Note: (-) Figures not Available.

Source: 1989/90 Agricultural Statistics Bulletin, pp. 23 and 24.



Figure 1.1



#### *Communication*

The province has a total of 675 km of first class tar roads running from Kafue road bridge to Livingstone. There is also the Livingstone Sesheke road. Southern province also has a total of 811 km of second class gravel roads, but most of these roads need urgent attention.

The province has one main railway line running from the Victoria bridge to the Copperbelt. This line serves both passenger and goods trains. This line has two extensions, one to Masuku (Maamba) and the other to Mulobezi for both passengers and goods.

The Southern province is the major supplier of electricity to many parts of the country and exports some to some neighbouring countries. The three hydro-electricity power stations found in the province are Kariba North Bank in Siavonga, Victoria falls in Livingstone and Namalundu at Kafue Gorge. The power generated from these power stations mainly services the urban areas of the province while the rural areas, particular villages use wood as a source of energy.

#### **1.4 EDUCATION**

The primary school enrolment in Southern Province was 177 831 in 1986. The enrolment increased from 144851 in 1980 and 161554 in 1983. The secondary school enrolment increased from 12951 in 1980, 14838 in 1983 to 18362 in 1986. Some of the features of the education sector in Southern province are shown in Table 1.4.

Table 1.4

## Schools, Teachers and Enrolment, Southern Province 1980 - 1986

	Year		
	1980	1983	1986
<b>Schools</b>			
-Primary	466	481	500
-Secondary	21	27	34
<b>Teachers</b>			
-Primary	2,964	3,463	3,982
-Secondary	640	652	807
<b>Enrolment</b>			
Primary - Total	144,851	161,554	177,831
- Boys	75,394	84,155	92,038
- Girls	69,457	77,399	85,793
Secondary - Total	12,951	14,838	18,362
- Boys	8,688	9,826	11,747
- Girls	4,263	5,012	6,615

Source: Educational Statistics Reports for 1980, 1983 and 1986 - Ministry of Education

Note: (-) Figures not available

Table 1.5 shows how the primary school enrolment in Southern Province has evolved over the years. The table shows that enrolment for boys is higher than that for girls for all the given years apart from 1987.

Table 1.5

## Enrolment Ratios of Primary Schools, Southern Province 1980 - 1987

	1980	1983	1986	1987
<b>Primary</b>				
- Totals	113.2	101.7	102.4	99.7
- Boys	116.0	105.3	105.0	98.4
- Girls	110.3	97.6	99.8	101.0

Source: CSO (1984, 1992); Educational Statistics (1982, 1987)

## 1.5 HEALTH

In 1990, Southern Province had a total of 135 health institutions. There were 11 hospitals and 124 health centres. All the districts had at least one hospital apart from Kalomo and Sinazongwe districts. There are health centres in all the districts.

Table 1.6 shows that the number of hospitals did not change from 1986 to 1990. The health centres increased from 105 in 1986 to 127 in 1988 and decreased to 124 in 1990. The total number of beds and cots for all the institutions in the province in 1990 was 2,935.

Table 1.6

Number of Health Institutions, Beds and Cots by Type of Health Institution, Districts and year, 1986, 1988 and 1990

	Hospitals		Health Centres		Total	
	Number	Beds/Cots	Number	Beds/Cots	Number	Beds/Cots
Year						
1986	11	1,831	105	1,071	116	2,902
1988	11	1,808	127	1,137	138	2,945
1990	11	1,808	124	1,127	135	2,935
Districts -						
Choma	2	469	22	267	24	736
Gwembe	1	64	6	78	7	142
Kalomo	0	0	25	294	25	294
Livingstone	1	390	12	27	13	717
Mazabuka	3	483	14	62	17	545
Monze	1	225	15	161	16	386
Namwala	1	51	16	122	17	173
Siavonga	2	126	4	34	6	160
Sinazongwe	0	0	10	82	10	82

Source: Ministry of Health (Bulletin of Health Statistics, 1985-86 and 1987-88 and Health facilities in Zambia, 1990).

### Diseases

In Southern Province, most deaths among children below 5 years are due to preventable diseases. Such diseases are polio, tuberculosis, diphtheria, measles, pertussis and tetanus. There are vaccines available for most of these diseases. Information on immunization for some of these diseases is provided in Table 1.7.

Table 1.7

Immunisations of Children Below 1 Year, Southern Province, 1985-1988

Year	BCG	Polio Third Dose	DPT Third Dose	Measles
1985	36,579	23,622	24,454	28,890*
1986	37,212	23,054	24,582	29,130
1987	46,715	36,479	36,162	50,226
1988	41,310	36,164	33,114	38,520

Source: Ministry of Health 1985-86, 1987-88 Bulletin of Health Statistics.

\*From Table 1.7, it can be noted that during the period 1985-88 there had been a general increase in immunisations against diseases that mostly affect children.



## CHAPTER 2

# EVALUATION OF COVERAGE AND CONTENT ERRORS

### 2.1 INTRODUCTION

Although checks and controls are instituted during census enumeration, there are usually errors in the census data. Data evaluation identifies the errors that are inherent in the data. Information that is used in evaluating the quality of data is derived from the following questions that were included in the Census questionnaire:

- Sex of members of household,
- Age (in completed years) of members of household,
- Residential status of household,
- Children still living, and
- Children dead.

### 2.2 DEFINITION OF CONCEPTS

Below are the definitions of the major concepts used in this chapter.

#### *Census of Population*

Complete enumeration of all persons during a specified time period in a demarcated geographical area.

#### *Child-Woman Ratio*

Number of children aged 0-4 years in a population to every 1000 women aged 15-49 years in the same population.

#### *Content Error*

Error made when the characteristics of a person such as age, sex, marital status, fertility, mortality and economic activity, collected during the census are incorrectly reported or recorded.

#### *Coverage Error*

Under or over-enumeration in a population census due to either omission or enumeration more than once.

#### *Dependency Ratio*

Ratio of children aged 0-14 and persons aged 65 years and above, per 100 persons in the age-group 15-64 years.

#### *Digit Preference*

Reporting of age by respondents often ending in certain preferred digits. This results in heaping of population in ages ending with certain digits.

#### *Sex Ratio*

Number of males per 100 females in a population.

## 2.3 METHODS OF EVALUATION

During census enumeration, some people may be completely omitted while others may be enumerated more than once or some characteristics of an individual such as age, sex, fertility and economic activity of the canvassed may be incorrectly reported or tabulated. In general, there are two approaches used to evaluate the quality of data, the direct and indirect methods.

The direct method basically involves the carrying out of a Post Enumeration Survey (PES). In a PES, a sample of households is revisited after the census and data is again collected on a smaller scale and later compared with that collected during the actual census. The matching process of the two sets of data can then be used to evaluate the quality of the census data. With regard to the 1990 Census, the PES was undertaken in December 1990. The PES evaluation is available in a separate report.

Indirect method, usually employs the comparison of data using both internal and external consistency checks. Internal consistency checks compare relationships of data within the same census data, whereas external consistency checks compare census data with data generated from other sources. For instance, one can compare data on education obtained during a census with administrative data maintained by the Ministry of Education.

### *Age Composition*

Table 2.1 and Figure 2.1 show the population distribution for Southern Province in broad age groups for 1980 and 1990 Censuses.

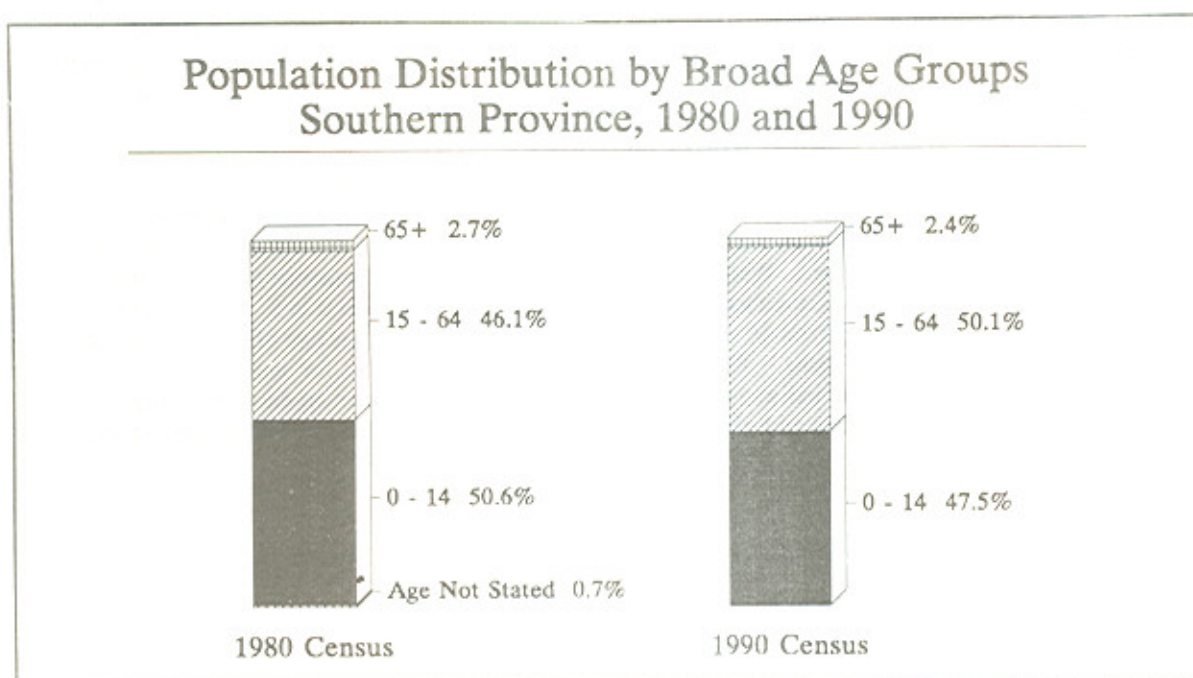
Table 2.1

Population Distribution by Broad Age Groups, 1980 and 1990

Age Group	Population Distribution			
	1980 Population	1980 Percent	1990 Population	1990 Percent
0 - 14	340,075	50.6	431,226	47.5
15 - 64	309,580	46.1	454,319	50.1
65 +	17,878	2.7	21,390	2.4
Age Not Stated	4,390	0.7	215	0.0
Total	671,923	100.0	907,150	100.0

The proportions of persons aged 0-14 years for 1980 is higher than that of 1990. One reason for this could be due to an increase in child mortality between 1980 and 1990 or under-enumeration of children especially those aged between 0 and 4 years during the 1990 Census or a reduction in fertility. The proportion of those aged 15-64 years rose from 46.1 in 1980 to 50.1 percent in 1990. The proportion of those who did not state their age declined from 0.7 to a negligible proportion.

Figure 2.1



#### *Child-Woman Ratio*

The child-woman ratio declined from 858.7 in 1980 to 750.4 in 1990. This is in line with the decline in the percentage of the population in the 0-14 year age group, (see Table 2.1). The decline in the child-woman ratio could be due to the increase in mortality coupled with a decline in fertility levels between 1980 and 1990. The child-woman ratio is given in Table 2.2.

#### *Age Dependency Ratio*

Dependency ratios are shown in Table 2.2. The overall dependency ratio for Southern Province in 1980 was 115.6 and 99.6 in 1990. This shows that in 1990, the number of potential producers was almost the same as the dependants since the dependency ratio shows the number of dependants per 100 potential producers. The dependency ratios have declined between 1980 and 1990. The decline in the dependency ratios could be as a result of an increase in mortality among those aged 0-14 years and those above 65 years of age. The child dependency ratio which is the ratio of those aged 0-14 years to those aged between 15-64 years declined from 109.9 in 1980 to 94.9 in 1990.

Table 2.2

Dependency Ratios and Child-Woman ratio, Southern Province, 1980 and 1990

Ratios	1980	1990
<b>Southern Province</b>		
- Overall Dependency Ratio	115.6	99.6
- Child Dependency Ratio	109.9	94.9
- Aged Dependency Ratio	5.8	4.7
- Child-Woman Ratio	858.7	750.4



### Digit Preference

The tendency of respondents to report certain ages as ending in certain digits even when they do not, results in heaping the population in ages ending in certain digits. This is called age heaping or digit preference. Age heaping is most prevalent among the illiterate persons who do not know their exact ages. An assessment of age heaping in Southern Province is done through the calculation of Myers' Index.

Myers' Index is a useful indicator used for evaluating the quality of age data. The index is calculated by summing up the number of persons aged between 10 and 69 or 79 years. The sum of those with ages ending in zero is done separately from those ending in 1, 2, 3 up to 9. Ten summations are, therefore, obtained. This may be done by sex. Weights are then applied to the 10 summations to get the blended population. The blended population is then distributed in percent for each digit 0 to 9. Then deviations are obtained from 10 for each digit 0 to 9. The deviations are summed up irrespective of sign and the sum is divided by 2 to get Myer's Index. Refer to Shryock H. S. et al (1976) for more details on the calculation of Myer's Index. The index is scaled from 0 to 90. An index lower on the scale implies that the age reporting for the population with that index is better than for the population with an index higher up on the scale.

Table 2.3

Myers' Index for Digit Preference in Age Data, Southern Province, 1980 and 1990

Digit	Male				Female			
	1980		1990		1980		1990	
	Percent	Deviation From 10%	Percent	Deviation From 10%	Percent	Deviation From 10%	Percent	Deviation From 10%
0	13.5	3.5	12.4	2.4	14.0	4.0	12.7	2.7
1	8.6	-1.4	8.9	-1.1	8.7	-1.3	8.8	-1.2
2	11.2	1.2	11.4	1.4	11.3	1.3	11.6	1.6
3	8.9	-1.1	8.9	-1.1	8.8	-1.2	8.6	-1.4
4	9.3	-0.7	9.4	-0.6	9.6	-0.4	9.9	-0.1
5	10.1	0.1	10.1	0.1	10.0	0.0	10.0	0.0
6	10.5	0.5	10.4	0.4	10.1	0.1	10.5	0.5
7	7.9	-2.1	8.9	-1.1	7.8	-2.2	8.7	-1.3
8	11.7	1.7	11.7	1.7	11.7	1.7	11.3	1.3
9	8.3	-1.7	8.0	-2.0	8.0	-2.0	7.9	-2.1
Myers' Index		7.0		6.0		7.1		6.1

Myers' Index for Southern Province is presented in Tables 2.3 and 2.4. A breakdown of the index is shown in Table 2.3 while Table 2.4 is a summary of the index for 1980 and 1990. From Tables 2.3 and 2.4, it can be deduced that the quality of age data for 1990 has improved compared to that of 1980. This is so in the sense that the index in 1990 is less than in 1980. In the rural areas of Southern Province, Myers' index for males dropped from 7.3 in 1980 to 6.2 in 1990 while that of females dropped from 7.6 in 1980 to 6.4 in 1990. The minimum and maximum values of Myers' Index are 0 and 90, respectively. The lower the index, the better the quality of data.

Table 2.4

Summary of Myers' Index for Digit Preference in Age Data by Rural/Urban, Southern Province, 1980 and 1990

Southern Province		1980	1990
Total	Male	7.0	6.0
	Female	7.1	6.1
Rural	Male	7.3	6.2
	Female	7.6	6.4
Urban	Male	6.0	5.4
	Female	5.9	5.4

Table 2.5 shows the most preferred digits in 1980 and 1990. Using Myers' Index in assessing the digit preference, in 1980 and 1990, the same digits 0, 2 and 8 were preferred in Southern Province. The most preferred digits during 1980 and 1990 censuses among males and females as well as for rural and urban areas are also shown in the table. The digits are shown in decreasing order of preference.

Table 2.5

Most Preferred Digits, Southern Province, 1980 and 1990

Sex/Year		Most Preferred Digits		
		Total	Rural	Urban
Southern Province				
Male	1980	0, 8, 2	0, 8, 2	0, 8, 2
	1990	0, 8, 2	0, 8, 2	0, 2, 8
Female	1980	0, 8, 2	0, 8, 2	0, 2, 8
	1990	0, 2, 8	0, 2, 8	0, 2, 8

Note: & shows same degree of preference

Age misreporting errors are also presented in Figures 2.2 to 2.5. A comparison of figures shows that grouping of age data in 5 year age groups than in single years helps in minimising age misreporting errors. This is shown by the fluctuations which are more pronounced in Figures 2.2 and 2.3 than in Figures 2.4 and 2.5. The peaks on the curve show the most preferred digits while the troughs show the less preferred digits.

Figure 2.2

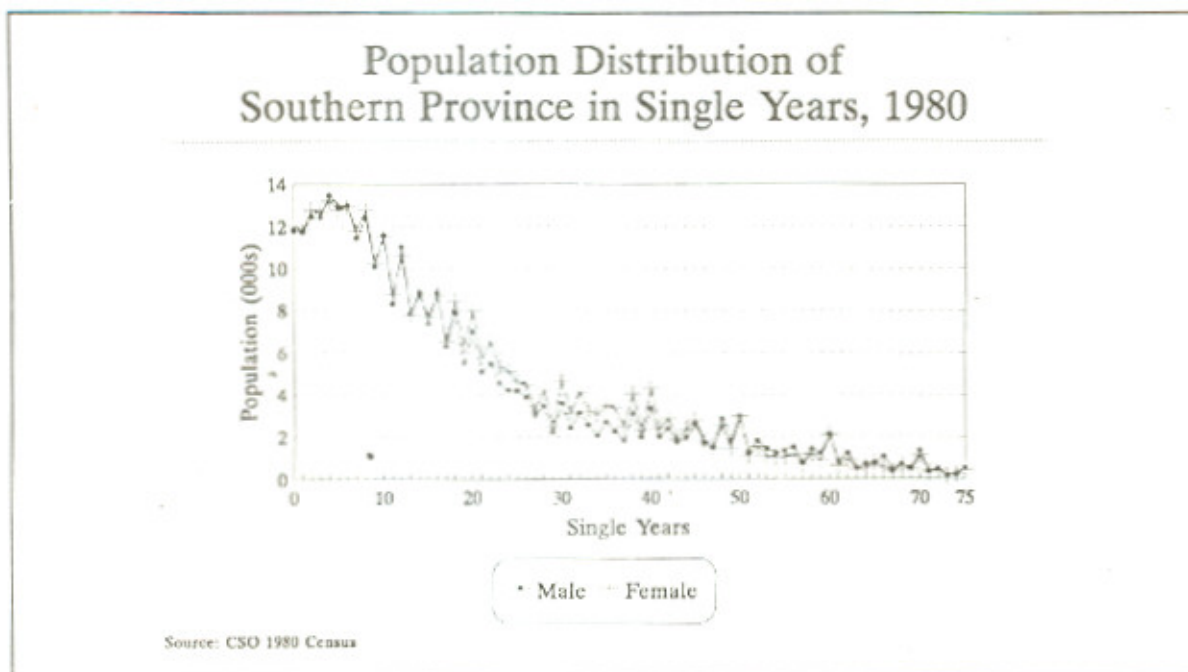


Figure 2.3

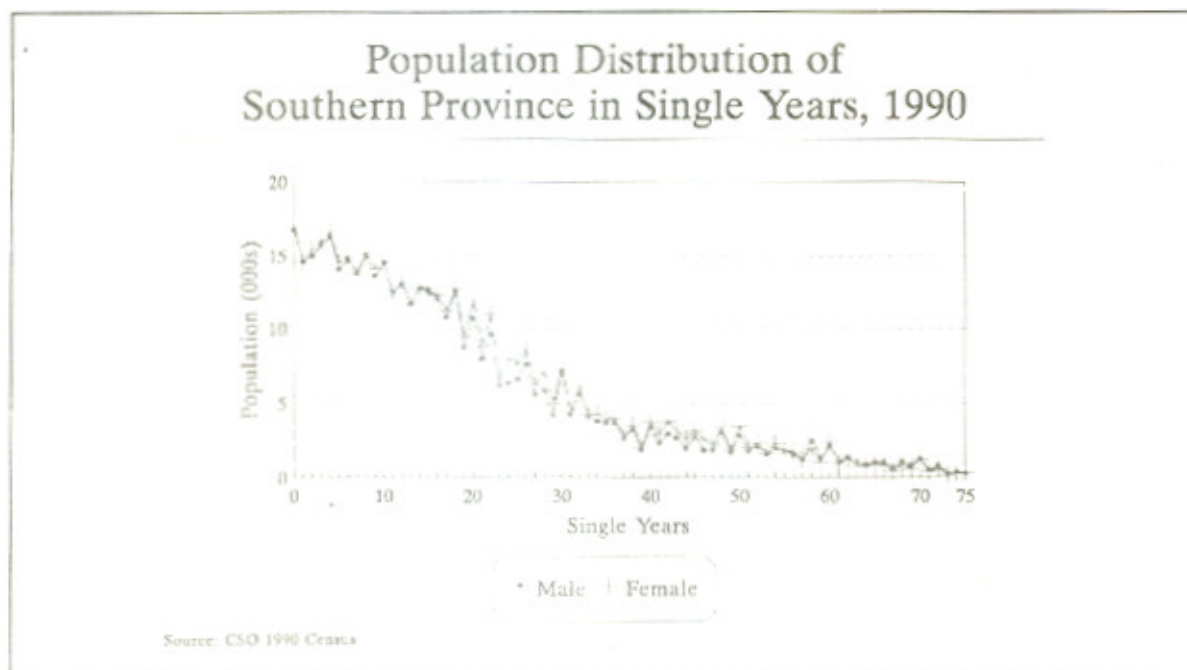




Figure 2.4

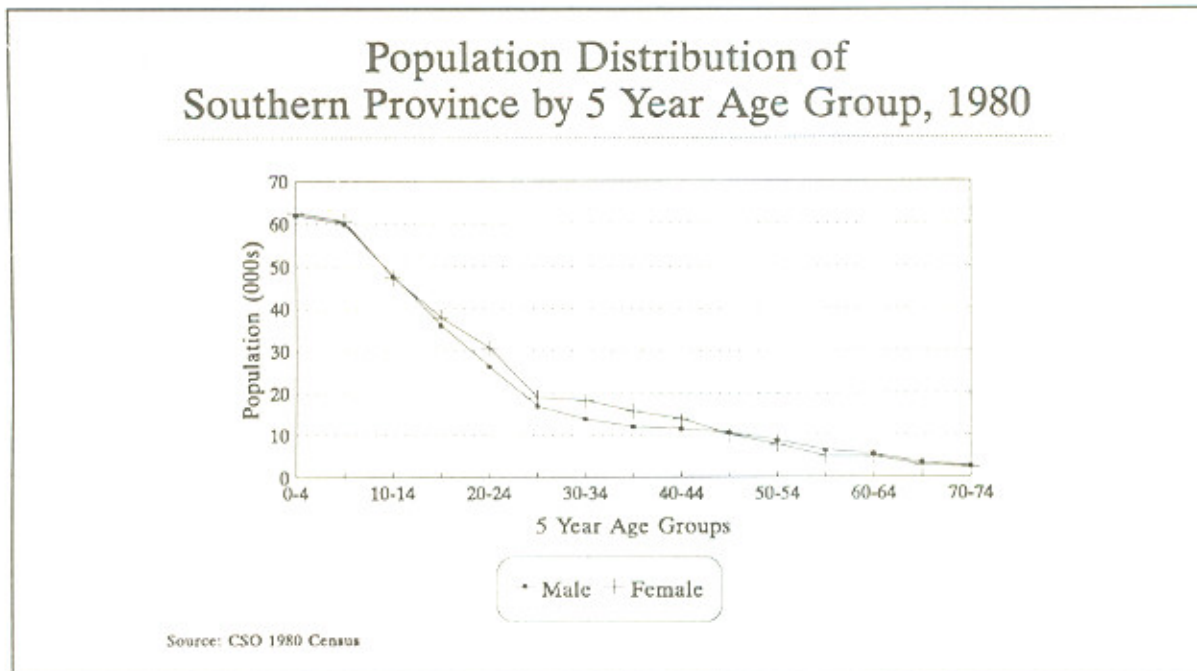
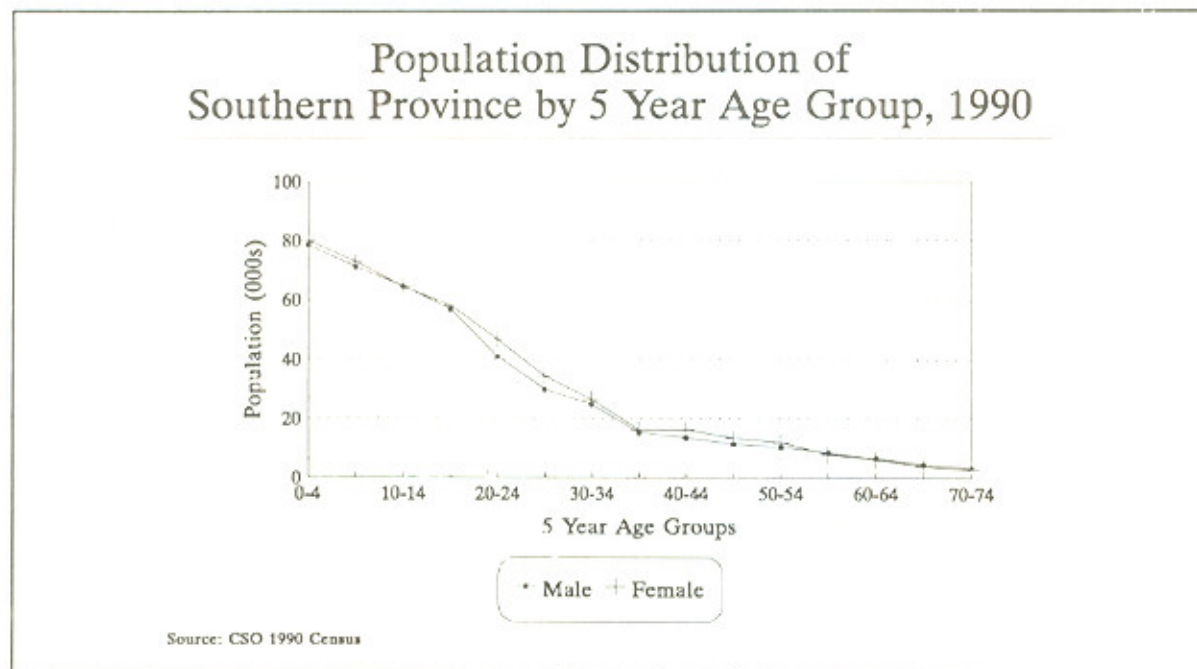


Figure 2.5



### *Sex Ratios*

The presence of errors of omission and age misreporting and also in or out-migration can be detected by looking at sex ratios. A sex ratio of more than 100 indicates an excess of males and a sex ratio of less than 100 shows a deficit of males whereas a sex ratio of 100 shows an equal number of males and females. Information on sex ratio for Southern Province during 1980 and 1990 censuses is given in Tables 2.6, 2.7 and Figure 2.6. Table 2.6 shows that Southern Province is in excess of females. In the urban areas, the sex ratio dropped from 99.3 males per 100 females in 1980 to 98.7 in 1990. Out-migration of the economically active male population is a possible reason for having more females than males in Southern Province could be as a result of . The other reason could be due to high male child mortality or high adult male mortality in Southern Province.

**Table 2.6**

#### **Sex Ratios for Southern Province, 1980 and 1990**

<b>Southern Province</b>	<b>1980</b>	<b>1990</b>
Total	95.6	95.6
Rural	94.4	94.6
Urban	99.3	98.7

An assessment of age specific sex ratios for Southern Province in 1980 and 1990 has been done and the results are presented in Tables 2.7, 2.8 and Figure 2.6. In 1980, results from Table 2.7 show that all the age groups from 0-4 to 40-44 apart from 10-14 year age group have sex ratios which are less than 100 showing that these age groups have more females than males. The rest of the age groups starting from age 45 have sex ratios above 100 indicating more males than females. In 1990, Table 2.8 shows that the age groups from 0-54 except for 10-14 year age group have the sex ratios less than 100 showing that there are more females than males. The rest of the age groups have the sex ratios above 100 showing more males than females.

### *Age Ratios*

Age ratios by sex are shown in Table 2.7 and 2.8 according. In normal circumstances, when there are no major changes in fertility, mortality or migration, age ratios do not deviate from 100. Therefore, any substantial deviation is explained in terms of age misreporting. The average age ratios for males were 4.4 in 1980 and 3.7 in 1990. That of females were 6.8 in 1980 and 5.7 in 1990. The average sex ratio difference was 8.2 for 1980 and 6.0 in 1990. The Age-sex Accuracy Index declined from 35.8 in 1980 to 27.4 in 1990. The United Nations define age-sex data as "Accurate", "Inaccurate" or "Highly inaccurate" if the Age-Sex Accuracy Index is less than 20, between 20-40 and above 40, respectively. Therefore, the 1980 and 1990 age-sex data were inaccurate.

Table 2.7

Population by Five Year Age Group, Sex, Age Ratio and the Age-Sex Accuracy Index, Southern Province, 1980

Age Group	Population		Age Ratio		Deviation		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	61,945	62,510	-	-	-	-	99.1	-
5-9	59,943	60,564	106.0	106.6	6.0	6.6	99.0	0.1
10-14	47,686	47,427	99.6	97.6	-0.4	-2.4	100.5	-1.5
15-19	35,999	37,848	98.2	97.9	-1.8	-2.1	95.1	5.4
20-24	26,302	30,661	99.8	105.2	-0.2	5.2	85.8	9.3
25-29	16,781	18,920	88.6	83.8	-11.4	-16.2	88.7	-2.9
30-34	13,746	18,133	97.2	103.3	-2.8	3.3	75.8	12.9
35-39	11,910	15,630	96.3	98.8	-3.7	-1.2	76.2	-0.4
40-44	11,430	13,679	101.4	104.2	1.4	4.2	83.6	-7.4
45-49	10,493	10,066	102.7	96.0	2.7	-4.0	104.2	-20.6
50-54	8,711	7,707	102.5	101.5	2.5	1.5	113.3	-9.1
55-59	6,323	4,998	92.5	85.8	-7.5	-14.2	126.5	-13.2
60-64	5,451	4,772	107.0	113.4	7.0	13.4	114.2	12.3
65-69	3,510	2,850	90.8	85.9	-9.2	-14.1	123.2	-9.0
70-74	2,637	2,329	-	-	-	-	113.2	10.0
Total	322,887	338,094			56.6*	88.4*	95.5	114.1*
Mean					4.4	6.8		8.2

Note: \* Denotes Total irrespective of sign

$$\text{Age Sex Accuracy Index} = \frac{3 \times \text{Mean Difference in Sex Ratios} + \text{Mean Deviations of Male and Female Age Ratios}}{15.8}$$

$$= \frac{3 \times 8.2 + 4.4 + 6.8}{15.8}$$

Figure 2.6

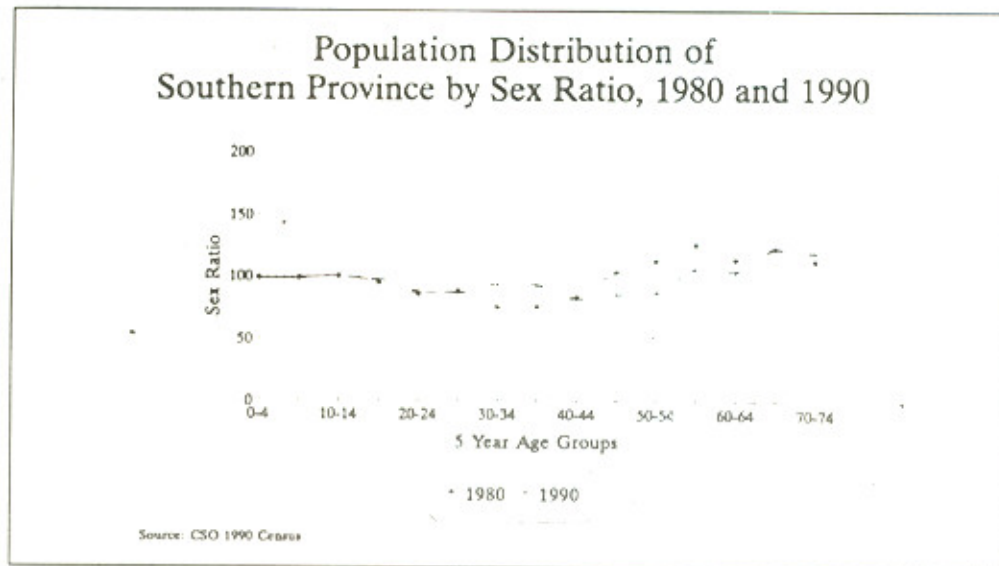




Table 2.8

Population by Five Year Age Group, Sex, Age Ratio and the Age-Sex Accuracy Index, Southern Province, 1990

Age Group	Population		Age Ratio		Deviation		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	78,473	79,797	-	-	-	-	98.3	-
5-9	71,473	72,802	99.9	100.6	-0.1	0.6	98.2	0.1
10-14	64,585	64,460	100.5	99.0	0.5	-1.0	100.2	-2.0
15-19	56,742	58,074	104.9	103.1	4.9	3.1	97.7	2.5
20-24	40,875	46,460	96.2	100.3	-3.8	0.3	88.0	9.7
25-29	29,851	34,388	93.7	96.1	-6.3	-3.9	86.8	1.2
30-34	24,867	26,471	106.8	103.1	6.8	3.1	93.9	-7.1
35-39	15,163	16,202	85.3	82.7	-14.7	-17.3	93.6	0.3
40-44	13,301	16,124	100.2	106.3	0.2	6.3	82.5	11.1
45-49	11,341	13,194	97.3	96.1	-2.7	-3.9	86.0	-3.5
50-54	10,334	11,856	103.0	108.0	3.0	8.0	87.2	-1.2
55-59	8,415	7,879	99.9	91.0	-0.1	-9.0	106.8	-19.6
60-64	6,532	6,250	100.3	105.1	0.3	5.1	104.5	2.3
65-69	4,591	3,711	95.0	87.5	-5.0	-12.8	123.7	-19.2
70-74	3,374	2,813	-	-	-	-	119.9	3.8
Total	439,917	460,481			48.4*	74.4*	95.5	83.6*
Mean					3.7	5.7		6.0

Note: \* Denotes Total irrespective of Sign

$$\begin{aligned}
 \text{Age-Sex Accuracy Index} &= 3 \times \text{mean difference in Sex Ratio} + \text{Mean Deviations of Male and Female Age Ratio} \\
 &= (3 \times 6.0) + 3.7 + 5.7 \\
 &= 27.4
 \end{aligned}$$

#### Survival Ratios

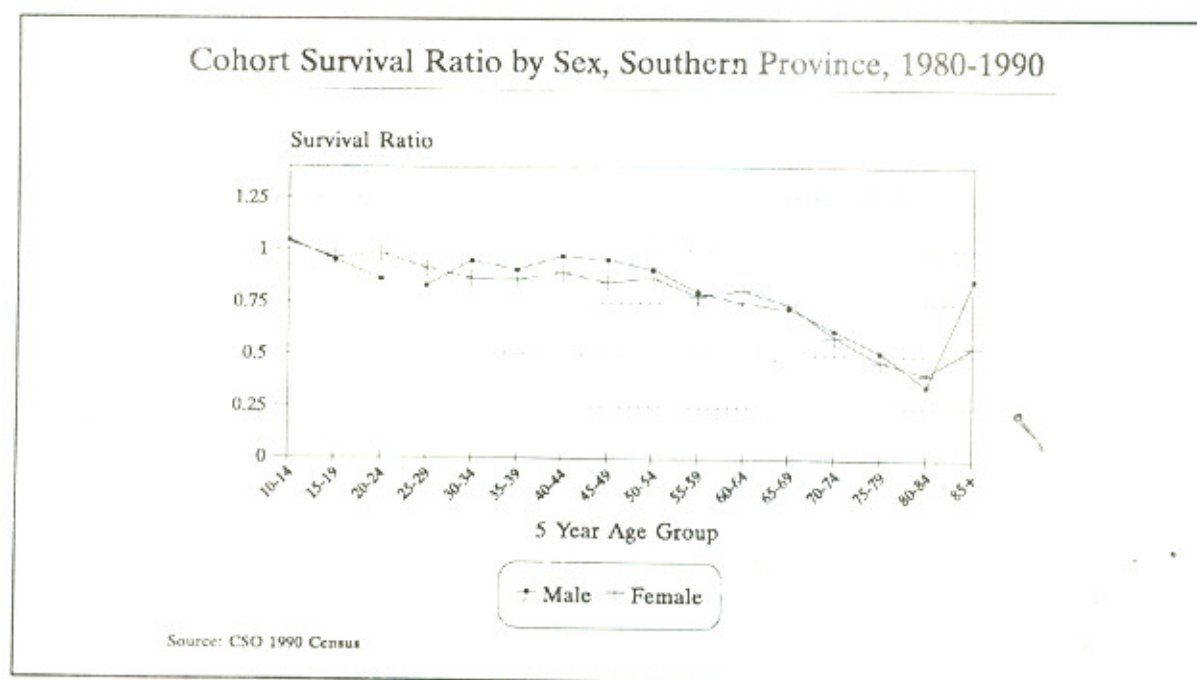
Survival ratios represent the probability that individuals of the same birth cohort or group of cohorts will still be alive 10 years later. Among the main uses of survival ratios is the evaluation of the quality of age and sex data. Evaluation of age and sex data from two censuses is achieved only under certain assumptions. The population should be closed to migration. Influence of abnormal mortality through wars, disasters, diseases, etc., over a 10 year period should be absent. The more erratic the census survival ratios are, the more inconsistent the age data are.

Table 2.9

## Cohort Survival Ratios By Sex, Southern Province, 1980-1990

Age Group	Male	Female
10-14	1.0426	1.0312
15-19	0.9466	0.9589
20-24	0.8572	0.9796
25-29	0.8292	0.9086
30-34	0.9454	0.8633
35-39	0.9036	0.8563
40-44	0.9676	0.8892
45-49	0.9522	0.8441
50-54	0.9041	0.8667
55-59	0.8020	0.7827
60-64	0.7481	0.8110
65-69	0.7261	0.7425
70-74	0.6190	0.5895
75-79	0.5125	0.4674
80-84	0.3553	0.4088
85+	0.5871	0.5382

Figure 2.7



Tables 2.9 and 2.10 show the survival ratios in Southern Province during 1980 and 1990 intercensal period. Table 2.9 shows the cohort survival ratios whereas Table 2.10 shows the overall survival ratios according to sex and in 5 year age groups. Cohort survival ratio refers to the probability of surviving from a given age group to the next age while overall survival ratio refers to the probability of surviving of the population in an open age group to the next age group.

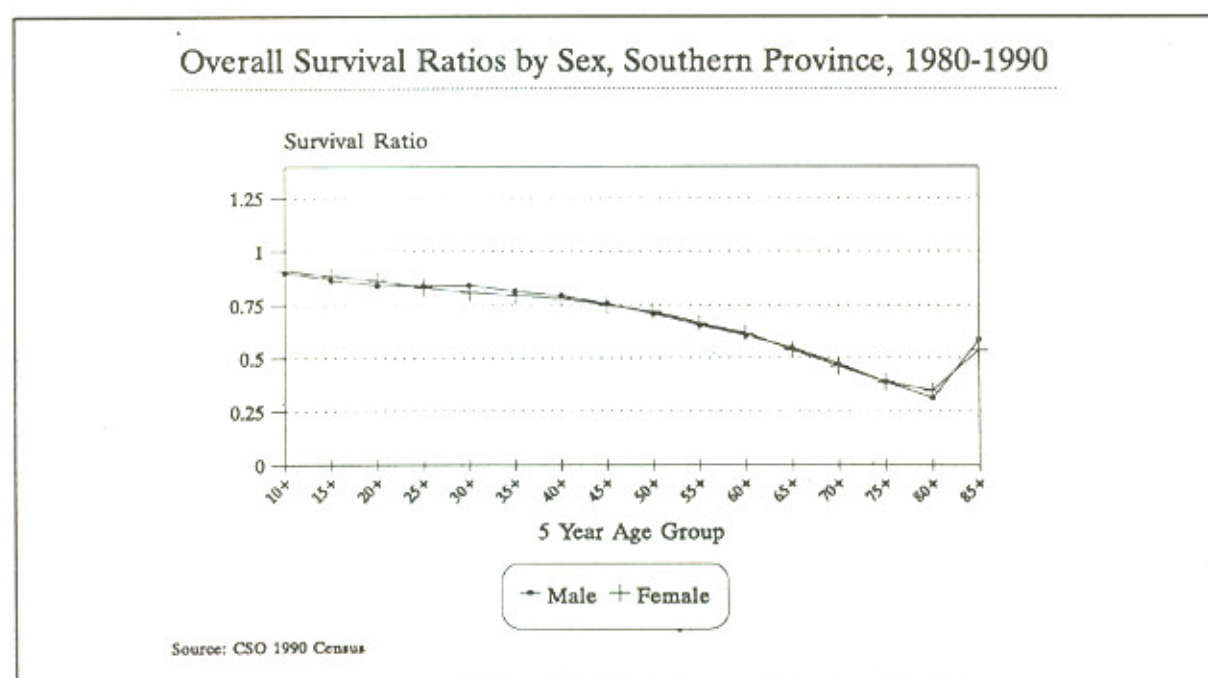
Cohort survival ratios are expected to be high at age group 10-14 where mortality is assumed to be lowest and then to decline, thereafter. Results from Table 2.9 and Figure 2.7 show some irregularities for both the male and female data. The overall survival ratios are expected to decline with increasing age. Results from Table 2.10 and Figure 2.8 show some irregularities in both the cohort and the overall survival ratios showing that there was age heaping and under or over enumeration at some age groups.

Table 2.10

Overall Survival Ratios, Southern Province, 1980-1990

Age Group	Male	Female
10+	0.9001	0.9116
15+	0.8667	0.8848
20+	0.8432	0.8642
25+	0.8390	0.8321
30+	0.8419	0.8104
35+	0.8130	0.7945
40+	0.7934	0.7804
45+	0.7559	0.7502
50+	0.7109	0.7206
55+	0.6563	0.6649
60+	0.6054	0.6191
65+	0.5468	0.5376
70+	0.4710	0.4598
75+	0.3861	0.3859
80+	0.3119	0.3440
85+	0.5871	0.5382

Figure 2.8





## 2.4 SUMMARY

In 1990, 907,150 people were enumerated in Southern Province. Of these, 215 did not state their age representing a negligible proportion of 0 percent. In 1980, 4,390 of the 671,923 enumerated people did not state their age. The proportion of those aged 0-14 years in 1980 was 50.6 percent. The proportion of the same age group dropped to 47.5 percent in 1990. The decline in the proportion of those aged 0-14 could be attributed to a decline in fertility coupled with an increase in mortality levels. The proportion of those aged between 15 and 64 rose from 46.1 in 1980 to 50.1 in 1990. The dependency ratio declined from 115.6 in 1980 to 99.6 in 1990. There was age heaping in Southern Province and the most preferred digits in 1980 and 1990 were 0, 2 and 8. Analysis of age-sex data using Myers' Index and the age ratio method shows that age reporting among males was slightly better than among the females in 1980 and 1990. In 1990, Myers' Index was 6.0 for males and 6.1 for females. The mean age ratio deviation in 1990 was 3.7 for males and 5.7 for females. The age specific sex ratios show that there is either a high male infant mortality or more female babies are being born than male babies. This observation requires further investigations. The age specific sex ratios further shows that mortality is high among males coupled with out migration among males. The sex ratio is high in old ages.

## CHAPTER 3

# POPULATION SIZE, GROWTH AND COMPOSITION

### 3.1 INTRODUCTION

The population censuses of Zambia have been designed to collect the de facto population data. However, in the 1990 Census of population, both de facto and de jure population counts were employed. Nevertheless, the results presented in this report use the de facto count. The de facto population constitutes people actually present in the country at a given point in time with the exception of foreign diplomatic personnel accredited to the country. The de jure population constitutes usual household members present and usual household members temporarily absent from their homes at the time of the 1990 Census.

Population composition is defined as the distribution of certain traits, characteristics or attributes of the population and how these affect the overall demographic structure of the country. There are three main characteristics of population composition. These are:

- Demographic characteristics such as age and sex.
- Social characteristics such as ethnicity and citizenship, and
- Economic characteristics such as crude activity ratio and age sex specific activity ratio.

### 3.2 POPULATION SIZE AND GROWTH

A total population of 907,150 persons is recorded in the 1990 Census, of which 443,315 are males and 463,835 are females. Details of this are given in Table 3.1.

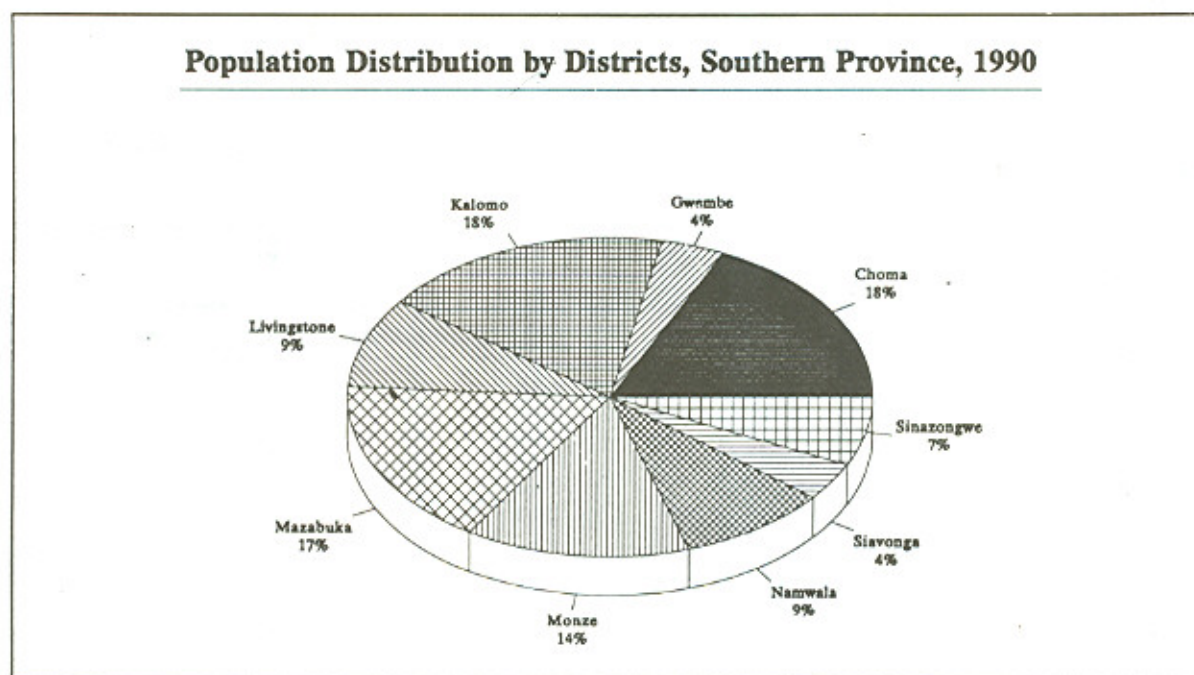
Table 3.1

Population size by Sex, Residence and District, Southern Province, 1990

District	Total			Rural		Urban	
	Both Sexes	Male	Female	Male	Female	Male	Female
Choma	163,050	79,168	83,882	61,785	65,745	17,383	18,137
Gwenbe	15,462	16,945	18,517	15,955	17,494	990	1,023
Kalomo	162,674	79,253	83,421	74,513	78,424	4,740	4,997
Livingstone	82,952	41,675	41,277	2,589	2,414	39,086	38,863
Mazabuka	155,436	77,873	77,563	56,235	57,286	21,638	20,277
Monze	126,039	60,861	65,178	51,431	54,442	9,430	10,736
Namwala	83,075	40,278	42,797	35,807	38,135	4,471	4,662
Siavonga	34,876	16,679	18,197	12,913	14,324	3,768	3,873
Sinazongwe	63,586	30,583	33,003	25,343	27,420	5,240	5,583
Total	907,150	443,315	463,835	336,569	355,684	106,746	108,151

Population sizes and annual growth rates as recorded by the 1969, 1980 and 1990 population censuses are depicted in Table 3.2.

Figure 3.1



The share of the provincial population among districts is shown in Figure 3.1. Choma is the most highly populated district followed by Kalomo. The least populated is Siavonga.

Table 3.2

**Population Size and Growth Rates, Southern Province, 1969, 1980 and 1990**

Province/District	1969	Annual Growth Rate 1969-80	1980	Annual Growth Rate 1980-90	1990
<b>Southern Province</b>					
- Total	496,041	2.8	671,923	3.0	907,150
- Rural	432,584	1.4	505,368	3.2	692,253
- Urban	63,457	9.2	166,555	2.6	214,897
<b>Districts</b>					
Choma	97,980	2.6	130,416	2.3	163,050
Gwembe	76,451	-11.2	20,666	5.5	35,462
Kalomo	76,571	2.2	97,177	5.3	162,674
Livingstone	49,063	3.5	71,521	1.5	82,952
Mazabuka	159,376	-3.1	112,528	3.3	155,436
Monze	-	-	110,423	1.3	126,039
Namwala	36,600	4.0	56,058	4.0	83,075
Siavonga	-	-	29,633	1.6	34,876
Sinazongwe	-	-	43,771	3.8	63,586

Note: Monze, Siavonga and Sinazongwe had not yet come into existence in 1969.

The population of Southern Province grew from 496,041 in 1969 to 671,923 in 1980 and to 907,150 in 1990. Population change may be negative or positive. The Geometric Growth Rate (annual compounding) method has been used to calculate the intercensal growth rates for the two intercensal periods. Annual growth rates of 2.8 percent (1969-80) and 3.0 percent (1980-90) have been calculated. This shows that the population of the province is growing at a high rate.



At the time of the 1980 population census Monze, Siavonga and Sinazongwe had attained district status. Their populations were withdrawn from their parent districts resulting in less population and thus negative annual growth rates for Gwembe and Mazabuka districts in the 1969-80 intercensal period.

Another way of assessing population size and growth is by way of observing population density over time. Table 3.3 gives details on this aspect.

**Table 3.3**

**Area and Population Density by District and Population Census Year, Southern Province, 1969, 1980 and 1990**

District	Area (Sq Km)	Population Density/Census Year (Population Per sq.km)		
		1969	1980	1990
Total Southern	85,283	5.8	7.9	10.6
Choma	7,296	13.4	17.9	22.3
Gwembe	12,611	6.1	4.1	2.8
Kalomo	31,103	3.5	3.1	5.2
Livingstone	1,427	34.4	50.1	58.1
Mazabuka	6,842	23.3	16.4	22.7
Monze	4,854	-	22.8	25.9
Namwala	21,751	1.7	2.6	3.8
Siavonga	2,614	-	11.3	13.3
Sinazongwe	4,964	-	8.8	12.8

The table shows that the population density for Southern Province has increased over the three population censuses of 1969, 1980 and 1990. The picture depicted by Table 3.2 is also observable in Table 3.3. The population densities of Gwembe and Mazabuka districts have reduced over the years because of the populations which were shared when some areas which fell under them achieved district status.

### 3.3 POPULATION COMPOSITION

#### *Age Composition*

Age is an important factor in demographic analysis as it is closely related to demographic and social processes. For example, the number of births depends on the number of child-bearing women aged 15-49 years. Migration is also age-selective, while the school-going population and labour force are concentrated in specific age groups.

Age in the census was defined as "the number of completed years (as at last birthday)" before the census date. The median age is held to be the best basis for describing a population as 'young' or 'old'. The median age is defined as the age which divides a population into two equal groups, one of which is younger and the other of which is older than the median. The median age calculated for Southern Province is 15.9 years, meaning that the population of the Province is young, see also Figures 3.2 and 3.3. In 1980 the median age was 14.7 years, giving only a marginal rise. That the population of the province is young, may further be grasped from Figures 3.2 and 3.3 which give a graphical representation.

Figure 3.2

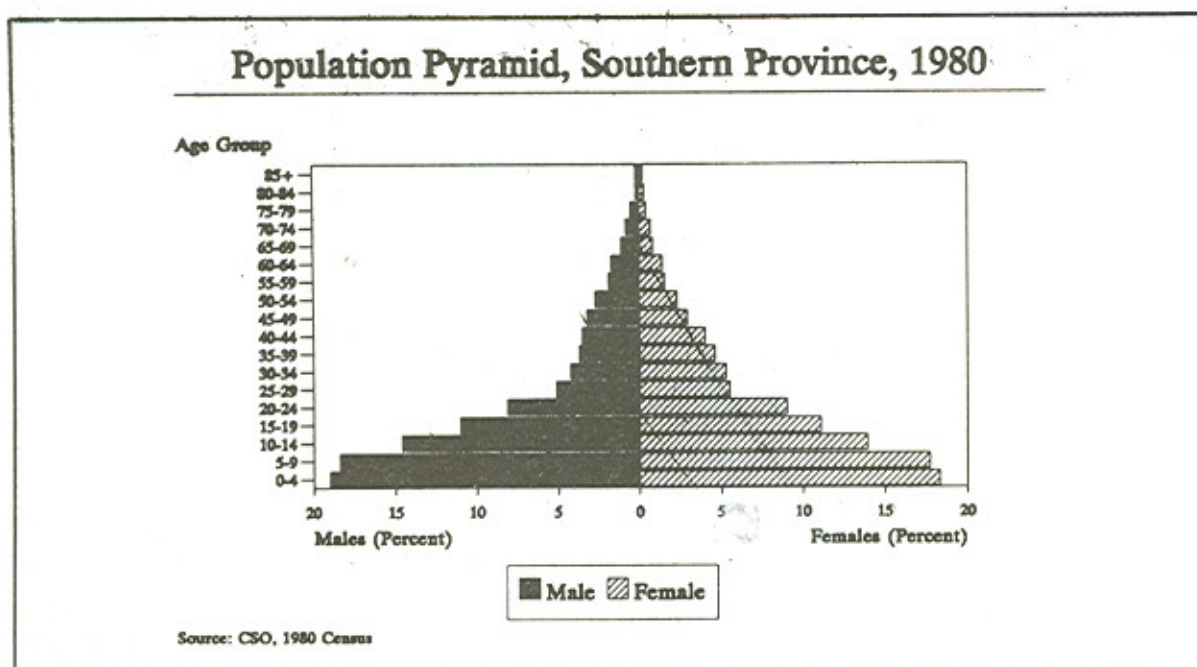
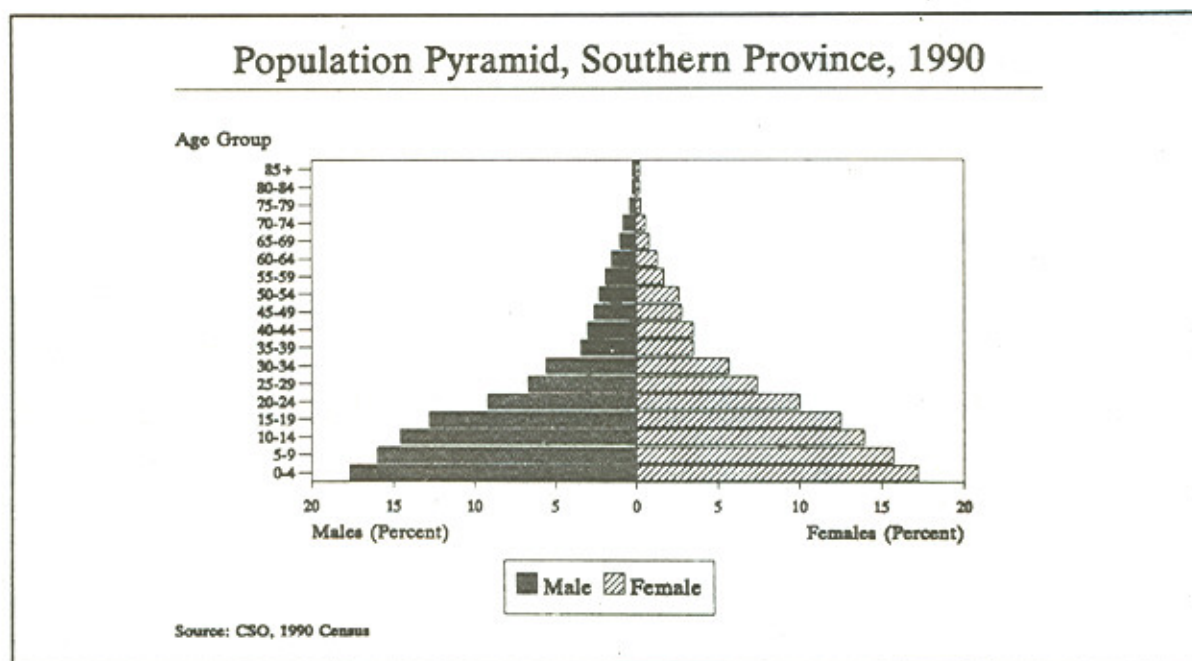


Figure 3.3



The age pyramids have wide bases. This means the population of the younger age groups is bigger than the older ones. In the absence of pronounced out-migration, prospects for future population growth are high in Southern Province because a large proportion of the population has yet to enter the reproductive age range, which in the case of females is put at 15-49 years. Additional information on the age-sex population distribution in Southern Province is given in Table 3.4.



Table 3.4

## Age-distribution of Population by Rural, Urban and Districts, (Percent), Southern Province, 1990

Age Group	Southern			Rural		Urban		Choma	Gwembe	Kalomo	Ltstone	Mazabuka	Monze	Namwala	Siavonga	Siunzongwe
	Both Sexes	Male	Female	Male	Female	Male	Female	Both Sexes	Both Sexes	Both Sexes	Both Sexes	Both sexes	Both Sexes	Both Sexes	Both Sexes	Both Sexes
0 - 4	17.4	17.7	17.2	18.3	17.5	15.8	16.1	18.0	19.7	17.3	14.9	17.4	17.9	17.4	17.5	17.8
5 - 9	15.9	16.0	15.7	16.5	15.9	14.5	15.1	16.2	17.5	16.4	14.6	15.3	15.6	16.0	15.9	16.1
10 - 14	14.2	14.6	13.9	14.9	13.6	13.5	14.9	14.8	13.3	14.6	14.2	13.5	14.6	13.8	14.4	13.7
15 - 19	12.7	12.8	12.5	13.0	12.2	12.3	13.6	12.8	11.3	12.9	13.3	12.1	13.3	12.1	12.2	12.4
20 - 24	9.6	9.2	10.0	9.0	9.7	9.8	11.0	9.5	8.8	9.4	10.2	10.3	9.4	9.1	8.7	10.2
25 - 29	7.1	6.7	7.4	6.3	7.0	8.0	8.6	6.8	6.7	6.7	8.2	8.0	6.6	6.5	6.8	7.2
30 - 34	5.7	5.6	5.7	5.0	5.4	7.4	6.8	5.2	5.3	5.4	7.1	6.3	5.1	5.4	5.4	5.7
35 - 39	3.5	3.4	3.5	2.9	3.3	5.0	4.2	3.4	3.1	3.0	4.8	3.6	3.2	3.3	3.6	3.5
40 - 44	3.3	3.0	3.5	2.6	3.6	4.3	3.2	3.1	2.9	3.1	4.0	3.4	3.1	3.3	3.3	3.2
45 - 49	2.7	2.6	2.8	2.4	3.0	3.0	2.2	2.6	2.9	2.7	2.7	2.7	2.7	2.8	2.9	2.7
50 - 54	2.4	2.3	2.6	2.3	2.8	2.4	1.6	2.3	2.4	2.6	2.1	2.3	2.5	2.5	2.9	2.8
55 - 59	1.8	1.9	1.7	2.0	1.9	1.5	1.0	1.7	1.8	1.9	1.5	1.7	1.8	2.3	2.1	1.7
60 - 64	1.4	1.5	1.3	1.6	1.5	1.0	0.8	1.4	1.6	1.5	1.1	1.3	1.5	1.7	1.6	1.3
65 - 69	0.9	1.0	0.8	1.2	0.9	0.6	0.4	0.8	1.0	1.0	0.6	0.8	1.0	1.3	1.1	0.8
70 - 74	0.7	0.8	0.6	0.9	0.7	0.4	0.3	0.6	0.7	0.7	0.4	0.6	0.8	1.1	0.8	0.6
75 - 79	0.3	0.4	0.3	0.5	0.3	0.2	0.1	0.3	0.4	0.3	0.2	0.3	0.4	0.6	0.3	0.2
80 - 84	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0.3	0.2	0.1	0.2	0.2	0.4	0.2	0.2
85 +	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.2	0.2	0.4	0.1	0.1
N/State	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Pop.	907,150	443,315	463,835	356,569	355,684	106,746	108,151	163,050	35,462	162,674	82,952	155,436	126,039	83,075	34,876	63,586

In demographic studies, the age group 0-14 years is considered to be the child population. It may be noted that almost half the population of both sexes 48.3 percent of the males and 46.8 percent of the females, constitute children aged 0-14 years.

A large child population has implications for future growth of the population. It is an in-built population growth momentum. Resources meant for investment in the productive sector of the economy would be diverted to building of schools, health institutions and consumption.

*Ethnicity and Citizenship*

Table 3.5 gives information on ethnic composition.

Table 3.5

## Ethnic Composition of the Population of Southern Province, 1990

Sex	Ethnic Group						Total
	African	American	Asians	European	Other	Not Stated	
Male	438,668	70	435	382	0	3,760	443,315
Female	459,106	52	400	354	1	3,922	463,835
Total	897,774	122	855	736	1	7,682	907,150
% of Total Population	98.97	0.01	0.09	0.08	0.00	0.85	100.0

Ethnicity in the Census was defined as continent of origin when referring to the whole population, but when applied to Zambians it referred to the indigenous Zambian tribes. The population of Southern Province is predominantly African. Africans form 98.97 percent of the population. Other ethnic groups form only a negligible 0.18 percent.



Table 3.6 provides information on citizenship status of the population of Southern Province. Less than one percent (8,430) of the population of the province comprises foreign citizens. Prominent among the foreign citizens are Zimbabweans (18.2 percent), Malawians (6.4 percent) and Europeans (6.3 percent).

**Table 3.6**

**Foreign Population of Southern Province by Citizenship, 1990 and Percentage Foreign Citizens, 1980**

Country/Region	Population 1990	Percent 1990	Percent 1980
Central Africa	65	0.8	0.9
Tanzania	201	2.4	3.3
Other (Eastern Africa)	49	0.6	0.3
Northern Africa	55	0.7	1.3
Angola	28	0.3	4.1
Botswana	38	0.5	12.7
Malawi	536	6.4	5.5
Mozambique	26	0.3	0.3
Zimbabwe	1,532	18.2	23.9
Other (Southern Africa)	19	0.2	2.1
West Africa	127	1.5	0.9
America	109	1.3	15.7
Asia and Oceania	352	4.2	4.2
Europe	527	6.3	6.6
Not Stated	4,766	56.2	18.2
% Total		100.0	100.0
Total Foreign Citizens	8,430		19,358
% Foreign Population		0.9	2.9

In 1980, foreign citizens were more by 2 percentage points at 2.9 percent (19,358). The Zimbabweans still led, followed by Americans, Tswanas and Europeans.

#### *Economic Characteristics*

This Chapter presents only introductory information on economic characteristics of the population of Southern Province. Analysis techniques used in describing persons who are economically active are presented in detail in the chapter on economic characteristics. In this present chapter only Crude Activity Ratio and labour force participation rates are presented. Crude Activity Ratios are presented in Table 3.7

**Table 3.7**

**Crude Activity Ratio, Southern Province, 1990**

Province/Residence	Crude Activity Ratio (%)
Southern Province	
- Total	30.9
- Rural	31.7
- Urban	28.5

The activity ratios in Southern Province are low indicating that few economically active persons in the province have to provide for large numbers of economically inactive persons. The situation is only marginally better off for rural areas, probably because work is land-based and thus may be readily available.

Table 3.8

Age - Sex Specific Activity Ratio (ASSAR), Southern Province, 1990

Age - Specific Activity Ratio (%)						
Age Group	Southern		Rural		Urban	
	Male	Female	Male	Female	Male	Female
Total	67.6	35.2	69.2	37.8	63.1	26.7
12-14	39.0	36.4	46.0	43.7	15.2	15.1
15-19	47.6	39.8	54.1	45.9	26.1	21.9
20-24	70.6	35.7	72.8	37.8	64.4	29.7
25-29	83.9	33.2	83.3	33.9	85.6	31.3
30-34	87.4	33.1	86.1	33.2	90.2	32.9
35-39	88.6	34.5	86.7	34.0	92.2	35.7
40-44	88.0	32.1	85.6	31.9	92.6	32.7
45-49	86.2	32.0	84.5	32.2	90.5	31.2
50-54	84.1	33.4	83.0	34.8	87.4	25.4
55-59	81.4	32.8	81.5	33.8	81.1	26.6
60-64	77.7	33.4	78.7	34.8	72.9	24.1
65-69	73.5	32.7	74.9	34.3	65.7	21.2
70-74	65.3	28.6	66.6	29.9	56.1	17.5
75+	52.7	24.6	53.9	25.2	42.9	18.9
N/S	16.7	8.4	17.9	8.2	11.1	9.1

Table 3.8 gives information on a much refined measure of economic activity. The age-sex specific activity ratios for females are consistently lower than those for males. Most females may have been involved in activities which are not considered under the category of the economically active such as full-time homekeeping.

Labour force participation rates (which is another name for age-sex specific activity ratio) for lower age groups 12-14 and 15-19 years are lower than those for older age groups. These however, are school-going ages. Figures 3.4 and 3.5 amplify these observations.

### Age - Sex Specific Activity Ratio, Southern Province, 1990 Rural

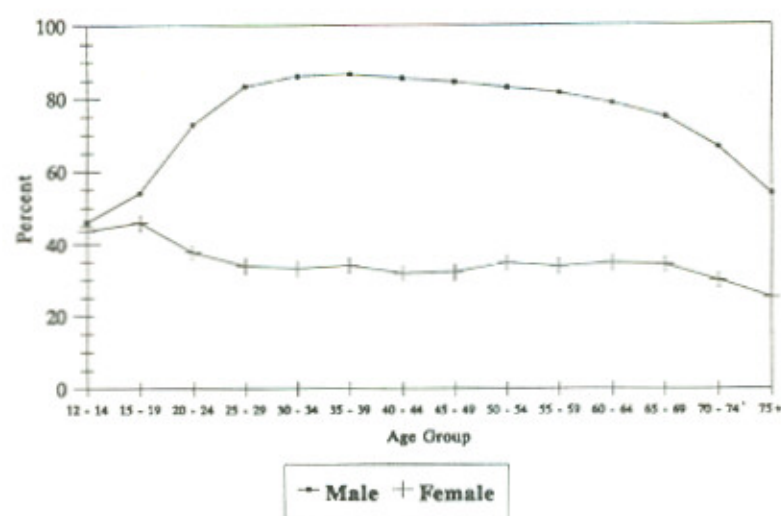
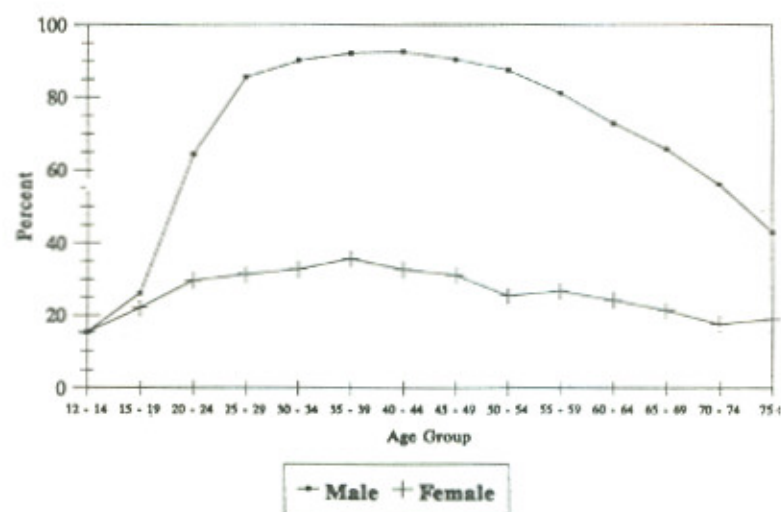


Figure 3.5

### Age - Sex Specific Activity Ratio, Southern Province, 1990 Urban





### 3.4 SUMMARY

The three post-independence population censuses have shown that the population of Southern Province grew from 496,041 in 1969, to 671,923 in 1980 and to 907,150 in 1990. Corresponding annual population growth rates for the two intercensal periods were 2.8 percent (1969-80) and 3.0 percent (1980-90).

The population of the province is that which may be termed as "young" with median age pegged at 15.9 years. The population is predominantly African at 98.97 percent and foreign citizens only form a negligible 0.9 percent while 0.13 percent have not stated their citizenship. The Crude Activity Ratio is low and labour force participation rates are higher for males than females.

## CHAPTER 4

# LANGUAGE OF COMMUNICATION

### 4.1 INTRODUCTION

There are many languages and dialects in Zambia. It is estimated that there are 72 tribes in Zambia each with a unique language and dialect. However, there are seven major languages. These are Bemba, Nyanja, Tonga, Lozi, Kaonde, Lunda and Luvale. They are widely spoken and taught in schools. English is the official language in the country, used in all government functions. It is a compulsory subject at primary and secondary levels of education and every pupil has to pass it to be awarded a certificate.

During the 1990 Census of Zambia, information on one's predominant and second language of communication was collected. A predominant language of communication was defined as the language most frequently used for a person's day-to-day communication with others in the community. The second language of communication was conceived to be the next most used predominant language of communication.

In this chapter, languages have been classified in seven broad language groups, namely the Bemba, Tonga, North-Western, Barotse, Nyanja, Mambwe and Tumbuka. The category "other" shown in the given tables include languages not commonly spoken in the province. It is worth noting that the seven language groups have been formed for convenience in presenting the data as they may contain other equally important languages. For example, in the North-Western group, Kaonde, Luvale and Lunda are distinct languages with their own dialects and the Barotse language group comprises languages such as Lozi, Nkoya, Subiya and Nyengo.

The 1990 census results have been presented in this chapter, with respect to languages of communication in Southern province. These results are presented for each language with a sizeable number of persons speaking the language. In some cases all individual languages have been grouped into their respective language groups to facilitate analysis.

Out of the provincial population of 907,145 enumerated, 858,902 persons spoke at least a language. The remaining population comprised 33,914 persons in the "not applicable" category and 14,321 persons who did not state any language. The "not applicable" and "not stated" (the dumb and very young not yet able to talk) cases have been excluded from all subsequent tables.

### 4.2 PREDOMINANT LANGUAGE OF COMMUNICATION

The major indigenous ethnic group in Southern Province is mainly Tonga although the Lozis can also be traced in the South most part of the province. The indigenous languages in the province, therefore, comprise Tonga, Lozi, Ila, Nyanja and Toka-Leya. However, due to internal movements of people other languages in the province are spoken.

Table 4.1 presents data on major 19 predominant languages spoken by district in Southern province.

Table 4.1

Predominant Language of Communication by District, (Percent), Southern Province, 1990

Major Language	Province	Choma	Gwembe	Kalomo	Livingstone	Mazabuka	Monze	Namwala	Siavonga	Sinazongwe
Bemba	2.8	2.4	1.9	0.8	7.8	3.0	1.5	2.6	2.9	4.8
Tonga	71.8	85.7	93.8	71.8	16.0	78.3	90.3	37.7	72.3	87.0
Lenje	0.2	0.1	0.0	0.1	0.6	0.3	0.1	0.2	0.2	0.2
Ila	4.0	0.5	0.0	0.3	0.8	0.5	0.2	40.6	0.4	0.2
Toka Leya	3.7	0.2	0.0	16.2	7.2	0.2	0.1	0.2	0.0	0.2
Gowa	0.6	0.0	0.1	0.0	0.0	0.1	0.0	0.0	13.8	0.0
Luvale	0.8	0.4	0.1	0.4	2.4	0.6	0.3	2.4	0.2	0.5
Lunda (N-West)	0.2	0.1	0.0	0.1	0.4	0.1	0.2	0.4	0.1	0.2
Kaonde	0.2	0.1	0.1	0.1	0.5	0.1	0.1	0.5	0.1	0.1
Lozi	6.8	2.6	1.5	6.7	30.4	6.6	2.0	7.0	1.8	3.0
Nkoya	0.2	0.2	0.0	0.3	0.6	0.0	0.1	0.9	0.0	0.1
Chewa	0.6	0.5	0.1	0.2	1.8	0.9	0.4	0.4	0.7	0.3
Nsenga	0.5	0.4	0.1	0.2	2.5	0.7	0.2	0.2	0.7	0.2
Ngoni	1.0	1.4	0.3	0.4	1.8	1.5	0.7	0.4	0.3	0.7
Nyanja	3.8	3.2	1.1	1.0	17.4	4.1	2.2	1.4	4.1	0.9
Mambwe	0.1	0.1	0.0	0.0	0.3	0.2	0.1	0.2	0.3	0.1
Namwanga	0.1	0.1	0.0	0.1	0.2	0.3	0.1	0.1	0.1	0.1
Tumbuka	0.3	0.2	0.1	0.2	0.8	0.5	0.3	0.5	0.2	0.4
English	0.7	0.6	0.1	0.3	4.2	0.6	0.5	0.0	0.5	0.1
Other	1.6	1.2	0.5	0.8	4.3	1.4	0.6	4.3	1.3	0.9
Total	100.0	100.0*	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Size	858,902	154,306	33,681	154,869	78,825	147,192	119,416	76,825	33,075	60,713

In Southern Province, over 70 percent of the population speak Tonga language as their first (predominant) language for their day-to-day communication. Lozi, Ila, Nyanja, Tokaleya and Bemba together accounting for about 20 percent of the population in the province. The remaining 13 languages are spoken by 10 percent of the population in the province.

Except in Livingstone and Namwala districts, Tonga language is almost universal in the remaining 7 districts. In Livingstone district Lozi Language is spoken by about one third of the population followed by Nyanja spoken by 17.9 percent, then Tonga spoken by 16.0 percent of the population. The Ila Language is indigenous in Namwala district spoken by over 40 percent of the people and together with Tonga account for nearly 80 percent of the district population. Other widely spoken languages are Toka leya in Kalomo, Gowa in Siavonga districts; each ranking second after Tonga. The dominance of the Tonga language is more pronounced in Gwembe and Monze districts where it is spoken by over 90 percent of the people.

#### 4.3 PREDOMINANT LANGUAGE GROUP

The languages presented in Table 4.1 have been grouped according to language groups described in section 4.1 and presented by sex in Table 4.2 for rural and urban areas of Southern Province.

In rural areas of Southern Province, languages in the Tonga language group are spoken by over 90 percent of the population. The remaining population of less than 10 percent speak languages from the other 7 language groups including English language. Over 40 percent of the urban population speak languages in the Tonga group while nearly 60 percent speak languages in the other language groups including English.

English, the official language in Zambia is little spoken as a first language in Southern Province particularly in rural areas. However, in urban areas it is spoken more than the languages in the Tumbuka and Mambwe groups put together. Sex differences in the predominant language groups are minimal.



Table 4.2

Predominant Language Groups by Sex and Rural/Urban, (Percent), Southern Province, 1990.

Language Group	Southern Province - Total			Southern Province Rural			Southern Province Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba	3.1	3.2	2.9	1.2	1.4	1.1	9.0	9.1	8.9
Tonga	80.3	79.0	81.6	92.0	91.0	92.9	42.5	40.8	44.1
N/Western	1.8	2.0	1.7	1.0	1.1	0.9	4.3	4.4	4.2
Barotse	7.2	7.7	6.6	3.6	4.0	3.1	18.9	19.6	18.3
Nyanja	6.0	6.3	5.7	1.5	1.7	1.4	20.5	20.7	20.2
Mambwe	0.3	0.3	0.3	0.1	0.1	0.1	0.8	0.9	0.8
Tumbuka	0.4	0.4	0.4	0.1	0.2	0.1	1.3	1.4	1.3
English	0.7	0.9	0.6	0.3	0.3	0.2	2.3	2.7	1.8
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Size	858,902	419,652	439,250	656,636	319,145	337,491	202,266	100,507	101,759

Note: Size does not include "Not Stated" and "Not Applicable" cases.

Table 4.3 below shows changes in the share of each language group during the intercensal period, 1980-1990. Over the 10 year period very little has changed with regard to most language group proportions. The highest changes occurred in the Bemba language group in which the population using the language increased by 0.6 percent and those using English declined by 0.4 percent.

Table 4.3

Predominant Language Groups by Year, (Percent), Southern Province, 1980 and 1990.

Language Group	Percentage of Total Population	
	1980	1990
Bemba	2.5	3.1
Tonga	80.6	80.3
North-Western	1.5	1.8
Barotse	7.3	7.2
Nyanja	5.9	6.0
Mambwe	0.2	0.3
Tumbuka	0.3	0.4
English	1.1	0.7
Other	0.7	0.2
Total	100.0	100.0
Size	621,105	858,902

#### 4.4 SECOND LANGUAGE OF COMMUNICATION

During the 1990 Census information on the second language of communication was also collected. Of the 907,145 enumerated persons in Southern Province, only 267,565 or 29.5 percent responded that they spoke a second language.

Table 4.4 presents results on the second languages spoken in the province and districts as at the time of the census. In Southern Province Nyanja is most spoken as a second language followed by English. In most districts, Nyanja is the major second language of communication. However, it is revealed from Table 4.4 that in Kalomo, Lozi which is used by 24.2 percent and English by 22.0 percent of the people are the two major second languages. In Namwala, Ila is spoken by 27.3 percent and Tonga by 26.7 percent. The two languages are the most dominant.

Table 4.4

Second Language of Communication by District, (Percent), Southern Province, 1990

Second Language	Southern Province	Choma	Gwembe	Kalomo	Livingstone	Mazabuka	Monze	Namwala	Siavonga	Sinazongwe
Bemba	7.5	10.2	9.0	7.0	6.0	6.7	9.4	5.1	6.5	10.0
Tonga	15.7	14.5	10.0	14.3	9.6	16.5	15.7	26.7	21.8	18.1
Lenje	0.4	0.2	0.2	0.3	0.4	0.6	0.3	0.3	0.3	0.4
Ila	3.3	0.8	0.3	0.9	0.6	0.3	0.7	27.3	0.2	0.2
Toka-Leya	1.8	0.2	0.0	7.2	4.0	0.1	0.1	0.1	0.1	0.1
Gowa	1.0	0.0	1.4	0.0	0.0	0.2	0.0	0.1	19.0	0.0
Luvale	0.6	0.4	0.4	0.5	0.9	0.4	0.4	1.2	0.2	0.3
Lunda(N/W)	0.1	0.1	0.0	0.0	0.2	0.0	0.2	0.1	0.1	0.1
Kaonde	0.2	0.2	0.2	0.3	0.4	0.1	0.2	0.5	0.2	0.2
Lozi	10.8	6.4	4.3	24.2	19.5	5.6	4.8	8.0	1.6	3.8
Nkoya	0.3	0.2	0.0	0.8	0.4	0.1	0.1	0.6	0.0	0.1
Chewa	0.5	0.5	0.3	0.5	0.6	0.6	0.5	0.2	0.4	0.1
Nsenga	0.4	0.2	0.1	0.2	1.0	0.4	0.4	0.2	0.3	0.2
Ngoni	2.3	4.7	2.0	2.5	1.0	3.7	1.9	0.6	0.3	1.1
Nyanja	31.1	30.4	42.3	17.6	40.4	37.7	29.5	16.9	40.4	32.1
Mambwe	0.1	0.1	0.0	0.0	0.1	0.1	0.1	0.0	0.3	0.1
Namwanga	0.1	0.1	0.0	0.0	0.2	0.2	0.1	0.0	0.0	0.1
Tumbuka	0.3	0.3	0.1	0.1	0.5	0.2	0.2	0.2	0.5	0.2
English	21.6	28.9	27.4	22.0	11.7	24.5	34.2	9.3	6.6	31.5
Other	1.9	1.6	1.7	1.6	2.5	2.0	1.2	2.6	1.1	1.3
Total	100.0	100.0	99.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Size	267,565	43,899	5,507	37,174	50,689	44,689	29,271	27,595	13,128	15,613

Table 4.5 presents data on sex distribution of second language groups in rural and urban areas of Southern Province. The table shows that all the language groups are represented in the province in the varying proportions. A higher percentage of people in rural areas speak English as a second language, compared to the percentage in urban areas. In urban areas the languages in the Nyanja group are often spoken. Furthermore, sex differences in the usage of English exhibit more males preferences than females.

Table 4.5

Second Language Groups by Sex and Rural/Urban, (Percent), Southern Province, 1990

Language Group	Southern Province Total			Southern Province Rural			Southern Province Urban		
	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females
Bemba	7.9	7.3	8.5	8.1	7.3	9.1	7.5	7.2	7.9
Tonga	22.5	20.8	24.4	24.3	22.1	27.0	20.4	19.4	21.5
North-Western	1.4	1.4	1.5	1.2	1.1	1.2	1.7	1.7	1.7
Barotse	11.3	10.7	12.0	11.5	10.7	12.4	11.1	10.6	11.5
Nyanja	34.5	33.7	35.3	27.0	26.8	27.3	43.5	42.7	44.3
Mambwe	0.2	0.2	0.2	0.1	0.1	0.1	0.4	0.3	0.4
Tumbuka	0.3	0.3	0.4	0.2	0.2	0.2	0.5	0.5	0.5
English	21.5	25.2	17.4	27.1	31.2	22.2	14.7	17.4	12.0
Other	0.4	0.4	0.3	0.5	0.5	0.4	0.2	0.2	0.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Size	267,565	142,185	125,380	146,343	80,504	65,839	121,222	61,681	59,541

Table 4.6 shows the percentage distribution of the second language groups of communication for the years 1980 and 1990. Generally, there have been noticeable changes in the proportionate representation of language groups between the intercensal period. The Nyanja language group increased its share from 24.0 percent in 1980 to 34.5 percent in 1990. The percentage shares of English and the Barotse group of languages have declined substantially.

Table 4.6

Second Language Groups, (Percent), Southern Province, 1980 and 1990

Language Group	Percentage of Total Population	
	1980	1990
Bemba	7.0	7.9
Tonga	18.4	22.5
North-Western	1.4	1.4
Barotse	15.4	11.3
Nyanja	24.0	34.5
Mambwe	0.2	0.2
Tumbuka	0.3	0.3
English	31.4	21.5
Other	1.8	0.4
Total	100.0	100.0
Size	174,597	267,565

Table 4.7 shows the rank order of the predominant and second language for the first five mostly used languages. The ranking is such that the language on top of each cell is the predominant language of communication. The language below is the second language of communication. Where a cell has only one language, it signifies that the language has the same indicated rank order for both predominant and second language. The results of rank ordering for each district are summarised in Table 4.7 below.



Table 4.7

Rank Order of Predominant and Second Language of Communication by District - Southern Province 1990.

Rank Order	Southern Province	Choma	Owambo	Kalene	Livingstone	Maramba	Monze	Namwala	Sieronga	Sisumungwe
1	Tonga Nyanja	Tonga Nyanja	Tonga Nyanja	Tonga Lozi	Lozi Nyanja	Tonga Nyanja	Tonga English	Ila	Tonga Nyanja	Tonga Nyanja
2	Lozi English	Nyanja English	Bemba English	Toka Leya English	Nyanja Lozi	Lozi English	Nyanja Nyanja	Tonga	Gowa Tonga	Bemba English
3	Ila Tonga	Lozi Tonga	Lozi Tonga	Lozi Nyanja	Tonga English	Nyanja Tonga	Lozi Tonga	Lozi Nyanja	Nyanja Gowa	Lozi Tonga
4	Nyanja Lozi	Bemba	Nyanja Bemba	Nyanja Tonga	Bemba Tonga	Bemba	Bemba	Bemba English	Bemba English	Nyanja Bemba
5	Toka Leya Bemba	Ngoni Lozi	Ngoni Lozi	Bemba Tokaleya	Toka Leya Bemba	Ngoni Lozi	Ngoni Lozi	Luvale Lozi	Lozi Bemba	Ngoni Kaonde

#### 4.5. SUMMARY

The major predominant languages spoken in Southern province are indigeneous to the province. About 19 languages have been identified as major ones in the province. However, the most spoken languages are Tonga, Lozi Ila Nyanja and Tokaleya. Tonga is spoken by over 70 percent of the people as a predominant and first language of communication, whereas the Lozi Ila Nyanja and Tokaleya together account for nearly 20 percent of the population. English is spoken mainly as a second language of communication.

## CHAPTER 5

# EDUCATIONAL CHARACTERISTICS

### 5.1 INTRODUCTION

The term education generally refers to the skills and knowledge acquired formally through the framework of an established schooling system, or non-formally through interaction with one's society. In the development of human resources, education is the most important consideration that has an overt impact on the quality of human resources in terms of their skills and knowledge.

In Zambia, as in most countries, formal education implies age-specific, full-time classroom attendance in a graded system geared to certificates, diplomas, degrees, or other formal credentials. Subsequently, it is relatively easy to define formal education as well as to measure its costs and identify its outputs. Similarly, the collection and documentation of statistical information related to formal education is easy. Such information includes number, size and geographical distribution of schools, age, sex and number of pupils in each class and spatial location; age sex and number of teachers by qualification per school, as well as the financial cost of building and of running each school.

In contrast, non-formal education involves activities that are aimed at a wider range of goals. Such activities tend to be heterogeneous, unstandardized and seemingly unrelated. No single institution may be identified as having the major responsibility of providing or regulating the scope and standards of non-formal education. In addition, the costs, inputs and outputs of non-formal education cannot be readily measured. However, non-formal education in most developing countries may even have a greater role than formal education in generating skills, influencing attitudes, and moulding values of the people through routinely and often unconsciously learning-by-doing, being instructed or inspired by others to perform specific tasks or simply by participating or associating in a community.

The 1990 Census of Population, Housing and Agriculture included the following educational aspects for all persons aged 5 years and over:-

- Whether they can read and write,
- Attendance to any institution of learning,
- Previous attendance to any institution of learning,
- Highest level of academic education completed, and
- Highest professional/vocational education completed.

Information on current school attendance by level of education was not collected in the 1990 Census. Thus, no estimates can be made on age-specific current grade attendance rates.

### 5.2 CONCEPTS AND DEFINITIONS

#### *Educational System*

Formal education in Zambia is based on a three tier system. The primary school cycle starts at age seven and is spanned over a period of 7 years. The progression from primary to secondary is restricted through examinations. After secondary education, which lasts for 5 years, another selection takes place such that only a small number of graduates proceed to institutions of higher learning. Since the 1980s, there has been an expansion of part of the secondary education system (grades 8 to 9 or junior secondary) due to manpower needs. Basic schools, offering grades 1 to 9 classes, have greatly increased the number of pupils attending grades 8 and 9.



### *School Attendance*

School attendance is synonymous with school enrolment in any regular educational institution, public or private, for systematic instruction at any level of education during a well defined and recent time period. The legal age for a child to start school in Zambia is seven years. Taking the entry to grade 1 as 7 years, the age groups used in the subsequent presentation correspond to a given educational level.

- Lower primary grades 1, 2, 3 and 4 correspond to pupils aged 7-10 years.
- Upper primary grades 5, 6 and 7 correspond to pupils aged 11-13 years.
- Junior secondary grades 8 and 9 correspond to pupils aged 14 and 15 years.
- Senior secondary grades 10, 11 and 12 correspond to pupils aged 16-18 years.
- Students above 18 years could be considered to be in higher institutions of learning.

With this kind of correspondence, there sometimes exists an age-grade mismatch in the educational system. For instance, a person above 19 years could still be in secondary school.

### *Literacy*

Literacy refers to the ability to read and write in any language. Individuals who can read and write are called literate.

### *Academic education*

This is the highest level of formal education that an individual has attained or completed regardless of duration in school. Educational qualifications attained such as certificate, diploma are included in the educational outputs.

### *Professional/Vocational Education completed*

This is higher qualification attained after formal school (grade 1-12) either at college or university. Including specified fields of study.

## **5.3 LITERACY STATUS**

Data on literacy status of all persons aged 5 years and over was collected during the 1990 Census. However, no such information was collected during the 1980 Census. As such no comparison can be made over 1980-1990 intercensal period.

Table 5.1 provides information on literate population by age group, sex and residence in Southern Province in 1990. The percentage of literate population in Southern Province is 57.7 percent. Of the males, 62.4 percent are literate compared to 53.2 of the females. The literate population is concentrated in age groups 10 to 44 years. More than 50 percent of population in each age group in the 15-44 age range are able to read and write, except in the age range 45 years and over in which less than 50 percent are able to read and write. In all the age groups, proportions of males, able to read and write, are higher than those of females. Urban areas have high literate proportions in all age groups as compared to rural areas. In urban areas, 74.1 percent of the population are able to read and write while in rural areas 52.4 percent are literate. In rural areas, 57.5 and 47.7 percent of males and females are literate while in urban areas, 77.4 percent of male population and 70.9 percent of female population are literate.

The districts in Southern Province that have high percentages of literate population are Monze with 66 percent, Livingstone with 62 percent, and Choma with slightly above 60 percent. Mazabuka, Namwala and Kalomo districts have each a population of over 50 percent who are able to read and write. The rest of the districts, namely, Gwembe, Siavonga and Sinazongwe have each a population of below 50 percent who are literate.



Table 5.1

Literate Population by Age Group, Sex and Residence, (Percent), Southern Province, 1990

Residence/Sex	Total	Age Group							Not Stated
		5-9	10-14	15-19	20-24	25-29	30-44	45+	
Southern Province									
- Total	57.7	15.1	60.0	78.0	78.1	78.2	72.6	41.7	26.5
- Male	62.4	14.3	58.8	79.6	82.1	84.4	84.3	60.3	26.1
- Female	53.2	15.8	61.3	76.5	74.6	72.8	62.0	23.3	27.0
Residence									
Rural									
- Total	52.4	11.7	53.7	73.8	74.0	73.8	67.2	38.1	23.7
- Male	57.5	10.9	52.7	75.7	79.1	81.1	80.3	56.5	23.3
- Female	47.7	12.4	54.8	71.8	69.6	67.6	56.4	21.3	24.2
Urban									
- Total	74.1	27.2	80.4	91.2	90.0	89.6	85.8	58.4	57.1
- Male	77.4	26.4	79.9	92.4	91.1	92.5	92.6	74.9	66.7
- Female	70.9	28.0	80.9	90.2	89.0	86.9	78.0	35.2	50.0
Districts									
Choma									
- Total	60.4	13.8	61.6	83.1	82.9	82.9	76.1	47.2	0.0
- Male	63.9	13.0	60.0	83.4	85.9	87.4	86.0	66.1	0.0
- Female	57.1	14.6	63.2	82.7	80.3	79.2	67.6	28.9	0.0
Gwembe									
- Total	36.4	7.3	34.7	51.7	51.9	56.0	53.6	26.1	50.0
- Male	43.8	6.5	35.6	56.4	64.5	69.0	73.1	45.0	56.2
- Female	29.6	8.0	33.8	47.0	41.7	46.1	38.4	10.0	43.8
Kalomo									
- Total	52.3	11.0	52.5	72.8	73.5	74.3	67.9	39.9	16.7
- Male	57.0	10.3	51.3	74.3	77.2	81.1	81.2	58.2	25.0
- Female	47.8	11.6	53.8	71.4	70.2	68.4	57.2	21.9	7.2
Livingstone									
- Total	62.0	30.9	85.2	93.8	93.6	93.1	89.3	62.0	36.4
- Male	76.4	30.4	84.2	94.3	94.6	95.3	95.3	76.4	43.8
- Female	40.1	31.4	86.2	93.3	92.7	91.1	82.5	40.1	29.6
Mazabuka									
- Total	59.0	16.2	61.8	78.7	78.2	78.4	71.3	41.5	20.0
- Male	64.3	15.1	60.5	80.9	81.3	84.2	83.2	60.6	12.5
- Female	62.1	16.5	72.5	94.0	81.9	77.4	69.2	32.6	27.0
Monze									
- Total	66.1	17.8	69.7	89.6	88.9	87.5	80.9	50.0	21.2
- Male	69.2	16.9	68.4	89.7	90.8	90.2	88.5	68.5	23.5
- Female	63.1	18.7	71.0	89.4	87.2	85.3	74.7	33.6	18.8
Namwala									
- Total	53.1	12.6	55.2	73.0	75.6	75.7	69.3	37.1	40.0
- Male	56.6	12.2	52.9	73.0	77.7	79.5	78.6	53.9	41.7
- Female	49.8	13.0	57.4	73.1	73.8	72.7	61.4	20.4	37.2
Siavonga									
- Total	45.1	13.7	48.2	61.2	63.4	63.7	61.4	25.4	12.6
- Male	55.1	12.6	48.7	70.1	75.9	81.6	82.8	46.5	12.2
- Female	36.2	14.7	47.7	52.8	53.0	49.3	42.3	8.5	13.0
Sinazongwe									
- Total	42.5	11.6	44.5	59.0	60.4	59.0	56.4	21.0	11.7
- Male	50.4	10.7	44.2	63.3	71.1	73.6	76.5	37.9	10.9
- Female	35.3	12.4	44.9	55.0	51.0	46.7	38.1	6.7	12.4

Figure 5.1

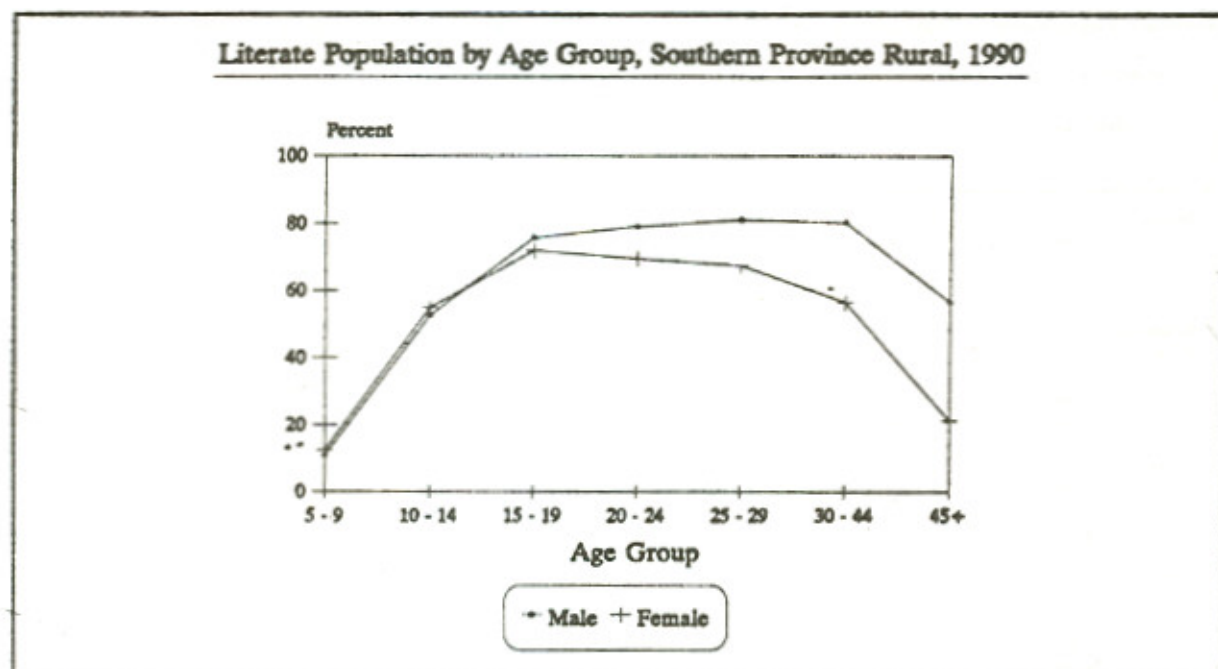
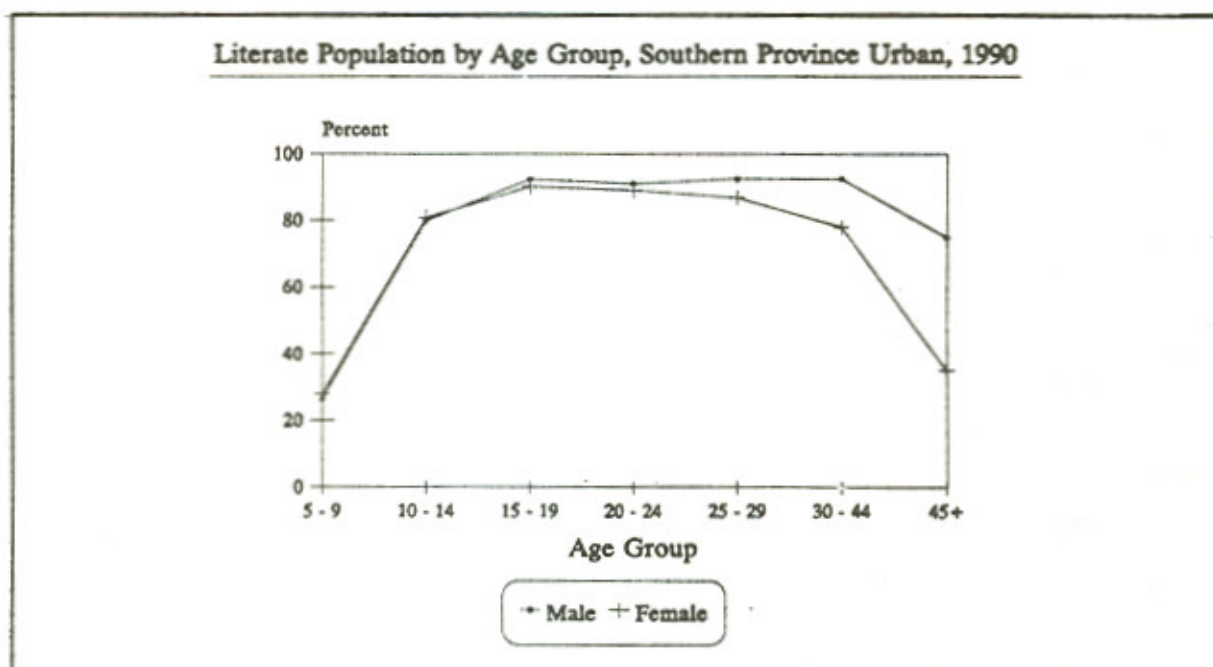
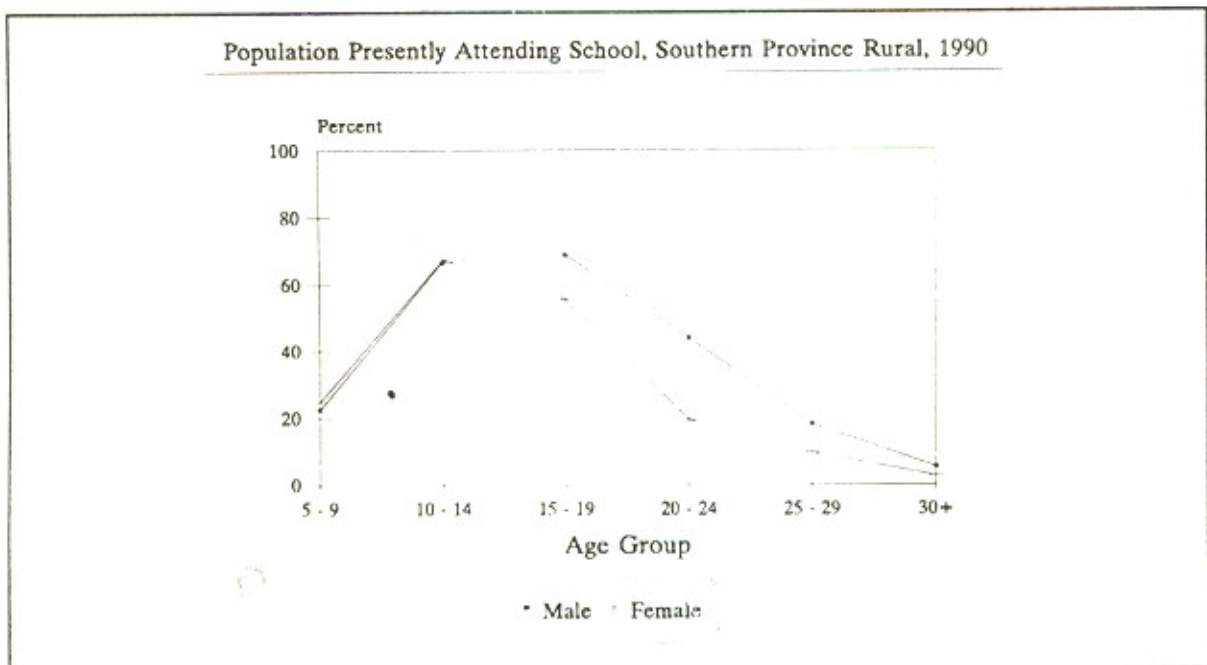


Figure 5.2



The proportion of those recorded as currently attending school at the time of the census is 32.2 percent. The population of 41.3 percent males and 31.6 percent females were attending school at the time. The distribution of the presently attending school population is concentrated in age groups 10-19. The proportion of females presently attending school is higher than that of males at younger ages. At older ages, that of males are higher than females. (see Table 5.2 and figure 5.3)

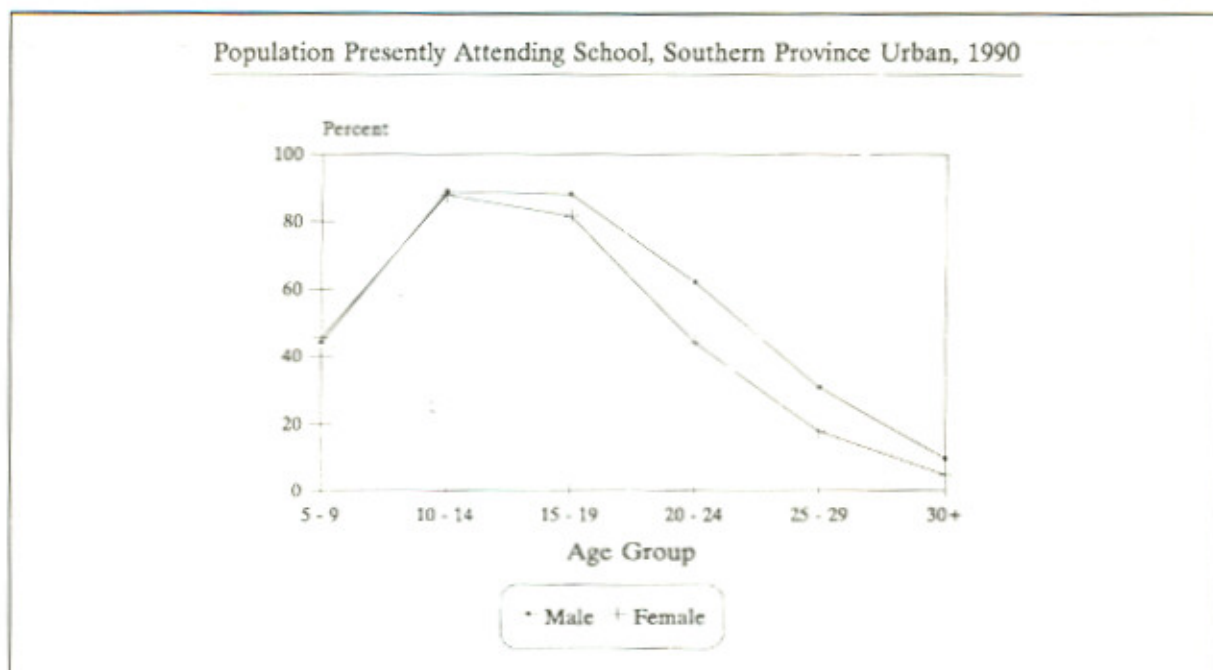
Figure 5.3



In urban areas, the overall percentage of the population recorded as currently attending school was 59.2 percent. Of the male and female population, 62.6 and 56.1 percent respectively, were attending school in urban areas. Overall 44.9 percent of those aged 5-9 years are presently attending school. Similarly, more than 80.0 percent of those aged 10-14 and 15-19 years are presently attending school. Figure 5.4 provides an illustration of school attendance rates of children in urban areas by sex.



Figure 5.4



Figures 5.3 and 5.4 show that attendance rates in urban areas are higher than those of rural areas. The same applies to all the 5 year age groups. Livingstone, Monze and Choma experienced high overall current school attendance rates. Gwembe, Kalomo, Namwala, Siavonga and Sinazongwe had recorded very low school attendance rates as compared to the other districts of Southern Province.

A positive increase in school attendance over the 1980-1990 intercensal period is evident from the analysis of the 1990 and 1980 data. From the results of the 1980 census 26.8 percent of the population was attending school at the time of the Census

#### 5.4 SCHOOL ATTENDANCE

Tables 5.2 and 5.3 show percentages of the population who were presently attending school in 1980 and 1990 by sex and residence. In 1990, 41 percent of the total population in Southern province was recorded as presently attending school whereas in 1980, about 26.8 percent of the population was attending school at the time of the census. Between the intercensal period 1980-1990, increases in the population presently attending school in the province were recorded in all age groups and by sex. The overall proportions of males and females increased by 16.3 and 12.4 percent respectively. Percentages of the presently attending school population during the 1990 census are 45.8 and 36.7 percent for males and females, respectively.

Table 5.2 shows high proportions of those presently attending school in ages 5-24 years.

In rural areas, the overall percentage of the presently attending school population increased from 24.3 percent in 1980 to about 36.2 percent in 1990. The increase in urban areas was from nearly 29.3 percent in 1980 to 59.2 percent in 1990. Analysis of information with regard to sex, show a similar situation are made for both rural and urban areas.

Table 5.2

Population Presently Attending School by Sex, Age and Residence, (Percent), Southern Province, 1990

Residence/Sex	Age Group							Total
	8-9	10-14	15-19	20-24	25-29	30+	Not Stated	
<b>Southern Province</b>								
- Total	28.3	72.2	68.1	35.5	14.6	4.0	4.4	41.0
- Male	27.2	71.8	73.4	47.8	20.6	6.0	5.6	45.8
- Female	29.3	72.6	62.1	23.8	10.8	2.9	3.4	36.7
<b>Residence</b>								
<b>Rural</b>								
- Total	23.6	67.2	62.8	31.2	12.8	3.6	3.6	36.2
- Male	22.5	66.8	68.9	43.9	18.2	5.4	5.6	41.3
- Female	24.7	67.5	55.5	19.4	9.5	2.7	2.1	31.6
<b>Urban</b>								
- Total	44.9	88.3	84.9	53.8	23.4	6.5	7.9	59.2
- Male	44.2	88.9	88.1	62.1	30.8	9.4	5.9	62.6
- Female	45.6	87.8	81.6	44.1	17.7	4.6	9.5	56.1
<b>Districts</b>								
<b>Choma</b>								
- Total	28.1	77.5	74.8	41.4	16.9	4.0	-	45.6
- Male	26.9	76.8	78.7	54.8	23.2	5.6	-	50.0
- Female	29.4	77.7	70.3	27.3	12.6	3.2	-	41.5
<b>Gwembe</b>								
- Total	15.2	47.9	42.6	18.2	6.0	2.7	-	22.8
- Male	13.7	49.0	52.1	34.3	10.9	4.7	-	28.1
- Female	16.8	46.8	32.4	6.9	3.5	1.7	-	18.5
<b>Kalomo</b>								
- Total	23.1	66.3	61.1	28.7	11.2	3.4	-	35.7
- Male	22.4	65.9	66.3	39.3	14.7	5.3	-	40.4
- Female	23.8	66.6	55.2	19.1	9.0	2.4	-	41.1
<b>Livingstone</b>								
- Total	51.7	92.2	88.8	64.8	29.3	5.8	-	65.2
- Male	51.2	92.2	90.6	73.8	38.0	8.1	-	68.4
- Female	52.2	92.2	86.8	53.3	22.8	4.4	-	62.2
<b>Mazabuka</b>								
- Total	30.7	74.6	68.3	34.5	14.8	4.2	8.7	41.6
- Male	29.3	74.5	74.5	44.1	19.6	6.5	7.7	46.1
- Female	32.1	74.8	61.1	24.2	11.8	2.8	10.0	37.5
<b>Monze</b>								
- Total	34.3	84.7	82.3	54.0	24.7	6.2	17.6	52.6
- Male	32.7	84.4	85.8	65.7	31.1	8.4	16.7	57.7
- Female	35.9	85.1	77.8	40.5	20.5	5.1	18.8	47.9
<b>Namwala</b>								
- Total	22.4	64.2	58.8	30.2	16.4	4.6	-	33.3
- Male	22.3	62.5	62.6	38.0	21.0	5.9	-	35.5
- Female	22.5	65.9	54.6	23.1	13.2	3.7	-	40.8
<b>Siavonga</b>								
- Total	21.0	54.0	48.5	21.8	11.4	4.1	-	27.9
- Male	20.1	55.4	61.9	37.1	24.3	8.6	-	35.6
- Female	21.9	52.6	34.8	10.7	5.6	1.9	-	21.8
<b>Sinazongwe</b>								
- Total	17.2	48.3	46.5	19.2	5.5	1.5	-	24.3
- Male	16.2	47.7	53.5	31.5	11.5	2.6	-	29.0
- Female	18.3	48.9	39.6	10.4	2.5	1.0	-	20.0

The district having a large population that was reported as presently attending school is Livingstone with 65.2 percent presently attending school, followed by Monze with 52.6 percent. Each of the remaining districts had a population of below 50 percent who were reported as presently attending school as at Census time.

Table 5.3

Population Presently Attended School by Sex, Age and Residence, (Percent), Southern Province 1980

Residence/Sex	Age Group						Total
	5-9	10-14	15-19	20-24	25+	Not Stated	
<b>Southern Province</b>							
- Total	25.5	75.8	48.3	9.8	1.2	4.1	26.8
- Male	24.5	76.4	60.1	15.8	1.6	5.4	29.5
- Female	26.5	75.2	37.1	4.6	0.9	2.8	24.3
<b>Residence</b>							
<b>Rural</b>							
- Total	23.7	74.0	46.9	8.9	1.0	3.7	24.3
- Male	22.7	74.2	58.7	14.9	1.2	4.9	26.0
- Female	24.6	73.7	35.4	3.8	0.7	2.8	29.0
<b>Urban</b>							
- Total	31.6	82.0	52.7	11.8	2.0	4.8	29.3
- Male	30.6	83.9	64.8	18.2	2.4	6.3	30.9
- Female	32.4	80.0	42.1	6.4	1.6	2.9	27.7
<b>Districts</b>							
<b>Choma</b>							
- Total	22.3	78.2	50.2	10.7	1.3	4.4	28.2
- Male	21.7	78.3	61.9	17.7	1.7	7.0	31.4
- Female	23.0	78.2	39.1	5.1	0.9	2.6	25.3
<b>Gwembe</b>							
- Total	20.4	55.4	32.6	6.0	0.8	0.0	20.2
- Male	20.6	59.6	49.1	11.8	1.0	0.0	25.3
- Female	20.3	51.0	18.2	1.8	0.6	0.0	15.8
<b>Kalomo</b>							
- Total	20.0	69.3	41.0	6.8	0.7	3.6	23.1
- Male	19.2	69.4	53.3	12.2	1.0	5.9	26.2
- Female	20.7	69.4	29.2	2.3	0.4	2.2	20.3
<b>Livingstone</b>							
- Total	37.9	89.2	59.5	15.0	2.7	3.7	32.6
- Male	36.5	90.1	70.3	22.6	3.1	6.0	33.2
- Female	39.3	88.4	49.6	8.1	2.1	1.2	32.1
<b>Mazabuka</b>							
- Total	26.1	73.1	45.6	7.4	1.2	3.0	24.9
- Male	24.3	74.1	55.9	10.3	1.4	3.3	25.9
- Female	27.9	73.8	35.6	4.4	0.9	2.5	23.9
<b>Monze</b>							
- Total	28.3	85.8	57.4	12.8	1.2	4.6	32.1
- Male	26.8	85.6	68.2	21.2	1.5	4.6	35.6
- Female	29.8	86.0	46.9	5.5	1.0	4.4	28.9
<b>Namwala</b>							
- Total	32.5	81.0	47.5	7.2	1.0	2.7	26.3
- Male	31.2	81.2	56.4	11.5	1.2	1.3	28.0
- Female	33.8	81.0	39.2	3.4	0.8	3.6	24.7
<b>Siavonga</b>							
- Total	16.9	53.2	37.4	7.1	0.8	0.0	18.5
- Male	18.0	57.6	54.8	15.1	1.2	0.0	23.5
- Female	15.8	48.6	21.9	1.7	0.6	0.0	14.1
<b>Sinazongwe</b>							
- Total	21.3	58.4	39.1	8.2	0.8	7.6	21.8
- Male	20.6	62.3	56.2	16.3	1.2	9.6	27.0
- Female	22.0	54.3	23.7	2.9	0.8	5.9	17.3



The 1990 Census information on the population who were recorded as presently attending school by age, sex and education level completed is presented in Table 5.4. Of the 204,013 persons presently attending school, 46.3 percent completed grades 1-4 while 31.8 percent completed grades 5-7. Nearly 13 percent of the presently attending school population completed secondary school, grades 8-12. A proportion of 48 percent of females presently attending school have completed grades 1-4 while 46.9 percent of males have completed the same grade. However, as the pupils progress to upper primary school, more female pupils than males drop out of school due to various reasons. The proportion of male pupils attending school and have completed grades 5-7 is 32.4 percent as compared to 31.1 percent for female pupils. Similar observations are noticed in all age groups.

Table 5.4 below provides information on school attendance proportions for both male and females in rural and urban areas. In rural areas 50.8 percent and 30.8 percent of females have completed grades 1-4 and 5-7 respectively. Similarly 46.9 percent and 32.9 percent of male pupils have completed grades 1-4 and 5-7, respectively. In urban areas, 39.9 percent and 31.2 percent of males completed grades 1-4 and 5-7 respectively.

Table 5.4

Population (5 Years and Older) Presently Attending School by Age, Sex, Level of Education Completed and Residence, (Percent), Southern Province, 1990

Residence and Age Group		Education Level Completed							Total	Size
		1-4	5-7	8-9	10-12	'A' Level	Degree	Not Stated		
Southern Province Both Sexes										
	Total	46.3	31.8	8.3	4.6	0.0	0.0	9.0	100.0	204,013
	5-9	73.1	-	-	-	-	-	26.9	100.0	40,117
	10-14	64.0	29.3	1.0	-	-	-	5.7	100.0	88,424
	15-19	12.0	57.8	21.2	6.4	0.0	-	2.6	100.0	56,476
	20-24	6.2	30.6	27.9	31.8	0.1	0.0	3.4	100.0	12,264
	25-29	8.9	38.9	11.8	33.9	0.4	0.1	6.1	100.0	2,831
	30+	18.8	38.1	8.6	21.7	0.5	0.1	12.2	100.0	3,892
	Not Stated	55.6	33.3	-	11.1	-	-	-	100.0	9
Male										
	Total	44.8	32.4	8.9	5.3	0.0	0.0	8.5	100.0	107,415
	5-9	72.5	-	-	-	-	-	27.5	100.0	19,087
	10-14	65.7	27.6	0.9	-	-	-	5.8	100.0	44,093
	15-19	13.7	58.5	19.4	5.9	0.0	-	2.5	100.0	32,539
	20-24	5.4	29.0	30.6	31.9	0.2	0.0	3.0	100.0	8,082
	25-29	7.0	35.3	12.8	39.3	0.4	0.1	5.0	100.0	1,551
	30+	15.5	36.2	9.7	29.1	0.8	0.2	8.5	100.0	2,658
	Not Stated	60.0	40.0	-	-	-	-	-	100.0	5
Female										
	Total	48.0	31.1	7.6	3.8	0.0	0.0	9.5	100.0	96,598
	5-9	73.7	-	-	-	-	-	26.3	100.0	21,030
	10-14	62.3	31.1	1.1	-	-	-	5.5	100.0	44,331
	15-19	9.8	56.8	23.5	7.1	0.0	-	2.8	100.0	23,937
	20-24	-7.7	33.7	22.6	31.7	0.1	0.0	4.2	100.0	4,182
	25-29	11.2	43.2	10.5	27.3	0.3	0.1	7.4	100.0	1,280
	30+	22.5	40.2	7.4	13.4	0.2	-	16.3	100.0	1,834
	Not Stated	50.0	25.0	-	25.0	-	-	-	100.0	4
Rural										
Male										
	Total	46.9	32.9	7.3	4.1	0.0	0.0	8.8	100.0	26,061
	5-9	70.1	-	-	-	-	-	29.9	100.0	12,372
	10-14	70.3	23.0	0.5	-	-	-	6.2	100.0	31,760
	15-19	16.9	62.7	14.2	3.7	0.0	-	2.5	100.0	23,443
	20-24	6.0	34.0	30.0	26.8	0.1	0.0	3.1	100.0	5,858
	25-29	8.7	40.3	12.6	32.5	0.2	0.1	5.6	100.0	1,097
	30+	18.7	40.1	9.0	21.7	0.5	0.3	9.7	100.0	1,527
	Not Stated	75.0	25.0	-	-	-	-	-	100.0	4
Female										
	Total	50.8	30.8	5.8	2.6	0.0	-	10.0	100.0	65,757
	5-9	72.1	-	-	-	-	-	27.9	100.0	13,702
	10-14	67.4	26.3	0.6	-	-	-	5.7	100.0	30,897
	15-19	12.6	62.1	17.9	4.4	-	-	3.0	100.0	15,973
	20-24	9.6	40.1	21.9	23.2	0.0	-	5.1	100.0	2,810
	25-29	12.7	47.6	9.1	21.7	0.2	-	8.7	100.0	940
	30+	24.9	42.9	6.4	8.4	0.1	-	17.3	100.0	1,433
	Not Stated	-	50.0	-	50.0	-	-	-	100.0	2
Urban										
Male										
	Total	39.6	31.2	13.0	8.3	0.1	0.0	7.9	100.0	31,354
	5-9	77.0	-	-	-	-	-	23.0	100.0	6,715
	10-14	53.7	39.2	2.1	-	-	-	5.0	100.0	12,333
	15-19	5.3	47.9	32.8	11.7	-	-	2.3	100.0	9,096
	20-24	3.8	15.7	32.0	45.5	0.4	-	2.7	100.0	2,224
	25-29	2.9	23.3	13.4	55.7	0.9	0.2	3.6	100.0	454
	30+	6.6	24.9	11.7	50.5	1.5	0.2	4.6	100.0	531
	Not Stated	-	100.0	-	-	-	-	-	100.0	1
Female										
	Total	41.7	32.0	11.4	6.3	0.0	0.0	8.6	100.0	30,839
	5-9	76.8	-	-	-	-	-	23.2	100.0	7,328
	10-14	50.4	42.2	2.4	-	-	-	5.0	100.0	13,434
	15-19	4.2	46.1	34.7	12.6	-	-	2.4	100.0	7,964
	20-24	3.9	20.4	24.2	49.1	0.2	0.1	2.1	100.0	1,370
	25-29	7.1	31.2	14.4	42.6	0.6	0.3	3.8	100.0	340
	30+	14.0	30.7	11.2	31.2	0.5	-	12.4	100.0	401
	Not Stated	100.0	-	-	-	-	-	-	100.0	2

Results from the 1980 Census as given in table 5.5 show that 55.3 percent of those who were attending school were in grades 1-4. While 33.3 completed in grades 5-7. Male pupils who had completed primary school grades made up 87.2 percent compared to 91.4 percent for females. At secondary school level, 11 percent of male pupils completed grades 8-12 as compared to 8 percent of female pupils. Most of the males and females who completed grades 1-7 were aged between 5 and 14 years. The pattern of school attendance by sex in 1980 was the same as that obtained from the 1990 Census.



Table 5.5

Population (5 Years and Older) Presently Attending School by Age Sex, Level of Educational Completed and Residence, (Percent), Southern Province, 1980

Residence and Age Group		Education Level Completed							Total	Size
		1-4	5-7	8-9	10-12	'A' Level	Degree	Not Stated		
Southern Province Both Sexes										
	Total	55.3	33.3	5.1	4.5	0.0	0.0	1.8	100	144,439
	5-9	94.7	0.6	-	-	-	-	4.7	100	30,758
	10-14	64.5	33.6	0.8	0.0	-	-	1.1	100	72,018
	15-19	10.1	62.9	16.2	10.1	0.0	0.0	0.7	100	35,146
	20-24	4.3	21.3	20.5	52.1	0.3	0.4	1.1	100	4,995
	25+	30.5	33.9	9.1	22.0	0.1	0.6	3.8	100	1,356
	Not Stated	53.0	28.9	6.6	6.6	-	-	4.9	100	166
Male										
	Total	52.7	34.5	5.6	5.4	0.0	0.0	1.8	100	77,149
	5-9	94.6	0.5	-	-	-	-	4.9	100	14,149
	10-14	66.1	32.1	0.7	0.0	-	-	1.1	100	36,387
	15-19	11.3	64.1	14.2	9.3	0.0	0.0	0.6	100	21,398
	20-24	3.0	21.7	22.0	51.7	0.3	0.3	1.0	100	3,813
	25+	22.9	33.2	10.9	28.4	0.2	0.8	3.6	100	742
	Not Stated	41.3	34.6	9.6	8.7	-	-	5.8	100	104
Female										
	Total	58.2	31.9	4.6	3.4	0.1	0.0	1.8	100	67,290
	5-9	94.8	0.6	-	-	-	-	4.6	100	16,053
	10-14	62.8	35.2	0.9	0.0	-	-	1.1	100	35,631
	15-19	8.3	61.0	18.5	11.5	0.0	0.0	0.7	100	13,748
	20-24	8.4	20.2	15.8	53.2	0.3	0.8	1.3	100	1,182
	25+	39.4	34.9	6.8	14.2	0.2	0.3	4.2	100	614
	Not Stated	72.6	19.4	1.6	3.2	-	-	3.2	100	62
Rural										
Male										
	Total	53.6	35.1	5.0	4.8	0.0	0.0	1.5	100	57,060
	5-9	95.5	0.5	-	-	-	-	4.0	100	10,390
	10-14	67.6	30.8	0.5	0.0	-	-	1.1	100	27,277
	15-19	12.1	66.1	12.8	8.2	0.0	0.0	0.8	100	16,123
	20-24	3.5	25.6	22.5	46.9	0.2	0.3	1.0	100	2,689
	25+	26.2	36.3	10.0	23.5	0.2	0.6	3.2	100	520
	Not Stated	50.8	32.8	6.6	4.9	-	-	4.9	100	61
Female										
	Total	59.4	32.0	4.1	2.8	0.0	0.0	1.7	100	48,926
	5-9	95.6	0.6	-	-	-	-	3.8	100	11,275
	10-14	64.5	33.6	0.7	0.0	-	-	1.2	100	26,436
	15-19	9.4	63.8	16.8	9.6	0.0	0.0	0.4	100	9,967
	20-24	11.1	24.9	15.4	45.8	0.4	0.8	1.6	100	759
	25+	44.3	36.5	3.4	11.2	-	-	4.6	100	447
	Not Stated	71.4	21.4	2.4	-	-	-	4.8	100	42
Urban										
Male										
	Total	50.4	32.8	7.3	7.3	0.0	0.0	2.2	100	20,089
	5-9	92.3	0.6	-	-	-	-	7.1	100	4,315
	10-14	61.8	36.0	1.3	0.1	-	-	0.8	100	9,110
	15-19	8.4	58.2	0.6	12.2	0.1	-	0.5	100	5,275
	20-24	2.0	12.4	20.7	63.2	0.4	0.5	0.8	100	1,124
	25+	15.3	25.7	23.1	40.1	-	1.4	4.4	100	222
	Not Stated	27.5	37.1	14.0	14.0	-	-	7.0	100	43
Female										
	Total	54.7	31.8	5.9	5.2	0.0	0.0	2.4	100	18,364
	5-9	92.9	0.7	-	-	-	-	6.4	100	4,774
	10-14	57.7	39.8	1.4	0.1	-	-	1.0	100	9,195
	15-19	61.9	53.8	22.9	16.6	0.0	0.0	0.6	100	3,781
	20-24	3.5	11.8	16.5	66.4	0.2	0.7	0.9	100	427
	25+	26.3	30.5	16.2	22.2	0.6	1.2	3.0	100	167
	Not Stated	75.0	15.0	-	10.0	-	-	-	100	20

## 5.5 PREVIOUSLY ATTENDED SCHOOL

In Southern Province, 251,457 persons were recorded in the 1990 Census as having previously attended school of whom 175,974 are in rural areas and 75,483 persons and in urban areas.

Table 5.6 reveals that less than 20 percent of the population who previously attended school were aged between 5 and 19 years. About 84 percent of those who previously attended school were aged 25 years or over. Percentages of males and females aged 30 years or over who previously attended school in 1990 were 51.8 and 37.6 percent, respectively. A substantial proportion of those who previously attended school in 1990 were aged between 20 and 29 years.

The largest proportions of those who previously attended school are in age group 30 years and above followed by those in age group 20-24 for all the districts.

Table 5.6

## Population Previously Attended School by Sex, Age and Residence, Southern Province, 1990

Residence and Sex	Age Group						Total	Size
	5-9	10-14	15-19	20-24	25-29	30+		
<b>Southern Province</b>	0.9	2.6	12.7	21.0	17.9	45.0	100	251,457
- Total	0.8	2.4	9.5	18.4	17.1	51.8	100	130,472
- Male	0.9	2.8	16.1	23.9	18.6	37.6	100	120,985
- Female								
<b>Residence</b>								
<b>Rural-Total</b>	0.9	3.0	13.7	21.1	17.3	44.0	100	175,974
- Male	0.9	2.9	10.5	18.8	16.8	50.1	100	90,757
- Female	1.0	3.1	17.1	23.6	17.8	37.4	100	85,217
<b>Urban-Total</b>	0.7	1.8	10.2	20.7	19.2	47.3	100	75,483
- Male	0.6	1.4	7.1	17.3	17.9	55.7	100	39,715
- Female	0.8	2.2	13.7	24.5	20.8	38.1	100	35,768
<b>Districts</b>								
<b>Choma</b>								
- Total	0.9	2.6	13.0	21.3	17.7	44.7	100	47,302
- Male	0.8	2.5	9.8	18.7	17.0	51.2	100	23,369
- Female	0.9	2.6	16.1	23.7	18.3	38.3	100	23,933
<b>Gwembe</b>								
- Total	0.7	3.3	13.3	19.2	18.3	45.1	100	6,827
- Male	0.6	2.6	9.8	17.4	12.3	52.2	100	3,726
- Female	0.9	4.2	17.3	21.5	19.6	36.6	100	3,101
<b>Kalomo</b>								
- Total	0.9	3.1	14.4	21.1	17.3	43.1	100	42,221
- Male	0.8	2.9	11.3	18.6	16.9	49.5	100	21,829
- Female	1.0	3.4	17.7	23.8	17.6	36.4	100	20,392
<b>Livingstone</b>								
- Total	0.6	1.3	9.6	20.1	18.9	49.5	100	30,859
- Male	0.6	1.1	6.6	16.7	17.2	57.7	100	16,189
- Female	0.6	1.5	12.8	23.8	20.8	40.5	100	14,620
<b>Mazabuka</b>								
- Total	0.9	2.7	12.1	21.5	19.1	43.8	100	45,584
- Male	0.8	2.6	8.9	18.5	18.5	50.8	100	25,107
- Female	1.0	2.9	16.0	25.1	19.8	35.2	100	20,477
<b>Monze</b>								
- Total	0.9	2.1	12.1	20.8	17.0	47.0	100	36,507
- Male	0.8	2.1	8.7	18.7	16.5	53.0	100	17,351
- Female	0.9	2.1	15.3	22.7	17.4	41.5	100	19,156
<b>Namwala</b>								
- Total	1.1	3.2	14.2	20.4	16.3	44.8	100	21,066
- Male	1.0	3.1	11.6	17.7	14.7	51.9	100	10,803
- Female	1.1	3.3	16.9	23.3	18.0	37.4	100	10,263
<b>Siavonga</b>								
- Total	0.8	4.0	14.0	19.9	17.4	43.8	100	7,582
- Male	0.9	3.3	10.3	17.1	17.2	51.3	100	4,302
- Female	0.9	4.8	18.9	23.5	17.8	34.0	100	3,280
<b>Sinazongwe</b>								
- Total	0.9	3.4	13.2	23.3	18.5	40.6	100	13,509
- Male	0.7	2.8	9.6	20.9	18.1	47.9	100	7,796
- Female	1.2	4.3	18.1	26.6	19.2	30.6	100	5,713



Table 5.7 shows the population who had previously attended school by sex, age and residence in 1980. The previously attended school population is concentrated in age range 20 years and above. Overall, 79.7 percent of the population aged 20 years and above had previously attended school in Southern Province at the time of the 1980 Census. For rural and urban areas percentages were, 78.3 and 83.3 percent respectively for the population aged 20 years and above. In both rural and urban proportions of males who previously attended school were high compared to females. Of the population of males in urban areas, 88.2 percent of persons previously attended school were aged 20 years and above. Out of the female population in the same age range 77.4 percent previously attended school as at 1980 Census time. In rural areas 82.9 percent of male population and 73.5 percent of female population that had previously attended school were 20 years and above.

Table 5.7

Population Previously Attended School by Sex, Age and Residence, Southern Province, 1980

Residence and Sex	Age Group						Total	Size
	5-9	10-14	15-19	20-24	25+	Not Stated		
<b>Southern Province</b>								
- Total	0.5	3.4	15.7	23.0	56.7	0.7	100	183,120
- Male	0.4	3.0	11.2	20.0	64.4	1.0	100	95,360
- Female	0.5	3.8	20.6	26.2	48.4	0.3	100	87,728
<b>Residence</b>								
<b>Rural</b>								
- Total	0.5	3.7	16.9	22.7	55.6	0.6	100	131,142
- Male	0.5	3.4	12.5	20.3	62.6	0.7	100	67,449
- Female	0.5	4.1	21.5	25.3	48.2	0.5	100	63,713
<b>Urban</b>								
- Total	0.3	2.4	12.0	23.8	54.5	1.1	100	51,885
- Male	0.3	1.7	8.3	19.4	68.8	1.6	100	27,882
- Female	0.4	3.2	18.4	28.8	48.6	0.6	100	23,990
<b>Districts</b>								
<b>Choma</b>								
- Total	0.3	3.5	16.3	22.4	56.9	0.7	100	36,191
- Male	0.3	3.1	12.1	19.5	64.2	0.8	100	17,879
- Female	0.3	3.9	20.3	25.2	49.7	0.6	100	18,306
<b>Gwembe</b>								
- Total	0.8	7.3	21.5	21.8	48.4	0.3	100	4,645
- Male	0.9	6.8	15.9	19.6	56.3	0.5	100	2,289
- Female	0.7	7.8	26.9	23.8	40.7	0.1	100	2,360
<b>Kalomo</b>								
- Total	0.4	4.1	18.7	23.2	53.0	0.5	100	24,430
- Male	0.4	3.8	13.9	20.4	60.9	0.6	100	12,586
- Female	0.5	4.5	23.8	26.3	44.6	0.4	100	11,842
<b>Livingstone</b>								
- Total	0.2	1.6	11.1	23.0	62.6	1.5	100	24,648
- Male	0.2	1.2	7.1	18.4	71.1	2.1	100	13,574
- Female	0.3	2.0	16.0	28.6	52.2	0.9	100	11,079
<b>Mazabuka</b>								
- Total	0.4	3.4	15.2	25.0	55.2	0.8	100	31,749
- Male	0.3	2.8	10.7	22.7	62.4	1.0	100	18,225
- Female	0.6	4.1	21.4	28.0	45.4	0.5	100	13,545
<b>Monze</b>								
- Total	0.3	2.5	14.8	22.2	59.7	0.5	100	31,205
- Male	0.3	2.5	10.9	19.6	66.0	0.7	100	15,062
- Female	0.3	2.6	18.4	24.5	53.9	0.4	100	16,166
<b>Namwala</b>								
- Total	0.6	3.2	15.6	22.2	58.1	0.3	100	15,755
- Male	0.7	3.0	11.3	19.1	65.6	0.3	100	8,382
- Female	0.5	3.6	20.5	25.7	49.5	0.2	100	7,377
<b>Siavonga</b>								
- Total	1.2	6.1	16.8	22.2	53.3	0.1	100	6,273
- Male	1.1	5.5	14.3	19.1	62.8	0.2	100	3,255
- Female	1.1	6.9	22.7	26.2	42.9	0.1	100	3,010
<b>Sinazongwe</b>								
- Total	1.0	5.1	20.4	23.6	48.6	1.4	100	8,153
- Male	1.0	3.9	14.0	19.4	59.8	1.9	100	4,136
- Female	1.2	6.4	26.8	27.4	37.1	0.8	100	4,021

The percentage of those who previously attended school ranged from 70 to 86 percent for the age group 20 years and above. Livingstone recorded the highest percentage of nearly 85 percent followed by Monze, Mazabuka and Namwala with 81.9, 80.2 and 80.3 percent respectively. The rest of the districts, a percentage of over 70 percent was recorded.

## 5.6 HIGHEST LEVEL OF EDUCATION COMPLETED

Educational achievements are quantified by analysing the highest levels of education completed for the population aged 15 years and older. Table 5.8 shows the percentage distribution of population aged 15 years and older by highest level of education completed. Overall, in 1990, 31.2 percent of the population aged 15 years and over never attended formal school. The proportion of females that had never attended formal schooling is higher than that of males. Only 20 percent completed secondary education (grades 8-12) in 1990. A small proportion (0.1 percent) completed 'A' and degree levels.

Table 5.8

Population (15 Years and Above) by Highest Level of Education Completed, Sex and Age Group, (Percent), Southern Province, 1990

Age Group	Sex	Total Population	Highest Level Completed							Total
			No. Schooling	Grade 1-4	Grade 5-7	Grade 8-9	Grade 10-12	A'Level/Degree	Not Stated	
15+	Both	462,030	31.2	12.0	35.0	9.2	11.2	0.1	1.3	100
	Male	223,068	23.6	12.5	36.7	10.5	15.1	0.2	1.4	100
	Female	238,962	38.2	11.5	33.3	8.0	7.7	0.1	1.2	100
15-19	Both	111,965	21.1	11.6	47.8	13.8	4.0	0.0	1.7	100
	Male	55,514	19.1	13.3	48.3	13.5	4.0	0.0	1.8	100
	Female	56,451	23.2	9.9	47.3	14.1	4.0	0.0	1.5	100
20-24	Both	84,655	23.1	7.2	40.4	14.9	13.1	0.1	1.2	100
	Male	39,718	19.3	6.9	39.0	17.8	15.6	0.1	1.3	100
	Female	44,937	26.4	7.5	41.7	12.4	10.9	0.1	1.0	100
25-29	Both	62,333	23.4	7.3	39.5	7.8	20.7	0.1	1.2	100
	Male	29,045	17.7	6.2	38.4	9.5	26.9	0.2	1.1	100
	Female	33,288	28.4	8.3	40.5	6.3	15.3	0.1	1.1	100
30-44	Both	108,880	28.8	11.8	32.0	6.8	19.2	0.2	1.2	100
	Male	51,924	18.0	8.9	33.7	8.3	29.4	0.3	1.4	100
	Female	56,956	38.6	14.4	30.4	5.4	9.9	0.1	1.2	100
45+	Both	94,197	58.1	20.0	15.2	2.4	2.6	0.2	1.5	100
	Male	46,867	42.3	24.4	23.5	4.0	4.3	0.2	1.5	100
	Female	47,330	73.9	16.0	7.0	0.8	0.9	0.1	1.3	100



Figure 5.5

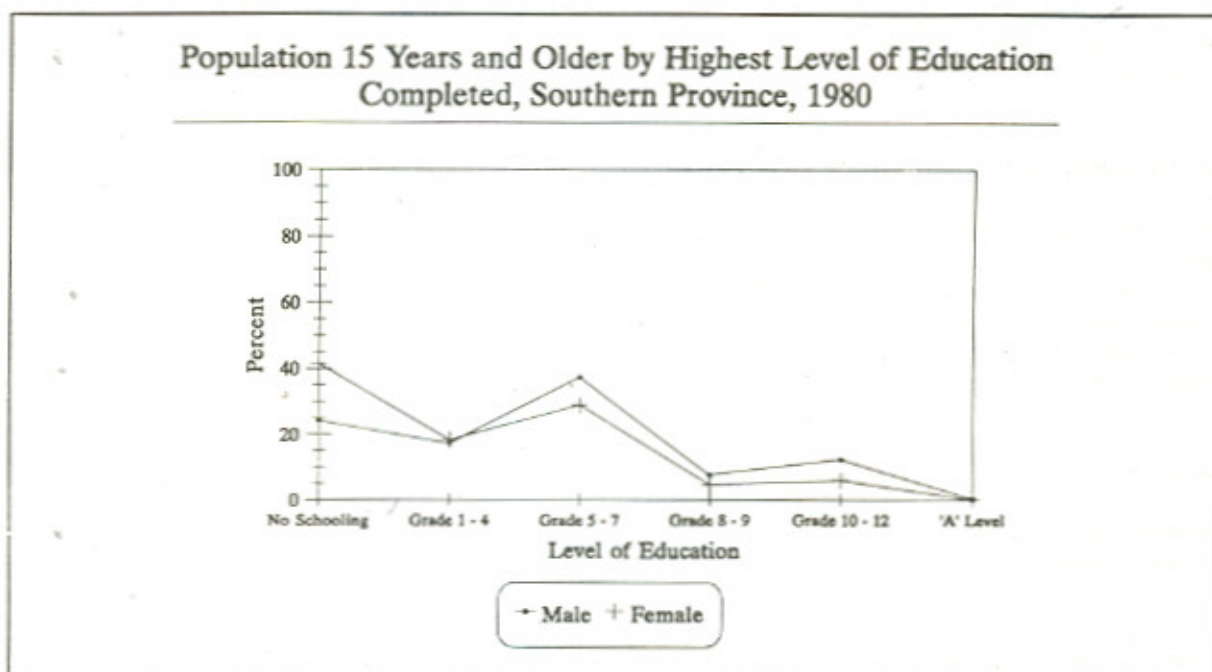
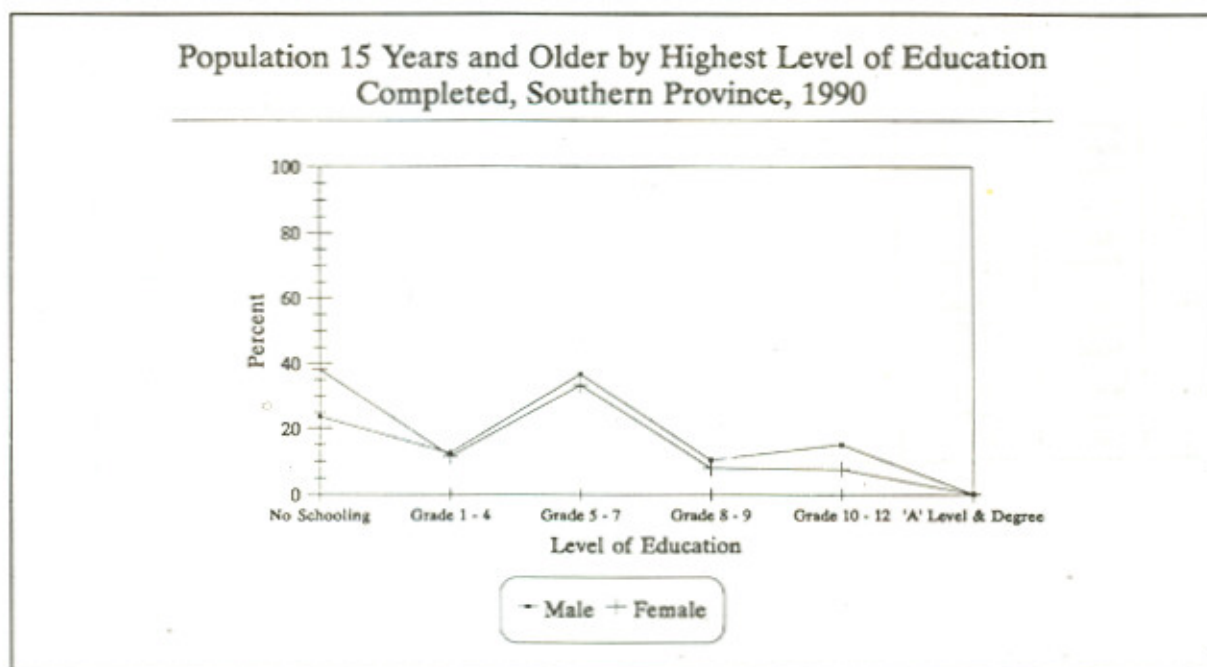


Figure 5.6



It is shown from results of 1990 Census that, at age groups 45 years and older, 58.1 percent never attended formal school. In this same age group, 42.3 percent of males and 73.9 percent of females never attended formal school.

Data from the 1980 Census as given in Table 5.9, shows similar patterns to those of the 1990 Census. At age groups 45 years and above, 64.1 percent of the population in Southern Province had never attended formal school. In the same age group, 49.9 percent of the males and 80.2 percent of the females had never attended formal school in 1980.

**Table 5.9**

**Population (15 Years and Above) by Highest Level of Education Completed by Sex and Age Group, (Percent), Southern Province, 1980**

Age Group	Sex	Total Population	Highest Level Completed							Total
			No Schooling	Grade 1-4	Grade 5-7	Grade 8-9	Grade 10-12	A'Level/Degree	Not Stated	
15+	Both	327,458	33.2	17.8	32.9	6.0	9.0	0.1	1.0	100
	Male	156,662	24.2	17.3	37.3	7.6	12.3	0.2	1.1	100
	Female	170,796	41.4	18.3	28.8	4.6	6.0	0.1	0.8	100
15-19	Both	73,847	12.6	14.3	55.7	9.6	7.2	0.0	0.6	100
	Male	35,999	10.0	14.3	57.8	10.0	7.2	0.0	0.7	100
	Female	37,848	15.0	14.2	53.7	9.3	7.2	0.0	0.6	100
20-24	Both	56,963	16.2	12.2	43.7	6.8	20.0	0.1	1.0	100
	Male	26,302	11.5	9.3	43.6	7.8	26.7	0.1	1.0	100
	Female	30,661	20.3	14.7	43.9	5.9	14.4	0.1	0.7	100
25-44	Both	120,229	34.2	21.7	26.9	6.1	9.8	0.2	1.0	100
	Male	53,867	20.6	17.7	34.1	9.4	16.6	0.3	1.3	100
	Female	66,364	45.2	24.9	21.0	3.5	4.3	0.2	0.9	100
45+	Both	76,419	64.1	19.5	12.3	1.7	1.3	0.1	1.0	100
	Male	40,494	49.9	24.5	19.4	2.9	1.9	0.2	1.2	100
	Female	35,925	80.2	13.8	4.2	0.4	0.6	0.1	0.7	100

Of the population aged 15 years and above, 33.2 percent had never attended formal school as at the 1980 Census. Of the male and female population, 24.2 and 41.4 percent never attended school, respectively. The proportion who completed primary level grades nearly 50.7 percent. At secondary level, only 15 percent completed grades 8-12. A marginal proportion reported as completing 'A' and degree levels. In general there was an improvement in the level of education completed between the intercensal period 1980 and 1990.

## 5.7 SELECTED FIELDS OF STUDY

The results of 1990 Census show that 8,380 males and 4,767 females trained in various courses of specialisation. The selected fields of study considered in the 1990 Census are listed in Table 5.10. The major fields of study include various courses of engineering, medicine, nursing, accountancy, teacher training, law, business administration, secretarial, agriculture, etc. The category 'other' has been left out of the analysis.

Of the male population who had undergone professional training, in any of the given fields, 17.1 percent only completed primary education, while 77.9 percent completed secondary level. Only 3.2 percent completed higher levels. As for the female population 10.7 percent completed grades 1-7 and 85.7 percent had completed grades 8-12. A very small proportion of 1.6 percent had completed higher education.

Table 5.10

Selected Fields of Study by Level of Education Completed, (Percent), Southern Province, 1990

Field of Study	Size	Total	Level of Education Completed					
			1-7	8-9	10-12	'A' Level	Degree	Not Stated
<b>Total Males</b>	8380	100	17.1	10.7	67.2	2.1	1.1	1.9
Electrical Engineering	386	100	14.8	7.5	73.6	1.3	1.3	1.6
Mechanical Engineering	822	100	18.2	8.9	66	2.1	0.5	3.4
Mining Engineering	61	100	19.7	3.3	70.1	4.9	-	1.6
Industrial Engineering	249	100	63.1	14.5	20.5	0.4	0.8	0.8
Medicine and Surgery	214	100	9.3	5.6	70.1	9.8	0.9	4.2
Pharmacy	168	100	7.1	4.2	86.9	0.6	-	1.2
Nursing	104	100	8.7	9.6	72.1	2.9	4.8	1.9
Medical Technology	175	100	8.6	9.1	75.4	4.0	1.1	1.7
Accountancy	717	100	8.4	8.2	79.9	2.8	-	0.7
Teacher Training	2,942	100	12.2	11.7	71.6	1.9	1.2	1.5
Law/Jurisprudence	217	100	23.0	11.5	59.9	2.8	1.8	0.9
Criminology	228	100	29.4	16.2	53.1	0.4	0.0	0.9
Business Administration	385	100	8.6	8.6	76.0	2.6	1.3	2.9
Secretarial Training	381	100	16.5	13.9	65.6	1.3	0.8	1.8
Agricultural/Forestry/Fisheries	956	100	22.9	10.5	61.0	1.7	2.3	1.7
Wood work	375	100	39.5	17.0	38.4	0.3	-	4.8
<b>Total Females</b>	4,767	100	10.7	10.5	75.2	1.3	0.3	1.8
Electrical Engineering	8	100	37.5	-	50.0	-	12.5	-
Mechanical Engineering	17	100	5.9	-	88.2	5.9	-	-
Mining Engineering	3	100	66.7	-	-	33.3	-	-
Industrial Engineering	145	100	71.7	20.7	4.8	-	0.7	2.1
Medicine and Surgery	30	100	6.7	3.3	56.7	16.7	3.3	13.3
Pharmacy	55	100	9.1	1.8	89.1	-	-	-
Nursing	1,176	100	8.2	7.7	80.5	1.2	-	2.4
Medical Technology	31	100	9.7	6.5	64.5	6.5	6.5	6.5
Accountancy	154	100	4.5	4.5	87.0	1.3	1.3	1.3
Teacher Training	1,879	100	10.3	11.6	75.1	1.3	0.4	1.4
Law/Jurisprudence	11	100	-	18.2	81.8	-	-	-
Criminology	10	100	20.0	-	70.0	10.0	-	-
Business Administration	63	100	7.9	7.9	68.3	9.5	3.2	3.2
Secretarial Training	1,076	100	5.8	13.2	78.8	0.6	-	1.7
Agricultural/Forestry/Fisheries	90	100	15.6	2.2	75.6	5.6	-	1.0
Wood work	19	100	47.4	10.5	36.8	-	-	5.3

From the given information it is apparent that a larger percent of the population who reported as having trained in the various fields, had at least completed secondary school grades. However, for the fields of Mining/Industrial engineering and woodwork, the largest proportion of the population who studied in each of these fields only completed primary school grades. The most common professional training undertaken by the largest proportion of males in the given fields is accountancy in which 2,942 persons are trained. this is followed by engineering, medical field and secretarial training. For the female population the common fields are teacher training, nursing and secretarial.

Table 5.11 shows the percent distribution of persons with certificates and diplomas by level of education completed. In 1990, 16,742 and 3,197 had certificates and diplomas, respectively. The figures exclude those who did not state their grades. Among those with certificates about 47 percent worked in rural areas, whereas about 68 percent of diploma holders operated in urban areas.



Table 5.11

Certificates and Diplomas by Level of Education, Sex and Rural/Urban, ( Percent), Southern Province, 1990

Certificates and Diplomas	Educational Level					Size
	1-7	8-9	10-12	'A' Level	Total	
<b>Southern Province</b>						
<b>Certificates</b>						
Total	22.7	13.6	63.1	0.5	100	16,742
Male	25.2	13.5	60.8	0.5	100	10,976
Female	18.1	13.9	67.6	0.5	100	5,766
<b>Rural</b>						
Total	30.5	15.5	53.6	0.4	100	7,811
Male	31.5	15.8	52.3	0.4	100	5,395
Female	28.3	14.7	56.6	0.4	100	2,416
<b>Urban</b>						
Total	15.9	12.1	71.4	0.6	100	8,931
Male	19.1	11.3	69.0	0.6	100	5,581
Female	10.7	13.3	75.5	0.5	100	3,350
<b>Diplomas</b>						
Total	5.6	4.2	82.0	8.3	100	3,197
Male	6.0	4.3	81.8	8.0	100	2,566
Female	4.0	3.6	82.7	9.7	100	631
<b>Rural</b>						
Total	9.7	5.4	77.4	7.5	100	1,035
Male	9.6	5.5	78.1	6.8	100	854
Female	9.9	5.0	74.0	11.0	100	181
<b>Urban</b>						
Total	3.7	3.6	3.6	8.6	100	2,162
Male	4.2	3.7	3.7	8.5	100	1,712
Female	1.6	3.1	3.1	9.1	100	450

## 5.8 SUMMARY

In Southern Province, the majority (57.7 percent) of persons aged 5 years or older were recorded as being literate. Of the females population, 53 percent are able to read and write compared to 64.4 percent of the male population. Those who are able to read and write are concentrated in the age group 10-44 years. In age groups 45 years and older, only 41.7 percent are able to read and write.

The proportion of population presently attending school has increased from 26.8 in 1980 to 41 percent in 1990. For both rural and urban areas, this proportion has increased. Livingstone, in both 1980 and 1990 had the largest percentage of people attending school. In 1990, 65.2 of the population aged 5 years or older were attending school whereas 32.6 percent were attending school at the time of 1980 Census. The majority of those who were recorded as attending school in 1990 were found to be in grades 1-7. Only 12.5 percent of the population attending school were in grades 8-12.

Among the previously attended school population, 83.9 percent of those who had previously attended formal school were aged 20 years and older. The corresponding percentages of males and females were 87.3 percent and 80.1 percent respectively. All the districts in Southern province had percentages ranging from 81 to 89 percent for population aged 20 years or older.

The common fields of study for males are accountancy, engineering, medical and secretarial. Females specialise in teacher training, secretarial and nursing. In total 16,742 and 3,197 persons had certificates and diplomas respectively.

# ECONOMIC CHARACTERISTICS

### 6.1 INTRODUCTION

Information on economic characteristics is used to plan, monitor, evaluate and formulate policies and programmes in order to enhance the development of human resources. The same information is also used to study the observed level and distribution of income among individuals and households.

During the 1990 census, information was collected from all persons who were 12 years and over, on the following economic characteristics:-

- Economic activity,
- Employment Status,
- Occupation and
- Industry.

### 6.2 WORKING-AGE POPULATION

In the 1990 Census, the working-age population is defined as all persons who are aged 12 years and over. According to Table 6.1, the working-age population of Southern Province has increased by 42.3 percent between the 1980 and 1990 censuses. The increase in the male working-age population of 43.6 percent is more than that of females of 41.1 percent.

The increase in the working-age population in the rural areas of 43.8 percent is more than that in the urban areas of 37.9 percent.

The increase in the working-age population is greater for males than for females in both rural and urban areas. In rural areas, the increase in working-age population for males is 45.1 percent, while it is 42.7 percent for females. In urban areas, the increase in working-age population for males is 39.4 percent, compared to 36.4 percent for females.

The proportion of the working-age population living in the rural areas has remained higher than that in the urban areas in both 1980 and 1990. In 1980, 74.5 percent of the working-age population lives in the rural areas, as compared to 75.3 percent who do so in 1990. In the urban areas, 25.5 percent of the working-age population lives there in 1980, compared to 24.7 percent who do so in 1990.

An examination of the distribution of the working-age population by age shows that it declines with the increase in age. This pattern is observed between both sexes, as well as between both rural and urban areas. The above distribution pattern underscores the fact that the youthful population is greater than the adult population in this region.



Table 6.1

Population 12 Years and Over by Broad Age Groups, Residence and Sex, (Percent), Southern Province, 1980 and 1990

Residence, Sex and Year			Size	Total	12-19	20-24	25-29	30-59	60+	Not Stated
<b>Southern Province</b>										
- Total	1980		387,286	100.0	33.1	14.7	9.1	34.6	7.4	1.1
	1990		551,115	100.0	34.5	15.8	11.7	31.8	6.2	0.0
- Male	1980		185,716	100.0	34.2	14.0	8.9	33.7	8.1	1.1
	1990		266,677	100.0	35.4	15.3	11.2	31.3	6.8	0.0
- Female	1980		201,570	100.0	32.0	15.3	9.3	35.5	6.7	1.2
	1990		284,438	100.0	33.7	16.3	12.1	32.3	5.6	0.0
<b>Residence</b>										
<b>Rural</b> - Total	1980		288,380	100.0	33.8	14.2	8.4	34.4	8.2	1.0
	1990		414,746	100.0	34.7	15.7	11.2	31.2	7.2	0.0
- Male	1980		136,614	100.0	35.8	13.7	8.1	32.4	9.1	0.9
	1990		198,232	100.0	36.7	15.3	10.7	29.4	7.9	0.0
- Female	1980		151,766	100.0	32.0	14.6	8.6	36.2	7.5	1.1
	1990		216,514	100.0	33.0	16.0	11.6	32.9	6.5	0.0
<b>Urban</b> - Total	1980		98,906	100.0	30.9	16.2	11.2	35.2	4.9	1.6
	1990		136,369	100.0	33.6	16.4	13.1	33.6	3.3	0.0
- Male	1980		49,102	100.0	29.8	14.9	11.1	37.1	5.3	1.8
	1990		68,445	100.0	31.6	15.3	12.5	36.8	3.8	0.0
- Female	1980		49,804	100.0	32.0	17.5	11.3	33.3	4.4	1.5
	1990		67,924	100.0	35.7	17.5	13.8	30.3	2.7	0.0

### 6.3 ECONOMICALLY ACTIVE POPULATION

The economically active population includes all persons 12 years and over who are either employed or unemployed. Together, the employed and unemployed are sometimes referred to as the labour-force. The economically active population gives the total number of persons available to produce goods and services for the region.

Table 6.2 shows that the labour force increased by 35.6 percent between 1980 and 1990. The increase in the male labour-force of 72.2 percent is more than that of the female labour force of 30.8 percent. The proportion of males is higher than that of females in both 1980 and 1990. In 1980, 63.0 percent of the labour force is male, compared to 64.3 percent in 1990. The similar proportions of females in the labour force are 37.0 percent in 1980 and 35.7 percent in 1990.

The proportion of the labour force residing in the rural areas has increased from 73.7 percent to 78.1 percent between 1980 and 1990. The proportion of the labour force residing in urban areas, on the other hand, has declined from 26.3 percent to 21.9 percent over the same period.

A person is considered to be employed if he or she does any work for pay or profit or family gain during the reference period. Payment may be in the form of money, goods, services or a combination of these.

From the total labour force of 280,447 in 1990, 89.1 percent are employed. The proportion of the employed population has increased by 100.9 percent between the two censuses. The increase for the employed females (189.6 percent) is much higher than that for the male employed (72.1 percent). However, there are less females who are employed than males. The proportion of the employed residing in the rural areas has risen from 72.3 percent in 1980 to 78.7 percent in 1990, whereas it has declined from 27.7 percent in 1980 to 21.3 in 1990 in urban areas.

The unemployed population has declined by 62.9 percent between the two censuses. About three quarters of the unemployed population are in rural areas in both 1980 and 1990, leaving one quarter in the urban areas.

Of the working-age population 258,160 or 46.8 percent is economically inactive. Thirty one percent of the inactive are male in 1990 compared to 68.9 percent who are female. The economically inactive has increased by 43.4 percent between 1980 and 1990. The increase in males who are inactive is 46.0 percent while that of females who are inactive is 42.2 percent..

Table 6.2

Economically Active Population 12 Years and Over by Residence and Sex, (Percent), Southern Province, 1980 and 1990

Activity and Sex	Residence							
	1980				1990			
	Total Number	Total	Rural	Urban	Total Number	Total	Rural	Urban
<b>Population</b>								
- Total	387,286	100.0	74.5	25.5	551,115	100	75.3	24.7
- Male	185,716	100.0	73.6	26.4	266,677	100	74.3	25.7
- Female	201,570	100.0	75.3	24.7	284,438	100	76.1	23.9
<b>Labour Force</b>								
- Total	206,777	100.0	73.7	26.3	280,447	100	78.1	21.9
- Male	130,286	100.0	72.5	27.5	180,381	100	76.1	23.9
- Female	76,491	100.0	75.6	24.4	100,066	100	81.8	18.2
<b>Employed</b>								
- Total	124,387	100.0	72.3	27.7	249,876	100	78.7	21.3
- Male	93,887	100.0	70.9	29.1	161,557	100	76.1	23.9
- Female	30,500	100.0	76.5	23.5	88,319	100	83.5	16.5
<b>Unemployed</b>								
- Total	82,390	100.0	75.8	24.2	30,571	100	73.6	26.4
- Male	36,399	100.0	76.7	23.3	18,824	100	75.6	24.4
- Female	45,991	100.0	75.1	24.9	11,747	100	69.7	30.3
<b>Inactive</b>								
- Total	180,062	100.0	75.5	24.5	258,160	100	72.3	27.7
- Male	55,033	100.0	76.5	23.5	80,358	100	70.6	29.4
- Female	125,029	100.0	75.1	24.9	177,802	100	52.7	47.3
<b>Not Stated</b>								
- Total	447	100.0	4.9	95.1	12,508	100	72.3	27.7
- Male	397	100.0	3.8	96.2	5,938	100	72.6	27.4
- Female	50	100.0	14.0	86.0	6,570	100	71.9	28.1

Figure 6.1

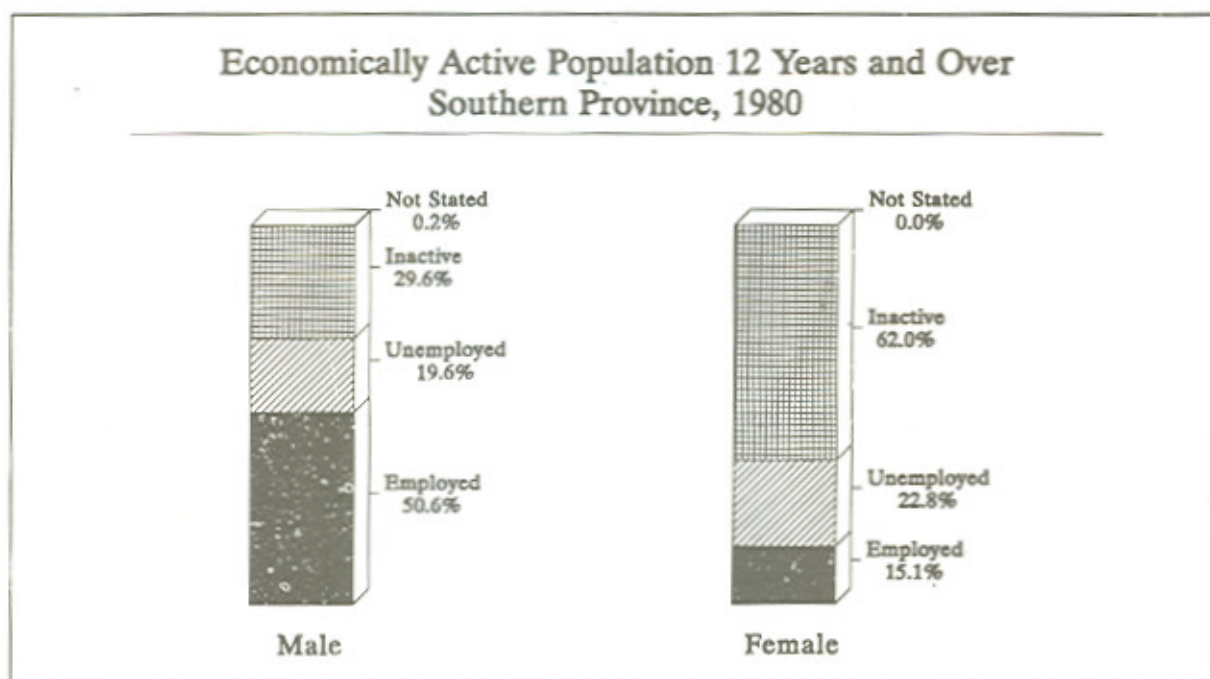
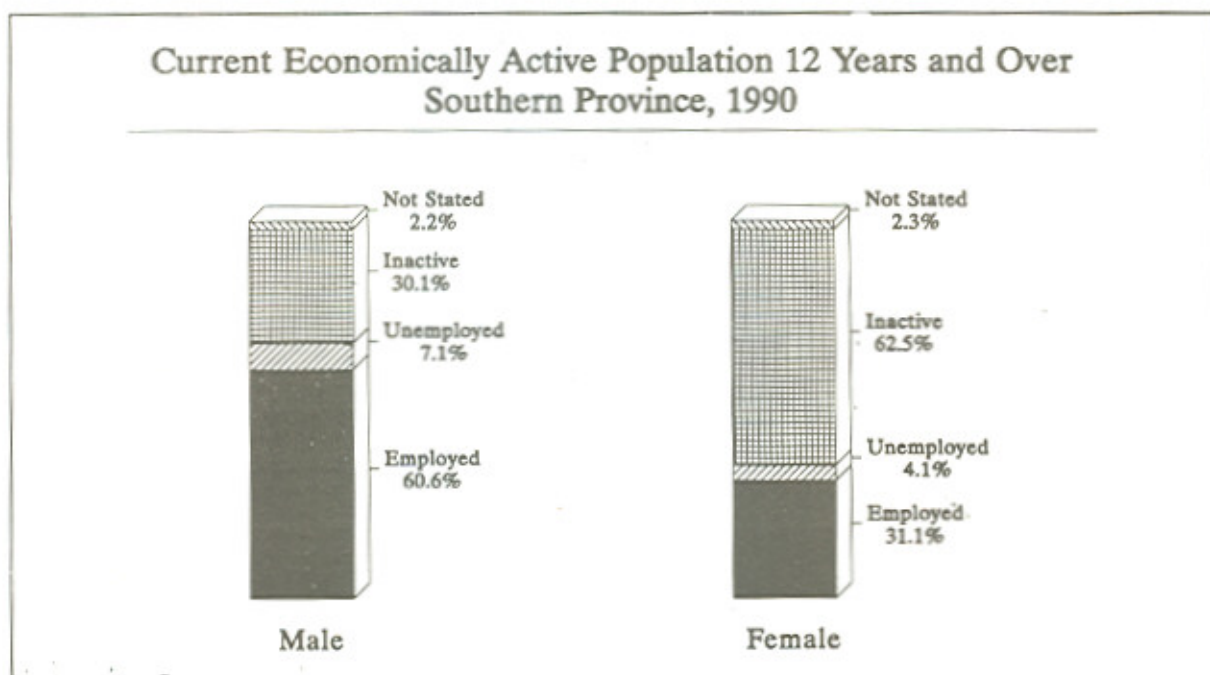


Figure 6.2





The percent distribution of the population currently economically active by age is given in Table 6.3. More than half of the labour force is in age group of 12-29 years, 10.9 percent in the age group of 30-34 years, 22.3 percent in the age-group 35-54 years and 9.6 percent in the age group of 55 years and over. The age-structure of both the male and female labour force shows patterns which are similar to those of the total labour force.

The age-structure of the employed population is similar to that of the labour force. The age structure of the unemployed, however, shows a pattern which is slightly different from those of the labour force and the employed. Three quarters of the unemployed have young ages of 12-29 years, 7.3 percent have 30-34 years, 11.8 percent have 35-54 years and 5.1 percent have ages of 55 years and over.

The age structure of the population who are currently economically inactive shows that two thirds are in age group 12-29 years, 7.8 percent are in age group 30-34 years, 16.9 percent are between 35 and 54 years, and 8.8 percent are aged 55 years and over.

The vast majority (80.5 percent) of the male inactive population are aged 12-29 years, leaving only 19.5 percent for all the remaining age groups. The age structure of the female inactive population is similar to that of the total inactive population.

**Table 6.3**

**Current Economically Active Population 12 Years and Over by Age and Sex, (Percent), Southern Province 1990**

Activity and Sex	Total Number	Total	Age Group							Not Stated
			12-19	20-24	25-29	30-34	35-54	55-64	65+	
<b>Labour Force</b>										
- Total	280,447	100.0	28.0	16.2	13.0	10.9	22.3	5.9	3.7	0.0
- Male	180,381	100.0	23.1	16.0	13.9	12.0	24.2	6.6	4.2	0.0
- Female	100,066	100.0	36.8	16.6	11.4	8.8	18.9	4.7	2.8	0.0
<b>Employed</b>										
- Total	249,876	100.0	26.7	15.2	13.0	11.3	23.6	6.3	3.9	0.0
- Male	161,557	100.0	21.9	15.0	13.9	12.5	25.4	6.9	4.4	0.0
- Female	88,319	100.0	35.4	15.6	11.5	9.2	20.3	5.0	3.0	0.0
<b>Unemployed</b>										
- Total	30,571	100.0	38.5	24.6	12.7	7.3	11.8	3.1	2.0	0.0
- Male	18,824	100.0	32.9	25.0	14.0	8.5	13.5	3.7	2.4	0.0
- Female	11,747	100.0	47.6	23.8	10.5	5.6	9.1	2.1	1.3	0.0
<b>Inactive</b>										
- Total	258,160	100.0	40.6	15.4	10.4	7.8	16.9	4.7	4.1	0.1
- Male	80,358	100.0	61.4	13.7	5.4	3.5	7.5	3.6	4.9	0.0
- Female	177,802	100.0	31.3	16.2	12.6	9.8	21.2	5.2	3.7	0.0
<b>Not Stated</b>										
- Total	12,508	100.0	52.9	16.5	8.0	5.3	10.0	3.1	3.4	0.8
- Male	5,938	100.0	55.3	17.0	7.8	5.1	9.0	2.6	2.6	0.6
- Female	6,570	100.0	50.6	16.1	8.2	5.5	10.9	3.6	4.2	0.9

#### 6.4 ECONOMICALLY INACTIVE POPULATION

The population which is economically inactive comprises all persons 12 years and over classified neither as employed nor unemployed during the reference period. The economically inactive include full-time homemakers, full-time students, prisoners, beggars/ vagrants and those pensioners who live solely on retirement benefits. Also included are disabled and invalid persons who are unable to work due to their disability and severe sickness.

Homemakers are persons of either sex who are economically inactive because of their full engagement in household duties in their own homes. Students are persons of either sex who are economically inactive due to their engagement in full-time studies. Other inactive persons are those listed in the above remaining categories, whose reasons for inactivity are as implied by the title of their sub-category.

Table 6.4 shows the current economically inactive population by reason for inactivity. Of the 258,160 inactive population, 45.2 percent are homemakers, 24.6 percent are students and 30.2 percent are in the "other" category. Homemaking is the most common reason for economic inactivity in Southern Province, followed by other reasons; (30.1 percent); studying is the least common reason for economic inactivity in the province.

In rural areas, economic inactivity is caused primarily by homemaking (48.8 percent) and other reasons (31.3 percent); studying (19.9 percent) is the least prevalent. In urban areas, economic inactivity is caused primarily by studying (36.8 percent) and homemaking (35.9 percent); other reasons (27.3 percent) are the least prevalent cause for inactivity.

Males in this province are inactive, primarily due to other reasons (48.0 percent) and studying (42.9 percent); homemaking (9.1 percent) is the least common reason for male economic inactivity. Females, on the other hand, are economically inactive, primarily due to homemaking (61.6 percent) and other reasons (22.1 percent); studying (16.3 percent) is the least common reason for female inactivity in the province.

Table 6.4

Economically Inactive Population by Reason for Inactivity, Residence and Sex, (Percent), Southern Province, 1990

Residence and Sex	Reason for Inactivity				
	Total Number	Total	Home maker	Student	Other
Residence					
- Total	258,160	100.0	45.2	24.6	30.2
- Rural	186,604	100.0	48.8	19.9	31.3
- Urban	71,556	100.0	35.9	36.8	27.3
Sex					
- Male	80,358	100.0	9.1	42.9	48.0
- Female	177,802	100.0	61.6	16.3	22.1

Table 6.5 shows the distribution of population who are currently economically inactive by residence and reason for inactivity. Of the 258,160 inactive persons, 72.3 percent are in rural areas, while 27.7 percent are in urban areas. Of the 116,694 homemakers in the province, 78.0 percent are in rural areas, while 22.0 percent are in urban areas. Of the 63,539 students in the province, 58.5 percent are in rural areas and 41.5 percent are in urban areas. Of the 77,927 other inactive persons in the province, three quarters are in rural areas and one quarter are in urban areas.



Table 6.5

**Current Economically Inactive Population by Reason for Inactivity, Residence and Sex, (Percent), Southern Province, 1990**

Residence and Sex	Reason for Inactivity			
	Total	Home maker	Student	Other
<b>Southern Province</b>				
- Total Number	258,160	116,694	63,539	77,927
- Total	100.0	100.0	100.0	100.0
- Rural	72.3	78.0	58.5	75.0
- Urban	27.7	22.0	41.5	25.0

## 6.5 LABOUR FORCE PARTICIPATION RATES

The labour force participation rate is defined as the proportion of persons of a particular age-group in the labour force expressed as a percentage. This rate is a measure of the degree to which a particular age and/or sex group is involved in economic activities. Labour force participation rates by age, sex and residence are shown in Table 6.6.

There has been a decline in the degree of involvement into the labour force by the working-age population of Southern province, as indicated by the decline of the overall labour force participation rate from 53.4 percent in 1980 to 50.9 percent in 1990. The participation rate for males has fallen from 70.1 percent to 67.6 percent while that of females has fallen from 37.9 percent to 35.2 percent. The rural population has maintained their participation rate at 52.8 percent in both the 1980 and 1990 censuses, while the participation of the urban population has declined from 55.0 percent to 45.0 percent. Within the rural areas, the rate for males has stagnated at 69.2 percent between the two census, while that of females has declined from 38.1 percent to 37.8 percent. In urban areas, on the other hand, the male labour force participation rate has fallen from 72.9 percent to 63.1 percent, while that of females has fallen from 37.4 percent to 26.7 percent.

An examination of participation rates by age shows that they are lowest for the young age-group of 12-19 years, rise with the increase in ages and reaches a peak of 60.6 percent for the age group of 35-39 years, before declining again for the older age groups. The distribution of the participation rates by age for the males displays a pattern which is similar to the one described above for the total: it starts with a low 44.2 percent for the age group 12-19 years, rises to reach a peak of 88.6 percent for the age group 30-34 years, and then declines to 64.6 percent for the age group 65 years and over.

The participation rates of females by age, however, shows a distinct pattern: they are highest for the young age of 12-19, at 38.5 percent. After this age group, the rates slightly fluctuated through to the oldest age group.

At provincial level, the labour force participation rates of males are higher than those of females each age group. The foregoing observations are same in both rural and urban areas.



Table 6.6

Current Labour Force Participation Rates by Age, Sex and Residence, Southern Province, 1980 and 1990

Age-Group	Current Participation Rates								
	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
1980	53.4	70.1	37.9	52.8	69.2	38.1	55.0	72.9	37.4
1990	50.9	67.6	35.2	52.8	69.2	37.8	45.0	63.1	26.7
1990 Census Age Groups									
12-19	41.3	44.2	38.5	48.0	50.8	45.0	20.5	21.9	19.2
20-24	52.1	70.6	35.7	54.2	72.8	37.5	46.0	64.4	29.7
25-29	56.1	87.4	33.2	56.6	83.3	33.9	57.3	85.6	31.3
30-34	59.4	88.6	33.1	58.0	86.1	33.1	62.6	90.2	32.9
35-39	60.6	88.0	34.5	58.1	86.7	34.0	66.3	92.2	35.7
40-44	57.4	86.2	32.1	53.9	85.6	31.9	66.7	92.6	32.7
45-49	57.0	84.1	32.0	54.6	84.5	32.2	65.2	90.5	31.1
50-54	57.0	81.4	33.4	55.8	83.0	34.8	62.1	87.4	25.4
55-59	57.9	77.7	32.8	57.7	81.5	33.8	58.9	81.1	26.6
60-64	56.0	73.5	33.4	56.7	78.6	34.8	51.9	72.9	24.1
65+	48.3	64.6	28.9	49.1	65.7	30.0	41.6	56.9	19.5
Not Stated	12.1	16.7	8.4	12.6	17.9	8.2	10.0	11.1	9.1

Figure 6.3

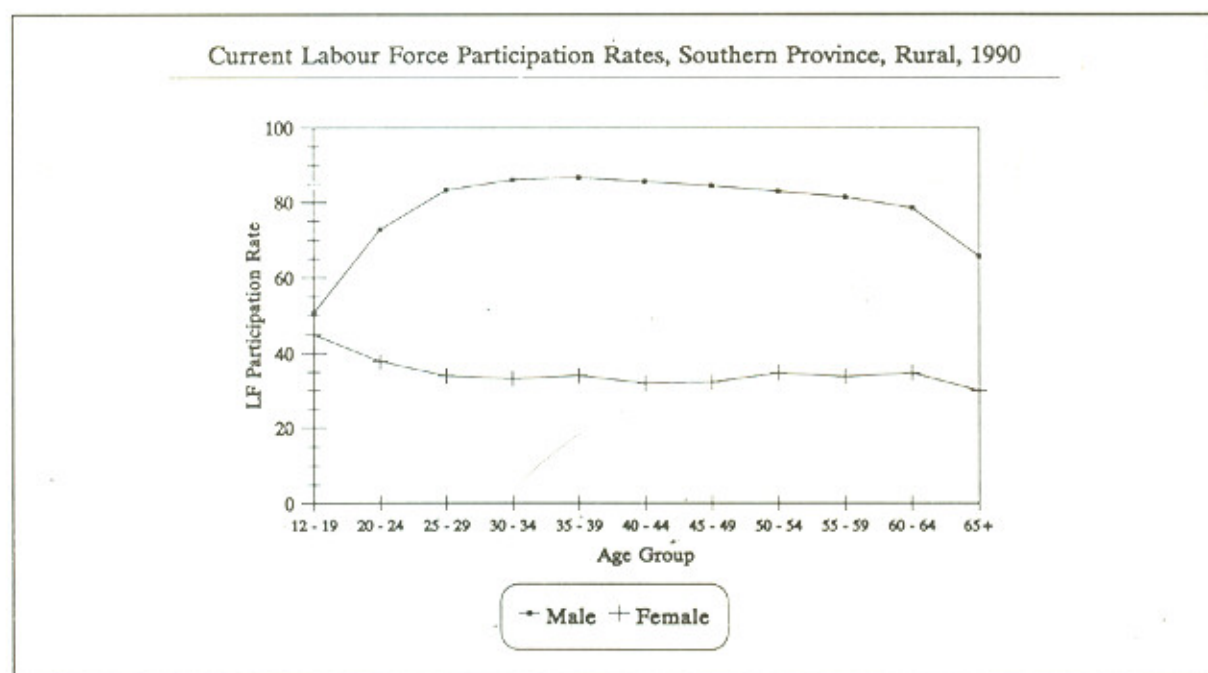
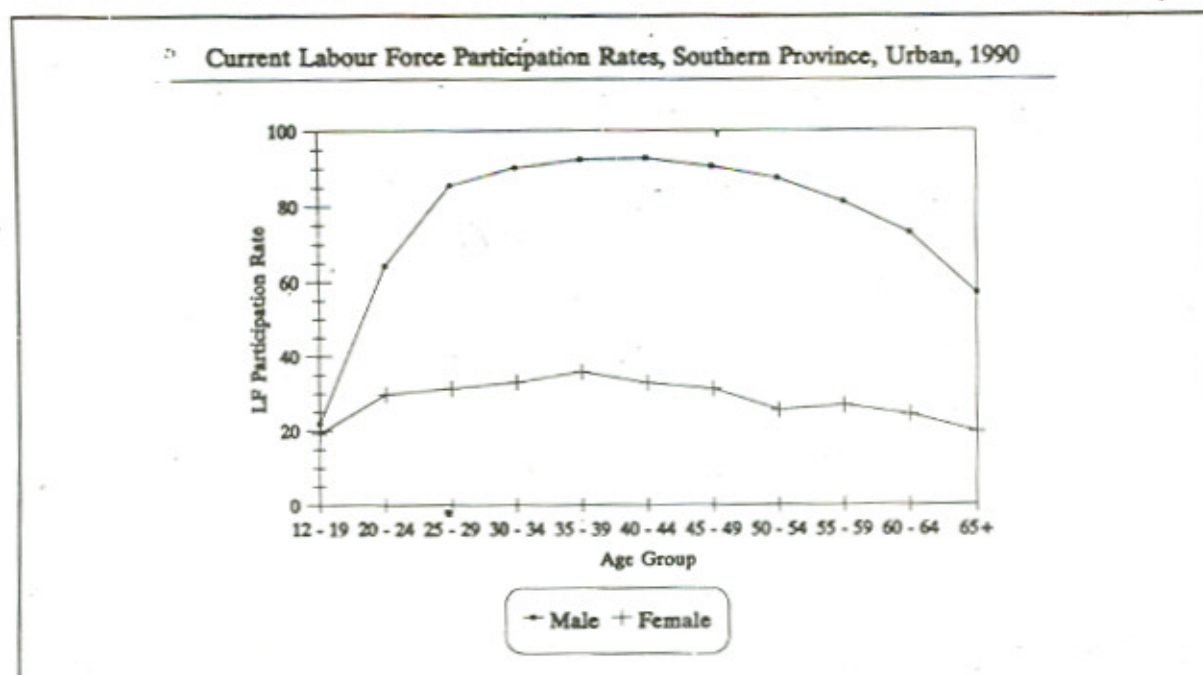


Figure 6.4



The occupational and industrial structure and the status in employment of a region's workforce reflects the level of its economic development and the general efficiency with which its resources are used. Sustained economic progress is usually accompanied by the increased division and specialization of the work force. It is characteristic of a backward economy: to have a large part of its work force engaged in its primary industries; for self-employment to be the dominant form of employment status, and; for the majority of the workers to be involved in agricultural and other occupations characterized by low skill requirement.

## 6.6 EMPLOYMENT STATUS

Employment status refers to whether a worker is an employer, employee, self-employed or an unpaid family worker. An employer is a person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires one or more employees. An employee is a person who works for a public or private employer and receives remuneration in wages, salary, commission, tips, piece-rates, or pay in kind. A self-employed worker is a person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires no employees. An unpaid family worker is a person who works without pay in an economic enterprise operated by a related person living in the same household.

The fact that southern province has not made significant advances towards industrialization can be seen from its continued reliance on family labour, rather than relying on employers and employees, who typify advanced regions. In 1990, two thirds of the work force in the province are self-employed and unpaid family workers; Employees and employers constitute less than one third of the work force.

An interesting observation in this region is the intercensal shifts in status. The proportion of employees has reduced from 63.0 percent in 1980 to 27.4 percent in 1990. On the other hand, the proportion of unpaid family workers, which was only 6.5 percent in 1980, has increased to 42.7 percent in 1990. It appears that job losses in the formal sector have forced many workers to take up informal sector activities. Much of the change from formal to informal work have occurred in the rural areas, where employees have reduced from 55.9 percent in 1980 to 15.0 percent in 1990 while unpaid family workers have increased from 8.8 percent in 1980 to 53.4 percent in 1990.

In 1980 the statuses of employee and employer dominate in both rural (57.5 percent) and urban (82.2 percent) areas. In 1990, on the other hand, unpaid family workers dominate in rural areas (53.4 percent), while employees dominate in urban areas (68.7 percent).

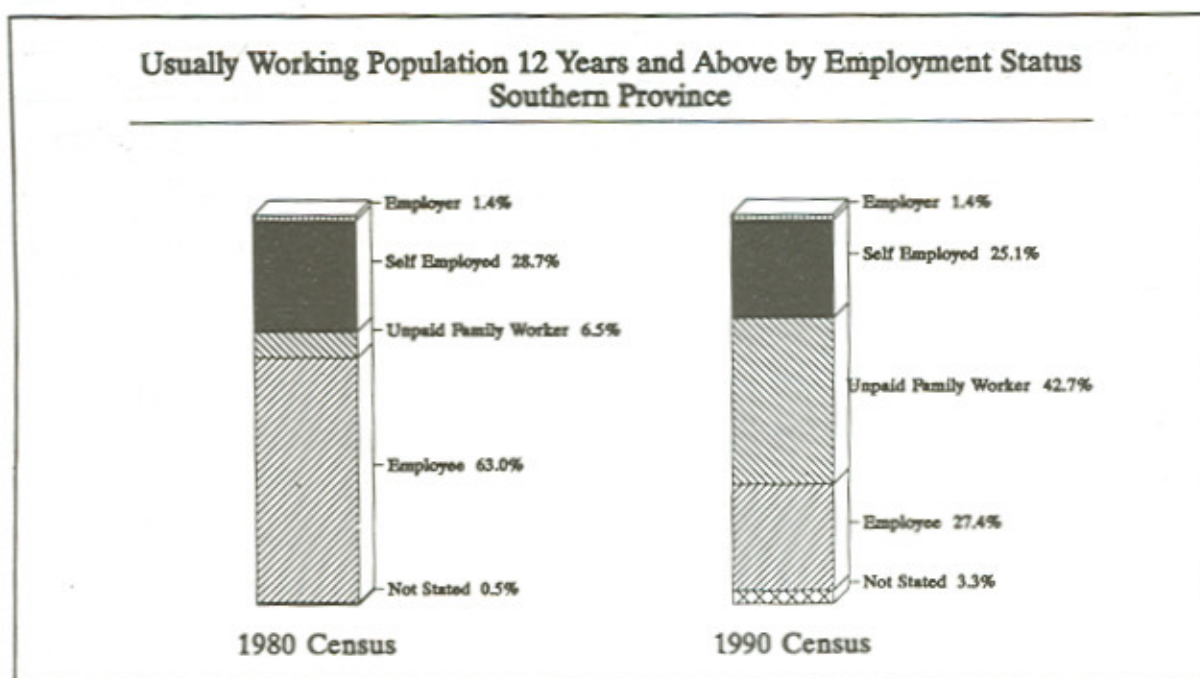
Table 6.7

Usually Working Population 12 Years and Over by Employment Status, Sex and Residence, (Percent), Southern Province, 1980 and 1990

Employment Status and Sex	Residence and Year					
	Total		Rural		Urban	
	1980	1990	1980	1990	1980	1990
Total Number						
- Total	124,387	209,966	89,928	161,472	34,459	48,494
- Male	93,887	139,930	66,602	103,827	27,285	36,103
- Female	30,500	70,036	23,326	57,645	7,174	12,391
Total						
- Total	100.0	100.0	100.0	100.0	100.0	100.0
- Male	100.0	100.0	100.0	100.0	100.0	100.0
- Female	100.0	100.0	100.0	100.0	100.0	100.0
Self-Employed						
- Total	28.6	25.1	33.2	27.3	16.7	17.8
- Male	25.0	27.2	30.6	32.1	11.2	13.4
- Female	40.0	20.9	40.6	18.9	38.0	30.3
Employee						
- Total	63.0	27.4	55.9	15.0	81.3	68.7
- Male	71.0	34.2	64.4	19.4	87.2	76.5
- Female	38.2	13.9	31.8	7.0	58.8	46.2
Employer						
- Total	1.4	1.5	1.6	1.0	0.9	2.9
- Male	1.5	1.8	1.7	1.3	1.0	3.2
- Female	0.9	0.7	1.1	0.5	0.6	2.0
Unpaid-Family Worker						
- Total	6.5	42.7	8.8	53.4	0.7	7.0
- Male	2.1	33.8	2.9	44.2	0.4	3.9
- Female	20.1	60.5	25.7	70.0	1.9	16.0
Not Stated						
- Total	0.5	3.3	0.5	3.3	0.4	3.6
- Male	0.4	3.0	0.4	3.0	0.2	3.0
- Female	0.8	4.0	0.8	3.6	0.7	5.5



Figure 6.5



## 6.7 WORKING POPULATION BY OCCUPATION

Occupation is the title which identifies a set of characteristics of a job and a group of specific tasks to be performed by a person.

The fact that primary production is dominant in the Southern Province is shown by the prevalence of agricultural and related occupations. Agriculture and related occupations is the most predominant, followed by (51.4 percent), production and related workers has (6.2 percent), then professional, technical and related occupations (5.8 percent). The occupational distribution of the workers between rural and urban areas shows marked differences. While agriculture and related occupations has absorbed 63.9 percent, thereby leaving only 36.1 percent for all the other occupations in rural areas, the workers are more widely distributed over all the occupations in urban areas. The latter observation, in fact, makes Southern Province the third most industrialised province, after Lusaka and Copperbelt Provinces. A comparison of the male and female distributions of workers over the various occupations did not show big differences.

The intercensal occupational shifts of workers shows that only the agricultural and related occupations gained have workers from other occupations. All the remaining occupations have experienced reductions in their percentage shares of workers, due to the economic recession experienced in non-agricultural industries.

Table 6.8

## Usually Working Population By Occupation, Sex and Residence, (Percent), Southern Province, 1980 and 1990

Occupation		Percentage of Working Population								
		Total			Rural			Urban		
		Both	Male	Female	Both	Male	Female	Both	Male	Female
Total Number of Workers	1980	124,387	93,887	30,500	89,928	66,602	23,326	34,459	27,285	7,174
	1990	209,966	139,930	70,036	161,472	103,827	57,645	48,494	36,103	12,391
Total (%)	1980	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Professional, Technical	1980	9.5	7.9	14.4	8.6	7.4	11.9	11.9	9.1	22.2
	1990	5.8	5.9	5.7	3.2	3.5	2.8	14.4	12.7	19.1
Administrative and Manag.	1980	1.4	1.7	0.6	1.1	1.2	0.5	2.2	2.6	1.0
	1990	0.4	0.5	0.1	0.1	0.1	0.0	1.3	1.6	0.5
Clerical and Related	1980	5.7	5.0	7.7	5.0	4.6	6.0	7.6	6.1	13.5
	1990	1.7	1.7	1.8	0.4	0.5	0.3	6.2	5.3	8.8
Sales Workers	1980	8.8	5.2	20.1	7.1	4.2	15.6	13.3	7.7	34.7
	1990	4.0	3.1	5.7	1.6	1.4	2.0	11.9	8.0	23.1
Service Workers	1980	11.6	13.4	6.2	9.8	11.4	5.3	16.4	18.3	9.1
	1990	4.3	5.0	2.9	2.0	2.0	2.0	11.9	13.8	6.7
Agriculture, Animal Hus.	1980	35.3	32.6	43.3	45.1	41.8	54.4	9.6	10.1	7.4
	1990	51.4	51.9	50.5	63.9	66.2	59.8	9.9	10.8	7.1
Production and Related	1980	20.0	25.1	4.4	16.3	20.9	3.4	29.7	35.5	7.7
	1990	6.2	7.9	2.7	2.7	3.2	1.7	17.8	21.4	7.4
Unclassified	1980	1.1	1.3	0.4	0.8	1.0	0.2	1.8	2.0	1.0
	1990	1.4	1.6	1.0	1.0	1.0	0.9	2.9	3.3	1.7
Not Stated	1980	6.6	7.8	2.9	6.2	7.5	2.7	7.5	8.6	3.4
	1990	24.8	22.4	29.6	25.1	22.1	30.5	23.7	23.1	25.6

## 6.8 WORKING POPULATION BY INDUSTRY

Industry identifies the type of product or service produced at one's place of work. Table 6.9 gives the distribution of usually working population 12 years and over by industry and employment status.

The agriculture industry has employed 53.5 percent, the mining industry has employed 0.9 percent, the secondary industries have employed 5.6 percent, while the tertiary industries have employed 15.6 percent. The agricultural industry is, therefore, in the most predominant employer in the Southern region. The self-employed and unpaid family workers have the largest shares in the agriculture industry: 70.1 percent of the self-employed and 62.3 percent of the unpaid family workers are in agriculture.

The four largest industries for the employees in 1990 are Agriculture (28.7 percent), Community, Social and Personal Services (24.8 percent), manufacturing (9.4 percent) and Transport (7.0 percent). Similarly, the four most important industries for the employers are, Agriculture (38.8 percent), Community (19.0 percent), transport (7.7 percent) and manufacturing (6.1 percent).

The industrial distribution of workers over the various employment statuses in 1980 shows patterns which are similar to those of 1990, as discussed above.

Table 6.9

Usually Working Population 12 Years and Over by Employment Status and Industry, (Percent),  
Southern Province, 1980 and 1990

Industrial and Year	Total Number Working	Self Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total Number - 1980	124,387	35,639	78,312	1,693	8,133	610
- 1990	209,966	52,751	57,533	3,027	89,654	7,001
Southern Province - 1980	100.0	100.0	100.0	100.0	100.0	100.0
- 1990	100.0	100.0	100.0	100.0	100.0	100.0
Agriculture - 1980	69.0	9.2	19.1	24.1	95.0	37.0
- 1990	69.0	9.1	28.7	38.8	62.3	25.9
Mining - 1980	0.1	0.1	1.6	0.6	0.2	0.3
- 1990	0.1	0.2	2.8	1.2	0.0	0.4
Manufacturing - 1980	6.5	2.5	8.9	7.2	0.2	6.1
- 1990	6.9	3.8	9.4	6.1	0.4	3.0
Electricity - 1980	0.1	0.0	3.2	1.3	-	2.0
- 1990	0.5	0.1	1.9	1.6	0.0	0.3
Construction - 1980	1.1	0.9	4.6	2.9	0.0	0.5
- 1990	1.2	0.8	9.0	3.1	0.2	1.0
Trade - 1980	7.8	16.8	4.3	10.8	1.4	19.5
- 1990	2.6	4.7	4.4	5.1	0.2	1.6
Transport - 1980	6.2	0.3	9.6	4.4	0.2	1.8
- 1990	2.1	0.2	7.0	7.7	0.0	1.3
Finance - 1980	2.2	1.9	3.0	4.7	0.3	1.0
- 1990	1.1	1.7	2.9	2.8	0.2	1.1
Community - 1980	22.6	2.4	31.0	32.0	0.4	11.1
- 1990	9.5	5.5	24.8	19.0	2.0	6.6
Other - 1980	1.1	0.9	1.8	1.8	0.8	2.6
Not Stated - 1980	0.4	8.8	11.7	12.0	33.9	20.7
- 1990	2.7	12.0	13.3	13.1	2.3	56.2



Figure 6.6

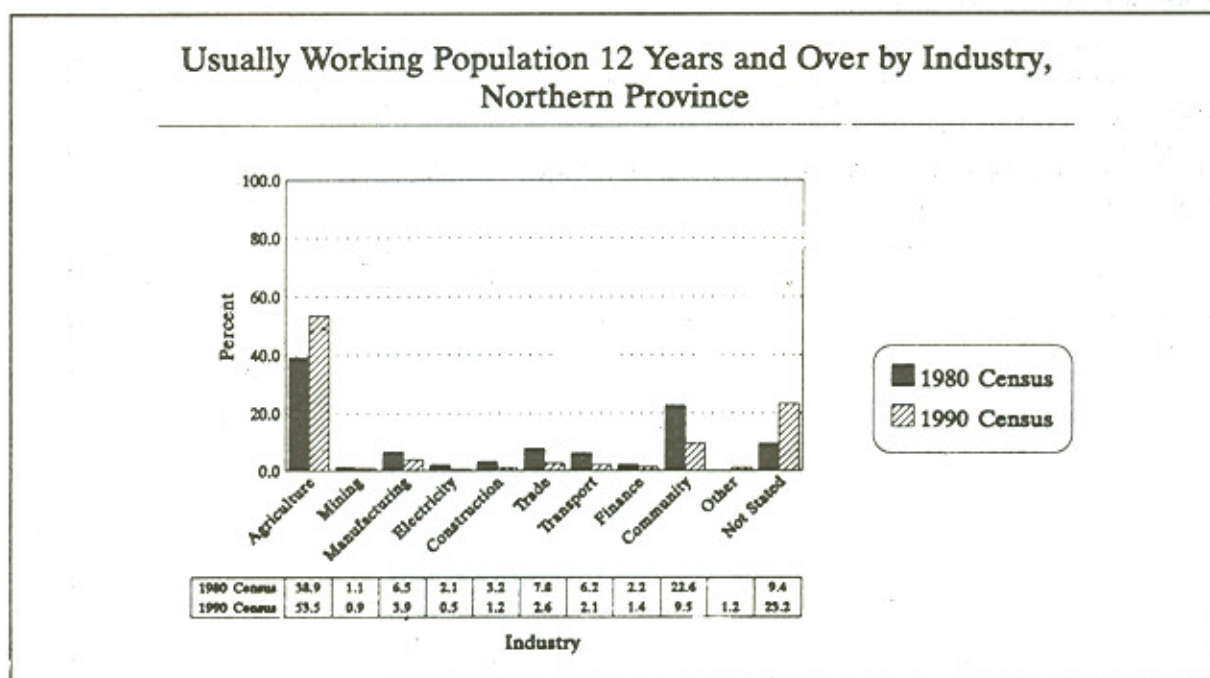


Table 6.10 shows the percentage distribution of usual workers by employment status in each industry. For all industries, unpaid family worker is the most important employment status, with 42.7 percent, following by employee (27.4 percent) and self-employed (25.1 percent). Employer is the least important, with 1.5 percent. This is different from the distributional pattern of 1980, in which employee is the most important status with 63.0 percent of the workers, followed by self-employed with 28.6. Unpaid family worker has only 6.5 percent of the workers in 1980.

The self-employed is a relatively important status in agriculture (32.9 percent), trade (44.8 percent), finance (31.1 percent) and manufacturing (24.7 percent). The status of employee is important in all the non-agricultural industries in both the 1980 and 1990 censuses. The status of employer has remained of no importance in all industries in both censuses, while the status of unpaid family worker is of importance only in agriculture (49.7 percent) in 1990.

Table 6.10

Usually Working Population 12 years and Over by Industry and Employment Status, (Percent),  
Southern Province, 1980 and 1990

Industrial and Year		Total Number Working	Total	Self Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total Number	- 1990	209,966	100.0	25.1	27.4	1.5	42.7	3.3
	- 1980	124,387	100.0	28.6	63.0	1.4	6.5	0.5
Agriculture	- 1990	112,288	100.0	32.9	14.7	1.1	49.7	1.6
	- 1980	48,347	100.0	51.7	31.0	0.8	16.0	0.5
Mining	- 1990	1,827	100.0	4.8	90.2	1.9	1.7	1.4
	- 1990	1,344	100.0	2.2	95.6	0.7	1.3	0.2
Manufacturing	- 1990	8,130	100.0	24.7	66.2	2.3	4.2	2.6
	- 1980	8,082	100.0	11.2	86.6	1.5	0.2	0.5
Electricity	- 1990	1,185	100.0	2.8	92.6	2.5	0.3	1.8
	- 1980	2,587	100.0	0.5	98.2	0.8	-	0.5
Construction	- 1990	2,473	100.0	17.1	70.2	3.8	6.2	2.7
	- 1990	3,996	100.0	7.8	90.8	1.2	0.1	0.1
Trade	- 1990	5,496	100.0	44.8	46.4	2.8	4.0	2.0
	- 1980	9,776	100.0	61.2	34.5	1.9	1.2	1.2
Transport	- 1990	4,511	100.0	3.0	88.9	5.2	0.9	2.0
	- 1980	7,690	100.0	1.3	97.3	1.0	0.2	0.2
Finance	- 1990	2,912	100.0	31.1	56.9	2.9	6.3	2.8
	- 1990	2,771	100.0	12.6	83.6	2.8	0.8	0.2
Community	- 1990	20,024	100.0	14.6	71.3	2.9	8.9	2.3
	- 1980	28,088	100.0	3.1	94.7	1.9	0.1	0.2
Other	- 1990	2,455	100.0	19.1	41.8	2.2	29.4	7.5
Not Stated	- 1990	48,665	100.0	13.0	15.7	0.8	62.4	8.1
	- 1980	11,706	100.0	17.9	78.0	1.7	1.6	1.1

## 6.9 UNEMPLOYMENT

The unemployed are all persons 12 years and over who are either actively seeking work or are available for work during the reference period. The existence of unemployment is proof that the supply of labour is greater than the demand for it. The main cause of unemployment is poor economic conditions, though demographic trends do affect the growth and composition of the labour force. A rise in unemployment implies that many seekers have no jobs owing to a shortfall in employment opportunities. To find the unemployment rate, the number of unemployed persons is measured against the total labour force.

Current unemployment rates by residence and sex are shown in table 6.11. The province has experienced a drastic drop in the rate of unemployment, from 39.8 percent in 1980 to 10.9 percent in 1990. The drop in female unemployment from 60.1 percent in 1980 to 11.7 percent in 1990 is much greater than that of male unemployment, which dropped from 27.9 percent in 1980 to 10.4 percent in 1990. The big percentage rise in the employed population that is found to have the status of unpaid family worker between the two censuses suggests that many of those who are unemployed in 1980, as well as the new entrants to the labour force, have taken up informal sector economic activities by 1990. In addition to this, the 1990 census appears to have had an improved enumeration of informal sector activities in comparison to the 1980 census. All this has resulted in the fall in the unemployment rates in 1990.

The decline in unemployment from 41.0 percent to 10.2 percent in rural areas is greater than the decline from 36.7 percent to 13.3 percent in urban areas. The decline in female unemployment is much greater than that of male unemployment in both rural and urban areas. In rural areas, female unemployment has declined from 59.7 percent in 1980 to 10.0 percent in 1990, whereas male unemployment has dropped from 29.5 percent in 1980 to 10.4 percent in 1990. In urban areas, female unemployment has declined from 61.5 percent in 1980 to 19.6 percent in 1990, whereas male unemployment has declined from 23.7 percent in 1980 to 10.6 percent in 1990.

Table 6.11

Current Unemployment Rates by Sex and Residence, (Percent), Southern Province, 1980 and 1990

Employment Status, Sex and Residence	1980	1990
<b>Southern Province</b>		
-Total	39.8	10.9
-Male	27.9	10.4
-Female	60.1	11.7
<b>Residence</b>		
<b>Rural</b>		
-Total	41.0	10.2
-Male	29.5	10.4
-Female	59.7	10.0
<b>Urban</b>		
-Total	36.7	13.3
-Male	23.7	10.6
-Female	61.5	19.6
<b>Districts</b>		
-Choma		9.5
-Gwembe		14.3
-Kalonga		8.0
-Livingstone		16.5
-Mazabuka		10.4
-Monze		14.2
-Namwala		10.0
-Siavonga		8.6
-Sinazongwe		12.4

The distribution of unemployment rates by age, residence and sex in 1990 are given in table 6.12. According to this table, unemployment is more acute among young persons of 12-29 years (for whom it ranged from 10.6 percent to 16.5 percent) than it is for adults of 30 years and more (for whom it ranges from 5.5 percent to 7.3 percent). This pattern is observed for both males and females and in both rural and urban areas.

In rural areas, the male unemployment rates are similar to those of females; in urban areas, female unemployment rates are higher than those of males at every age-group except the age-group of 60-64 years.



Table 6.12

## Current Unemployment Rates by Age, Sex and Residence, (Percent), Southern Province, 1990

Current Unemployment Rates									
Age Group	Total			Rural			Urban		
	Both	male	Female	Both	Male	Female	Both	Male	Female
Total	10.9	10.4	11.7	10.2	10.4	10.0	13.3	10.6	19.6
12-19	15.0	14.9	15.2	13.2	13.4	13.0	28.5	26.6	30.4
20-24	16.5	16.3	16.9	14.1	14.9	12.8	24.7	20.9	31.9
25-29	10.6	10.5	10.8	10.2	10.8	9.2	11.5	9.9	15.6
30-34	7.3	7.3	7.5	7.7	8.1	6.9	6.5	5.6	9.0
35-39	6.1	6.1	6.1	6.8	7.3	5.9	4.7	4.1	6.7
40-44	5.7	5.7	5.7	6.4	6.9	5.6	4.2	3.6	6.3
45-49	5.5	5.5	5.5	5.8	6.2	4.9	4.6	3.7	8.2
50-54	5.6	5.8	5.0	5.6	6.2	4.7	5.2	4.8	7.4
55-59	5.7	6.0	5.0	5.4	5.8	4.4	7.2	6.7	9.3
60-64	5.6	5.7	5.5	5.3	5.4	5.3	7.2	7.3	6.9
65+	5.9	6.1	5.3	5.4	5.8	4.6	10.2	9.1	15.1
Not Stated	23.1	25.0	20.0	27.3	28.6	25.0	-	-	-

Table 6.13 gives the distribution of the usually unemployed population by level of education completed and age in 1990. According to this table, one third of the unemployed have no education, 45.9 percent have only a rudimentary education of grades 1 - 7. Of the unemployed 18.4 percent have secondary education, while those who have attained "A" and degree levels are negligible.

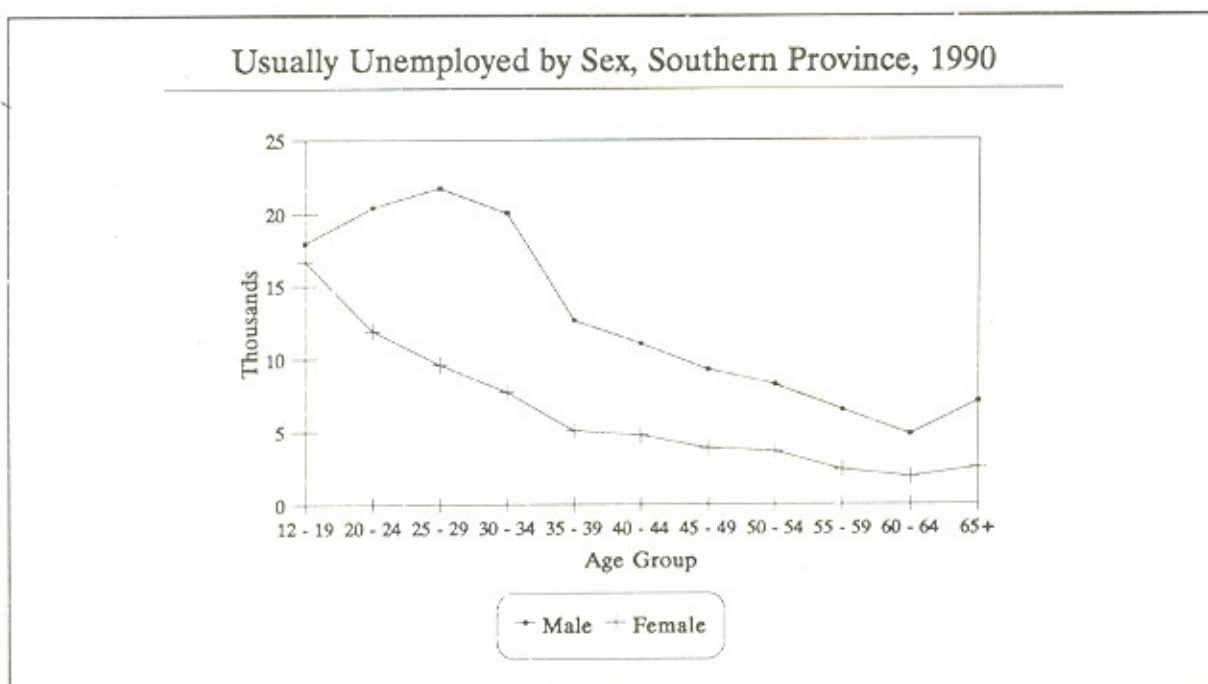
Having little or no education does, indeed, appear to lead to the problem of unemployment, as suggested by the fact that 79.2 percent of the unemployed have very little or no education. However, unemployment also relatively highly among those who have completed secondary education especially in age groups between 20 and 44 years.

Table 6.13

## Usually Unemployed Level of Education Completed and Age, (Percent), Southern Province, 1990

Age Group	Total Number Unemployed	Total	None	Grade 1-7	Grade 8-12	"A" Level	Degree	Not Stated
Total	37,973	100.0	33.3	45.9	18.4	0.0	0.0	2.4
12-19	13,929	100.0	40.7	49.0	7.3	-	-	3.0
20-24	9,417	100.0	22.5	45.8	32.0	0.0	0.0	1.7
25-29	4,945	100.0	20.7	45.0	32.3	0.1	0.0	1.9
30-34	2,885	100.0	25.4	45.4	27.0	0.1	-	2.1
35-39	1,486	100.0	29.8	42.9	25.5	-	0.0	1.8
40-44	1,261	100.0	38.3	43.2	15.8	-	0.0	2.7
45-49	1,039	100.0	43.9	42.7	9.5	-	0.1	3.8
50-54	938	100.0	51.3	41.1	4.5	-	-	3.1
55-59	711	100.0	51.2	41.8	3.5	-	-	3.5
60-64	526	100.0	56.6	37.8	2.7	-	-	2.9
65+	827	100.0	66.4	29.3	1.5	-	-	2.8
Not Stated	9	100.0	88.9	11.1	-	-	-	-

Figure 6.7



#### *Marital Status of the Unemployed*

Table 6.14 gives the distribution of the currently unemployed by marital status, sex and residence. Of the unemployed 61.5 percent have never been married and only 26.6 percent are married. Only 7.1 percent have the statuses of widowed, divorced and separated. There are more unemployed persons who are single and less who are married in the urban than in the rural areas.

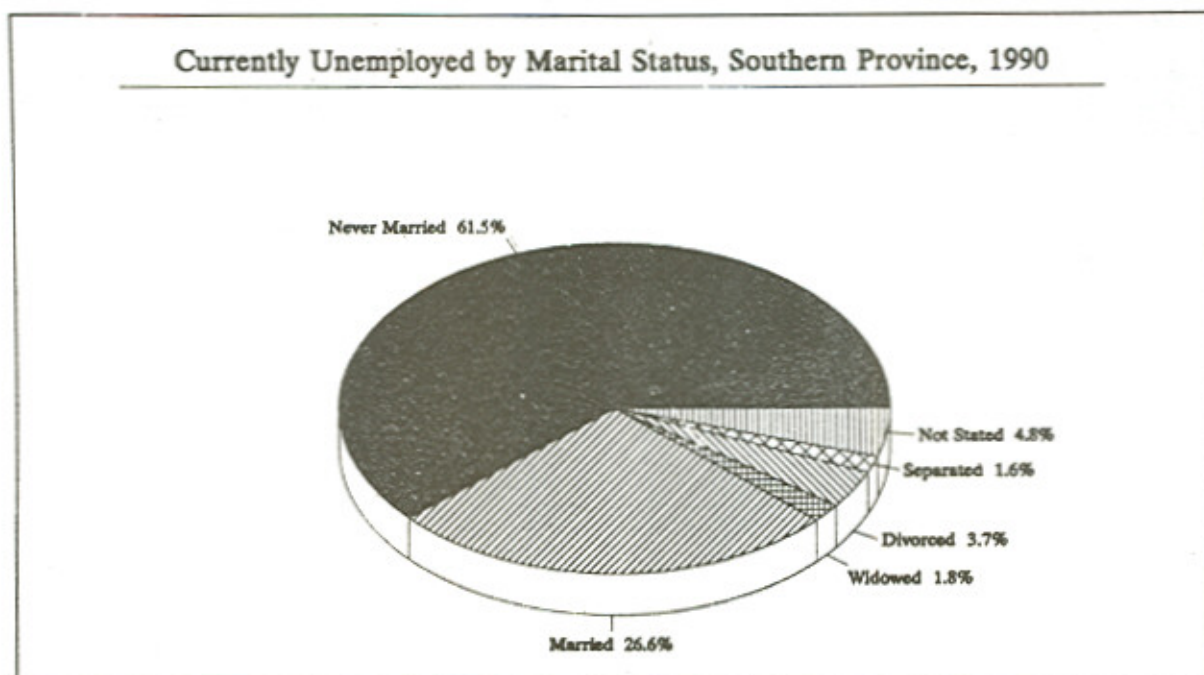
Table 6.14

Currently Unemployed by Marital Status, Sex and Rural/Urban, (Percent), Southern Province, 1990

Residence and Sex	Total Number Unemployed	Marital Status						
		Total	Single	Married	Widowed	Divorced	Separated	Not Stated
<b>Total</b>								
Both Sexes	30,571	100.0	61.5	26.6	1.8	3.7	1.6	4.8
Male	18,824	100.0	58.4	32.1	0.6	2.1	0.9	5.9
Female	11,747	100.0	66.4	17.6	3.8	6.3	2.8	3.1
<b>Rural</b>								
Both Sexes	22,419	100.0	59.0	29.4	1.7	3.3	1.6	5.0
Male	14,232	100.0	55.8	34.9	0.4	1.9	0.9	6.1
Female	8,187	100.0	64.6	19.9	3.8	5.9	2.8	3.0
<b>Urban</b>								
Both Sexes	8,152	100.0	68.3	18.8	2.2	4.6	1.7	4.4
Male	4,592	100.0	66.7	23.8	1.1	2.5	0.8	5.1
Female	3,560	100.0	70.5	12.4	3.7	7.3	2.8	3.3



Figure 6.8



#### 6.10 SUMMARY

The working-age population has increased by 42.3 percent between the two censuses; the increase in the male working-age population is 43.6 percent and the increase in that of females is 41.1 percent.

The labour-force has increased by 35.6 percent; the increase in the male labour force of 72.2 percent is greater than that of females of 30.8 percent. In 1990, 78.1 percent of the labour force resides in rural areas, compared to 21.9 percent who resides in urban areas.

Of the labour force 89.1 percent are employed. The employed population has increased by 100.9 percent between the two censuses. The increase of 189.6 percent for the employed females is much more than that of 72.1 percent for the male employed population. More than three quarters of the employed reside in rural areas.

The big decline of 62.9 percent in the unemployed population is a result of the fact that most of this population joined informal sector activities especially in the employment status of unpaid family worker, by 1990. About three quarters of the unemployed are in rural areas. The decline in the female unemployment rate from 60.1 percent to 11.7 percent is much more than that of males, which has declined from 27.9 percent to 10.4 percent between the censuses.

Of the working-age population in 1990, 46.8 percent are inactive. Two thirds of the inactive in 1990 are females and one third are male. About three-quarters of the inactive population are in rural areas and 27.7 percent are in urban areas. Homemaking is the most common reason for economic inactivity, while studying is the least common in this province.

Two thirds of the work force the province are in the typically informal sector employment status of self-employed and unpaid family worker, leaving one third in the status of employer and employee in 1990. The province has experienced a major shift in employment status: 63.0 percent of the work force in 1980 who are employees have reduced to 27.4 percent in 1990, whereas 6.5 percent who are unpaid family workers in 1980 have increased to 42.7 percent in 1990.



About half of the work force in the province are in agriculture and related occupations, and more than half are employed by the agriculture industry.

Kalomo district has the lowest rate of unemployment in the district while Livingstone has the highest. About four fifths of the unemployed has little or no education. Of the unemployed, 61.5 percent have never been married and only 26.6 percent are married.

## CHAPTER 7

# CHILDREN, YOUTH AND WOMEN

### 7.1 INTRODUCTION

The subject of children, youth and women has been discussed in a number of national and international fora for sometime now. In this chapter, an attempt is made to examine and analyse the situation of children, youth and women using the following data items:-

- Distribution within the province,
- Composition and Change over time,
- Marital Status in the case of the youth and women,
- Fertility,
- Education and
- Economic Activity.

For ease of reference, a child is defined as a person within the age group of 0-14 years, whereas a youth is a person within the age group 15-24 years.

### 7.2 POPULATION CHANGE, COMPOSITION AND DISTRIBUTION OF CHILDREN AND THE YOUTH.

#### *Population Change*

Population change refers to the increase or decrease in population size. Therefore, population change can be negative or positive. Population change over a period of ten years (1980-90) has been studied to come up with the average annual growth rate for Southern Province.

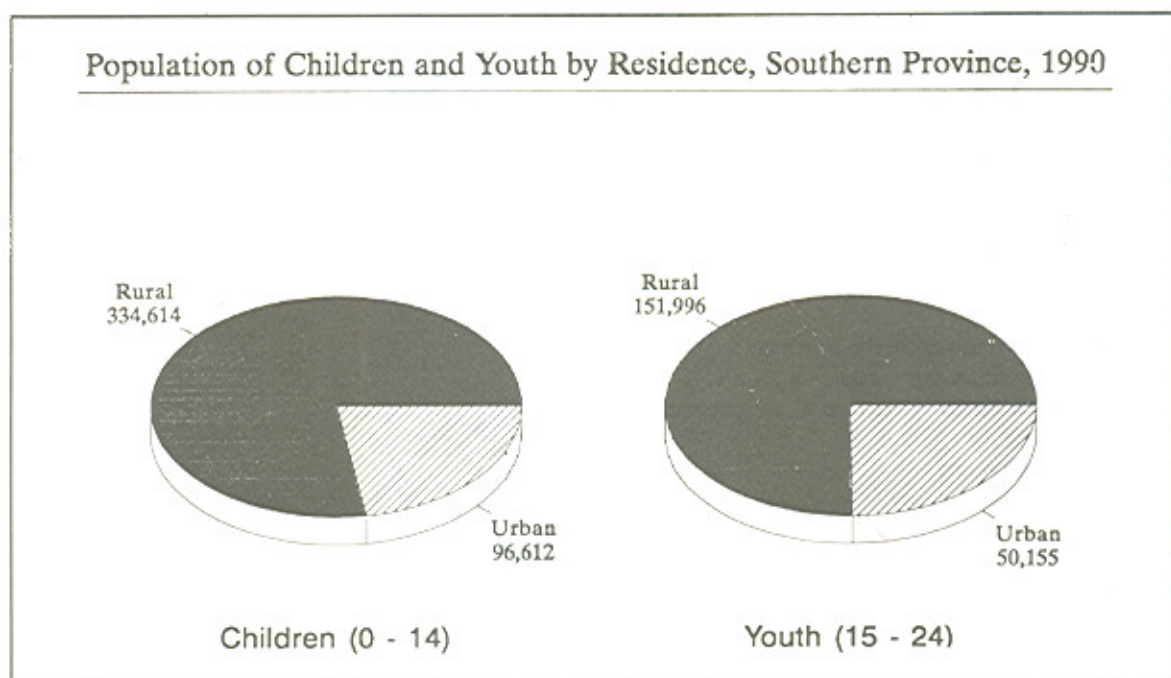
Table 7.1 shows that during the period 1980-90, the population of children and youth increased at the rates of 2.4 and 4.4 percent per annum, respectively. This means, the youth population increased at a rate which is almost double that of the children. Table 7.1 also shows that unlike the rural children whose population increased at a rate of 2.6, the population of the urban children increased at a low rate of 1.6 percent per annum.

Table 7.1

Population Size and Growth Rates of Children and Youth by Broad Age Group, Southern Province, 1980 and 1990

	Age Group	Residence	Population		Average Annual Growth Rate % (1980-1990)
			1980	1990	
Children	0 - 14	Total	340,075	431,226	2.4
		Rural	257,872	334,614	2.6
		Urban	82,203	96,612	1.6
Youth	15 - 24	Total	130,810	202,151	4.4
		Rural	96,981	151,996	4.6
		Urban	33,829	50,155	4.0

Figure 7.1



#### *Population Composition and Change*

The total number of persons recorded in Southern Province during the 1990 census is 907,150. Of this, 443,315 are male and 463,835 are female. Table 7.2 shows that about 48 percent of the total population are children below the age of 15 years. A further 22 percent is made up of the youth aged 15-24 years. Together, the children and youth account for 70 percent of the total population in the province. This inevitably makes Southern Province a young population.

Table 7.2

**Population Under 25 Years as a Proportion of Total Population by Sex and Broad Age Group, Southern Province, 1990**

Age Group	Sex	Children/Youth	Proportion
0-14	Both Sexes	431,226	47.5
	Male	214,167	48.3
	Female	217,059	46.8
15-24	Both Sexes	202,151	22.3
	Male	97,617	22.0
	Female	104,534	22.5

A young population tends to have an in-built momentum for growth due to a large number of young people entering the reproductive ages. Further, a very young population has economic implications as well. Enormous amounts of resources are diverted to providing social services such as health and education, leaving little resources for investment and savings.

Sex ratios and distribution of population of the children and youth within the districts of Southern Province are displayed in Table 7.3. At provincial level, the table reveals that there are more female children and youth than male. The respective sex ratios are 98.7 and 93.4 per 100 females. Generally, in all the districts of the province, female children and youth outnumber their male counterparts.



Table 7.3

Population Distribution and Sex Ratios of the Children and Youth by Districts, Southern Province, 1990

Residence	Population	Total	Male	Female	Sex ratio
Southern Province	Children	431,226	214,167	217,059	98.7
	Youth	202,151	97,617	104,534	93.4
Choma	Children	79,930	39,798	40,132	98.2
	Youth	36,391	17,381	19,010	91.4
Gwembe	Children	17,939	8,944	8,995	99.4
	Youth	7,126	3,368	3,758	89.6
Kalomo	Children	78,485	39,222	39,263	99.9
	Youth	36,367	17,632	18,735	94.1
Livingstone	Children	36,253	17,807	18,446	96.5
	Youth	19,508	9,307	10,201	91.2
Mazabuka	Children	71,844	35,504	36,340	97.7
	Youth	34,834	17,271	17,563	98.3
Monze	Children	60,715	30,246	30,469	99.3
	Youth	28,581	13,930	14,651	95.1
Namwala	Children	39,162	19,436	19,726	98.5
	Youth	17,688	8,482	9,206	92.1
Siavonga	Children	16,672	8,268	8,404	98.4
	Youth	7,303	3,444	3,859	89.2
Sinazongwe	Children	30,226	14,942	15,284	97.8
	Youth	14,353	6,802	7,551	90.1

Figure 7.2

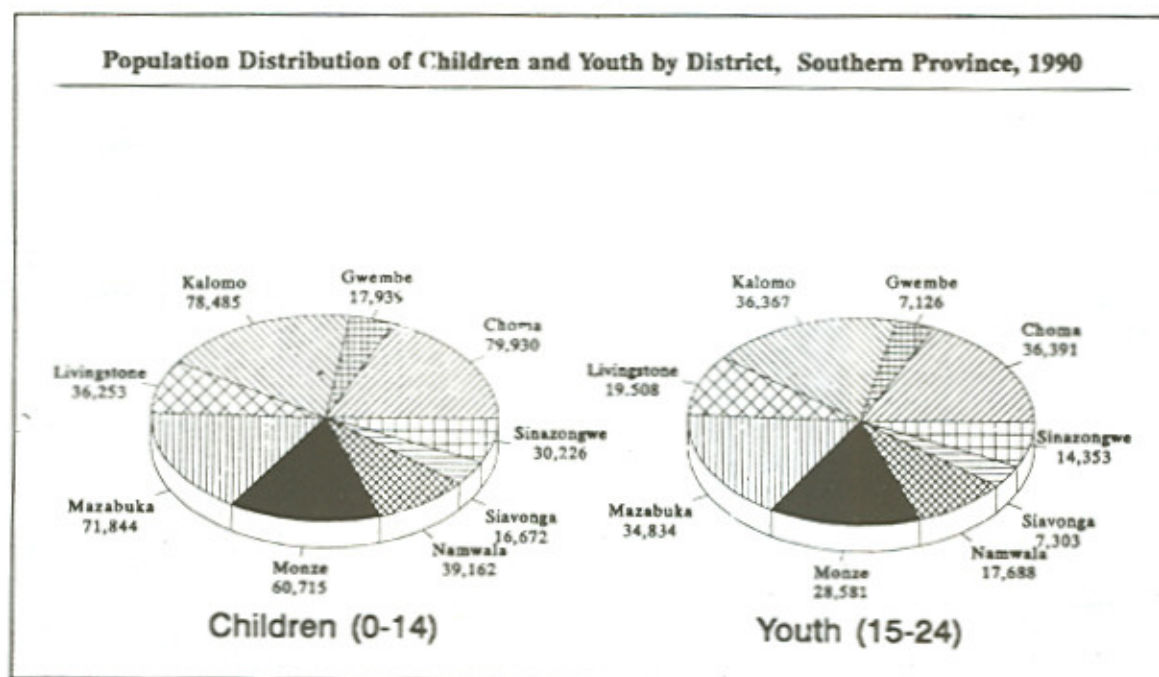


Table 7.4 shows the sex ratios of children and youth by five-year age groups. Other than the children in age group 10-14 years, females are in excess of the males in all the other age groups. The children in age group 10-14 years have a sex ratio of 100.2 which means there are 100.2 males per 100 females.

Table 7.4

Age-Sex Ratio of the Children and Youth, Southern Province, 1990

Age Group	Male	Female	Sex ratio
0 - 4	78,473	76,797	98.3
5 - 9	71,109	72,802	97.7
10 - 14	64,585	64,460	100.2
15 - 19	56,742	58,074	97.7
20 - 24	40,875	46,460	88.0

### 7.3 SOCIAL AND ECONOMIC CHARACTERISTICS OF THE YOUTH

A large proportion of the youth population has attained low levels of education, are untrained and consequently unemployed. According to 1990 census results, the current unemployment rates for the youth aged 12-19 and 20-24 years are higher than the rest of the population in respective age groups (see Table 6.13).

#### *Marital Status of the Youth*

Table 7.5 shows the marital status of the youth in the province and its rural and urban areas. It can be observed from the table that the proportion of male youth who have never married is higher than that of females. At provincial level, in the age group of 15-19 years, 92.1 percent of the male youth have never married compared to 74.5 percent of the female youth. In the same age group, the proportion of the female youth who are married is much higher than the male youth proportion. The respective proportions are 20.5 and 1.8 percent. Generally, the mean age at marriage for females is lower than that of males. More details are given in chapter 8 concerning the average age at which one first gets married.

Table 7.5

Youth by Age, Sex and Marital Status and Rural/Urban, (Percent), Southern Province, 1990

Residence	Age group	Sex	Total		Marital Status					
			Number	Percentage	Never Married	Married	Widowed	Divorced	Separated	Not Stated
Southern Province	15-19	Male	56,742	100.0	92.1	1.8	0.1	0.1	0.2	5.7
		Female	58,074	100.0	74.5	20.5	0.3	0.6	0.7	3.4
	20-24	Male	40,875	100.0	65.2	26.6	0.2	0.6	0.5	6.9
		Female	46,460	100.0	30.2	62.0	0.5	2.5	1.6	3.2
Rural	15-19	Male	43,590	100.0	91.6	2.0	0.0	0.1	0.2	6.1
		Female	43,416	100.0	72.4	22.7	0.2	0.6	0.7	3.4
	20-24	Male	30,406	100.0	61.8	30.2	0.1	0.6	0.5	6.8
		Female	34,584	100.0	26.9	65.3	0.5	2.4	1.7	3.2
Urban	15-19	Male	13,152	100.0	93.8	0.9	0.3	0.4	0.1	4.5
		Female	14,658	100.0	80.9	13.8	0.5	0.7	0.5	3.6
	20-24	Male	10,469	100.0	75.4	16.2	0.3	0.6	0.3	7.2
		Female	11,876	100.0	39.6	52.3	0.7	2.8	1.3	3.3



Rural and urban distribution depicts a marital status pattern similar to that of the province as a whole. However, it can be observed that the proportions of married male and female youth are higher in rural than urban areas. Low levels of education completed by the youth in rural areas may be a contributing factor to this difference. This is heavily supported by the notion that the longer one stays in school, the less the chances of getting married early.

#### *Fertility of Female Youth*

The age specific fertility rates for the female youth of Southern Province have been calculated and presented in Table 7.6. The table shows that there were 74 and 278 live births per 1 000 women in respective age groups, during the one year prior to the 1990 census.

**Table 7.6**

**Age-Specific Fertility Rates for the Youth, Southern Province, 1990**

Age Group	Age Specific Fertility Rate		
	Total	Rural	Urban
15-19	0.074	0.102	0.071
20-24	0.278	0.295	0.230

Table 7.6 also shows that the female youth in rural areas have higher ASFRs in both age groups than their counterparts in urban areas. As observed in Table 7.5, more of the female youth are married in rural areas as opposed to those in urban areas. Hence, this could account for the high fertility among rural female youth although this should not imply no births occur outside marriage.

#### *Education of Economically Active Children and Youth*

Table 7.7 presents data on the distribution of working children and youth in respect of their highest level of education completed. The table shows that nearly half (49.5 percent) the population of working children have never attended formal education. A further 45.5 percent have attained primary level of education. There is virtually no marked difference in the proportions of male and female children with or without formal education. As expected, none of these children have completed higher levels of education for they are far young.

**Table 7.7**

**Usually Working Children and Youth (12-24 Years) by Age, Sex and Highest Level of Education Completed, Southern Province, 1990**

Age Group	Sex	Total Population	Total Usually Working Population	Education Level Completed					
				Never Attended	Primary	Secondary	Higher		Not Stated
							'A' Level	Degree	
12-14	Both Sexes	75,191	10,402	49.5	45.5	0.3	-	-	4.7
	Male	37,529	5,337	49.4	45.5	0.3	-	-	4.8
	Female	37,662	5,065	49.6	45.5	0.3	-	-	4.6
15-19	Both Sexes	114,816	24,232	34.9	54.6	7.7	-	-	2.8
	Male	56,742	12,596	34.8	55.1	7.1	-	-	3.0
	Female	58,074	11,636	35.0	54.1	8.2	-	-	2.7
20-24	Both Sexes	87,335	32,348	21.3	51.0	25.8	0.0	0.0	1.9
	Male	40,875	20,437	19.3	51.8	27.0	0.0	0.0	1.9
	Female	46,460	11,911	24.5	49.6	23.7	0.1	0.0	2.1



Table 7.7 also shows that of the working youth that have been to school, a vast proportion of them have only attained primary level of education. The proportions recorded in the 15-19 and 20-24 years age groups are 54.6 and 51.0 percent respectively. However, it should be noted there are more working youth in age group 20-24 years who have completed secondary level of education than those in the 15-19 years age group.

#### *Economically Active and Inactive Children and Youth*

Table 7.8 shows that in Southern Province, economically active male and female children aged 12-14 years constitute proportions of 19.7 and 18.4 percent, respectively. As expected, the vast majority of economically inactive male and female children are full-time students with proportions of about 62 percent each.

It can be observed from Table 7.8 that at age group 15-19 years, the majority of both male and female working youth are economically inactive. Distinctly, the male youth have a higher proportion than the female in the category of full-time students. At age group 20-24 years, the majority (50.0 percent) of the working male youth are employed, thus economically active. As for females the majority (46.5 percent) of them are full-time housewives, hence economically inactive. Table 7.8 also reveals that in both age groups, the proportion of the male youth who are full-time home makers remains at less than 3 percent whereas that of the female youth who are full-time housewives more than doubled in the age group of 20-24 years (i.e. from 17.6 to 46.5 percent).

Table 7.8

Usually Working Children and Youth (12-24 years) by Age, Sex and Economic Activity, Rural/Urban, (Percent), Southern Province, 1990

Residence	Age Group	Sex	Total		Economically Active		Economically Inactive			Not Stated
			Population	Percentage	Employed	Unemployed	Full-time Housewife/Homemaker	Full-time Students	Others	
Southern Province	12-14	Male	37,529	100.0	14.2	5.5	1.5	61.7	14.7	2.4
		Female	37,662	100.0	13.5	4.9	2.9	61.8	14.5	2.4
	15-19	Male	56,742	100.0	22.2	9.1	2.0	51.1	13.4	2.2
		Female	58,074	100.0	20.0	8.4	17.6	37.3	14.3	2.4
	20-24	Male	40,875	100.0	50.0	14.5	2.6	17.1	13.3	2.5
		Female	46,460	100.0	25.6	7.5	46.6	6.8	10.9	2.6
Rural	12-14	Male	29,060	100.0	17.6	6.2	1.7	56.1	15.8	2.6
		Female	28,047	100.0	17.1	5.6	3.3	55.8	15.7	2.5
	15-19	Male	43,590	100.0	25.9	9.4	2.2	46.5	13.7	2.3
		Female	43,416	100.0	24.4	8.4	18.7	32.2	13.9	2.4
	20-24	Male	30,406	100.0	51.2	14.5	3.1	15.9	12.9	2.4
		Female	34,584	100.0	28.2	6.6	47.2	5.4	10.0	2.6
Urban	12-14	Male	8,469	100.0	2.8	2.7	0.7	81.2	11.0	1.6
		Female	9,615	100.0	2.8	3.0	1.7	79.4	11.1	2.0
	15-19	Male	13,152	100.0	9.9	8.2	1.3	66.3	12.5	1.8
		Female	14,658	100.0	7.1	8.2	14.2	52.5	15.6	2.4
	20-24	Male	10,469	100.0	46.5	14.6	1.3	20.4	14.4	2.8
		Female	11,876	100.0	18.1	10.1	44.8	10.8	13.6	2.6

Figure 7.3

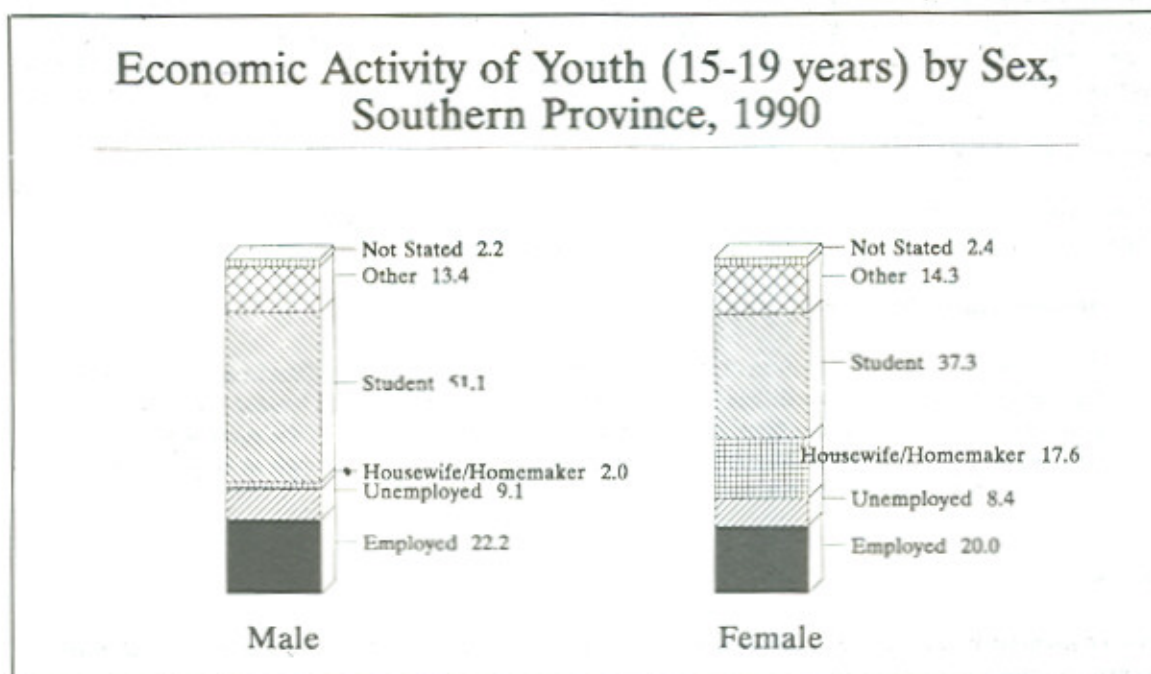
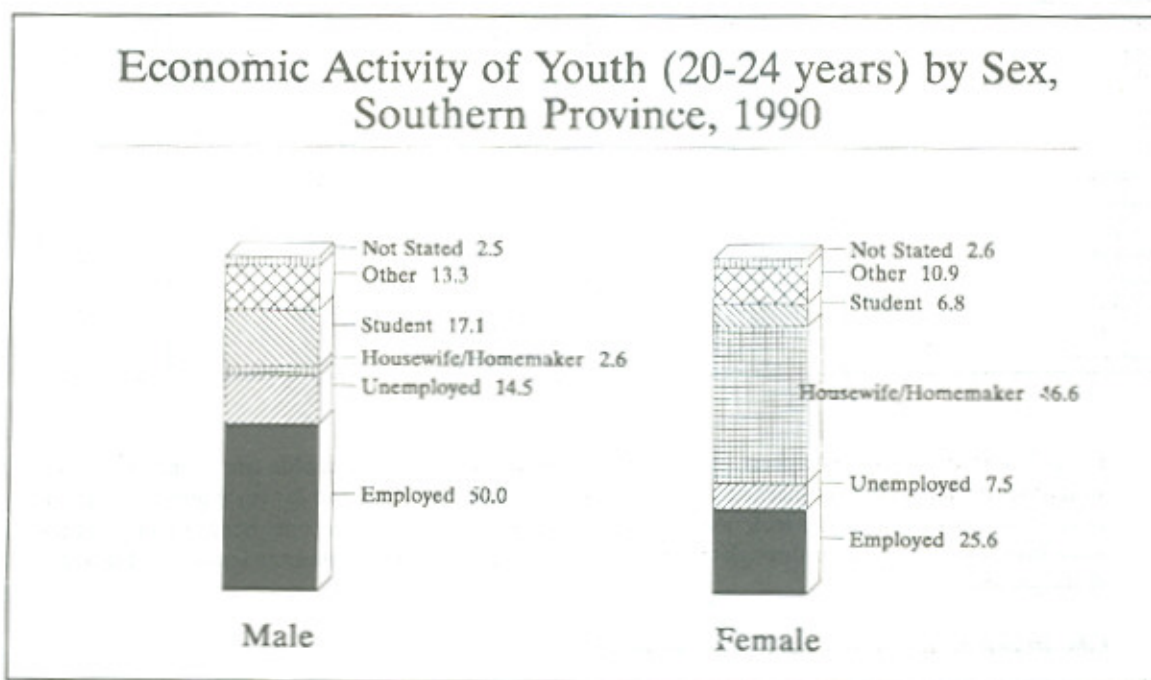


Figure 7.4



The rural and urban distribution depicts a pattern as described above. However, it should be noted there are a few differences between the rural and urban areas. One major difference is that the proportions of economically inactive children and youth are lower in rural than urban areas. For instance, the proportion of children in rural areas who are full-time students is about 56 percent compared to about 80 percent of their counterparts in urban areas. Similarly, the proportion of the youth who are full-time students in urban areas is higher than that of those in rural areas.



## 7.4 SOCIAL AND ECONOMIC CHARACTERISTICS OF WOMEN

Generally, the contribution of women in the development of an economy is usually undervalued by both policy makers and planners. Not enough effort is made to quantify women's economic activities or value the output of their work. The majority of the women-folk do not fully participate in decision-making in all types of industries. Thus, it is important to look at some of the social and economic factors in explaining low participation rates of women in economic development. In this section, marital education and economic status of female heads of households and women in general, are discussed.

In Southern Province, there are 137,919 households of which 18,377 are headed by females. This indicates that headship of households is dominated by males. This is true for both rural and urban areas.

### *Marital Status of Household Heads*

Table 7.9 shows the distribution of female household heads in Southern Province and its districts. Southern Province as a whole has 13.3 percent of its total households headed by females. The proportion of female heads of households in urban areas is more than that of the rural areas. Amongst the districts, Livingstone and Monze have the highest proportion of female heads of households of 15.5 percent each while Gwembe has the least (11.2 percent).

Table 7.9.

Female Household Heads as a Proportion of Total Household Heads by Residence and Marital Status, (Percent), Southern Province, 1990

Residence	Total	Never Married	Married	Widowed	Divorced	Separated	Not Stated
<b>Southern Province</b>							
Total	13.3	28.7	3.0	84.5	64.6	58.6	7.8
Rural	12.5	24.3	3.0	86.4	63.7	58.3	6.9
Urban	15.5	32.7	2.9	78.2	66.3	59.3	13.1
<b>Districts</b>							
Choma	12.8	30.0	2.6	84.1	65.2	60.5	8.8
Gwembe	11.2	32.9	3.8	87.2	68.2	72.4	4.2
Kalomo	13.3	25.6	4.1	86.5	68.2	59.1	6.9
Livingstone	15.5	32.1	3.3	74.7	62.6	55.5	13.2
Mazabuka	11.7	21.0	2.2	82.5	59.3	51.9	10.2
Monze	15.5	39.7	2.7	88.0	69.3	63.4	10.0
Namwala	12.7	35.3	2.1	80.0	61.1	57.5	5.7
Siavonga	14.2	23.8	2.6	89.2	73.6	69.3	7.2
Sinazongwe	12.8	21.2	4.0	89.7	66.1	52.6	4.6

Table 7.9 shows that the highest proportion of female heads of households are widowed. The proportion of those who are married is 3 percent for the entire province and for rural areas. In urban areas, it is 2.9 percent. The table indicates that in most cases, women become heads of households when they lose their spouses through death, divorce or separation. This pattern is found in all districts of the province.

### *Educational Status of Female Household Heads*

Table 7.10 shows that in Southern Province, slightly over half (55.1 percent) of the female heads of households have never attended any formal education. Of those that have been to school, the majority (25.4 percent) have only attained primary level of education.



Table 7.10

Female Household Heads by Highest Level of Education Completed, Rural/Urban, (Percent), Southern Province, 1990

Level of Education	Total	Rural	Urban
Never Attended	55.1	65.8	32.2
Primary	25.4	23.6	29.2
Secondary	16.5	7.5	35.8
Higher Education	0.2	0.1	0.3
Not Stated	2.8	3.0	2.5
Total Percentage	100.0	100.0	100.0
Total Female heads	18,377	12,553	5,824
Total Household Heads	137,919	100,398	37,521

Rural and urban proportions depict some variation. One major variation is that in rural areas, the proportion of female heads who have never attended formal education is much higher than that of those in urban areas. In rural areas, the proportion is 65.8 percent compared to 32.2 percent in urban areas. Also, of those that have been to school in rural areas, the largest proportion (23.6 percent) have attained primary level of education. In urban areas, the majority (35.8 percent) have completed secondary education. It can be observed from the table that negligible proportions of female heads of households throughout the province have completed higher education.

#### *Economical Status of Women*

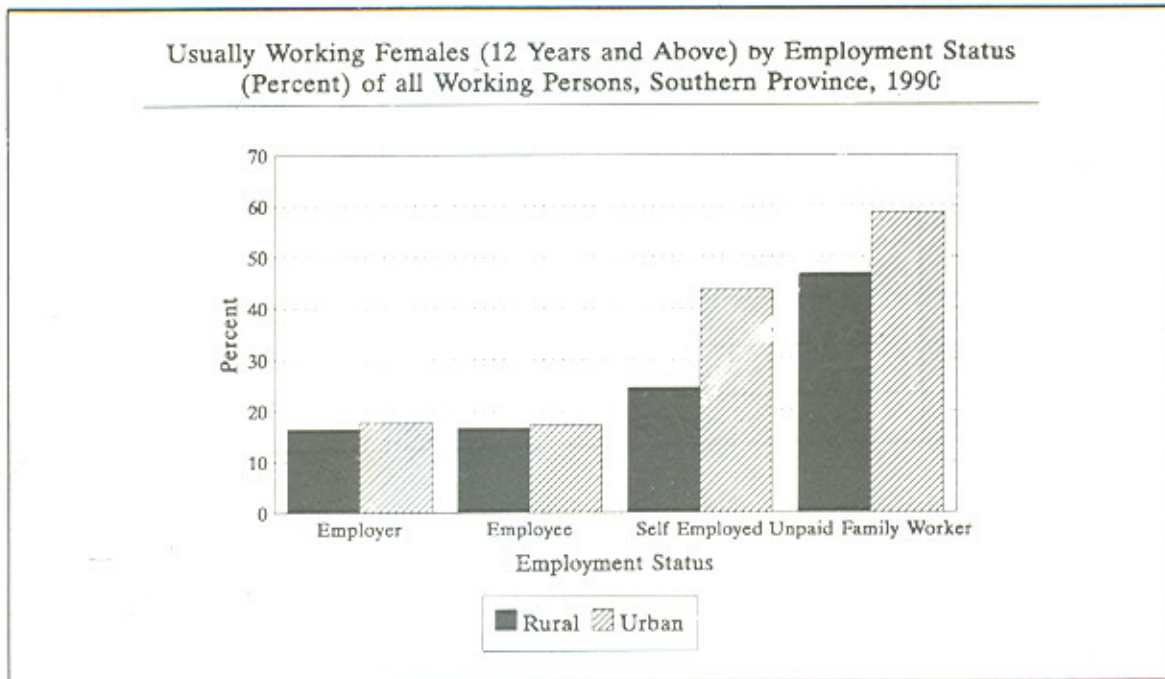
Table 7.11 shows the employment status of working females in Southern Province. In all, females make up 33.4 percent of the working population in the province. It can be observed from the table that the highest proportion of working females in relation to the total, are unpaid family workers. These constitute a proportion of 47.3 percent. Both employers and employees constitute an equal proportion of 17.0 percent each.

Table 7.11

Usually Working Females (12 Years and Older) as a Proportion of Total Usually Working Population by Employment Status, (Percent), Southern Province, 1990

Employment Status	Total	Rural	Urban
Total	33.4	36.0	25.6
Employer	17.0	16.5	17.7
Employee	17.0	16.6	17.2
Self-Employed	27.7	24.6	43.6
Unpaid Family Workers	47.3	46.8	58.6
Not Stated	39.6	39.9	38.7

Figure 7.5



Rural and urban areas present proportions of 36.0 and 25.6 percent of working females, respectively. In both rural and urban areas, proportions of unpaid family workers are highest. However, the proportion is higher in urban than rural areas. Also, it is distinctly depicted that the proportion of self-employed females is higher in urban than rural areas. In urban areas, the proportion is 43.6 while in rural areas it is 24.6 percent.

Table 7.12 shows the proportion of working females by their employment and occupation status in respect of the total working population. Amongst all occupations, female workers are concentrated in the sales occupation. These constitute 47.7 percent. In this occupation, over half the total self-employed and unpaid family workers are female. These make up 54.2 and 56.5 percent, respectively. It should be noted from Table 7.12 that the proportion of females who are administrative and managerial workers is very low. This implies that their male counterparts dominate in this occupation.

Table 7.12

**Usually Working Females (12 Years and Older) as a Proportion of Total Usually Working Population by Occupation and Employment Status, (Percent), Southern Province, 1990**

Occupation	Total	Employment Status				
		Employer	Employee	Self Employed	Unpaid Family Worker	Not Stated
Total	33.4	17.0	17.0	27.7	47.3	39.6
Professional/Technical and Related Workers	32.7	33.2	32.9	22.5	35.8	42.6
Admin. Managerial Workers	9.6	5.3	9.5	17.5	12.5	12.5
Clerical and related workers	34.4	30.6	34.5	27.1	26.9	48.0
Sales Workers	47.7	24.2	29.3	54.2	56.5	51.7
Service workers	22.1	10.3	14.2	41.8	73.8	29.9
Agriculture, Husbandry, Forestry and Fishery	32.7	16.0	12.2	21.9	45.1	31.1
Production, Transport and Labourers	14.9	8.7	9.0	33.3	54.6	17.6
Unclassified Occupations	23.9	8.8	9.5	27.6	47.4	33.8
Not Stated	39.9	11.5	8.5	36.2	50.1	45.1



## Women in Industry

Table 7.13 reveals that most working females in Southern Province are employed in the industries of Wholesale and Retail Trade; and Community, Social and Personal Services. In these industries, they make up 40.7 and 35.8 percent of the total working population, respectively. It is also in these industries that female employers account for 20.5 and 29.3 percent of the total employers, respectively. However, as unpaid family workers, the females in these industries account for much higher proportions of 54.1 and 67.5 percent, respectively.

Table 7.13

Usually Working Females (12 Years and Older) as a Proportion of Total Usually Working Population by Industrial Category and Employment Status, (Percent), Southern Province, 1990

Industry	Total	Employment Status				
		Employer	Employee	Self-Employed	Unpaid Family Worker	Not Stated
Total	33.4	17.0	17.0	27.7	47.3	39.6
Agric., Hunting, Forestry and Fishery	32.1	15.1	12.0	49.5	45.0	30.6
Mining and Quarrying	7.8	-	6.7	17.2	45.2	7.7
Manufacturing	18.2	16.8	12.4	28.6	45.3	22.3
Electricity, Gas and Water	4.4	10.0	4.1	9.1	25.0	-
Construction and Allied Repairs	2.3	1.1	1.6	2.4	11.0	3.0
Wholesale and Retail Trade, Restaurants and Hotels	40.7	20.5	27.5	54.0	54.1	51.3
Transport, Storage and Communication	4.6	2.6	4.7	1.5	7.3	7.5
Finance, Insurance and Real Estates	31.6	18.6	21.2	45.2	61.2	38.8
Community, Social and Personal Services	35.8	29.3	29.5	46.3	67.5	47.0
Unclassified Industry	27.3	16.7	12.4	32.1	45.4	29.9
Not Stated	43.3	17.3	17.4	41.3	50.3	45.7

Low proportions of females are observed in industries like Mining and Quarrying; Electricity, Gas and Water; Construction and Allied Repairs; and Transport, Storage and Communication. All these industries constitute proportions of less than 10.0 percent. This could be attributed to the notion that these are male-oriented industries, hence, entail heavy duty kind of work.

## 7.5 SUMMARY

The growth rate of children in Southern Province is lower than that of the youth. The growth rates for the children and youth are 2.4 and 4.4 percent per annum, respectively. Nearly half the population of Southern Province is made up of children below the age of 5 years. The proportion of the youth is 22 percent. Whereas children have a sex ratio of 98.7, that of the youth is 93.4 per 100 females.

Data on marital status of the youth shows that the proportion of the female youth who are married is higher than that of the males. In rural areas, the proportion of females who are married is higher than that of the females in urban areas. For instance, in age group 20-24 years, 65.3 females compared to 52.3 percent are married in rural and urban areas, respectively. The female youth in rural areas had more live births per 1,000 women than their urban counterparts. The female youth in rural areas had 295 live births per 1,000 women in age group 20-24 years while those in urban areas had 230 live births in the one year prior to the 1990 census. Of the working youth in the province, slightly over half of them have only attained primary level of education. However, there are more working youth in the age group 20-24 years who have completed secondary level of education than those in age group 15-19 years. These constitute 25.8 and 7.7 percent, respectively.

Southern Province has 13.3 percent of female heads of households. Urban areas have a higher proportion of female household heads with 15.5 compared to 12.5 percent in rural areas. Over half (55.1 percent) of the female heads of households in the province have never attended any formal education. The percentage in rural areas is much higher than that in urban areas. Only 32.2 percent of female heads in urban areas as opposed to 65.8 percent in rural areas have never attended school.



About 33 percent of the total working population are female. Almost half of them are employed as unpaid family workers. Further, most working females in the province are engaged in the industries of Wholesale and Retail Trade; and Community, Social and Personal Services. Females in these industries constitute 40.7 and 35.8 percent of the total working population in these industries.

There are very low proportions of females in industries like Mining and Quarrying (7.8 percent); Electricity, Gas and Water (4.4 percent); Construction and Allied Repairs (2.3 percent); Transport, Storage and Communication (4.6 percent). This is highly attributed to the notion that these are male-oriented industries, thus, entail heavy-duty type of work.

## CHAPTER 8

# NUPTIALITY AND FERTILITY

### 8.1 INTRODUCTION

Nuptiality and Fertility data are important input into effective socio-economic development planning by planners and policy makers. Nuptiality data may allow planners to assess family formation and thus formulate housing programmes. The fertility level of a country is an important element for family planning programmes and projects. Fertility data collected in the 1990 Population Census would suffice for this purposes.

In order to derive nuptiality and fertility patterns and levels, the 1990 Population Census collected the following data items on the subject:

- Marital status, i.e. whether a person is married, separated, divorced, widowed or never married (question 24).
- Age at first marriage (question P-25).

For females age 12 years and over the following information was solicited pertaining to fertility:-

- Whether they have had a live birth (question F-1).
- Age at first live birth (question F-2).
- Number of children ever born and are still alive by sex (question F-3).
- Number of children dead by sex (question F-4).

The last two data items were also collected for those females who had given birth in the last 12 months.

### 8.2 CONCEPTS AND DEFINITIONS

#### *Fertility*

Fertility refers to the frequency of occurrence of births or more specifically live births within populations and sub populations.

#### *Nuptiality*

Nuptiality refers to the frequency, characteristics and dissolution of marriages in a population. Marriage is a characteristic which together with birth and death can be conceived to be a vital event in one's life cycle.

#### *Singulate Mean Age at Marriage (SMAM)*

Refers to the average age at which those who marry before age 50, marry. It is computed from the proportions of persons who are in the "never married" marital category corresponding to five-year age groups from 15-54 years.

#### *Crude Birth Rate (CBR)*

Ratio of live births in a specified period (usually a calendar year) to the average population in that period. The ratio is expressed as per 1,000 persons.

### *Child-Woman Ratio (CWR)*

The CWR (Fertility Ratio) is the number of children per 1,000 females of child-bearing age. Various ages have been used, but commonly (as is the case in this Chapter) the numerator refers to children aged 0-4 years and the denominator refers to females aged 15-49 years.

### *General Fertility Rate (GFR)*

Ratio of live births in a specified period (usually a calendar year) to the average number of females of childbearing period (taken as 15-49 years). It is commonly expressed as per 1,000 females of childbearing period 15-49 years.

### *Total Fertility Rate (TFR)*

The TFR represents the number of children a female would have from age 15 to age 49 if the prevailing age-specific fertility rates of childbearing were to persist.

### *Gross Reproduction Rate (GRR)*

GRR is the average number of daughters a female would have or give birth to if she experiences a given set of age-specific fertility rates throughout the reproductive ages and assuming that all the females survive through to their reproductive ages.

### *Net Reproduction Rate (NRR)*

The average number of daughters a female would have or give birth to if the prevailing fertility pattern persists and an allowance is made for females who would not survive through to their reproductive ages. This provides a measure of the way in which a generation of females replaces itself with daughters.

### *Average Parity*

Also referred to as Mean Number of Children Ever Born (MNCEB). It refers to the number of children ever born to females in an age group divided by the number of females in the same age group. The average parity for age group 15-49 years is called Completed Family Size.

## **8.3 NUPTIALITY**

This section examines marital status characteristics and mean age at first marriage for the population of Southern Province. Knowledge of the Marital characteristics of a population is required for analysis meant to establish the effect on the level of fertility.

### *Marital Status*

Marital status is one of the important background characteristics in the study of population dynamics. It has an effect on fertility. The basic marital status characteristics as covered by the 1990 population census are "never married", "married", "widowed", "divorced", and "Separated". Table 3.1 gives more details on this aspect.



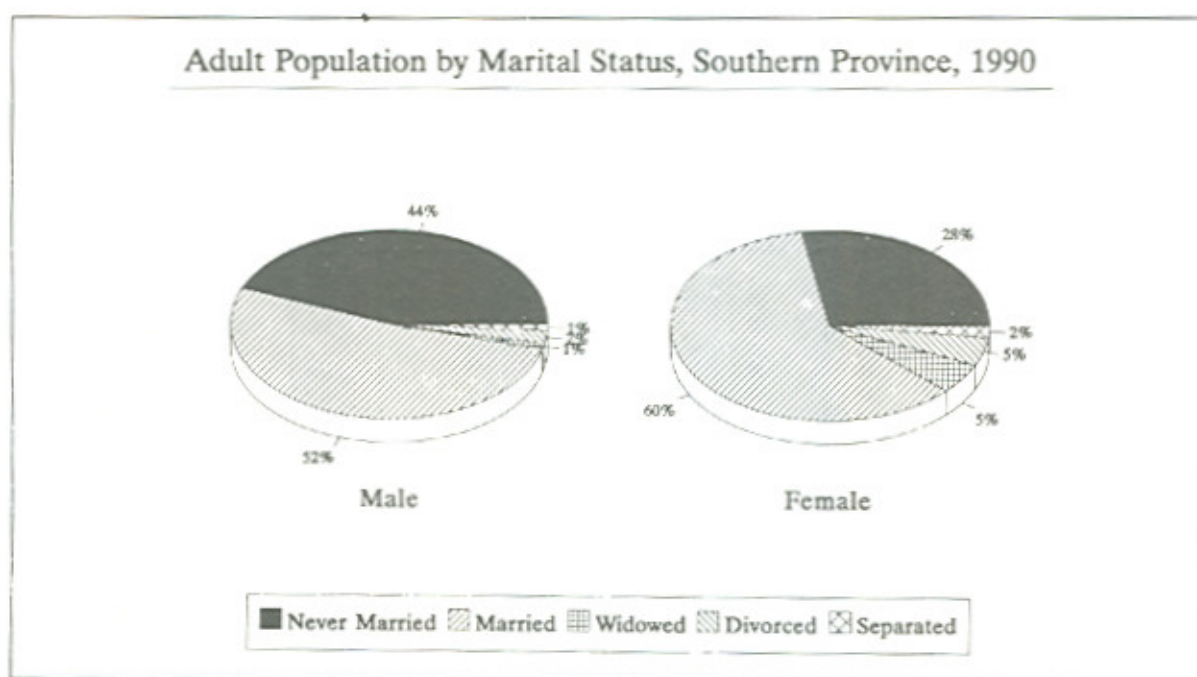
Table 8.1

Adult Population Classified by Age, Sex and Marital Status, (Percent), Southern Province, 1990

Age Group	Never Married		Married		Widowed		Divorced <sup>2</sup>		Separated		Total No of Cases	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
15 - 19	97.2	1.9	21.2	0.1	0.3	0.1	0.7	0.2	0.7	53,496	56,100	
20 - 24	70.1	31.2	28.6	64.0	0.2	0.6	0.6	2.6	0.5	0.6	38,047	44,950
25 - 29	31.8	13.4	65.3	78.9	0.3	1.1	1.7	4.6	0.9	2.0	28,591	33,707
30 - 34	14.9	7.3	80.5	82.2	0.4	2.0	3.0	6.2	1.2	2.4	23,989	26,009
35 - 39	9.5	5.2	84.2	82.3	0.7	2.9	3.7	7.6	1.9	2.4	14,844	15,945
40 - 44	7.1	3.4	86.3	79.7	1.0	4.7	4.1	7.2	1.5	2.4	12,930	15,882
45 - 49	5.2	2.8	87.5	79.7	1.3	7.1	4.5	8.0	1.6	2.4	11,002	13,000
50 - 54	4.4	2.8	88.0	71.7	1.5	13.8	4.6	9.3	1.4	2.4	10,050	11,679
55 +	4.6	5.1	83.7	48.6	4.3	32.5	5.5	10.6	1.9	3.1	25,726	23,196
	47.8	51.9	60.2	0.9	5.2	2.3	4.8	1.0	1.9			Total
	96,109	66,944	113,512	144,792	1,949	12,579	4,986	11,643	2,119	4,510	248,688	Size

Note: Total excludes not stated cases by Age and Marital Status.

Figure 8.1



At age 45-49 only 5.2 percent of the males in the province were "never married". The corresponding figure for females is 97.2 percent. This shows that marriage in the province is near universal. This result means that only a few persons in the Province go through life up to age 49 years without getting married at some stage. This factor may be a catalyst for high level of fertility. Figure 8.1 amplifies these observations.

#### *Differentials by Residence*

The observation of fertility variation by rural/urban residence is a widely used factor in demographic analysis. Tables 8.2 and 8.3 show marital status characteristics of the Population of Southern Province by rural and urban residence.

Table 8.2

Adult Male Population by Age and Marital Status, Rural-Urban Areas, (Percent), Southern Province, 1990

Age Group	Never Married		Married		Widowed		Divorced		Separated		Total	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
15 - 19	98.5	2.2	1.0	0.0	0.3	0.1	0.4	0.2	0.1	40,932	12,564	
20 - 24	66.3	81.2	32.4	17.5	0.1	0.3	0.6	0.7	0.6	0.4	28,333	9,714
25 - 29	28.0	41.3	69.1	55.7	0.2	0.4	1.7	1.9	0.9	0.7	20,379	8,212
30 - 34	14.4	16.1	80.9	79.5	0.4	0.5	3.1	2.8	1.2	1.1	16,403	7,586
35 - 39	10.5	7.7	83.7	86.7	0.6	0.9	3.9	3.6	1.3	1.1	9,566	5,178
40 - 44	8.3	4.7	84.7	89.3	0.8	1.3	4.5	3.3	1.6	1.4	8,480	4,450
45 - 49	5.5	4.3	87.4	87.7	1.3	1.3	4.3	4.1	1.5	1.9	7,829	3,173
50 - 54	4.7	3.5	89.2	87.5	1.3	2.1	4.3	2	1.5	1.2	7,546	2,504
55 +	4.6	4.6	84.4	80.2	4.1	5.9	5.1	3.3	1.9	2.0	21,612	4,114
Total	45.0	52.4	50.7	0.8	1.0	2.2	2.2	1.0	0.8			43.6
Size		25,864	84,349	29,163	1,368	581	3,583	1,403	1,535	484	161,080	70,245

Note: Total excludes not stated cases by Age and Marital Status.

Table 8.3

Adult Female Population by Age and Marital Status, Rural-Urban Areas, (Percent), Southern Province, 1990

Age Group	Never Married		Married		Widowed		Divorced		Separated		Total	
	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural	Urban
15 - 19	88.9	23.5	14.3	0.2	0.5	0.6	0.7	0.7	0.5	41,968	14,132	
20 - 24	27.8	41.0	67.4	54.1	0.5	0.7	2.5	2.8	1.7	1.4	33,464	11,486
25 - 29	11.7	17.9	81.1	72.9	1.0	1.2	4.2	5.8	2.0	2.0	24,545	9,162
30 - 34	6.4	9.6	84.0	77.5	1.9	2.3	5.4	8.3	2.4	2.4	18,805	7,204
35 - 39	4.6	6.6	83.7	77.5	2.5	3.7	6.7	9.8	2.4	2.5	11,525	4,420
40 - 44	3.2	4.1	83.9	76.2	4.3	6.3	6.4	10.5	2.3	3.0	12,484	3,398
45 - 49	2.6	4.0	81.5	72.0	6.5	9.5	7.1	11.7	2.3	2.8	10,621	2,379
50 - 54	2.4	4.7	73.4	61.6	13.2	17.1	8.5	13.0	2.4	2.7	9,969	1,710
55 +	5.0	5.8	49.4	43.5	32.3	34.1	10.7	11.1	3.1	3.2	20,345	2,851
	25.7	62.2	53.8	5.6	4.1	4.6	5.7	1.9	1.8			Total
	47,276	19,668	114,269	30,523	10,277	2,802	8,395	3,718	5,509	1,001	183,726	56,262

The proportion of "never married" persons, when its subtracted from 100 results into the proportion of persons who have ever married before. Of males in the rural areas 43.6 percent have never been married. The corresponding figure for urban areas is 45.0 percent. This shows that the frequency of marriages in the rural areas is slightly higher compared to urban areas.

As for females 25.7 percent of females in the rural areas have never been married. The corresponding figure for urban females is 34.7 percent. More females in the rural areas get married than in the urban areas.

Marital characteristics of the population aged 15-49 years are presented in Table 8.4. The proportion of females, 15 years and above, that has never been married is lower than that of males. In the remaining marital status categories, preparations of males are lower than females.

Table 8.4

Total Adult Population (15-49) by Sex and Marital Status, Rural/Urban and Districts, (Percent), Southern Province, 1990

Province District	Never Married		Married		Widowed		Divorced		Separated	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
<b>Southern Province</b>										
Total	44.7	31.8	39.3	60.9	0.3	1.7	15.1	3.9	0.7	1.7
Rural	52.2	30.0	45.1	63.2	0.3	1.6	1.6	3.6	0.8	1.7
Urban	50.3	36.9	46.5	53.6	0.6	2.0	1.9	5.0	0.7	2.6
<b>Districts</b>										
Choma	52.2	33.3	45.3	59.5	0.3	1.5	1.6	3.9	0.7	1.7
Gwembe	46.6	23.4	51.5	69.5	0.3	1.3	1.0	4.0	0.6	1.9
Kalomo	52.9	30.8	44.7	62.4	0.3	1.7	1.4	3.2	0.8	1.8
Livingstone	52.9	39.1	43.8	52.3	0.8	2.2	1.7	4.6	0.8	1.8
Mazabuka	48.5	28.3	47.9	63.2	0.3	1.6	2.5	5.2	0.7	1.7
Monze	56.3	35.9	41.1	57.3	0.3	1.6	1.6	3.7	0.8	1.6
Namwala	53.3	32.9	43.6	60.4	0.5	1.3	1.8	3.7	0.9	1.6
Siavonga	48.1	26.4	49.5	65.2	0.4	2.1	1.4	4.4	0.6	1.9
Sinazongwe	47.9	26.9	49.6	66.8	0.3	1.8	1.3	3.1	0.9	1.5

*Singulate Mean Age at Marriage (SMAM).*

There are two important characteristics of African marriages which have an important bearing on fertility. These are near-universality of marriage and very early mean age at first marriage, especially in the case of females. Age at first marriage plays an important role in influencing the level of fertility. The lower the age at first marriage, the higher the expected level of fertility and vice versa. The Singulate Mean ages at Marriage (SMAM) for Southern Province and its districts are presented in Table 8.5.

Table 8.5

Singulate Mean Age at Marriage Classified by Sex and Residence, Southern Province, 1990

Province and Districts	S M A M		
	Males	Females	
<b>Southern Province</b>			
- Total	25.8	21.3	4.5
- Rural	25.4	20.9	4.5
- Urban	26.9	22.3	4.6
<b>Districts</b>			
Choma	25.5	21.5	4.0
Gwembe	24.3	19.8	4.5
Kalomo	25.5	20.9	4.6
Livingstone	27.6	23.0	4.6
Mazabuka	25.7	20.7	5.0
Monze	25.9	22.3	3.6
Namwala	26.1	21.4	4.7
Siavonga	25.3	20.2	5.1
Sinazongwe	25.1	20.2	4.9



Females in the province marry at a mean age of 21.3 years. The corresponding figure for males is 25.8 years. The mean age of 21.3 years for females may be considered early. This is because the reproductive years remaining until age 49 years is big, implying that fertility in the Province may be high. The other observation is that, as generally held, males marry females who are on average, younger than themselves. The difference between male and female SMAM figures is about 5 years

As for the districts, the lowest SMAM figures have been recorded for Gwembe while the highest have been recorded for Livingstone. The population of Southern Province Urban has exhibited higher SMAM than the rural part. Livingstone, being an urban district may explain its higher SMAM figure among the districts.

#### *Singulate Mean Age at Marriage by Education*

The level of education completed has an influence on one's age at first marriage. It is generally held that the longer one stays in school, the longer it takes one to enter into first marriage. The value of SMAM for this group of persons well tend to be high. Table 8.6 presents results on this aspect.

The higher the level of education completed, the higher the mean age at first marriage.

**Table 8.6**

**Singulate Mean Age at First Marriage by Educational Attainment and Residence, (Females), Southern Province, 1990**

Residence	All Levels of Education	Level of Education		
		No Schooling	Primary	Secondary
Southern Province				
- Total	21.1	20.2	20.6	22.8
- Rural	20.7	20.1	20.4	22.4
- Urban	22.0	20.4	21.1	23.2
Districts				
Choma	21.3	20.4	20.6	23.6
Gwembe	19.7	19.1	19.6	23.6
Kalomo	20.8	20.5	20.3	22.5
Livingstone	22.8	20.8	21.7	24.4
Mazabuka	20.4	19.3	20.0	22.1
Monze	22.0	20.8	21.5	23.1
Namwala	21.0	21.4	20.5	*
Siavonga	20.0	19.8	20.0	*
Sinazongwe	20.1	19.8	19.5	22.4

Note: \* Figures suppressed because of few cases.

## **8.4 FERTILITY**

There are various techniques of estimating fertility indices. In this Chapter, fertility measures of crude birth, general fertility, total fertility, gross reproduction and net reproduction rates have been used to explain the existing fertility variations between the 1980 and 1990 Census data for Southern Province. Some of the techniques used in estimating fertility are the Brass P/F Ratio method and the Brass Relational Gompertz Model. For further clarifications on the application of these methods one may refer to United Nations (1983) and (Newell, 1988).

The summary fertility measures of Total Fertility Rate shown in Table 8.7 has been derived by using the Brass Relational Gompertz Model. The Brass P/F Ratio method yields higher fertility estimates. The suitability of techniques to estimate fertility levels depends on the quality of data they are being applied to.

Data on Mean Number of Children Ever Born (MNCEB) and births in the Last one Year (BLY) contain a lot of errors. It is for this reason that methods such as Brass Relational Gompertz Model are used to obtain adjusted fertility rates. The most important error in the reported number of birth is the omission of birth by older women, especially those birth that ended in early deaths. Women in older age groups also tend to forget grown up children, children born to another husband and children not present at home for various reasons. There are also factors that may tend to inflate the number of births by the inclusion of step or adopted children, grandchildren, etc. Another error in the reported number of children is the inclusion of still births. The net effect of these errors is a tendency for mean number of children to steadily decrease as age of women increases. The purpose for the use of the Gompertz function is to overcome these limitations in the fertility data.

The Gompertz function has been used by many authors to represent the cumulative fertility of a population. The function is

$$F(x) = F \cdot A^{B^x},$$

Where

$F(x)$  is the cumulative fertility by age

$F$  is the total fertility rate by the end of the reproductive period

$A$  and  $B$  are constants and lie between zero and one.

The  $F$  values can be taken as cumulative fertility derived from age-specific rates or parity data (United Nations, 1992).

#### *Fertility Levels*

Table 8.7 presents a number of indices on fertility measures. The results on Crude Birth Rate (CBR) suggest a rise in fertility level in the 1980-90 intercensal period. Results on CBR may not be taken as conclusive because it is affected by the age and sex distribution of the population. For instance, it is not every member of the population who is at risk of giving birth. It is for this reason that direct comparison of CBRs in 1980 and 1990 could lead to erroneous conclusions. Adjusted measures such as the Total Fertility Rate (TFR) are suitable to compare fertility between two periods.

Table 8.7

Summary Fertility Measures, Southern Province, 1980 and 1990

	Crude Birth Rate	Child Woman Ratio	General Fertility Rate	Total Fertility Rate	Gross Reproduction Rate	Net Reproduction Rate
<b>Southern Province</b>						
Total - 1980	35	857	164	7.1*	3.5	3.3
- 1990	48	750	205	7.0	3.4	3.0
Rural - 1980	34	897	164	7.9*	3.9	3.4
- 1990	49	788	213	7.2	3.5	3.1
Urban - 1980	40	754	163	7.5*	3.7	2.2
- 1990	45	641	180	6.3	3.1	2.8
<b>Districts - 1990</b>						
Choma	46	782	199	7.3	3.6	3.2
Gwembe	53	875	236	7.9	3.9	3.2
Kalomo	48	750	208	7.2	3.5	3.1
Livingstone	45	592	178	5.6	2.7	2.5
Mazabuka	46	755	198	6.7	3.3	2.9
Monze	47	775	204	6.9	3.4	3.0
Namwala	48	763	209	6.7	3.3	2.9
Siavonga	58	761	252	7.4	3.6	3.3
Sinazongwe	53	747	222	7.5	3.7	3.3

\* TFR estimates extracted from Analytical Report Volume IV of the 1980 population census, CSO 1985.

The results shown on CBRs suggest a rise in the birth rate in the 1980-90 intercensal period. The CBR is affected by the age and sex distribution of the population. For instance, it is not every member of the population who is at risk of giving birth. It is for this reason that direct comparison of CBRs between populations and sub-populations which may have different age and sex composition could lead to erroneous conclusions. Adjusted measures such as the Total Fertility Rate (TFR) will be used to explore this observation much further.

Age-specific Rates (ASFR) relate the number of births to the number of females in each 5 year age group of the reproductive age period 15-49 years. They show the variability of fertility in the different age groups. The rates help in the calculation of TFR. Data on this aspect is shown in Table 8.8 and Figure 8.2.

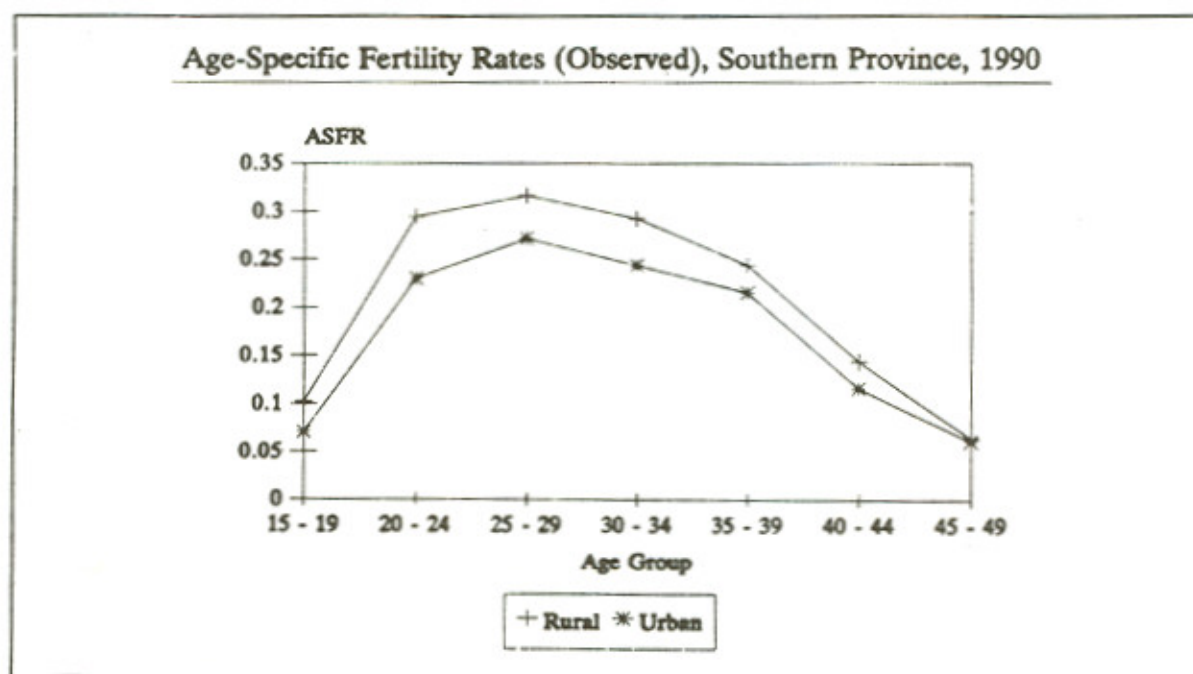


Table 8.8

Age-Specific Fertility Rates (ASFR), Southern Province, 1990

Age Group	Total			Rural			Urban		
	Total Women	Births	ASFR	Total Women	Births	ASFR	Total Women	Births	ASFR
15 - 19	58,074	5,462	0.0941	43,416	4,427	0.1020	14,658	1,035	0.0706
20 - 24	46,460	12,920	0.2781	34,584	10,190	0.2946	11,876	2,730	0.2299
25 - 29	34,388	10,471	0.3045	25,043	7,930	0.3167	9,345	2,541	0.2719
30 - 34	26,471	7,397	0.2794	19,157	5,613	0.2930	7,314	1,784	0.2439
35 - 39	16,202	3,828	0.2363	11,710	2,859	0.2442	4,492	969	0.2157
39 - 44	16,124	2,234	0.1386	12,673	1,831	0.1445	3,451	403	0.1168
45 - 49	13,194	843	0.0639	10,780	695	0.0645	2,414	148	0.0613
Total	210,913	43,155	1.3949	157,363	33,545	1.4595	53,550	9,610	1.2101
Observed TFR			7.0			7.3			6.1
Adjusted TFR			7.0			7.2			6.3
Children Age at Childbearing			30.4			30.4			30.7

Figure 8.2



Observed TFRs are presented in Table 8.8. These rates have been adjusted employing the Brass Relational Gompertz Model and were presented in Table 8.7 as 7.0 for total province, 7.2 for rural areas and 6.3 children per female for urban areas. These rates show that there has been only a slight decline in fertility between 1980 and 1990. For the entire province and the rural areas, the decline is insignificant. As for urban areas the difference is one child per female.

The same fertility pattern shown by TFR is shown by the Gross Reproductive (GRR) and the Net Reproduction Rate (NRR). The NRRs are shown in Table 8.9.

Table 8.9

Net Reproduction Rate (NRR), Southern Province, 1990

Age Group	Total		Rural		Urban	
	Female Births still Alive	ASFR <sup>a</sup>	Female Births still Alive	ASFR <sup>a</sup>	Female Births still Alive	ASFR <sup>a</sup>
15 - 19	2,597	0.0447	2,097	0.0483	500	0.0341
20 - 24	6,179	0.1330	4,851	0.1403	1,328	0.1118
25 - 29	4,887	0.1421	3,688	0.1473	1,199	0.1283
30 - 34	3,537	0.1336	2,684	0.1401	853	0.1166
35 - 39	1,792	0.1106	1,343	0.1147	449	0.1000
40 - 44	1,066	0.0661	865	0.0683	201	0.0582
45 - 49	362	0.0294	303	0.0281	59	0.0244
Total	20,420	0.6595		0.6871	4,589	0.5734
Observed NRR		3.3		3.4		2.9
Adjusted NRR		2.6		2.6		2.3

N.B: ASFR<sup>a</sup> - means Age-Specific Fertility Rates at current mortality rates.

The adjusted NRRs are 2.6 for total province, 2.6 for rural areas and 2.3 surviving daughters per female for urban areas. NRR may be interpreted as the number of surviving daughters per female who would live to the ages of the females to replace them.

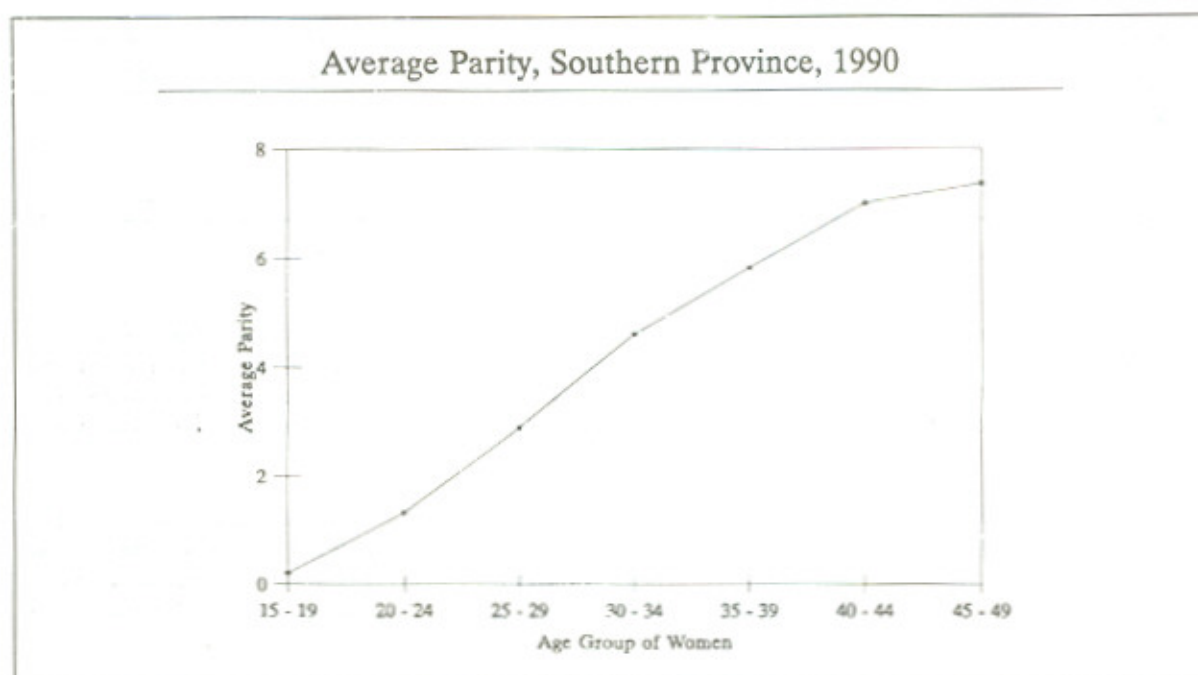
Another fertility measure discussed in this chapter is Children Ever Born (CEB). The measure CEB is defined as the number of children ever born to a group of females of given age during their child-bearing experience beginning from onset of reproductive life to their current ages. The number of children ever born to females in an age group divided by the number of females in the same group yield average parities (Mean CEB). The average parity for age group 45-49 years is referred to as Completed Family Size and likened to TFR under constant fertility, mortality and migration experiences. The completed family size (average parity corresponding to age group 45-59 years is 7.4 children per female. This information is given in Table 8.10 and Figure 8.3.

Table 8.10

Average Parities, (Observed), Southern Province, 1990

Age Group	Total Women	Children Ever Born	Average Parities Reported
15 - 19	58,074	11,898	0.2049
20 - 24	46,460	61,276	1.3189
25 - 29	34,388	99,404	2.8907
30 - 34	26,471	122,108	4.6129
35 - 39	16,202	94,439	5.8288
40 - 44	16,124	11,308	7.0093
45 - 49	13,194	97,105	7.3598

Figure 8.3



#### *Time Trend*

The fertility level in Southern Province at TFR of 7.0 children per woman may be deemed high. The fertility level at provincial level has remained constant in the 1980-90 intercensal period. The rural and urban areas show a fertility decline in the intercensal period, with the urban areas showing a more pronounced decline.

### **8.5 FERTILITY DIFFERENCES**

Fertility tends to vary according to socio-economic groups. Apart from analysing variation by rural and urban areas, another widely used factor is fertility variation by level of education completed by females.

#### *Rural-Urban Differences*

Residence is broadly defined as referring to rural and urban areas. An individual is regarded as a resident in a rural or urban area if he/she was enumerated in the area regardless of length of stay in that area. The fertility in the rural areas of Southern Province is higher than in the urban areas. TFRs are 7.2 and 6.3 children per female for rural and urban areas, respectively.

#### *District Differences*

All districts in Southern Province show high levels of fertility except Livingstone. Total Fertility ranges from 5.6 in Livingstone district to 7.9 in Gwembe district. The province is a high fertility one.

#### *Educational Differences*

Table 8.11 shows Completed Family Sizes by educational levels females have completed.



Table 8.11

## Completed Family Sizes by Level of Education of Women, Southern Province 1990

	No Education	Primary	Secondary	Higher
Southern Province				
Total	7.1	7.6	6.1	3.1
Rural	7.1	7.8	6.2	1.7
Urban	6.5	7.2	6.1	4.3

\* Completed Family Size (CFS) is based on the age group 40-49 years.

There is an inverse relationship between the level of education completed by females and the level of fertility. This is largely explained by two factors: women who stay long in school marry late thus reducing their reproductive age span; and it is held that women who are highly educated are more receptive to modern contraceptive methods and may be in a better position to limit the number of children they would give birth to.

Contrary to the inverse relationship view, females with primary level of education have exhibited higher level of fertility compared to females with no education. The inverse relationship has held for the province only when one begins the observation from primary level through higher education. The implication which may be drawn from this result is that females need education to at least secondary level for the inverse relationship to take firm effect.

## 8.6 SUMMARY

Marriage in Southern Province is near universal with 94.8 percent of males and 97.2 percent of females having ever married by age 45-49 years. This is coupled with early mean age at marriage. Singulate mean age at marriage is 25.8 and 21.3 years for males and females, respectively.

The fertility level in the province may be viewed as high at 7.0 children per female. There has been no significant drop in fertility level between 1980 and 1990 population censuses. Completed Family Size with reference to educational level completed by females has shown that the fertility of females with no education is lower than that for females with primary level of education. The implication is that education of females becomes more effective in depressing the level of fertility if they complete at least secondary education.

## CHAPTER 9

# MORTALITY

### 9.1. INTRODUCTION

Direct estimation of mortality levels using 1990 Census data is not possible because it is generally difficult to collect data on deaths by age. As such, the analysis of mortality has to be done using indirect methods of estimation. The Brass Method employed here uses information on children ever born and surviving by age of mothers (United Nations, 1983). The Brass method employs probability measures and assumes the following relationship:-

$$q_{xx} = D_{xx} K_{xx}$$

where  $q_{xx}$  = probability of dying between exact age  $x$  and  $x+1$ .

$D_{xx}$  = proportion dead at age  $x$ .

$K_{xx}$  = the correction factor or multiplier at age  $x$ .

The exact ages used are 1, 2, 3, 5, 10, 15, and 20. Since the information on children ever born and surviving is usually affected by age pattern of fertility and age errors, the proportion dead is adjusted by multiplying factors at each age. Trussell's (1975) multipliers are used in the equation. In order to facilitate easy computation of these mortality indicators, the United Nations Mortality measurement package "Mortpak-Lite" was used.

Data on children ever born and children surviving yields mortality indicators on infant and child mortality rates that also include reference periods. Levels of mortality may be estimated using the probabilities of dying at exact ages.

Data that is used in analysing mortality is derived from the following:-

- Deaths in household by sex (questions M-1 and M-2).
- Children still alive by sex (question F-3).
- Children who died by sex (question F-4).
- Females 12 years and over by age question P-5 and P-6).

Information on deaths, particularly for young ages usually has many errors of omission because for some reason, respondents may not register some of their dead children.

### 9.2 DEFINITIONS AND CONCEPTS

#### *Mortality*

Deaths in a population are termed as mortality.

#### *Infant Mortality Rate (IMR)*

Refers to the rate at which persons aged below 1 year die. Infant mortality refers to deaths of live-born babies before their first birthday.

### *Child Mortality Rate (CMR)*

Refers to the rate at which children 1-4 years die. Child mortality refers to deaths of children 1-4 years.

### *Under-Five Mortality Rate (UMR)*

The rate at which children below 5 years die. It combines the infant and child mortality.

### *Crude Death Rate (CDR)*

Ratio of deaths in a year to the mid-year population. Usually, the reference period is one calendar year. The value is conventionally expressed per 1000 population.

### *Expectation of Life at Birth*

The average number of years that a new born is expected to live if the current existing mortality conditions were to prevail for a long time.

## 9.3 CRUDE DEATH RATE (CDR)

Southern Province has experienced an increase in adjusted crude death rate over the 1980-1990 intercensal period. Overall, the crude death rate increased from 12.8 deaths in 1980 to 14.6 deaths per 1,000 population in 1990. The highest increase was recorded for males where crude death rate increased from 12.9 deaths in 1980 to 15.1 deaths per 1,000 population in 1990. Female crude death rate in 1980 was 12.8 deaths as compared to 14.1 deaths per 1,000 population in 1990. Observed crude death rates by sex are nearly twice the adjusted crude death rates. Hence, the observed crude death rates are not very reliable. Refer to Table 9.1 for details.

Table 9.1

Crude Death Rate by Sex, Southern Province, 1980 and 1990

Sex	Observed		Adjusted CDR	
	Deaths	CDR	1980	1990
Southern Province				
- Total	25,178	27.8	12.8	14.6
- Male	13,044	29.4	12.9	15.1
- Female	12,134	26.2	12.8	14.1

Note: (1) Used Coale and Demeny North Model Life Tables, levels 14.7 (males) and 14.1 (females) for the 1990 Census. In the case of 1980 Census, levels 16.1 (males) and 15.0 (females) are used.  
(2) Used a sex ratio of 103 males per 100 females.

## 9.4 PERIOD MEASURES

Mortality rates that are estimated from the 1990 Census data are infant, child, under-five mortality rates and expectation of life at each age. In the absence of direct mortality question on age of the deceased, estimations are made using the North Model Life Table system. Data on children ever born and surviving are used to estimate probabilities of dying ( $q_{(x)}$ ) for both 1980 and 1990 Censuses, at exact ages 1, 2, 3, 5, 10, 15 and 20. The complement of the probabilities of dying are the probabilities of surviving ( $l_{(x)} = 1 - q_{(x)}$ ).



Using probabilities of surviving, mortality levels for both males and females are estimated. Computer software package used is that developed by the United Nations (UN: 1988) called the "Mortpak-Lite". Reference dates are included in the estimation of probabilities of dying and child mortality levels. Probabilities of dying and surviving, mortality levels and reference dates for 1990 Census are shown in Table 9.2.

Table 9.2

Estimates of Probabilities of Dying and Surviving by Sex, Implied Mortality Levels and Reference Dates, Coale Demeney, North Model, Southern Province, 1990

Age Group	Age (x)	Probabilities of Dying, $q_{x0}$ and of Surviving, $l_{x0}$				Mortality Levels		Reference Dates	
		Male		Female		Male	Female	Male	Female
		$q_{x0}$	$l_{x0}$	$q_{x0}$	$l_{x0}$				
15-19	1	.103	.897	.091	.909	14.8	14.4	1988.6	1988.6
20-24	2	.130	.870	.120	.880	14.7	14.1	1987.3	1987.3
25-29	3	.134	.866	.122	.878	15.4	15.0	1985.5	1985.5
30-34	5	.144	.856	.133	.867	15.8	15.5	1983.3	1983.3
35-39	10	.160	.840	.145	.855	16.1	15.9	1980.8	1980.8
40-44	15	.185	.815	.170	.830	15.5	15.3	1978.2	1978.2
45-49	20	.205	.795	.199	.801	15.4	14.7	1975.3	1975.3

Note: Estimates are based on Trussell's Coefficients and the Reference Date of the 1990 Census is 25th August, 1990.

Reliable mortality estimates are derived from the probability of dying at age 2 ( $q_2$ ). Thus, the plausible mortality levels for males and females for 1990 are 14.7 and 14.1, respectively.

Corresponding mortality levels from the 1980 Census were 16.1 and 15.0 for males and females, respectively. Reference dates for the 1990 Census span from 1976 to 1989. Similarly, reference dates from the 1980 Census span from 1965 to 1979. Table 3 shows the probabilities of dying and surviving, mortality levels and reference dates from the 1980 Census.

Table 9.3

Estimates of Probabilities of Dying and Surviving by Sex, Implied Mortality Levels and Reference Dates, Coale Demeney, North Model, Southern Province, 1980

Age Group	Age (x)	Probabilities of Dying, $q_{10}$ and of Surviving, $l_{10}$				Mortality Levels		Reference Date	
		Male		Female		Male	Female	Male	Female
		$q_{10}$	$l_{10}$	$q_{10}$	$l_{10}$				
15-19	1	.087	.913	.116	.884	16.2	12.1	1978.8	1978.8
20-24	2	.109	.891	.107	.893	16.1	15.0	1977.5	1977.5
25-29	3	.144	.856	.132	.868	14.8	14.4	1975.3	1975.5
30-34	5	.175	.825	.176	.824	14.3	13.3	1972.6	1973.2
35-39	10	.213	.787	.239	.761	13.8	11.9	1969.7	1970.6
40-44	15	.259	.741	.263	.737	12.6	11.7	1966.7	1967.8
45-49	20	.235	.765	.237	.763	14.2	13.3	1963.7	1964.8

Note: Estimates are based on Trussell's coefficients and the Reference Date of the 1980 Census is 20th August, 1980.

Results presented in Tables 9.2 and 9.3 show high chances of child survival at exact ages 1 and 2 years for 1980 Census. At ages 3 years and above, the probability of surviving has increased between 1980 and 1990 for both males and females.

#### Infant Mortality Rate (IMR)

Recent infant mortality rate estimates have indicated an increase as shown in Table 9.4 in the period 0-4 years before the 1980 Census IMR was 94 deaths per 1000 live births compared to 96.7 in the period 0-4 years before the 1990 Census. The IMR for males has increased between the reproductive periods as opposed to that of females.

Table 9.4

Infant and Child Mortality Rates by Five Year Period Preceding the Census, Southern Province, 1980 and 1990

Years Preceding Census	Infant Mortality ( $q_1$ )		Child Mortality ( $q_5$ )		Under-Five Mortality ( $q_6$ )	
	1980	1990	1980	1990	1980	1990
<b>Southern Province - Total</b>						
0-4	94.0	96.7	66.0	68.7	115.3	118.3
5-9	111.5	83.5	83.5	56.0	201.5	145.0
10-14	107.0	90.0	78.5	62.0	227.0	189.5
<b>Sex of Child - Male</b>						
0-4	91.0	99.7	63.0	70.7	113.3	122.3
5-9	108.5	86.5	79.5	58.5	194.0	152.0
10-14	115.0	92.0	87.0	64.0	247.0	195.0
<b>- Female</b>						
0-4	97.7	90.7	69.3	62.7	118.3	111.0
5-9	114.5	80.5	86.5	53.0	207.5	139.0
10-14	116.5	87.0	88.0	59.5	250.0	184.5



### ***Child Mortality Rate (CMR)***

Results in Table 9.4 have shown low child mortality rates in 1990 as compared to 1980 Census figures for 5-9 and 10-14 years periods. In the period 0-4 years prior to the censuses, CMR is higher for 1990 than 1980. This is true for both male and female children. An overall recent child mortality rate of 68.7 deaths was recorded in 1990 as compared to 66 deaths per 1,000 children aged 1-4 years in 1980. Male child mortality rate for 0-4 years prior to the 1990 Census was 70.7 deaths while that for female children was 62.7 deaths per 1,000 children aged 1-4 years. Rates for the period 0-4 years preceding the 1980 Census were 63.0 and 69.3 deaths for male and female children, respectively. For more details refer to Table 9.4.

### ***Under-five Mortality Rate (UMR)***

Generally, under-five mortality rate (UMR) is higher than both infant mortality and child mortality rates. An analysis of UMR's for 1980 and 1990 Censuses has shown substantial declines in the 5-9 and 10-14 year periods before the Censuses. The same is true for both male and female rates. Table 9.4 shows the under-five mortality rates derived from the 1980 and 1990 Censuses. Overall, Southern Province recorded an under-five mortality rate of 118.3 deaths per 1,000 children aged below 5 years in 1990 as compared to 115.3 deaths in 1980 for the 0-4 years period prior to the Censuses. Under-five mortality rate for males declined from 195.0 deaths in the period 10-14 years to 122.3 deaths in the 0-4 years period before the 1990 Census. Similarly, the female under five mortality rate declined from 184.5 deaths in the 10-14 years period to 111.0 deaths in the 0-4 years period before the 1990 Census. For more details refer to Table 9.4.

## **9.5 MORTALITY BY SELECTED BACKGROUND CHARACTERISTICS**

A detailed analysis of mortality levels by selected socio economic variables is important in understanding the linkages or causal factors. There are many underlying variables that can influence the patterns of mortality levels. In this section, variables depicted from the 1990 Census questionnaire are sex of child, residence, education, marital and economic status of mothers which have been studied. The three mortality measures under study are infant and child mortality rates and expectation of life at birth. Table 9.5 includes information on infant and child mortality rates. Table 9.6 includes information on expectation of life at birth and mortality levels derived from the Coale and Demeney model life tables. A software package known as Mortpak Lite (F.N:1988) was used to generate the expectation of life at birth and child mortality rates.

### ***Infant Mortality Rate (IMR)***

Results derived from both the 1980 and 1990 Censuses have shown that infant mortality rate has increased in Southern Province by 2.9 percent in the intercensal period. An infant mortality rate of 96.7 deaths per 1,000 live births was recorded in 1990 compared to 94.0 deaths per 1,000 live births in 1980. The IMR for male children increased from 94 to 99.7 while that of females reduced from 97.7 to 90.7 over the 1980-1990 intercensal period. (Refer to Table 9.5).

Urban areas recorded a low infant mortality rate as compared to rural areas. However, urban areas recorded high percentage increase than rural areas over the 1980-1990 intercensal period. Districts in Southern Province that had high positive percentage increase in infant mortality rate were Sinazongwe, Gwembe, Namwala and Mazabuka in the range of 23 and 88 percent. Choma, Kalomo and Siavonga districts recorded negative percentage increases of between 12 and 16 percent. It should be noted, though, that Choma, Livingstone, Mazabuka, Monze and Namwala districts recorded infant mortality rates of between 80 and 97 deaths per 1,000 live births. Sinazongwe District recorded the highest infant mortality rate of 128.3 deaths in 1990. Siavonga, Kalomo and Gwembe districts recorded infant mortality rates of between 106 and 109 deaths per 1,000 live births (see Table 9.5).



Table 9.5.

Infant and Child Mortality Rates for the 5 Year Period Preceding the Census, by Selected Background Characteristics, Southern Province, 1980 and 1990

Background Characteristic	Infant Mortality (‰)			Child Mortality (‰)			Under-Five Mortality (‰)		
	1980	1990	% Increase	1980	1990	% Increase	1980	1990	% Increase
Southern Province - Total	94.0	96.7	2.9	66.0	68.7	4.1	115.3	118.3	2.6
Sex of Child									
Male	91.0	99.7	9.6	63.0	70.7	12.2	113.3	122.3	7.9
Female	97.7	90.7	-7.2	69.3	62.7	-9.5	118.3	111.0	-6.2
Residence									
Rural	98.0	98.3	0.3	70.0	70.3	0.4	120.7	121.0	0.2
Urban	87.0	87.6	0.7	59.3	59.7	0.7	105.7	107.3	1.5
District									
Choma	99.7	87.7	-12.0	71.7	60.0	-16.3	121.7	107.3	-11.8
Gwembe	64.0	108.7	69.8	38.0	80.3	111.3	77.0	134.0	74.0
Kalomo	126.3	106.7	-15.5	98.0	78.3	-20.1	156.0	129.0	-17.3
Livingstone	84.7	89.7	5.9	57.3	61.7	7.7	104.3	109.0	4.5
Mazabuka	77.7	96.3	23.9	50.7	67.7	33.5	95.3	117.3	23.1
Monze	88.7	93.0	4.8	61.0	65.0	6.6	110.3	125.5	13.8
Namwala	60.0	81.0	35.0	35.3	53.3	51.0	67.3	100.0	48.6
Siavonga	126.7	107.7	-15.0	98.0	79.3	-19.1	154.0	132.3	-14.1
Sinazongwe	68.3	128.3	87.8	42.3	100.0	136.4	81.7	156.3	91.3
Education									
None	84.0	104.7	24.6	56.7	76.7	35.3	107.0	129.7	21.2
Primary	99.7	97.3	-2.4	71.3	69.3	-2.8	121.7	118.7	-2.5
Secondary +	88.0	72.0	-18.2	66.7	45.3	-25.4	104.7	88.7	-15.3
Marital Status									
Never Married	89.7	75.5	-15.8	62.0	48.0	-22.6	113.0	99.5	-11.9
Married	72.0	83.0	15.3	46.0	55.0	19.6	91.7	111.0	21.0
Separated	98.0 <sup>a</sup>	71.0	-27.6	69.5 <sup>a</sup>	44.5	-35.9	133.0 <sup>a</sup>	94.5	-28.9
Divorced	-	93.0	...	-	65.0	...	-	126.0	...
Widowed	90.0	145.7	61.9	62.0	117.3	89.2	121.5	178.7	47.1
Economic Activity									
Working	100.0 <sup>a</sup>	78.7	-21.3	71.0 <sup>a</sup>	51.7	-27.2	135.5 <sup>a</sup>	97.7	-27.9
Unpaid Family Worker	-	97.3	...	-	69.3	...	-	121.0	...
Unemployed	118.0 <sup>a</sup>	98.0	-16.9	90.0 <sup>a</sup>	70.0	-22.2	165.0 <sup>a</sup>	134.0	-18.8
Full-Time Housewife	72.0	84.0	16.7	45.7	56.5	23.6	90.0	113.0	25.6
Not Available for Work	-	98.5	...	-	70.0	...	-	133.0	...
Economic Sector									
Agricultural Sector	-	101.7	...	-	73.7	...	-	125.0	...
Non-Agricultural Sector	-	80.5	...	-	53.0	...	-	106.5	...

Note: <sup>a</sup> = Includes female unpaid family workers  
<sup>#</sup> = Includes females not seeking work and those not available for work  
<sup>\$</sup> = Includes divorced females  
 ... = Not Available

Education of mothers does influence the pattern of infant mortality rate. The lowest (72.0) level of mortality is experienced by children born to mothers who have at least completed secondary education while the highest (104.7) is experienced by those born to mothers who have had no education.

The IMR of children born to mothers who have never been married or separated has decreased between 1980 and 1990, hence, the negative percent increase. In the remaining marital status categories, IMR has increased. The highest IMR is experienced by children born to widowed women and the lowest for those born to women who are separated.

Nearly all the economic status categories recorded infant mortality rates of below 99 deaths per 1,000 live births. A decline of 21.3 percent was recorded for children born to working women in the 1980-1990

intercensal period. Children born to women in the agricultural sector experienced an infant mortality rate of 101.7 deaths per 1,000 live births. Those born to women in the non-agricultural sector experienced an infant mortality rate of 80.5 deaths per 1,000 live births. Refer to Table 9.5 details.

#### *Child Mortality Rate (CMR)*

Southern Province recorded an overall child mortality rate of 68.7 deaths per 1,000 children aged 1-4 years in 1990 compared to 66.0 deaths in 1980. Child mortality rate remained nearly constant in the 1980-1990 intercensal period for both rural and urban areas (see Table 9.5). Districts which recorded negative percentage increase over the 1980-1990 intercensal period were Choma, Kalomo and Siavonga. Substantial increases in child mortality rates over the 1980-1990 intercensal period were observed in Gwembe, Sinazongwe, Namwala and Mazabuka districts.

Children born to mothers with primary and secondary and higher level of education experienced negative increase in child mortality rates over the 1980-1990 intercensal period. In 1990, child mortality rates were 69.3 and 45.3 deaths per 1,000 children aged 1-4 years for "primary" and "secondary+" categories, respectively. The highest rate was recorded in the "none" education level category of 76.7 deaths per 1,000 children aged 1-4 years. Similar observations as noted for infant mortality rate, are applicable for all marital status categories (see Table 9.5).

Economic status of mothers does influence the child mortality pattern. Results presented in Table 9.5 show that in 1990 children who were born to mothers in "unemployed" and "not available for work" experienced the same child mortality rate of 70.0 deaths per 1,000 children aged 1-4 years. Children born to women who are "unpaid family workers" experienced a mortality rate of 69.3 deaths per 1,000 children aged 1-4 years. The agriculture sector recorded the highest child mortality rate of 73.7 deaths per 1,000 children aged 1-4 years. For more details, refer to Table 9.5.

#### *Under-Five Mortality Rate (UMR)*

The rate is an overall mortality rate that affects all children aged below 5 years. As a result estimated rates are highest if compared to those of infant and child mortality rates. An overall under-five mortality rate of 118.3 deaths per 1,000 children aged below 5 years was obtained in 1990. The 1980 Census rate was 115.3 deaths per 1,000 children aged below 5 years. Under-five mortality rate for male children is high as compared to that of female children. Children in rural areas have less chances of survival compared to their counterparts in urban areas. However, it should be noted that urban areas recorded a higher percentage increase of 1.5 percent then that of rural areas was 0.2 percent, over the 1980-1990 intercensal period. As observed earlier, negative percentage increases were observed in Choma, Kalomo and Siavonga districts. Districts that recorded high under-five mortality rates were Sinazongwe, Gwembe, Siavonga, Kalomo and Monze of between 125.0 to 157.0 deaths per 1,000 children aged below 5 years. Even though, Siavonga and Kalomo districts recorded negative percentage increases over the 1980-1990 intercensal period, 1990 Census rates were ranked among the highest (see Table 9.5).

The under-five mortality rate pattern is such that children born to mothers in "none" education level category experienced the highest percentage increase of 21.2 percent over the 1980-1990 intercensal period. Negative percentage increases were recorded in "primary" and "secondary+" level categories for the period 1980-1990. A substantial decline was recorded for the "secondary+" category in under-five mortality rate. children born to women with secondary and above education level experienced an under-five mortality rate of 88.7 deaths per 1,000 children aged below 5 years. The 1980 Census rate was 104.7 deaths per 1,000 children.

The marital status groups that recorded high under-five mortality rates in 1990 were "widowed", "divorced" and "married" categories. Negative percentage increases were recorded in "never married" and "separated" categories. For details, refer to Table 9.5. In 1990, the "widowed" category recorded 178.7 deaths followed by "divorced" category with 126.0 deaths per 1,000 children aged below 5 years. The lowest rate was observed in "separated" category with 94.5 deaths per 1,000 children aged below 5 years.



Nearly all economic status groups registered high under-five mortality rates in 1990 with an exception of "working" category which had an estimated 97.7 deaths per 1,000 children aged below 5 years. Children born to females who were unemployed experienced the highest under-five mortality rate of 134.0 deaths followed by "not available for work" category with 133.0 deaths per 1,000 children aged below 5 years. The "agriculture sector" recorded an under-five mortality rate of 125.0 deaths while "non-agriculture sector" had 106.5 deaths per 1,000 children aged below 5 years.

#### *Expectation of Life at Birth*

The expectation of life at birth in Southern Province is relatively high and stands at 52.5 years. The corresponding mortality level reduced from 15.1 in 1980 to 14.9 in 1990. Female children experienced an expectation of life at birth of 53.8 years in 1990 while male children recorded 51.9 years. Children born in urban areas were more likely to live longer than their counterparts in rural areas. The expectation of life at birth of 54.6 years was observed in urban areas compared to 52.1 years for rural areas in 1990. A similar trend of expectation of life at birth was observed in 1980 (see Table 9.6).



Table 9.6

Expectation of Life at Birth for the 5 Year Period Preceding the Census, by Selected Background Characteristics, Southern Province, 1980 and 1990

Background Characteristics	Expectation of Life at Birth (e <sub>0</sub> )		Mortality Level	
	1980	1990	1980	1990
<b>Southern Province - Total</b>	53.1	52.5	15.1	14.9
<b>Sex of Child</b>				
Male	53.8	51.9	15.8	15.2
Female	52.4	53.8	14.3	14.8
<b>Residence</b>				
Rural	52.2	52.1	14.7	14.7
Urban	54.7	54.6	15.8	15.6
<b>District</b>				
Choma	51.9	54.6	14.7	15.6
Gwembe	60.4	49.9	17.9	13.8
Kalomo	46.5	50.3	12.5	14.2
Livingstone	55.2	54.1	15.9	15.5
Mazabuka	56.9	52.6	16.5	15.0
Monze	54.3	53.3	15.4	14.4
Namwala	61.7	56.2	18.7	16.2
Siavonga	46.4	50.1	12.6	13.9
Sinazongwe	59.2	46.0	17.5	12.4
<b>Education</b>				
None	55.5	50.7	15.7	14.1
Primary	51.9	52.2	14.7	14.9
Secondary +	54.6	58.3	15.8	17.0
<b>Marital Status</b>				
Never Married	54.1	57.5	15.3	16.2
Married	58.4	55.7	16.8	15.4
Separated	52.2 <sup>s</sup>	58.7	13.9 <sup>a</sup>	16.6
Divorced	-	53.4	-	14.4
Widowed	54.0	42.7	14.7	11.1
<b>Economic Activity</b>				
Working	51.8*	56.6	13.7*	16.3
Unpaid Family Worker	-	52.3	-	14.7
Unemployed	48.2 <sup>u</sup>	52.2	11.9 <sup>#</sup>	13.8
Full-Time Housewife	58.4	55.4	16.9	15.3
Not Available for Work	-	52.1	-	13.9
<b>Economic Sector</b>				
Agricultural Sector	-	51.4	-	14.4
Non-Agricultural Sector	-	56.3	-	15.7

Note: S = Includes "divorce" category.

\* = Includes female unpaid family workers

# = Includes females not seeking work and not available for work

Analysis of expectation of life at birth by district show some disparities. Low expectations of life at birth of below 51 years are observed in Gwembe, Sinazongwe, Kalomo and Siavonga districts. Highest expectations of life at birth of above 53 years were observed in Namwala, Livingstone, Choma and Monze districts. Moderate expectation of life at birth was observed in Mazabuka District with 52.6 years. Kalomo and Siavonga districts had recorded expectations of life at birth of below 50 years in the 1980 Census. In the last 1980 Census, children in Namwala and Gwembe districts had experienced life expectations of above 60 years (see Table 9.6). Similarly, the education of mother had influenced the pattern of expectation of life of their offspring, as observed in 1990. Children born to mothers with secondary level of education or above in 1990 experienced an expectation of life at birth of 58.3 years as compared to 50.7 years for "none" education category of mothers.

Expectation of life at birth also varies with different marital status. Children born to females who are either divorced or widowed have an expectation of life at birth of below 54 years in 1990. Other marital status categories recorded expectations of life at birth of above 55 years. The "separated" marital status category recorded the highest expectation of life at birth of 58.7 years in 1990. A substantial reduction in expectation of life at birth was attained in the "widowed" category of 11.3 years over the 1980-1990 intercensal period. Refer to Table 9.6 for details.

An equally important factor that might influence the expectation of life at birth is the economic status of females. Generally, children born to mothers in the "non-agriculture sector" experience high expectation of life at birth of 56.3 years. Expectation of life at birth of 51.4 years was observed in "agriculture sector" category. The categories of "full-time housewife" and "working" recorded expectations of life at birth of above 55 years. The remaining economic status categories recorded expectations of life at birth of below the national average of 52.5 years, (see Table 9.6).

## 9.6 MORTALITY TRENDS

Trends of infant, child and expectation of life at birth in Southern Province are presented in Table 9.7 and 9.8. Reference dates for the 1990 Census span from 1976 to 1989 (see Table 9.7). The 1990 Census reference dates span from 1965 to 1979 (see Table 9.8).

Table 9.7

Trends of Infant, Child and Expectation of life at Birth, Southern Province, 1990

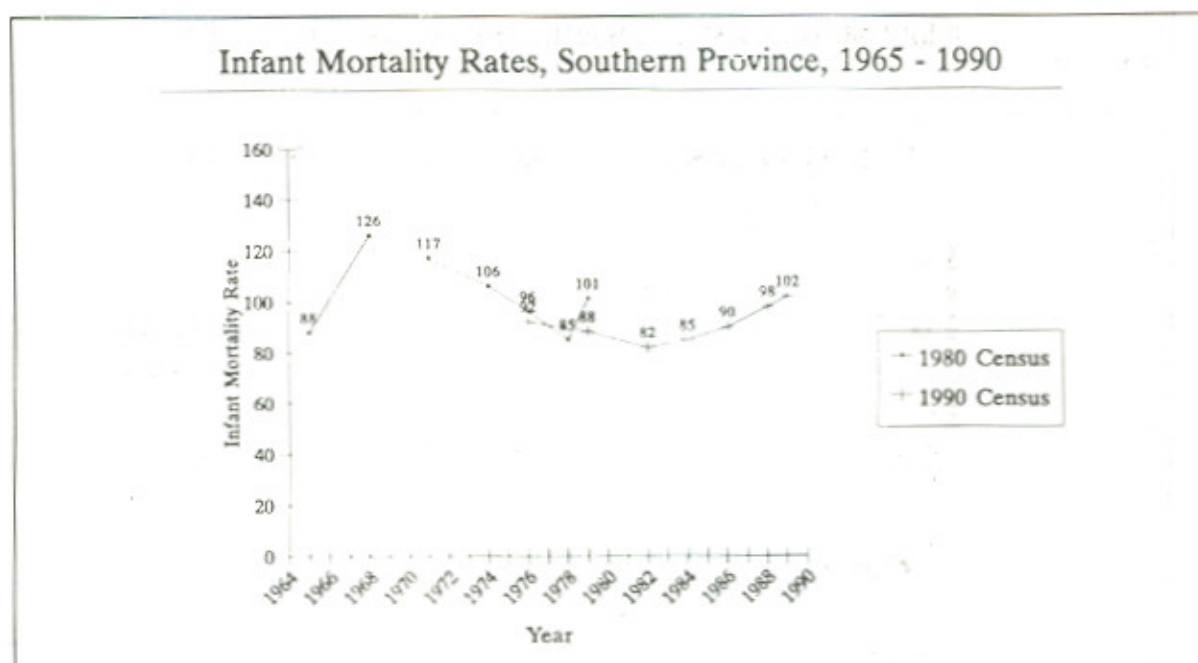
Year	Infant Mortality Rate	Child Mortality Rate	Under-five Mortality Rate	Expectation of life at birth
1989	102	74	102	51.3
1988	98	70	125	52.1
1986	90	62	128	54.0
1984	85	58	138	55.1
1982	82	54	152	55.9
1979	88	60	177	54.5
1976	92	64	202	53.5

### Infant Mortality Rate (IMR)

A recent trend of infant mortality rate derived from 1990 Census shows that the rate in Southern Province had declined in the period between 1976 and 1984. It had dropped from 92 deaths in 1976 to 82 deaths per 1,000 live births in 1982. Thereafter, it rose to 85 deaths per 1,000 live births in 1984 and to 102 deaths in 1989. The infant mortality rate trend derived from the 1980 Census showed some fluctuations during the late 1960's and early 1970's (see Table 9.8). Between 1965 and 1968, infant mortality rate increased and started declining until 1978. Between 1978 and 1979, it increased. (see Table 9.8). Figure 9.1 shows the graphical presentation of the trend established from both the 1980 and 1990 Censuses on infant mortality rate in Southern Province.



Figure 9.1



#### *Child Mortality Rate (CMR)*

Child mortality rate has been low in Southern Province since the late 1970's and the whole of 1980's (see Table 9.7). A decline was observed between 1976 and 1984. Thereafter, the rate started increasing steadily until it had reached 74 deaths per 1,000 children aged 1-4 years in 1989 (see Table 9.7). In the late 1960's child mortality rate had reached the highest peak of 97 deaths per 1,000 children aged 1-4 years by 1968. It started declining in 1971 from 89 deaths to 57 deaths per 1,000 children aged 1-4 years in 1978. In 1979, it increased to 73 deaths per 1,000 children aged 1-4 years. (refer to Table 9.8). Figure 9.2 shows a graphical presentation of trends established from both the 1980 and 1990 Censuses for child mortality rate in Southern Province.

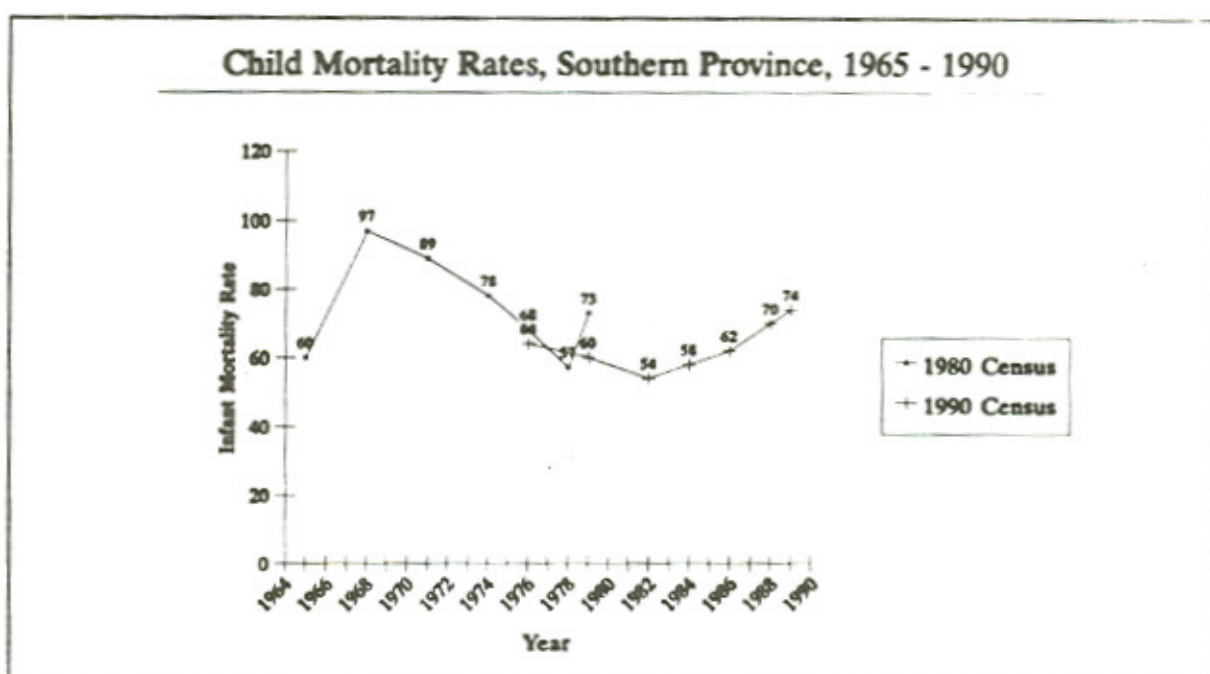
Table 9.8

Trends of Infant, Child and Expectation of life at Birth, Southern Province, 1980

Year	Infant Mortality Rate	Child Mortality Rate	Under-five Mortality Rate	Expectation of life at Birth
1979	101	73	101	51.5
1978	85	57	107	55.1
1976	96	68	138	52.6
1974	106	78	176	50.4
1971	117	89	227	48.0
1968	126	97	261	46.3
1965	88	60	193	54.4



Figure 9.2



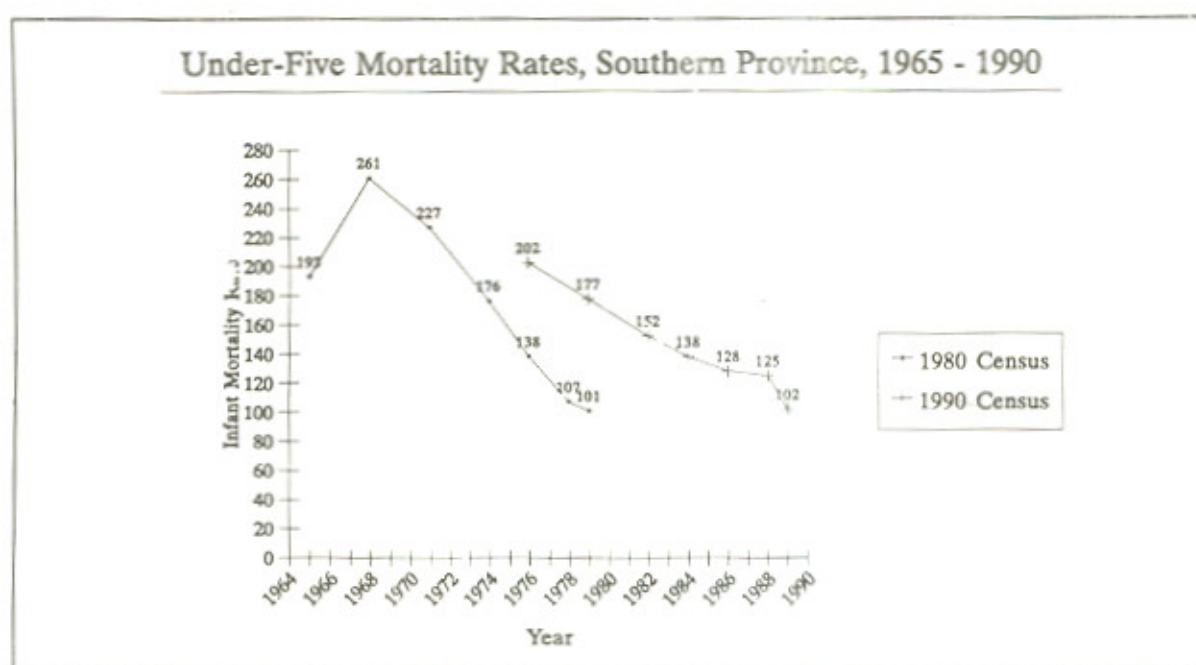
#### *Under-Five Mortality Rate (UMR)*

Survival chances of children aged below 5 years were low in the late 1970's and early 1980's. Under-five mortality rate showed a declining trend in the period 1976-1989 (see Table 9.7). In 1976, the under-five mortality rate was 202 deaths per 1,000 children aged below 5 years. It had reduced further to 138 deaths per 1,000 children in 1984. The lowest rate was attained in 1989 when it reached 102 deaths per 1,000 children aged below 5 years. (refer to Table 9.7)

In 1980, the trend still had showed high under-five mortality rate in the early 1970's. The peak was attained in 1968 when under-five mortality rate reached 261 deaths per 1,000 children aged below 5 years. A remarkable decline was attained in late 1970's when under-five mortality rate dropped to 107 deaths per 1,000 children aged below 5 years in 1978 from 138 deaths in 1976. In 1979, under-five mortality rate had even declined further to 101 deaths per 1,000 children aged below 5 years. (refer to Table 9.8).

The pattern established from both the 1980 and 1990 Censuses is shown in Figure 9.3 for the under-five mortality rate in Southern Province.

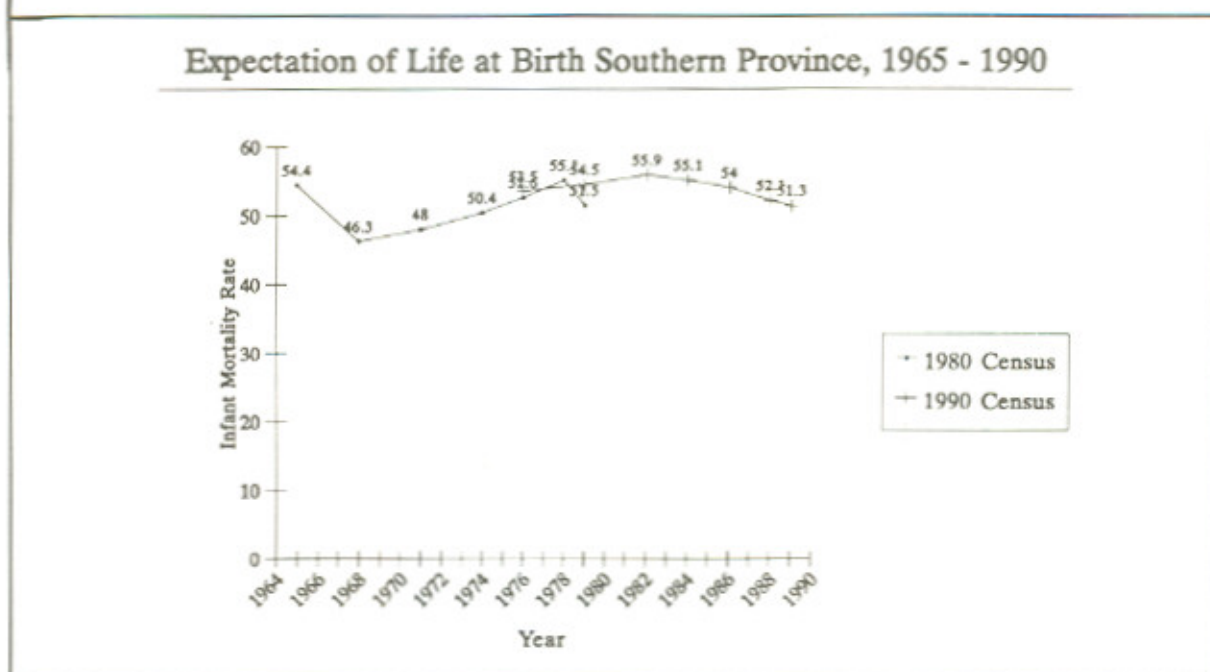
Figure 9.3



#### *Expectation of Life at Birth*

The expectation of life at birth is usually affected directly by infant mortality rates. If the infant mortality rate is high, a low expectation of life at birth is observed and vice-versa. Southern Province experienced low infant mortality rate in both 1980 and 1990 Censuses. Hence, the relatively high expectations of life at birth observed from both the 1980 and 1990 Censuses data. The trend of expectation of life at birth over the 1976-1989 period is such that children in Southern Province had experienced high chances of survival in the period 1976-1986 when expectation of life at birth ranged between 53 and 56 years. An expectation of life at birth of 55.9 years was attained in 1982. Between 1982 and 1989, life expectancy declined. (see Table 9.7).

Figure 9.4



An increase in expectation of life at birth was recorded between 1968 and 1978. In 1968, an expectation of life at birth of 46.3 years was recorded which had later risen to 50.4 years in 1974. Southern Province had recorded the highest expectation of life at birth of 55.1 years in 1978. (Refer to Table 9.8 and Figure 9.4).

## 9.7 ADULT MORTALITY

Direct mortality measures cannot be derived from the 1990 Census data because information on the deceased persons lacked age and date of death. Thus, age-sex specific mortality rates cannot be computed. Similarly, observed mortality patterns cannot be established over a period of time for Southern Province. Adult mortality level can, therefore, be inferred from the Model Life Table values shown in Table 9.9 and 9.10. Life Table columns are generated by using the expectation of life at birth ( $e_0$ ) as an input parameter. Mortality, fertility and other demographic conditions in Zambia warrant the use of the North Model Life Table systems of the Coale and Demeney systems (1966). Mortpak-Lite computer software package developed by the United Nations (UN; 1988) is used to generate the Life Table by sex for Southern Province.

The generated life table columns are as follows:-

${}_n m_x$  = Central death rates between ages  $x$  and  $x + n$ ,

${}_n q_x$  = Probability of dying between exact ages  $x$  and  $x + n$ ,

$l_x$  = Number of persons alive at exact ages  $x$ ,

${}_n D_x$  = Number of persons dying between exact ages  $x$  and  $x + n$ ,

${}_n L_x$  = Person years lived between exact ages  $x$  and  $x + n$ ,

${}_n S_x$  = Probability of surviving between exact ages  $x$  and  $x + n$ ,

$T_x$  = Total number of person years lived after age  $x$ ,



$e_x$  = Expectation of life at age x or the average number of years a person aged x has to live.

$a_{x,n}$  = Average number of years lived by those who die.

The definition of "youth" covers all persons aged 15-24 years (MYSCD: 1993). Hence, adult mortality can be inferred from Life Table columns starting with population aged 25 years and over. Results from Table 9.9 show that at age of 25 years, males in Southern Province are expected to live an average of 41.0 years. Similarly, females aged 25 years are expected to live an average of 42.8 years. Corresponding probabilities of dying are .96874 for males and .97185 for females. Refer to Tables 9.9 and 9.10 for details on the male and female life Tables. Figure 9.5 provides the patterns of expectation of life at each age for both males and females in Southern Province.

**Table 9.9**

**Coale Demeny North Model Life Table for Southern Province - Males, 1990.**

Age	$m_{x,n}$	$q_{x,n}$	$L_x$	$D_{x,n}$	$L_{x,n}$	$S_{x,n}$	$T_x$	$e_x$	$a_{x,n}$	Age
0	.10642	.09932	30000	9932	95326	87637 /A/	5190006	51.900	0.328	0
1	.0168	.01657	90063	5825	94459	94750 /B/	5096680	56.587	1.354	1
5	.00	.02867	84243	2515	415179	97764	4751821	56.406	2.500	5
10	.00	.01587	81828	1298	495896	98240	4336641	52.997	2.500	10
15	.00	.02033	80530	1613	398752	97531	3930745	48.811	2.619	15
20	.00	.02902	78893	2190	388907	96998	3531992	44.769	2.572	20
25	.006	.03033	76603	2323	377234	96874	3143086	41.031	2.511	25
30	.00659	.03242	74280	2408	365443	96574	2765852	37.235	2.526	30
35	.00744	.03655	71872	2627	352924	95996	2400409	33.398	2.550	35
40	.0090	.04407	69245	3051	338792	95147	2047485	29.569	2.564	40
45	.01105	.05381	66193	3562	322349	93803	1708694	25.814	2.580	45
50	.01478	.07136	62652	4470	302372	91883	1386344	22.135	2.587	50
55	.01942	.09277	58162	5396	277829	88947	1083972	18.637	2.594	55
60	.02821	.13210	52766	6970	247120	84110	806243	15.278	2.603	60
65	.04213	.19121	45796	8757	207854	76779	559023	12.207	2.587	65
70	.06541	.28181	37039	10439	159589	66313	351169	9.481	2.547	70
75	.10155	.40302	26600	10747	105829	44760 /C/	191580	7.202	2.472	75
80	.18487	..	15853	15853	85752	.....	85752	5.409	5.409	80

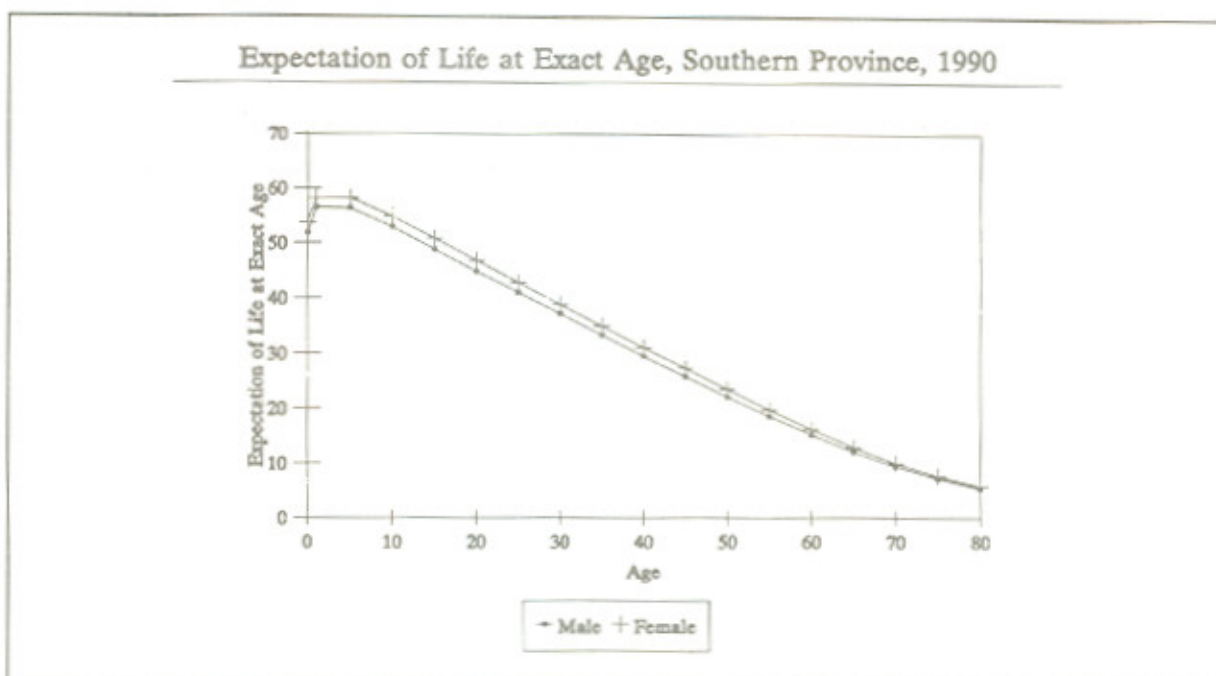
/A/ Value Given is for Survivorship of 5 Cohorts of Birth to Age Group 0-4 =  $L(0,5)/50000$

/B/ Value Given is for  $S(0,5) = L(5,5)/L(0,5)$

/C/ Value Given is  $S(75+.5) - T(80)/T(75)$

Note: Used an expectation of life at Birth of birth (51.9) as an input parameter in the Coale and Demeny Model Life Tables

Figure 9.5



At all ages, life expectancy is higher for males than females. Life expectancy at age 0 is lower than at age one for both males and females. After age 1, it declined gradually for all males and females.

Table 9.10

Coale-Demeney North Model Life Table for Southern Province - Females, 1990.

Age	$m_{(x,0)}$	$q_{(x,0)}$	$L_{(x,0)}$	$D_{(x,0)}$	$L_{(x,0)}$	$S_{(x,0)}$	$T_{(x)}$	$e_{(x,0)}$	$a_{(x,0)}$	Age
0	.09640	.09049	100000.	9049.	93860.	.88299 /A/	5380000.	53.800	0.321	0
1	.01773	.06777	90951.	6164.	347637.	.94613 /B/	5286140.	58.120	1.377	1
5	.00596	.02937	84788.	2490.	417713.	.97683	4938504.	58.246	2.500	5
10	.00339	.01679	82297.	1382.	408033.	.98237	4520791.	54.932	2.500	10
15	.00382	.01891	80916.	1530.	400840.	.97927	4112758.	50.828	2.556	15
20	.00459	.02270	79386.	1802.	392532.	.97552	3711918.	46.758	2.560	20
25	.00532	.02626	77584.	2037.	382924.	.97185	3319386.	42.785	2.549	25
30	.00611	.03012	75546.	2275.	372146.	.96776	2936462.	38.870	2.545	30
35	.00702	.03451	73271.	2529.	360147.	.96288	2564316.	34.998	2.545	35
40	.00812	.03981	70743.	2816.	346778.	.95810	2204169.	31.158	2.537	40
45	.00911	.04455	67926.	3026.	332247.	.94964	1857392.	27.344	2.559	45
50	.01183	.05751	64900.	3733.	315514.	.93360	1525145.	23.500	2.592	50
55	.05194	.07679	61168.	4697.	294627.	.90697	1209631.	19.776	2.613	55
60	.02387	.11295	56471.	6379.	267219.	.86064	915003.	16.203	2.627	60
65	.03728	.17118	50092.	8575.	229980.	.78901	647784.	12.932	2.611	65
70	.05915	.25854	41518.	10734.	181456.	.68914	417805.	10.063	2.565	70
75	.09222	.37461	30784.	11532.	125049.	.47091	236349.	7.678	2.497	75
80	.17297	.....	19252.	19252.	111300.	....	111300.	5.781	5.781	80

/A/ Value Given is for Survivorship of 5 Cohorts of Birth to Age Group 0-4 =  $L(0,5)/500000$

/B/ Value Given is for  $S(0,5)=L(5,5)/L(0,5)$

/C/ Value Given is  $S(75+,5)=T(80)/T(75)$

Note: Used an expectation of Life at birth of 45.7 years as an input parameter in the Coale and Demeney Model Life Tables.

## 9.8 SUMMARY

Mortality rates in Southern Province had increased over the 1980-1990 intercensal period. Crude death rate increased from 12.8 deaths in 1980 to 14.6 deaths per 1,000 population in 1990. The 1990 Census male and female crude deaths rates were 15.1 and 14.1 deaths per 1,000 population, respectively.

Probabilities of surviving decreases with increasing age of mother. Infant and child mortality rates were high in 1990 as compared to 1980. Infant mortality rate increased from 94.0 deaths in 1980 to 96.7 deaths per 1,000 live births in 1990. Male infant mortality rate was higher than that of female children in 1990, while in 1980, that of males was higher than females. Infant and child mortality rates in rural areas were higher than those recorded in urban areas. Districts that recorded highest infant and child mortality rates in 1990 were Sinazongwe, Siavonga, Kalomo and Gwembe.

Education status of mothers does influence the pattern of infant and child mortality rates. Children born to mothers with secondary education level or above recorded low infant and child mortality rates. In Southern Province all economic status groups recorded low infant and child mortality rates.

Expectation of life at birth increased from 53.1 years to 52.5 years. Female children recorded high expectation of life at birth as compared to males. Life expectancy ranges from 46 years in Sinazongwe to 56.2 years in Namwala. Between 1976 and 1989, life expectancy has been declining. An increasing trend was observed in the 1968-1978 in expectation of life at birth. More females are expected to survive at each age as compared to males.



## CHAPTER 10

# DISABILITY

### 10.1 INTRODUCTION

Data on disabled persons, among other variables was collected during the 1990 Census. However, only visible disabilities were identified because it was difficult to identify invisible disabilities. The disabled persons were classified as:-

- Totally blind
- Totally deaf/dumb
- Crippled
- Mentally retarded

The above classifications do not take into account the detailed international definition of disability which includes variations in the intensity of disability. The partially blind and deaf are not included in the above classifications though these can be identified with the use of medical instruments by qualified medical personnel. Such an approach, however, would require a special survey.

Some cultural factors pose problems in the identification of disabled persons. In some communities, disability may be regarded as a curse and hence a shame in the family which should not be discussed. Census enumerators may not see such persons and the respondent may not provide accurate information. Nevertheless, the results presented in this chapter provide useful information for the understanding of the levels and patterns of disability in Southern Province.

### 10.2. CONCEPTS AND DEFINITIONS

#### *Disability*

Refers to the inability to do something. In this report, disability refers to a person who is totally blind, totally deaf/dumb, crippled and mentally retarded. Hence a disabled person may have one or more of the following attributes;

#### *Totally blind*

Refers to a person who has completely lost the sense of sight.

#### *Totally deaf/dumb*

Refers to a person lacking the senses of hearing and of speech.

#### *Crippled*

Loss of one or more limbs or loss of the power to use one or more limbs.

#### *Mentally retarded*

A mentally retarded person is one whose psychological functioning is defective to some degree.

#### *Multiple disabilities*

Having more than one of the above stated disabilities.

### 10.3 DISTRIBUTION OF DISABLED PERSONS

Out of a population of 907,150 in Southern Province, 8,874 were recorded as disabled in the 1990 Census. Of these, 4,708 are male and 4,166, female. Amongst all districts, Kalomo has the largest number of disabled persons with 1,834 while Gwembe has the least with 346.

Table 10.1

Disabled Persons by Type of Disability, Sex and Residence, (Percent), Southern Province, 1990

Residence and Sex	Type of Disability						
	Total Number	Total	Blind	Deaf/ Dumb	Crippled	Mentally Retarded	Multiple Disabilities
<b>Southern</b>							
Both sexes	8,874	100.0	17.7	16.1	26.7	10.6	28.9
Male	4,708	100.0	16.4	16.2	28.8	11.8	26.7
Female	4,166	100.0	19.2	16.0	24.2	9.3	31.3
<b>Residence</b>							
<b>Rural</b>							
Both sexes	7,341	100.0	18.4	16.7	26.4	10.4	28.1
Male	3,866	100.0	16.8	16.9	28.6	11.5	26.2
Female	3,475	100.0	20.2	16.6	23.9	9.3	30.1
<b>Urban</b>							
Both sexes	1,533	100.0	14.4	13.0	28.2	11.6	32.8
Male	842	100.0	14.7	13.0	30.2	13.1	29.1
Female	691	100.0	14.0	13.2	25.9	9.7	37.2
<b>Districts</b>							
<b>Choma</b>							
Both sexes	1,588	100.0	16.7	16.6	24.4	9.8	32.4
Male	851	100.0	15.2	17.6	26.6	9.6	31.0
Female	737	100.0	18.4	15.5	22.0	10.0	34.1
<b>Gwembe</b>							
Both sexes	346	100.0	18.2	17.3	33.0	10.7	20.8
Male	175	100.0	14.9	14.3	37.1	13.1	20.6
Female	171	100.0	21.6	20.5	28.7	8.2	21.1
<b>Kalomo</b>							
Both sexes	1,834	100.0	18.3	16.1	27.5	10.7	27.4
Male	957	100.0	16.8	16.9	30.2	12.2	23.8
Female	877	100.0	19.4	15.3	24.6	9.0	31.2
<b>Livingstone</b>							
Both sexes	606	100.0	15.8	12.9	27.9	12.7	30.7
Male	327	100.0	18.4	11.9	27.2	15.9	26.6
Female	279	100.0	12.9	14.0	28.7	8.9	35.5
<b>Mazabuka</b>							
Both Sexes	1,510	100.0	16.5	15.2	26.7	11.9	29.7
Male	840	100.0	14.6	14.6	27.9	14.1	28.8
Female	670	100.0	18.8	16.0	25.2	9.2	30.8
<b>Monze</b>							
Both Sexes	1,156	100.0	15.1	18.2	27.2	9.3	30.1
Male	600	100.0	15.0	17.3	30.2	9.3	28.2
Female	556	100.0	15.3	19.1	24.1	9.4	32.2
<b>Namwala</b>							
Both sexes	894	100.0	19.4	14.1	25.1	8.3	33.2
Male	459	100.0	19.4	14.4	26.8	8.5	30.9
Female	435	100.0	19.3	13.8	23.2	8.1	35.6
<b>Siavonga</b>							
Both Sexes	354	100.0	22.0	16.1	30.5	11.0	20.3
Male	205	100.0	19.0	17.1	33.2	12.7	18.1
Female	149	100.0	26.2	14.8	26.9	8.7	23.5
<b>Sinazongwe</b>							
Both Sexes	586	100.0	23.4	18.4	24.1	13.0	21.2
Male	294	100.0	19.1	20.1	28.2	14.0	18.7
Female	292	100.0	27.7	16.8	19.9	12.0	23.6

The largest proportion of the disabled in the province comprises the multiple disabled closely followed by the crippled. These categories make up 28.9 percent and 26.7 percent respectively. Among the disabled male, the largest proportion (28.8 percent) are crippled while the multiple disabled make up the majority of their female counterparts. For both males and females, however, mental retardation is the least common disability. Both rural and urban areas have a similar pattern to that of the province as a whole. In Gwembe, Kalomo, Siavonga and Sinazongwe, the crippled are the majority of the disabled, unlike in the remaining districts in which the majority are multiple disabled.

The distribution of disabled persons as a proportion of total population is shown in Table 10.2. Out of a provincial population of 907,150, only 1 percent are recorded as disabled. Of these, 0.3 percent have multiple disabilities, 0.1 percent mentally retarded and 0.2 percent blind, crippled and deaf/dumb in each case. A slightly higher proportion of the rural than the urban population is disabled. A comparison of the districts shows that Kalomo and Namwala have the largest proportions of the disabled with 1.1 percent in each case. In Livingstone 0.7 percent of the population is disabled while in Monze and Sinazongwe 0.9 percent of the population of each district is disabled.

**Table 10.2**

**Disabled Persons as a Proportion of Total Population by Residence and Type of Disability, (Percent), Southern Province, 1990**

Residence	Total Population	Type of Disability					
		Total	Blind	Deaf/Dumb	Crippled	Mentally Retarded	Multiple Disability
<b>Southern</b>							
Total	907,150	1.0	0.2	0.2	0.2	0.1	0.3
Rural	692,253	1.1	0.2	0.2	0.3	0.1	0.3
Urban	214,897	0.7	0.1	0.1	0.2	0.1	0.2
<b>Districts</b>							
Choma	163,050	1.0	0.2	0.2	0.2	0.1	0.3
Gwembe	35,462	1.0	0.2	0.2	0.3	0.1	0.2
Kalomo	162,674	1.1	0.2	0.2	0.3	0.1	0.3
Livingstone	82,952	0.7	0.1	0.1	0.2	0.1	0.2
Mazabuka	155,436	1.0	0.2	0.1	0.3	0.1	0.3
Monze	126,036	0.9	0.1	0.2	0.2	0.1	0.3
Namwala	83,075	1.1	0.2	0.1	0.3	0.1	0.4
Siavonga	34,876	1.0	0.2	0.2	0.3	0.1	0.2
Sinazongwe	63,586	0.9	0.2	0.2	0.2	0.1	0.2

#### 10.4 CHARACTERISTICS OF DISABLED PERSONS

##### *Sex Ratios*

Sex ratios reflect the number of males per 100 females. Table 10.3 shows sex ratios of the disabled by district and type of disability. In Southern Province, the total sex ratio of the disabled is 113.0 implying that there are 113 disabled males to every 100 disabled females. In both rural and urban areas, sex ratios of over 100 mean that there are more disabled males than females. Among the multiple disabled and blind in rural areas however, there are more females than males.



Table 10.3

Sex Ratio of Disabled Persons by Residence and Type of Disability, Southern Province, 1990

Sex Ratio and Residence	Type of Disability					
	Total	Blind	Deaf/Dumb	Crippled	Mentally Retarded	Multiple Disabilities
<b>Southern</b>						
Total	113.0	96.9	114.6	134.6	142.4	96.6
Rural	111.3	92.6	113.7	133.0	137.9	96.9
Urban	121.9	127.8	119.8	141.9	164.2	95.3
<b>Districts</b>						
Choma	115.5	94.9	131.6	139.5	110.8	105.2
Gwembe	102.3	70.3	71.4	132.7	164.3	100.0
Kalomo	109.1	92.5	120.9	133.8	148.1	83.2
Livingstone	117.2	166.7	100.0	111.3	208.0	87.9
Mazabuka	125.4	97.6	115.0	138.5	190.3	117.5
Monze	107.9	105.9	98.1	135.1	107.7	94.4
Namwala	105.5	106.0	110.0	121.8	111.4	91.6
Siavonga	137.6	100.0	159.1	170.0	200.0	105.7
Sinazongwe	100.7	69.1	120.4	143.1	117.1	79.7

In all the districts, total sex ratio of the disabled is above 100. In Choma, Gwembe, Kalomo, Mazabuka and Sinazongwe, there are more blind females than males. In the deaf/dumb category, the sex ratio is less than 100 only in Gwembe and Monze. There are more crippled and mentally retarded males than females in all the districts.

### Age Structure

The age structure of the disabled, in broad age groups is displayed in Table 10.4. The table shows that out of 2,916 children aged 0-14 years, 41.3 percent have multiple disabilities, 20.9 percent are crippled, 19.9 percent are deaf/dumb while 9.7 percent are blind and 8.2 percent mentally retarded. Among those aged 15-59 years, the largest proportion (31.2 percent) are crippled. Mental retardation is the least common disability (13.8 percent) closely followed by the deaf/dumb (14.8 percent) and the blind (15.0 percent). Blindness is the most common type of disability for those aged 60 years and above.

Table 10.4

Disabled Persons by Type of Disability and Age Group, (Percent), Southern Province, 1990

Type of Disability	Age Group			
	Total	0 - 14	15 - 59	60 +
Blind	17.7	9.7	15.0	45.0
Deaf/Dumb	16.1	19.9	14.8	12.2
Crippled	26.7	20.9	31.2	23.7
Mentally Retarded	10.6	8.2	13.8	4.9
Multiple Disabilities	28.9	41.3	25.2	14.2
Total	100.0	100.0	100.0	100.0
Total Number	8,874*	2,916	4,646	1,309

Note: (\*) This total includes even those who did not state their age.

### Usually Economically Active Disabled Population

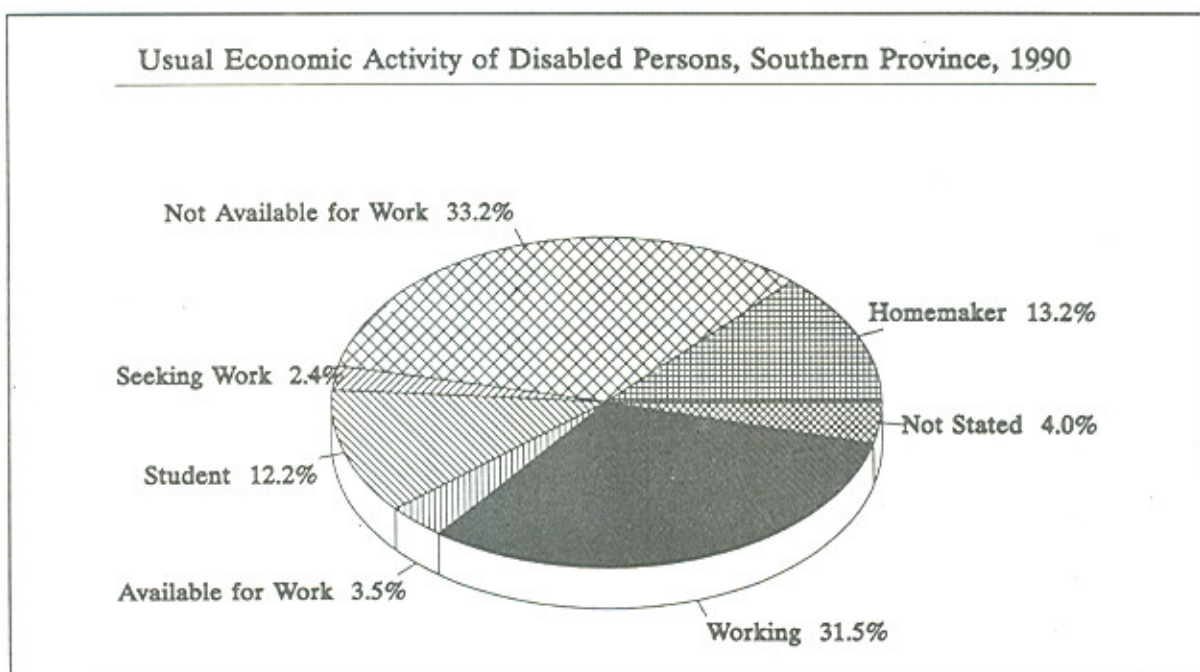
The usual economic activities of the disabled aged 12 years and older are shown in Table 10.5 and Figure 10.1. Chapter 6 gives detailed definitions of economic activities. The table and figure show that out of 6561 economically active disabled persons, 33.2 percent are not available for work while 31.5 percent are working. Students make up 12.2 percent while 13.2 percent comprises homemakers. Only 2.4 and 3.5 percent are seeking and available for work, respectively. Those working make up the majority of the dumb and deaf, crippled and multiple disabled. Of the blind and mentally retarded, the majority (42.8 and 43.6 percent respectively) are not available for work. In all disability types, proportions of those seeking or available for work are low.

Table 10.5

Disabled Persons (12 Years and Older) by Type of Disability and Usual Economic Activity, (Percent), Southern Province, 1990

Usual Economic Activity	Type of Disability					
	Total	Blind	Deaf/Dumb	Crippled	Mentally Retarded	Multiple Disabilities
Working	31.5	28.2	37.4	35.0	26.3	29.0
Seeking work	2.4	2.2	2.9	2.7	2.2	1.9
Available for work	3.5	2.0	4.3	3.6	4.2	3.7
Homemaker	13.2	14.3	12.8	12.3	8.5	16.0
Student	12.2	6.4	11.7	12.8	10.4	18.0
Not available for work	33.2	42.8	27.9	30.7	43.6	25.9
Not Stated	4.0	4.1	3.0	2.9	4.8	5.5
Percentage total	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	6,561	1,353	969	1,922	768	1,549

Figure 10.1





The employment status of disabled household heads is presented in Table 10.6. Out of a total of 313 disabled household heads, 47.0 percent are employed as family workers. A very small proportion (0.6 percent) are employers while 27.8 percent are employees. The self employed make up 22.0 percent.

**Table 10.6**

**Disabled Household Heads Usually Active by Disability and Employment Status, (Percent), Southern Province, 1990**

Type of Disability	Employment Status						
	Total Number	Percentage Total	Employer	Employee	Self Employed	Family Worker	Not Stated
Total	313	100.0	0.6	27.8	22.0	47.0	2.6
Blind	51	100.0	0.0	21.6	21.6	54.9	1.9
Deaf/Dumb	57	100.0	0.0	31.6	17.5	47.4	3.5
Crippled	103	100.0	1.9	27.2	25.2	41.8	3.9
Mentally Retarded	41	100.0	0.0	24.4	14.6	58.5	2.5
Multiple Disabilities	61	100.0	0.0	32.8	26.2	41.0	0.0

A negligible proportion of the blind heads of households are employers while the majority (54.9 percent) are family workers. Proportions of employees range from 21.6 percent among the blind to 32.8 percent among the multiple disabled. That of the self employed ranges from 14.6 among the mentally retarded to 26.2 percent among the multiple disabled.

#### *Educational Status of Disabled Population*

Table 10.7 shows the levels of education completed by disabled persons. In all, there are 7,946 disabled persons aged 5 years and older. Of these, 57.7 percent have had no education and only 0.1 percent have completed higher education levels. 32 percent have completed primary level and 7.6 percent, the secondary level.

**Table 10.7**

**Disabled Persons (5 Years and Older) by Type of Disability and Level of Education Completed, (Percent), Southern Province, 1990**

Type of Disability	Level of Education						
	Total Number	Percentage Total	No Education	Primary	Secondary	Higher Level	Not Stated
Total	7,946	100.0	57.7	32.0	7.6	0.1	2.6
Blind	1,490	100.0	69.3	23.6	5.3	0.1	1.7
Deaf/Dumb	1,280	100.0	65.5	29.5	2.3	0.0	2.7
Crippled	2,210	100.0	49.8	37.0	11.0	0.2	2.0
Mentally Retarded	880	100.0	62.3	27.6	8.3	0.0	1.8
Multiple Disabilities	2,086	100.0	51.0	36.0	8.8	0.0	4.2



Negligible proportions have completed higher levels of education among the deaf/dumb, mentally retarded and multiple disabled. The majority in all disability groups have had no education. Proportions of those who have completed primary level range from 23.6 among the blind to 37.0 among the crippled. Those who have completed secondary level range from 2.3 percent among the deaf/dumb to 8.8 among the multiple disabled.

## 10.5 SUMMARY

The total number of persons recorded as disabled in Southern Province (8,874) during the 1990 Census is 1 percent of the provincial population. There are more disabled males than females. The disabled are more concentrated in rural than urban areas. The majority of the disabled (28.9 percent) have multiple disabilities while the lowest proportion (10.6 percent) is that of the mentally retarded. The most prevalent disability among those aged 60 years and above is blindness while the majority of those aged below 15 and between 15 and 59 have multiple disabilities (41.3 percent) and are crippled (31.2 percent), respectively.

About a third of the disabled aged 12 years and above are not available for work and 31.5 percent are working. Those who are seeking work make up the lowest proportion of 2.4 per cent. The distribution of disabled household heads by employment status shows that 47 percent are family workers and only 0.6 percent are employers. Of the disabled aged 5 years and above, about 58 percent have not had any formal education and 0.1 percent have completed higher education level.

## CHAPTER 11

# HOUSEHOLDS AND HOUSING CHARACTERISTICS

### 11.1 INTRODUCTION

During the 1990 census, data on housing characteristics for every housing unit and household was collected. The following information was solicited :-

- Type of structure
- Materials used for roofing, walls and floors
- Water and energy sources
- Type of toilet facilities
- Ownership of housing unit and type of tenancy

The last page of the 1990 Census questionnaire provides more details on the type of questions on household and housing characteristics.

### 11.2 CONCEPTS AND DEFINITIONS

#### *Household*

A group of persons who normally live and eat together. These people may or may not be related to each other. They make common provision for food or other essentials for living and have only one person whom they all regard as the head of household.

#### *Household Composition*

Description of the household according to some aspect of its membership, such as age, sex and number.

#### *Housing Unit*

An independent place of abode intended for habitation by at least one household. It should have its own door to the outside or a hallway.

#### *Aqua Privy*

It is a type of toilet in which water from a tank, through a large pipe sweeps away human excreta in a gully that leads to a sewerage system.

### 11.3 HOUSING CHARACTERISTICS

The standard of living of a community may be better understood by analysing housing characteristics. Analysed in this section are number of rooms by household size, building materials, sources of water supply, type of toilet facilities and energy for cooking and lighting.

#### *Number of rooms per housing unit*

The number of rooms includes bedrooms and living rooms. Verandas, lobbies, kitchens, bathrooms and toilets are not included. If a garage or a store-room is large enough to fit a bed for an adult and is used for living purposes, it is treated as a room. In rural areas, several huts belonging to one household are treated as rooms of one housing unit.

Table 11.1 shows that in Southern Province, there are 137,911 households of which 100,389 are in rural areas and the remaining 37,522 in urban areas. Out of the 137,911 households in the province, 38.9 percent occupy two roomed housing units and 20.6 percent occupy three roomed housing units. In rural areas, households are concentrated in one or two roomed housing units while in urban areas they are concentrated in two or three roomed structures. In Gwembe, Namwala, Siavonga and Sinazongwe, like rural areas of the province, households are concentrated in one or two roomed housing structures while in the rest of the districts, like urban areas, the majority of households occupy two or three roomed houses.

Table 11.1

Households by Number of Rooms, Rural/Urban and Districts, (Percent), Southern Province, 1990

Residence	Number of H/holds	Percentage Total	Number of Rooms										
			1	2	3	4	5	6	7	8	9	10+	Not Stated
<b>Southern Province</b>													
Total	137,911	100.0	18.8	38.9	20.6	11.2	4.1	2.0	1.0	0.8	0.4	0.6	1.6
Rural	100,389	100.0	20.9	37.3	19.3	10.5	4.6	2.3	1.2	0.9	0.4	0.8	1.8
Urban	37,522	100.0	13.2	43.3	24.2	13.0	2.8	1.1	0.5	0.4	0.2	0.2	1.1
<b>Districts</b>													
Choma	23,814	100.0	18.5	35.7	21.4	12.5	5.1	2.4	1.3	0.8	0.4	0.8	1.1
Gwembe	5,707	100.0	27.7	35.7	16.8	8.9	3.3	1.6	1.1	0.9	0.6	0.6	2.9
Kalomo	23,934	100.0	12.2	43.1	21.5	12.2	5.1	2.2	1.2	0.8	0.3	0.7	0.9
Livingstone	14,591	100.0	14.5	45.4	23.4	10.3	2.2	0.9	0.5	0.5	0.3	0.2	1.6
Mazabuka	23,622	100.0	13.6	41.3	22.3	12.5	4.1	2.2	1.0	0.7	0.3	0.6	1.4
Monze	17,453	100.0	10.3	44.3	21.2	11.5	4.7	2.5	1.2	0.7	0.4	0.8	2.4
Namwala	12,464	100.0	30.4	30.0	17.7	9.4	3.8	2.0	1.1	1.6	0.3	0.9	2.8
Siavonga	5,870	100.0	39.0	28.7	16.0	10.0	3.0	1.3	0.6	0.3	0.2	0.3	0.6
Sinazongwe	10,456	100.0	36.1	31.9	15.9	8.0	2.5	1.6	0.6	0.6	0.3	0.5	2.0

Figure 11.1 shows the percentage distribution of households by district. Kalomo has the largest proportion of households in Southern Province (17.4 percent), closely followed by Choma with 17.3 percent and Mazabuka with 17.1 percent. Gwembe and Siavonga have the lowest proportions with 4.1 percent and 4.2 percent, respectively.

Figure 11.1

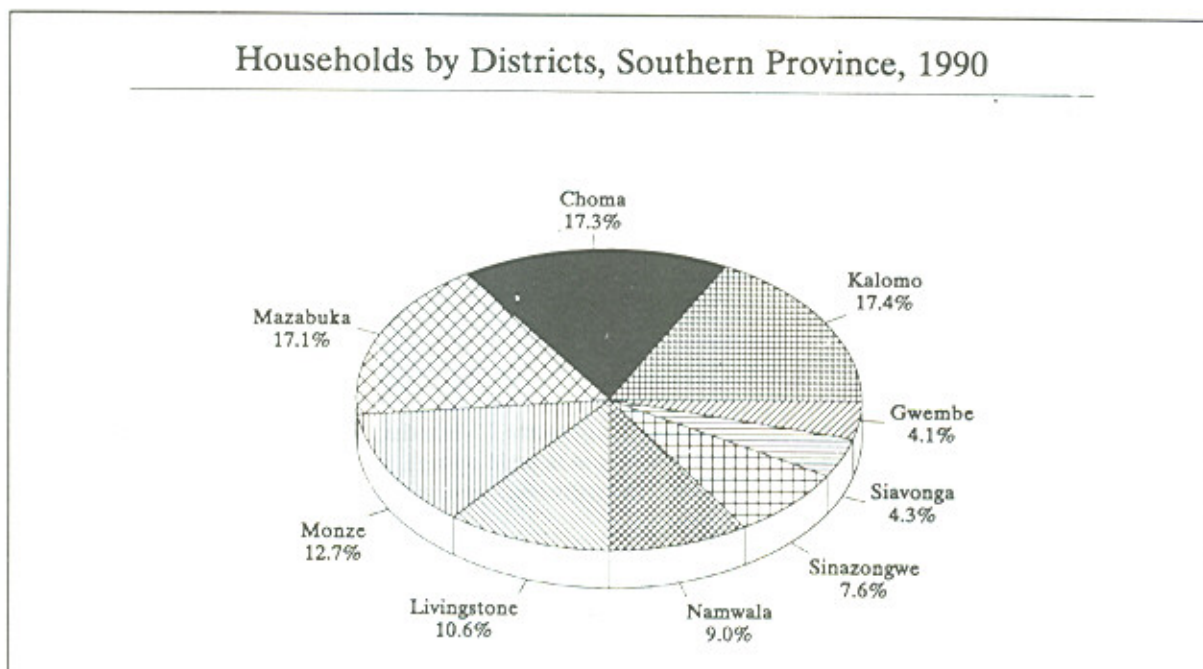




Table 11.2 shows the distribution of households by household size, number of rooms per household in the province as well as rural and urban areas. The average number of rooms per household and average number of persons per room is also shown in the table. For the entire province, the average number of rooms per household is 2.6. In both rural and urban areas, it is 2.6. Taking the appropriate number of persons per room to be two, the average number of persons per room of 2.3 implies overcrowding; and this is more so in rural as opposed to urban areas in which the average numbers of persons per room are 2.4 and 2.2, respectively.

Table 11.2

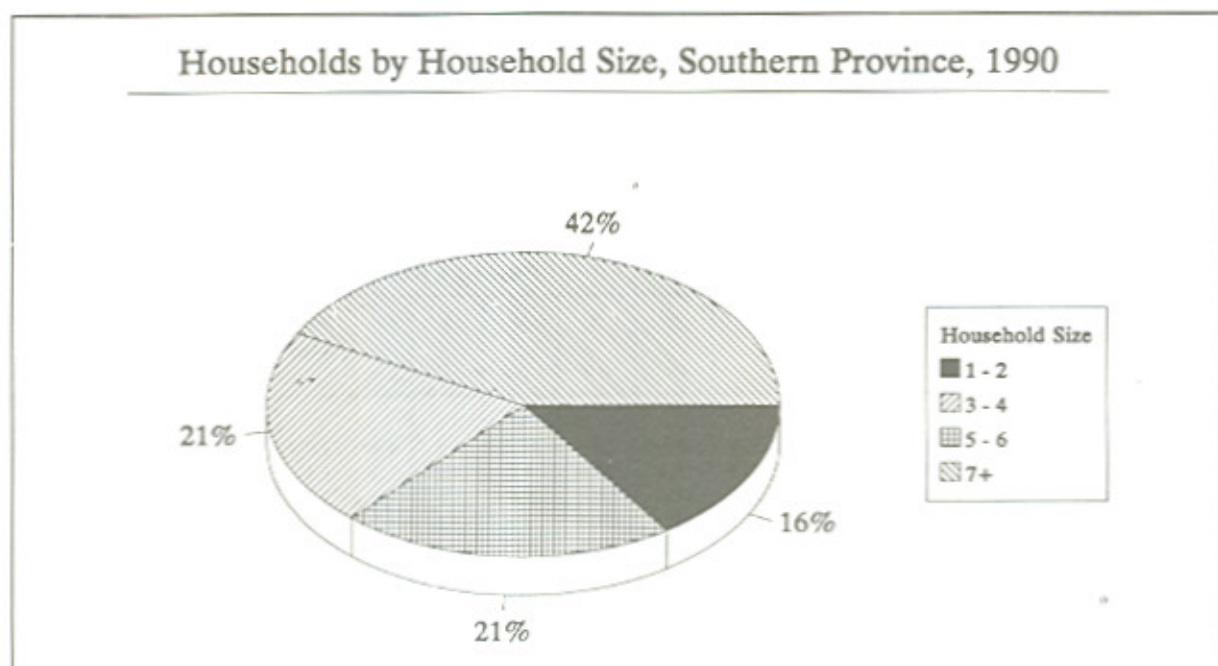
Households by Household Size, Number of Rooms and Residence, (Percent), Southern Province, 1990

Residence and Household Size	Households *	Number of Rooms								Average No of Rooms	Average Persons Per Room
		Total	1	2	3	4	5	6+	Not Stated		
<b>Southern Province</b>											
Total	137,911	100.0	18.8	38.9	20.6	11.2	4.1	4.8	1.6	2.6	2.3
1-2	21,395	100.0	35.2	45.4	10.9	4.2	1.2	1.3	1.8	2.0	0.8
3-4	29,285	100.0	26.3	46.9	16.8	5.6	1.5	1.4	1.5	2.1	1.6
5-6	29,166	100.0	18.3	43.0	23.2	9.9	2.4	1.7	1.5	2.4	2.3
7+	58,065	100.0	9.2	30.5	24.8	17.3	7.3	9.3	1.6	3.2	2.9
<b>Rural</b>											
Total	100,389	100.0	20.9	37.3	19.3	10.5	4.6	5.7	1.8	2.6	2.4
1-2	14,347	100.0	39.1	43.1	9.9	3.5	1.1	1.2	2.1	1.9	0.8
3-4	20,823	100.0	29.6	45.4	15.6	5.1	1.4	1.2	1.7	2.1	1.7
5-6	21,009	100.0	21.2	41.5	21.9	9.3	2.6	1.8	1.7	2.4	2.3
7+	44,210	100.0	10.7	29.6	22.7	16.0	8.1	11.1	1.8	3.3	2.8
<b>Urban</b>											
Total	37,522	100.0	13.2	43.3	24.2	13.0	2.8	2.4	1.1	2.6	2.2
1-2	7,048	100.0	27.2	50.2	12.8	5.7	1.4	1.7	1.0	2.1	0.7
3-4	8,462	100.0	18.2	50.6	19.8	6.8	1.7	1.9	1.0	2.3	1.5
5-6	8,151	100.0	10.9	46.9	26.4	11.4	2.0	1.6	0.8	2.5	2.2
7+	13,855	100.0	4.2	33.4	31.4	21.3	4.8	3.7	1.2	3.0	2.9

Table 11.2 also shows that the majority (58,065) of households have at least seven members. However, the largest proportion (30.5 percent) in this household size category occupy two roomed structures followed by those that occupy three roomed structures (24.8 percent). Proportions of households with at least seven members and occupying one or two rooms together are 40.3 and 37.6 percent in rural and urban areas respectively.

Figure 11.2 shows that the largest proportion of households in the province has at least seven members (42.1 percent). Households with 3-4 or 5-6 members have an equal proportion of 21.2 percent. One to two member households have the lowest proportion of 15.5 percent.

Figure 11.2



#### *Construction materials of walls and roofs*

Good quality building materials for constructing walls, and roofs increases the durability of housing units. Generally, the quality of a housing unit as seen from its walls and roofs, reflects the socio economic status of households within a community.

Tables 11.3 and 11.4 present data on construction materials of walls and floors. The most commonly used material for construction of roofs as shown in Table 11.3, is grass/thatch used in 61.2 percent of houses. However, for houses with concrete block/slab walls, only 0.8 percent have grass/thatched roofs. Among housing structures with iron sheet walls, 77.4 percent have iron roofs and 8.6 percent have grass thatched roofs. Concrete/cement or tiled roofs are not common in housing units of the province.

Table 11.3

Occupied Housing Units by Construction Materials of Walls and Roofs, (Percent), Southern Province, 1990

Construction Materials of Walls	Number of H/units	Total	Construction Materials of Roofs						
			Concrete/Cement	Asbestos Sheets	Iron Sheet Corrugated	Grass/Thatch	Tiles	Other	Not Stated
Burnt Bricks	20,350	100.0	2.6	13.3	40.3	43.1	0.3	0.2	0.2
Unburnt/Mud Bricks	47,607	100.0	0.6	4.5	12.4	81.8	0.1	0.4	0.2
Concrete Blocks/slab	27,918	100.0	2.3	64.0	32.5	0.8	0.2	0.2	0.0
Stone	196	100.0	1.0	8.7	19.4	68.4	-	1.5	1.0
Iron Sheets	1,089	100.0	2.9	5.3	77.4	8.6	1.0	0.6	4.2
Asbestos/Wood/Hardboard	846	100.0	0.8	42.0	34.3	14.8	0.1	6.2	1.8
Pole and Dagga	33,139	100.0	0.3	1.0	4.2	93.8	0.2	0.4	0.1
Grass	4,359	100.0	0.6	1.0	1.6	91.0	0.7	3.7	1.4
Other	1,694	100.0	0.6	2.7	6.3	34.7	0.9	15.7	39.1
Total	137,198	100.0	1.2	17.2	18.9	61.2	0.2	0.7	0.6

The most common construction materials for walls as shown in Table 11.4 are unburnt/mud bricks used in 34.8 percent of housing structures followed by pole and dagga used in 24.2 percent. Stone, iron sheets and grass are not common construction materials for walls.

Table 11.4

Occupied Housing Units by Construction Materials of Walls and Roofs, (Percent), Southern Province, 1990

Construction Materials of Walls	Total	Construction Materials of Roofs						
		Concrete/Cement	Asbestos Sheets	Iron Sheet Corrugated	Grass/Thatch	Tiles	Other	Not Stated
Burnt Bricks	14.8	31.9	11.5	31.7	10.4	19.5	5.4	3.9
Unburnt/Mud Bricks	34.8	18.5	9.0	22.8	46.4	18.2	20.8	6.3
Concrete Blocks/Slab	20.3	38.4	75.9	35.0	0.3	18.2	4.7	1.7
Stone	0.1	0.1	0.1	0.1	0.2	-	0.3	0.2
Iron Sheets	0.8	1.9	0.2	3.3	0.1	3.6	0.7	4.8
Asbestos/Wood/Hardboard	0.6	0.4	1.5	1.1	0.1	0.3	5.7	1.6
Pole and Dagga	24.2	6.6	1.4	5.3	37.0	25.1	16.1	4.2
Grass	3.2	1.5	0.2	0.3	4.7	10.1	17.5	6.3
Other	1.2	0.7	0.2	0.4	0.8	4.9	28.8	71.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	137,198	1,644	23,554	25,919	83,919	307	922	933
<b>Rural</b>								
Burnt Bricks	17.2	41.4	30.2	46.9	11.0	17.6	5.1	5.0
Unburnt/Mud Bricks	40.0	24.6	12.6	22.5	45.6	24.4	11.8	8.8
Concrete Blocks/Slab	6.0	18.0	49.8	21.9	0.2	3.6	1.2	0.7
Stone	0.2	0.0	0.2	0.1	0.2	-	0.3	0.3
Iron Sheets	0.6	2.0	0.4	3.0	0.1	3.1	0.3	5.0
Asbestos/Wood/Hardboard	0.4	0.2	2.3	0.8	0.1	0.5	3.3	1.6
Pole and Dagga	30.3	10.6	3.5	4.0	37.2	30.1	12.4	5.5
Grass	4.2	2.3	0.8	0.4	4.9	14.5	26.3	8.4
Other	1.1	0.9	0.2	0.4	0.7	6.2	39.3	64.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	100,021	974	5,240	13,816	78,644	193	574	580
<b>Urban</b>								
Burnt Bricks	8.6	18.3	6.2	14.3	2.6	22.8	6.0	2.0
Unburnt/Mud Bricks	20.3	9.4	8.0	23.3	58.5	7.9	35.6	2.3
Concrete Blocks/Slab	59.0	68.1	83.4	49.9	1.1	43.0	10.3	3.4
Stone	0.1	0.3	0.0	0.2	0.0	-	0.3	-
Iron Sheets	1.4	1.9	0.2	3.5	0.3	4.4	1.1	4.5
Asbestos/Wood/Hardboard	1.3	0.7	1.3	1.5	0.2	-	9.8	1.7
Pole and Dagga	7.6	0.7	0.7	6.8	34.3	16.7	22.2	2.0
Grass	0.4	0.3	0.0	0.1	2.1	2.6	2.9	2.2
Other	1.3	6.3	0.2	0.4	0.9	2.6	11.8	81.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	37,177	670	18,314	12,103	5,275	114	348	353

Concrete block/slab walls are most common in structures with roofs made of concrete/cement, asbestos and iron sheets. Unburnt/mud bricks and pole and dagga walls are common in housing structures with roofs made of grass/thatch or tiles. In rural areas, 40 percent of housing units have mud brick walls and 30.3 percent have pole and dagga walls. However, unburnt/mud-brick and pole and dagga walls are not the most common in houses with roofs made of concrete/cement, asbestos and iron sheets. In urban areas, concrete blocks/slab are the most commonly used materials for walls. They are used in 59 percent of houses. Proportions with concrete block/slab walls range from 1.1 percent for houses with grass roofs to 83.4 percent for houses with asbestos roofs. For houses with grass/thatched roofs, 58.5 percent have unburnt/mud brick walls and 34.3 percent have pole and dagga walls.



### Construction materials of Walls and Floors

Tables 11.5 and 11.6 show construction materials of walls and floors. The most commonly used material for floors as shown in Table 11.5 is mud used in 60.8 percent of the housing structures.

Table 11.5

Occupied Housing Units by Construction Material of Walls and Floors, (Percent), Southern Province, 1990

Construction Materials of Walls	Number of H/units	Total	Construction Material of Floor					
			Concrete/Cement	Mud	Wood (not Wooden Tile)	Marble	Other	Not Stated
Burnt Bricks	20,350	100.0	55.6	43.0	0.4	0.2	0.6	0.2
Unburnt/Mud Bricks	47,607	100.0	19.2	79.8	0.3	0.2	0.3	0.2
Concrete Blocks/Slab	27,918	100.0	96.6	1.6	1.2	0.2	0.2	0.2
Stone	196	100.0	23.0	69.4	1.0	1.0	3.6	2.0
Iron Sheets	1,089	100.0	59.7	34.3	0.8	0.2	4.7	0.3
Asbestos/Hardboard/Wood	846	100.0	58.5	33.1	3.5	0.4	3.8	0.7
Pole and Dagga	33,139	100.0	2.6	94.4	0.5	0.2	1.8	0.5
Grass	4,359	100.0	1.3	81.6	0.8	0.2	14.8	1.3
Other	1,694	100.0	7.3	36.1	0.5	0.4	16.6	39.1
Total	137,198	100.0	36.2	60.8	0.6	0.2	1.4	0.8

For housing units with concrete block/slab walls, the vast majority (96.6 percent) have concrete/cement floors and only 1.6 percent have mud floors. For housing units with concrete, iron, asbestos/wood/hardboard or burnt brick walls, proportions with concrete/cement floors are higher than those of mud floors. Wood and marble are not common materials for floors.

Table 11.6 shows that of the housing units with concrete/cement floors, 54.3 percent have concrete block/slab walls while stone, iron sheets, asbestos, wood, hardboard, pole and dagga are not common materials for walls in such housing units. Mud brick walls are the most common in housing structures with mud or marble floors. In houses with floors of wood, 41.5 percent have concrete block/slab walls; 22.8 percent with pole and dagga walls and 16 percent have unburnt/mud brick walls.

Table 11.6

Occupied Housing Units by Construction Material of Walls and Floors, (Percent), Southern Province, 1990

Construction Materials of Walls	Total	Construction Material of Floors					
		Concrete/Cement	Mud	Wood (not Wooden Tile)	Marble	Other	Not Stated
Burnt Bricks	14.8	22.8	10.5	9.5	14.6	5.9	4.4
Unburnt/Mud Bricks	34.8	18.4	45.5	16.0	29.7	7.2	9.7
Concrete Blocks/Slab	20.3	54.3	0.5	41.5	25.3	3.1	6.0
Stone	0.1	0.1	0.2	0.3	0.7	0.3	0.4
Iron Sheets	0.8	1.3	0.5	1.1	1.1	2.1	0.3
Asbestos/Hardboard/Wood	0.6	1.0	0.3	3.8	1.1	1.7	0.5
Pole and Dagga	24.2	1.8	37.5	22.8	20.9	30.9	13.8
Grass	3.2	0.1	4.3	4.0	4.4	33.5	5.2
Other	1.2	0.2	0.7	1.0	2.2	14.7	59.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	137,998	49,673	83,419	800	273	1,922	111
<b>Rural</b>							
Burnt Bricks	17.2	39.8	11.2	10.4	19.2	5.8	4.6
Unburnt/Mud Bricks	40.0	27.9	44.5	24.0	37.9	7.2	12.8
Concrete Blocks/Slab	6.0	26.7	0.3	14.2	4.9	0.5	2.0
Stone	0.2	0.1	0.2	0.4	1.0	0.4	0.6
Iron Sheets	0.6	1.6	0.3	1.3	1.5	1.4	0.3
Asbestos/Hardboard/Wood	0.4	0.9	0.2	2.9	-	0.8	0.7
Pole and Dagga	30.3	2.5	38.0	39.2	26.6	32.5	20.3
Grass	4.2	0.2	4.6	6.7	5.9	36.5	6.0
Other	1.1	0.3	0.7	0.9	3.0	14.9	52.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	100,021	21,269	75,656	450	203	1,727	716
<b>Urban</b>							
Burnt Bricks	8.6	10.0	3.4	8.3	1.4	6.2	4.1
Unburnt/Mud Bricks	20.3	11.3	55.3	5.7	5.7	7.2	4.1
Concrete Blocks/Slab	59.0	74.9	2.7	76.6	84.3	26.6	13.3
Stone	0.1	0.1	0.2	-	-	-	-
Iron Sheets	1.4	1.1	2.0	0.8	-	13.8	0.3
Asbestos/Hardboard/Wood	1.3	1.1	1.6	4.9	4.3	10.3	0.3
Pole and Dagga	7.6	1.2	32.1	1.7	4.3	16.4	2.0
Grass	0.4	0.1	1.4	0.9	-	6.7	3.5
Other	1.3	0.2	1.3	1.1	-	12.8	72.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	37,177	28,404	7,763	350	70	195	395

In both rural and urban areas, the most common building materials for walls in housing units with concrete/cement floors are burnt bricks, unburnt/mud bricks and concrete blocks/slab. In housing structures with floors of wood, proportions with pole and dagga walls are 39.2 percent and 1.7 percent, in rural and urban areas respectively. In those with marble floors, proportions with concrete block/slab walls are 4.9 and 84.3 percent in rural and urban areas respectively.

#### *Water Supply and Sanitation*

The availability of clean water supply for households helps to prevent the occurrence of water-borne diseases such as dysentery, cholera, diarrhoea and bilharzia. Piped water inside or outside housing unit and boreholes are among the sources of clean water supply.

The main sources of water supply in the province are presented in Table 11.7. The table shows that one third of the households draw water from wells/boreholes and 27.6 percent from rivers/streams. About 8 percent use piped water inside the housing unit, 18.1 percent use piped water outside the housing unit within 100 meters radius from the housing unit and 6.9 percent use piped water outside the housing unit beyond 100 meters radius.

Table 11.7

Households by Main Source of Water Supply, (Percent), Southern Province, 1980 and 1990

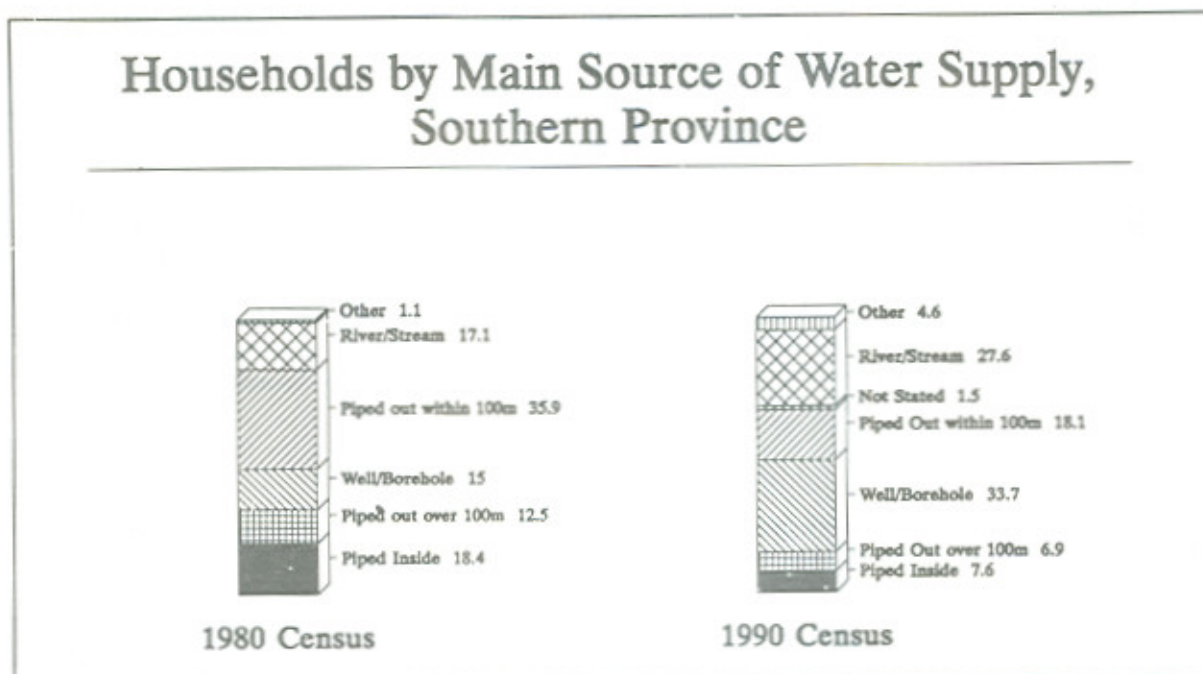
Main source of water supply	1980	Residence - 1990											
		Total	Rural	Urban	Choma	Gwembe	Kalomo	Livingstone	Mazabuka	Monze	Namwala	Siavonga	Sinazongwe
Piped water inside H/unit	18.4	7.6	1.7	23.3	6.7	2.5	2.4	25.2	9.5	4.2	3.3	6.3	6.7
Piped water outside H/unit	35.9	18.1	5.1	52.9	17.5	4.9	8.1	57.4	26.2	8.7	6.5	15.7	7.8
Piped Water Beyond 100m	12.5	6.9	4.5	13.3	6.0	1.4	3.5	9.7	9.3	7.3	2.9	21.6	6.4
Well/borehole	15.0	33.7	43.8	6.8	34.3	15.9	39.0	1.3	30.1	60.3	63.1	9.4	18.2
River/Stream	17.1	27.6	37.2	1.6	27.9	65.2	34.9	3.7	20.3	13.7	18.4	43.0	55.0
Other	1.1	4.6	6.2	0.5	6.4	9.0	7.1	0.5	3.0	4.2	3.7	3.4	4.4
Not Stated	-	1.5	1.5	1.6	1.2	1.1	1.0	2.2	1.6	1.6	2.1	0.6	1.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Household	144,579	137,911	100,389	37,522	23,814	5,707	23,934	14,591	23,622	17,453	12,464	5,870	10,456

The majority of rural households use water from well/boreholes (43.8 percent) or rivers/streams (37.2 percent) while the majority (52.9 percent) of their urban counterparts use piped water outside the housing unit within 100 meters radius from the housing unit. In urban areas, 6.8 percent and 1.6 percent of the households depend on well/boreholes and rivers/streams, respectively. In Choma, Kalomo, Mazabuka, Monze and Namwala, the majority use the well/borehole as a source of water supply. Rivers/streams are the most common sources of water supply in Gwembe, Siavonga and Sinazongwe. Piped water outside the housing unit is the most common source of water in Livingstone.

Figure 11.3 shows the proportional changes of source of water supply between 1980 and 1990. The proportion using piped water (inside and outside the housing unit together) dropped from 66.8 percent in 1980 to 31.8 percent in 1990. Those using the well/borehole increased from 15 percent in 1980 to 33.7 percent in 1990. Proportions of those drawing water from rivers/streams were 17.1 percent in 1980, and 27.6 percent in 1990.



Figure 11.3



Households drawing water from rivers, streams or wells in areas where pit latrines are common could be vulnerable to various forms of water borne diseases. Seepage containing germs from pit latrines could contaminate water in rivers, streams or wells.

Table 11.8 shows the types of toilet facilities in Southern Province. The types of toilet facilities used include the flush toilets, buckets, aqua-privy and pit latrines. About 60 percent of the households in the province use "other" toilet facilities. These may include the bush. Pit latrines are used by 24.3 percent of households. Bucket and aqua-privy are not common toilet facilities in the province. Flush toilets are used by 14.2 percent of the households. In rural areas, "other" toilet facilities are the most common, used by 77.3 percent of rural households. In urban areas, the largest proportion (46 percent) of housing units use flush toilets, followed by those using pit latrines (38.9 percent).

Table 11.8

Households by Type of Toilet and Residence (Percent), Southern Province, 1990

Type of Toilet	Residence - 1990											
	Total	Rural	Urban	Choma	Gweru	Kabomo	Lusaka	Manabuku	Monze	Namwala	Siavonga	Stutterheim
Flush	14.2	2.3	46.0	8.5	3.0	3.2	68.1	14.3	6.2	5.3	11.8	8.3
Bucket	0.3	0.1	1.0	0.1	0.0	0.1	2.5	0.1	0.0	0.0	-	0.1
Aqua-Privy	0.5	0.1	1.7	0.6	0.0	0.1	0.3	1.4	1.2	0.1	0.0	0.0
Pit Latrine	24.3	18.8	38.9	37.4	8.7	22.8	15.5	33.6	22.7	20.0	13.2	11.8
Other	59.3	77.3	11.0	52.1	87.3	72.8	12.1	49.2	67.9	73.0	73.9	78.9
Not Stated	1.4	1.4	1.4	1.3	1.0	1.1	1.5	1.4	2.0	1.6	1.1	0.9
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Households	137,911	100,389	37,522	23,814	5,707	23,934	14,591	23,622	17,453	12,464	5,870	10,456

In Livingstone, unlike the rest of the districts in the province, the majority use flush toilets. Proportions using "other" toilet facilities range from 12.1 percent in Livingstone to 87.3 percent in Gwembe. Proportions of households using pit latrines range from 8.7 percent in Gwembe to 37.4 percent in Choma. In all the districts, buckets and aqua privy are uncommon toilet facilities.

### Domestic Energy

Sources of energy for cooking and lighting are shown in Table 11.9 and 11.11 respectively. Table 11.9 shows that the main sources of cooking energy include electricity, gas, paraffin, wood, charcoal and coal. About 80 percent of households in the province used wood for cooking. Gas and coal are not common sources of cooking energy. Electricity, paraffin and charcoal are used in 7.1, 2.1 and 9.5 percent of households respectively. In both rural and urban areas, the largest proportions of households use wood for cooking but proportion vary considerably. Electricity is used by 1.1 percent of rural households and 23.3 percent of their urban counterparts. Charcoal is used by 1.5 percent of households in rural areas while in urban areas it is used by 31.1 percent.

Table 11.9

Households by Main Source of Energy used for Cooking and Type of Occupied Housing Unit, (Percent), Southern Province, 1990

Main source of Energy for cooking	Total	Residence		Districts								
		Rural	Urban	Choma	Gwembe	Kalomo	Livingstone	Marabuka	Monze	Namwala	Siavonga	Siiaazongwe
Electricity	7.1	1.1	23.3	5.3	1.1	1.4	29.8	8.0	4.4	2.2	5.4	5.0
Gas	0.4	0.2	0.7	0.5	0.4	0.3	0.5	0.5	0.2	0.3	0.3	0.2
Paraffin	2.1	1.8	3.1	1.9	1.0	1.7	2.6	3.6	1.8	1.9	1.6	1.5
Wood	79.6	94.1	40.9	79.5	94.8	93.1	46.0	70.6	82.2	90.3	87.0	87.0
Charcoal	9.5	1.5	31.1	12.2	1.5	3.1	20.0	15.5	10.0	2.0	5.1	5.2
Coal	0.1	0.0	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.3
Other	0.6	0.8	0.0	0.1	0.7	0.1	-	1.0	0.8	2.6	0.0	0.3
Not Stated	0.6	0.5	0.7	0.5	0.5	0.3	1.0	0.7	0.5	0.7	0.6	0.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total households	137,910	100,388	37,522	23,814	5,705	23,934	14,591	23,622	17,453	12,463	5,810	10,456

A comparison of the districts shows that proportions within the districts using electricity range from 1.1 percent in Gwembe to 29.8 percent in Livingstone, while those using wood range from 46 percent in Livingstone to 94.8 percent in Gwembe. Gas, coal and paraffin are not common sources of cooking energy in all districts.

Table 11.10 shows that the proportional changes of cooking energy sources between 1980 and 1990. The proportion of households using electricity for cooking declined 14.8 to 7.1 percent between the intercensal period. That of households using gas and kerosene also declined while the proportion using wood charcoal and coal increased from 78.7 to 89.2 percent. During the 1980 census, wood, charcoal and coal were combined; gas and paraffin (kerosene) too, were combined, unlike in the 1990 census. For comparative purposes, the energy sources from the 1990 Census have also been combined in Table 11.10. However, the separate sources are as shown in Table 11.9.



Table 11.10

Households by Main Source of Energy for Cooking, (Percent), Southern Province, 1980 and 1990

Energy Source	1980	1990
Electricity	14.8	7.1
Gas and Kerosene (paraffin)	5.8	2.5
Wood, Charcoal, Coal	78.7	89.2
Other	0.7	0.6
Not stated		0.6
Total	100.0	100.0
Households	144,579	137,910

Lighting energy sources are shown in Table 11.11. The table shows that in the large majority (78.9 percent) of housing units, kerosene (paraffin) is used for lighting purposes. Electricity is used in 11.6 percent of the housing units. In 6.9 percent of the housing units, "other" energy sources are used for lighting. These other sources may include wood, batteries and diesel. Gas and candle are not very common sources of lighting energy. There are disparities between rural and urban areas as regards main sources of lighting energy. In rural areas, electricity is used in 2.5 percent of housing units and in 36.3 percent in urban areas. The largest proportions in both rural and urban areas use kerosene (paraffin), although the degree to which it is used, varies. Paraffin (kerosene) is more common in rural than urban areas. Gas is slightly more common in urban than rural areas.

Table 11.11

Housing Units by Main Source of Energy Used for Lighting, (Percent), Southern Province, 1990

Main source of energy for lighting	Total	Rural	Urban	Districts								
				Choma	Gwembe	Kalomo	Livingstone	Mazabuka	Monze	Namwala	Siavonga	Sinazongwe
Electricity	11.6	2.5	36.3	9.2	3.0	2.3	46.0	13.3	7.6	5.5	8.9	7.6
Gas	0.8	0.6	1.3	1.0	0.4	0.7	0.8	1.1	0.6	0.5	0.7	0.4
Paraffin	78.9	86.3	59.1	85.9	67.7	89.9	50.6	79.5	86.6	84.9	78.4	62.6
Candle	1.0	0.6	2.0	0.7	0.8	0.6	1.1	1.6	0.9	1.3	0.5	1.0
Other	6.9	9.2	0.5	2.5	27.4	6.0	0.5	3.7	3.2	6.9	10.7	27.7
Not Stated	0.8	0.8	0.8	0.7	0.7	0.5	1.0	0.8	1.1	0.9	0.8	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number H/units	137,198	100,021	37,177	23,755	5,698	23,691	14,520	23,410	17,389	12,435	5,859	10,441

The proportions of housing units in which electricity is used range from 2.3 percent in Kalomo to 46.0 in Livingstone, while those using gas range from 0.4 percent in Gwembe and Sinazongwe to 1.1 percent in Mazabuka. Livingstone has the smallest proportion using paraffin (50.6 percent) while Kalomo has the highest with 89.9 percent.



## 11.4 OWNERSHIP STATUS OF HOUSING UNITS

The ownership status of housing units of Southern Province is shown in Table 11.12. The table shows that close to four-fifths of the housing structures are owned by individuals. The central government owns 5.6 percent, 6.7 percent by the district council, 5.4 by parastatal organisations and 3.1 percent by private organisations.

Table 11.12

Occupied Housing Units by Ownership Status and District, (Percent), Southern Province, 1990

Ownership Status	Total	Rural	Urban	Districts								
				Choma	Gwembe	Kalomo	L/stone	Mazabuka	Monze	Namwala	Siavonga	Sinarongwe
Central Govt.	5.6	3.4	11.2	6.3	4.0	3.8	10.8	5.1	5.8	4.9	4.9	3.4
District Council	6.7	0.4	23.7	5.1	3.2	2.3	35.9	4.2	4.3	1.9	0.7	0.4
Parastatal	5.4	1.4	16.0	2.2	0.5	1.3	9.5	14.9	1.3	1.7	6.7	7.3
Private Org.	3.1	2.9	4.0	4.0	0.5	1.7	3.8	7.0	1.9	0.9	0.9	2.2
Individual	78.2	90.9	44.0	81.9	91.3	90.2	38.5	67.7	85.8	89.4	85.5	85.0
Not Stated	1.0	1.0	1.1	0.8	0.5	0.7	1.5	1.1	0.9	1.2	1.3	1.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	137,198	100,021	37,177	23,755	5,698	23,691	14,520	23,410	17,389	12,435	5,859	10,441

In rural and urban areas, proportions of houses owned by individuals are 90.9 and 44 percent, respectively. While the district council owns 0.4 percent of houses in rural areas, it owns 23.7 percent in urban areas. A comparison of the districts shows that proportions of housing units owned by individuals range from 38.5 percent in Livingstone to 91.3 percent in Gwembe. In Livingstone, over one third of houses are owned by the district council while in each of the remaining districts, the district council owns between 0.4 and 5.1 percent. The central government owns between 3.4 and 10.8 percent in individual districts. Mazabuka has the largest proportion of houses owned by private organisations with 7 percent.

Table 11.13 presents data on households that occupy rented housing units. Out of 137,911 households in the province, 21,140 occupy rented housing units. The district council is the most common landlord in the province, renting out 27.6 percent of the rented housing units followed by individuals who rent out 23.7 percent. Private organisations rent out 6.1 percent and 4.1 percent of the households have not stated their landlord.

Table 11.13

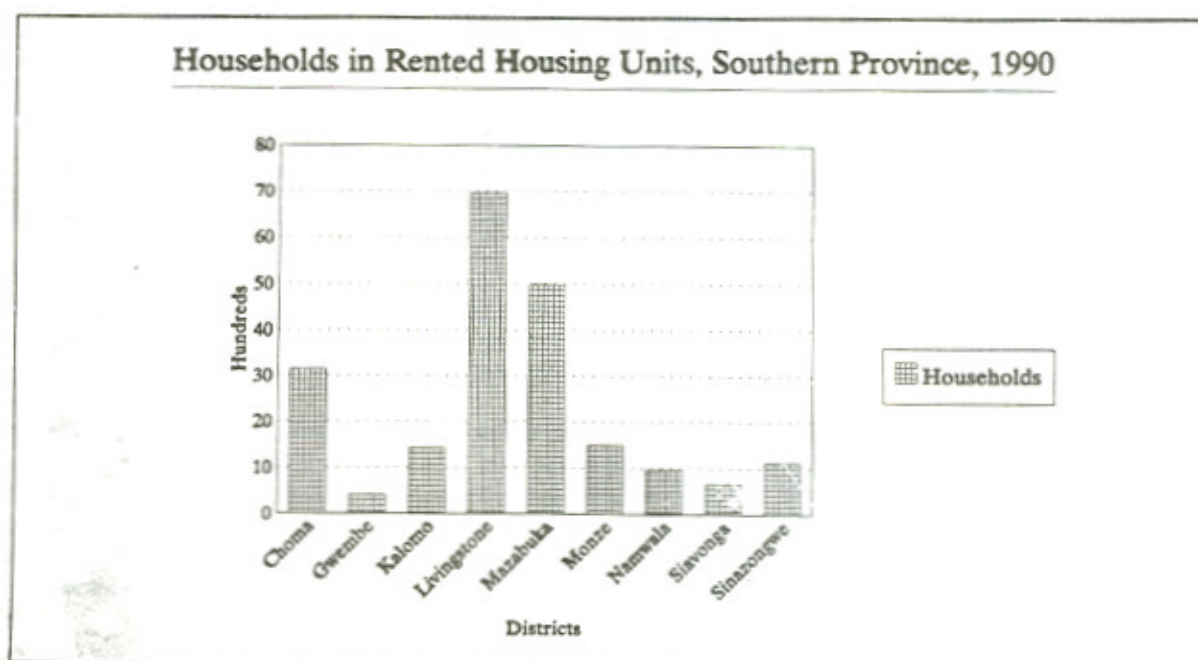
Households in Rented Housing Units by Residence and Ownership, (Percent), Southern Province, 1990

Residence	Landlord						
	Number of H/holds	Percentage Total	Central Government	District Council	Parastatal	Private Organisation	Individual
Southern Province - Total	21,140	100.0	19.0	27.6	19.5	6.1	23.7
- Rural	4,505	100.0	36.8	3.4	13.5	13.2	27.5
- Urban	16,635	100.0	14.1	34.2	21.2	4.2	22.6
Districts							
Choma	3,138	100.0	21.4	20.7	5.7	10.2	37.2
Gwembe	404	100.0	32.9	16.6	2.0	1.5	44.0
Kalomo	1,421	100.0	24.9	22.7	7.1	4.7	34.5
Livingstone	6,960	100.0	10.0	50.7	8.6	4.1	23.2
Mazabuka	4,972	100.0	18.4	13.1	45.3	6.9	11.8
Monze	1,493	100.0	34.7	21.2	5.9	8.4	26.1
Namwala	969	100.0	31.1	26.9	16.2	2.7	19.1
Siavonga	659	100.0	27.9	3.5	35.6	1.7	27.5
Sinazongwe	1,119	100.0	21.1	1.6	45.4	10.0	18.5

In rural areas, the largest landlord is the central government renting of 36.8 percent of the housing structures while in urban areas, the largest is the district council renting out 34.2 percent. In Choma, Gwembe and Kalomo, individuals are the largest landlords renting out 37.2, 44.0 and 34.5 percent of housing structures in each district. In Mazabuka, Siavonga and Sinazongwe, parastatal organisations are the most common landlords. In Monze and Namwala, the central government is the largest landlord while in Livingstone, the district council rents out the largest proportion.

Figure 11.4 shows households occupying rented housing units. In Livingstone, about 7,000 households occupy rented housing units compared to 400 in Gwembe. Like Gwembe, less than 1,000 households in Namwala and Siavonga occupy rented housing units.

Figure 11.4



## 11.5 HOUSEHOLD SIZE AND COMPOSITION

### *Household Size*

Table 11.14 shows the percentage distribution of households by sex of household head, household size and district. In Southern Province, there are 119,542 male and 18,377 female headed households. In all the districts, male headed households out-number female headed ones.

Table 11.14

Households by Size and Sex of Head, (Percent), Southern Province, 1990

Sex of Household Head and District	Number of H/units	Total	Household Size									
			1	2	3	4	5	6	7	8	9	10+
<b>Southern</b>												
Male	119,542	100.0	6.2	7.8	9.7	10.8	10.8	10.3	9.3	8.0	6.3	20.8
Female	18,377	100.0	12.7	12.0	13.2	13.3	11.5	9.8	7.7	5.9	4.1	9.8
<b>Choma</b>												
Male	20,755	100.0	5.7	7.0	9.0	10.2	10.5	10.3	9.6	8.1	6.6	23.0
Female	3,056	100.0	11.9	12.0	12.1	13.2	11.6	10.8	7.2	6.0	5.0	10.2
<b>Gwembe</b>												
Male	5,068	100.0	5.6	7.8	10.7	12.3	12.7	10.4	9.9	7.6	5.7	17.3
Female	639	100.0	13.2	13.9	15.5	15.2	12.5	8.6	6.7	5.2	2.5	6.7
<b>Kalomo</b>												
Male	20,745	100.0	5.2	7.7	9.6	10.8	10.4	10.5	9.3	8.0	6.8	22.2
Female	3,191	100.0	11.7	12.0	12.7	13.7	11.9	10.5	8.1	5.8	3.8	9.8
<b>Livingstone</b>												
Male	12,336	100.0	7.5	9.8	10.8	11.1	10.9	11.0	10.0	8.7	6.6	13.6
Female	2,256	100.0	13.4	13.2	14.3	12.8	12.7	9.1	7.7	6.2	3.6	7.0
<b>Mazabuka</b>												
Male	20,853	100.0	7.0	8.1	9.5	10.9	10.7	10.3	8.9	8.2	6.2	20.2
Female	2,770	100.0	10.5	9.4	12.7	12.6	10.5	9.7	8.6	6.9	5.4	13.7
<b>Monze</b>												
Male	14,743	100.0	5.5	6.1	8.4	9.6	10.1	10.1	8.9	8.0	6.7	26.6
Female	2,711	100.0	9.9	10.8	13.2	13.2	12.2	10.3	8.3	6.9	4.1	11.1
<b>Namwala</b>												
Male	10,880	100.0	7.5	9.1	9.2	10.3	10.2	9.4	8.3	7.3	6.3	22.4
Female	1,578	100.0	20.0	13.9	11.9	13.0	10.4	8.4	6.3	3.7	3.5	8.9
<b>Siavonga</b>												
Male	5,038	100.0	6.0	7.9	11.0	11.8	13.0	11.0	10.3	7.5	6.4	15.1
Female	833	100.0	16.1	11.8	14.5	13.9	10.7	8.8	7.9	6.0	3.2	7.1
<b>Sinazongwe</b>												
Male	9,124	100.0	6.4	8.3	11.5	11.9	11.9	10.2	9.1	7.6	5.8	17.3
Female	1,334	100.0	14.8	14.6	15.7	14.8	10.0	9.2	7.1	4.0	3.0	6.8

For households with five members or less, proportions in male headed households are smaller than those in their female counterparts. For larger households, however, the opposite holds true. In all the districts, as in the province as a whole, male headed households tend to be larger than female headed ones.

The average household sizes for the province, as well as the districts are shown in Table 11.15. The table shows that the average household size increased from 5.8 in 1980 to 6.6 in 1990. In rural and urban areas it was 5.9 and 5.6 in 1980, 6.9 and 5.7 in 1990, respectively. The average household size for female headed households increased marginally (from 5.0 to 5.1) during the intercensal period. That of males increased from 6.1 to 6.8. Among the districts, Livingstone has the smallest average household size of 5.7 while Monze has the largest with 7.2. The respective average household sizes for male and female headed households are 6.8 and 5.1.



Table 11.15

Average Household Size by Residence and Sex of Head, Southern Province, 1980 and 1990

Sex of Household Head and Residence	1980	1990
<b>Southern Province</b>		
Total	5.8	6.6
Male	6.1	6.8
Female	5.0	5.1
Rural	5.9	6.9
Urban	5.6	5.7
<b>Districts</b>		
Choma	-	6.8
Gwenbe	-	6.2
Kalomo	-	6.8
Livingstone	-	5.7
Mazabuka	-	6.6
Monze	-	7.2
Namwala	-	6.7
Siavonga	-	5.9
Sinazongwe	-	6.1

Table 11.16 shows that the proportion of one-member households has decreased from 12.9 in 1980 to 7.1 percent in 1990. That of at least seven members has increased from 37.2 to 42.1 percent. There has been slight changes for households with 2-3 and 4-6 member in the 1980-90 intercensal period.

Table 11.16

Household Size, (Percent), Southern Province, 1980 and 1990

Number of Household Members	1980	1990
1	12.9	7.1
2-3	19.6	18.5
4-6	30.3	32.3
7+	37.2	42.1
Total	100.0	100.0
Number of Households	144,579	137,910

### Household Composition

In this report, household composition is described in terms of marital status, level of education of household heads, number of economically active household members, relationship of household members to head of household and the presence of children below the age of 12 years.

### Marital Status of Household Heads

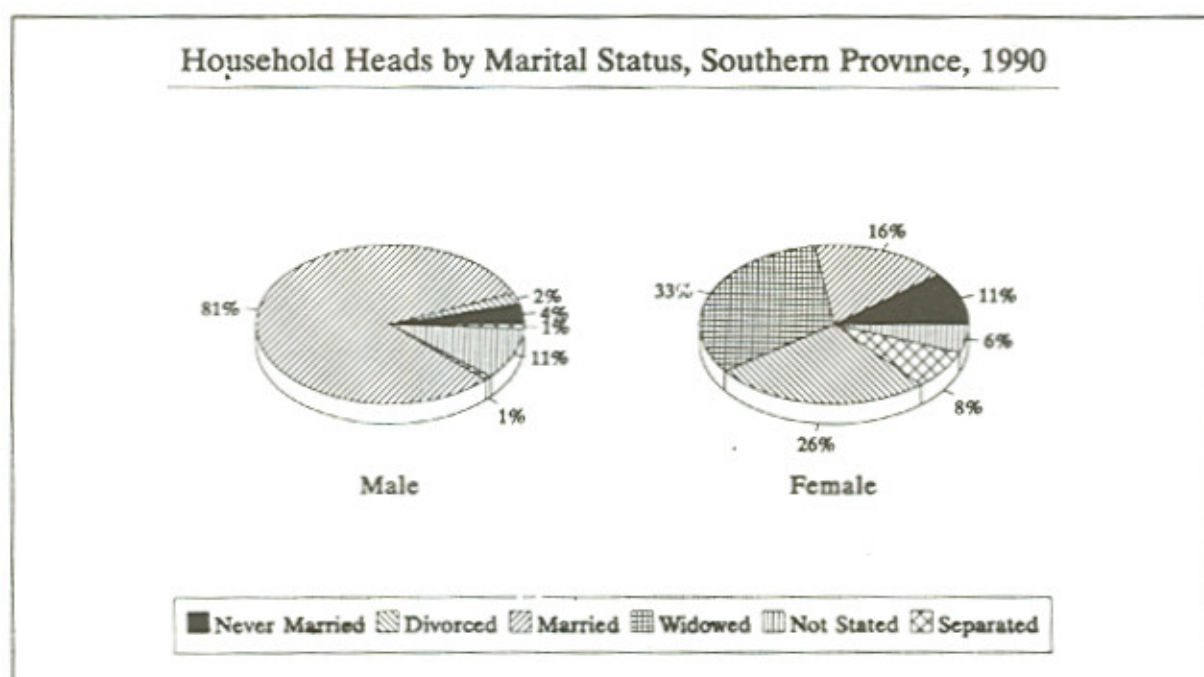
Table 11.17 shows the marital status of heads of households by sex. The table as well as Figure 11.5 show that the majority (81.3 percent) of male heads of households are married while the largest proportion (32.7 percent) of their female counterparts are widowed. The widowed and divorced male heads of households together make up 3.1 percent while their female counterparts are concentrated in these categories (59 percent). Less than 1 percent of male heads of households are separated from their spouses while 7.9 percent of females are in this category.

Table 11.17

Household Heads by Marital Status, Sex and Residence, (Percent), Southern Province, 1990

Marital Status	Southern Province		Rural		Urban	
	Male	Female	Male	Female	Male	Female
Never Married	4.2	11.0	2.9	6.5	7.8	20.8
Married	81.3	16.3	81.1	17.7	81.6	13.2
Widowed	0.9	32.7	0.8	37.7	1.1	21.9
Divorced	2.2	26.3	2.0	23.9	3.0	31.6
Separated	0.9	7.9	0.8	7.8	1.0	8.1
Not Stated	10.5	5.8	12.4	6.4	5.5	4.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of H/Holds	119,542	18,377	87,845	12,553	31,697	5,824

Figure 11.5



In both rural and urban areas, the majority of male heads of households are married. Proportions of the never married are lower for males than females in both rural and urban areas. Very low proportions comprise the widowed, divorced and separated male heads of households as compared to the females.

Table 11.18 shows the percentage distribution of household heads by age, sex and marital status. The table shows that at age group 12-14 years for males and 12-29 for females the majority of heads of households have never been married. From age group 15-19 years upwards, the majority of male heads of households are married. For females, large proportions are in the widowed and divorced categories after age 29 years.

Table 11.18

## Households Heads by Marital Status, Age and Sex, (Percent), Southern Province, 1990

Age of Household Head	Number of household heads		Marital Status and Sex of Household Head													
			Percentage Total		Never Married		Married		Widowed		Divorced		Separated		Not Stated	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
12-14	15	14	100.0	100.0	53.3	85.7	40.0	14.3	-	-	-	-	-	-	6.7	-
15-19	555	146	100.0	100.0	46.1	61.6	48.1	21.9	-	1.4	0.5	7.5	0.2	4.8	5.1	2.8
20-24	8,298	933	100.0	100.0	17.2	54.3	74.9	2.4	0.1	4.6	0.7	10.9	0.5	5.8	6.6	4.0
25-29	17,378	1,551	100.0	100.0	8.7	37.6	82.3	2.0	0.2	5.4	1.1	23.3	0.4	8.6	7.5	4.2
30-34	19,650	1,831	100.0	100.0	3.8	17.7	84.6	21.5	0.3	11.2	1.8	33.3	0.7	11.1	8.8	5.2
35-39	13,337	1,583	100.0	100.0	2.1	8.6	84.8	22.0	0.5	15.9	2.1	38.1	0.8	9.9	9.7	5.5
40-44	12,437	1,998	100.0	100.0	1.7	4.1	83.5	22.5	0.7	23.8	2.4	32.5	1.0	9.9	10.7	7.2
45-49	11,666	1,901	100.0	100.0	1.3	3.5	81.8	18.0	0.9	30.4	2.8	32.3	1.1	9.4	12.3	6.4
50-54	10,464	2,279	100.0	100.0	1.2	2.4	80.4	14.3	1.1	41.1	2.8	28.6	0.8	7.1	13.7	6.5
55-59	8,570	1,808	100.0	100.0	0.9	1.9	80.5	10.8	1.3	48.7	2.7	24.3	1.1	7.3	13.5	7.0
60-64	6,675	1,705	100.0	100.0	1.2	2.8	77.8	10.4	2.0	52.7	3.2	22.5	1.4	6.4	14.4	5.2
65+	11,070	2,611	100.0	100.0	1.4	3.2	76.8	7.9	3.7	63.1	3.8	15.9	1.4	4.8	12.9	5.1
Not Stated	27	17	100.0	100.0	7.4	5.9	3.7	-	-	5.9	-	-	3.7	-	85.2	88.2
Total	119,542	18,377	100.0	100.0	4.2	11.0	51.3	16.2	0.9	32.7	2.2	26.4	0.9	7.9	10.5	5.8

*Educational level of household heads*

Table 11.19 shows the completed levels of education by heads of households. Out of 137,919 heads of households in the province, 34.1 percent have not attended formal schooling, 39.7 percent have only completed primary education while 23.1 and 0.3 percent have completed secondary and higher education levels, respectively. The proportion of those who did not state their completed level of education is 2.8 percent. In rural areas, the largest proportion (42.4 percent) comprises those who have completed primary level while in urban areas, the largest (45.1 percent) have completed secondary education.

Table 11.19

## Household Heads by Level of Education Completed, (Percent), Southern Province, 1990

Residence	Number of Heads	Percent age Total	Level of education				
			No Schooling	Primary	Secondary	Higher	Not Stated
<b>Southern</b>							
Total	137,919	100.0	34.1	39.7	23.1	0.3	2.8
Rural	100,398	100.0	39.8	42.4	14.8	0.2	2.8
Urban	37,521	100.0	18.8	32.6	45.1	0.7	2.8
<b>Sex of Head</b>							
Male	119,542	100.0	30.9	41.9	24.1	0.3	2.8
Female	18,377	100.0	55.1	25.4	16.5	0.2	2.8
<b>Districts</b>							
Choma	23,811	100.0	30.0	43.6	23.8	0.4	2.2
Gwembe	5,707	100.0	51.6	34.3	12.1	0.2	1.8
Kalomo	23,936	100.0	37.4	44.0	16.1	0.2	2.3
Livingstone	14,592	100.0	16.8	34.0	46.2	0.8	2.2
Mazabuka	23,623	100.0	30.6	40.7	24.8	0.4	3.5
Monze	17,454	100.0	30.7	42.7	22.9	0.2	3.5
Namwala	12,467	100.0	42.8	36.5	16.1	0.1	4.5
Siavonga	5,871	100.0	46.0	34.6	16.4	0.2	2.8
Sinazongwe	10,458	100.0	46.9	31.4	19.5	0.3	1.9



The majority of male (41.9 percent) and female (55.1 percent) heads of households have completed primary and no level of education, respectively. A comparison of districts reveals that Gwembe has the largest proportion of household heads who have never had any formal schooling (51.6 percent) while Livingstone has the least with 16.8 percent. Proportions of heads who have completed a higher level of education range from 0.1 in Namwala to 0.8 percent in Livingstone.

#### *Usually Economically Active*

Table 11.20 shows that in 13 percent of the households in the province there are no economically active members. In 45.5 percent of the households, there is only one economically active member. In 4.1 percent, there are at least six such members. Of the households with at least seven members, 8.8 percent have no economically active member and 32 percent have one such member.

**Table 11.20**

**Households by Size and Number of Members Economically Active, (Percent), Southern Province, 1990**

Residence and Household Size	Households	Percentage Total	Members usually economically active						
			0	1	2	3	4	5	6+
<b>Southern Province</b>									
Total	137,919	100.0	13.0	45.5	20.3	9.3	5.0	2.8	4.1
1-2	21,370	100.0	22.2	64.6	13.2	-	-	-	-
3-4	29,282	100.0	15.6	55.4	21.0	6.5	1.5	-	-
5-6	29,167	100.0	12.2	48.4	23.5	9.6	3.9	1.9	0.5
7+	58,100	100.0	8.8	32.0	20.9	14.1	9.2	5.6	9.4
<b>Rural</b>									
Total	100,398	100.0	14.8	41.7	19.6	9.8	5.6	3.3	5.2
1-2	14,328	100.0	26.0	61.4	12.6	-	-	-	-
3-4	20,824	100.0	18.1	52.2	21.7	6.5	1.5	-	-
5-6	21,011	100.0	14.2	45.5	23.4	10.2	4.4	1.9	0.4
7+	44,235	100.0	9.8	28.7	19.1	14.4	10.0	6.5	11.5
<b>Urban</b>									
Total	37,521	100.0	8.4	55.5	22.1	8.1	3.2	1.5	1.2
1-2	7,042	100.0	14.6	71.1	14.3	-	-	-	-
3-4	8,458	100.0	9.4	63.4	19.4	6.3	1.5	-	-
5-6	8,156	100.0	7.1	56.0	23.7	8.0	2.8	1.7	0.7
7+	13,865	100.0	5.4	42.6	26.6	13.3	6.4	2.9	2.8

There are disparities between rural and urban areas as regards economically active members of households. In rural areas, there are larger proportions of households without an economically active members as compared to urban areas. Proportions are large for households with at least three economically active members in rural compared to urban areas.

#### *Relationship to household head*

The relationship of household members to household heads is displayed in Table 11.21. Out of 107,232 household heads with spouses, 85.3 percent are in monogamous unions. In 10.7 percent, there are two spouses, in 2.8 percent, three spouses and at least 4 spouses in 1.2 percent. Of the 111,208 households in which there are the household head's own sons or daughters, the largest proportion (30.2 percent) have at least six such persons. The majority of household heads (51.8 percent) only keep one step son or daughter in each household.

Table 11.21

Households by Relationship to Household Head and Number of Persons, (Percent), Southern Province, 1990

Relationship to Head and Residence	Number of Households	Total	Number of Persons					
			1	2	3	4	5	6+
<b>Southern Total</b>								
Spouse	107,232	100.0	85.3	10.7	2.8	0.8	0.2	0.2
Own son/daughter	111,208	100.0	15.8	16.0	14.3	12.8	10.9	30.2
Step son/daughter	9,321	100.0	51.8	21.8	11.2	5.8	3.7	5.7
Other relations	66,881	100.0	37.3	22.0	13.4	8.6	5.7	13.0
Unrelated	6,208	100.0	60.2	18.4	8.1	4.9	2.6	5.8
Not stated	811	100.0	59.7	12.3	6.0	4.2	3.2	14.6
<b>Rural</b>								
Spouse	80,627	100.0	81.9	13.2	3.6	1.1	0.3	0.2
Own son/daughter	82,715	100.0	15.3	15.5	4.0	12.5	10.7	32.0
Step son/daughter	7,788	100.0	51.2	21.9	11.2	6.0	3.8	5.9
Other relations	48,166	100.0	35.6	21.1	13.2	8.7	6.0	15.4
Unrelated	4,414	100.0	60.9	19.7	8.1	4.3	1.7	5.3
Not stated	629	100.0	61.5	12.1	5.7	4.0	3.0	13.7
<b>Urban</b>								
Spouse	26,605	100.0	96.4	3.1	0.4	0.1	0.0	0.0
Own son/daughter	28,493	100.0	17.4	17.5	15.2	13.7	11.4	24.8
Step son/daughter	1,533	100.0	55.1	21.4	11.4	5.0	2.6	4.5
Other relations	18,715	100.0	41.4	24.9	13.8	8.2	4.9	6.8
Unrelated	1,794	100.0	58.5	15.4	8.0	6.3	4.7	7.1
Not Stated	182	100.0	53.3	13.2	7.1	5.0	3.8	17.6

Rural areas of the province portray a similar picture to that of the province at large. In urban areas, the proportion of household heads in monogamous unions is higher than in rural areas. In 3.1 percent of the urban households there are two spouses while a negligible proportion has at least five spouses.

#### *Children Below 12 years of Age*

Table 11.22 shows that proportions of male headed households with none or one member below the age of 12 are lower than those of female headed ones. For households with 2 or more children below the age of 12 years, proportions are higher for male than female headed households. There are no major variations between rural and urban areas as regards the presence of children below the age of 12 years in a household.

Table 11.22

Households by Sex of Heads and Number of Members Below 12 Years of Age, (Percent), Southern Province, 1990

Sex of Household Head and Residence	Number of Households	Members below 12 years of age					
		Total	0	1	2	3	4+
<b>Southern Province</b>							
Male	119,542	100.0	21.2	14.7	16.5	15.6	32.0
Female	18,377	100.0	31.0	20.5	18.0	13.7	16.8
<b>Rural</b>							
Male	87,845	100.0	19.3	14.4	16.2	15.6	34.5
Female	12,553	100.0	30.6	19.8	17.3	13.7	18.6
<b>Urban</b>							
Male	31,697	100.0	26.4	15.6	17.4	15.7	24.9
Female	5,824	100.0	31.9	22.1	19.5	13.6	12.9
<b>District</b>							
<b>Choma</b>							
Male	20,755	100.0	18.4	14.1	16.2	16.1	35.2
Female	3,056	100.0	30.6	20.1	18.3	13.7	17.3
<b>Gwembe</b>							
Male	5,068	100.0	17.6	14.9	18.3	16.8	32.4
Female	639	100.0	28.9	20.0	17.4	15.2	18.5
<b>Kalomo</b>							
Male	20,745	100.0	20.0	14.7	16.3	15.4	33.6
Female	3,191	100.0	30.4	20.9	17.6	13.3	17.8
<b>Livingstone</b>							
Male	12,336	100.0	26.9	16.6	17.8	15.7	23.0
Female	2,256	100.0	32.4	22.3	20.8	13.3	11.2
<b>Mazabuka</b>							
Male	20,853	100.0	23.5	14.0	16.2	15.5	30.8
Female	2,770	100.0	27.8	19.0	17.9	15.1	20.2
<b>Monze</b>							
Male	14,743	100.0	17.6	13.9	15.9	15.4	37.2
Female	2,711	100.0	28.0	20.7	18.2	14.3	18.8
<b>Namwala</b>							
Male	10,880	100.0	23.7	14.2	15.7	14.2	32.2
Female	1,587	100.0	36.8	20.0	15.2	12.8	15.2
<b>Siavonga</b>							
Male	5,038	100.0	20.7	16.7	17.2	17.7	27.7
Female	833	100.0	34.4	20.3	17.5	13.1	14.7
<b>Sinazongwe</b>							
Male	9,124	100.0	21.9	16.2	17.4	15.3	29.2
Female	1,334	100.0	36.4	21.5	17.0	11.5	13.6

## 11.6 SUMMARY

In Southern Province, households are concentrated in two or three roomed housing units. The most common construction materials are grass, unburnt/mud bricks and mud for roofs, walls and floors, respectively.

Wells/boreholes are the most common sources of water supply in the province. They are used by 33.7 percent of households. Toilet facilities in the "other" category are the most commonly used (59.3 percent). The main sources of energy used for cooking and lighting are wood and paraffin used by 80 percent of households and in 79 percent of housing units, respectively.

Over three-quarters of housing units are owned by individuals. The smallest proportion (3.1 percent) is owned by private organisations. Although individuals, own the largest proportion of housing units, they rent out the second largest proportion after the district council.



Male headed households out-number female headed households. Female household heads are concentrated in the widowed (33 percent) and divorced (76 percent) categories while most of their male counterparts are married (81 percent). The vast majority of household heads have either had no formal education (34 percent) or have only completed primary education (40 percent).

## REFERENCES

- Agriculture, Ministry (1994): 1989/90 Agriculture Statistics Bulletin, Statistics Section, Planning Division. Printed by Central Statistical Office, P.O. Box 31908, Lusaka, Zambia.
- Bureau of the Census (1979): Popstat: "A Case Study for the 1980 Censuses of Population and Housing, Part E" Washington D.C. USA.
- Central Statistical Office (1989): "Surveys on Economically Active Population, Employment, Unemployment: A manual on Concepts and Methods", Paper presented at ILO Conference, Geneva, Switzerland.
- Central Statistical Office (1973): Census of Population and Housing 1969, Final Report Vol II (a): Central Province, P.O. Box 31908, Lusaka, Printed by Government Printers, Lusaka, Zambia.
- Central Statistical Office (1973): Census of Population and Housing 1969, Final Report, Vol. I: Total Zambia, P.O. Box 31908, Lusaka, Printed by the Government Printers, Lusaka, Zambia.
- Central Statistical Office (1984): Selected Socio-Economic Indicators, P.O. Box 31908, Lusaka, Printed by the Government Printers, Lusaka, Zambia.
- Central Statistical Office (1985): 1980 Population and Housing Census of Zambia Vol 1, "Administrative Report", P.O. Box 31908, Lusaka, Printed by the Government Printers, Lusaka, Zambia.
- Central Statistical Office (1985): 1980 Population and Housing Census of Zambia, Analytical Report, Vol II, "Demographic and Socio-Economic Characteristics of Zambia Population" P.O. Box 31908, Lusaka, Printed by the Government Printers, Lusaka, Zambia.
- Central Statistical Office (1985): 1980 Population and Housing Census of Zambia, Analytical Report, Vol III, "Major Findings and Conclusions", P.O. Box 31908, Lusaka, Printed, by the Government, Lusaka, Zambia.
- Central Statistical Office (1985): Census of Population and Housing 1969, Final Report, Vol IV, "Fertility and Mortality Levels and Trends", P.O. Box 31908, Lusaka, Printed by Government Printers, Lusaka, Zambia.
- Central Statistical Office (1985): 1980 Population and Housing Census of Zambia, Analytical Report, Vol V, "Demographic Projections", P.O. Box 31908, Lusaka, Printed, by the Government, Lusaka, Zambia.
- Central Statistical Office (1985): 1980 Population and Housing Census of Zambia, Vol. "General Population and Migration Tables", P.O. Box 31908, Lusaka, Printed, by the Government, Lusaka, Zambia.
- Central Statistical Office (1985): 1980 Population and Housing Census of Zambia, Vol2 "Socio-Economic Tables", Parts 1 and 2, P.O. Box 31908, Lusaka, Printed, by the Government Printers, Lusaka, Zambia.

Central Statistical Office (1985):	<u>1980 Population and Housing Census of Zambia</u> Vol 3. "Fertility Tables", P.O. Box 31908, Lusaka, Printed by the Government Printers, Lusaka, Zambia.
Central Statistical Office (1986):	<u>Labour Force Survey, 1986</u> , P.O. Box 31908, Lusaka, Printed by the Government Printers, Lusaka, Zambia.
Central Statistical Office (1990):	<u>1990 Population and Housing Census of Zambia, Preliminary Report</u> ", P.O. Box 31908, Lusaka, Printed, by the Government Printers, Lusaka, Zambia.
Central Statistical Office (1990):	<u>1990 Population and Housing Census, Enumerators instructions Manual</u> ", P.O. Box 31908, Lusaka, Printed by Central Statistical Office, Lusaka, Zambia.
Central Statistical Office (1991):	<u>1990 Population and Housing Census of Zambia, Draft Administrative Report</u> ", P.O. Box 31908, Lusaka, Printed by Central Statistical Office, Lusaka, Zambia.
Central Statistical Office (1994):	<u>National Census of Agriculture (1990/92)</u> , "Census Report (Part I)", P.O. Box 31908, Lusaka, Printed by Central Statistical Office, Lusaka, Zambia.
Central Statistical Office (1994):	"Provincial Profile of Matebeleland North", Harare, Zimbabwe.
Central Statistical Office (1992):	<u>Country Profile - 1992</u> , P.O. Box 31908, Lusaka, Printed by Central Statistical Office, Lusaka, Zambia.
Central Statistical Office (1993):	"Mineral and Electricity Production Statistics Quartely Bulletin" Unpublished Report, P.O. Box 31908, Lusaka, Zambia.
Central Statistical Office (1993):	<u>Priority Survey I - 1991 Report</u> , Social Dimensions of Adjustment (SDA), P.O. Box 31908, Lusaka, Printed by Co-operative College, Lusaka, Zambia.
Central Statistical Office (1986):	<u>1983 Housing and Population Census of Mauritius</u> , Analysis Report Vol.I "Evaluation of Data", Rose Hill, Mauritius.
Central Statistical Office (1986):	<u>1983 Housing and Population Census of Mauritius</u> , Analysis Report Vol.II "Education : Characteristics, Prospects and some Implications" Rose Hill, Mauritius.
Central Statistical Office (1986):	<u>1983 Housing and Population Census of Mauritius</u> , Analysis Report Vol.III "Households and Housing Needs: Estimates and Implications", Rose Hill, Mauritius.
Central Statistical Office (1987):	<u>1983 Housing and Population Census of Mauritius</u> , Analysis Report Vol.IV "Economic Activity, Characteristics and Prospects", Rose Hill, Mauritius.
Central Statistical Office (1987):	<u>1983 Housing and Population Census of Mauritius</u> , Analysis Report Vol.V "Population Distribution and Migration", Rose Hill, Mauritius.
Central Statistical Office (1989):	<u>1983 Housing and Population Census of Mauritius</u> , Analysis Report Vol.VIII, "Rodrigues: A Population Profile", Rose Hill, Mauritius.



- Coal, A. & Demeny, D. (1966): Regional Model Life Tables and Stable Populations, Princeton University Press, New Jersey, USA.
- Education, Ministry of (1988): Annual Report for the Year 1987, Printed by Printing Services, Lusaka, Zambia.
- Education, Ministry of (1988): Educational Statistics - 1982, Printed by Printing Services, Lusaka, Zambia.
- Education, Ministry of (1991): Educational Statistics - 1986, Development Planning and Research Unit, P.O. Box 50464, Lusaka, Zambia.
- Education, Ministry of (1987): Educational Statistics, 1984, Development and Planning unit, P.O. Box 50464, Printed by Printing Services, Lusaka, Zambia.
- Education, Ministry of (1987): Annual Report - 1986, Department of Technical Education and Vocational Training, Printed by Printing Services, Educational Services Centre, Lusaka, Zambia.
- Education, Ministry of (1987): Educational Statistics - 1983, Development and Planning Unit, P.O. Box 50464, Lusaka, Zambia.
- Education, Ministry of (1982): Educational Statistics, 1980, Development and Planning unit, P.O. Box 50093, Printed by Printing Services, Educational Services Lusaka, Zambia.
- ECA/RIPS (1989): Workbook on Demographic Data Evaluation and Analysis, Based on ECA sub-Regional Training Workshop for Anglophone Countries held at RIPS, Accra, 1-19 August, 1988, Addis Ababa, Ethiopia.
- Etienne van de Walle (1982): Multilingual Demographic Dictionary, English Section, IUSSP, rue des Augustins, 34-4000 Leige, Belgium.
- Health, Ministry of (1990): Bulletin of Health Statistics, 1987-1988, Major Health Trends 1978-1988, Health Information Unit, P.O. Box 30205, Lusaka, Printed by Co-operative College, Lusaka, Zambia.
- Health, Ministry of (1989): Bulletin of Health Statistics, 1985-1986, Major Health Trends 1976-1986, Health Information Unit, P.O. Box 30205, Lusaka, Printed by Co-operative College, Lusaka, Zambia.
- Health, Ministry of (1982): Country Health Profile, 1978, Planning Unit, P.O. Box 30205, Lusaka, Printed by Government Printers, Lusaka, Zambia.
- Health Ministry of (1990): Health Facilities in Zambia, 1990, Health Information Unit, P.O. Box 30205, Lusaka, Printed by Co-operative College, Lusaka, Zambia.
- Kelly, M.J. (1991): "Education in a Declining Economy, The Case of Zambia - 1975-1985", EDI Development Policy Case Series, Analytical Case Series, Number 8, The World Bank, 1818 H Street, N.W. Washington D.C. 20433, USA.
- Mitchell (1965): The Rhodes-Livingstone Journal, Human Problems in British Central Africa, "An Estimate of Fertility Among Africans on the Copperbelt of Northern Rhodesia". (University of Zambia, Manchester University Press).

- NCDP, Ministry of (1988): New Economic Recovery Programme, Interim National Development Plan, Progress Report No. 2 P.O. Box 50268, Lusaka Printed by Government Printers, Lusaka, Zambia.
- NCDP, Ministry of (1989): New Economic Recovery Programme, Fourth National development Plan, 1989-1993, Vol.II, P.O. Box 50268, Lusaka Printed by Government Printers, Lusaka, Zambia.
- NCDP, Ministry of (1993): Economic Review - January - June, 1993, P.O. Box 50268, Lusaka Printed by Government Printers, Lusaka, Zambia.
- NCDP, Ministry of (1989): Zambia's National Population Policy, P.O. Box 50268, Lusaka Printed by Government Printers, Lusaka, Zambia.
- NCDP, Ministry of (1989): Economic Report, 1989, P.O. Box 50268, Lusaka Printed by Government Printers, Lusaka, Zambia.
- Newell, Colin (1988): Methods and Models in Demography, Balhaven Press, A division of Printer Publishers, London, UK.
- Roland Pressat (1985): The Dictionary of Demography, "Christopher Wilson (eds.) Basil Blackwell Ltd, 432 Park Avenue South, Suite 1503, New York 10016, USA.
- Shyrock, S. & Siegel, S. (1976): Studies in Population, "The Methods and Materials of Demography", Condensed Edition, Academic Press, INC., 1250 Sixth Avenue, San Diego, California 92101, USA.
- United Nations (1968): "A System of Nations Accounts", Studies in Methods, Series F. No. 2, Rev. 3 New York, USA.
- United Nations (1983): "Indirect Techniques for Demographic Estimation)", Population Studies, No. 81, Department of International Economic and Social Affairs.
- United Nations (1984): "Handbook of Household Surveys", Revised Edition, Studies in Methods, Series F No. 31, New York, USA.
- United Nations (1983): "Population Studies, No. 104, "MortPak-Lite, The United Nations Software Package for Mortality Measurement" Techniques for Demographic Estimation)", Department of International Economic and Social Affairs, ST/ESA/SER.A/104.

## APPENDIX I

### KEY PERSONS INVOLVED IN THE 1990 CENSUS ANALYSIS

#### SECRETARIATE

Mr. David S. Diangamo  
Mr. Emmanuel M. Silanda  
Mr. Modesto F.C. Banda  
Mr. Kumbutso Dzekedzeke  
Mr. Richard Zulu  
Mr. Patrick M. Chewe  
Ms. Margaret Tembo

#### EDITORS

Mr. Kumbutso Dzekedzeke  
Ms. Margaret Tembo  
Mr. Richard Zulu  
Mr. Patrick M. Chewe  
Mr. Alfred M. Kaili

#### PROGRAMMERS

Mr. Keith Chipako  
Mr. Martin Kakar (UNFPA - DPA)  
Mr. Robert Kaonga  
Mr. Chrispin Sapele  
Mr. George Namasiku  
Mr. Lackson Mitti  
Mr. Elija Kashona  
Ms. Samantha Mulendema  
Mr. Matthews Muvombo

#### ANALYSTS

Mr. Modesto F. C. Banda  
Mr. Richard Zulu  
Ms. Margaret Tembo  
Mr. Patrick M. Chewe  
Mr. Gandson Moyo  
Ms. Sheila M. Shimwambwa  
Ms. Loveness Maambo  
Mr. Emmanuel M. Silanda  
Ms. Nchimunya Nkombo

#### CONSULTANTS

Dr. Helge Brunborg  
Mr. Moulie A. Gibril  
Mr. Anders Falnes  
Mr. Halvard Skiri

#### DESKTOP SPECIALISTS

Mr. Anthony M. Nkole  
Mr. Webster S. Chileshe  
Mr. Makoselo Bowa



# APPENDIX II

STRICTLY CONFIDENTIAL

CENTRAL STATISTICAL OFFICE  
P.O. BOX 31908,  
LUSAKA



REPUBLIC OF ZAMBIA

QUESTIONNAIRE SERIAL NO:

FORM C P H A 9 0 0 1

QUESTIONNAIRE NO  OF

## 1990 CENSUS OF POPULATION, HOUSING AND AGRICULTURE

QUESTIONNAIRE IDENTIFICATION			
1. PROVINCE NAME	<input type="text"/>		
2. DISTRICT NAME	<input type="text"/>		
3. CSA NUMBER	<input type="text"/>		
4. RURAL/URBAN	<input type="text"/>		
5. SEA NUMBER	<input type="text"/>	CD	<input type="text"/>
6. CENSUS BUILDING NUMBER (CBN)	<input type="text"/>		
7. HOUSING UNIT NUMBER (HUN)	<input type="text"/>		
8. HOUSEHOLD NUMBER (HHN)	<input type="text"/>		
AREA IDENTIFICATION			
9. VILLAGE/LOCALITY NAME	<input type="text"/>		
10. RESIDENTIAL ADDRESS/VILLAGE NAME	<input type="text"/>		
11. CHIEF'S AREA	<input type="text"/>		
12. WARD	<input type="text"/>		
13. INSTITUTION/COLLECTIVE QUARTER	<input type="text"/>		
ASSIGNMENT RECORD		INTERVIEW STATUS	
Name	Date	1 - Interview completed (Occupied)	
Enumerator	Completed	2 - Non-contact (Occupied)	
Supervisor	Checked	3 - Not interviewed (Vacant) - Go to H-1 on page 9	
Coder	Coded	4 - Non-residential - Go to H-1 on page 9	
Editor	Edited	<input type="text"/>	
SUMMARY COUNT (DE FACTO POPULATION) CODE 1 AND 2 OF P-3)			
CODE	MALE	FEMALE	TOTAL
1			
2			
TOTAL			

FOR ALL PERSONS												
RECORD TYPE	GENERAL CHARACTERISTICS											
	NAME (a) What is the name of the head of household? (b) What are the names of persons who spent last night here (other than the head of household)? (c) What are the names of usual household members who didn't spend last night here (other than the head of household)?	MEMBERSHIP STATUS Is ..... 1- Usual member present last night? 2- Visitor? 3- Usual member absent? (Enter Code)	RELATIONSHIP What is ..... 1- Head 2- Spouse 3- Own Son/daughter 4- Step Son/daughter 5- Other relative 6- Unrelated (Enter Code)	SEX What is ..... 1 - Male 2 - Female	AGE What is ..... (Enter age in completed year or "00" if less than 1 year)	DISABILITY						
						Is .....						
						(a) BLIND? 1 - Yes 2 - No (Enter Code)	(b) DEAF/DUMB? 1 - Yes 2 - No (Enter Code)	(c) CRIPPLED? 1 - Yes 2 - No (Enter Code)	(d) MENTALLY/RETARDED? 1 - Yes 2 - No (Enter Code)			
	P - 1	P - 2	P - 3	P - 4	P - 5	P - 6	P - 7					
	23	24	25	26	27	28	29	30	31	32	33	34
P	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	3		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	6		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	7		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	8		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	9		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	0		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FOR ALL PERSONS						
GENERAL CHARACTERISTICS						
S E R I A L  N U M B E R	MIGRATION			What is.....'s country of citizenship ?  (For non Zambians write name of country and enter its code; For Zambians just enter code 148)	How long has.....been continuously living in this district ?  (Enter completed years and months)	
	Where was.....born ?		b. Was this part of the district rural or urban at time of birth ?  1 - Rural 2 - Urban  8 - Not Applicable (Outside Zambia) (Enter Code)		Years	Months
	a. State district if born in Zambia and Country if born outside Zambia  (Refers to usual district/country of residence of member at time of giving birth)  (Enter district name and 3-digit code from list of provinces and districts)					
	P - 8			P - 9	P - 10	
	35 - 37	38		39 - 41	42 - 43	44 - 45
1	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
0	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
1	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>
0	<input type="text"/>	<input type="text"/>		<input type="text"/>	<input type="text"/>	<input type="text"/>

FORM CPHA - 9001

PAGE 3



FOR ALL PERSONS					
GENERAL CHARACTERISTICS					
S E R I A L  N U M B E R	MIGRATION		ETHNICITY AND LANGUAGE		
	Where was ..... staying in August last year?		What is ..... 's ethnic group?	What is ..... 's LANGUAGE OF COMMUNICATION?	
	State district if in Zambia and country if outside Zambia (Enter district name 3-digit code from list of provinces and districts)	Is this part of the district rural or urban? 1 - Rural 2 - Urban 8 - Not Applicable (Outside Zambia or child less than 1 year) (Enter Code)	(Enter Zambian tribe, if not applicable enter major racial group) Code 64 - African 65 - American 66 - Asian 67 - European 68 - Other	a. PREDOMINANT (Write the name of the language and enter the code. If not applicable enter 88)	b. SECOND (Write the name of the language and enter the code. If not applicable enter 88)
	P - 11		P - 12	P - 13	
	46 - 48	49	50 - 51	52 - 53	54 - 54
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
0	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
3	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
4	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
5	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
6	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
7	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
8	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
9	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
0	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

FOR PERSONS 5 YEARS AND OVER					
S E R I A L  N U M B E R	EDUCATION				
	Can ..... read and write in any language ? 1 - Yes 2 - No	Does ..... go to any institution of learning ? 1 - Yes-Full time 2 - Yes-Part time 3 - Yes-Correspondence Go to P-17 4-No	Did ..... previously go to any institution of learning ? 1 - Yes-Full time 2 - Yes-Part time 3 - Yes-Correspondence 4 - No - Go to P-18	What highest level of academic education has ..... completed ?	What highest professional or vocational education has ..... completed ?  (Write level and field of study, then enter code 1 - Certificate 2 - Diploma 3 - Degree  In the first box and two digit code from the list of educational programmes)
	P - 14	P - 15	P - 16	P - 17	P - 18
	56	57	58	59 - 60	61 62 - 63
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FOR PERSONS 12 YEARS AND OVER					
S E R I A L  N U M B E R	ECONOMIC ACTIVITY		EMPLOYMENT STATUS	OCCUPATION	INDUSTRY
	What was..... mainly doing in the last 7 days ?	What has..... mainly been doing since.....1989 ?	Since.....1989 ? has..... been mainly ?	What was.....'s main occupation since.....1989? (Write name of occupation and enter code)	What kind of main product of service is (was) produced ? where..... works/worked? (Write name of industry and enter code)
	1 - Working for pay or profit 2 - On leave 3 - Unpaid work on household holding or business 4 - Unemployed and seeking work 5 - Not seeking work but available for work 6 - Full-time housewife/homemaker 7 - Full-time student 8 - Not available for work for other reasons  (Enter Code)	1 - Working for pay or profit 2 - On leave 3 - Unpaid work on household holding or business 4 - Unemployed and seeking work 5 - Not seeking work but available for work 6 - Full-time housewife/homemaker 7 - Full-time student 8 - Not available for work for other reasons  Go to P-24 (Enter Code)	1 - an employee ? 2 - an employee ? 3 - self-employed ? 4 - an unpaid family worker ?		
	P - 19	F - 20	P - 21	P.....22	P.....23
	64	65	66	67 - 69	70 - 72
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



FOR PERSONS 12 YRS AND OVER			FOR FEMALES 12 YEARS AND OVER									
			FERTILITY (Own children ever born alive)									
MARITAL STATUS		AGE AT FIRST MARRIAGE	LIVE BIRTH	AGE AT FIRST LIVE BIRTH	Of the children born to you alive -							
S E R I A L N O. 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0	Is... 1-Married? 2-Separated? 3-Divorced? 4-Widowed? 5-Never married? (If female, GO TO F-1, other- wise go to next person or M-1 if last person) (Give age in completed years only)	What was his age when he/she first got married? (If male GO TO next person other- wise M-1) (Give age in completed years only)	Have you ever had a live birth? (Includ- ing babies who died after birth) 1-Yes 2-No (If "No" GO TO next person or M-1)	How old were you when you first had a live birth?	How many children born to you are still alive? If None enter '00' GO TO F-4c	How many of these are male and how many are female?	a. How many are still living with you?		b. How many are living elsewhere in some other household?		c. How many died?	
							How many of these are male and how many are female?		How many of these are male and how many are female?		How many of these are male and how many are female?	
							Male	Female	Male	Female	Male	Female
P - 24		P - 25	F-1	F-2	F-3							
73		74 - 75	76	77 - 78	79 - 80	81 - 82	83 - 84	85 - 86	87 - 88	89 - 90	91 - 92	93 - 94
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

FOR FEMALES 12 YEARS AND OVER								GENERAL COMMENTS
FERTILITY (On children ever born alive)								
CHILDREN BORN IN LAST 12 months								
Of the children born to you alive since.....1989 ?								
S E R I A L  N U M B E R	Have you had any live birth since.....1989 ?  - Yes GO TO next person otherwise go to M-1  (Enter Code)	a. How many are still living today ?  How many of these are male and how many are females ?		b. how many are living elsewhere in some other household ?  How many of these are male and how many are female ?		c. How many died ?  How many of these are male and how many are female ?		
		Male	Female	Male	Female	Male	Female	
		F - 5		F - 6				
	93	94	95	96	97	98	99	
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
2	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
3	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
4	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
5	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
6	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
7	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
8	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

MORTALITY		HOUSING CHARACTERISTICS	
RECORD TYPE	M-1 Has there been any death in this household since...1989 ?	1 - Yes 2 - No - Go to HH-1	45
	M-2 How many died ? How many of these are	Male ? Female ?	25 26
H	HOUSEHOLD CHARACTERISTICS		
23	HH-1 What is the main source of energy used for energy used for lighting by this household ?	1 - Electricity 2 - Gas 3 - Paraffin/Kerosene 4 - Candle 5 - Other	27
	HH-2 What is the main source of energy used for cooking by this household ?	1 - Electricity 2 - Gas 3 - Paraffin/Kerosene 4 - Wood 5 - Charcoal 6 - Coal 7 - Other	28
	HH-3 What type of toilet is used by members of this household ?	1 - Flush 2 - Pit latrine 3 - Aqua privy 4 - Bucket 5 - Other - Go to HH-6	29
	HH-4 Is this toilet inside or outside this housing unit ?	1 - Yes 2 - No	30
	HH-5 Is this toilet exclusively used by members of this household ?	1 - Yes 2 - No	31
	HH-6 Is this housing unit owned by any member of this household ?	1 - Yes 2 - No - Go to HH-8	32
	HH-7 Was this housing unit	1 - Built by any member of this household ? 2 - Bought ? 3 - Inherited/given	33
	HH-8 Is this housing unit provided free by the employer/friend or relative of any member of this household ?	1 - Yes-Employer - Go to HH-10 2 - Yes-By friend or relative-Go to HH-13 3 - No	34
	HH-9 Is this housing unit rented from the employer of any member of this household ?	1 - Yes 2 - No - Go to HH-11	35
	HH-10 Is the employer	1 - The Central Govt? 2 - The District Council? 3 - A Parastatal ? 4 - A Private Organ. ? 5 - An individual ? GO TO HH-12	36
	HH-11 Is this housing unit rented from	1 - The Central Govt? 2 - The District Council? 3 - A Parastatal ? 4 - A Private Organ. ? 5 - An individual ?	37
	HH-12 Is this housing unit owned by	1 - The Central Govt? 2 - The District Council? 3 - A Parastatal ? 4 - A Private Organ. ? 5 - An individual ?	38
HH-13 a. How many radios does this household/institution have ?		39...41	
b. How many television sets does this household/institution have?		42...44	
H-1 Type of housing	1 - Single Structure 2 - Several Structures 3 - Part of Structure 4 - Improvised/makeshift 5 - Unintended 6 - Collective 7 - Institutional 8 - Other	45	
H-2 Type of roofing material	1 - Concrete/Cement 2 - Asbestos sheet 3 - Iron sheet/corrugated iron sheet 4 - Grass/thatch 5 - Tiles 6 - Other	46	
H-3 What are the walls of this housing unit made of?	1 - Burnt bricks 2 - Unburnt or mud bricks 3 - Concrete blocks/slab 4 - Stone 5 - Iron sheets 6 - Asbestos/hardboard/Wood 7 - Pole and gogga/mud 8 - Grass 9 - Other	47	
H-4 What is the floor of this housing unit made of?	1 - Concrete/cement 2 - Mud 3 - Wood(not wooden tiles) 4 - Marble 5 - Other	48	
H-5 Occupancy	1 - Single household 2 - One household in several housing units 3 - Shared (Enter number of households sharing in box 50) 4 - Vacant 5 - Non residential - END HERE	49 50	
H-6 How many living rooms and bedrooms does this housing unit have ?	Living rooms bedrooms	51 52 - 53	
H-7 Does this housing unit have a kitchen ?	1 - Yes 2 - No	54	
H-8 What is the main source of water supply for this house ?	1 - Piped water inside the housing unit 2 - Piped water outside the housing unit and within distance of 100 metres 3 - Piped water outside the housing unit and beyond 100 metres 4 - Well or borehole 5 - River/Streams 6 - Other	55	
AGRICULTURAL ACTIVITY			
A-1 Has any member of this household been engaged in any agricultural activity for this household since 1st October 1989 ?	1 - Yes 2 - No - Go to A-3	56	
A-2 Is this holding managed by someone else who is not a member of this household ?	1 - Yes 2 - No - COMPLETE AGRICULTURE SUPPLEMENT	57	
A-3 Has any member of this household been managing any holding which does not belong to this household since 1st October 1989 ?	1 - Yes - COMPLETE AGRICULTURE SUPPLEMENT 2 - No - End interview & thank respondent	58	
ENUMERATOR - Complete an Agriculture supplement questionnaire for each of the responses: 'NO' in A-2 and 'Yes' in A-3.			



