PREFACE

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 Eastern 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

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Lusaka, ZAMBIA
August 10th, 1995.

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EXECUTIVE SUMMARY

Eastern Province has a population of 965,967 of which 90.8 percent is in the rural and 9.2 percent is in the urban areas. Of the total population, 48.3 percent are male and 51.7 percent are female. With the stated population and an area of 69,106 square kilometers, the province has a population density of 13.9 persons per square kilometer. Between 1980 and 1990, the population grew at a rate of 4 percent. The growth rate for children (0-14 years) is 3.3 percent while that of the youth (15-24 years) is 5.8 percent. Forty five percent of the population is below the age of 15 years, hence the population of Eastern Province can be said to be young. The population of the province is predominantly of African origin. Only 3 percent of the population comprises foreigners.

About 13 languages have been identified as major ones in the province. Nyanja and Tumbuka are the most spoken. Nyanja is spoken by 77 percent and Tumbuka by 20 percent of the population as a first language of communication. English is mainly spoken as a second language of communication.

Over three-fifths of the population, 5 years and above, is literate. Of the female population in this age range, 30.8 percent are literate while 46.6 percent of the males are literate. The population of the school going population presently attending school is 23.4 percent. For males and females, the proportions are 29 percent and 18.8 percent, respectively. The majority of those presently attending school (48 percent) are in Grades 1-4. Of the population 15 years and above, 52.5 percent have not completed any level of education. The corresponding proportions for males and females are 40.3 and 63.2 percent, respectively. The common field of study for males are engineering, teacher training, agriculture/forestry/fishery and accounting. Teacher training, secretarial and nursing are the common ones for females.

The working age population (12 years and over) is 604,044 of whom 90.7 percent are in rural and 9.3 percent are in urban areas. Males make up 47.3 percent while females make up 52.7 percent. Of the labour force of 218,768, 90.7 percent are employed. The agricultural industry employs 74.4 percent of the work force. Of those engaged in agriculture, 46 percent are female. In managerial occupations, only 8 percent are female. The labour force participation rates for males are higher than for females, at all age groups. The total labour force participation rates are 74 percent for males and 44 percent for females. Of the usually working population, the majority (87.4 percent) are employed as unpaid family workers or are self-employed. The proportion of the self-employed and unpaid family workers together is 91 percent in rural areas and 29.9 percent in urban areas. The current unemployment rate declined from 54.8 percent in 1980 to 9.3 percent in 1990. This could be due to improved coverage of informed sector activities. Current unemployment rates are higher in urban (14.6 percent) than rural areas (8.8 percent).

In Eastern Province, marriage is near universal. At age group 45-49 years, only 1.4 percent of the males and 2.6 percent of the females have never been married. The Singulate Mean Age at Marriage is 20 years for females and 24.6 for males. The Total Fertility Rate (TFR) has remained constant between 1980 and 1990 at 6.9. That of rural areas has marginally increased from 6.9 in 1980 to 7.0 in 1990 while in urban areas, it has declined from 7.6 to 6.2. Females who have had no education have a TFR of 7.1 while those who have completed primary education have a TFR of 7.6. The TFR for females who have completed secondary education and higher education are 6.3 and 1.9, respectively.

The Crude Death Rate for Eastern Province increased from 18.1 in 1980 to 25.2 in 1990. The Infant Mortality Rate (IMR), Child Mortality Rate (CMR) and Under-five Mortality Rate (UMR) for males are higher than those of females. The IMR for rural areas (152.0) is higher than that of urban areas (114.0). The IMR, CMR and UMR for infants and children born to mothers with different background characteristics vary. These rates decrease with increasing level of education of mother without consideration of those who have had no education. Females in the agricultural sector experience higher IMR, CMR and UMR than those in the non-agricultural sector. Life expectancy at birth has declined from 45.9 in 1980 to 42.0 in 1990. That of females (43.1) is higher than that of males (40.8). In urban areas, life expectancy is 48.8 while in rural areas, it is 41.4.

The number of disabled persons recorded in the 1990 Census is 10,776 of whom 5,652 are males and 5,124 are females. Considering that the vast majority of the population resides in rural areas, 94.9 percent of the disabled are in rural areas. The crippled make the largest proportion of the disabled (31.3 percent) while the blind make the lowest (13.3 percent).

Close to half (47 percent) of the households in the province occupy two-roomed units. The most common construction materials for roofs, walls and floors are grass, pole/dagga and mud; used in 85.9, 63.8 and 84.7 percent of the housing units. About 94 percent of the housing units are owned by individuals, leaving only 6 percent owned by central government, district council, private and parastatal organisations.

There are more male (148,546) than female (36,233) headed households in Eastern province. The majority of households (48 percent) use water drawn from well/borehole. Only 8.5 percent have access to piped water.

CHAPTER 1

BACKGROUND

1.1 GEOGRAPHY

Eastern province is situated between longitude 30 and 34 degrees east and latitude 10 and 15 degrees south; covering an area of 69,106 square kilometres. In 1990, the province had six administrative districts namely, Chadiza, Chama, Chipata, Katete, Lundazi and Petauke. The province is bordered by Malawi in the east and Mozambique in the south.

Eastern province consists of two main productive and habitable geographical areas namely:- the Luangwa valley and the plateau. The Luangwa valley covers almost half of the region and it is sparsely populated because it is heavily infested with tsetse flies which to a great extent, retard the development of the valley. The valley has quite a good number of isolated portions of fertile soils, but constraints to agricultural development in the valley area are at times compounded by low rainfall. This constraint creates the problem of inadequate water supply resulting in low yields. The plateau area has good soils, sufficient rainfall, a great potential for agricultural production and is densely populated.

1.2 PEOPLE

The population of Eastern Province has increased from 650,902 in 1980 to 965,967 in 1990. This represents an average annual growth rate of 4.0 percent. Of the 965,967 enumerated population of Eastern province in 1990, 48.3 percent are male and 51.7 percent are females. The average population density for the province has also increased from 9.4 in 1980 to 14.0 persons per square kilometre in 1990. Table 1.1 shows the population distribution among the districts of Eastern Province.

Table 1.1

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

Districts	Population			Area (Sq.Km)	Density			Percentage Distribution			Growth Rate (%)	
	1969	1980	1990		1969	1980	1990	1969	1980	1990	1969-80	1980-90
Chadiza	32,169	44,879	63,210	2,574	12.5	17.4	24.6	6.3	6.9	6.5	3.1	3.5
Chama	30,887	35,359	51,772	17,630	1.8	2.0	2.9	6.1	5.4	5.4	1.2	3.9
Chipata	148,416	204,738	291,372	11,986	12.4	17.1	24.3	29.1	31.5	30.2	3.0	3.6
Katete	80,485	94,208	138,469	3,989	20.2	23.6	34.7	15.8	14.5	14.3	1.5	3.9
Lundazi	92,247	114,653	171,602	14,058	6.6	8.2	12.2	18.1	17.6	17.8	2.0	4.1
Petauke	125,311	157,065	249,542	18,686	6.6	9.3	13.3	24.6	24.1	25.8	2.1	4.7
Total	509,515	650,902	965,967	69,106	7.4	9.4	13.9	100.0	100.0	100.0	2.3	4.0

Source: CSO (1973): 1969 Census of population and housing; CSO (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.

Chipata has the largest share of population in the province and its population has increased from 148,416 in 1969 to 291,372 in 1990. Even though Chipata has the largest share of population in the province, Katete has the highest population density in the province. Chama has the lowest population of 51,772 and this is about 5.4 percent of the total population in the province. The population density for Chama is 2.9 persons per square kilometre, the lowest in the province.

1.3 ECONOMY

The major economic activity in Eastern Province is agriculture. The plateau area of Eastern province and some isolated portions of the valley are major agricultural regions of the province. Farming in these areas is done on both commercial and subsistence levels.

Agriculture

The soils in Eastern Province are suitable for major crops like hybrid maize, cotton, groundnut, sunflower, tobacco and soya beans. Maize is the staple food of the province. The increase in crop production in this province resulted from the installation of the groundnut shelling machine in Chipata; the establishment of the oil processing plant in Katete and the stockfeed plant in Chipata. Production and marketing/sale of some crops in the province for selected years is shown in Table 1.2.

Table 1.2

Major Crops Grown, Eastern Province, 1988-90

| Crops | Unit | Production and Marketing (90kg Bags) | | | | | |
| | | 1988 | | 1989 | | 1990 | |
		Produced	Marketed	Produced	Marketed	Produced	Marketed
Maize	90kg Bags	6,481,421	3,652,898	6,003,623	2,470,675	3,148,527	1,369,000
Tobacco	Kgs	-	-	1,329,808	1,329,808	13,936,913	1,706,067
Cotton	Kgs	7,301,021	7,301,021	8,019,298	8,019,298	10,157,000	7,712,601
Sunflower	50Kg Bags	135,000	130,575	85,072	70,610	91,643	81,745
Soyabean	90Kg Bags	23,373	22,931	25,595	159	33,941	29,501
Groundnut	80Kg Bags	141,220	7,025	174,338	20,678	82,536	29,252
Wheat	90Kg Bags	5,977	-	6,000	6,000	6,000	4,600

Source: 1989/90 Agricultural Statistics Bulletin.

Some livestock is reared in the province. The livestock raised mainly are cattle, sheep, goats and pigs. Their population for some years is shown in Table 1.3. The percent distribution of the livestock in 1989 is shown in Figure 1.1.

Table 1.3

Livestock Population by Sector, Eastern Province, 1980-89

Sector	Year					
	1980	1985	1986	1987	1988	1989
Traditional						
Cattle	235,978	232,159	245,392	259,579	235,795	270,181
Sheep & Goats	130,581	133,867	137,883	142,020	146,280	174,643
Pigs	95,645	102,286	104,332	106,418	108,547	155,393
Commercial						
Cattle	-	-	-	-	3,449	3,449
Sheep & Goats	-	-	-	-	-	210
Pigs	-	-	-	-	-	-

Note: (-) Figures not Available.

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

Figure 1.1

Livestock by Sector, Eastern Province, 1989

Traditional Sector
Cattle 45%
Sheep & Goats 29%
Pigs 26%

Commercial Sector
Cattle 94%
Sheep & Goats 6%
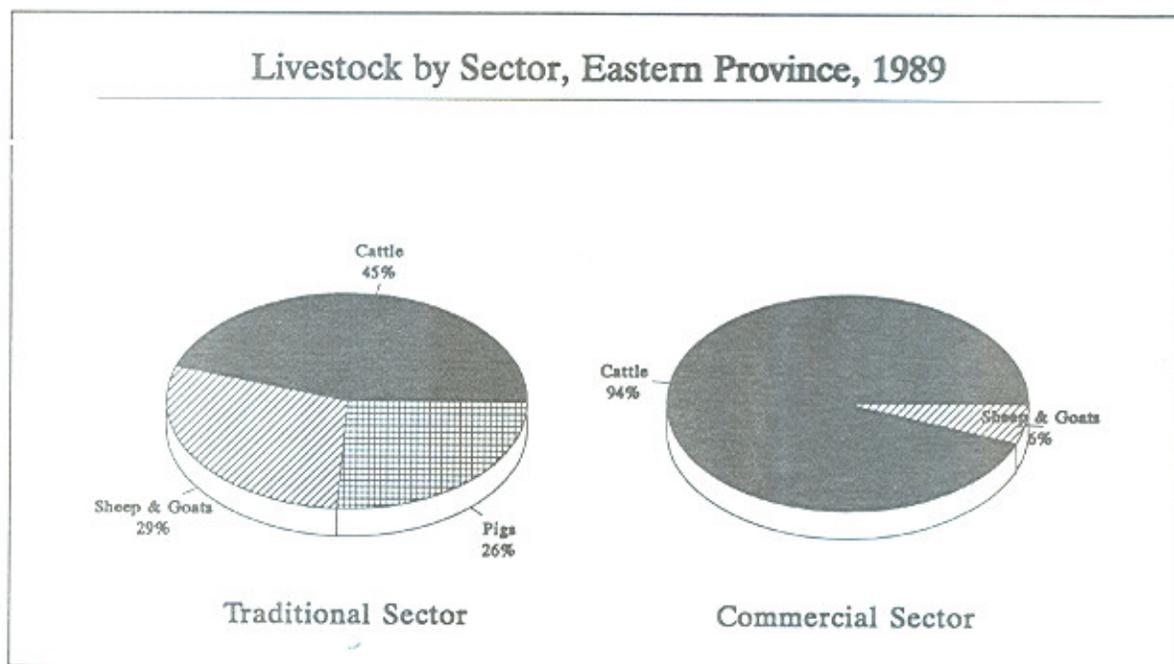
Communication

There are many forms of communication within and with the province. The major trunk road in the province is the Great East road which also links the province to Lusaka province. The major airport in the province is Mfuwe in the South Luangwa Game Park. In 1984, there were 1,876km of roads in the Province.

Most of the rural population in the province is serviced with either a non-reliable road network or none at all, thereby causing a problem of communication particularly during the rainy season when most rural feeder roads become almost impassable.

1.4 EDUCATION

The enrolment in both primary and secondary schools has been increasing over the years. Enrolment in primary schools has increased from 108,301 in 1980 to 135,288 in 1986. In secondary schools the increase is from 7,610 in 1980 to 11,800 in 1986. Generally, the enrolment of both boys and girls has also increased. The table below shows some developments in the education sector in Eastern province.

Table 1.4

Schools, Teachers and Enrolment, Eastern Province 1980 - 1986

	Year		
	1980	1983	1986
Schools			
-Primary	433	446	463
-Secondary	-	14	-
Teachers			
-Primary	2,129	2,572	3,135
-Secondary	350	370	465
Enrolment			
Primary - Total	108,301	123,709	135,288
- Boys	60,294	67,955	75,873
- Girls	48,007	55,754	61,415
Secondary - Total	7,610	9,532	11,800
- Boys	5,177	6,320	7,876
- Girls	2,433	3,212	3,924

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

Note: (-) Figures not available

The enrolment ratios in Table 1.5 show how the primary school enrolment has changed over the years. There was a higher enrolment ratio for boys than girls for all the given years except for 1987.

Table 1.5

Enrolment Ratios of Primary Schools, **Eastern Province 1980 - 1987**

	1980	1983	1986	1987
Primary				
- Totals	78.5	85.3	87.1	116.7
- Boys	86.1	92.0	92.6	110.8
- Girls	70.6	78.4	81.3	123.6

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

1.5 HEALTH

Eastern province has various types of health facilities. In all, there are 10 hospitals and 92 health centres with 2707 beds/cots. There is at least 1 hospital in each district apart from Chadiza and Chama which are served by 9 and 12 health centres respectively. The government is the major supplier of health facilities in the province and to supplement its efforts, missionaries and private institutions also provide some health facilities.

Information in Table 1.6 shows that the number of hospitals in the province increased by 1 for the period 1988 to 1990. The number of beds and cots has increased from 2,224 in 1986, 2,685 in 1988 to 2,707 in 1990. The health centres increased from 92 in 1986 to 94 in 1988 and decreased to 92 in 1990.

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	9	1,414	92	810	101	2,224
1988	9	1,712	94	973	103	2,685
1990	10	1,692	92	1015	102	2,707
Districts -						
Chadiza	-	-	9	94	9	94
Chama Ch	-	-	12	77	12	77
ipa	3	781	25	314	28	1,095
ta	1	342	10	54	11	396
Katete	2	231	15	179	17	410
Lundazi	4	338	21	297	25	635
Petauke						

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

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Diseases

Major diseases that affect the population of Zambia have not changed over time. Information collected by the Ministry of Health on disease pattern show that respiratory diseases, diarrhoea, malaria, injuries and accidents, eye diseases, diseases of skin, ear disorders and malnutrition affect more than 70 percent of children below 14 years in Eastern Province. Similarly, the same type of diseases affect between 50 and 60 percent of adults. Malnutrition and diarrhoeal diseases which usually trigger off other diseases among children are the major causes of child deaths. Health institutions often receive serious cases of malnutrition and diarrhoea. Some child deaths that occur among children below 5 years are due to preventable diseases such as polio, tuberculosis, diphtheria, measles, pertussis and tetanus. There are vaccines available for these diseases. Information on immunizations is provided in Table 1.7.

Table 1.7

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

Year	BCG	Polio Third Dose	DPT Third Dose	Measles
1985	34,058	28,022	27,660	32,413
1986	39,668	23,068	28,227	31,209
1987	37,716	26,002	22,487	29,825
1988	33,647	31,165	28,927	24,911

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

CHAPTER 2

EVALUATION OF COVERAGE AND CONTENT ERRORS

2.1 INTRODUCTION

Data evaluation ensures that the data are of acceptable standard and provides for possible adjustment. 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 (with household or elsewhere), and
- Children dead.

2.2 DEFINITION OF CONCEPTS

Listed 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

Mistake made in the recorded information in the census questionnaire either by the respondent or by the interviewer.

Coverage Error

Under or over-enumeration in a population census due to either omission or duplication.

Dependency Ratio

Ratio of children aged 0-14 and persons aged 65 years and older, 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.

Evaluation of Census Data

Measurement of the quality of census data

Sex Ratio

Number of males per 100 females in a population.

2.3 METHODS OF EVALUATION

Despite the checks and controls instituted during the enumeration, several errors could have been introduced in the census data. Some people could have been completely omitted, other people could have been enumerated more than once, or some characteristics of an individual such as age, sex, fertility and economic activity could have been incorrectly reported. There are two major approaches used to evaluate the quality of census data, direct and indirect methods.

The direct method basically involves carrying out what is referred to as a Post Enumeration Survey (PES). In a PES, a sample of households is revisited after the census and data are again collected but on a smaller scale 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. PES information is however only available for use at national level, and therefore, will not be used to evaluate data quality at the provincial level.

Indirect methods, usually involve the comparison of data using both internal and external consistency checks. Internal consistency checks compare relationships of data within the same census, 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.

Coverage Error

This type of error is made when there is omission or duplication resulting in under or over-enumeration. Factors which are attributable to this include inaccessibility to and lack of co-operation from respondents. Difficulties in communication and lack of proper boundary descriptions also contribute to coverage errors. Coverage errors may be found by examining certain statistics such as sex ratio, age composition, child-woman ratio and dependency ratio.

Age Composition

Table 2.1 shows population distribution in Eastern Province by broad age groups for 1980 and 1990 Censuses.

Table 2.1

Population Distribution by Broad Age Groups, Eastern Province, 1980 and 1990

Age Group	Population Distribution			
	1980 Population	1980 Percent	1990 Population	1990 Percent
0 - 14	314,718	48.4	437,348	45.3
15 - 64	304,901	46.8	493,443	51.1
65+	28,187	4.3	34,888	3.6
Age Not Stated	3,096	0.5	288	0.0
Total	650,902	100.0	965,967	100.0

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The table shows that the proportion of persons aged 0-14 years for 1990 is less than that of 1980. One of the reasons for this could be an increase in child mortality. The proportion of those who did not state their age in 1980 was 0.5 while in 1990 it was negligible. Refer to Table 2.1 for more details.

Figure 2.1

Population Distribution by Broad Age Groups
Eastern Province, 1980 and 1990

1980 Census

65+ 4.3%
15 - 64 46.8%
0 - 14 48.4%
Age Not Stated 0.5%

1990 Census

65+ 3.6%
15 - 64 51.1%
0 - 14 45.3%
Age Not Stated 0.0%
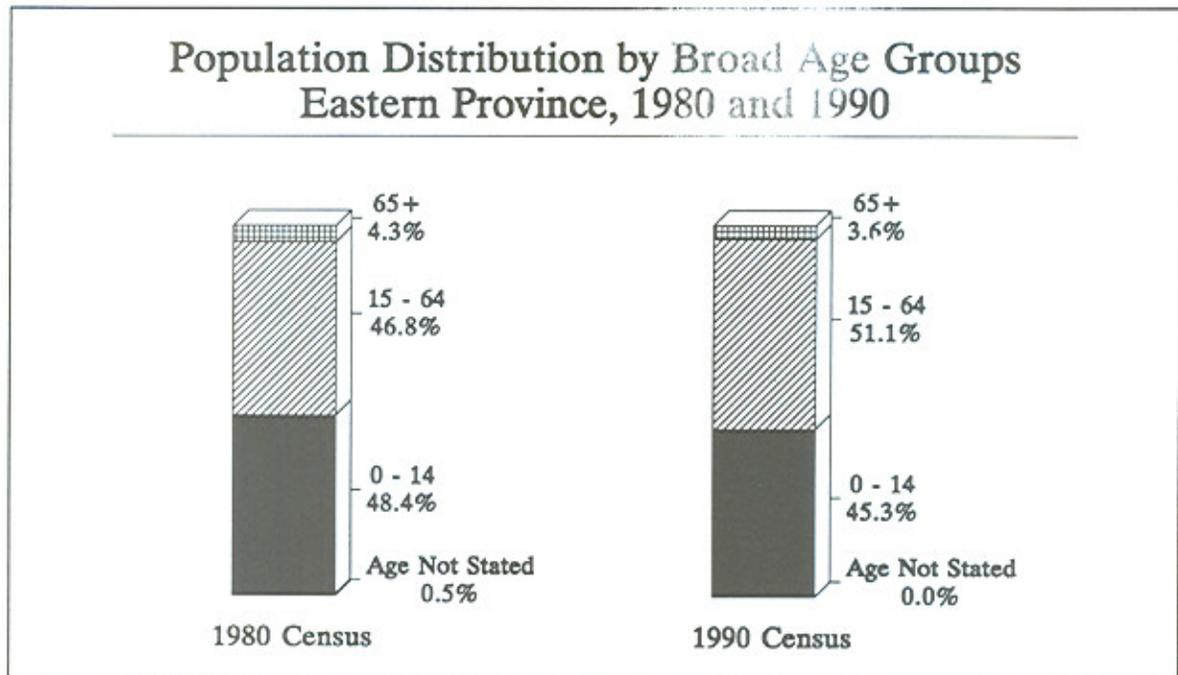
Child-Woman Ratio

The child-woman ratio has declined from 760.3 per 1000 in 1980 to 702.1 in 1990. The decline in both the proportion of persons aged 0-14 years and the child-woman ratio, could be due to an increase in child mortality between 1980 and 1990 in Eastern Province.

Dependency Ratio

The dependency ratio for Eastern Province declined from 112.5 in 1980 to 95.7 in 1990. This means that in 1990, for every 100 persons aged 15-64 years considered as potential producers, there were 95.7 dependents. The overall dependency ratio, child dependency ratio and aged dependency ratio have declined. Table 2.2 gives more details. The decline in the dependency ratios could either be as a result of an increase in the number of those aged 15-64 years, under-enumeration of children aged 0-4 years or an increase in child mortality.

Table 2.2

Dependency Ratio and Child-Woman Ratio, Eastern Province, 1980 and 1990

Ratios	1980	1990
Eastern Province		
- Overall Dependency Ratio	112.5	95.7
- Child Dependency Ratio	103.2	88.6
- Aged Dependency Ratio	9.2	7.1
- Child-Woman Ratio	760.3	702.1

Under-enumeration of Children

In order to determine under-enumeration of children in age-group 0-4, the crude birth rate has been computed for age-groups 0-4 and 5-9 years using the reverse survival method. The computed crude birth rate for the 0-4 year age group is markedly lower than that of the 5-9 year age group (refer to Table 2.3). This could be due to either under-enumeration of children aged 0-4 years in the 1990 Census or an increase in child mortality.

Table 2.3

Crude Birth Rate By Reverse Survival Method, Eastern Province, 1990

Average Crude Birth Rate	1980 Female Population	Survival Ratios 1980-85 North Model level 9	1985 Female Population	Survival Ratios 1985-90 North Model level 10	1990 Female Population	Age Group
-	86,361	-	88,902	-	-	Births
39.1(1985-1990)	69,391	0.88485	76,417	0.89670	79,718	0 - 4
45.7(1980-1985)		0.95429	66,220	0.95886	73,273	5 - 9
				0.97068	64,278	10 - 14
Total					499,703*	

Note: North Model Levels are obtained from chapter 9 and have been rounded off to zero decimal point.
* Includes all females in Eastern Province in 1990.

Content Error

Content errors are common in any census or survey in that these errors are made by either a respondent or an enumerator. This error refers to instances when the characteristics of a person such as; age, sex, marital status, fertility, mortality, economic activity, etc, counted during the census or survey are incorrectly reported or recorded by enumerators. For instance, a question about age in a census can be solicited by asking either "the date of birth" or "completed number of years". These two questions may yield different ages. During the 1990 Census, age was recorded in completed years as at last birthday. The content errors are being estimated using Myers' Index, sex ratios and age ratios.

Digit Preference

The tendency of enumerators or respondents to report certain ages in preference to others is called age heaping, age preference or digit preference. Age heaping is most prevalent among the illiterates who do not know their exact ages. Age misreporting, net under-enumeration and non-reporting or misclassification of age contribute to heaping.

An assessment of age heaping in Eastern Province is done through the calculation of Myers' Index. For more details about Myers' Index refer to Shryock et al (1976). The Myers' Index has been calculated for 1980 and 1990 Censuses and the results are shown in Tables 2.4 and 2.5. The minimum value of Myers' Index is 0 and the maximum value is 90. This means that as the index approaches 0, then this implies good age reporting whereas if the index approaches 90 then this indicates poor age reporting. Therefore, a high Myers' Index implies poor age reporting whereas a low Myers' Index indicates good age reporting. Table 2.4 shows a summary of Myers' index whereas Table 2.5 shows the percentage distribution of the blended population and deviation from 10 percent and how the index is calculated. The index is calculated by summing up the deviations from 10 percent, irrespective of sign, and dividing the total by 2. Digits which have been considered to be most preferred (Table 2.6) are those with a percent of 11 or more.

Table 2.4

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

Eastern Province		1980 Census	1990 Census
Total	Male	8.1	7.6
	Female	8.7	8.2
Rural	Male	8.2	7.6
	Female	9.1	8.4
Urban	Male	7.3	7.6
	Female	6.8	6.6

Tables 2.4 and 2.5 show that in Eastern Province, the Myers' Index for Females is higher than that of males in both 1980 and 1990 Censuses. This shows that age was more accurately reported for males than for females in 1980 and in 1990, perhaps this could be as a result of males being the main respondents during enumeration. Table 2.4 shows that in urban areas, the Myers' Index for males is higher than that of females for both 1980 and 1990 and that Myers' index for males rose from 7.3 in 1980 to 7.6 in 1990 whereas for the females, it declined from 6.8 in 1980 to 6.6 in 1990 showing good age reporting for females than males. This shows that age reporting among males has deteriorated whereas it has improved among the females between 1980 and 1990 in urban areas of the province. In rural areas, Myers' Index dropped from 8.2 to 7.6 for males and from 9.1 to 8.4 for females from 1980 to 1990, respectively. Since the differences in the Myers' index among males and females are marginal, the male age data is as good as the female age data.

Table 2.5

Myers' Index for Digit Preference in Age Data, Eastern 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	14.4	4.4	14.1	4.1	15.7	5.7	14.5	4.5
1	8.2	-1.8	8.2	-1.8	8.1	-1.9	8.4	-1.6
2	10.9	0.9	11.0	1.0	10.9	0.9	11.3	1.3
3	8.1	-1.9	8.2	-1.8	8.1	-1.9	8.0	-2.0
4	8.8	-1.2	8.9	-1.1	8.9	-1.1	9.2	-0.8
5	10.0	0.0	10.2	0.2	10.0	0.0	9.9	-0.1
6	10.7	0.7	10.2	0.2	10.0	0.0	10.6	0.6
7	7.9	-2.1	8.7	-1.3	7.4	-2.6	8.3	-1.7
8	12.0	2.0	12.0	2.0	12.1	2.1	11.8	1.8
9	8.8	-1.2	8.4	-1.6	8.8	-1.2	8.1	-1.9
Myers' Index		8.1		7.6		8.7		8.2

Table 2.6 shows that there was some age heaping in Eastern Province during both the 1980 and 1990 Censuses. This is indicated by the relatively high preference for digits 0, 8 and 2 among males and females. The preference of these digits among males could be as a result of the tendency to estimate the age whilst among females, the age could have been rounded off. Considering that the minimum value of Myers' index is 0 and the maximum value is 90, age heaping was not high in 1990 since Myers' Index for the province is 7.6 and 8.2 for males and females, respectively. The digits 0,8 and 2 were most preferred to other digits among males and females during 1980 and 1990 Censuses. In addition, digit 6 was preferred by the females in urban areas.

Table 2.6

Most Preferred Digits, Eastern Province, 1980 and 1990

Sex/Year		Most Preferred Digits		
		Total	Rural	Urban
Male	- 1980	0, 8	0, 8	0, 8
	- 1990	0, 8, 2	0, 8, 2	0, 8,2
Female	- 1980	0, 8	0, 8	0, 8, 2
	- 1990	0, 8, 2	0, 8,2	0, 8, 2,6

Age misreporting errors are also presented in Figures 2.2 to 2.5. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under-reported ages. Comparing Figures 2.2 and 2.3 to Figures 2.4 and 2.5 shows that age distribution by single years of age often show an irregular pattern with peaks at ages 10, 20, 25, 30, 40, etc., and troughs at ages 13, 19, 23, 27, 43, etc. Figures 2.4 and 2.5 show that classifying single year age data into five-year age groups reduces the errors showing a less distorted pattern. Thus, the curves for Figures 2.2 and 2.3 are distorted compared to the smooth curves of Figures 2.4 and 2.5.

Figure 2.2

Population Distribution of
Eastern Province in Single Years, 1980

Source: CSO 1980 Census

Figure 2.3

Population Distribution of
Eastern Province in Single Years, 1990

Source: CSO 1990 Census

Figure 2.4

Population Distribution of
Eastern Province by 5 Year Age Group, 1980

Source: CSO 1980 Census

Figure 2.5

Population Distribution of
Eastern Province by 5 Year Age Group, 1990

Source: CSO 1990 Census
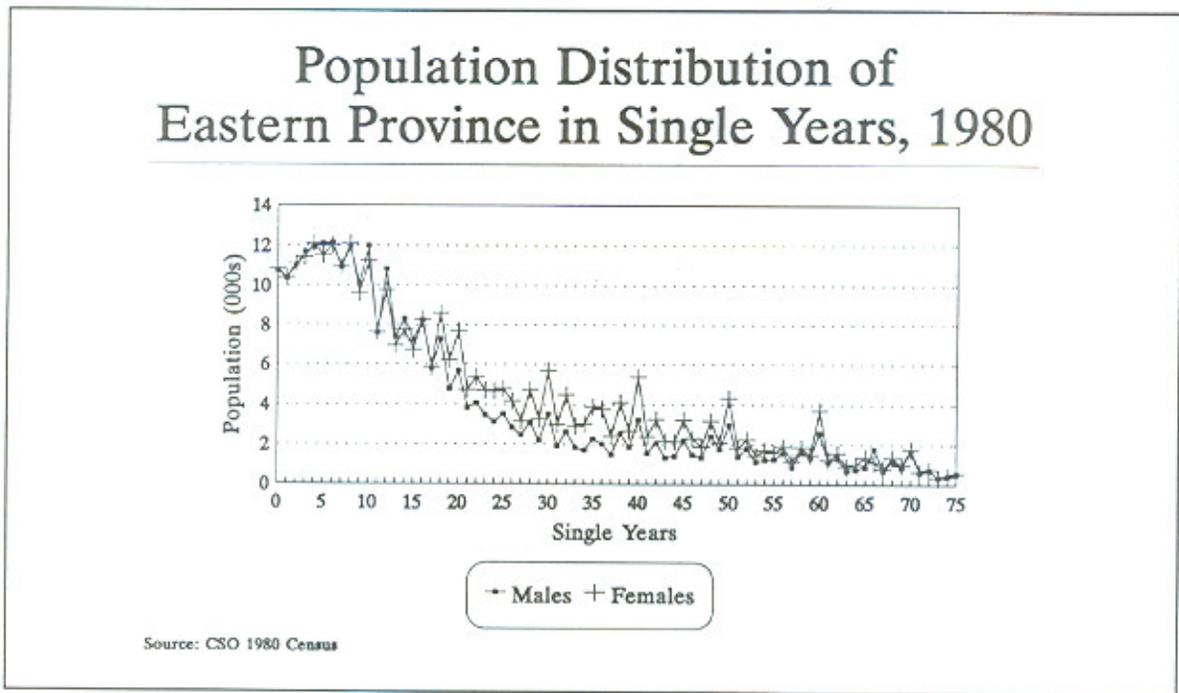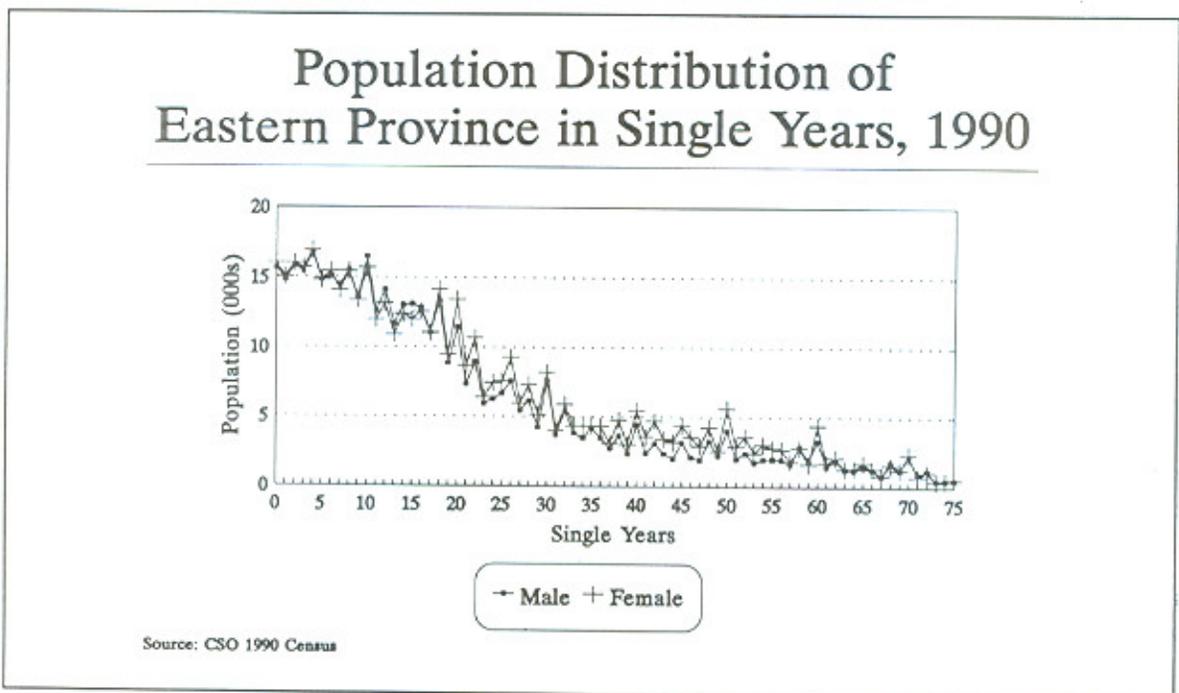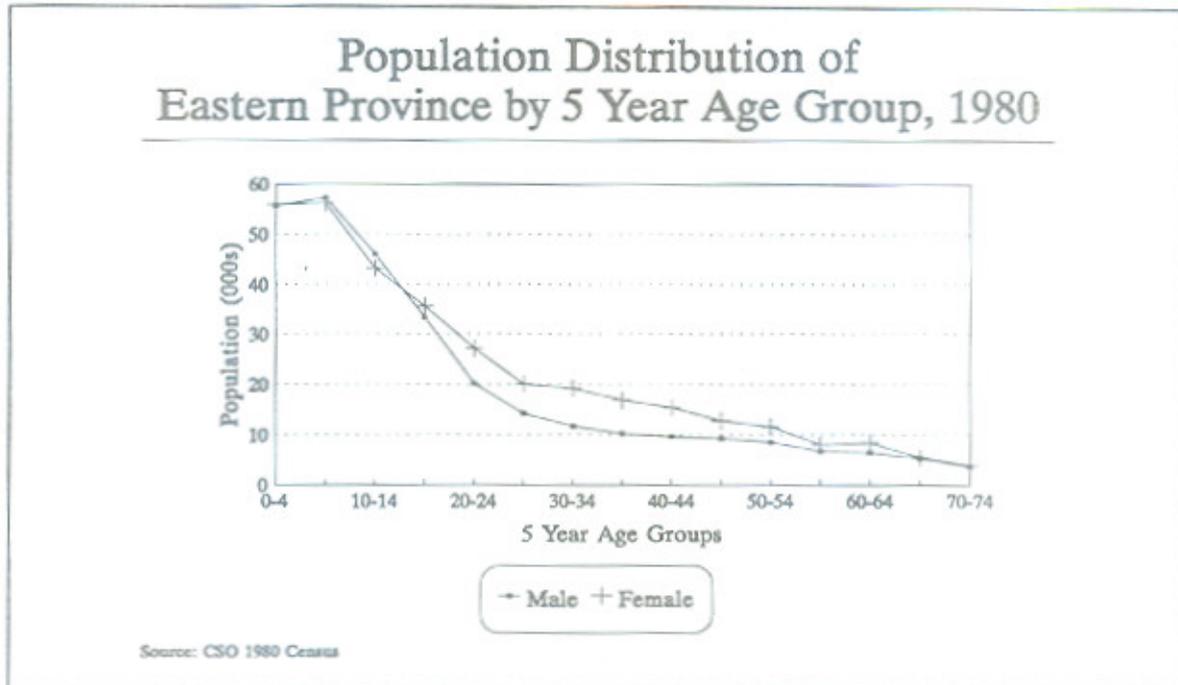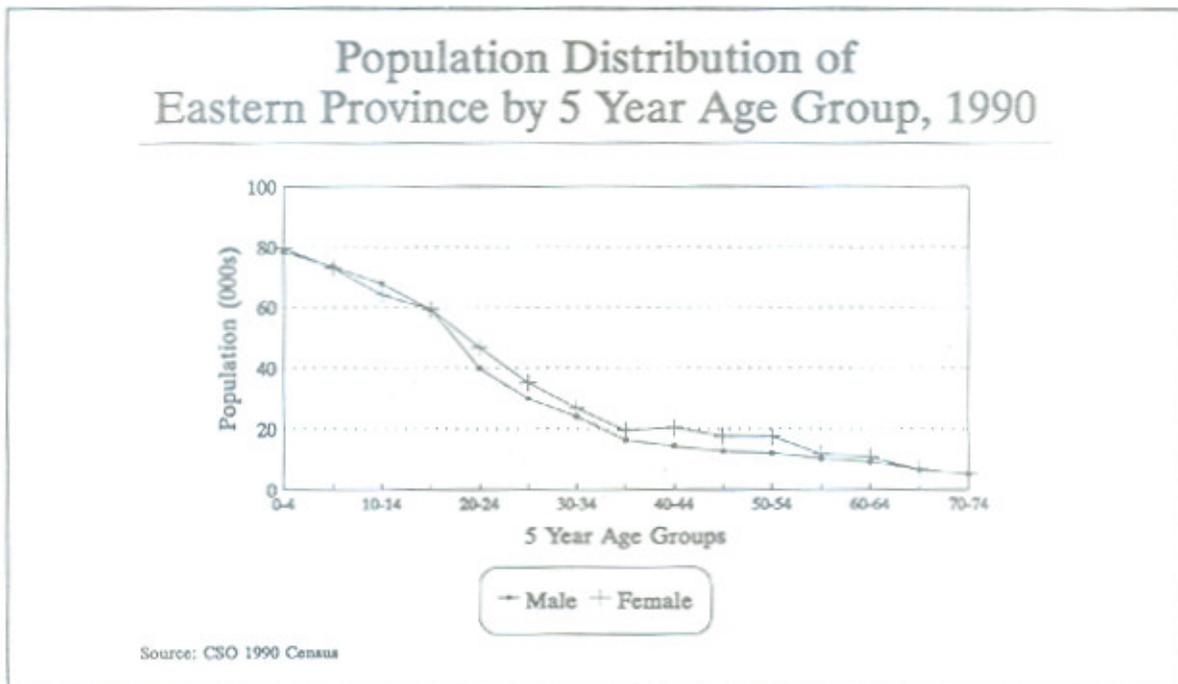
Sex Ratios

Sex ratios are used for detecting the presence of errors of omission, out-migration and under or over enumeration. A sex ratio of more than 100 indicates an excess of males, that of less than 100, shows a deficit of males and that of 100 shows an equal number of males and females. The overall sex ratio for Eastern Province increased from 87.7 in 1980 to 93.3 in 1990. The upward trend of the sex ratio is also observed in the rural and urban areas of the province. See Table 2.7. Results from Table 2.7 show that Eastern Province has an excess of females. This could be due to out-migration among males, high male child mortality or high adult male mortality. An under count of males is another reason. However, the table shows that in 1990 the number of males per 100 females has increased.

Table 2.7

Sex Ratios for Eastern Province, 1980 and 1990

Eastern Province	1980	1990
Total	87.7	93.3
Rural	86.7	92.8
Urban	97.4	98.9

An analysis of age-specific sex ratios for Eastern Province reveals that in 1980, there was a deficit of males among those aged 0-4 and 15-74. In 1990, a deficit of males is among those aged 0-4 and 15-69. On average, the sex ratio of 93.1 for all persons aged 0-74 shows a deficit of males, see Tables 2.8 and 2.9. A reason for having a shortfall of male children in 1990 among those aged 0-4 could be high child mortality rate among males. The sex ratio for those aged 0-4 in 1980 and 1990 of less than 100 also suggests that there was a possibility of under count of children. The sex ratio declined from 99.7 in 1980 to 98.5 males per 100 females in 1990 for those aged 0-4. Sex ratios for the age groups from 15-19 to 70-74 for 1980 and those in age groups from 15-19 to 65-69 for 1990 are less than 100. The reason for this could either be out-migration of the economically active adult males to other provinces, high male mortality or under count of males. These low sex ratios can also mean that there was under coverage of males. Tables 2.8, 2.9 and Figure 2.6 provide more details about sex ratios.

Table 2.8

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

Age Group	Population		Age Ratio		Deviation From 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	55,770	55,935	-	-	-	-	99.7	-
5-9	57,260	56,223	107.9	108.4	7.9	8.4	101.8	-2.1
10-14	46,143	43,387	101.2	96.2	1.2	-3.8	106.4	-4.5
15-19	33,340	35,648	100.3	100.7	0.3	0.7	93.5	12.8
20-24	20,193	27,186	89.5	98.4	-10.5	-1.6	74.3	19.2
25-29	14,152	20,075	92.3	90.7	-7.7	-9.3	70.5	3.8
30-34	11,631	19,113	97.0	102.3	-3.0	2.3	60.9	9.6
35-39	10,199	16,858	97.3	98.6	-2.7	-1.4	60.5	0.4
40-44	9,613	15,341	99.3	102.5	-0.7	2.5	62.7	-2.2
45-49	9,242	12,702	101.3	96.3	1.3	-3.7	72.8	-10.1
50-54	8,523	11,539	104.4	107.5	4.4	7.5	73.9	-1.1
55-59	6,724	7,970	92.9	85.7	-7.1	-14.3	84.4	-10.5
60-64	6,464	8,388	104.6	115.1	4.6	15.1	77.1	7.3
65-69	5,358	5,509	103.4	92.6	3.4	-7.4	97.3	-20.2
70-74	3,717	3,948	-	-	-	-	94.1	3.1
Total	298,329	339,822	-	-	54.8*	78.0*	87.8	106.9*
Mean	-	-	-	-	4.2	6	-	7.6

* Denotes total irrespective of sign

Age-Sex Accuracy Index = 3 x Mean difference in sex ratios plus mean deviations of male and female age ratios
= 3 x 7.6 + 4.2 + 6.0
= 33.0

Figure 2.6

Population Distribution of
Eastern Province By Sex Ratio, 1980 and 1990

Source: CSO 1990 Census
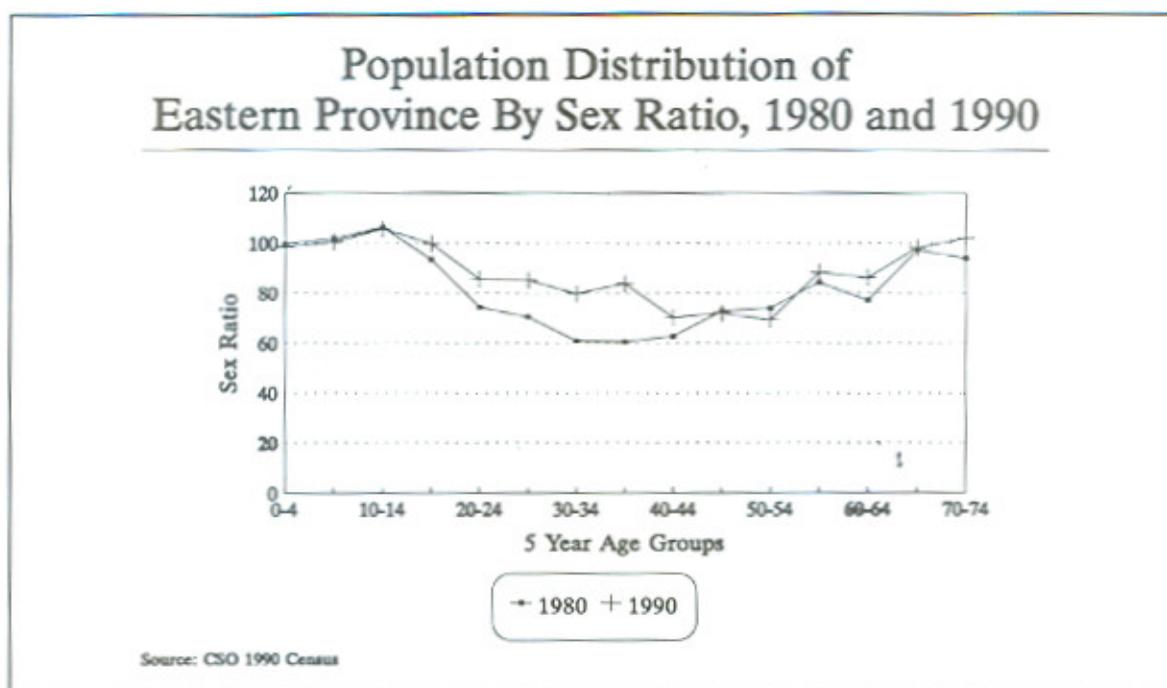
Age Ratios

The quality of age data can also be evaluated by looking at age ratios. Age ratios is defined as the ratio of the populations in a given age group to one-third of the sum of the populations in the age group itself, the preceding and the following age groups, times 100. In normal circumstances when there are no major changes in fertility, mortality or migration, the age ratios do not deviate from 100. Therefore, any substantial deviation is explained in terms of age misreporting. Analysis of age ratios shows that in 1980, the age groups with age ratios less than 100 for males are from 20-24 to 40-44 and 55-59 while for females in the same year, the age groups are 10-14, 20-24, 25-29, 35-39, 45-49, 55-59, 65-69 and 70-74. In 1990, age groups with age ratios less than 100 for males are 20-24, 25-29 35-39 to 45-49, 55-59 and 65-69, while 10-14, 20-24 to 35-39, 45-49, 55-59 and 65-69 are the females. The rest of the age groups have age ratios of more than 100 in 1980 and 1990. Therefore, the substantial deviations of the age ratios among males and females suggest that age data were distorted due to age misreporting. The average age ratio deviation for males in 1980 was 4.2 and 4.3 in 1990. The average age ratio deviations for females are 6.0 and 6.4 in 1980 and 1990, respectively. This implies that the reporting of male and female age data has deteriorated. However, results of the average age ratio deviation shows that reporting of age among females was less satisfactory in 1980 and 1990 compared to that of males. The average sex ratio difference for 1980 is 7.6 and for 1990 it is 6.7. However, the United Nations Age-Sex Accuracy Index declined from 33.0 in 1980 to 30.8 in 1990. The United Nations defines age data as; 'accurate, inaccurate, and highly inaccurate' if the age-sex accuracy index is; less than 20, between 20-40, or 40 and above, respectively. This implies that the age data for Eastern Province is inaccurate in as far as the UN Age-Sex Accuracy Index is concerned. See Tables 2.8, 2.9 and Figure 2.7.

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Table 2.9

Population by Five Year Age Group, Sex, Age and the United Nations Age-Sex Accuracy Index, Eastern Province, 1990

Age Group	Population		Age Ratio		Deviation From 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	78,498	79,718	-	-	-	-	98.5	-
5-9	73,567	73,273	100.3	101.2	0.3	1.2	100.4	-1.9
10-14	68,014	64,278	101.6	97.9	1.6	-2.1	105.8	-5.4
15-19	59,229	59,376	106.3	104.6	6.3	4.6	99.8	6.1
20-24	39,889	46,593	92.7	99.0	-7.3	-1.0	85.6	14.1
25-29	29,970	35,161	95.8	97.2	-4.2	-2.8	85.2	0.4
30-34	23,999	26,737	102.4	98.5	2.4	-1.5	89.8	-4.5
35-39	16,364	19,519	89.8	87.9	-10.2	-12.1	83.8	5.9
40-44	14,278	20,352	98.9	106.2	-1.1	6.2	70.2	13.7
45-49	12,674	17,599	97.4	95.3	-2.6	-4.7	72.0	-1.9
50-54	12,094	17,447	103.4	112.0	3.4	12.0	69.3	2.7
55-59	10,312	11,671	97.4	87.6	-2.6	-12.4	88.4	-19.0
60-64	9,350	10,829	107.0	111.4	7.0	11.4	86.3	2.0
65-69	6,544	6,670	93.1	88.6	-6.9	-11.4	98.1	-11.8
70-74	5,190	5,083	-	-	-	-	102.1	-4.0
Total	459,972	494,306	-	-	55.9*	83.4*	93.1	93.4*
Mean	-	-	-	-	4.3	6.4	-	6.7

* Denotes total irrespective of sign

Age-Sex Accuracy Index = 3 x Mean difference in sex ratios plus mean deviations of male and female age ratios
= 3 x 6.7 + 4.3 + 6.4
= 30.8

Figure 2.7

Population Distribution of
Eastern Province by Age Ratio, 1990

Source: CSO 1990 Census

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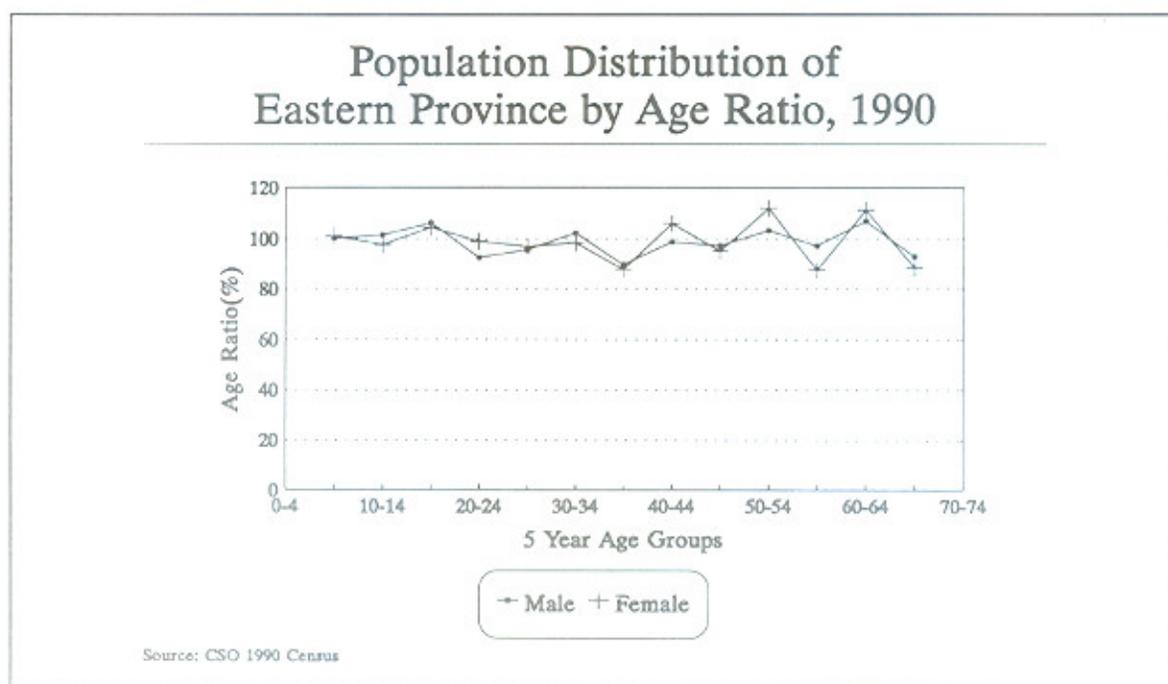
Survival Ratios

Survival ratios represent the probability that individuals of the same birth cohort or group of cohorts will still be alive 10 years later. Evaluation of the quality of age and sex data from two censuses using the survival ratio method can be done only under certain assumptions. The population should be closed to migration and it is also assumed that 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 accuracy of age and sex data are.

Cohort and overall survival ratios were used to evaluate the 1990 Census age data. Cohort survival ratio refers to the ratio of surviving of the population in a given age group to the next age group whereas overall survival ratio refers to the ratio of surviving of the population aged say, in an open age group say 10 years and above to 15 years and above. The cohort survival ratios are expected to be high at age group 10-14 where mortality is assumed to be lowest and then to decline continuously thereafter. Table 2.10 shows fluctuations rather than the expected pattern.

Table 2.10

Cohort Survival Ratios By Sex, Eastern Province, 1980-1990

Age Group	Male	Female
0-4	-	-
5-9	-	-
10-14	1.2195	1.1492
15-19	1.0344	1.0561
20-24	0.8645	1.0739
25-29	0.8989	0.9863
30-34	1.1885	0.9835
35-39	1.1563	0.9723
40-44	1.2276	1.0648
45-49	1.2427	1.0440
50-54	1.2581	1.1373
55-59	1.1158	0.9188
60-64	1.0970	0.9385
65-69	0.9732	0.8369
70-74	0.8029	0.6060
75-79	0.6183	0.4398
80-84	0.4232	0.4083
85+	0.0560	0.4628

Figure 2.8

Cohort Survival Ratio by Sex, Eastern Province, 1980-1990

Source: CSO 1990 Census
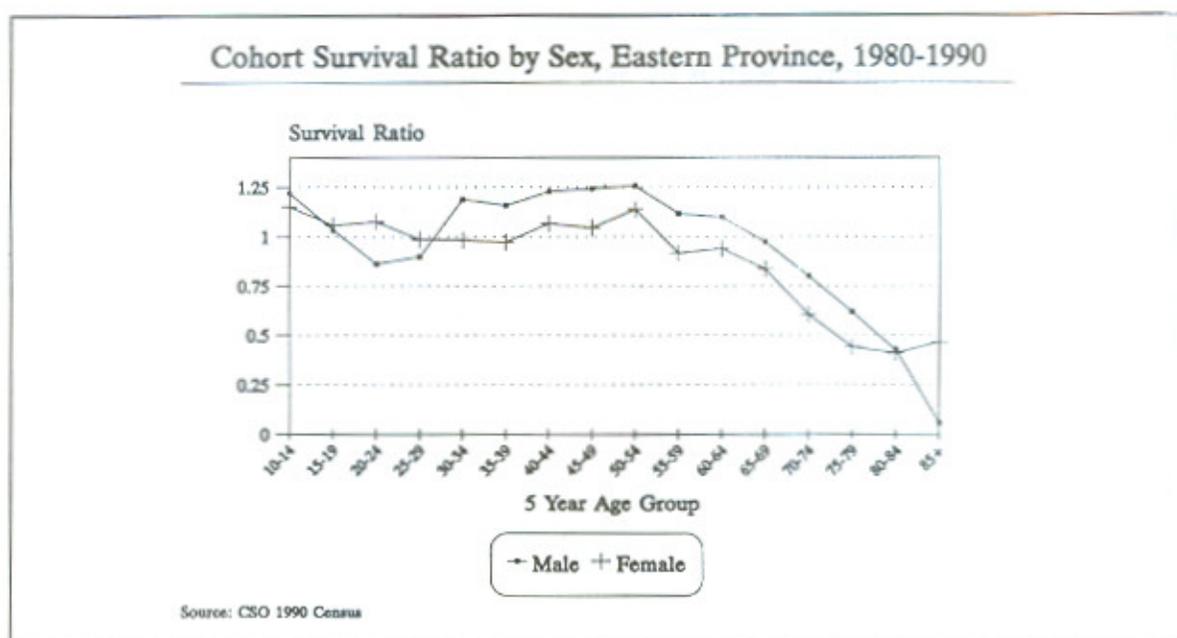
The overall survival ratios are expected to decline continuously as age increases. The female ratios should be higher than the male ratios because females usually have lower mortality than males. Male overall survival ratios are higher than the ratios of females contrary to the expectation. See Table 2.11. The distortions or fluctuations in the cohort and overall survival ratios clearly indicate age misreporting and under or over enumeration in some age groups. The increase in mortality between 1980 and 1990 in Eastern Province could have affected the survival ratios. Migration could also be a contributing factor for the observed irregularities in the survival ratios.

Table 2.11

Overall Survival Ratios, Eastern Province, 1980-1990

Age Group	Male	Female
10+	1.0368	1.0048
15+	0.9956	0.9769
20+	0.9839	0.9577
25+	1.0223	0.9311
30+	1.0595	0.9183
35+	1.0306	0.9043
40+	1.0072	0.8915
45+	0.9674	0.8536
50+	0.9156	0.8081
55+	0.8418	0.7166
60+	0.7701	0.6561
65+	0.6661	0.5507
70+	0.5633	0.4514
75+	0.4496	0.3613
80+	0.3401	0.3157
85+	0.2721	0.246

Figure 2.9

Overall Survival Ratios by Sex, Eastern Province, 1980-1990

Survival Ratio

Source: CSO 1990 Census
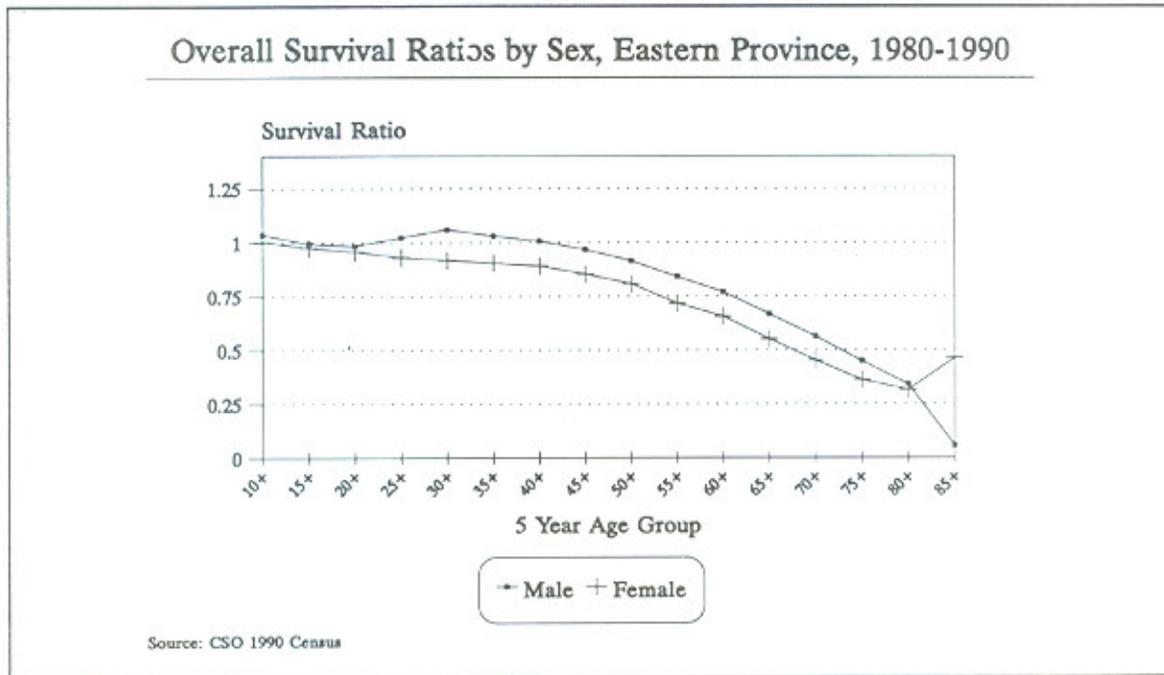
2.4 SUMMARY

Eastern Province with a population of 965,967 in 1990 recorded an annual population growth rate of 4.0 percent per annum between 1980 and 1990. Out of this population, 45.3 percent are below age 15 and 51.1 percent are in the age range of 15-64 years. The overall dependency ratio declined from 112.5 to 95.7 persons per 100 persons aged 15-64. It has been observed that there are more females than males in the province and a sex ratio of 93.3 males per 100 females was recorded in 1990. There was age heaping among males and females with 0,8 and 2 being the most preferred digits in that order. The 1990 age-specific sex ratios also suggest poor coverage and age misreporting. There was under coverage of children aged 0-4. Out of 965,967 population in 1990, 288 did not state their age compared to 3,096 out of 650,902 in 1980. The age-sex accuracy index declined from 33.0 in 1980 to 30.8 in 1990 indicating better age reporting in 1990 than in 1980.

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CHAPTER 3

POPULATION SIZE, GROWTH AND COMPOSITION

3.1 INTRODUCTION

The size, growth and composition of a population are important characteristics which may be obtained from a Census. A major input for socio-economic development planning comes from these parameters. As a consequence, there is considerable demand for census data which is disaggregated to the lowest levels. Provincial analysis reports aim to satisfy this demand.

Censuses of Zambia were designed to collect data on the de facto population until 1990 when this tradition was broken. In 1990 both de facto and de jure were employed. However, results presented in this report pertain to the de facto population. De facto count is the number of people present at census date (usual members and visitors). De jure count is the number of usual members present and temporarily absent at census data.

The de facto population constitutes persons actually present in the country at the time of census with the exception of foreign diplomatic personnel accredited to the country. Zambian diplomatic personnel accredited to embassies in foreign countries and their families, Zambia migrant workers and students residing in other countries were also excluded in 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, e.g. age, sex, etc.
- Social characteristics, e.g. educational, marital status, etc.
- Economic characteristics, e.g. labour force participation, economic activity, etc.

3.2 POPULATION SIZE AND GROWTH

The population of Eastern Province, enumerated as 965,264 in the 1990 Census, comprises 466,264 males and 499,703 females. More details are presented in Table 3.1.

Table 3.1

Population Size by Sex, Residence and District, Eastern Province, 1990

District	Total			Rural		Urban	
	Both Sexes	Male	Female	Male	Female	Male	Female
Districts							
Chadiza	63,210	30,925	32,235	29,431	30,748	1,544	1,487
Chama	51,772	24,385	27,387	22,667	25,631	1,718	1,756
Chipata	291,372	142,213	149,159	114,922	121,558	27,291	27,601
Katete	138,469	66,684	71,785	63,197	68,107	3,487	3,678
Lundazi	171,602	82,656	88,946	78,393	84,633	4,263	4,313
Petauke	249,542	119,351	130,191	113,695	124,570	5,656	5,621
Total	965,967	466,264	499,703	422,305	455,247	43,959	44,456

Table 3.2 shows the population size and annual growth rates for Eastern Province as recorded by the three post-independence population censuses of 1969, 1980 and 1990. The Geometric Growth Rate Method has been used to calculate the annual growth rates for the two intercensal periods. The annual growth rate of the population of Eastern Province increased from 2.3 percent to 4.0 percent in the 1969-80 and 1980-90 intercensal periods, respectively. There is an increase in growth rate for all districts, except the urban areas of the Province. The high annual growth rate of 15.1 percent recorded in the 1969-80 intercensal period, declined to 3.5 percent in the 1980-90 intercensal period for the urban areas of the Province. The high annual growth rate recorded in the 1969-80 period may be attributed to high rate of urbanisation following the lifting of restrictions on migration at independence. However, the situation had stabilized during the 1980-90 intercensal period. Given the high annual growth rates recorded in the 1980-90 intercensal period, one may observe that the population of Eastern Province is growing very fast. Notable among the districts is Petauke, with an annual growth rate of 4.7 percent (1980-90). The percentage population distribution among the districts has generally remained stable from 1980 to 1990 as shown in Figure 3.1

Table 3.2

Population Size and Growth Rates, Eastern Province, 1969, 1980 and 1990

District	Population 1969	Annual Growth Rate 1969-80 (%)	Population 1980	Annual Growth Rate 1980-90 (%)	Population 1990
Eastern Province					
- Total	509,515	2.3	650,902	4.0	965,967
- Rural	496,102	1.6	588,010	4.1	877,552
- Urban	13,413	15.1	62,892	3.5	88,415
Districts					
Chadiza	32,169	3.1	44,879	3.5	63,210
Chama	30,887	1.2	35,359	3.9	51,772
Chipata	148,416	3.0	204,738	3.6	291,372
Katete	80,485	1.4	94,208	3.9	138,469
Lundazi	92,247	2.0	114,653	4.1	171,602
Petauke	125,311	2.1	157,065	4.7	249,542

Figure 3.1

Population Distribution by Districts, Eastern Province, 1990

Chipata
30%

Chama
5%

Chadiza
7%

Katete
14%

Petauke
26%

Lundazi
18%
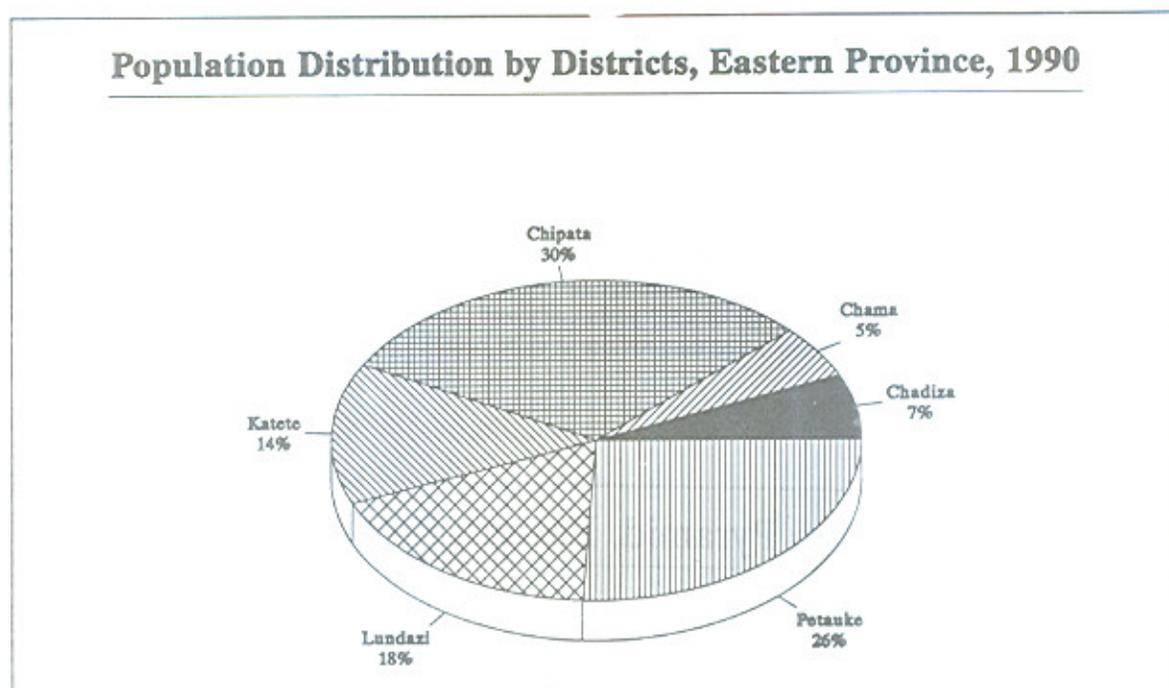
Another way of assessing the growth of the population is by looking at population density. Information on this aspect is shown in Table 3.3. As in the case of annual growth rates, population density shows an increasing trend over the three censuses for all areas of Eastern Province. Chama District is the least populated with a population density of 2.9 persons per square kilometre. This is in contrast to 34.7 persons per square kilometre recorded for Katete district.

Table 3.3

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

District	Area (Sq Km)	Population Density/Census Year (Population Per sq.km)		
		1969	1980	1990
Total Eastern	69,106	7.4	9.4	14.0
Chadiza	2,574	12.5	17.4	24.6
Chama	17,630	1.8	2.0	2.9
Chipata	11,986	12.4	17.1	24.3
Katete	3,989	20.2	23.6	34.7
Lundazi	14,058	6.6	8.2	12.2
Petauke	18,686	6.6	9.3	13.4

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 women in the reproductive age group 15-49 years. Migration is also age-selective, while the school going population and labour force are persons in specific age groups.

The median age is often used as a 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, older than the median. The median age for Eastern Province is 16.9 years. This shows a rise of about one year from median age of 15.7 years calculated from the 1980 population census data. The implication is that the population of the province is quite young, see Figures 3.2 and 3.3

Figure 3.2

Population Pyramid, Eastern Province, 1980

Source: CSO 1980

Figure 3.3

Population Pyramid, Eastern Province, 1990

Age Group

Source: CSO 1990
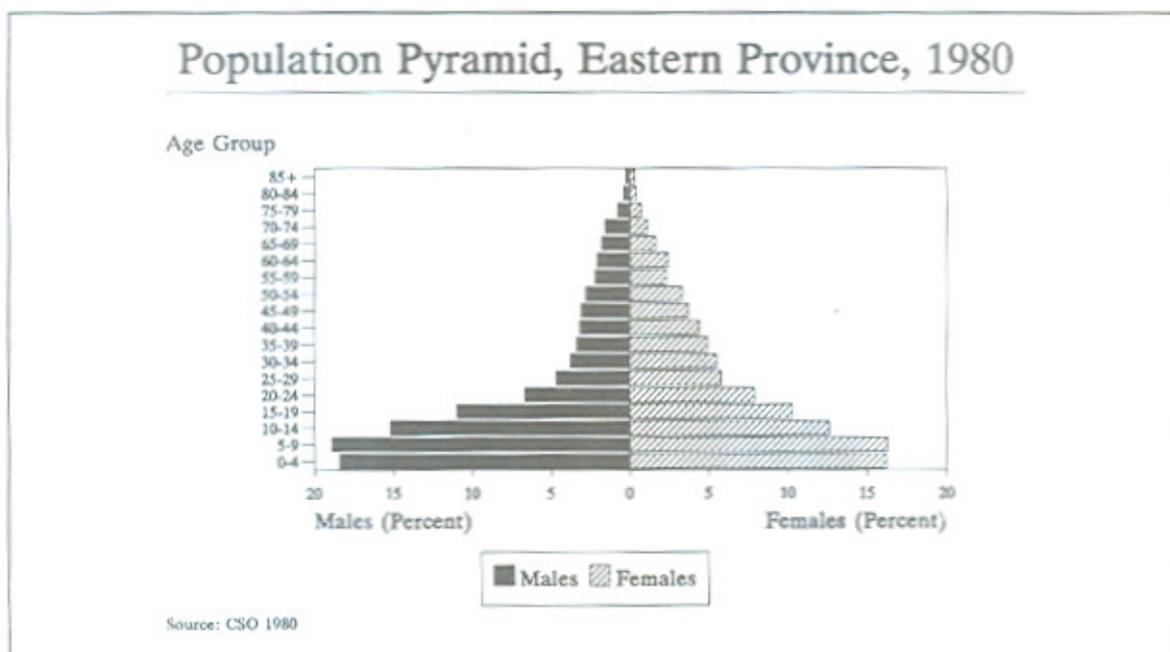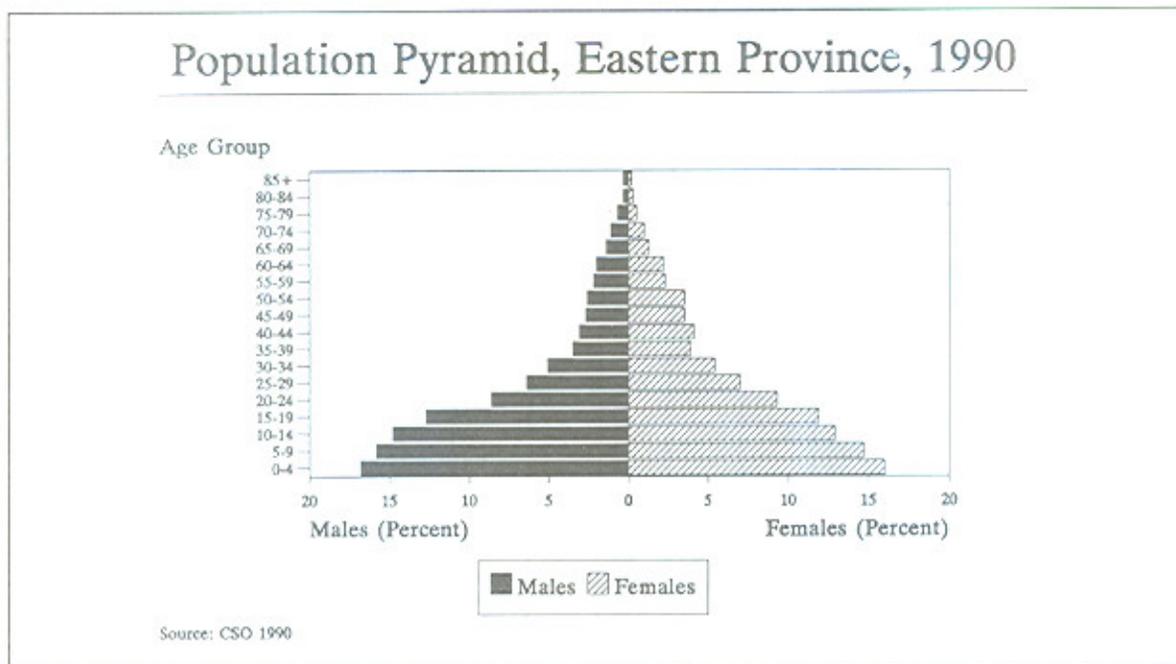
Additional information on the age-sex population distribution of Eastern Province is given in Table 3.4. The child population, which is taken to be age group 0-14 years make up big proportions of the total population. These ages constitute 48.0 and 43.6 percent for males and females, respectively. Inference could be made from this, as earlier observed from the median age and the population pyramids, that the population of the Province is young. Implications of a young population are that resources meant for investment in the productive sectors of the economy are diverted towards the social sectors such as health and education. The child population constitute between 43 to 48 percent of the population of the whole province, rural/urban areas and the districts.

Table 3.4

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

Age Group	Eastern			Rural		Urban		Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
	Both Sexes	Male	Female	Male	Female	Male	Female	Both Sexes	Both Sexes	Both Sexes	Both Sexes	Both sexes	Both Sexes
0 - 4	16.4	16.8	16.0	16.9	16.0	15.8	15.9	17.6	17.2	15.4	16.8	17.8	15.8
5 - 9	15.2	15.7	14.7	15.9	14.6	14.8	14.9	16.4	16.1	14.6	15.8	14.9	15.3
10 - 14	14.7	15.5	12.9	14.6	12.7	14.0	15.0	13.8	14.2	14.0	13.7	12.6	13.9
15 - 19	12.3	12.7	11.9	12.7	11.7	12.9	14.1	11.7	13.2	12.7	11.6	11.8	12.4
20 - 24	9.0	8.5	9.3	8.5	9.2	9.3	10.7	8.6	8.5	9.4	8.3	9.3	8.8
25 - 29	6.7	6.4	7.0	6.3	6.9	7.4	8.4	6.8	6.4	6.9	6.7	7.1	6.4
30 - 34	5.2	5.1	5.4	5.0	5.2	6.8	6.5	5.0	4.5	5.5	5.0	5.3	5.3
35 - 39	3.7	3.5	3.9	3.4	3.9	5.0	4.4	3.9	3.4	3.8	3.7	3.7	3.6
40 - 44	3.6	3.0	4.1	2.9	4.1	4.3	3.3	3.4	3.5	3.6	3.7	3.6	3.2
45 - 49	3.1	2.7	3.5	2.7	3.6	3.2	2.4	2.9	3.3	3.1	3.1	3.1	3.6
50 - 54	3.1	2.5	3.5	2.6	3.7	2.5	1.7	2.8	2.9	3.0	3.1	3.1	3.2
55 - 59	2.3	2.2	2.3	2.3	2.5	1.6	0.9	2.1	2.5	2.1	2.3	2.2	2.4
60 - 64	2.1	2.0	2.2	2.1	2.3	0.9	0.7	1.8	1.7	2.0	2.3	1.9	2.4
65 - 69	2.4	1.4	1.3	1.5	1.4	0.6	0.4	1.1	1.1	1.4	1.4	1.4	1.4
70 - 74	1.1	1.1	1.0	1.2	1.1	0.3	0.2	1.0	0.7	1.1	1.2	1.0	1.1
75 - 79	0.6	0.7	0.5	0.8	0.5	0.2	0.1	0.5	0.5	0.6	0.6	0.6	0.6
80 - 84	0.3	0.3	0.3	0.4	0.3	0.1	0.1	0.3	0.2	0.4	0.3	0.3	0.3
85+	0.2	0.2	0.2	0.3	0.3	0.1	0.1	0.3	0.2	0.3	0.3	0.2	0.2
N/Stated	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1	0.0	0.1	0.0	0.0	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
Total Pop.	965,967	466,264	499,703	422,305	455,247	43,957	44,456	63,210	51,772	291,372	138,469	171,602	249,542

Ethnicity and Citizenship

Eastern Province population is predominantly of African origin. The other ethnic groups comprise only a negligible proportion. The term ethnicity, in the 1990 Census meant continent of origin when referring to the total population, but when applied to Zambians it meant the indigenous Zambian tribes. The population of African origin in the province constitute 98.98 percent, leaving only a negligible 1.02 percent for other ethnic groups. Table 3.5 gives more details on ethnicity.

Table 3.5

Ethnic Composition of the Population of Eastern Province, 1990

Sex	ETHNIC GROUP						
	African	American	Asians	European	Other	Not Stated	Total
Male	461,363	34	532	162	1	4,172	466,264
Female	494,735	36	468	126	0	4,338	499,703
Total	956,098	70	1,000	288	1	8,510	965,967
% of Total Population	98.98	0.01	0.10	0.03	0.00	0.88	100.0

Table 3.6 shows the foreign population of Eastern Province by country of citizenship. In 1990, among the foreign citizens in Eastern Province, Mozambicans (59.8 percent) are significantly more than those from any other country. The Malawians (12.5 percent) are in second place. The presence of a large number of Mozambicans in the Province may be explained by the Civil war in that country at that time. Many had to flee and were accommodated at Ukwimi Refugee Camp in Petauke district. In 1980 the situation was slightly different with Malawi (27.4 percent) having led. Zimbabwean citizens were in second place with 23.4 percent. The Zimbabweans only account for 4.0 percent in 1990 implying that they may have gone back to their country in the 1980-90 intercensal period with the attainment of independence by Zimbabwe. Foreign citizens as a percentage of the total population of the Province has remained at more or less the same level in 1980 and 1990 with 3.0 and 3.1 percent, respectively.

Table 3.6

Foreign Populations of Eastern Province by Citizenship in 1990 and the Percent Distribution of Foreign Populations in 1990 and 1980

Country/Region	Population 1990	Percent 1990	Percent 1980
Central Africa	106	0.3	0.2
Tanzania	50	0.2	0.5
Other (Eastern Africa)	168	0.6	0.2
Northern Africa	91	0.3	0.1
Angola	1	0.0	10.9
Botswana	7	0.0	7.2
Malawi	3,773	12.5	27.4
Mozambique	18,094	59.8	8.7
Zimbabwe	1,216	4.0	23.4
Other (Southern Africa)	77	0.2	1.9
West Africa	228	0.8	0.1
America	65	0.2	0.7
Asia & Oceania	204	0.7	2.1
Europe	458	1.5	3.1
Not Stated	5,731	18.9	13.5
Total (Percent)		100.0	100.0
Total Foreign Citizen	30,269		19,575
Percent Foreign Population		3.1	3.0

Economic Characteristics

Analysis techniques used in describing the labour force are presented in detail in Chapter 6 on economic characteristics. In this Chapter only Crude Activity Ratios (CAR) and labour force participation rates are presented. Table 3.7 presents Crude Activity Ratios. The Crude Activity Ratios are low meaning that a few economically active persons have to support a large economically inactive population. At 29.2 percent, the urban ratio is lower than the ratio for the rural area (37.3 percent). This may be due to the fact that work in the rural areas is agriculturally based and therefore, may be more readily available than in urban areas.

Table 3.7

Crude Activity Ratio, Eastern Province, 1990

Province/Residence		Crude Activity Ratio (%)
Eastern Province	- Total	36.6
	- Rural	37.3
	- Urban	29.2

Table 3.8 gives more details on economic activity and presents a more refined measure called Age-Sex Specific Activity Ratio. It may be noted from the table that labour force participation ratios for females in Eastern Province are consistently lower than those for males. This is also clearly shown by Figures 3.4 and 3.5.

Table 3.8

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

	Age-Specific Activity Ratio (%)					
	Eastern		Rural		Urban	
Age	Male	Female	Male	Female	Male	Female
Total	74.3	44.3	75.5	45.8	63.5	28.7
12-14	53.3	50.3	56.3	53.4	24.4	25.6
15-19	60.7	50.7	63.6	53.2	33.3	28.8
20-24	67.2	43.5	77.9	45.2	61.7	28.8
25-29	85.5	41.2	86.1	42.6	81.2	29.8
30-34	88.3	41.3	88.1	42.5	89.3	32.0
35-39	88.6	41.3	88.2	42.1	91.2	33.6
40-44	87.9	42.1	87.6	43.0	90.4	40.5
45-49	87.8	42.4	87.4	43.3	90.9	28.9
50-54	86.3	42.9	86.3	43.8	86.3	22.8
55-59	85.1	42.9	85.3	43.7	81.4	23.4
60-64	82.0	41.5	82.3	42.1	74.6	20.3
65-69	80.7	40.2	81.1	40.9	73.0	17.3
70-74	73.4	36.5	73.6	36.7	68.1	26.2
75+	63.8	29.2	64.0	29.6	1.6	12.3
N/S	1.2	4.2	2.4	6.3	-	-

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Figure 3.4

Age - Sex Specific Activity Ratio, Eastern Province, 1990
Rural

Figure 3.5

Age - Sex Specific Activity Ratio, Eastern Province, 1990
Urban
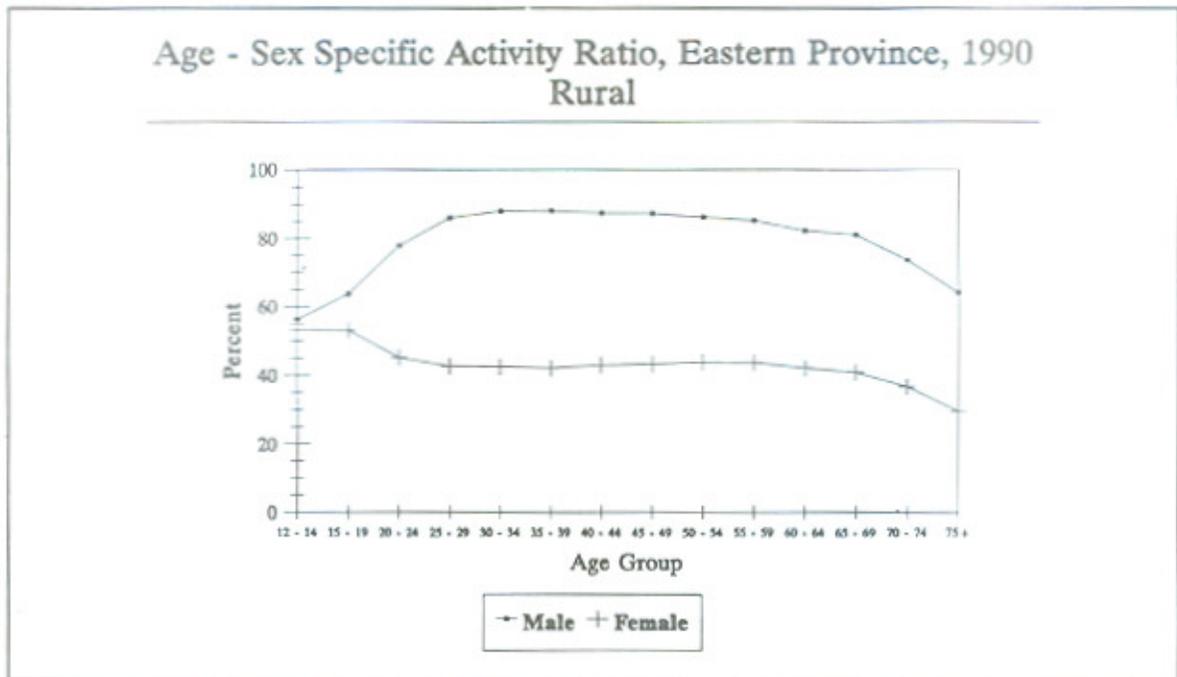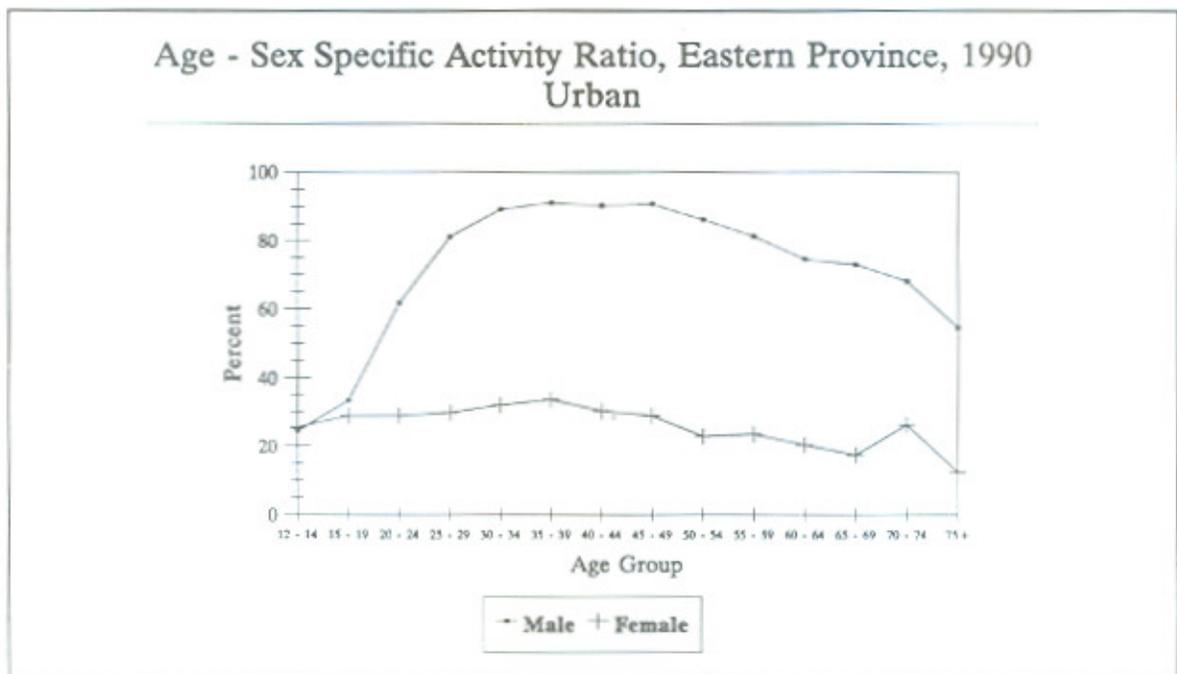
The reason why participation ratios for age groups 12-14 and 15-19 are lower than those for older age groups could be attributed to the fact that the majority of the population at this age groups may still be attending school. It may also be noted that activity ratios for rural females are higher than those for urban females. This may be because employment in the rural areas is based on the land and may be more readily available than in the urban areas where work may be mostly non-agricultural. Another striking feature shown by the table is that from age 59 years onwards, participation ratios for rural males are higher than those for their urban counterparts. An explanation for this situation could be that by age 59 years most urban males may have retired from formal employment, but agriculturally based work for rural males may still be continuing at such advanced ages.

3.4 SUMMARY

The three post-independence censuses of 1969, 1980 and 1990 have recorded the population of Eastern Province as 509,515, 650,902 and 965,967, respectively. Annual population growth rates of 2.3 percent (1969-80) and 4.0 percent (1980-90) show that the population of the Province is growing at a fast rate.

The population of the Province with a median age of 16.9 years is that which may be termed as "young" considering that nearly half is aged below 15 years of age. The observation on this situation is that prospects for future population growth are high since about half of the population has yet to pass through the reproductive ages.

The population of the province is predominantly of African origin with 3.0 percent constituting foreign citizens. the Crude Activity Ratio at 36.6 percent low implying a large economically inactive population. A more refined measure of economic activity, the Age-Sex-Specific Activity Ratio shows that the participation of males in the labour force is much higher than that of females. Ratios for females have consistently remained lower than those for males for total, rural and urban areas, depicting figures which are about half as large as those for males.

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CHAPTER 4

LANGUAGE OF COMMUNICATION

4.1 INTRODUCTION

There are many languages and dialects spoken in Zambia. It is estimated that there are 72 tribes in the country each with a unique dialect. However, there are seven major language groups. These are Bemba, Nyanja, Tonga, Lozi, Kaonde, Lunda and Luvale. They are widely spoken and are taught in schools. English is the official language of business conduct. English is a compulsory subject in primary and secondary schools and it must be passed for a pupil to be awarded a certificate

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

In this chapter, the languages have been classified in seven broad language groups. They are Bemba, Tonga, North-Western, Barotse, Nyanja, Mambwe and Tumbuka. The other category shown in the data include other languages not commonly spoken in the province. It should be noted here that these 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, the 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.

4.2 PREDOMINANT LANGUAGE OF COMMUNICATION

Table 4.1 presents data on major predominant languages spoken in Eastern Province. In all, at least 13 such languages have been identified in Table 4.1. Of the total population in the province (965,967), about 917,000 persons or 95 percent communicate in a predominant language. The remaining 5 percent were too young to have mastered a language or could not speak any language.

Chewa is the major predominant language of communication used by 36 percent of the population which can speak a language followed by Nsenga (23 percent), Tumbuka (15 percent), Nyanja (8 percent) and Ngoni (8 percent). Chewa is used as a predominant language of communication by the majority of people in the districts of Chadiza (92 percent) and Katete (95 percent). Senga is mostly used in Chama district (86 percent), while Tumbuka (79 percent) and Nsenga (81 percent) are mostly used in Lundazi and Petauke districts, respectively. Chipata District is shown in Table 4.1 to have a convergence of the indigenous Eastern Province languages with Chewa (34 percent) as the leading first language. Chewa is the second most widely used language in Lundazi (10 percent) and Petauke (15 percent) after Tumbuka and Nsenga, respectively.

The Ngoni Language, which is associated with the powerful Ngoni Chiefdom, some of whose subjects settled in Eastern Province after migrating from South Africa in 1835 during the rule of King Shaka is less spoken in the province. In Chipata where it is mostly spoken, it is the third major predominant language of communication. The Nyanja which has grown from a combination of different dialects spoken by the indigenous tribes of the province is less spoken than Chewa, Nsenga and Tumbuka in the province. In the districts it is used by 24 percent of the population as a predominant language of communication. In the remaining districts, Nyanja language is spoken by few people ranging from 0.8 percent in Katete to 2.2 percent in Lundazi.

Table 4.1

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

Major Language	Eastern Province	Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
Bemba	1.2	0.4	5.0	1.7	0.3	1.2	0.5
Bisa	1.0	0.0	0.2	0.3	0.0	4.8	0.0
Tonga	0.1	0.1	0.0	0.2	0.0	0.1	0.1
Lozi	0.1	0.0	0.0	0.3	0.0	0.1	0.1
Chewa	35.5	92.1	0.3	33.5	95.0	9.5	15.2
Nsenga	22.7	0.4	0.2	5.0	1.3	0.6	81.0
Ngoni	7.7	4.6	0.1	23.2	1.2	0.6	0.4
Nyanja	8.2	1.6	1.1	24.2	0.8	2.2	1.0
Kunda	2.8	0.1	0.0	7.9	0.9	0.8	0.2
Namwanga	0.1	0.0	0.7	0.0	0.0	0.1	0.0
Tumbuka	15.0	0.4	6.3	2.0	0.1	79.0	0.5
Senga	4.8	0.1	85.8	0.3	0.1	0.6	0.1
English	0.3	0.1	0.1	0.7	0.1	0.1	0.2
other	0.5		0.2	0.7	0.1	0.3	0.7
Total	100.0	100.0	100.0	100.0	99.9	100.0	100.0
Population	916,845	60,261	48,446	277,548	132,690	161,445	236,455

Table 4.1 shows that the non indigenous languages in Eastern Province are less spoken as predominant languages of communication. Of the non indigenous languages Bemba (1.2 percent) and Bisa (1.0 percent) are the most spoken. Bemba language (5 percent) is the third most spoken in Chama District after Senga and Tumbuka. Similarly, Bisa language (4.8 percent) is the third most used language in Lundazi District after Tumbuka and Chewa. As a predominant language of communication in Eastern Province, English, the official language in Zambia is among the least used.

4.3 PREDOMINANT LANGUAGE GROUP

Table 4.2 presents data for the language groups for rural and urban areas of the Eastern Province.

Table 4.2

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

Language Group	Eastern Province - Total			Eastern Province Rural			Eastern Province Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba	2.3	2.4	2.3	2.0	2.0	2.0	5.8	5.9	5.7
Tonga	0.2	0.2	0.2	0.1	0.1	0.1	1.1	1.0	1.1
N/Western	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.4	0.4
Barotse	0.1	0.2	0.1	0.1	0.1	0.0	0.7	0.8	0.7
Nyanja	77.0	77.0	77.0	76.9	77.0	76.8	78.5	78.0	79.0
Mambwe	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3
Tumbuka	19.8	19.6	19.9	20.7	20.5	20.8	10.7	10.7	10.7
English	0.3	0.4	0.2	0.1	0.1	0.1	2.2	2.6	1.8
Other	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.4	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Population	916,845	442,139	474,6061	833,648	400,841	432,807	83,197	41,298	41,889

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

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The data in Table 4.2 shows that the Nyanja group of languages is spoken by 77 percent of the people followed by the Tumbuka language group with almost one-fifth of the population speaking it. The difference in the percentage of the rural and urban population using Nyanja language as a predominant language of communication is small. The Tumbuka group of languages is used by a higher percentage of the rural than the urban population. Other groups of languages are used most by the urban than the rural populations. Differences in the percentage of males and females using a language group are small.

Table 4.3 shows changes in the percentage of the population using a language group during the intercensal period 1980-1990. The Nyanja group is now spoken by a higher percentage (77 percent) than in 1980 (75 percent). The percentage of the population speaking Bemba, Barotse, English and Other languages has declined over the period. The remaining language groups are still spoken by the same percentages of population as in 1980.

Table 4.3

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

Language Group	Percentage of Total Population	
	1980	1990
Bemba	3.0	2.3
Tonga	0.2	0.2
North-Western	0.1	0.1
Barotse	0.2	0.1
Nyanja	75.4	77.0
Mambwe	0.1	0.1
Tumbuka	19.4	19.8
English	1.4	0.3
Other	0.2	0.1
Total	100.0	100.0
Population	607,243	916,845

4.4 SECOND LANGUAGE OF COMMUNICATION

In a multilingual country like Zambia, many people speak several languages. However, there is usually only one language in which an individual is most proficient. It may be the case that an individual will also communicate through other languages in some of their day-to-day activities. The census also collected information on the second most important language of communication. About 21 percent of the population who could communicate in a language indicated that they could communicate in another language as a second predominant language of communication.

Table 4.4 shows that the indigenous languages of Eastern Province are mostly used as second languages of communication. Chewa language (19 percent) is the most used, closely followed by Nyanja (18 percent), Bemba (17 percent) and English (15 percent). English as a second language of communication ranks first in the districts of Chadiza (28 percent) and Katete (27 percent). Bemba language is spoken by about one third of the people speaking secondary languages in Chama district, and ranks second in Katete and third in Petauke districts. Eastern Province portrays more heterogeneity in secondary languages spoken than with the predominant languages shown in Table 4.1.

Table 4.4

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

Second Language	Eastern Province	Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
Bemba	17.3	17.1	32.4	14.0	22.3	13.8	22.5
Bisa	0.6	0.2	0.9	0.5	0.1	1.4	0.0
Tonga	1.1	2.4	0.2	1.2	2.1	0.7	1.4
Lozi	0.6	0.7	0.2	0.8	0.8	0.3	0.7
Chewa	19.4	17.8	2.5	18.1	11.6	23.3	25.6
Nsenga	9.6	4.5	0.8	7.9	13.9	1.4	23.6
Ngoni	7.2	18.0	0.2	12.7	10.6	1.2	1.3
Nyanja	17.7	2.6	21.9	20.5	2.3	27.4	6.8
Kunda	0.3	0.4	0.2	2.0	2.0	0.6	0.7
Namwanga	0.2	0.0	2.0	0.1	0.1	0.1	0.0
Tumbuka	6.3	5.6	14.9	3.5	3.8	15.5	1.1
Senga	1.3	0.2	12.6	0.5	0.1	1.2	0.1
English	15.4	27.7	10.3	16.5	27.4	11.4	13.4
Other	2.0	2.7	1.0	1.7	2.0	1.7	2.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Population	202,260	5,307	11,737	87,611	12,802	43,687	41,116

The results of Table 4.4 are shown in Table 4.5 above in form of the language groups described earlier. As a language group, Nyanja group of languages is spoken by over half the population who can communicate in a second predominant language of communication. Bemba language group is the second most used second language of communication followed by English (15 percent) and Tumbuka group of languages (8 percent).

Table 4.5

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

Language Group	Total			Rural			Urban		
	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females
Bemba	18.4	17.4	19.5	19.6	18.6	20.8	13.6	12.6	14.6
Tonga	1.4	1.3	1.5	1.3	1.2	1.4	1.8	1.6	1.9
North-Western	0.3	0.3	0.3	0.2	0.2	0.2	0.8	0.8	0.8
Barotse	0.7	0.6	0.7	0.5	0.5	0.5	1.5	0.4	1.7
Nyanja	55.2	52.2	58.6	55.6	52.3	59.2	53.9	51.9	56.0
Mambwe	0.3	0.3	0.3	0.3	0.3	0.3	0.5	0.5	0.5
Tumbuka	7.7	7.1	8.4	7.8	7.2	8.5	7.1	6.6	7.6
English	15.4	20.1	10.2	14.1	19.0	8.6	20.3	23.8	16.6
Other	0.6	0.7	0.5	0.6	0.7	0.5	0.5	0.8	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Population	202,260	105,477	96,783	160,624	84,043	76,581	46,779	21,434	20,202

Table 4.6, provides compares the percentages of the population using second predominant languages of communication between 1980 and 1990 censuses. As in Table 4.3, the Nyanja group is now used by a higher percentage of the population (55 percent) in 1990 than 27 percent in 1980. Tonga, Mambwe and Tumbuka are also used by higher percentages of the population in 1990 than in 1980. Bemba, English and Barotse are used by smaller percentages in 1990 than in 1980. Little changes are observed in the other language groups

Table 4.6

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

Language Group	Percentage of Total Population	
	1980	1990
Bemba	28.6	18.4
Tonga	1.2	1.4
North-Western	0.3	0.3
Barotse	0.8	0.7
Nyanja	26.9	55.2
Mambwe	0.2	0.3
Tumbuka	6.3	7.7
English	33.9	15.4
Other	1.8	0.6
Total	100.0	100.0
Population	104,802	202,260

The languages have been ranked according to the proportion of the population using them and the five highest ranking languages in each district are shown in Table 4.7. The ranking is such that the language on top is the predominant language of communication. The language below is the second language of communication. Where the cell has only one language, then the language has the same rank indicated in the first column of the table for both the predominant and second language of communication. Chewa ranks first as a predominant and second language of communication in the province. It also ranks first in Chadiza, Chipata and Katete districts. Senga, Tumbuka and Nsenga rank first in Chama, Lundazi and Petauke respectively.

Table 4.7

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

Rank Order	Eastern Province	Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
1	Chewa	Chewa English	Senga Bemba	Chewa Nyanja	Chewa English	Tumbuka Nyanja	Nsenga Chewa
2	Nsenga Nyanja	Ngoni	Tumbuka Nyanja	Nyanja Chewa	Nsenga Bemba	Chewa	Chewa Nsenga
3	Tumbuka Bemba	Nyanja Chewa	Bemba Tumbuka	Ngoni English	Ngoni Nsenga	Bisa Tumbuka	Nyanja Bemba
4	Nyanja English	Tumbuka Bemba	Nyanja Senga	Kunda Bemba	Kunda Chewa	Nyanja Bemba	Bemba English
5	Ngoni Nsenga	Bemba Tumbuka	Namwanga English	Tumbuka Ngoni	Nyanja Ngoni	Bemba English	Tumbuka Nyanja

4.5   SUMMARY

Indigenous languages are the major predominant languages spoken in Eastern Province About 13 languages have been identified as major ones in the province. However, Nyanja and Tumbuka group of languages are the most spoken languages in the province. They are spoken by 77 and 20 percent of the population as predominant languages of communication respectively. 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 grade 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 proceeds 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 which refers to 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 old 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 output.

Professional/Vocational Education completed

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

5.3 LITERACY STATUS

Data on literacy status was collected from all persons aged 5 years and over during the 1990 Census. However, no such data was collected during the 1980 Census. As a result 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 Eastern Province in 1990. The percentage of literate population in Eastern Province is 38.4 percent. Males and females make up 46.6 and 30.8 percent of literate population, respectively. The literate population is concentrated in age groups from 15 to 44 years. More than 50 percent of the population in each age group in the 15-44 age range are able to read and write except in age range 45 years and over in which less than 30 percent are able to read and write. In all the age groups, proportions of males are higher than those of females. Urban areas have high literate proportions in all the age groups as compared to rural areas. Rural and urban patterns are also shown in Figures 5.1 and 5.2.

Districts of Eastern Province that have high literate proportions are Chipata (47 percent), Lundazi (42 percent) and Chama (41 percent). Less than 30 percent of the population in Chadiza and Katete are able to read and write. In Petauke District 33 percent are able to read and write.

Table 5.1

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

Residence	Total	Age Group							
		5-9	10-14	15-19	20-24	25-29	30-44	45+	Not Stated
Eastern Province									
Total	38.4	8.0	37.2	54.0	55.9	56.1	49.9	27.8	20.5
- Male	46.6	7.8	36.8	58.5	65.1	68.3	68.1	48.9	25.0
- Female	30.8	8.3	37.6	49.6	47.9	45.7	35.0	10.2	19.4
Residence									
Rural									
- Total	35.5	6.6	33.5	50.7	52.8	53.0	46.4	26.2	20.5
- Male	43.9	6.5	33.3	55.6	62.7	65.9	64.9	46.8	25.0
- Female	27.8	6.8	33.7	45.8	44.4	41.9	31.8	9.3	13.4
Urban									
- Total	57.4	22.6	71.5	83.4	82.8	82.4	78.1	58.0	*
- Male	72.6	21.7	71.8	85.9	86.6	88.2	89.4	72.2	*
- Female	62.3	23.4	71.2	81.1	79.5	77.4	65.5	31.1	*
Districts									
Chadiza									
- Total	29.0	7.1	29.5	40.8	41.6	42.4	38.6	20.4	*
- Male	35.3	6.9	27.9	43.6	49.8	55.3	54.5	35.4	*
- Female	23.1	7.3	31.2	37.9	34.1	31.2	25.2	7.1	*
Chama									
- Total	40.9	7.3	40.3	63.6	62.8	61.0	47.8	28.4	*
Male	53.8	8.0	43.4	75.2	80.4	80.8	80.2	56.3	*
- Female	29.6	6.7	36.9	52.7	48.9	46.4	29.0	5.0	*
Chipata									
Total	46.6	11.6	47.2	64.2	65.7	65.7	58.8	31.7	17.6
- Male	53.9	11.3	46.6	66.8	71.9	74.2	74.7	52.9	14.3
- Female	39.7	12.0	47.9	61.5	60.1	58.1	44.4	13.3	20.0
Katete									
- Total	28.9	6.6	27.6	39.2	41.3	43.6	40.5	21.9	*
- Male	35.6	6.0	26.5	42.0	48.5	55.4	57.5	39.1	*
- Female	22.8	7.1	28.8	36.4	35.1	33.6	26.8	7.7	*
Lundazi									
- Total	42.1	7.0	40.5	61.9	62.0	61.4	53.3	29.5	*
Male	52.9	6.9	41.8	69.4	74.6	77.1	74.9	54.1	*
- Female	32.2	7.1	39.1	54.7	51.0	48.0	35.9	8.6	*
Petauke									
Total	33.3	5.9	29.8	45.5	49.1	49.9	45.1	27.1	*
- Male	41.1	5.8	29.9	49.9	59.1	62.5	62.2	47.2	*
- Female	26.3	6.1	30.8	40.9	41.0	39.6	31.8	10.7	*

Note: (*) low population figures of less than 50 persons.

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Figure 5.1

Literate Population by Age Group, Eastern Province Rural, 1990

Figure 5.2

Literate Population by Age Group, Eastern Province Urban, 1990
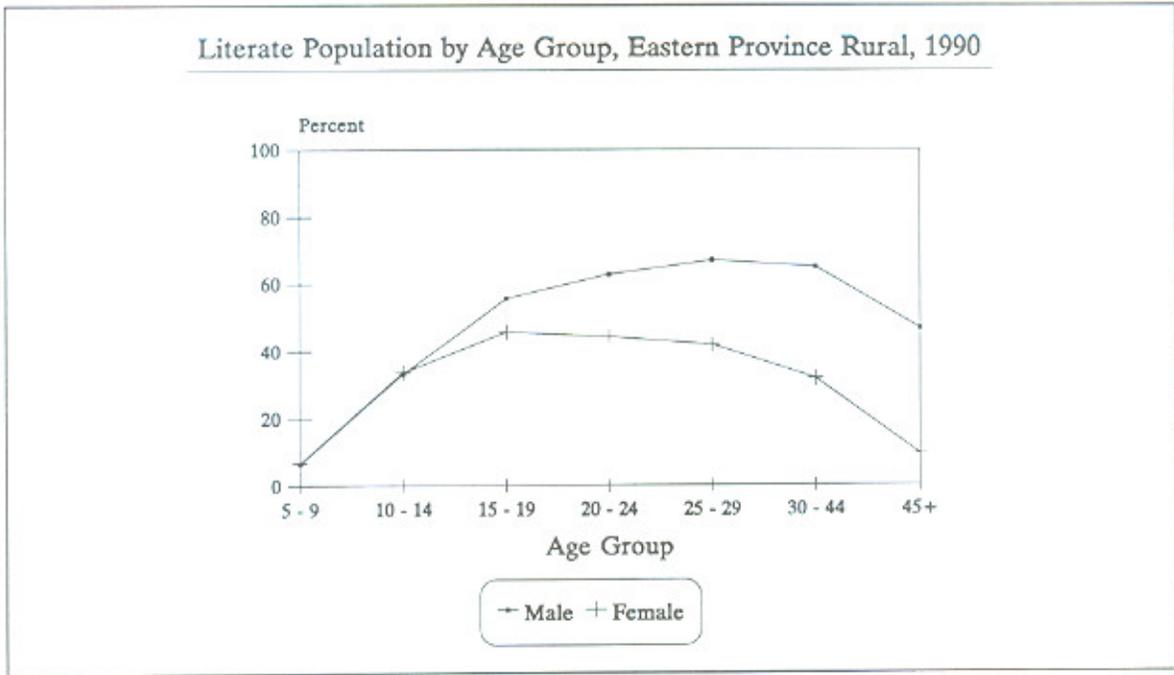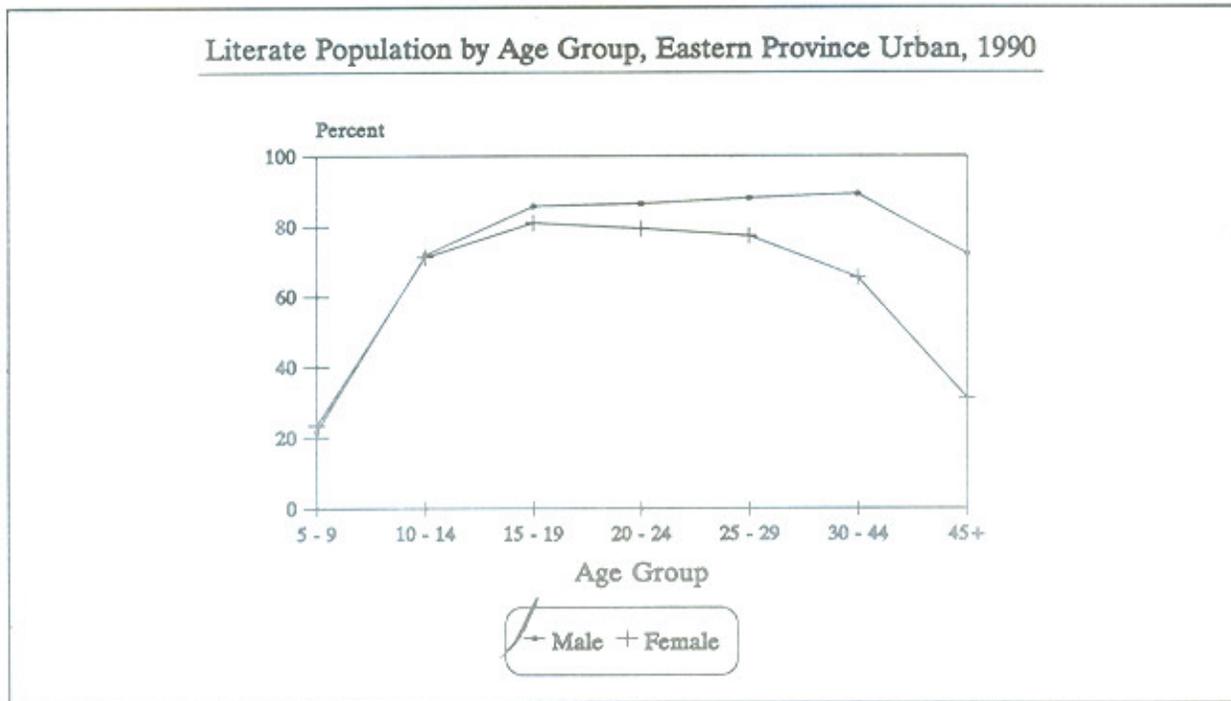
5.4 SCHOOL ATTENDANCE

Tables 5.2 and 5.3 show percentages of population who were presently attending school in 1980 and 1990 by sex and residence. In 1990, 23 percent of the total population in Eastern Province was currently attending school compared to 25 percent in 1980. Reductions in presently attending population are recorded in all age groups and by sex. The overall proportions of males and females declined by 3.9 and 0.5 percent, respectively, between the 1980-1990 intercensal period. Percentages of presently attending school population for 1990 Census are 29 and 19 percent for males and females, respectively. Table 5.2 shows high proportions of those presently attending school in ages 10 to 24 years.

In rural areas, the overall percentage of the presently attending population decreased from 24 percent in 1980 to 21 percent in 1990. The urban areas experienced an increase from 47 percent in 1980 to 52 percent in 1990. Similar observations are noticed when males and females are analysed in both rural and urban areas.

Table 5.2

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

Residence	Age Group							
	5-9	10-14	15-19	20-24	25-29	30+	Not Stated	Total
Eastern Province								
Total	17.3	47.7	44.3	20.6	7.9	2.8	1.1	23.4
Male	16.8	47.7	52.6	32.5	12.6	4.9	-	29.0
Female	17.8	47.6	35.1	9.9	5.1	1.7	2.7	18.8
Residence								
Rural								
Total	15.0	44.2	41.0	18.2	7.3	2.6	2.0	21.1
Male	14.5	44.4	49.8	30.5	11.9	4.5	-	26.6
Female	15.4	43.9	31.4	8.5	4.6	1.5	4.2	16.5
Urban								
Total	41.0	80.5	75.2	43.6	17.2	7.2	-	51.8
Male	40.4	81.7	80.3	55.2	22.4	12.0	-	56.7
Female	41.6	79.3	69.3	31.4	13.6	4.5	-	47.4
Districts								
Chadiza								
Total	12.6	36.2	32.5	12.5	7.2	2.8	-	17.0
Male	11.9	33.2	37.4	19.6	10.1	4.7	-	19.5
Female	13.3	39.6	26.7	6.7	5.4	1.6	-	14.7
Chama								
Total	20.7	58.2	59.6	28.3	6.4	2.1	-	30.7
male	21.4	63.1	75.4	55.4	13.7	4.0	-	43.3
Female	20.1	52.7	42.1	9.0	4.0	1.5	-	21.3
Chipata								
Total	23.8	58.8	55.0	27.0	10.5	3.0	0.6	30.6
Male	23.1	59.0	61.7	39.5	16.3	5.2	-	36.5
Female	24.6	58.6	47.2	15.5	6.8	1.8	1.8	25.6
Katete								
Total	11.4	33.2	29.1	13.8	6.9	3.3	-	15.7
Male	10.5	31.8	35.1	21.5	10.3	5.6	-	18.9
Female	12.3	34.7	23.0	7.6	4.7	1.9	-	13.0
Lundazi								
Total	18.6	56.4	53.8	22.8	6.3	2.0	-	26.8
Male	18.6	58.8	66.3	41.5	12.7	3.9	-	33.7
Female	18.7	53.7	40.1	8.4	3.3	1.2	-	20.0
Petauke								
Total	13.0	38.1	34.6	15.9	7.3	2.8	8.0	18.3
Male	12.7	37.4	42.1	26.6	11.4	4.8	-	22.8
Female	13.4	38.8	26.5	8.0	4.9	1.7	9.1	12.7

Figure 5.3

Population Presently Attending School, Eastern Province Rural, 1990

Population Presently Attending School, Eastern Province Urban, 1990
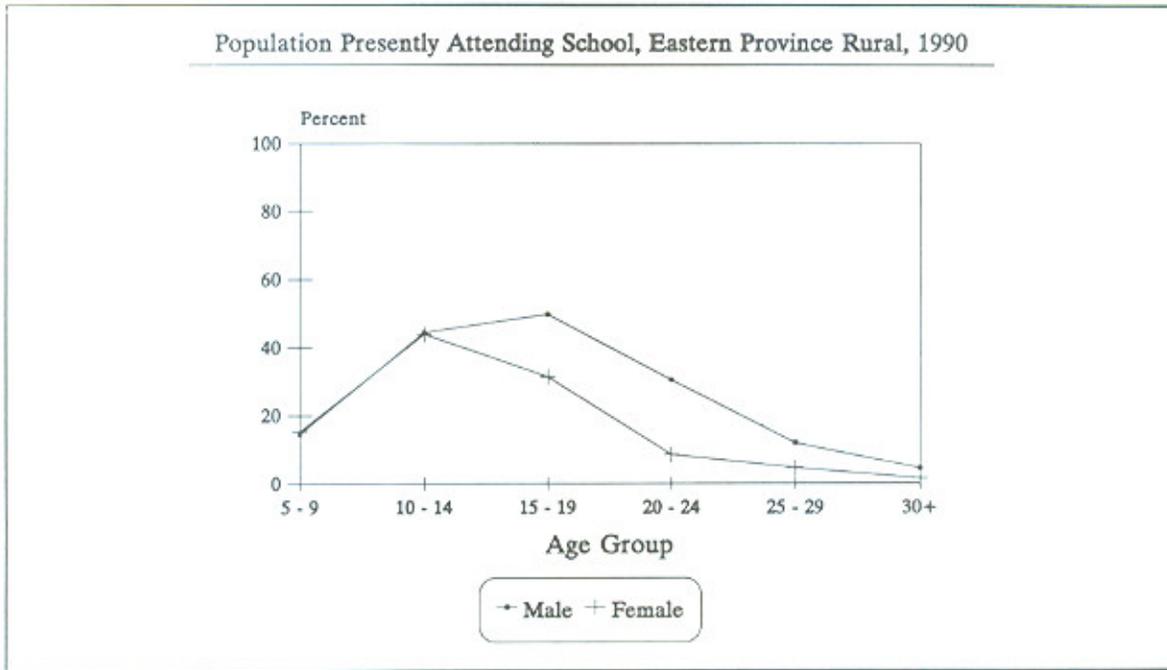
Figure 5.4
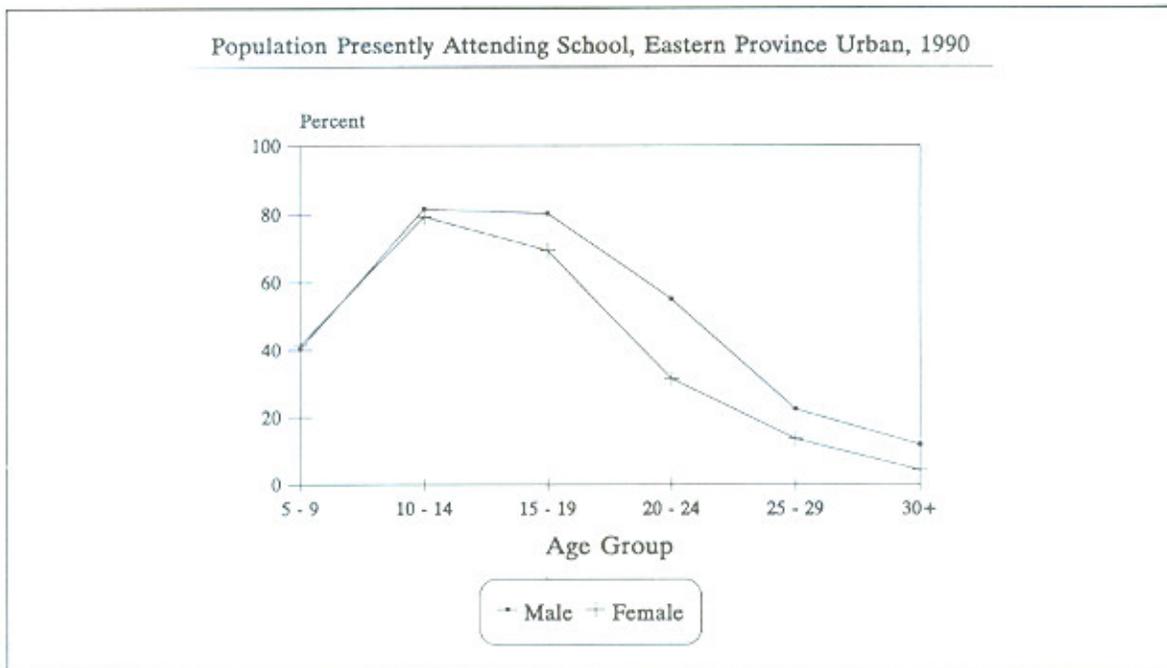
The districts having a large population that reported as presently attending school are Chama and Chipata. In each of these districts over 30 percent of their population were attending school at the time of 1990 Census. In Lundazi, 27 percent were reported to be attending school. Less than 20 percent of the population in Katete, Chadiza and Petauke were reported as presently attending school. In 1980, Katete and Chadiza districts were the only districts with low proportions of 17 and 21 percent, respectively. High proportions were recorded in Chama, Chipata, and Lundazi districts. In all the districts, ages that have a large population attending school were from 10 to 19 years.

Table 5.3

Population Presently Attending School by Sex, Age and Residence, (Percent), Eastern Province, 1980

| | | Age Group |
		5-9	10-14	15-19	20-24	25+	Not Stated	Total
Eastern Province								
	- Total	19.1	61.8	56.5	19.0	1.2	4.1	25.3
	- Male	18.8	63.3	69.3	39.7	2.3	8.1	32.9
	- Female	19.4	60.2	41.1	5.5	0.6	2.0	19.3
Residence								
Rural	- Total	17.1	59.1	54.4	18.2	1.0	3.1	23.5
	- Male	16.9	60.7	67.2	38.6	1.9	6.5	30.9
	- Female	17.3	57.3	39.1	4.9	0.6	1.3	17.7
Urban	- Total	37.7	84.7	78.3	33.7	4.6	12.8	46.7
	- Male	36.8	86.7	85.3	55.7	9.1	24.4	53.8
	- Female	38.6	82.9	69.4	16.8	2.4	6.6	40.6
Districts								
Chadiza	- Total	19.1	49.4	43.8	13.7	1.9	-	20.5
	- Male	18.2	49.6	55.0	26.0	3.2	-	25.1
	- Female	20.1	49.3	30.9	4.1	1.0	-	16.7
Chama	- Total	25.9	74.9	72.5	28.8	1.9	4.5	35.0
	- Male	27.0	81.7	87.8	65.5	4.5	10.5	49.7
	- Female	24.7	67.2	51.1	8.4	1.3	2.1	24.1
Chipata	- Total	23.0	71.3	64.2	22.5	1.1	4.7	29.2
	- Male	22.7	72.2	74.1	43.0	2.0	9.1	36.5
	- Female	23.3	70.3	51.2	7.6	0.7	2.0	23.4
Katete	- Total	13.4	45.6	39.1	12.4	0.7	1.7	17.0
	- Male	12.8	44.9	49.6	25.8	1.2	21.3	21.3
	- Female	14.0	46.2	27.6	3.7	0.4	11.4	13.5
Lundazi	- Total	20.2	66.5	66.2	27.2	1.4	5.2	28.9
	- Male	20.7	69.9	81.1	57.6	3.5	11.0	40.4
	- Female	19.7	62.7	47.2	6.3	0.6	2.4	20.2
Petauke	- Total	15.5	56.1	50.2	14.8	1.2	3.8	22.6
	- Male	14.6	57.5	64.5	34.4	2.3	7.5	29.5
	- Female	16.4	54.5	34.2	3.9	0.7	1.8	17.2

Analysis of the presently attending school population by age, sex and level of education completed in 1990 shows that 48 percent for grades 1-4 while 30 percent have completed grades 5-7. Less than 13 percent of the presently attending school population have completed grades 8-12. A larger proportion (51 percent) of the females presently attending school have completed Grades 1-4 than that of males (46 percent). 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 percent as compared to 28 percent for female pupils. Similar observations are noticed in all the age groups.

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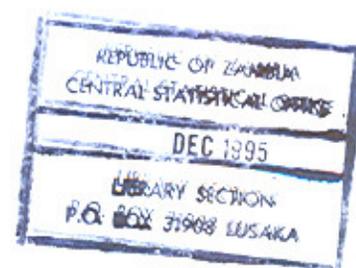
In rural areas, 53 and 28 percent of female pupils have completed in grades 1-4 and 5-7, respectively. Similarly, 47 and 32 percent of male pupils have completed in grades 1-4 and 5-7, respectively. The situation in urban areas is rather different from that of rural areas. In urban areas, there are more female pupils who have completed grades 1-4 and 5-7 as compared to male pupils. Overall, 71 percent of female pupils in urban areas have completed grades 1-7 as compared to 69 percent of male pupils.

Table 5.4

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

Residence and Age Group		Education Level Completed								
		1-4	5-7	8-9	10-12	'A' Level	Degree	Not Stated	Total	Size
Eastern Province										
Both Sexes										
	Total	48.0	30.2	8.2	3.9	*	*	9.7	100	143,183
	5-9	72.1	-	-	-	-	-	27.9	100	25,089
	10-14	67.4	25.0	1.0	-	-	-	6.6	100	59,866
	15-19	19.6	53.6	18.9	4.6	*	*	3.3	100	41,404
	20-24	7.6	35.0	28.4	24.0	0.1	*	4.9	100	9,725
	25-29	13.2	43.9	10.8	23.0	0.2	*	8.9	100	2,496
	30+	24.6	35.4	6.7	15.6	0.1	*	17.6	100	4,600
	Not Stated	66.7	33.3	-	-	-	-	-	100	3
Female	Total	50.8	28.4	7.4	2.6	*	*	10.7	100	62,845
	5-9	72.7	-	-	-	-	-	27.3	100	12,863
	10-14	66.1	26.3	1.1	-	-	-	6.5	100	28,907
	15-19	16.0	52.9	22.8	5.0	*	*	3.2	100	15,569
	20-24	10.9	37.2	23.5	20.3	0.1	0.1	7.9	100	2,656
	25-29	17.8	46.3	7.3	14.7	0.1	-	13.8	100	1,012
	30+	28.3	31.4	4.7	8.5	-	-	27.0	100	1,835
	Not Stated	66.7	33.3	-	-	-	*	-	100	3
Male	Total	45.8	31.6	8.8	4.8	0.1	*	8.9	100	80,338
	5-9	71.4	-	-	*	-	-	28.6	100	12,226
	10-14	68.7	23.7	0.9	-	-	-	6.7	100	30,959
	15-19	21.8	54.1	16.5	4.3	-	-	3.4	100	25,835
	20-24	6.3	34.2	30.2	25.4	0.1	-	3.8	100	7,069
	25-29	10.0	42.3	13.1	28.7	0.3	0.1	5.5	100	1,484
	30+	22.1	38.1	7.9	20.3	0.1	0.1	11.3	100	2,765
	Not Stated	-	-	-	-	-	-	-	-	
Rural										
Male	Total	47.1	32.0	7.9	4.2	*	*	8.8	100	67,767
	5-9	70.4	-	-	-	-	-	29.6	100	9,627
	10-14	71.2	21.2	0.6	-	-	-	7.0	100	26,156
	15-19	24.2	55.6	13.6	3.4	-	-	3.2	100	22,126
	20-24	6.9	37.1	29.8	22.5	0.1	-	3.6	100	6,100
	25-29	10.9	45.3	12.5	25.7	0.2	0.1	5.3	100	1,313
	30+	23.6	40.7	7.8	15.7	0.1	0.1	12.0	100	2,445
	Not Stated	-	-	-	-	*	-	-	100	
Female	Total	53.0	28.0	6.0	2.0	*	*	11.0	100	51,274
	5-9	72.1	-	-	-	-	-	27.9	100	10,150
	10-14	69.4	23.1	0.7	-	-	-	6.8	100	23,932
	15-19	18.5	55.7	18.5	3.9	0.1	-	3.3	100	12,557
	20-24	12.7	41.8	21.7	16.2	0.1	0.1	7.4	100	2,128
	25-29	19.6	50.1	6.6	11.1	0.1	-	12.5	100	864
	30+	30.1	32.3	3.9	5.3	-	-	28.4	100	1,640
	Not Stated	66.7	33.3	-	-	-	-	-	100	3
Urban										12,571
Male	Total	39.2	29.5	13.9	8.3	*	-	9.1	100	2,599
	5-9	75.1	-	-	-	-	-	24.9	100	4,803
	10-14	54.9	37.4	2.3	-	-	-	5.4	100	3,709
	15-19	7.3	44.8	33.6	9.8	-	-	4.5	100	969
	20-24	2.7	16.4	33.1	43.3	-	-	4.4	100	171
	25-29	3.5	19.3	18.1	51.5	1.2	-	6.4	100	320
	30+	10.9	17.8	9.4	55.0	0.3	-	6.6	100	-
	Not Stated	-	*	-	-	-	-	-	100	
Female	Total	41.1	30.1	13.8	5.3	-	0.3	9.4	100	11,571
	5-9	74.7	-	-	-	-	-	25.3	100	2,713
	10-14	50.2	41.6	3.3	-	-	-	4.9	100	4,975
	15-19	5.8	41.0	40.9	9.7	-	*	2.6	100	3,012
	20-24	3.9	18.6	31.1	36.9	-	-	9.5	100	528
	25-29	7.4	23.6	11.5	35.8	-	-	21.7	100	148
	30+	13.3	24.1	11.8	35.4	-	15.4	-	100	195
	Not Stated	-	-	-	-	-	-	-	100	

Note: (*) = Figures are suppressed due to small number of cases.

Results from the 1980 Census indicated that 62.4 percent of those who were attending school were in grades 1-4. A further 28.1 percent completed in grades 5-7 (refer to Table 5.5). Male pupils who had completed primary school grades constituted 89.7 percent while the female pupils constituted 91.5 percent. At secondary school level, 6.9 percent of male pupils completed 8-12 as compared to 4.2 percent for female pupils. An overall 5.7 percent completed grades 8-12. Age-grade mismatch was much higher in 1980 than in 1990, especially for age groups 15-19 and 20-24 years. Most of the pupils in these age groups are found in primary instead of secondary school grades. This problem is more prevalent among female than male pupils.

Table 5.5

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

Residence and Age Group		Education Level Completed								
		1-4	5-7	8-9	10-12	'A' Level	Degree	Not Stated	Total	Size
Eastern Province										
Male	Total	58.9	30.8	4.1	2.8	*	*	3.5	100	57,841
	5-9	88.3	0.5	-	.	-	.	11.2	100	10,725
	10-14	74.7	22.8	0.4	*	-	.	2.0	100	27,070
	15-19	23.9	62.1	8.9	4.1	-	*	0.9	100	16,555
	20-24	6.5	38.9	23.9	28.0	0.1	0.2	2.3	100	2,863
	25+	31.2	29.3	11.9	19.0	*	-	8.7	100	564
	Not Stated	54.7	23.4	3.1	7.8	-	-	10.9	100	64
Female	Total	67.0	24.5	2.8	1.4	*	-	4.3	100	43,585
	5-9	88.6	0.4	-	-	-	-	11.0	100	10,868
	10-14	73.9	23.5	0.5	*	-	-	2.1	100	23,564
	15-19	22.1	59.1	12.2	5.6	*	-	1.0	100	8,097
	20-24	17.9	34.4	17.9	26.2	0.2	-	3.4	100	549
	25+	51.0	25.9	4.6	4.4	0.2	-	13.8	100	478
	Not Stated	69.0	10.3	6.9	3.4	-	-	10.3	100	29
Rural										
Male	Total	59.7	30.5	3.7	2.6	*	*	3.5	100	50,018
	5-9	88.1	0.5	-	.	-	-	11.4	100	8,687
	10-14	76.9	20.7	0.2	*	-	-	2.1	100	23,514
	15-19	25.6	62.3	7.8	3.4	-	*	0.9	100	14,659
	20-24	6.8	40.5	23.1	26.9	*	0.2	2.3	100	2,606
	25+	32.3	28.0	12.0	18.3	-	-	9.3	100	507
	Not Stated	62.2	24.4	2.2	-	-	-	11.1	100	45
Female	Total	68.7	23.5	2.4	1.1	-	-	4.2	100	36,480
	5-9	88.5	0.3	-	-	-	-	11.1	100	8,693
	10-14	76.9	20.7	0.4	*	-	-	2.1	100	19,985
	15-19	24.5	59.9	10.3	4.2	-	-	1.0	100	6,902
	20-24	18.5	36.7	17.8	22.8	-	-	4.1	100	460
	25+	52.7	24.9	4.3	3.1	-	-	15.0	100	421
	Not Stated	78.9	10.5	5.3	-	-	-	5.3	100	19
Urban	Total	53.6	32.7	6.3	3.9	*	*	3.5	100	7,820
Male	5-9	89.1	0.5	-	-	-	-	10.5	100	2,038
	10-14	60.2	36.8	1.8	0.1	-	-	1.1	100	3,556
	15-19	10.8	61.0	17.8	9.7	-	-	0.7	100	1,893
	20-24	3.5	23.0	31.5	39.3	0.4	0.4	1.9	100	257
	25+	21.1	40.4	10.5	24.6	-	-	3.5	100	57
	Not Stated	36.8	21.1	5.3	26.3	-	-	10.5	100	19
Female	Total	58.1	29.8	4.8	2.9	0.1	-	4.4	100	7,105
	5-9	88.7	0.5	-	-	-	-	10.8	100	2,175
	10-14	57.6	39.5	1.2	0.1	-	-	1.7	100	3,579
	15-19	7.9	54.5	23.0	13.4	0.3	-	0.9	100	1,195
	20-24	12.4	22.5	18.0	43.8	1.1	-	2.2	100	89
	25+	38.6	33.3	7.0	14.0	1.8	-	5.3	100	57
	Not Stated	50.0	10.0	10.0	10.0	*	-	20.0	100	10

Note: (*) = Figures are suppressed due to small number of cases.

High female proportions were recorded to have completed grades 1-4. Grades 1-4 registered high female proportions while males registered high proportions in grades 5-7. Substantial declines were recorded after grades 5-7 for both male and female pupils in 1980, see Figures 5.5 and 5.6.

5.5 PREVIOUSLY ATTENDED SCHOOL

Age distribution of population who previously attended school in 1990 is such that high proportions are recorded in ages 20 years and above. This age group is considered to have completed secondary school grades. Overall, 83 percent of the population in Eastern Province had previously attended school in age group 20 years and above. There are also more males (87.2 percent) who previously attended school as compared to 77.2 percent for female population aged 20 years and above. The situation is the same in both rural and urban areas. The percentage of males who previously attended school in 1990 is 86.9 in rural areas and 90 percent in urban areas for ages 20 years and above. Less than 5 percent of the population in age group 5-14 years previously attended school.

The analysis of population who previously attended school in 1990 by district reveals a situation where all districts had percentages ranging between 82 and 84 percent for age group 20 years and above. Lundazi District has 83.5 percent followed by Katete District with 83.3 percent. Petauke District is the least having 82.1 percent of its population aged 20 years and above as previously attended school in 1990. In a similar vein, all districts registered less than 5 percent of their population as previously attended school in age group 5-14 years for 1990.

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Table 5.6

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

Residence and Sex		Age Group						Total	Size
		5-9	10-14	15-19	20-24	25-29	30+		
Eastern Province									
	-Total	0.8	3.4	12.8	19.4	17.1	46.5	100	195,643
	-Male	0.7	2.9	9.2	16.4	16.4	54.4	100	110,740
	-Female	1.0	4.2	17.6	23.2	17.9	36.1	100	84,903
Residence Rural	-Total	0.8	3.6	13.2	19.3	16.8	46.3	100	167,860
	-Male	0.7	3.0	9.5	16.5	16.4	54.0	100	95,940
	-Female	1.0	4.4	18.1	23.2	17.4	36.0	100	71,920
Urban									
	Total	0.8	2.4	10.9	19.5	18.5	47.8	100	27,783
	-Male	0.7	2.0	7.3	15.8	16.9	57.3	100	14,800
	Female	0.9	2.9	15.0	23.7	20.5	36.9	100	12,983
Districts									
Chadiza		0.7	3.8	12.7	19.6	18.0	45.2	100	8,859
	Total	0.6	3.3	9.3	17.4	18.1	51.3	100	5,248
	Male	0.8	4.4	17.6	22.9	18.0	36.3	100	3,611
	-Female								
Chama									
	-Total	0.6	3.2	13.6	20.5	18.4	43.8	100	10,755
	Male	0.4	2.7	8.1	17.0	17.5	54.2	100	6,127
	-Female	0.7	3.9	20.8	25.1	19.5	30.0	100	4,628
Chipata									
	- Total	0.9	3.3	12.8	19.7	17.0	46.3	100	70,551
	- Male	0.8	2.9	9.3	16.6	16.1	54.4	100	38,865
	- Female	1.0	3.9	17.2	23.5	18.1	36.4	100	31,686
Katete									
	- Total	0.9	3.6	12.2	17.7	17.8	47.8	100	20,127
	- Male	0.7	2.8	8.3	14.6	17.5	56.1	100	11,714
	- Female	1.1	4.7	17.6	22.0	18.2	36.3	100	8,413
Lundazi									
	- Total	0.8	3.2	12.5	20.1	17.8	45.6	100	40,748
	- Male	0.7	2.6	8.5	17.4	17.3	53.6	100	23,459
	- Female	1.0	4.1	17.9	23.8	18.5	34.6	100	17,289
Petauke									
	- Total	0.9	3.7	13.4	18.6	15.7	47.8	100	44,603
	- Male	9.7	3.1	10.3	15.6	15.2	55.1	100	25,327
	- Female	1.1	4.5	17.4	22.5	16.3	38.3	100	19,276

Table 5.7 shows the population who had previously attended school by sex, age and residence in 1980. As is expected, concentration of the previously attended school population is found in age group 20 years and above. Overall, 74.6 percent of the population aged 20 years and above had previously attended school in Eastern Province during the 1980 Census. Percentages for rural and urban areas were 73.5 and 81.6 percent, respectively for the population aged 20 years and above. In both rural and urban areas proportions of males who previously attended school were high compared to females. Urban males had recorded 86 percent while females recorded 76.3 percent. Rural males recorded 80 percent and females recorded 66.6 percent. Thus, urban areas registered high proportions for both males and females as compared to rural areas.

Table 5.7

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

Residence and Sex		5-9	10-14	15-19	20-24	25+	Not Stated	Total	Size
Eastern Province									
	- Total	0.6	5.6	18.7	20.8	53.8	0.5	100	133.066
	- Male	0.6	4.7	13.2	17.8	63.1	0.6	100	69,460
	- Female	0.6	6.5	24.7	24.1	43.7	0.4	100	63,606
Residence									
Rural	-Total	0.6	6.0	19.5	20.7	52.8	0.4	100	114,944
	-Male	0.6	5.1	13.8	18.1	61.9	0.4	100	59,577
	-Female	0.6	6.9	25.6	23.6	43.0	0.4	100	55,367
Urban	-Total	0.3	3.1	13.8	21.4	60.2	1.1	100	18,025
	-Male	0.3	2.3	9.9	16.2	69.8	1.6	100	9,880
	-Female	0.3	4.2	18.6	27.8	48.5	0.5	100	8,145
Districts									
Chadiza									
	Total	0.7	6.5	17.2	20.3	55.2	0.2	100	8,296
	-Male	0.7	5.7	12.7	18.2	62.4	0.3	100	4,269
	-Female	0.7	7.4	21.9	22.4	47.5	0.1	100	4,027
Chama									
	-Total	0.9	5.5	19.1	18.8	54.8	0.9	100	7,538
	-Male	1.0	3.7	10.1	15.1	69.0	1.1	100	3,527
	-Female	0.8	7.1	27.0	22.0	42.3	0.7	100	4,011
Chipata									
	- Total	0.5	5.3	19.4	22.1	52.2	0.5	100	44,953
	- Male	0.5	4.5	13.9	18.7	61.8	0.6	100	23,949
	- Female	0.6	6.1	25.6	25.9	41.4	0.3	100	21,004
Katete									
	Total	0.8	6.4	20.0	21.3	51.3	0.2	100	15,366
	- Male	0.7	5.8	15.2	18.9	59.1	0.2	100	8,182
	- Female	0.8	7.1	25.4	24.1	42.5	0.1	100	7,184
Lundazi									
	- Total	0.5	4.2	16.4	21.1	57.4	0.4	100	26,278
	- Male	0.5	3.3	10.2	18.0	67.5	0.5	100	13,797
	- Female	0.5	5.2	23.3	24.4	46.2	0.3	100	12,481
Petauke									
	- Total	0.5	6.4	19.4	19.2	53.8	0.8	100	30,502
	- Male	0.5	5.6	14.5	16.3	62.2	0.9	100	15,667
	- Female	0.4	7.3	24.6	22.3	44.9	0.6	100	14,835

Among the districts, the percentages of those who previously attended school ranged from 72 to 79 percent for the population aged 20 years and above. Lundazi District recorded the highest percentage of 78.5 while Katete District had the lowest percentage of 72.6. It may be deduced from Tables 5.6 and 5.7 that Petauke, Katete and Chadiza districts had experienced high primary school drop-out rates in 1980 as compared to 1990 if age groups 10-14 and 15-19 are considered.

5.6 HIGHEST LEVEL OF EDUCATION COMPLETED

Quantification of educational achievements is done by analysing the highest levels of education completed for the population aged 15 years and older. It is assumed that the population has completed at least grade 7. Table 5.8 shows the percentage distribution of population aged 15 years and older by highest level of education completed. Overall, in 1990, 52.5 percent of the population aged 15 years and older never attended formal school. The highest percentage is that of females with 63.2 percent without formal school as compared to 40.3 percent of their male counterparts. Only 10.7 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 Older) by Highest Level of Education Completed, Sex and Age Group (Percent), Eastern Province, 1990

Age Group	Sex	Total Population	Highest Level Completed							
			No Schooling	Grade 1-4	Grade 5-7	Grade 8-9	Grade 10-12	A'Level/ Degree	Not Stated	Total
15+	Both	516,984	52.5	12.2	23.4	5.4	5.3	0.1	1.1	100
	Male	240,939	40.3	14.3	29.0	6.9	8.1	0.1	1.3	100
	Female	276,045	63.2	10.3	18.6	4.0	2.9	*	1.0	100
15-19	Both	116,031	42.7	14.2	31.2	8.4	1.9	0.1	1.5	100
	Male	58,034	37.9	16.0	33.5	8.5	2.2	0.1	1.9	100
	Female	57,997	47.4	12.4	28.9	8.3	1.8	*	1.2	100
20-24	Both	84,469	43.6	8.9	30.2	9.4	6.8	*	1.0	100
	Male	38,963	35.3	8.5	33.4	12.4	9.3	*	1.1	100
	Female	45,506	50.8	9.4	27.4	6.8	4.6	0.1	0.9	100
25-29	Both	63,732	43.7	9.4	30.4	5.2	10.3	0.1	0.9	100
	Male	29,353	32.9	8.2	35.8	7.5	14.6	0.1	0.9	100
	Female	34,379	52.9	10.4	25.9	3.2	6.6	0.1	0.9	100
30-44	Both	118,632	50.3	11.4	23.7	4.1	9.4	0.1	1.0	100
	Male	53,571	34.2	10.7	31.8	5.9	16.3	0.2	1.0	100
	Female	65,061	63.6	11.9	17.1	2.6	3.8	0.1	0.9	100
45+	Both	134,120	72.7	14.5	8.9	1.4	1.2	0.1	1.2	100
	male	61,018	54.5	22.5	16.3	2.6	2.4	0.1	1.6	100
	Female	73,102	87.9	7.8	2.8	0.3	0.3	*	0.9	100

Note: (*) Figures suppressed due to small number of cases.

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Figure 5.5

Population 15 Years and Older by Highest Level of Education
Completed, Eastern Province, 1980

Figure 5.6

Population 15 Years and Older by Highest Level of Education
Completed, Eastern Province, 1990
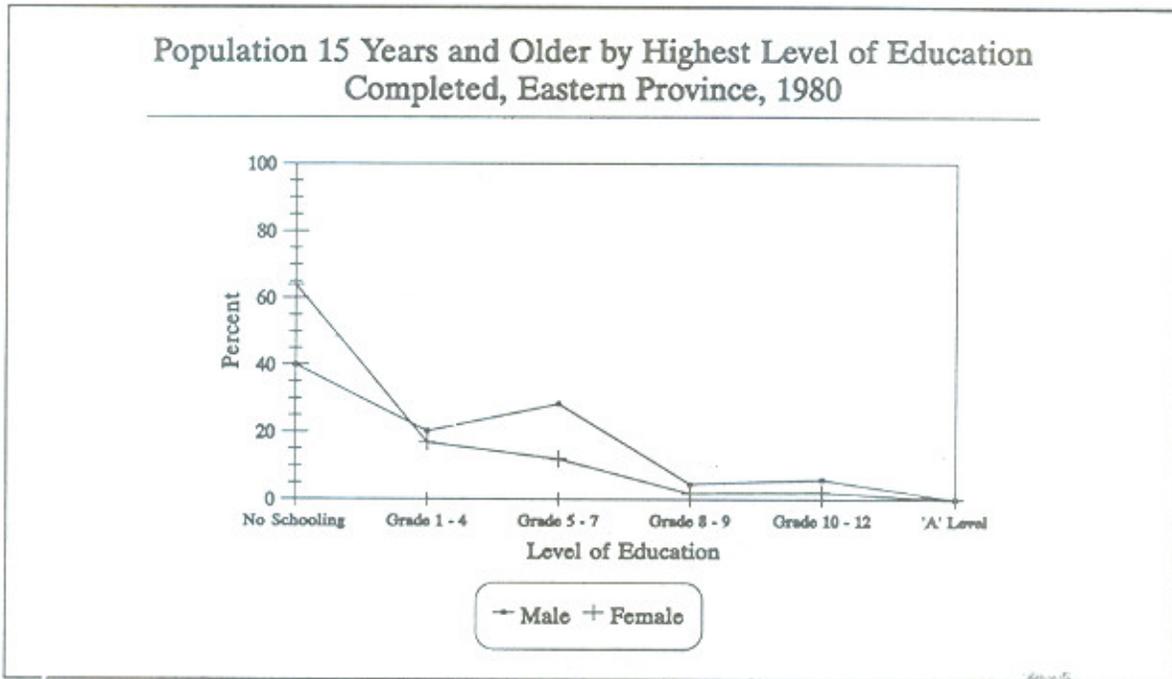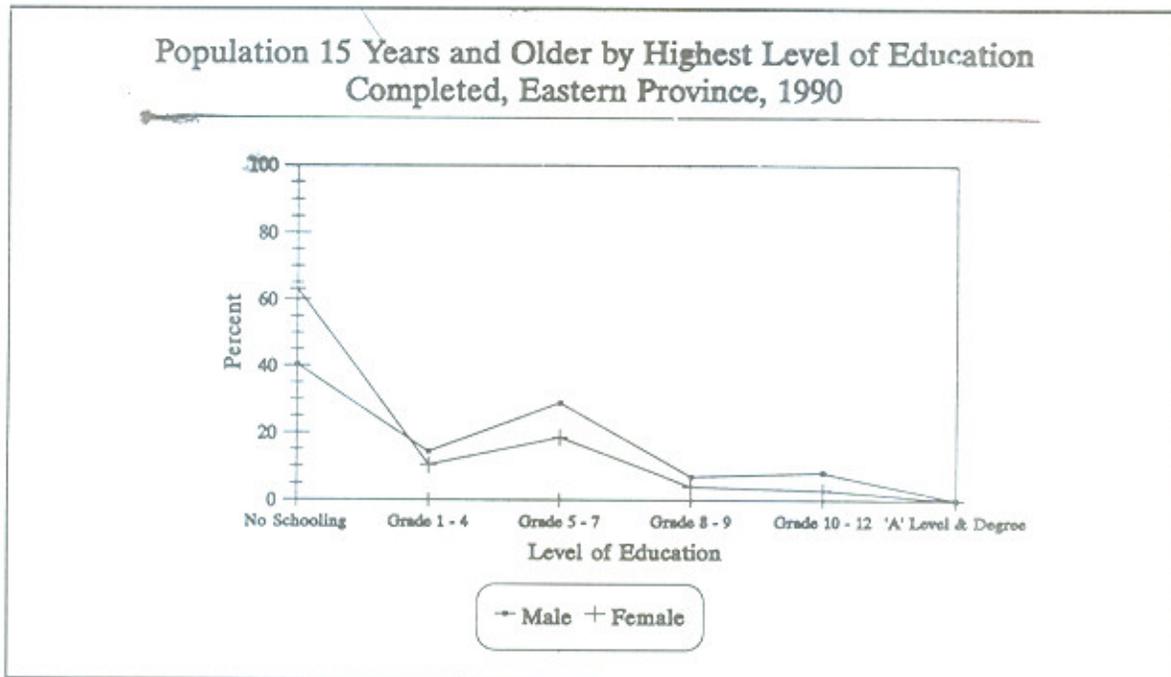
The 1990 Census data shows that at age group 45 years and older, 72.7 percent never attended formal school. Females recorded 87.9 percent of those who never attended formal school in 1990. Males without formal schooling made up 54.5 percent. Proportions of those without formal school increased from 42.7 percent in age group 15-19 to 50.3 percent in age group 30-44 years. Even though fluctuations do exist in all the age groups at both primary and secondary school levels, the general pattern is that of a decreasing trend from age group 15-19 to 30-44 years. For more details refer to Table 5.8.

Data from the 1980 Census showed similar patterns to those of the 1990 Census. At age group 45 years and above, 77.3 percent of the population in Eastern Province had never attended formal school. Nearly 90 percent of the females aged 45 years and over had never attended formal school in 1980. The percentage of males aged 45 years and over who never attended formal school in 1980 was 62.7 percent. There was a general declining trend in proportions of population at both primary and secondary levels, who completed grades 1-7 and 8-12, see Table 5.9.

Table 5.9

Population (15 Years and Older) by Highest Level of Education Completed by Sex and Age Group, (Percent), Eastern Province, 1980

Age Group	Sex	Total Population	Highest Level Completed							
			No Schooling	Grade 1-4	Grade 5-7	Grade 8-9	Grade 10-12	A' Level	Not Stated	Total
15+	Both	333,084	53.6	18.3	20.7	3.0	3.6	0.0	0.9	100
	Male	143,699	39.9	20.2	28.4	4.5	5.8	0.0	0.9	100
	Female	189,385	63.9	16.8	11.9	1.8	2.0	0.1	0.8	100
15-19	Both	68,993	27.7	23.4	41.0	4.5	2.8	*	0.7	100
	Male	33,340	22.1	22.6	46.5	5.1	3.0	*	0.7	100
	Female	35,653	33.0	24.1	35.8	3.9	2.6	*	0.7	100
20-24	Both	47,367	3.6	18.1	33.7	4.4	9.4	*	0.8	100
	Male	20,193	23.4	13.9	41.1	6.3	14.3	*	0.9	100
	Female	27,174	41.2	21.2	28.3	2.9	5.7	*	0.7	100
25-44	Both	116,983	56.6	18.8	15.9	3.3	4.4	0.1	1.0	100
	Male	45,595	37.9	19.9	25.9	5.8	8.8	0.1	1.0	100
	Female	71,388	68.5	18.0	9.4	1.7	1.6	0.1	1.0	100
45+	Both	99,741	77.3	14.2	6.1	0.9	0.5	*	0.9	100
	Male	44,571	62.7	21.6	11.5	1.8	1.0	*	1.0	100
	Female	55,170	89.1	8.2	1.6	0.2	0.2	*	0.8	100

Note: (*) Figures suppressed due to small number of cases.

Information from Table 5.9 shows an overall percentage of 53.6 of population in Eastern Province who never attended school in 1980. Males and females who never attended school recorded 39.9 and 63.9 percent, respectively. Overall, those who completed primary school grades constituted 39.0 percent. At secondary school level only 6.6 reported as having completed grades 8-12. An insignificant proportion reported completing 'A' and degree levels. There was general improvement in the education level completed between the 1980 and 1990 Censuses (see Tables 5.8 and 5.9).

5.7 SELECTED FIELDS OF STUDY

In Eastern Province, there were 11,556 males and 4,053 females trained in various courses of specialisation. The selected fields of study constitute 61.1 percent of males (6,964) and 69.7 percent of females (2,824). These major fields of study include various courses of engineering, medicine, accountancy, teacher training, law, business, agriculture, etc. The majority of these professionals have completed grades 10-12. In the engineering field, completion of grades 1-7 and 8-9 is reflected. This may imply acquisition of trades certificates and therefore do not qualify as engineers. Very few professionals have completed 'A' and degree levels. Table 5.10 shows a summary of the selected fields of study by education level completed and sex.

Table 5.10

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

Field of Study	Size	Total	Level of Education Completed					
			1-7	8-9	10-12	'A' Level	Degree	Not Stated
Males								
Natural Science	160	100	13.7	18.7	61.3	1.3	1.9	3.1
Civil Engineering	73	100	46.6	6.8	38.4	2.7	1.4	4.1
Electronic Engineering	156	100	37.2	10.3	50.6	0.6	-	1.3
Mechanical Engineering	412	100	37.9	12.1	45.6	1.0	0.7	2.7
Mining Engineering	85	100	61.2	9.4	27.0	-	-	2.4
Industrial Engineering	424	100	81.6	10.9	3.8	0.2	-	3.5
Architectural Engineering	153	100	10.5	66.7	20.3	0.6	-	1.9
Medicine and Surgery	154	100	25.3	9.7	59.7	2.6	2.0	0.7
Pharmacy	243	100	3.7	2.5	90.1	0.4	0.8	2.5
Nursing	162	100	10.5	9.9	75.3	-	1.8	2.5
Medical Technology	132	100	22.0	12.1	63.6	-	2.3	-
Veterinary	91	100	25.3	18.7	53.8	-	-	2.2
Accountancy	459	100	9.8	10.0	76.3	1.7	0.2	2.0
Teacher Training	2,476	100	10.8	12.3	73.5	1.0	0.7	1.7
Law/Jurisprudence	193	100	24.8	13.5	57.5	1.6	-	2.6
Criminology	138	100	38.4	11.6	45.7	-	0.7	3.6
Business Administration	279	100	17.2	15.0	62.8	3.2	0.7	1.1
Secretarial Training	372	100	23.7	16.4	57.5	0.3	0.3	1.8
Agricultural/Forestry/Fisheries	589	100	23.4	11.9	61.6	0.8	0.8	1.5
Wood work	304	100	59.5	9.9	26.3	0.3	-	4.0
Females								
Natural Science	85	100	29.4	40.0	24.7	-	3.5	2.4
Civil Engineering	15	100	46.7	6.7	33.3	6.7	-	6.6
Electronic Engineering	9	100	66.7	-	33.3	-	-	-
Mechanical Engineering	11	100	81.8	-	18.2	-	-	-
Mining Engineering	8	100	100.0	-	-	-	-	-
Industrial Engineering	226	100	81.4	14.2	0.9	-	-	3.5
Architectural Engineering	70	100	4.3	70.0	24.3	-	-	1.4
Medicine and Surgery	28	100	21.4	3.6	71.4	-	-	3.6
Pharmacy	68	100	1.5	1.5	94.1	-	1.5	1.4
Nursing	482	100	11.2	11.6	75.6	0.8	0.2	0.6
Medical Technology	14	100	-	14.3	50.0	7.1	14.3	14.3
Veterinary	3	100	-	-	66.7	33.3	-	-
Accountancy	63	100	11.1	9.5	69.8	3.2	3.2	3.2
Teacher Training	1,053	100	12.5	13.6	71.3	0.6	0.3	1.7
Law/Jurisprudence	21	100	14.3	-	76.2	-	9.5	-
Criminology	2	100	-	-	100.0	-	-	-
Business Administration	33	100	-	12.2	81.8	0.3	3.0	-
Secretarial Training	587	100	10.4	14.5	72.6	-	0.2	2.3
Agricultural/Forestry/Fisheries	40	100	20.0	10.0	65.0	-	2.5	2.5
Wood work	6	100	50.0	16.7	33.3	-	-	-

Common study courses that males specialise in are engineering, teacher training, agriculture/forestry/ fishery and accountancy. More females specialise in teacher training, secretarial and nursing. As it is the case with males, completion of grades 10-12 is common among females before taking up such courses.

Table 5.11 shows the percentage distribution of persons with certificates and diplomas by education level completed. In 1990, 13,487 and 1,639 persons had certificates and diplomas, respectively. The figures exclude those who did not state their grades. Among those with certificates, 70 percent were operating in rural areas. In the case of persons with diplomas, 56 percent were operating in urban areas.

Table 5.11

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

		Educational Level					
		1-7	8-9	10-12	'A' Level	Total	Size
Eastern Province							
Certificates							
	Total	33.2	15.1	51.3	0.4	100	13,487
	Male	35.5	14.4	49.7	0.4	100	9,795
	Female	27.0	17.2	55.6	0.2	100	3,692
Rural							
	Total	39.2	15.6	44.9	0.3	100	9,441
	Male	40.1	14.8	44.8	0.3	100	7,191
	Female	36.2	18.3	45.3	0.2	100	2,250
Urban							
	Total	19.3	13.9	66.3	0.5	100	4,046
	Male	23.0	13.1	63.3	0.6	100	2,604
	Female	12.7	15.4	71.7	0.2	100	1,442
Diploma							
	Total						
	Male	9.2	5.8	78.8	6.2	100	1,639
	Female	8.9	5.9	79.2	6.0	100	1,392
		10.5	4.9	76.9	7.7	100	247
Rural							
	Total	15.7	7.8	69.8	6.7	100	722
	Male	14.9	8.2	70.2	6.7	100	625
	Female	20.6	5.2	67.0	7.2	100	97
Urban							
	Total	4.0	4.3	85.9	5.8	100	917
	Male	4.0	4.2	86.4	5.4	100	767
	Female	4.0	4.7	83.3	8.0	100	150

Note: - Figures exclude 359 persons with Certificates and 38 persons with Diplomas.

5.8 SUMMARY

In Eastern Province, the majority of persons aged 5 years and older are not able to read and write. Overall, 61.6 percent of the population aged 5 years and older is illiterate. Females who are able to read and write constitute 30.8 percent. The corresponding percentage of males is 46.6 percent. Concentration of those who are able to read and write is in age group 15-44 years. In age group 45 years and older, only 30 percent are able to read and write. This calls for intensification of functional literacy programmes in Eastern Province.

It is noted that in 1990, 23.4 percent of the population aged 5 years and older were attending school. School attendance rate declined slightly from 25.3 percent in 1980. The most affected people are found in urban areas where a reduction of 5.1 percent is recorded between the 1980-1990 intercensal period. Districts that had low attendance proportions are Katete, Chadiza and Petauke, where less than 20 percent of population aged 5 years and older reported as attending school in 1990. The majority of those who reported as attending school in 1990 were found in grades 1-7. Only 13 percent of the population attending school were in grades 8-12.

Among the previously attended school population, 83 percent in age group 20 years and over had previously attended formal school. The percentages of males and females were 87.2 and 77.2 percent, respectively. All the districts in Eastern Province had percentages ranging from 82 and 84 percent for population aged 20 years and older.

Common fields of study for males are engineering, teacher training, agriculture/forestry/fishery and accountancy. Females specialise in teacher training, secretarial and nursing . In all, 13,846 and 1,677 persons had certificates and diplomas, respectively.

CHAPTER 6

ECONOMIC CHARACTERISTICS

6.1 INTRODUCTION

Information on economic characteristics is used for planning, monitoring, evaluating and formulating of policies and programs related to human resource development. Similarly, such information is used in explaining the observed level and distribution of income among individuals or households.

The 1990 Census collected information from all persons 12 years and over on the following economic characteristics.

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

6.2 WORKING-AGE POPULATION

The working-age population is defined as persons aged 12 years and over in the 1990 Census. Table 6.1 shows that the main feature of the distribution of this population by age in 1990 is that it declined with the increase in age, as in 1980. There is an increase of 56.1 percent in this population between the two censuses. The male working-age population increased by 66.8 percent, while the female population increased by 47.7 percent.

The proportion of the working age population residing in the rural areas of the Eastern province is bigger (90.7 percent) than that residing in the urban areas (9.3 percent). Surprising, the proportion of the working-age population living in the rural areas in 1980 is also 90.7 percent and that living in urban areas in 1980 is also 9.3 percent.

In rural areas, the working-age population increased by 56.2 percent, while it increased by 55.4 percent in urban areas. The male rural population increased by 67.9 percent, while the female rural working-age population increased by 47.2 percent over the intercensal period. In urban areas, the male working-age population increased by 57.3 percent, while the female population increased by 53.6 percent.

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Table 6.1

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

Residence, Sex and Year			Size	Total	12-19	20-24	25-29	30-59	60+	Not Stated
Eastern Province										
	-Total	1980	386,878	100.0	30.9	12.3	8.9	36.1	11.0	0.8
		1990	604,044	100.0	32.1	14.3	10.8	33.6	9.1	0.1
	- Male	1980	170,912	100.0	34.9	11.8	8.3	32.8	11.5	0.7
		1990	285,912	100.0	34.4	14.0	10.5	31.5	9.5	0.1
	- Female	1980	215,966	100.0	27.8	12.7	9.3	38.8	10.6	0.8
		1990	319,000	100.0	30.1	14.6	11.0	35.5	8.7	0.1
Residence										
Rural	- Total	1980	350,828	100.0	30.8	12.0	8.5	36.2	11.7	0.7
		1990	548,013	100.0	31.8	14.2	10.6	33.6	9.8	0.0
	- Male	1980	153,172	100.0	35.1	11.7	8.0	32.2	12.3	0.7
		1990	257,131	100.0	34.5	13.9	10.4	30.9	10.2	0.1
	- Female	1980	197,656	100.0	27.4	12.3	9.0	39.3	11.2	0.8
		1990	290,882	100.0	29.5	14.4	10.8	36.0	9.3	0.0
Urban	- Total	1980	36,050	100.0	32.4	14.7	11.9	35.9	3.9	1.2
		1990	56,013	100.0	35.0	15.8	12.5	33.5	3.0	0.2
	- Male	1980	17,740	100.0	33.6	12.6	10.8	37.9	4.4	1.3
		1990	27,913	100.0	33.4	14.7	11.7	36.5	3.4	0.3
	- Female	1980	18,310	100.0	31.9	16.6	13.0	33.9	3.5	1.1
		1990	28,118	100.0	36.6	16.9	13.3	30.5	2.6	0.1

6.3 ECONOMICALLY ACTIVE POPULATION

Results from Table 6.2 show that the labour force (i.e, the employed and the unemployed) increased by 61.5 percent, from 218,768 in 1980 to 353,379 in 1990. The male labour force increased by 64.2 percent, while the female labour force increased by 57.7 percent.

The bulk of the labour force in Eastern Province has remained in the rural areas (92.7 percent in 1990 and 91.3 percent in 1980). A smaller proportion of the labour force has been in the urban areas between the two censuses (7.3 percent in 1990 and 8.7 percent in 1980).

Of the 353,379 Labour force in 1990, 320,657 or 90.7 percent are employed, whereas, in 1980, of the 218,768 labour force, 98,903 or 45.2 percent were employed. The male employed population increased by 172.6 percent, while the female employed population increased by 348.8 percent. The majority of the employed persons in this province (93.1 percent in 1990 and 88.2 percent in 1980) are in rural areas, leaving a small proportion in the urban areas (6.9 percent in 1990 and 11.8 percent in 1980).

The unemployed population in this province experienced a large decline of 72.7 percent, from 119,865 in 1980 to 32,722 in 1990. The male unemployed declined by 81.2 percent. The big decline in the unemployed labour force resulted both from the entry into the informal sector activities by the previously jobless during the 1980's and from the improved coverage of persons engaged in these economic activities in the 1990 census, as compared to the 1980, especially for females.

The population which is economically inactive increased by 42.1 percent between 1980 and 1990. Of the 238,266 inactive population, 66,993 or 28.1 percent are male and 171,273 or 71.9 percent are female. The increase in male inactive population is 61.2 percent, while the increase in female inactive population is 35.9 percent. The majority of the inactive persons are in the rural areas; 88.2 percent in 1990 and 89.8 percent in 1980. The inactive population which lived in the urban areas are 11.8 percent in 1990 and 10.2 percent in 1980.

Table 6.2

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

Activity and Sex	Residence							
	1980				1990			
	Total Number	Total	Rural	Urban	Total Number	Total	Rural	Urban
Population								
- Total	386,878	100.0	90.7	9.3	604,044	100	90.7	9.3
- Male	170,912	100.0	89.6	10.4	285,044	100	90.2	9.8
- Female	215,966	100.0	91.5	8.5	319,000	100	91.2	9.8
Labour Force								
- Total	218,768	100.0	91.3	8.7	353,379	100	92.7	7.3
- Male	129,091	100.0	89.8	10.2	211,937	100	91.6	8.4
- Female	89,677	100.0	93.5	6.5	141,442	100	94.3	5.7
Employed								
- Total	98,903	100.0	88.2	11.8	320,657	100	93.1	6.9
- Male	69,936	100.0	86.1	13.9	190,655	100	91.9	8.1
- Female	28,967	100.0	93.2	6.8	130,002	100	95.0	5.0
Unemployed								
- Total	119,865	100.0	94.0	6.0	32,722	100	88.5	11.5
- Male	59,155	100.0	94.3	5.7	21,282	100	89.5	10.5
- Female	60,710	100.0	93.6	6.4	11,440	100	86.6	13.4
Inactive								
- Total	167,614	100.0	89.8	10.2	238,266	100	88.2	11.8
- Male	41,570	100.0	88.9	11.1	66,993	100	86.4	13.6
- Female	126,044	100.0	90.1	9.9	171,273	100	88.9	11.1
Not Stated								
- Total	495	100.0	93.7	6.3	12,399	100	83.2	16.8
- Male	251	100.0	92.7	8.0	6,114	100	82.3	17.7
- Female	245	100.0	95.5	4.5	6,285	100	84.0	16.0

Table 6.3 shows the age structure of the economically active population. More than half of the labour force is in the youthful age group of 12-29 years in 1990. 9.1 percent are in the age group 30-34 years, 28.7 percent are in the age group 35-34 years, while 7.3 percent are in the age group 55-64 years. 5.4 percent were in the older age group of 65 years and above.

The employed labour force shows an age structure which is akin to the one given above, for the total labour force.

However, the unemployed labour force has a unique feature in its age structure. Three quarters of the unemployed are in the youthful age group of 12-29 years, 6.6 percent are in the age group of 30-34 years, 12.3 percent were in the broad age group of 35-54 years, 3.6 percent in the age group of 55-64 years and 2.6 percent are the age group of 65 years and older. This indicates that unemployment is a problem which plagues the youths more than the adults.

The age structure of the economically inactive shows a pattern which is somewhat similar to that displayed by the unemployed population.

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Figure 6.1

Economically Active Population 12 Years and Over
Eastern Province, 1980

Inactive
24%

Unemployed
35%

Employed
41%

Male

Inactive
58%

Unemployed
28%

Employed
13%

Female

Figure 6.2

Currently Economically Active Population 12 Years and Over,
Eastern Province, 1990

Not Stated
2%
Inactive
24%
Unemployed
7%

Employed
67%

Male

Not Stated
2%

Inactive
54%

Unemployed
4%

Employed
41%

Female
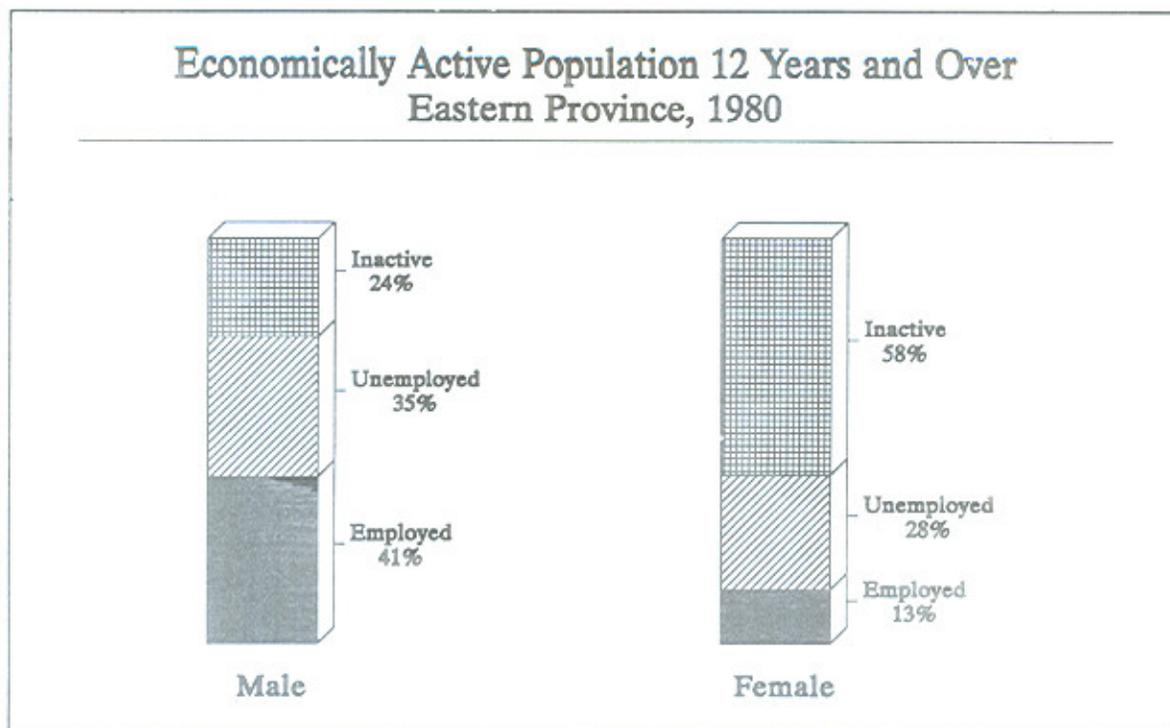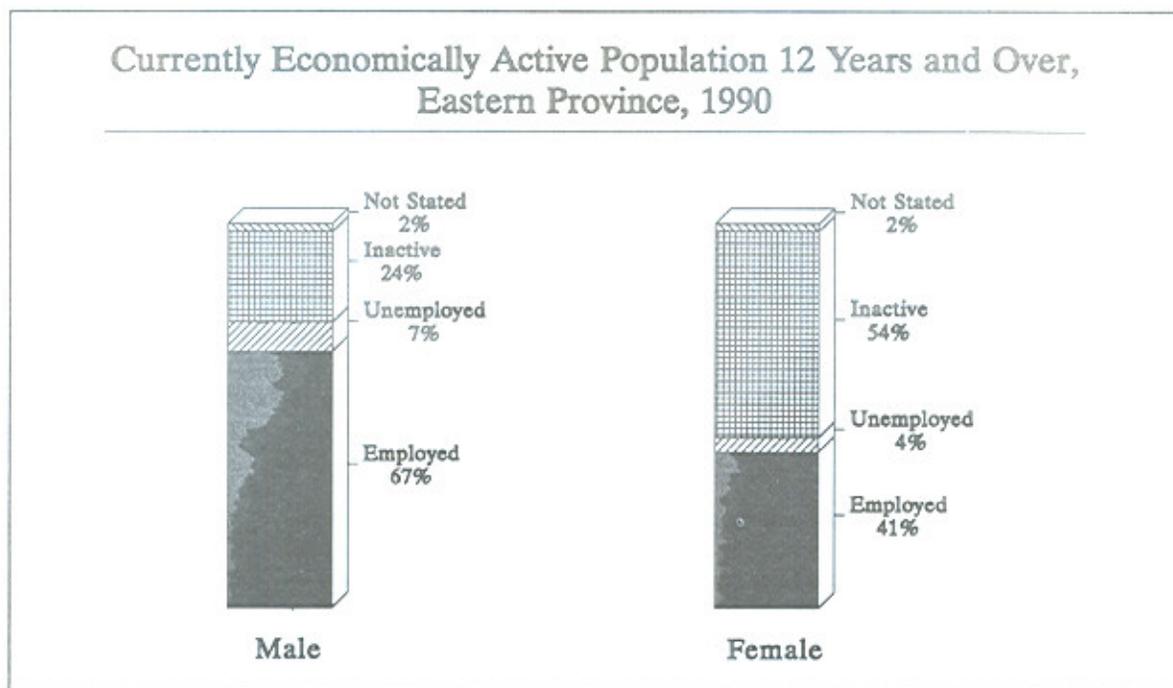
Table 6.3

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

Activity and Sex	Total Number	Total	Age Group							
			12-19	20-24	25-29	30-34	35-54	55-64	65+	Not Stated
Labour Force										
- Total	353,379	100.0	29.8	14.3	11.4	9.1	22.7	7.3	5.4	0.0
- Male	211,937	100.0	26.7	14.4	12.1	10.0	22.9	7.8	6.1	0.0
- Female	141,442	100.0	34.3	14.3	10.3	7.8	22.3	6.7	4.3	0.0
Employed										
- Total	320,657	100.0	28.3	13.7	11.4	9.4	23.8	7.7	5.7	0.0
- Male	190,655	100.0	25.5	13.6	12.1	10.2	23.9	8.2	6.5	0.0
- Female	130,002	100.0	32.5	13.9	10.4	8.1	23.5	7.1	4.5	0.0
Unemployed										
- Total	32,722	100.0	43.7	20.3	10.9	6.6	12.3	3.6	2.6	0.0
- Male	21,282	100.0	37.9	20.7	12.4	7.7	14.1	4.2	3.0	0.0
- Female	11,440	100.0	54.3	19.5	8.2	4.5	9.0	2.5	2.0	0.0
Inactive										
- Total	238,266	100.0	34.7	14.3	10.1	7.5	20.5	6.6	6.3	0.0
- Male	66,993	100.0	56.6	12.9	5.8	3.9	9.4	4.5	6.9	0.0
- Female	171,273	100.0	25.9	14.9	11.8	9.0	24.9	7.4	6.1	0.0
Not Stated										
- Total	12,399	100.0	52.9	13.5	7.4	4.5	9.9	4.2	5.8	1.8
- Male	6,114	100.0	57.0	13.9	7.3	3.8	8.2	2.9	4.3	2.6
- Female	6,285	100.0	48.9	13.1	7.4	5.2	11.5	5.4	7.4	1.1

6.4 ECONOMICALLY INACTIVE POPULATION

Results from Table 6.4, show that 28.1 percent (66,993) of the economically inactive population are male and 71.9 percent (171,273) are female. Males are inactive economically primarily for other reasons (55.8 percent); only 30.4 percent are inactive due to studying, while homemaking (3.8 percent) for male inactivity) is the least common reason. Females, on the other hand, are primarily outside the labour force due to household duties (68.9 percent); 22.8 percent are inactive for other reasons, while full-time studies are the least common reason for female economic inactivity.

In rural areas, the major cause of economic inactivity is homemaking (54.9 percent), followed by other reasons (32.8 percent). Studying is the least common reason (12.3 percent). In urban areas, on the other hand, homemaking is the most common reason for economic inactivity (42.2 percent), followed by studying (31.5 percent), while other reasons were the least common reason for inactivity (26.3 percent).

According to Table 6.5, the majority of the currently economically inactive population (88.2 percent) are in rural areas, while only 11.8 percent are in urban areas. The majority of homemakers (90.7 percent) are in rural areas, while only 9.3 percent were in the urban areas. Three quarters of those who are inactive due to studying are in rural areas, while one quarter are in urban areas. Of those who are currently economically inactive, 90.3 percent are in rural areas, while 9.7 percent are in urban areas.

Table 6.4

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

Residence and Sex	Reason for Inactivity				
	Total Number	Total	Home maker	Student	Other
Residence					
- Total	238,266	100.0	53.4	14.5	32.1
- Rural	210,105	100.0	54.9	12.3	32.8
- Urban	28,161	100.0	42.2	31.3	26.3
Sex					
- Male	66,993	100.0	13.8	30.4	55.8
- Female	171,273	100.0	68.9	8.3	22.7

Table 6.5

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

Residence and Sex	Reason for Inactivity			
	Total	Home maker	Student	Other
Eastern Province				
- Total Number	238,266	127,315	34,615	76,336
- Total	100.0	100.0	100.0	100.0
- Rural	88.2	90.7	74.4	90.3
- Urban	11.8	9.3	25.6	9.7

6.5 LABOUR FORCE PARTICIPATION RATES

The labour force participation rate is (LFPR) the proportion of persons of a particular age-group in the labour force. Table 6.6 gives participation rates by age, sex and residence. The overall labour force participation rate increased from 56.5 percent in 1980 to 58.5 percent in 1990. For males, the participation rate declined from 75.5 percent to 74.3 percent, whereas it increased from 44.3 percent to 41.5 percent for females.

The rural labour force participation rate rose from 57.0 percent in 1980 to 59.8 percent in 1990, whereas the urban participation rate fell from 52.6 percent in 1980 to 46.0 percent in 1990. Within the rural areas, the labour force participation rate for males remained almost the same (from 75.7 percent in 1980 to 75.5 percent in 1990), while the participation rate for females increased from 42.4 percent to 45.8 percent.

In urban areas, the labour force participation rate of both males and females in this province declined; that of the males declined from 74.0 percent in 1980 to 63.5 percent in 1990, while that of the females declined from 31.8 percent in 1980 to 28.7 percent in 1990.

An inspection of the labour force participation rates by age and sex shows that the female rates are less than those of males at every age group. For the age group of 12-19 years, the rate for males is 57.8 percent, while for females it is 50.5 percent. The male labour force participation rate is 76.2 percent for the age group 20-24 years, compared to 43.5 percent for females. For age groups above 25 years, the male participation rates are twice those of females. The pattern of the distribution of participation rates between males and females in rural areas closely follows those of the whole province, above.

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In urban areas, the male and female labour force participation rates are relatively close for the age group 12-19 years, while the male rates are more than twice the female rates for the age groups 25-39 years. The male participation rates are about three times those of females for all age groups above 40 years.

The overall labour force participation rates by age for Eastern Province are lowest for the age group 12-19 years 54.2 percent) rise with the increase in ages and reach a peak of 62.7 percent at the age group of 55-59 years, before falling to 54.7 percent for the old age group of 65 years and above.

Table 6.6

Current Labour Force Participation Rates by Age, Sex and Residence (Percent), Eastern Province, 1980 and 1990

| Age-Group | Current Participation Rates (Percent) | | | | | | | | |
| | Total | | | Rural | | | Urban | | |
	Both	Male	Female	Both	Male	Female	Both	Male	Female
1980	56.5	75.5	41.5	57.0	75.7	42.4	52.6	74.0	31.8
1990	58.5	74.3	44.3	59.8	75.5 .	45.8	46.0	63.5	28.7
1990 Census Age Groups									
12-19	54.2	57.8	50.5	57.1	60.8	53.3	28.6	29.8	27.5
20-24	58.6	76.2	43.5	60.3	77.9	45.2	44.0	61.7	28.8
25-29	61.6	85.5	41.2	62.6	86.0	42.6	53.7	81.2	29.8
30-34	63.5	88.3	41.3	63.9	88.1	42.5	61.0	89.3	32.0
35-39	62.9	88.6	41.3	62.7	88.2	42.1	64.0	91.2	33.6
40-44	61.0	87.9	42.1	60.6	87.5	43.0	64.0	90.4	30.3
45-49	61.4	87.7	42.4	61.1	87.4	43.2	63.9	90.9	28.8
50-54	60.7	86.3	42.9	60.7	86.3	43.8	60.6	86.3	22.8
55-59	62.7	85.1	42.9	62.8	85.3	43.6	59.6	81.4	23.4
60-64	60.3	82.0	41.5	60.6	82.3	42.1	51.0	74.6	20.3
65+	54.7	72.8	35.7	54.9	73.0	36.1	45.9	66.9	18.3
Age Not Stated	2.4	1.2	4.2	4.3	2.4	6.3	-	-	-

Figure 6.3

Current Labour Force Participation Rates, Eastern Province, 1990
Rural

Figure 6.4

Current Labour Force Participation Rates, Eastern Province, 1990
Urban
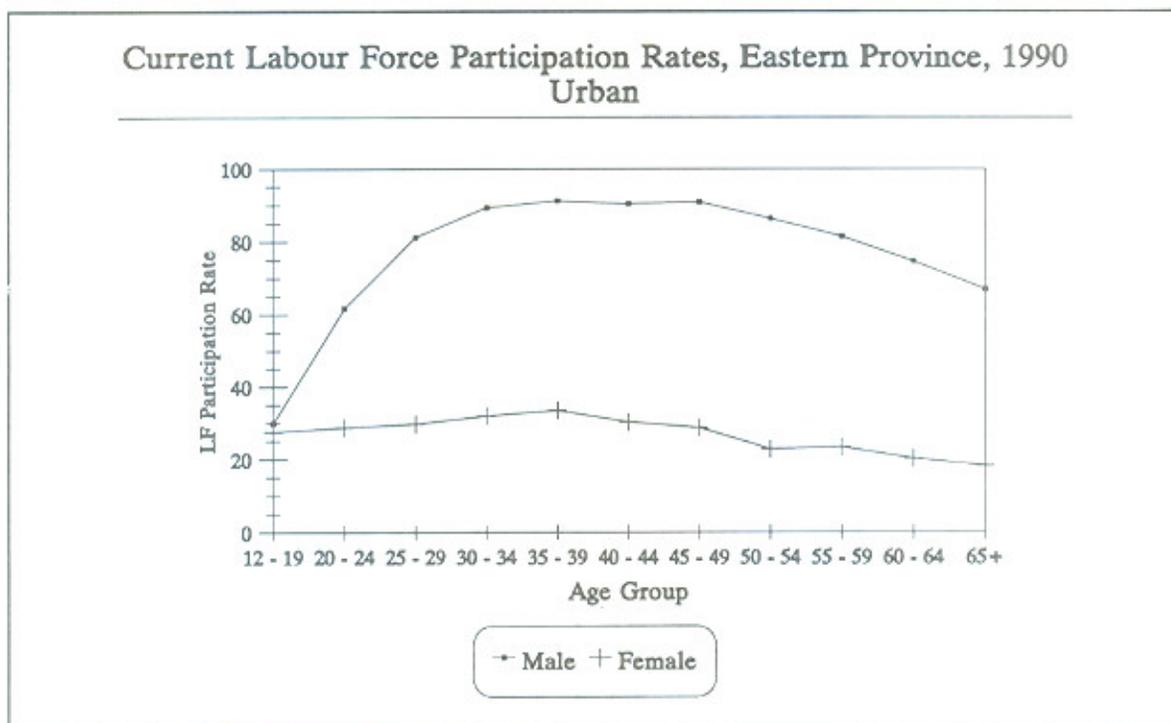
6.6 EMPLOYMENT STATUS

The industrial and occupational structure and the status in employment of a country's work force is a major indicator of the level of its economic development and the efficiency with which its productive resources are utilised. Economic progress is usually accompanied by the increased division and specialisation of the labour force. It is typical of a less developed economy to have a large part of the work force engaged in its primary industries; for self-employment to be the dominant employment status, and, for workers to be generally engaged in agricultural and other occupations characterized by low skill requirement.

The less developed regions are characterised by relations of production in which the family is the central institution for production activities; in comparison, advanced regions rely more on paid employees and employers. The former situation is true of Eastern Province, in which the self-employed and unpaid family workers together account for 87.4 percent of the work force in 1990 and for 60.9 percent of the work force in 1990. This is in contrast with the proportion of employees and employers, who together account for 10.5 percent in 1990 and 25.3 percent in 1980.

Self-employment and unpaid family work are together more predominant in rural areas (accounting for 67 percent in 1980 and 91.0 percent in 1990) than in urban areas (accounting for 29.9 percent in 1990 and 14.2 percent in 1980). The opposite is true of employers and employees; these employment status categories are together more predominant in urban areas (accounting for 66.0 percent in 1990 and 83.6 percent in 1980) than in rural areas (accounting for 7.0 percent in 1990 and for 18.5 percent in 1980).

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Table 6.7

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

Employment Status and Sex	Residence and Year					
	Total		Rural		Urban	
	1980	1990	1980	1990	1980	1990
Total Number						
- Total	98,903	311,072	87,193	292,262	11,710	18,810
- Male	69,936	174,258	60,194	160,547	9,742	13,711
- Female	28,967	136,814	26,999	131,715	1,968	5,099
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	60.9	32.7	67.2	33.6	14.2	18.0
- Male	62.6	39.4	70.9	41.4	11.0	15.6
- Female	56.8	24.2	58.7	24.2	29.8	24.4
Employee						
- Total	25.8	9.6	18.0	6.2	83.6	62.5
- Male	31.7	14.5	22.7	9.8	87.3	70.0
- Female	11.6	3.2	7.7	1.7	65.2	42.3
Employer						
- Total	0.5	0.9	0.5	0.8	0.7	3.5
- Male	0.7	1.5	0.7	1.1	0.8	4.2
- Female	0.2	0.4	0.2	0.3	0.3	1.6
Unpaid-Family Worker						
- Total	-	54.7	-	57.4	-	11.9
- Male	-	42.6	-	45.5	-	7.1
- Female	-	70.1	-	71.9	-	24.8

6.7 WORKING POPULATION BY OCCUPATION

The fact that primary industry dominates over all other kinds of economic activities is reflected by the prominence of agricultural and related occupations. In descending order, the various occupations show the following proportion of workers in 1990. Agriculture and related occupations has 73.6 percent, professional, technical and related workers has 2.5 percent, production and related workers had 2.0 percent, service workers has 1.8 percent and so on. This information is shown in Table 6.8.

A comparison of the percent distribution of male and female workers over the various occupations does not show significant differences. The majority of workers in the rural areas (77.9 percent in 1990) are engaged in agricultural and related occupations, and fewer workers (6.3 percent in 1990) in non-agricultural occupations. By contrast, urban areas have fewer workers in agricultural and related occupations (7.0 percent in 1990) and more workers in the non-agricultural occupations, who are more evenly distributed. In order of predominance, the non-agricultural occupations have the following shares; professional, technical and related workers (14.5 percent), sales workers (13.9 percent), service workers (13.8 percent) production and related workers (11.7 percent). Again, an examination of the distribution of male and female workers within the rural or urban areas did not show differences which would be of importance.

There are no important changes in the occupational shifts of the work force between 1980 and 1990.

Table 6.8

Usually Working Population By Occupation, Sex and Residence, (Percent), Eastern 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	99,903	69,936	28,967	87,193	60,194	26,999	11,710	9,742	1,968
	1990	311,072	174,258	136,814	292,262	160,547	131,715	18,810	13,711	5,099
Percentage 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	4.9	5.0	4.8	3.7	4.0	2.9	14.2	10.8	30.8
	1990	2.5	3.2	1.7	1.7	2.3	1.0	14.5	13.1	18.5
Administrative and Manag.	1980	0.6	0.8	0.3	0.3	0.3	0.2	3.3	3.7	1.3
	1990	0.1	0.2	0.0	0.1	0.1	0.0	1.3	1.6	0.3
Clerical and related	1980	1.7	1.8	1.3	0.8	0.9	0.4	8.8	7.6	14.7
	1990	0.7	0.8	0.5	0.2	0.3	0.1	7.4	6.5	10.0
Sales Workers	1980	2.3	2.5	2.0	1.3	1.6	0.7	9.8	7.9	19.5
	1990	1.5	1.7	1.3	0.7	0.9	0.5	13.9	11.7	19.8
Service Workers	1980	5.0	6.0	2.3	2.7	3.2	1.7	21.4	23.3	11.8
	1990	1.8	2.7	0.7	1.0	1.5	0.5	13.8	16.4	6.9
Agriculture, Animal Hus.	1980	73.8	69.6	84.1	82.2	79.2	89.0	11.5	10.4	16.8
	1990	73.6	70.7	77.2	77.9	76.1	80.0	7.0	7.0	6.9
Production and Related	1980	7.9	10.8	0.9	5.1	7.1	0.7	28.5	33.7	3.0
	1990	2.0	3.0	0.8	1.4	2.1	0.6	11.7	14.2	4.7
Unclassified	1980	0.4	0.4	0.2	0.3	0.4	0.2	0.6	0.7	0.3
	1990	1.3	1.4	1.2	1.2	1.2	1.2	3.8	3.9	3.4
Not Stated	1980	3.4	3.1	4.1	3.6	3.3	4.2	1.9	1.9	1.8
	1990	16.5	16.3	16.6	15.8	15.5	16.1	26.6	25.6	29.5

6.8 WORKING POPULATION BY INDUSTRY

According to Table 6.9 in 1990, the agricultural industry in Eastern Province employs 74.4 percent of the usually working populations, the mining industry employs 0.1 percent, the secondary industries together employ 2.3 percent, and the tertiary industries together had 6.5 percent. It can be observed that agriculture economic activities are more predominant in this province than all other activities combined.

Most of the self-employed workers (87.4 percent) are engaged in the agriculture industry, leaving only 5.9 percent for all non-agricultural industries. The same is true of unpaid family workers; 77.6 percent are engaged in agriculture and only 1.4 percent are distributed in the non-agriculture economic activities.

The distribution of employees and employers is more even among all industries than the case with the self-employed and unpaid family workers. In order of predominance, in 1990, Community, Social and personal services has 34.0 percent employees, agriculture has 22.3 percent of the employees and manufacturing has 5.9 percent employees. and so on. Similarly for employers; agriculture has 48.5 percent, community, social and personal services has 18.6 percent, trade has 7.2 percent and manufacturing has 4.7 percent.

The shifting of workers from one industry to another in this region is of little significance, as shown by lack of major change in the industrial distribution of workers between the two censuses.

Table 6.9

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

Industrial and Year		Total Number Working	Self Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total Number	- 1980	98,903	60,230	25,510	520		12,711
	- 1990	311,072	101,654	29,741	2,845	170,121	6,711
Eastern 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	75.7	93.5	25.2	75.0	-	93.2
	- 1990	74.4	87.4	22.3	48.5	77.6	39.2
Mining	- 1980	0.2	0.1	0.5	-	-	-
	- 1990	0.1	0.1	0.8	0.2	0.0	0.2
Manufacturing	- 1980	1.4	0.9	3.4	0.8	-	0.1
	- 1990	1.4	1.8	5.9	4.7	0.3	1.1
Electricity	- 1980	0.2	0.0	0.7	-	-	-
	- 1990	0.2	0.0	1.4	0.6	0.0	0.1
Construction	- 1980	1.8	0.3	6.4	0.8	-	0.0
	- 1990	0.7	0.4	4.9	3.4	0.1	0.7
Trade	- 1980	2.0	1.7	3.5	5.6	-	0.3
	- 1990	1.1	1.3	4.8	7.2	0.1	1.1
Transport	- 1980	1.3	0.1	4.8	1.3	-	0.1
	- 1990	0.5	0.1	4.6	2.1	0.0	0.5
Finance	- 1980	0.7	0.2	2.0	1.3	-	0.0
	- 1990	0.4	0.4	2.5	1.5	0.0	0.2
Community	- 1980	11.7	0.9	42.8	6.9		0.4
	- 1990	4.5	1.8	34.0	18.9	0.9	3.3
Other	- 1990	1.3	0.5	2.4	1.3	1.3	10.9
Not Stated	- 1980	5.0	2.3	10.7	8.3	-	6.0
	- 1990	15.4	6.2	16.4	11.9	19.7	42.6

Figure 6.5

Usually Working Population 12 Years and Above by Employment Status
Eastern Province

1980 Census
- Not Stated 12.8%
- Employee 25.8%
- Self Employed 60.9%
- Employer 0.5%

1990 Census
- Not Stated 2.2%
- Employee 9.6%
- Self Employed 32.7%
- Employer 0.9%
- Unpaid Family Worker 54.7%
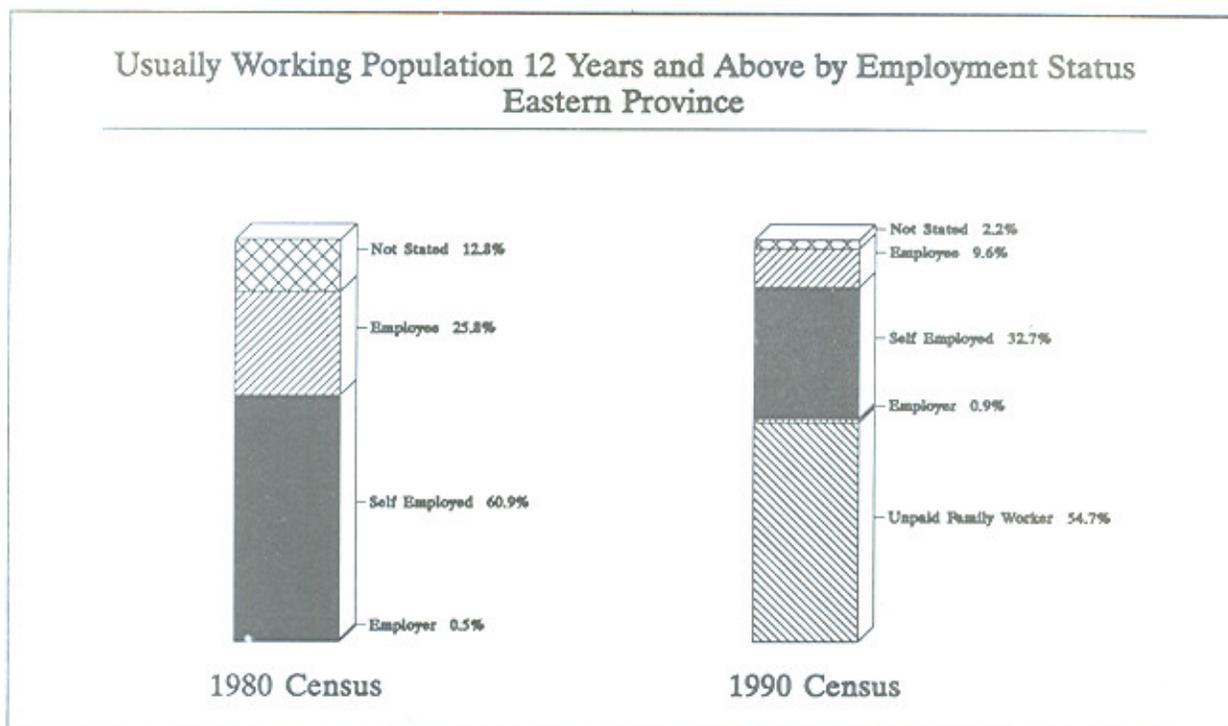
Table 6.10

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

Industry and Year		Total Number Working	Total	Self Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total Number	- 1980	98,903	100.0	60.9	25.8	0.5	-	12.8
	- 1990	311,072	100.0	0.9	9.6	32.7	54.7	2.1
Agriculture	- 1980	74,890	100.0	75.2	8.6	0.5	-	15.7
	- 1990	231,605	100.0	0.6	2.9	38.4	57.0	1.1
Mining	- 1980	169	100.0	30.2	69.8	-	-	-
	- 1990	335	100.0	1.8	68.6	22.4	2.7	4.5
Manufacturing	- 1980	1,406	100.0	37.4	61.5	0.3	-	0.8
	- 1990	4,187	100.0	3.2	41.9	42.9	10.3	1.7
Electricity	- 1980	222	100.0	13.1	86.9	-	-	-
	- 1990	463	100.0	3.7	90.5	3.0	0.4	2.4
Construction	- 1980	1,811	100.0	9.7	90.1	0.2	-	0.0
	- 1990	2,157	100.0	4.4	67.5	20.7	5.2	2.2
Trade	- 1980	1,987	100.0	52.2	44.7	1.4	-	1.7
	- 1990	3,267	100.0	6.3	43.3	40.9	7.2	2.3
Transport	- 1980	1,296	100.0	4.7	94.2	0.5	-	0.6
	- 1990	1,614	100.0	3.7	85.2	7.1	2.1	1.9
Finance	- 1980	633	100.0	18.5	79.8	1.1	-	0.6
	- 1990	1,228	100.0	3.5	61.5	29.8	3.3	1.9
Community	- 1980	11,562	100.0	4.8	94.5	0.3	-	0.4
	- 1990	14,562	100.0	3.7	71.8	12.7	10.2	1.6
Other	- 1990	4,167	100.0	0.9	16.8	12.5	52.3	17.5
Not Stated	1980	4,927	100.0	28.1	55.7	0.9	-	15.3
	- 1990	47,943	100.0	0.7	10.2	13.2	69.9	6.0

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6.9 UNEMPLOYMENT

The existence of unemployment is proof that the supply of labour is in excess of its demand. Unemployment is caused primarily by poor economic conditions, though demographic trends do affect the growth and composition of the labour force. A high level of unemployment implies that employment opportunities are inadequate and many people are out of work. The number of unemployed persons when measured against the total labour force is called the unemployment rate.

According to Table 6.11 there is a tremendous decline in the rate of unemployment in the province, from 54.8 percent in 1980 to 9.3 percent in 1990. The decrease in male unemployment (from 45.8 percent in 1980 to 10.0) in 1990 is less than the decrease in female unemployment (from 67.7 percent in 1980 to 8.1 percent in 1990). The decrease in the unemployment rate in this province is due to the taking up of informal sector activities by persons who were previously without jobs and due to an improved coverage of informal sector activities during the 1990 census enumeration compared to the 1980 census.

The unemployment rate is lower in rural areas (8.8 percent in 1990) than in urban areas (14.6 percent in 1990), whereas it is higher in rural areas (56.4 percent) than in urban areas (38.2 percent) in 1980. The rate of unemployment by district in 1990 in Table 6.11 ranged from 4.4 percent in Lundazi to 15.0 percent in Chadiza.

Table 6.11

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

Employment Status, Sex and Residence	1980	1990
Eastern Province		
-Total	54.8	9.3
-Male	45.8	10.0
-Female	67.7	8.1
Residence		
Rural		
-Total	56.4	8.8
-Male	48.1	9.8
-Female	67.8	7.4
Urban		
-Total	38.2	14.6
-Male	25.8	12.6
-Female	66.2	19.0
Districts		
-Chadiza		15.0
-Chama		5.8
-Chipata		9.4
-Katete		12.1
-Lundazi		4.4
-Petauke		11.3

The percent distribution of unemployment rates by age is shown in Table 6.12. The problem of unemployment is greater among the youth aged 12-29 years than it was for the adult age groups of 30 years and above. Unemployment among the young population in the age group 12-29 is higher in urban areas than it is in rural areas.

Table 6.12

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

	Current Unemployment Rates								
Age Group	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Total	9.3	10.0	8.1	8.8	9.8	7.4	14.6	12.6	19.0
12-9	13.6	14.3	12.8	12.9	13.7	11.9	26.6	25.3	28.0
20-24	13.1	14.5	11.0	11.9	13.4	9.6	27.6	26.5	29.6
25-29	8.9	10.3	6.5	8.4	10.0	5.8	13.3	12.6	15.1
30-34	6.7	7.7	4.7	6.7	7.9	4.5	6.5	6.4	6.7
35-39	5.7	6.6	3.9	5.8	7.0	3.7	4.9	4.5	6.2
40-44	5.0	6.1	3.4	5.0	6.3	3.3	4.9	4.8	5.4
45-49	4.7	5.8	2.9	4.7	6.0	2.9	4.2	4.4	3.6
50-54	4.6	5.9	2.7	4.6	6.0	2.7	4.6	5.0	2.4
55-59	4.5	5.4	3.1	4.5	5.3	3.0	6.1	5.9	7.3
60-64	4.5	5.4	2.8	4.4	5.4	2.7	8.0	7.7	9.5
65+	4.5	4.9	3.8	4.5	4.9	3.8	7.6	6.4	13.33
Not Stated	42.9	-	60.0	42.9	-	60.0	-	-	-

Table 6.13 gives the educational attainment of the unemployed, in which 52.7 percent had no education in 1990, 34.4 percent have only a rudimentary level of grade 1-7, while 10.4 percent have a secondary level of education of grade 8-12.

Unemployment is equally high in all age groups for all persons with an educational attainment of grade 7 and less. However, among those with secondary education unemployment is more acute for the young in the age-group of 12-44 years. Long ago, unemployment used to be a problem for those with an insufficient education, currently, the younger population, face serious difficulties to get jobs, even when they are fairly well educated.

Table 6.13

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

Age Group	Total Number Unemployed	Total	None	Grade 1-7	Grade 8-12	"A" Level	Degree	Not Stated
Total	32,722	100.0	52.7	34.4	10.4	0	0	2.5
12-19	14,291	100.0	59.2	33.5	4.6	-	-	2.7
20-24	6,636	100.0	43.4	35.6	19.1	-	-	1.9
25-29	3,572	100.0	39.1	39.5	19.6	-	0.1	1.7
30-34	2,152	100.0	41.9	39.1	16.9	-	0	2.1
35-39	1,282	100.0	44.2	39.0	14.1	-	-	2.7
40-44	1,061	100.0	55.5	33.1	8.7	-	-	2.7
45-49	868	100.0	59.4	29.4	7.7	-	-	3.5
50-54	818	100.0	63.9	27.0	4.3	-	-	4.8
55-59	625	100.0	64.5	29.6	4.1	-	-	1.8
60-64	546	100.0	66.5	27.3	3.5	0.2	-	2.5
65+	868	100.0	73.3	22.3	0.7	-	-	3.7
Not Stated	3	100.0	-	-	-	-	-	100.0

Figure 6.6

Usually Unemployed by Sex, Eastern Province, 1990
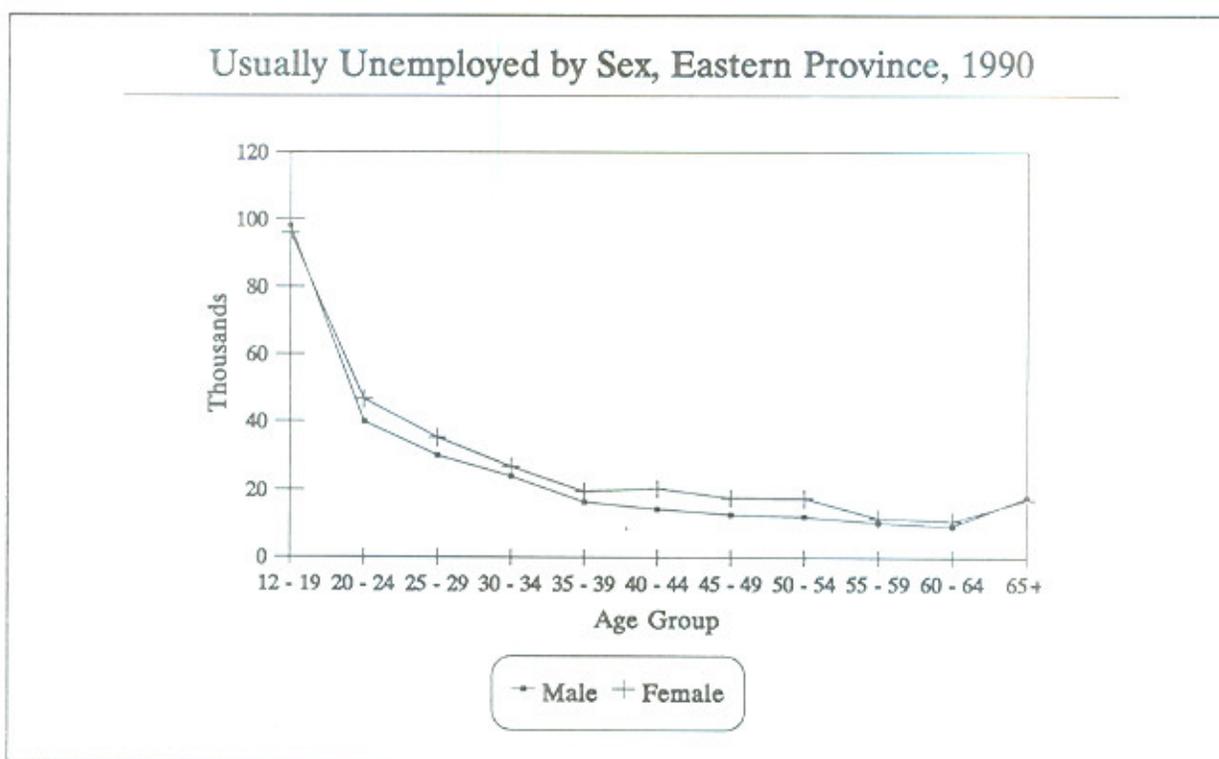
According to Table 6.14 more than half of the unemployed population have never been married, 31.3 percent are married and 7.1 percent are distributed in the remaining marital status categories. A similar pattern is maintained between male and female sexes, and also between rural and urban areas.

Table 6.14

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

Residence and Sex	Total Number Unemployed	Marital Status						
		Total	Single	Married	Widowed	Divorced	Separated	Not Stated
Total								
Both Sexes	32,722	100.0	57.0	31.3	1.8	3.4	1.9	4.6
Male	21,282	100.0	53.9	38.2	0.5	1.4	0.8	5.2
Female	11,440	100.0	62.8	18.5	4.4	7.0	3.8	3.5
Rural								
Both Sexes	28,963	100.0	55.8	32.6	1.9	3.4	2.0	4.2
Male	19,055	100.0	53.1	39.4	0.5	1.5	0.8	4.7
Female	9,908	100.0	61.0	19.6	4.7	7.3	4.2	3.2
Urban								
Both Sexes	3,759	100.0	66.1	21.2	1.2	3.0	1.1	7.4
Male	2,227	100.0	60.0	27.9	0.3	1.3	0.8	9.1
Female	1,532	100.0	74.0	11.4	2.5	5.4	1.6	5.1

Figure 6.7

Currently Unemployed by Marital Status, Eastern Province, 1990

Never Married
60%

Separated
2%
Divorced
4%

Widowed
2%

Married
33%
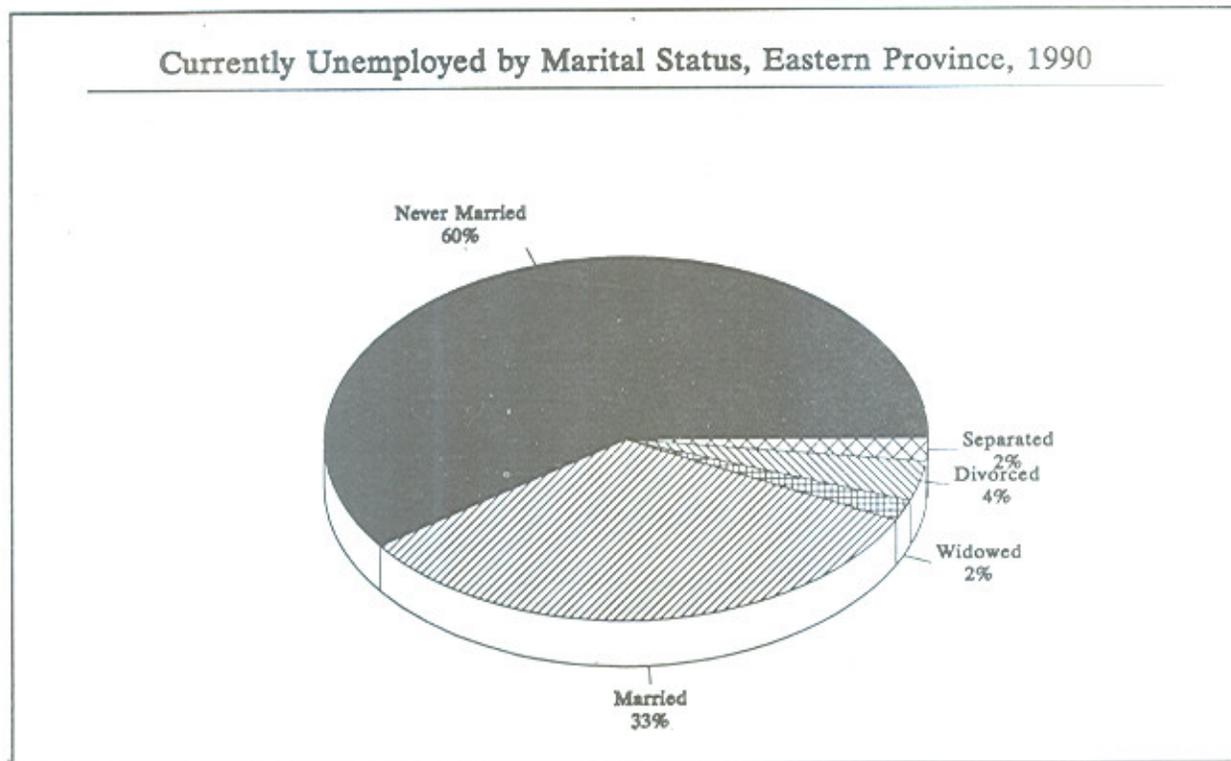
6.10 SUMMARY

The working age population increased by 56.1 percent between 1980 and 1990. The male working age population increased by 66.8 percent, while that of the female increased by 47.7 percent. The proportion of working age population in the rural areas is 90.7 percent and in the urban areas it is 9.3 percent for both censuses.

The labour force increased by 61.5 percent, with the male labour force increasing by 64.2 percent and the female labour force increasing by 57.7 percent. A larger proportion of the labour force (92.7 percent in 1990 and 91.3 percent in 1980) has remained in the rural areas.

Of the 1990 labour force, 90.7 percent is employed. The increase in the female employed population is much higher (348.8 percent) than that of the male employed population (172.6 percent). Higher increase in the employed population contributed to the drastic fall in unemployment

The big decline in the unemployed population, of 72.7 percent, is due both to the fact that many of those who were jobless in 1980 entered into the informal sector activities by 1990, and that there is better coverage of informal sector activities in the 1990 census enumeration, as compared to the 1980 census.

The population which is economically inactive increased by 42.1 percent. Most of this population is female (71.9 percent) compared to male (28.1 percent). Among males, 55.8 percent are economically inactive due to other reasons, while 30.4 percent are inactive due to studying. In comparison, 68.9 percent of the females are inactive economically due to household duties, and 22.8 percent due to other reasons.

The province still has great reliance on the self employed and unpaid family workers, who together constitute 87.4 percent of the work force in 1990.

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The most prevalent occupation in the region is that of agricultural and related occupation, with 73.6 percent of the work force. The agriculture industry is the most common of all economic activities in the province, engaging 74.4 percent of the work force in 1990.

Unemployment is equally high in all age groups for persons without education; however, it is still high for young persons, even they when have acquired a secondary education.

CHAPTER 7

CHILDREN, YOUTH AND WOMEN

7.1 INTRODUCTION

The subject of children, youth and women has been discussed in a number of both domestic and international fora for sometime now. In the discussion below, an attempt is made to examine and analyse the situation of children, youth and women with regard to the following data items from the Census:-

- Population Distribution within the province,
- Composition and Change,
- Marital Status of youth and women,
- Fertility,
- Education, and
- Economic Activity.

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

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

Population Change

Population change may be spoken of in terms of growth, which may be positive or negative in certain cases. To this effect, population change over a period of ten years (1980-90) has been studied to come up with the average annual growth rate, for the children and youth of Eastern Province. Table 7.1 reveals that the average annual growth rate of children in Eastern Province is 3.3 percent and 5.8 percent for the youth. This means that the number of children is growing much slower than the number of youth.

Notably, the table shows that whilst the number of youth is growing at the same rate (5.8 percent) in rural and urban areas, the number of children in urban areas is growing at a lower rate (2.3 percent) than in rural areas (3.5 percent).

Table 7.1

Population Size and Growth Rate of Children and Youth by Broad Age Group, Eastern Province, 1980 and 1990

	Age Group	Residence	Population		Average Annual Growth Rate (%) 1980-1990
			1980	1990	
Children	0 - 14	Total	314,718	437,348	3.3
		Rural	282,683	397,317	3.5
		Urban	32,035	40,031	2.3
Youth	15 - 24	Total	116,367	205,087	5.8
		Rural	104,540	184,249	5.8
		Urban	11,827	20,838	5.8

Figure 7.1

Population of Children and Youth by Residence, Eastern Province, 1990

Children (0 - 14)   Youth (15 - 24)
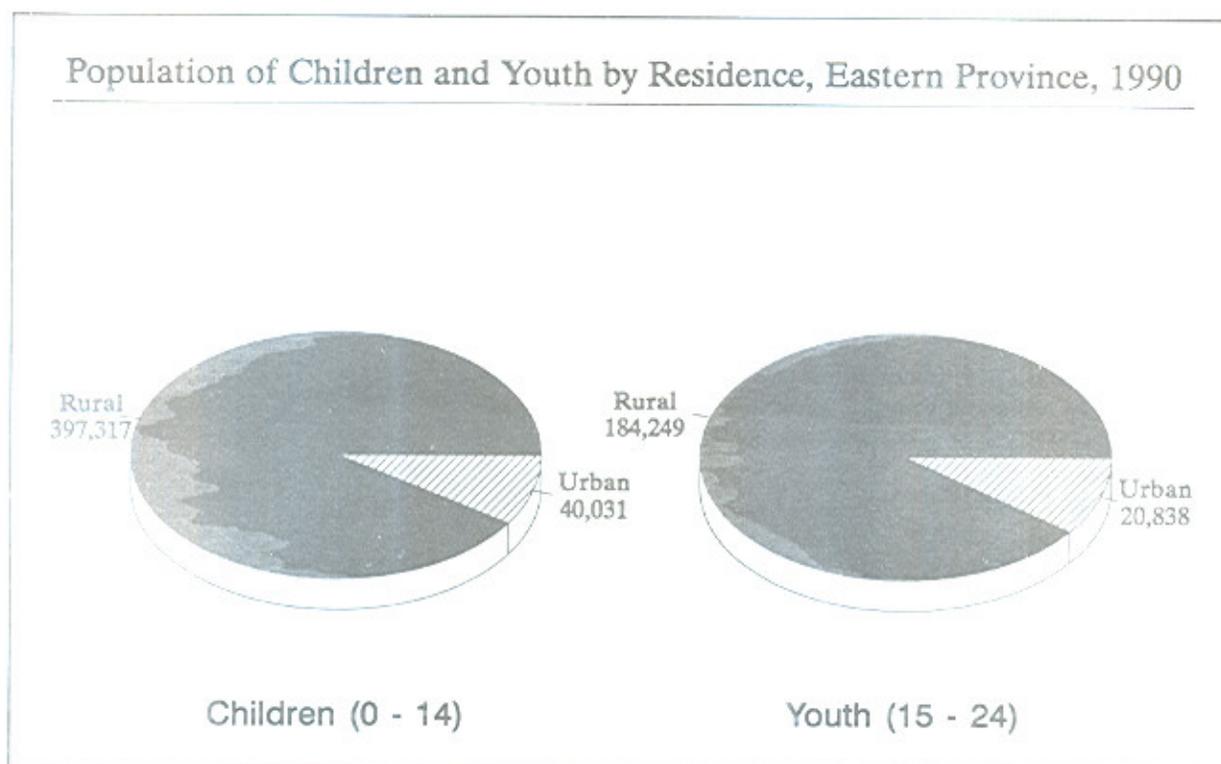
Population Composition and Distribution

Eastern Province has a total population of 965,967. Calculation of the population of children and youth as a proportion of the total population shows that Eastern Province comprises 45 percent and 21 percent of children and youth, respectively. Together, they make up 66 percent of the total population of the province.

Table 7.2

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

Age Group	Sex	Number	Proportion of Total Population
0-14	Both Sexes	437,348	45.3
	Male	220,079	47.2
	Female	217,269	43.5
15-24	Both Sexes	205,087	21.2
	Male	99,118	21.3
	Female	105,969	21.2

A further breakdown shows that in relation to the total population of children and youth, only a small number live in the urban part of the province (See Figure 7.1). This may be due to the fact that a very small proportion of the total population of Eastern Province live in urban areas.

A large proportion of children and youth in Eastern Province implies it has young population. A young population tends to have an in-built momentum for growth, which is due to a large number of young people entering the reproductive ages (15-49 years). Also, a very young population has economic implications. The trend may be such that large amounts of resources have to be diverted to provide social services such as health and education, leaving little resources for future investment and savings.

Table 7.3

Population Distribution and Sex Ratio of Children and Youth by District, Eastern Province, 1990

District	Population	Total	Male	Female	Sex Ratio
Eastern Province	Children	437,348	220,079	217,269	101.3
	Youth	205,087	99,118	105,969	93.5
Chadiza	Children	30,208	15,319	14,889	102.9
	Youth	12,827	6,325	6,502	97.3
Chama	Children	24,598	12,472	12,126	102.9
	Youth	11,245	5,276	5,969	88.4
Chipata	Children	128,140	64,197	63,943	100.4
	Youth	64,348	31,522	32,826	96.0
Katete	Children	64,168	32,421	31,747	102.1
	Youth	27,660	13,242	14,418	91.8
Lundazi	Children	77,742	39,131	38,611	101.3
	Youth	36,126	17,361	18,765	92.5
Petauke	Children	112,492	56,539	55,953	101.0
	Youth	52,881	25,392	27,489	92.4

Population data for males and females in Table 7.3 has been used to calculate sex ratios for children and youth of Eastern Province. The sex ratios throughout the province and districts reveal that there are more male children as opposed to female, and inversely, there are more female than male youth. This observation may be attributed to out-migration of young men from Eastern Province to other parts of the country in search of employment opportunities and other social services such as advanced learning.

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Figure 7.2

Population Distribution of Children and Youth by District, Eastern Province, 1990

Children (0-14)

Chipata 128,140
Chama 24,598
Chadiza 30,208
Katete 64,168
Lundazi 77,742
Petauke 112,492

Youth (15-24)

Chipata 64,348
Chama 11,245
Chadiza 12,827
Katete 27,660
Lundazi 36,126
Petauke 52,881
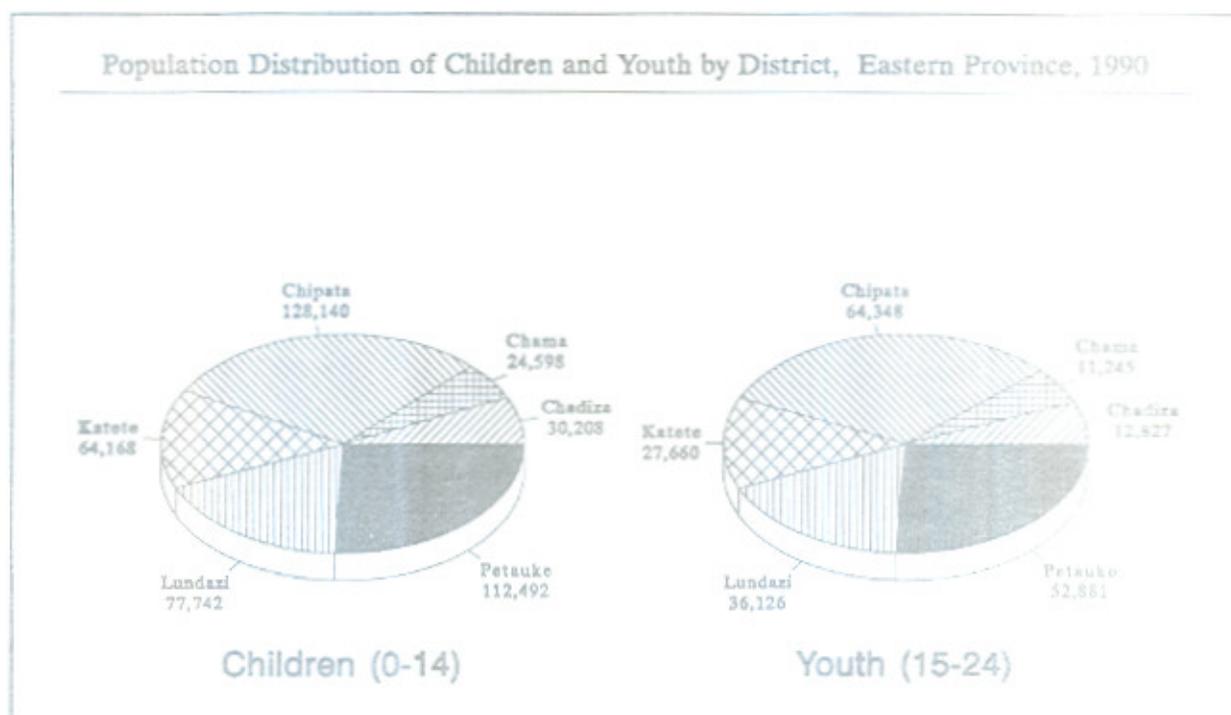
Figure 7.2 shows the distribution of children and youth in the districts of Eastern Province. The largest number of children and youth live in Chipata whilst Chama district has the lowest number of children and youth. Perhaps this is due to Chipata being the provincial headquarters thus attracting a lot of people to settle there as it is relatively developed.

7.3 SOCIAL AND ECONOMIC CHARACTERISTICS OF CHILDREN AND YOUTH

As discussed earlier, Eastern Province has a very young population. However, the participation of youth in the development of the province is low. Needless to say, their participation is hampered by low education levels completed and scarcity of job opportunities in various sectors. The unemployment rates are high among the youth compared to other age groups. In this section marital status, fertility, literacy, education of children and youth and their economic activities are discussed.

Marital Status of the Youth

Table 7.4 shows that the majority of both male and female youth aged 15-19 years have never married, though the proportion for male youth is much higher than for female youth. Compared to only 3 percent of male youth in the same age group, 27 percent of female youth are married. Perhaps this is not surprising as it is generally observed that women marry much earlier than men. Support to this may be rendered from Chapter 8 where it is indicated that the average age at marriage for females in Eastern Province is 20 years and 25 years for males. About 8 percent of the female youth in age group 20-24 years have been widowed and divorced/separated, compared to a negligible proportion of their male counterparts.

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Table 7.4

Youth by Age, Sex, Marital Status and Residence, (Percent), Eastern Province, 1990

Residence	Age Group	Sex	Total		Marital Status					
			Number	Percentage	Never Married	Married	Widowed	Divorced	Separated	Not Stated
Eastern Province	15-19	Male	59,229	100.0	90.3	2.6	0.1	0.1	0.2	6.7
		Female	59,376	100.0	66.7	27.1	0.3	1.4	1.0	3.5
	20-24	Male	39,889	100.0	57.6	35.3	0.1	0.7	0.7	5.6
		Female	46,593	100.0	22.3	66.7	0.8	5.0	2.8	2.4
Rural	15-19	Male	53,525	100.0	90.1	2.7	0.1	0.1	0.2	6.8
		Female	53,099	100.0	65.2	28.5	0.3	1.5	1.1	3.4
	20-24	Male	35,794	100.0	56.1	37.0	0.2	0.7	0.7	5.3
		Female	41,831	100.0	20.7	68.1	0.8	5.2	3.0	2.2
Urban	15-19	Male	5,704	100.0	92.2	1.2	0.0	0.1	0.2	6.3
		Female	6,277	100.0	79.3	15.0	0.1	0.6	0.6	4.4
	20-24	Male	4,095	100.0	70.9	20.0	0.0	0.5	0.4	8.4
		Female	4,762	100.0	36.3	54.7	0.5	3.2	1.4	3.9

The proportion of married youth in rural areas is higher than in urban areas of the Province. This may also be attributed to the lower average age at marriage for both males and females in rural than urban areas. This average age at marriage tends to increase with an increase in the level of education (See Chapter 8). This may imply that youth in rural areas spend less years in school than those in urban areas, hence, marry earlier. This is more so for female youth who complete even lower grades of school than male youth.

Fertility of Female Youth

Table 7.5 shows the proportion of female youth in Eastern Province who have had a birth. Close to 20 percent of teenage girls (15-19 years) in the province have had a birth. The implication of this early child-bearing may in part explain the high drop-out rate of girls from secondary level of education. Well over half (66 percent) of female youth in age group 20-24 years have had a birth.

Table 7.5

Proportion of Female Youth who have had a Birth by Age and Residence, Eastern Province, 1990

Age Group/Residence	Total Females	Females who have had a Birth	Proportion of Females who have had a Birth
Eastern Province			
15-19	59,376	10,972	18.5
20-24	46,593	30,583	65.6
Rural			
15-19	53,099	10,248	19.3
20-24	41,831	28,068	67.1
Urban			
15-19	6,277	724	11.5
20-24	4,762	2,515	52.8

There are large differences in the proportion of female youth who have had a birth between rural and urban areas of the province. Rural areas, which have a higher number of female youth than urban areas, also have higher proportions of those who have had a birth. Sixty-Seven percent of female youth in rural areas compared to about 53 percent in urban areas have had a birth. Details on the fertility levels of female youth in Eastern Province are discussed in Chapter 8, where it is revealed that the fertility levels of female youth in rural areas are higher than in urban areas.

Children and Youth who can Read and Write

The proportions of children and youth who can read and write in Eastern Province has been calculated and presented by age in Table 7.6. A mere 8 percent of all children aged 5-9 years are able to read and write. The table shows that between the male and female children, the difference in proportion of those who are able to read and write is very minimal.

Table 7.6

Proportion of Children and Youth who can Read and Write by Age and Sex, Eastern Province, 1990

Age Group	Sex	Total Population	Persons who can Read and Write	Proportion of Persons who can Read and Write
5-9	Both Sexes	146,840	11,270	7.7
	Male	73,567	5,491	7.5
	Female	73,273	5,779	7.9
10-14	Both Sexes	132,292	48,443	36.6
	Male	68,014	24,653	36.2
	Female	64,278	23,790	37.0
15-19	Both Sexes	118,605	63,361	53.4
	Male	59,229	34,257	57.8
	Female	59,376	29,104	49.0
20-24	Both Sexes	86,482	47,747	55.2
	Male	39,889	25,663	64.3
	Female	46,593	22,084	47.4

Slightly over half of the youth in Eastern Province are able to read and write. The difference in proportion of male and female youth who can read and write can be seen in both age groups. Generally, male youth have higher proportions of those who can read and write than the female. This is more pronounced in the older age group of 20-24 years where less than half (47 percent) of female youth and over 64 percent of male youth can read and write.

Education Level Completed by Youth

The percentage of youth by their highest level of education completed is shown in Table 7.7. Out of all the youth in the province, 43 percent have never been to school at all. More female than male have had no schooling at all. For instance, about half of the female youth aged 20-24 years have not been to school compared to a little more than a third of the male youth in the same age group.

Almost an equal percentage of male and female youth aged 15-19 years have at least completed secondary school. However, in age group 20-24 years a higher percentage of male youth than female have completed secondary (and above) education.

Table 7.7

Population (15-24 Years) by Highest Level of Education Completed, Age and Sex, (Percent), Eastern Province, 1990

Age Group	Sex	Total Population	Highest Level of Education Completed				
			Total Percentage	No Schooling	Primary	Secondary+	Not Stated
15-19	Both Sexes	116,031	100.0	42.7	45.4	10.4	1.5
	Male	58,034	100.0	37.9	49.5	10.8	1.8
	Female	57,997	100.0	47.4	41.3	10.1	1.2
20-24	Both Sexes	84,469	100.0	43.6	39.1	16.2	1.1
	Male	38,963	100.0	35.3	41.9	21.7	1.1
	Female	45,506	100.0	50.8	36.8	11.5	0.9

Economic Activity of Children and Youth

Table 7.8 shows that the majority of both children and youth in Eastern Province are economically active and mostly employed. There are variations in proportion between male and female youth in both age groups. For instance, the proportions of female youth who are full-time housewives are much more compared to male home-makers. Generally, most of the male youth are either employed or full-time students. As for female youth, they are mostly either employed or full-time housewives. This pattern holds true for the youth in rural areas of the province as well.

The table also shows that the majority of children in urban areas are full-time students. Only close to 20 percent are employed. In rural areas, children are mostly employed with less than 16 percent of them being full-time students.

Similarly, the proportion of children and youth who are economically active in rural areas is much higher than in urban areas. This may be attributed to the fact that the children and youth in rural areas drop out of school early and go for work. One of the reasons for this may be due to lack of or inadequate school facilities in rural areas. On the part of girls and female youth, other reasons may be due to marriage and child-bearing.

Table 7.8

Children and Youth (12-24 years) by Age, Sex, Nature of Usual Economic Activity and Residence, (Percent), Eastern Province, 1990

Residence	Age Group	Sex	Total		Economically Active		Economically Inactive			Not Stated
			Population	Percentage	Employed	Unemployed	Full-time Housewife/ Homemaker	Full-time Student	Other	
Eastern Province	12-14	Male	38,859	100.0	46.3	6.9	2.8	18.8	20.5	4.6
		Female	36,566	100.0	44.1	6.2	7.3	18.4	19.7	4.3
	15-19	Male	59,229	100.0	51.6	9.1	3.1	17.1	16.2	2.9
		Female	59,376	100.0	44.0	6.6	21.8	10.6	14.4	2.6
	20-24	Male	39,889	100.0	65.2	11.1	3.3	6.3	12.0	2.1
		Female	46,593	100.0	38.7	4.8	43.8	1.7	9.2	1.8
Rural	12-14	Male	35,225	100.0	49.2	7.1	3.0	15.7	20.7	14.3
		Female	32,553	100.0	47.0	6.3	7.6	15.1	19.9	4.1
	15-19	Male	53,525	100.0	54.5	9.1	3.3	14.6	15.8	2.7
		Female	53,099	100.0	46.9	6.3	22.3	8.4	13.7	2.3
	20-24	Male	35,794	100.0	.67.4	10.4	3.5	5.4	11.4	1.9
		Female	41,831	100.0	40.8	4.4	43.2	1.1	8.9	1.6
Urban	12-14	Male	3,634	100.0	18.9	5.5	1.6	49.0	18.5	6.4
		Female	4,013	100.0	19.9	5.7	5.2	45.1	18.3	5.8
	15-19	Male	5,704	100.0	24.4	8.8	2.1	40.8	19.1	4.7
		Female	6,277	100.0	19.8	9.0	18.0	29.1	19.7	4.4
	20-24	Male	4,095	100.0	45.3	16.3	2.3	14.2	17.6	4.3
		Female	4,762	100.0	20.3	8.5	49.2	6.7	12.2	3.1

Figure 7.3

Economic Activity of Youth (15-19 years) by Sex, Eastern Province, 1990

Male
- Other 16.2
- Student 17.1
- Housewife/Homemaker 3.1
- Unemployed 9.1
- Employed 51.6

Female
- Other 14.4
- Student 10.6
- Housewife/Homemaker 21.8
- Unemployed 6.6
- Employed 44.0
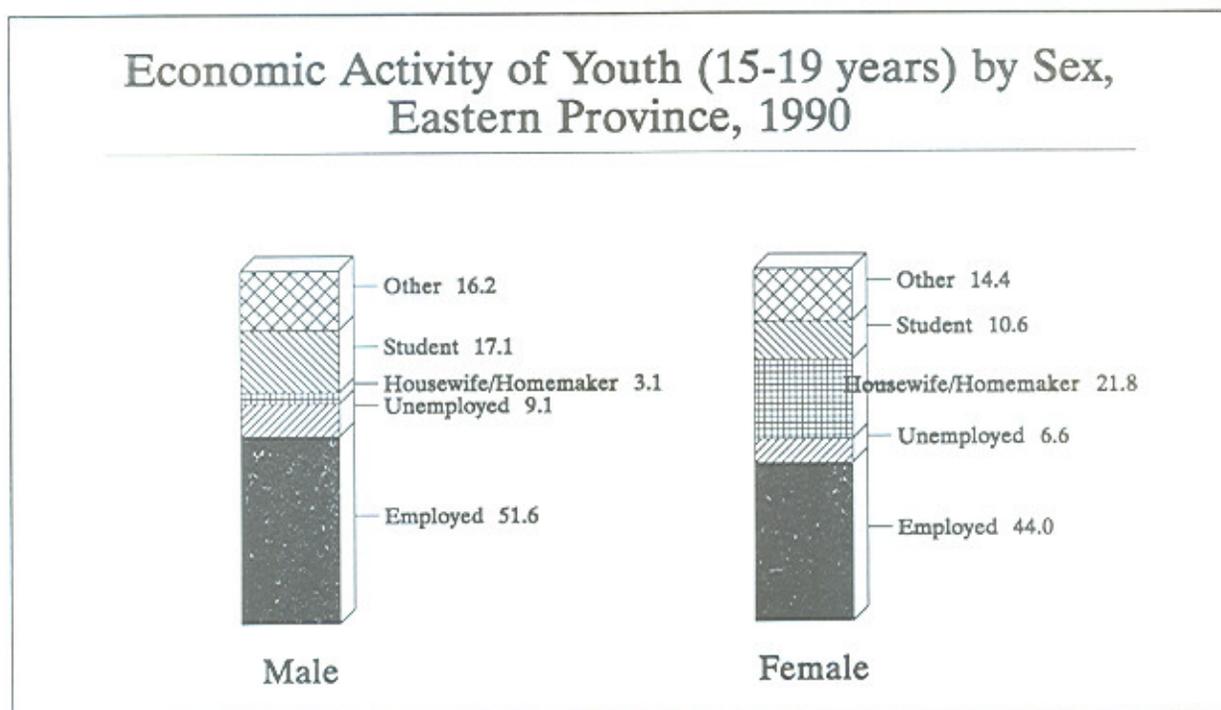
Figure 7.3 shows that most of the youth 15-19 years are employed. Whilst this is also the case for male youth aged 20-24 years, female youth in the same age group are mostly house-wives (See Figure 7.4).

Figure 7.4

Economic Activity of Youth (20-24 years) by Sex, Eastern Province, 1990

Male

- Other 12.0
- Student 6.3
- Housewife/Homemaker 3.3
- Unemployed 11.1
- Employed 65.2

Female

- Other 9.2
- Student 1.7
- Housewife/Homemaker 43.8
- Unemployed 4.8
- Employed 38.7
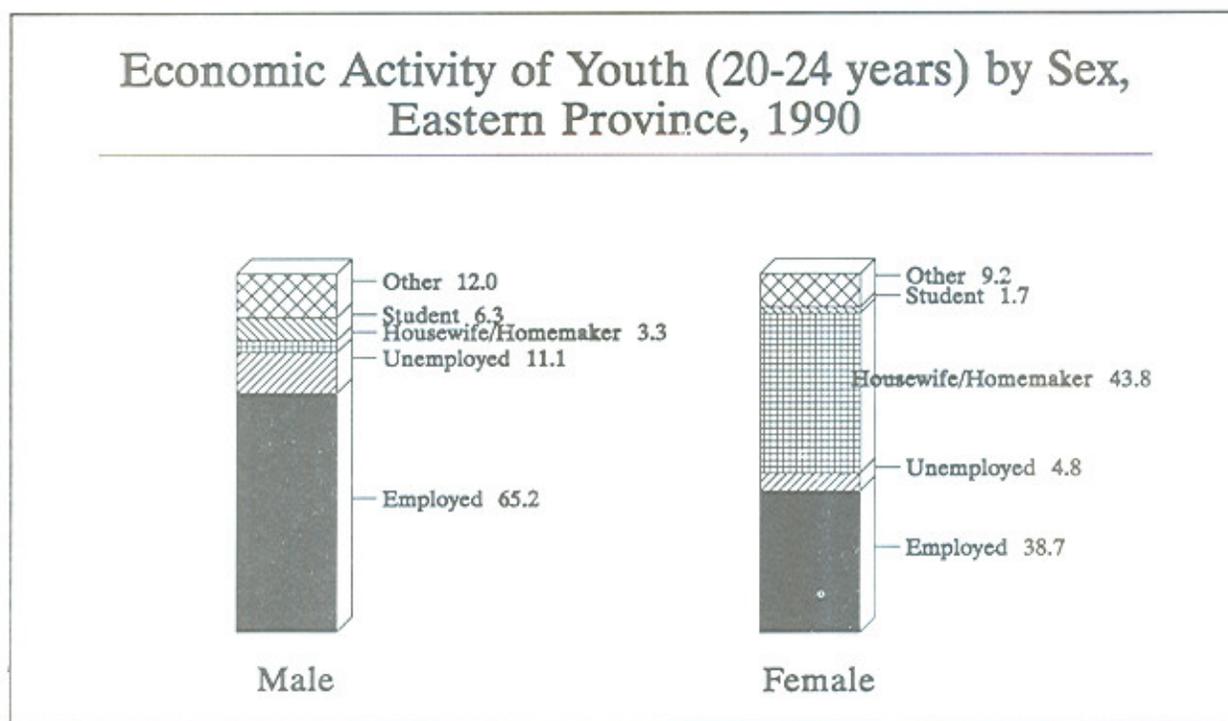
Youth Unemployment Rates

Table 7.9 shows the number of unemployed persons (15-24 years) in Eastern Province measured against its total labour force (i.e unemployment rate) by age.

Generally, the unemployment rate for youth in the province is low (less than 15 percent). Also, male youth have slightly higher unemployment rate than female youth. However, unemployment among the youth (regardless of sex) is higher in urban than rural areas. For example, in age group 15-19 years, the unemployment rate of youth in rural areas is less than half (13 percent) of that in urban areas (29 percent).

This difference in unemployment rates between rural and urban youth may be attributed to the fact that Eastern Province being predominantly rural, most of the rural youth either own small pieces of farming land or are employed as subsistence farmers unlike the youth in urban areas.

Table 7.9

Unemployment Rate of Youth by Age, Sex and Residence, Eastern Province, 1990

Age Group/Residence		Sex	Total Labour Force	Unemployed Population	Unemployment Rate (%)
Eastern Province					
	15-19	Both Sexes	66,039	9,312	14.1
		Male	35,963	5,383	15.0
		Female	30,076	3,929	13.1
	20-24	Both Sexes	50,679	6,636	13.1
		Male	30,405	4,308	14.5
		Female	20,274	2,228	11.0
Rural					
	15-19	Both Sexes	62,335	8,244	13.2
		Male	34,066	4,880	14.3
		Female	28,269	3,364	11.5
	20-24	Both Sexes	46,782	5,562	11.9
		Male	27,880	3,740	13.4
		Female	18,902	1,822	9.6
Urban					
	15-19	Both Sexes	3,704	1,068	28.8
		Male	1,897	503	26.5
		Female	1,807	565	31.3
	20-24	Both Sexes	3,897	1,074	27.6
		Male	2,525	668	26.4
		Female	1,372	406	30.0

7.4 SOCIAL AND ECONOMIC CHARACTERISTICS OF WOMEN

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

Female Household Heads

In Eastern Province, there are 184,782 households of which 36,236 are headed by females, i.e 20 percent. These figures indicate that headship of households is dominated by males. This is true for rural and urban areas as well. However, the majority of female heads of households (20 percent) reside in rural areas of the province. Amongst the districts, Petauke has the highest proportion of female heads of households, while Lundazi has the lowest (See Table 7.10).

Marital Status of Female Household Heads

Table 7.10 shows the proportion of all household heads who are women by marital status category. For instance, the table shows that 92 percent of the widowed household heads are women. Large proportions of the divorced and separated household heads are also women. The table further indicates that only 3 percent of the married heads of households in Eastern Province are female. Males represent a complimentary figure of about 97 percent. This suggests that very few women head households whilst in a marital union. Of the total household heads in the province who have never married, a little more than a third are women.

The pattern described above is similar to that depicted in the rural and urban parts of the province and all its districts. All in all, Table 7.10 may indicate that in most cases, females become heads of households when they lose their spouses through death, divorce and separation.

Table 7.10

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

Residence/District	Total	Never Married	Married	Widowed	Divorced	Separated	Not Stated
Eastern Province							
Total	19.6	36.2	3.2	91.7	84.0	78.3	5.7
Rural	20.2	36.6	3.3	92.0	84.5	79.0	5.5
Urban	13.4	35.0	2.4	82.3	78.3	69.3	9.3
District							
Chadiza	15.6	33.8	2.1	88.4	85.2	76.5	3.8
Chama	15.0	22.9	3.0	95.0	88.1	90.8	2.5
Chipata	20.8	34.4	3.3	90.2	77.7	73.5	8.3
Katete	21.7	43.1	3.3	93.2	87.9	80.7	5.6
Lundazi	11.6	30.6	2.3	89.5	78.6	68.1	2.7
Petauke	24.5	39.8	4.0	93.6	88.4	83.0	9.7

Educational Status of Women

Data on women and men by their highest level of education completed is shown in Table 7.11. The majority of women (63 percent) in the province have had no schooling compared to 40 percent of men. Although most of both women and men who have been to school have only completed primary school, the percentage of women is much lower than men. Similarly, a higher proportion of men than women have completed secondary education.

Table 7.11

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

Sex	Total		Level of Education Completed				
	Population	Percentage	No Schooling	Primary	Secondary	Higher Education	Not Stated
Male	240,939	100.0	40.3	43.3	15.1	0.0	1.3
Female	276,045	100.0	63.2	28.9	6.9	0.0	1.0

The proportion of female heads of households by their highest level of education completed is shown in Table 7.12. The table shows that 80 percent of female heads in Eastern Province have never been to formal schools. Of those that have attended school, the majority of them have only completed primary level of education.

Table 7.12

Female Household Heads by Highest Level of Education Completed and Residence, (Percent), Eastern Province, 1990

Level of Education	Total	Rural	Urban
Never Attended School	79.7	82.1	39.6
Primary	14.0	13.2	27.0
Secondary	3.9	2.4	29.2
Higher Education	0.0	0.0	0.2
Not Stated	2.4	2.3	3.9
Total Percentage	100.0	100.0	100.0
Total Female Heads	36,236	34,198	2,038
Total Household Heads	184,782	169,624	15,158

Rural and urban areas depict vast differentials. Table 7.12 shows that whereas 82 percent of female heads of households in rural areas of the province have never been to school, only 40 percent of those in urban areas have never been to school. Of those that have been to school in urban areas, the highest proportion has completed the secondary level of education with 29 percent followed by those who have completed primary level of education. In rural areas, of the female heads of households who have been to school, the majority have only completed primary education.

Employment Status of Women

Out of the total working population in Eastern Province, 44 percent are women. Table 7.13 shows that the proportion of working women is lower in urban than rural areas. The table, as well as Figure 7.5 show that over half of the unpaid family workers are women in both rural and urban areas. In each of the remaining employment status categories, less than 50 percent are women. Their complimentary proportions comprise the working men.

Table 7.13

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

Employment Status	Total	Rural	Urban
Total	44.0	45.1	27.1
Employer	17.2	18.5	12.8
Employee	14.8	12.5	18.4
Self-Employed	32.5	32.4	36.8
Unpaid Family Worker	56.4	56.4	56.5
Not Stated	43.1	42.8	45.1

Figure 7.5

Usually Working Females (12 Years and Above) by Employment Status (Percent) of all Working Persons, Eastern Province, 1990
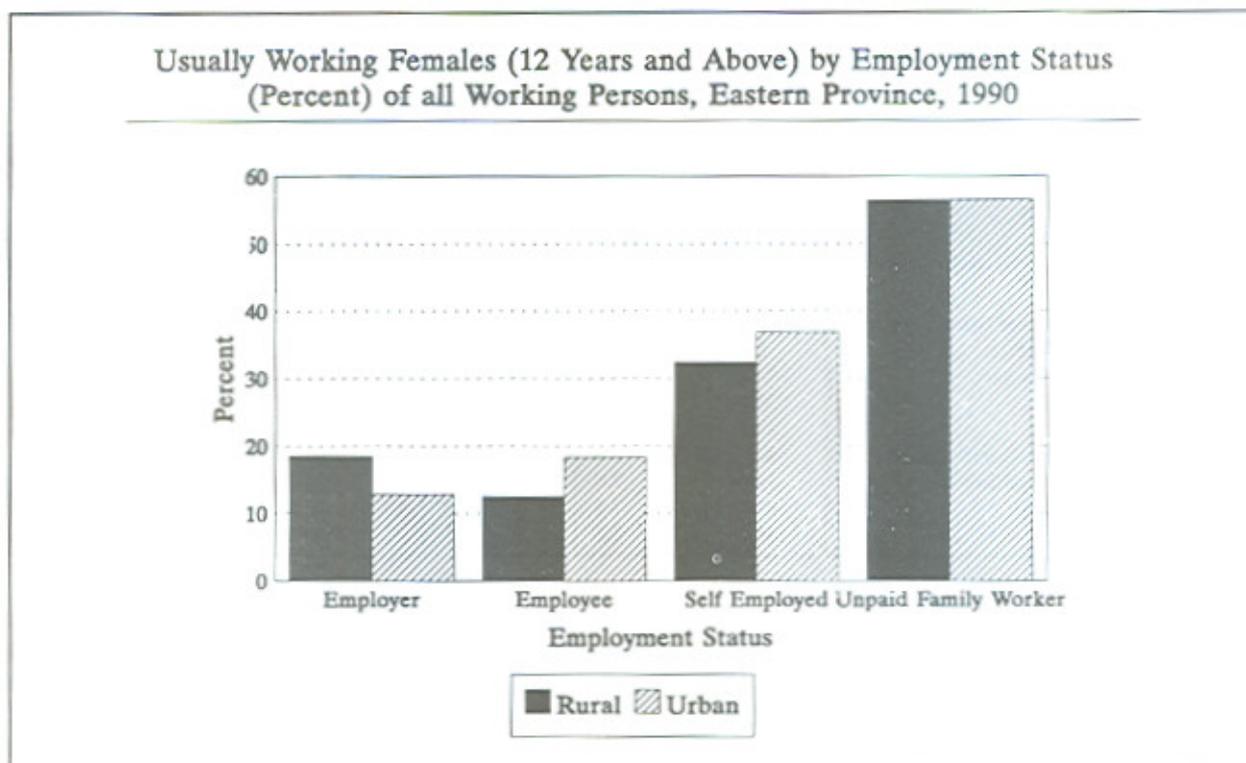
Figure 7.5 shows that with the exception of employer and unpaid family worker categories (where the proportions are equal), the rest of the employment status categories show lower proportions of working women in rural than urban areas.

Table 7.14 shows the proportion of the working females in Eastern Province by their occupation and employment status in relation to the total working population. The table reveals that 46 percent of those engaged in Agriculture, Husbandry, Forestry and Fishery are female. Only 8 percent of the Administration and Managerial Workers are female. It is interesting to note that despite the low proportion of females who are in this occupation, 60 percent of the unpaid family workers in this occupation are still female. This shows that women are mostly employed for no pay (for as long as the majority are unpaid family workers). This may be attributed to the fact that women have very low educational qualifications which limit their choice and chance of being in gainful employment.

Table 7.14

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

Occupation	Total	Employment Status				
		Employer	Employee	Self Employed	Unpaid Family Worker	Not Stated
Total	44.0	17.2	14.8	32.5	56.4	43.1
Professional/Technical and Related Workers	29.4	28.6	28.3	28.3	44.8	47.9
Admin. Managerial Workers	8.1	3.0	8.0	7.1	60.0	0.0
Clerical and Related Workers	30.6	15.6	31.2	23.7	37.5	34.7
Sales Workers	36.2	14.3	18.7	45.1	60.6	41.1
Service Workers	17.6	4.2	10.9	45.0	66.7	27.8
Agriculture Husbandry, Forestry and Fishery	46.2	22.6	8.9	32.1	57.3	39.2
Production, Transport and Labourers	16.6	7.0	6.6	25.5	52.2	16.6
Unclassified Occupations	41.2	7.5	8.7	32.9	53.3	50.3
Not Stated	44.5	8.5	6.9	34.6	53.1	46.5

Table 7.15 further shows the proportion of working persons in a certain category who are women. About 46 percent of those in agriculture, husbandry, forestry and fishery industry are female. In the same industry, 57 percent of the unpaid family workers are female. Table 7.15 also reveals that 44 percent of the self-employed in the industry of wholesale and retail trade, restaurants and hotels are female.

Low proportions of workers in the mining and quarrying, electricity, gas and water, construction and allied repairs, and transport, storage and communication industries constitute females. This may be attributed to the heavy duty work in these industries which is perceived to be suitable for males than females. Despite the weight of custom and the belief that women are not suited to factory work, discriminatory legislation could contribute to low proportions of women occupied in factory occupations. The low proportion of females occupied in the mining and quarrying sector could be due to the discriminatory Employment of Women, Young Persons and Children Act, Chapter 505 of the Laws of Zambia which bars women from working underground in the mines. This could discourage women to take up even other careers in this sector. The same act further discriminates against women in other forms of industrial employment by prohibiting women from undertaking night work in any industrial employment.

Table 7.15

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

Industry	Total	Employment Status				
		Employer	Employee	Self-Employed	Unpaid Family Worker	Not Stated
Total	44.0	17.2	14.8	32.5	56.4	43.1
Agric., Hunting, Forestry and Fishery	45.8	21.5	9.3	32.1	57.3	38.9
Mining and Quarrying	2.7	0.0	1.3	5.3	22.2	0.0
Manufacturing	16.4	8.3	10.0	17.9	38.1	20.8
Electricity, Gas and Water	2.6	0.0	2.1	7.1	0.0	18.2
Construction and Allied Repairs	1.9	0.0	1.6	1.8	8.0	2.1
Wholesale and Retail Trade, Restaurants and Hotels	31.2	8.8	18.3	44.2	54.2	28.9
Transport, Storage and Communication	4.0	3.4	4.0	1.8	8.8	6.5
Finance, Insurance and Real Estates	26.4	25.6	19.4	37.4	55.0	30.4
Community, Social and Personal Service	28.3	18.7	23.8	31.9	57.2	43.0
Unclassified Industry	43.3	8.1	10.7	36.7	53.5	50.6
Not Stated	47.3	14.2	12.9	42.8	53.6	47.5

7.5 SUMMARY

During the intercensal period of 1980-90, the number of children has grown at a lower rate than that of youth. The growth rate of children is 3.3 percent whilst that of the youth is 5.8 percent. However, the proportion of children as a percentage of the total population is higher than the youth's proportion. Altogether, the children and youth of Eastern Province make up two thirds of its population.

Information on the social and economic characteristics of the children and youth shows that the proportion of youth who are married in rural areas is higher than in urban areas. Perhaps this has contributed to the high proportion of female youth in rural areas who have had a birth, although this is not to say all births take place within marital union. Concerning the educational status of youth, the majority have never attended school. Of those that have been to school, most of them have only completed primary level of education. Within the age group 20-24 years, only about half the youth are able to read and write. The proportions for male and female youth are 64 and 47 percent, respectively.

The unemployment rate of youth in Eastern Province is 14 percent for those in age group 15-19 years and 13 percent for those aged between and 20-24 years. By residence, urban areas exhibit unemployment rates which are about twice as high as those in rural areas. This may be due to the province being mostly rural thus enabling youth in rural areas to engage in agricultural activities unlike the urban youth. Employment opportunities in urban areas are very scarce especially with low levels of education completed.

Of the total households in Eastern Province, a fifth are headed by women. There is an indication from the information presented in the chapter that mostly, women become heads of households when they no longer have a spouse. The majority of women heading households have never attended school. These constitute a proportion of about 70 percent. Rural areas present an even higher proportion of female heads of households who have never been to school than urban areas.

Finally, working women in Eastern Province make up 44 percent of the total workers in the Province. However, most of these women are employed as unpaid family workers in the industry of Agriculture, Husbandry, Forestry and Fishery. It is revealed that a very low proportion of women (as opposed to men) are in administrative and managerial occupations. It is largely a result of low education levels completed by women which cuts them off from occupations which require acceptable educational qualifications.

Very low proportions of the working females have been observed in industries like Mining and Quarrying which are physically demanding and perceived to be more suitable for men than women.

CHAPTER 8

NUPTIALITY AND FERTILITY

8.1 INTRODUCTION

Nuptiality deals with the frequency of marriage in a population. Family formation is important in demographic studies because it has a bearing on fertility. The larger the proportion of married persons, the higher the expected fertility. Fertility is a complex process responsible for the biological maintenance of society, as such it forms an important part of demographic studies. Fertility is one of the most important parts of demographic change, the others being mortality and migration.

Nuptiality and fertility topics were adequately covered in the 1990 population census. The following data items were collected for persons aged 12 years and above:-

- Marital Status, i.e. whether a person is married, separated, divorced, widowed or never married.
- Age at first marriage.

For females aged 12 years and above the following additional data items were collected:-

- 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 living by sex (question F-3),
- Number of children dead by sex (question F-4).

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

8.2 CONCEPTS AND DEFINITIONS

Fertility

Fertility refers to the frequency of occurrence of birth 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" married status categories 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 1000 women of childbearing age. Various ages of children 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 women 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 women of childbearing ages (taken as 15-49 years). It is commonly expressed as 1,000 women of childbearing ages 15-49 years.

Total Fertility Rate (TFR)

The TFR represents the average 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 with no allowance for mortality over this period.

Net Reproduction Rate (NRR)

The average number of daughters a female would have or give birth to if the prevailing fertility and mortality patterns persist. This provides a measure of the way in which a generation of females replaces itself with daughters given a particular combination of fertility and mortality.

Average Parity

Also referred to as Mean Number of Children Ever Born (MNCEB). 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 45-49 years is called Completed Family Size.

8.3 NUPTIALITY

This section is concerned with differences in marital status and age at first marriage between sub-groups of Eastern Province as at the 1990 Census. Knowledge of the marital characteristics of respondents is essential in an analysis meant to establish their effects and potential impact on fertility behaviour of a population. The background variables shed some light on the type of population being analysed.

Marital Status

Marital status is an important factor in population dynamics. Although it mostly affects fertility, it also affects mortality and migration to a lesser extent. Basic categories of marital status as recommended by the United Nations are "Never Married", "Married", "Widowed", "Separated" and "Divorced".

In 1990, 37.1 percent of the male population and 20.5 percent of female population in Eastern Province had never been married (see Table 8.1). Their supplement proportions (62.9 and 29.5 percent), respectively, represent those who have ever been married, regardless of their present marital status.

The data in the table shows that marriage in Eastern Province is wide spread. For instance, by age 49, about 98.6 percent of the females and 97.4 percent of males had married.

Table 8.1

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

Age Group	Never Married		Married		Widowed		Divorced		Separated		Total No of Cases	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
15 - 19	96.8	69.2	2.8	28.1	0.1	0.3	0.1	1.4	0.2	1.0	55,228	57,236
20 - 24	61.0	22.9	37.4	68.4	0.1	0.8	0.7	5.1	0.7	2.9	37,663	45,482
25 - 29	22.0	9.0	75.0	79.2	0.3	1.5	1.7	7.0	1.0	3.2	28,862	34,562
30 - 34	9.3	4.6	87.1	80.3	0.5	3.0	2.0	8.3	1.1	3.8	23,354	26,360
35 - 39	5.9	2.9	90.1	80.1	0.6	4.7	2.4	8.7	1.0	3.5	15,988	19,299
40 - 44	3.7	1.7	91.6	78.8	1.0	8.1	2.5	8.0	1.2	3.4	13,981	20,167
45 - 49	2.6	1.4	92.6	74.6	1.2	13.0	2.4	7.6	1.1	3.4	12,438	17,456
50 - 54	2.2	1.6	92.8	67.1	1.6	20.1	2.1	7.6	1.4	3.5	11,868	17,249
55 +	1.5	2.4	90.7	46.8	4.4	41.1	2.1	6.8	1.3	2.9	36,733	38,793
Total	37.1	20.5	59.6	61.4	1.1	9.4	1.4	5.9	0.8	2.8		
Size	87,590	56,699	140,639	169,827	2,487	26,050	3,375	16,342	2,024	7,686	236,115	276,604

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

Figure 8.1

Adult Population by Marital Status, Eastern Province, 1990

Male

Female

Separated ▪ Never Married ▦ Widowed ▨ Married ◺ Divorced
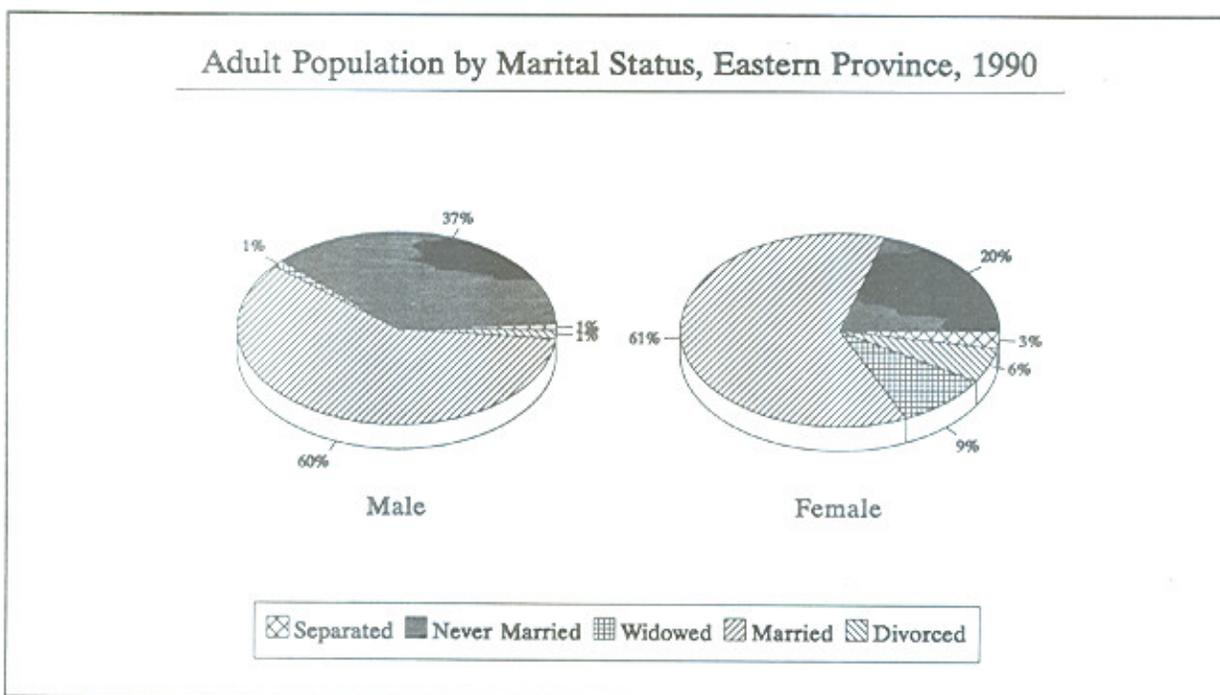
The table also shows that the number of widowed females increases substantially from the age of 30. These ratios are higher than those for males. The high rate of widowhood among females may be due to high male mortality especially among unions where males are much older than their spouses.

Differentials by Residence

Residence is a widely used factor in explaining the individual fertility variations. Tables 8.2 and 8.3 show rural-urban differentials in marriage pattern. In Eastern Province, proportions of never married are higher in urban than in rural areas. As for the categories of marital status, proportions for rural areas are higher than proportions for urban areas. This may be explained by the observation that marriage is more widespread in the rural areas than in urban areas.

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Table 8.2

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

Age Group	Never Married Rural	Never Married Urban	Married Rural	Married Urban	Widowed Rural	Widowed Urban	Divorced Rural	Divorced Urban	Separated Rural	Separated Urban	Total Rural	Total Urban
15 - 19	96.7	98.5	2.9	1.2	0.0	0.0	0.1	0.0	0.2	0.2	49,889	5,339
20 - 24	59.2	77.4	39.1	21.8	0.2	0.0	0.8	0.3	0.7	0.4	33,910	3,753
25 - 29	20.5	34.6	76.4	62.8	0.3	0.3	1.8	1.3	1.0	1.0	25,800	3,062
30 - 34	8.8	12.3	87.4	85.0	0.5	0.6	2.1	1.5	1.2	0.5	20,486	2,868
35 - 39	6.0	5.2	89.9	91.0	0.7	0.7	2.5	2.2	1.0	0.9	13,858	2,130
40 - 44	3.7	3.4	91.4	92.7	1.0	0.8	2.6	2.0	1.3	1.0	12,135	1,846
45 - 49	2.6	2.6	92.4	94.1	1.3	0.9	2.5	1.7	1.2	0.7	11,075	1,363
50 - 54	2.1	2.7	92.8	92.0	1.6	1.7	2.1	1.7	1.3	1.9	10,811	1,057
55 +	1.4	3.1	90.8	88.8	4.5	4.1	2.0	2.6	1.2	1.3	35,165	1,568
Total	36.5	42.9	60.1	54.6	1.1	0.7	1.4	1.1	0.9	0.7		
Size	77,724	9,866	128,094	12,545	2,332	155	3,111	264	1,868	156	213,129	22,986

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), Eastern Province, 1990

Age Group	Never Married Rural	Never Married Urban	Married Rural	Married Urban	Widowed Rural	Widowed Urban	Divorced Rural	Divorced Urban	Separated Rural	Separated Urban	Total Rural	Total Urban
15 - 19	67.5	83.0	29.5	15.7	0.3	0.1	1.5	0.6	1.1	0.6	51,239	5,997
20 - 24	21.2	37.8	69.6	56.9	0.8	0.5	5.3	3.3	3.0	1.4	40,910	4,572
25 - 29	8.3	15.2	79.5	76.8	1.5	1.2	7.3	4.8	3.3	2.0	30,927	3,635
30 - 34	4.3	7.1	80.2	81.0	3.1	2.3	8.5	6.8	3.9	2.7	23,527	2,833
35 - 39	2.7	4.2	80.0	81.6	4.8	4.1	8.9	7.1	3.6	3.0	17,382	1,917
40 - 44	1.6	2.6	78.5	82.3	8.3	5.2	8.0	7.7	3.5	2.1	18,719	1,448
45 - 49	1.4	2.6	74.4	77.9	13.2	10.2	7.6	6.8	3.4	2.6	16,408	1,048
50 - 54	1.6	2.7	66.9	72.4	20.4	14.7	7.7	6.2	3.5	4.0	16,542	707
55 +	2.3	5.8	46.8	47.7	41.2	37.7	6.8	6.3	2.9	2.4	37,734	1,059
Total	19.3	33.1	61.8	57.0	9.9	3.9	6.1	4.2	2.9	1.8		
Size	49,017	7,682	156,602	13,225	25,143	907	5,358	984	7,268	418	253,388	23,216

Table 8.4 shows the marital status characteristics of the population of Eastern Province and its districts. Eastern Province generally has higher proportions of never married males (37.1 percent) than females (20.5 percent).

Table 8.4

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

Province District	Never Married		Married		Widowed		Divorced		Separated		Total	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Eastern Province												
Total	37.1	20.5	59.6	61.4	1.1	9.4	1.4	5.9	0.8	2.8	236,115	276,604
Rural	36.5	19.3	60.1	61.8	1.1	9.9	1.4	6.1	0.9	2.9	213,129	253,388
Urban	42.9	33.1	54.6	57.0	0.7	3.9	1.1	4.2	0.7	1.8	22,986	23,216
Districts												
Chadiza	34.6	19.7	62.3	64.7	1.1	8.2	1.2	5.5	0.7	2.0	15,009	16,972
Chama	39.6	20.4	58.5	65.1	0.6	7.9	0.8	3.6	0.5	3.0	11,526	14,921
Chipata	40.1	23.6	56.0	57.9	1.2	9.9	1.8	5.9	0.9	2.7	74,898	83,385
Katete	33.8	18.5	63.0	61.2	0.9	9.8	1.5	7.4	0.9	3.1	32,741	39,292
Lundanzi	33.8	16.1	63.5	71.4	1.1	7.9	0.9	2.9	0.7	1.9	41,703	49,051
Petauke	37.6	21.2	58.9	57.3	1.0	10.4	1.5	7.7	1.0	3.5	60,238	72,983

In all the districts in Eastern Province, males have higher proportions of never married population than females. The females on the other hand have higher proportions of married, widowed, divorced and separated populations than the males.

Singulate Mean Age at Marriage (SMAM).

Two particular characteristics of African marriages namely; widespread marriage and very early age at marriage, particularly for females have important implications for fertility. This is most prevalent in the largely subsistence agricultural economy in Zambia. Age at marriage also plays an important role in the determination of the level of fertility. The lower the age at marriage, the higher the expected fertility level. Table 8.5 gives the SMAM figures for the province.

Generally, the SMAM for males in the province is higher than that for females. There is a difference of 4.6 years between the SMAM for males and that of females. The SMAM for males in urban areas is high at 26.2 years compared to 24.4 years for males in the rural areas. It may also be noted that SMAM for females is about the same level for both rural and urban areas.

Table 8.5

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

Province and Districts	SMAM	
	Males	Females
Eastern Province		
- Total	24.6	20.0
- Rural	24.4	22.2
- Urban	26.2	22.0
Districts		
Chadiza	23.7	21.2
Chama	24.2	19.7
Chipata	25.4	21.0
Katete	23.9	19.8
Lundazi	23.6	18.9
Petauke	24.8	20.5

Chipata district has the highest SMAM for males of 25.4 years amongst the districts and Chadiza with 21.2 years for females. Lundazi has the lowest SMAM for both males and females of 23.6 years and 18.9 years, respectively.

Singulate Mean Age at Marriage by Education

The age at first marriage is influenced by one's level of education. It is generally accepted that the longer one stays in school, the longer he/she takes to experience first marriage. Hence, the value of SMAM for this group of persons will tend to be high. Table 8.6 gives more details on this aspect.

Table 8.6

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

Residence	All Levels of Education	Level of Education		
		No Schooling	Primary	Secondary+
Eastern Province				
- Total	20.0	19.4	20.0	22.4
- Rural	19.8	19.4	19.8	22.3
- Urban	21.7	20.3	21.0	22.6
Districts				
Chadiza	19.6	19.1	20.0	22.6
Chama	19.5	18.9	19.5	21.2
Chipata	20.8	20.3	20.5	22.8
Katete	19.6	19.2	19.8	22.9
Lundazi	18.8	18.0	18.7	20.0
Petauke	20.4	19.9	20.4	23.6

Table 8.6 shows that SMAM for females with no education is lower, 19.4 years than the one for females with secondary and higher level of education, 22.4 years. The same situation is shown by females in rural and urban areas of Eastern Province. The difference between SMAM for women with no schooling and the women with only primary level of education is not significant.

8.4 FERTILITY

Fertility is one of the dynamics of population change which is important in estimating the current and future population size, composition and growth. Population projections are also made possible by assessing fertility trends over time.

There are various techniques and measures used in estimating fertility. In this chapter, fertility measures of crude birth, general fertility, total fertility, gross reproduction and net reproduction rates have been used to establish the fertility levels pertaining to the data for the 1980 and 1990 censuses of population and housing for Eastern Province. Some of the techniques used in estimating fertility are the Brass P/F Ratio method and Brass Relational Gompertz Model. For further clarifications on the application of these methods one can refer to 'Manual X' publication (United Nations, 1983) and Methods and Models in Demography (Newell, 1988).

The summary fertility measure of total fertility rate which is 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. Fertility measures differ in their error tolerance levels of data being used. The Brass Relational Gompertz Model has been found to yield reasonable fertility estimates.

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

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

Where

F(x) is the cumulative fertility by age
F is the total fertility rate by the end of the reproductive life
A and B are constants and lie between zero and unity.

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

Data on Mean Number of Children Ever Born (MNCEB) and Birth 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 births is the omission of births by older women, especially those births 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.

Fertility Levels

Table 8.7 shows crude birth rates for Eastern Province. An observation from the table shows that fertility rates changed from 35 for the whole province, 35 for rural areas and 37 for urban areas in 1989 to 44, 44 and 42 in 1990, respectively. Both urban and rural areas showed an increase in fertility during the intercensal period. CBR is not an ideal measure for making fertility level comparisons because it is affected by the age and sex composition of the population. Total Fertility Rate (TFR) is a suitable measure for this purpose. Therefore a conclusive statement would be made examining TFR.

Table 8.7

Summary Fertility Measures, Eastern Province, 1980 and 1990

	Crude Birth Rate	Child Woman Ratio	General Fertility Rate	Adjusted Total Fertility Rate	Adjusted Gross Reproduction Rate	Adjusted Net Reproduction Rate
Eastern Province						
Total - 1980	35	710	147	6.9*	3.4	2.3
- 1990	44	702	189	6.9	3.4	2.1
Rural - 1980	35	750	156	6.9*	3.4	2.2
- 1990	44	710	191	7.0	3.4	2.1
Urban - 1980	37	836	165	7.6*	3.6	2.7
- 1990	42	632	168	6.2	3.1	1.9
Districts - 1990						
Chadiza	43	792	193	7.6	3.7	2.3
Chama	48	702	195	6.7	3.3	2.1
Chipata	41	657	174	6.6	3.3	2.1
Katete	43	740	190	6.5	3.2	2.0
Lundazi	50	754	214	7.0	3.4	2.1
Petauke	43	677	185	7.1	3.5	2.2

* TFR estimates extracted from Analytical Report Volume IV of the 1980 population census, CSO 1985.
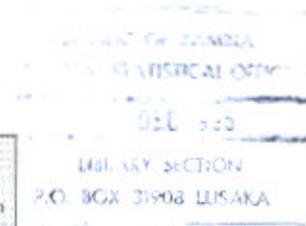
Age-Specific Fertility Rates (ASFR) help to depict the variability of female fertility in different age groups. The rates are usually given in either single or five year age groups over the whole reproductive period for women aged 15-49 years. Furthermore, these rates help in the calculation of total fertility rates. These rates are shown in Table 8.8.

Table 8.8

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

Age Group	Total			Rural			Urban		
	Total Women	Births	ASFR	Total Women	Births	ASFR	Total Women	Births	ASFR
15 - 19	59,376	5,864	0.0988	53099	5456	0.1028	6,277	408	0.0650
20 - 24	46,593	12,639	0.2713	41831	11590	0.2771	4,762	1,049	0.2203
25 - 29	35,161	9,689	0.2756	31413	8750	0.2785	3,748	939	0.2505
30 - 34	26,737	6,638	0.2483	23830	5959	0.2501	2,907	679	0.2336
35 - 39	19,519	4,041	0.2070	17562	3657	0.2082	1,957	384	0.1962
39 - 44	20,352	2,561	0.1258	18875	2400	0.1272	1,477	161	0.1090
45 - 49	17,599	988	0.0567	16528	921	0.0557	1,071	77	0.0719
Total	225,337	42,420	1.2835	203,138	38,733	1.2996	22,199	3,697	1.1465
Observed TFR			6.4			6.5			5.7
Adjusted TFR			6.9			7.0			6.2
Mean Age at Childbearing			30.1			30.0			30.9

The age specific fertility rates increases with increasing age up to the age of 29 and generally starts to decline. About 66.4 percent of the births that occurred in Eastern Province in 1990 occurred to the women in the age group 15-29 years. Table 8.8 shows the details.

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Figur. 8.2

Age-Specific Fertility Rates (Observed), Eastern Province, 1990
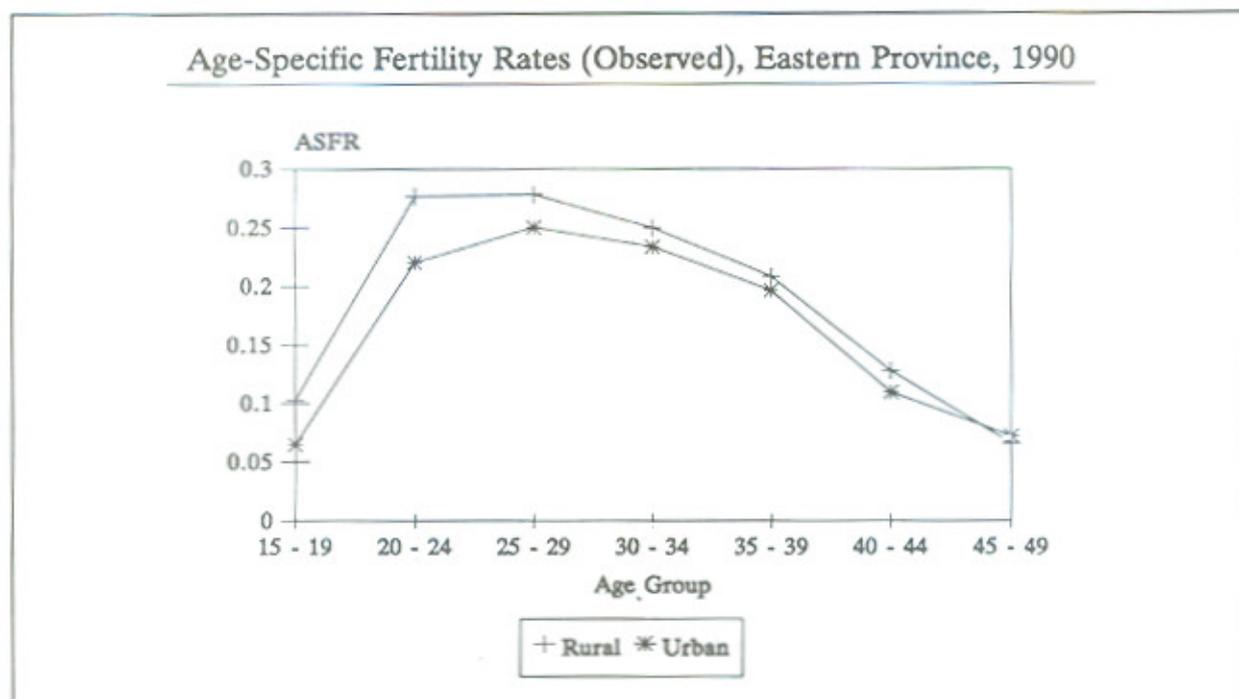
The adjusted TFR's are 6.9, 7.0 and 6.2 births per female for the province, rural and urban areas, respectively. The TFRs show that the fertility level for 1980 and 1990 is the same. It is only the urban areas of the province which show a fertility decline from 7.6 in 1980 to 6.2 children per female in 1990.

The Gross Reproduction Rate (GRR) and the Net Reproduction Rate (NRR) show the same fertility pattern as the TFR. NRR are shown in Table 8.9. The adjusted NRR for the province is 2.1 children per female. This may be interpreted as the average number of daughters who survive to replace their mothers.

Table 8.9

Net Reproduction Rate (NRR), Eastern Province, 1990

Age Group	Total		Rural		Urban	
	Female Births still Alive	ASFR*	Female Births still Alive	ASFR*	Female Births still Alive	ASFR*
15 - 19	759	0.0212	685	0.0211	74	0.0223
20 - 24	2,510	0.0920	2,225	0.0917	285	0.0936
25 - 29	1,976	0.0980	1,724	0.0970	252	0.1059
30 - 34	1,778	0.0929	1,613	0.0934	165	0.0881
35 - 39	1,260	0.0744	1,133	0.0739	127	0.0799
40 - 44	592	0.0384	544	0.0381	48	0.0412
45 - 49	384	0.0255	299	0.0250	25	0.0329
Total	9,259	0.4424	8,223	0.4402	976	0.4639
Observed NRR		2.2		2.2		2.3
Adjusted NRR		2.1		2.1		1.9

N.B: ASFR* - means Age-Specific Fertility Rates at current mortality rates.

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Another fertility measure discussed under this Chapter is Children Ever Born (CEB). The measure of "children ever born" is defined as number of children ever born by a group of women of a given age group during their childbearing experience beginning from the onset of reproductive life to their current ages.

The number of children ever born in an age group divided by the number of women in the same age group yields average parities. The average parity for the age group 45-49 years is usually referred to as completed family size and is mostly likened to total fertility rate under constant fertility, mortality and migration experiences. According to Table 8.10, the completed family size for women aged 45-49 years in Eastern Province is 7.3 children per woman.

Table 8.10

Average Parity, (Observed), Eastern Province, 1990

Age Group	Total Women	Children Ever Born	Average Parities Reported
15 - 19	59,376	15,544	0.26
20 - 24	46,593	66,930	1.44
25 - 29	35,161	106,043	3.02
30 - 34	26,737	124,484	4.66
35 - 39	19,519	116,436	5.97
40 - 44	20,352	142,887	7.02
45 - 49	17,599	129,161	7.34

Figure 8.3

Average Parity, Eastern Province, 1990
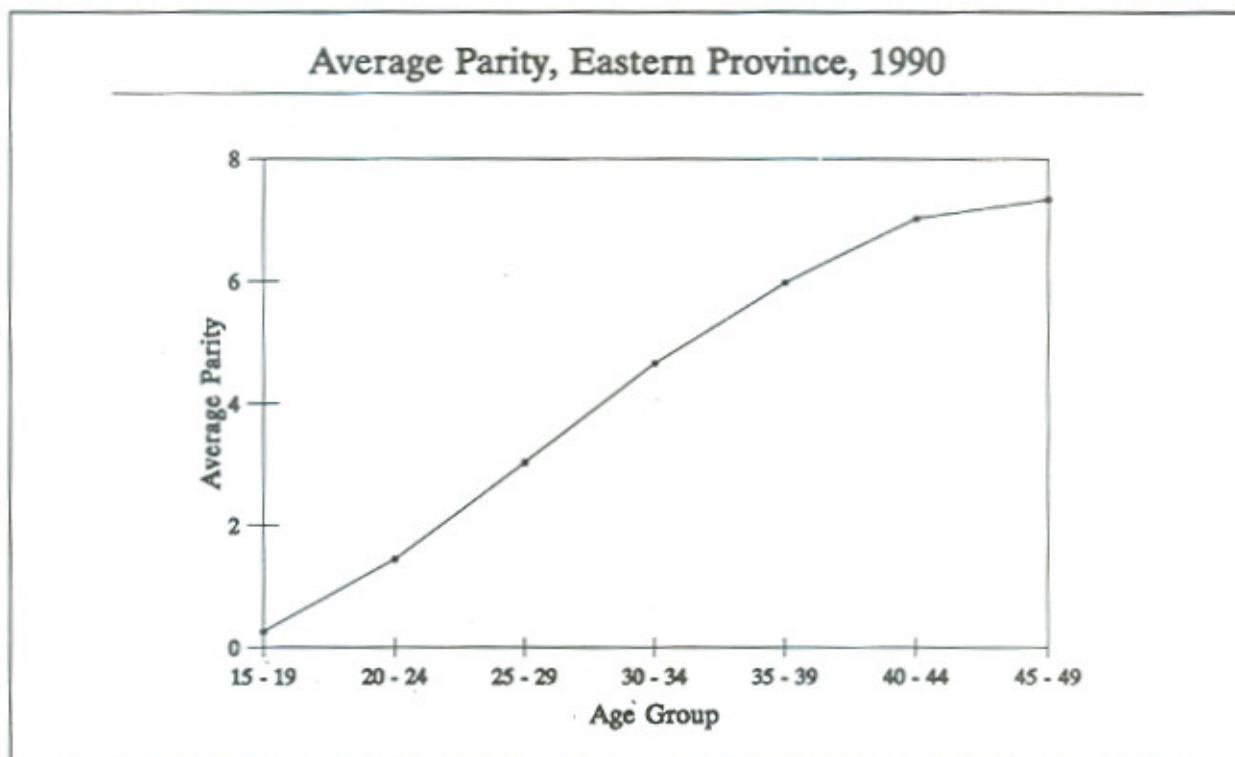
Time Trend

The adjusted TFR for Eastern Province is 6.9. This shows that the fertility level for 1980 and 1990 is the same. However, the urban area of the province has shown a fertility decline from TFR of 7.6 in 1980 to TFR of 6.2 children per female in 1990.

8.5 FERTILITY DIFFERENTIALS

Fertility tends to vary among populations with different social and economic backgrounds characteristics. The social and economic background characteristics considered in this section are: residence, district and education.

Rural-Urban Differences

The fertility level in the urban areas was higher than in rural areas in 1980. However, this situation has reversed in 1990 when the rural area show TFR of 7.0 against TFR of 6.2 children per female for urban areas. This is the most frequent relationship and may be due to factors such as urbanisation, higher educational completion for the urban population and wider access of modern contraceptives in the urban areas.

District Differences

The highest TFR of 7.6 children per female is recorded for Chadiza. The lowest TFR of 6.5 children per female is recorded for Chipata district. At 6.5 children per female as the lowest in the districts, fertility in the Eastern Province may be deemed to be high.

Educational Differences

Table 8.11 shows fertility differences by level of education completed by women. It has been observed that, generally, women who have only completed lower levels of education or with no education at all tend to exhibit higher fertility than those with secondary education. Those with higher education have the lowest fertility. Women in rural areas have higher fertility than those in urban areas except for women with higher education.

Table 8.11

Completed Family Sizes by Level of Education of Women, Eastern Province, 1990

	No Education	Primary	Secondary	Higher
Eastern Province				
Total	7.1	7.6	6.3	1.9
Rural	7.1	7.7	6.6	1.3
Urban	6.5	7.5	5.9	2.0

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

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8.6 SUMMARY

Marriage in Eastern Province is widespread. By age group 45-49, only 1.4 percent of the females and 2.6 percent of the males had never married. The singulate mean ages at first marriage are 20.0 years and 24.6 years for females and males, respectively.

There is no fertility change between the 1980 and 1990 Census years except for the urban areas where fertility level declined from 7.6 children per female in 1980 to 6.2 children per female in 1990. The TFR for the Province remained at 6.9 children per female.

Analysis of fertility by social and economic background characteristics has shown that fertility in the rural areas is higher than in the urban areas of Eastern Province. Among the districts, the fertility level is highest in Chadiza. Observation of the data on females by completed family size with reference to level of education completed shows that there is an inverse relationship between educational level completed and level of fertility. The fertility level has shown a decline starting from primary level, secondary up to higher education. However, women with no education have exhibited lower level of fertility than women with primary level of education as indicated in Table 8.11. This implies that education of women ought to proceed up to a minimum of secondary education for any noticeable reduction in fertility level to be achieved.

CHAPTER 9

MORTALITY

9.1. INTRODUCTION

Direct estimation of mortality levels using 1990 Census data is not possible because there were no questions in the census on deaths by age. Consequently, 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:-

$$q_{(x)} = D_{(x)}.K_{(x)}$$

where $q_{(x)}$ = probability of dying between exact age x and x+1,

   $D_{(x)}$ = proportion dead at age x,

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

   $l_{(x)} = 1 - q_{(x)}$ where $l_{(x)}$ is probability of surviving from exact age x to exact age x + 1

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 the 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 are used in analysing mortality is derived from the following:-

- Deaths in the 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-2 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. It also refers implicitly to the underlying conditions or causes of death, rather than to specific measures which may be affected by other factors.

Infant Mortality Rate (IMR)

Refers to the rate at which children 1-4 years die per 1,000 live births

Child Mortality Rate (CMR)

Refers to the rate at which children 1-4 years die per 1,000 live births

Under-Five Mortality Rate (UMR)

The rate at which children below 5 years die. It combines 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 conventionally is expressed per 1,000.

Expectation of Life at Birth

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

9.3 CRUDE DEATH RATE (CDR)

Mortality rates in Eastern Province seem to be very high in 1990 as compared to estimates derived from the 1980 Census data. Using levels of mortality from probability of dying at the age of 2 years (q_2), the overall crude death rate in 1990 for Eastern Province is 25.2 deaths per 1,000 population. The estimated overall crude death rate in 1980 was 18.1 deaths per 1,000 population.

Table 9.1

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

Sex	1990 Census Observed		Adjusted CDR	
	Deaths	CDR	1980	1990
Eastern Province				
- Both Sexes	34,798	36.0	18.1	25.2
- Male	18,100	38.8	18.2	26.1
- Female	16,698	33.4	18.1	24.2

Note: Based on Coale and Demeny Model North Life Tables, levels 10.0 (males) and 9.6 (females) for 1990. In the case of 1980 Census, levels 12.9 (males) and 11.8 (females) are used.

Males recorded higher crude death rate in 1990 of 26.1 deaths than females who recorded 24.2 deaths per 1,000 population. Corresponding rates of males and females in 1980 were 18.2 and 18.1 deaths, per 1,000 population, respectively. The observed crude death rates of both males and females in 1990 are much higher than the adjusted ones. There might be several reasons that could explain the high observed mortality rates in 1990. One of the reasons could be the inclusion of deaths from the past 2 to 3 years prior to the 1990 Census date.

9.4 PERIOD MEASURES

Information on children ever born, surviving and proportion dead from the 1980 and 1990 Censuses are used to estimate probabilities of dying for 1980 and 1990 Censuses at exact ages, 1, 2, 3, 5, 10, 15 and 20 years. These probabilities are used in estimating levels of child mortality. Child mortality rates include Infant Mortality Rate (IMR), Child Mortality Rate (CMR) and Under-Five Mortality Rate (UMR). Other indicators derived from probabilities of dying are levels of mortality and expectation of life at birth using Model Life Tables such as United Nations (UN) and Coale-Demeny Model Life Table systems. In Zambia, mortality, fertility patterns and other demographic conditions warrant the use of Coale-Demeny North Model Life Tables.

Table 9.2

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

Age Group	Age (x)	Probabilities of Dying, $q_{(x)}$ and of Surviving, $l_{(x)}$				Implied Mortality Levels		Reference Date	
		Male		Female		Male	Female	Male	Female
		$q_{(x)}$	$l_{(x)}$	$q_{(x)}$	$l_{(x)}$				
15-19	1	.182	.818	.176	.824	9.1	7.7	1988.5	1988.5
20-24	2	.211	.789	.194	.806	10.0	9.6	1987.3	1987.3
25-29	3	.220	.780	.200	.800	10.9	10.6	1985.7	1985.7
30-34	5	.228	.772	.214	.786	11.9	11.5	1983.6	1983.6
35-39	10	.247	.753	.235	.765	12.5	12.1	1981.2	1981.2
40-44	15	.275	.725	.270	.730	12.1	11.4	1978.4	1978.4
45-49	20	.295	.705	.288	.712	12.0	11.5	1975.0	1974.9

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

Mortality estimates are usually derived from probabilities of dying and surviving at age 2, i.e. q_2 and l_2. Estimates derived from other young ages are not used due to distortions in the way children ever born and surviving are reported. Reference dates for the 1990 Census span from 1975 to 1989. Dates for 1980 Census span from 1965 to 1979. Mortality rates derived from the 1980 Census were much lower than those derived form 1990 Census. Using the q_2 and l_2 values, mortality levels from 1990 Census for males and females are 10.0 and 9.6, respectively. The 1980 Census mortality levels for males and females were 12.9 and 11.8, respectively.

Table 9.3

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

Age Group	Age (x)	Probabilities of Dying, $q_{(x)}$ and of Surviving, $l_{(x)}$				Mortality Levels		Reference Date	
		Male		Female		Male	Female	Male	Female
		$q_{(x)}$	$l_{(x)}$	$q_{(x)}$	$l_{(x)}$				
15-19	1	.129	.871	.191	.809	12.6	6.8	1978.6	1978.6
20-24	2	.158	.842	.155	.845	12.9	11.8	1977.4	1977.4
25-29	3	.197	.803	.195	.805	12.0	10.9	1975.7	1975.6
30-34	5	.226	.774	.241	.759	12.0	10.3	1973.3	1973.3
35-39	10	.244	.756	.284	.716	12.6	10.2	1970.7	1970.7
40-44	15	.285	.715	.299	.701	11.7	10.3	1967.7	1967.7
45-49	20	.267	.733	.313	.687	13.0	10.6	1964.2	1964.2

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

Results shown in Tables 9.2 and 9.3 indicate greater chances of survival of children born in 1980 as compared to 1990. The $l_{(x)}$ values (probability of surviving) in 1980 are higher than those for 1990.

Infant Mortality Rate (IMR)

The infant mortality rate is a mortality measure that is usually affected by several factors affecting the welfare of infants. Some of these factors are physiological (endogenous) and environmental (exogenous). Diseases such as the Acquired Immune Deficiency Syndrome (AIDS) and incidences of malnutrition, etc. might increase the infant mortality rate. Infant mortality rate increased from 128 (1980) to 149 deaths (1990) per 1,000 infants. Infant mortality rates for the period over 5 years prior to the 1980 census are higher than those over 5 years prior to the 1990 census. Recent infant mortality rate estimates for the period 0-4 years prior to 1990 Census shown in Table 9.4 were higher for males as compared to females. Eastern Province recorded an infant mortality rate of 155.5 deaths for males and 142.5 deaths per 1000 live births for females in 1990.

Table 9.4

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

Years Preceding Census	Infant Mortality $(_1q_0)$		Child Mortality $(_4q_1)$		Under-Five Mortality $(_5q_0)$	
	1980	1990	1980	1990	1980	1990
Eastern Province - Total						
0-4	128.0	149.0	99.0	120.0	177.0	206.0
5-9	137.5	128.0 -	108.5	99.5	248.5	231.0
10-14	135.0	131.0	107.0	103.0	291.0	282.5
Sex of Child - Male						
0-4	128.5	155.5	100.0	126.5	177.5	215.5
5-9	130.0	131.0	101.5	103.0	235.0	237.5
10-14	128.5	132.5	100.0	104.0	276.0	285.0
- Female						
0-4	127.0	142.5	98.0	113.5	175.0	197.0
5-9	144.5	124.5	115.5	96.0	262.5	224.5
10-14	142.5	129.5	113.5	101.5	306.0	279.0

Infant mortality rates for periods 5-9 and 10-14 years prior to the 1990 Census were 128 and 131 infant deaths per 1,000 live births, respectively. Increases in infant mortality rate started from 1986 and reached a peak in 1990. Female children continued to have greater chances of survival as compared to male children. Figure 9.1 show a general upward trend in infant mortality rate from 1984 to 1990.

Child Mortality Rate (CMR)

This rate is usually lower than infant mortality rate because it is mostly environmental factors that affect the children. Table 9.4 shows a general pattern where child mortality rate has increased in the 1980-1990 inter-censal period. Overall, child mortality rate increased from 99 deaths in 1980 to 120 child deaths per 1,000 children aged 1-4 years in 1990. Rates for previous periods 5-9 and 10-14 years are lower than 110 deaths per 1,000 children aged 1-4 years for both 1980 and 1990 Censuses.

Table 9.4 also provides information on child mortality rates for 0-4, 5-9 and 10-14 years preceding the 1980 and 1990 Censuses by sex. Estimates from 1980 Census gave child mortality rates of between 100 and 102 deaths per 1,000 children for males. Rates of females fell between 98 and 116 deaths per 1000 children. The 1990 child mortality estimates for males ranged from 103 to 127 deaths per 1000 children. Female child mortality rates for 1990 Census ranged from 96 to 114 deaths per 1000 children aged 1-4 years. Figure 9.2 shows a general upward increase in child mortality rate since 1982.

Under-five Mortality Rate (UMR)

Trends in under-five mortality rate shown in Table 9.4 indicate a general increase over the 1980-1990 intercensal period for both males and females. Recent estimates of under-five mortality rate for 0-4 year period increased from an overall rate of 177 in 1980 to 206 deaths per 1,000 children aged below 5 years in 1990. Highest increases were recorded in the periods 10-14 years prior to the 1980 and 1990 Censuses. In the case of males, the rate increased from 177.5 to 215.5 deaths per 1,000 children aged below 5 years. Female child mortality rate increased from 175 deaths in 1980 to 197 deaths per 1000 children aged below 5 years.

9.5 MORTALITY BY SELECTED BACKGROUND CHARACTERISTICS

Analysis of infant and child mortality rates by socio-economic background variables is essential in understanding some of the underlying causes of mortality differentials among children aged below 5 years. Variations exist in child mortality rates when some of the socio-economic variables are considered in Eastern Province. Some of the female socio-economic variables are discussed in this report include residence, education, marital status, economic status and sector of agriculture. These background variables are presented in Table 9.5.

Infant Mortality Rate (IMR)

Eastern Province recorded an increase in infant mortality rate of 16.4 percent. An increase of 21 percent was recorded among males as compared to 12.2 percent for females. In both 1980 and 1990 Censuses, rural areas recorded high infant mortality rates as compared to urban areas. Table 9.5 shows that rural areas recorded an infant mortality rate of 130.5 deaths in 1980 and 152.0 deaths per 1,000 live births in 1990. Urban areas recorded an infant mortality rate of 102.5 deaths in 1980 and 114.0 deaths per 1,000 live births in 1990.

All the districts in Eastern Province recorded high infant mortality rates in 1990. Lundazi recorded the highest rate of 187 deaths while Katete had the least rate of 122.5 deaths per 1,000 live births. However, small percentage increases of below 7 percent were recorded in Chadiza, Chama and Chipata. Substantial increases in infant mortality rate were recorded in Petauke and Katete districts during the 1980-1990 intercensal period.

A mother's education does influence the parental care of children. In Eastern Province, children born to females with no formal education and primary level have less chances of survival as compared to children born to females with secondary education level and above. In 1990, infant mortality rate for females with secondary education level and above was 109 deaths and 154 deaths per 1,000 live births for females with no formal education.

Another important variable that can explain the variations in infant mortality rate is the marital status of females of childbearing ages 15-49 years. The marital status categories under discussion are the never married, married, separated, divorced and widowed. Generally, all the marital status categories recorded high infant mortality rates (refer to Table 9.5). Children born to widowed females in Eastern Province experienced less chances of survival in 1990 with an infant mortality rate of 152.5 deaths followed by the "married" category with 134 deaths per 1,000 live births. The marital status categories with least infant mortality rates are the "divorced" and "separated" having infant mortality rates of 125.5 and 127.0 deaths per 1,000 live births, respectively.

Economic status of females influences the infant mortality rate through the provision of adequate nutritious food, clean water and sanitation facilities at the household level. Usually working females are capable o providing their children with most of the necessities that they need. As a result, infant mortality rate o children born to working mothers is expected to be minimal as compared to other economic activity categories. In Eastern Province, the 1990 Census results show a least infant mortality rate of 127 death among children born to females who are full-time housewives followed by that of working mothers havin; 136.0 deaths per 1,000 live births. Table 9.5 provides infant mortality rates for only "full-time housewife category that is comparable between 1980 and 1990 Censuses. Economic status categories that recorde

high infant mortality rates in 1990 are "unpaid family workers" (163 deaths), "unemployed" (151.5 deaths) and "not available for work" (151.0 deaths). In a similar vein, children born to females in the agricultural sector have less chances of survival as compared to children born to mothers in the non-agricultural sector. The respective infant mortality rates are 161.5 deaths for the agriculture sector and 112.5 deaths per 1,000 live births for the non-agricultural sector.

Table 9.5.

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

Background Characteristic	Infant Mortality (q_1)			Child Mortality (q_2)			Under-Five Mortality (q_5)		
	1980	1990	% Increase	1980	1990	% Increase	1980	1990	% Increase
Eastern Province - Total	128.0	149.0	16.4	99.0	120.0	21.2	177.0	206.0	16.4
Sex of Child									
Male	128.5	155.5	21.0	100.0	126.5	26.5	177.5	215.5	21.4
Female	127.0	142.5	12.2	98.0	113.5	15.8	175.0	197.0	12.6
Residence									
Rural	130.5	152.0	16.5	101.5	124.0	22.2	181.0	210.5	16.3
Urban	102.5	114.0	11.2	74.5	85.5	14.8	139.0	155.0	11.5
District									
Chadiza	135.0	140.0	3.7	106.5	111.5	4.7	186.5	193.5	3.7
Chama	152.5	159.5	4.6	124.0	130.5	5.2	212.0	221.0	4.2
Chipata	132.5	141.0	6.4	103.5	112.0	8.2	183.0	194.0	6.0
Katete	102.5	122.5	19.5	74.0	93.5	26.3	140.0	168.0	20.0
Lundazi	160.0	187.0	16.9	131.5	157.5	19.8	222.5	259.0	16.4
Petauke	95.5	143.5	50.3	67.5	114.5	69.6	131.5	198.0	50.6
Education									
None	142.0	154.0	8.5	113.0	125.0	10.6	196.0	213.0	8.7
Primary	120.0	149.0	24.2	91.5	120.0	31.1	166.0	205.5	23.8
Secondary +	63.5	109.0	71.6	37.5	80.5	114.7	83.0	148.5	78.9
Marital Status									
Never Married	133.5	118.0	-11.6	105.0	90.0	-14.3	185.0	163.5	-11.6
Married	119.0	134.0	12.6	90.5	106.0	17.1	164.5	186.0	13.1
Separated	129.0$	127.0	-1.6	100.5$	98.0	-2.5	179.0$	175.5	-2.0
Divorced	-	125.5	...	-	96.5	...	-	174.0	...
Widowed	105.0	152.5	45.2	78.0	124.0	58.9	147.5	211.5	43.4
Economic Status									
Working	96.0*	136.0	41.7	68.0*	108.0	58.8	130.0*	188.0	44.6
Unpaid Family Worker	-	163.0	...	-	134.5	...	-	226.0	...
Unemployed	110.5*	151.5	37.1	82.0*	122.5	49.4	153.0*	210.5	37.6
Full-Time Housewife	123.0	127.0	3.3	94.5	98.5	4.2	171.0	175.0	2.3
Not Available for Work	-	151.0	...	-	122.1	...	-	209.0	...
Economic Sectors									
Agricultural Sector	-	161.5	...	-	133.0	...	-	224.0	...
Non-Agricultural Sector	-	112.5	...	-	84.0	...	-	153.0	...

Note: * = Includes female unpaid family workers
\# = Includes females not seeking work and those not available for work
$ = Includes divorced females
... = Not Available

Child Mortality Rate (CMR)

The child mortality rate in Eastern Province increased substantially in the 1980-1990 intercensal period from 99 in 1980 to 120 deaths in 1990. Rural areas recorded a higher increase from 101.5 deaths in 1980 to 124 deaths in 1990 than urban areas which recorded 74.5 deaths in 1980 and 85.5 deaths per 1,000 children aged below 5 years in 1990.

The districts in Eastern Province that recorded highest child mortality rates in 1990 are Lundazi (157.5 deaths) and Chama (130.5 deaths). The remaining districts recorded child mortality rates of below 115 deaths with Katete having a child mortality rate of 93.5 deaths per 1,000 children aged 1-4 years. Generally, child care and feeding patterns of mothers with formal education has a positive impact towards reducing the child deaths among children aged below 5 years. Table 9.5 shows reduced child mortality rate of below 100 deaths per 1,000 children aged below 5 years for children born to females with secondary and higher education level. In 1990, children of females with no formal education and primary level experienced child mortality rates of 125 and 120 deaths per 1,000 children aged 1-4 years, respectively.

Table 9.5 shows marital status categories that recorded high child mortality rates in 1990 are "widowed" and "married" with 124 and 106 deaths per 1000 children aged 1-4 years, respectively. The "never married", "separated" and "divorced" categories recorded less than 100 deaths per 1,000 children aged 1-4 years.

Children born to unpaid female family workers experienced high child mortality rate in 1990 of 134.5 deaths followed by the "unemployed" and "not available for work" economic status categories with 122.5 and 122.1 deaths per 1000 children aged 1-4 years. The category of "full-time housewife" recorded the least child mortality rate of 98.5 deaths per 1,000 children aged 1-4 years. Agricultural sector category recorded a higher child mortality rate of 133 deaths as compared to 84 deaths per 1,000 children aged 1-4 years for the non-agriculture sector.

Under-five Mortality Rate (UMR)

The under-five mortality rate (UMR) is an overall child mortality rate for those aged below 5 years. As a result, the values are the highest as compared to those of infant and child mortality rates. Eastern Province recorded an overall increase of 16.4 percent in under-five mortality rate between the 1980 and 1990 intercensal period. Rates of male and female children increased by 21.4 and 12.6 percent, respectively. The 1990 Census rates for male and female children are 215.5 and 197.0 deaths per 1,000 children aged below 5 years. Rural and urban areas recorded increases of 16.3 and 11.5 percent, respectively. Estimated under five mortality rates of rural and urban areas in 1990 were 210.5 and 155 deaths per 1,000 children aged below 5 years, respectively. In 1980, the under-five mortality rates were 181 (rural) and 139 deaths (urban) per 1000 children aged below 5 years.

Analysis of under-five mortality rates in 1990 by district revel that Lundazi and Chama recorded the highest rates of 259 and 221 deaths per 1,000 children aged below 5 years, respectively. Other districts also with high under-five mortality rates are Petauke (198 deaths), Chipata (194 deaths), and Chadiza (193.5 deaths). Katete District recorded the least under-five mortality rate of 168 deaths per 1,000 children aged below 5 years. High percentage increases in under-five mortality rates were recorded for Petauke (50.6 percent), Katete (20 percent) and Lundazi District (16.4 percent).

Children born to females with no formal and primary level of education have less chances of survival as compared to their counterparts born to females with secondary and higher levels of education. The under-five mortality rate in 1990 for children born to females with no formal education was 213 deaths and primary level recorded 205.5 deaths per 1,000 children aged below 5 years. The category of "secondary and over" recorded an under-five mortality rate of 148.5 deaths per 1,000 children aged below 5 years.

Table 9.5 also shows under-five mortality rates by marital status. Marital status categories that recorded relatively high under-five mortality rates in 1990 are "widowed" (211.5 deaths) "married" (186 deaths), "separated" (175.5 deaths) and "divorced" (174.0 deaths). However, marital status categories that recorded negative increases are "never married" (-11.6 percent) and separated (-2.0 percent).

Information on under-five mortality rates by economic status reveal high rates for "unpaid family worker" (226 deaths), "unemployed" (210.5 deaths) and "not available for work" (209 deaths). Children born to working and full-time housewives experienced child mortality rates of 188 and 175 deaths per 1,000 children aged below 5 years, respectively. The agricultural and non-agricultural sectors recorded under-five mortality rates of 224 and 153 deaths per 1,000 children aged below 5 years, respectively.

Expectation of Life at Birth

Table 9.6 shows the expectation of life at birth and mortality levels for the 5 year period preceding the 1980 and 1990 Censuses by selected socio-economic background variables. The variables discussed are sex of child, residence, education, marital and economic status of mother. In Eastern Province, the expectation of life has declined by 3.9 years over the 1980 level. Overall, the expectation of life at birth declined from 45.9 years in 1980 to 42 years in 1990. Female children are expected to live 2.3 years more than their male counterparts as reflected from the 1990 Census figures. Urban areas of Eastern Province have children who experience high chances of survival with an expectation of life at birth of 48.8 years as compared to 41.4 years in rural areas.

Districts that have relatively high expectation of life at birth are Katete (47.1 years) followed by Chadiza (43.6 years). Other districts with relatively high expectation of life at birth are Chipata (43.4 years) and Petauke having 43.0 years.

The results from the 1990 Census have indicated high expectation of life at birth in all education categories of above 40 years. Children born to females with secondary level of education or more recorded an expectation of life at birth of 49.8 years as compared to children born to females with primary level (42 years).

Table 9.6

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

Background Characteristics	Expectation of Life at Birth (e_o)		Mortality Level	
	1980	1990	1980	1990
Eastern Province - Total	45.9	42.0	11.2	9.6
Sex of Child				
Male	45.8	40.8	11.8	9.8
Female	46.2	43.1	10.6	9.4
Residence				
Rural	45.4	41.4	11.0	9.4
Urban	51.2	48.8	13.5	12.5
District				
Chadiza	44.6	43.6	10.7	10.3
Chama	41.4	40.1	9.3	8.9
Chipata	45.1	43.4	10.9	10.3
Katete	51.2	47.1	13.4	11.8
Lundazi	40.0	35.7	8.8	7.1
Petauke	55.0	43.0	14.0	10.1
Education				
None	43.2	41.1	10.2	9.3
Primary	47.6	42.0	11.9	9.7
Secondary +	60.4	49.8	17.4	12.9
Marital Status				
Never Married	44.8	47.9	10.8	12.0
Married	47.8	44.6	11.9	10.7
Separated	45.7^5	46.2	11.1^5	11.3
Divorced	-	46.6	-	11.4
Widowed	51.8	41.2	12.9	9.4
Economic Status				
Working	52.7*	44.2	14.1*	10.6
Unpaid Family Worker	-	39.4	-	8.6
Unemployed	49.6#	41.5	12.6#	9.4
Full-Time Housewife	47.0	46.1	11.6	11.3
Not Available for Work	-	41.6	-	9.5
Economic Sector				
Agricultural Sector	-	39.7	-	8.7
Non-Agricultural Sector	-	49.1	-	12.6

Note: 5 = Includes "divorce" category
* = Includes female unpaid family workers
\# = Includes females not seeking work and not available for work

Generally, children born to females of all marital status categories with an exception of "widowed", experience high chances of survival to adulthood. The "never married" category recorded an expectation of life at birth of 47.9 years followed by "divorced" category with 46.6 years. The "separated" category recorded an equally high expectation of life at birth of 46.2 years. Married category recorded an expectation of life at birth of 44.6 years.

Economic status categories with high survival chances of children are those born to full-time housewives with an expectation of life at birth of 46.1 years followed by the category of "working" females (44.2 years). The least expectation of life at birth of 39.4 years is estimated for children born to "unpaid family workers". The expectation of life at birth for the children born to females in the "non-agricultural sector" is 49.1 years as compared to that of the agricultural sector (39.7 years).

9.6 MORTALITY TRENDS

Trends of infant and child mortality rates as well as expectation of life at birth for Eastern Province are presented in Tables 9.7 and 9.8 established from 1990 and 1980 Censuses, respectively. Reference dates for the indicators span from 1975 to 1989 for 1990 Census data. Similarly, reference dates for the mortality indicators derived from the 1980 Census span from 1965 to 1979. These mortality indicators are derived from using the United Nations Mortality Package called "Mortpak-Lite". Generally, infant and child mortality rates are low in the period between 1975 and 1984. Thereafter, increases are recorded in the period 1984 to 1989. The opposite is the case for under-five mortality rate. The under-five mortality rate had declined over the same period, 1975 to 1989.

Infant Mortality Rate (IMR)

Table 9.7 shows that between 1975 and 1979, the infant mortality rate was constant at 131 deaths per 1,000 live births. Declines were recorded between 1979 and 1982. Thereafter, increases were recorded from 1982 to 1989. The peak was reached in 1989 and 1990 period when the infant mortality rate was 179 deaths per 1,000 live births. Figure 9.1 shows the increasing trend of infant mortality rate. Trends established from the 1980 Census of infant mortality rate show a similar increasing pattern from 1965 to 1979. Refer to Tables 9.7 and 9.8 for more details on trends of infant mortality rate over the last 25 years.

Figure 9.1

Infant Mortality Rates, Eastern Province, 1965 - 1990
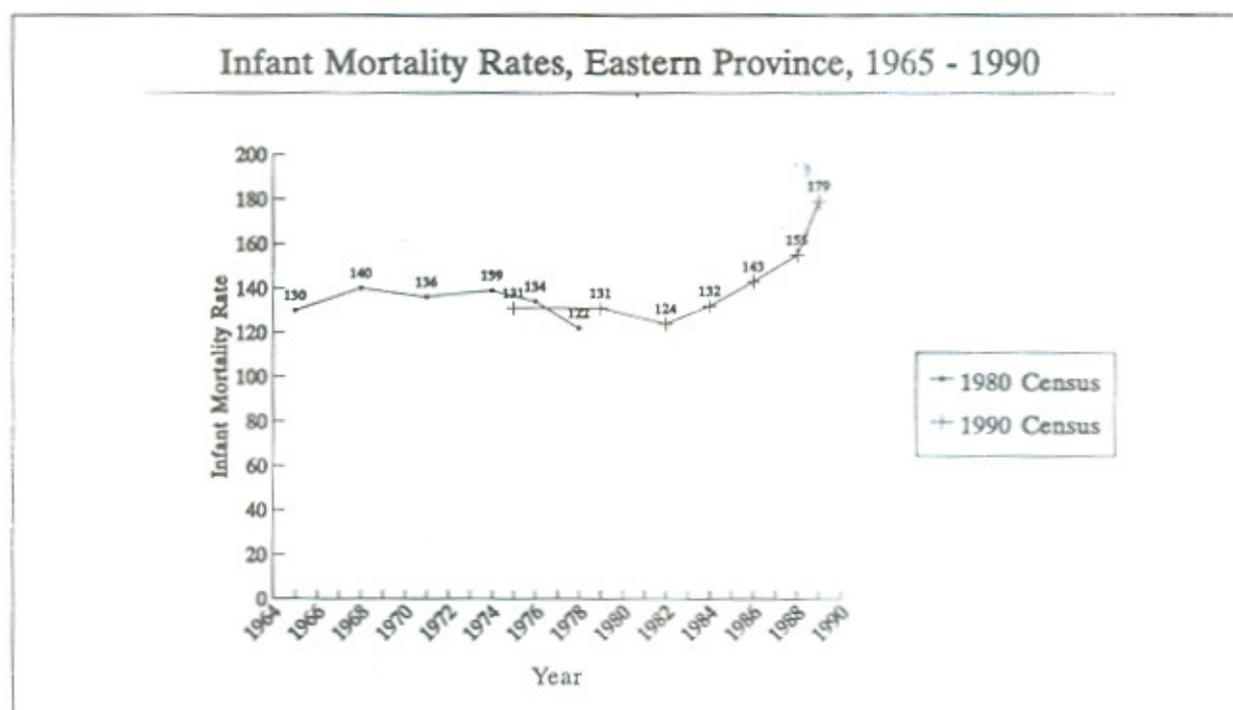
Child Mortality Rate (CMR)

Results from the 1990 Census have shown a declining trend from 1975 to 1982. Child mortality rate was constant at 103 deaths per 1,000 children aged 1-4 years between 1975 and 1979. The rate had declined even further to 96 deaths in 1982. Thereafter, substantial increases were recorded between 1984 and 1989. Child mortality rate in 1984 was 103 deaths and reached the peak in 1989 when the rate was 149 deaths per 1,000 children aged 1-4 years. Refer to Figure 9.2 and Table 9.7 for details. Figure 9.2 and Table 9.8 also show the declining trend of child mortality rate between 1965 and 1971 period. The rate started increasing from 110 deaths in 1974 to 136 deaths in 1979.

Figure 9.2

Child Mortality Rates, Eastern Province, 1965 - 1990
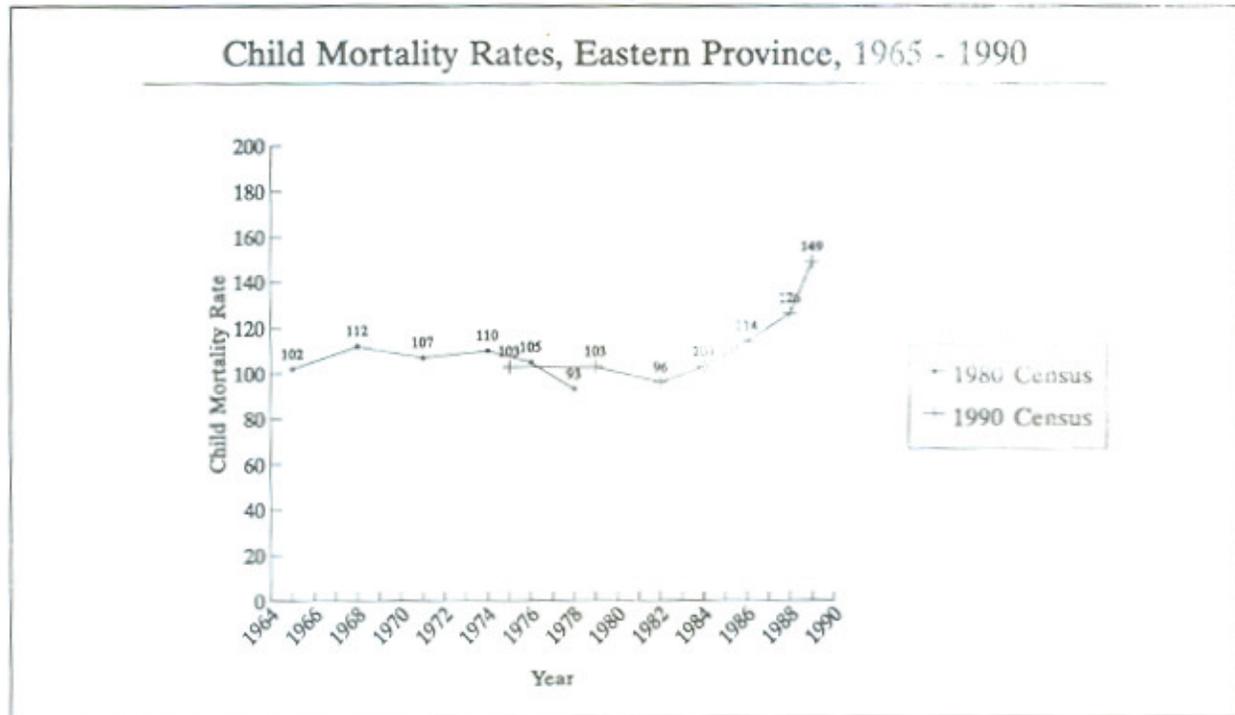
Under-five Mortality Rate

The under-five mortality rate derived from 1990 Census data declined substantially between 1975 and 1989. The rate declined from 292 deaths in 1975 to 210 deaths in 1986. It had declined much further to 179 deaths in 1989. Figure 9.3 and Table 9.7 confirm the general declining trend over the last 25 years.

Figure 9.3

Under-Five Mortality Rates, Eastern Province, 1965 - 1990
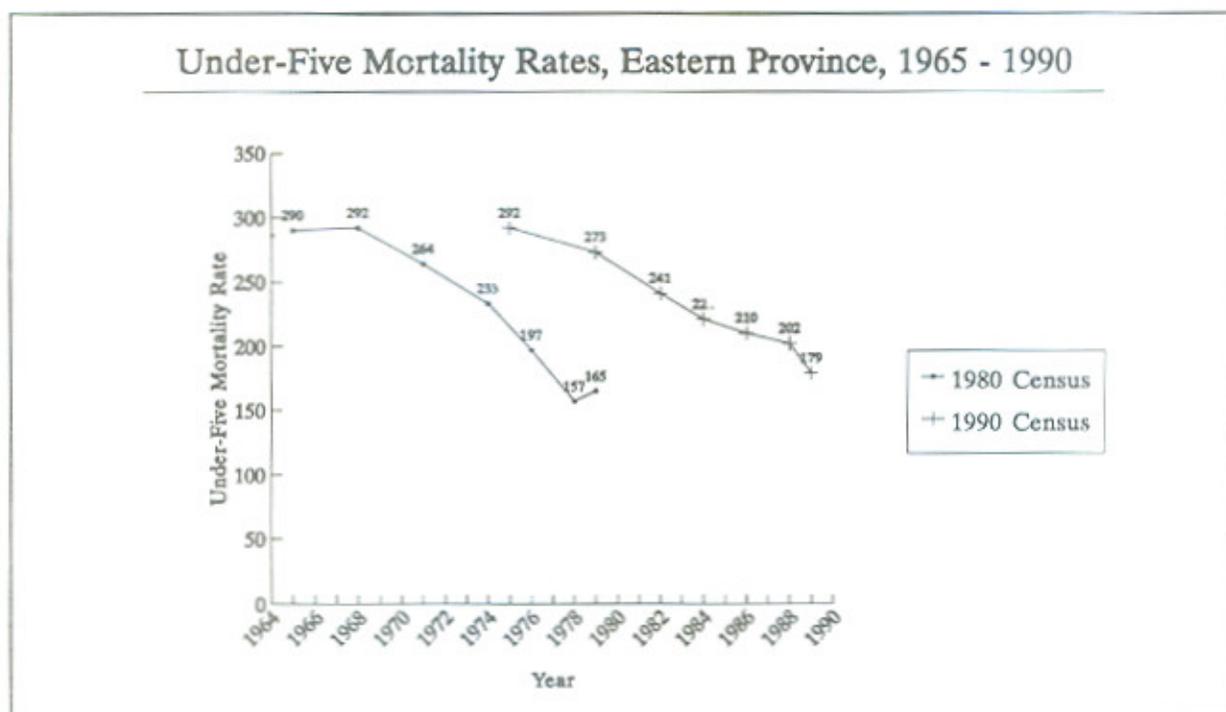
Table 9.7

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

Year	Infant Mortality Rate	Child Mortality Rate	Under-five Mortality Rate	Expectation of life at birth
1989	179	149	179	36.9
1988	155	126	202	40.9
1986	143	114	210	43.1
1984	132	103	221	45.2
1982	124	96	241	46.6
1979	131	103	273	45.2
1975	131	103	292	45.2

Table 9.8

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

Year	Infant Mortality Rate	Child Mortality Rate	Under-five Mortality Rate	Expectation of life at Birth
1979	165	136	165	39.2
1978	122	93	157	47.1
1976	134	105	197	44.7
1974	139	110	233	43.8
1971	136	107	264	44.4
1968	140	112	292	43.5
1965	130	102	290	45.4

Recent mortality rates in Eastern Province, especially among children aged below 5 years are high. As a result, the expectation of life at birth has declined substantially from between 45 and 47 years in the late 1970's and early 1980's to lower than 41 years in the second half of the 1980's. An expectation of life at birth of 36.9 years was recorded in 1989. Figure 9.4 and Table 9.7 confirm the general declining trend in values of expectation of life at birth.

Figure 9.4
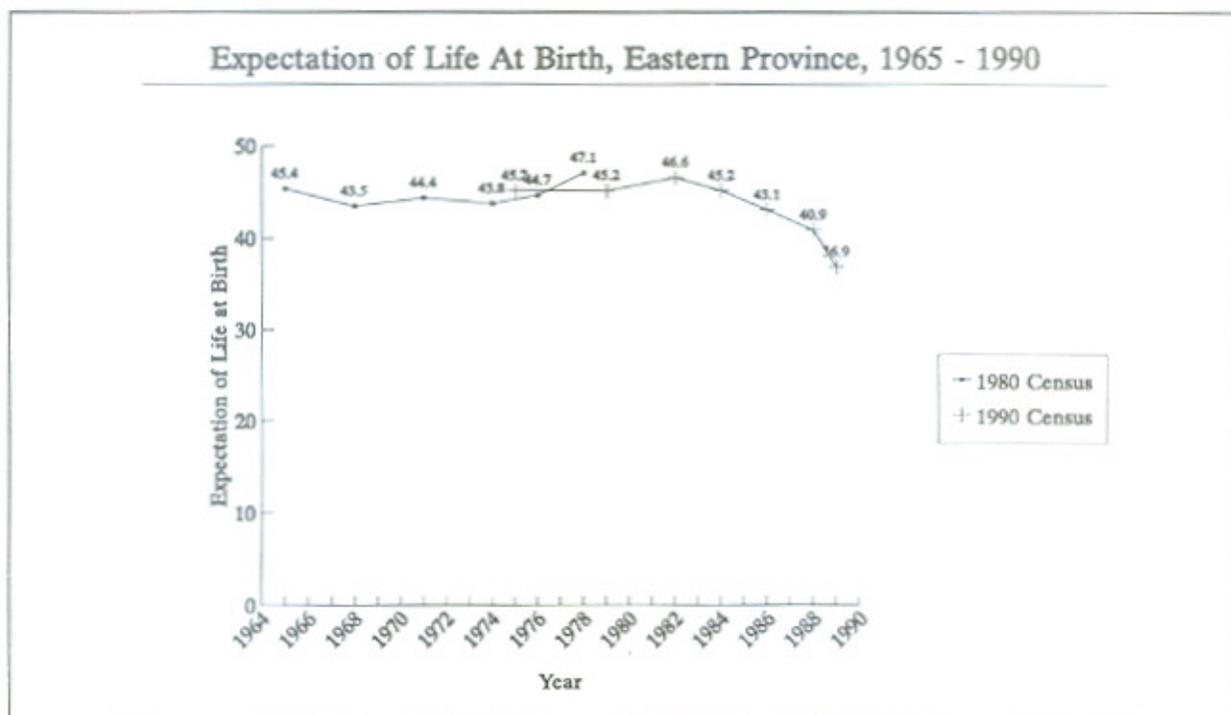
There were slight fluctuations in expectation of life at birth between 1965 and 1978 period. A substantial decline was recorded between 1978 and 1980 period when an expectation of life at birth of 39.2 years was recorded in 1979, one year prior to the 1980 Census. Refer to Table 9.8 and Figure 9.4 for further details on the changes in values of expectation of life at birth.

9.7 ADULT MORTALITY

During the 1990 Census, information on the deceased by age and dates of death was not collected. As a result, it is very difficult to make meaningful estimates of adult mortality for Eastern Province. Thus, inferences of adult mortality rates in Eastern Province are made from the constructed model Life Table using Coale and Demeny Life Table systems. These life tables were derived using expectation of life at birth (e_o) as an input parameter. North Model Life Table system was chosen for Eastern Province. Life tables for males and females are shown in Tables 9.9 and 9.10, respectively. The computer software package used in deriving the life tables for both males and females is the "Mortpak - Lite" package developed by the United Nations (UN) based in New York, USA.

The generated life table columns are as follows:-

$_nm_x$ = Central death rates between ages x and x + n,

$_nq_x$ = Probability of dying between exact ages x and x + n,

l_x = Number of persons alive at exact ages x,

$_nD_x$ = Number of persons dying between exact ages x and x + n,

$_nL_x$ = Person years lived between exact ages x and x + n,

$_nS_x$ = 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 Ministry of Youth, Sport and Child Development defines the "youth" as those persons aged 15-24 years. Thus, adult mortality can be inferred starting with population aged 25 years and above. The presentation of model life table by age group helps in understanding the pattern of mortality, especially in the absence of age-specific mortality data. By age group 25 years, the probability of survival for males is very high (close to 1.000). The probabilities of surviving reduce slightly from age group 55-59 years onwards. At the age of 55-59 years, the probability of surviving is 0.85271 and reduces to 0.59255 at age group 70-74 years. Slightly more than a third (0.38904) of the male population survives by the age of 75 years. Similarly, the expectation of life decreases from 36.4 years at age group 25-29 years to 16.3 years at age group 55-59 years. Thereafter, the expectation of life decreases further to 10.6 years at age group 65-69 years and 6.1 years at age group 75-79 years. Refer to Table 9.9 for more details on the probabilities of survival, dying and expectation of life at each age group.

Table 9.9

Coale and Demeny North Model Life Table for Eastern Province - Males, 1990.

Age	$_nm_x$	$_nq_x$	l_x	$_nD_x$	$_nL_x$	$_nS_x$	T_x	$°e_x$	$a_{(x,n)}$	Age
0	.17661	.15792	100000.	15792.	89419.	.79844 /A/	4079986.	40.800	0.330	0
1	.03295	.12122	84208.	10208.	309802.	.90320 /B/	3990566.	47.389	1.352	1
5	.01045	.05093	74000.	3769.	360578.	.96093	3680764.	49.740	2.500	5
10	.00539	.02658	70231.	1866.	346489.	.97214	3320186.	47.275	2.500	10
15	.00614	.03025	68365.	2068.	336836.	.96361	2973697.	43.498	2.588	15
20	.00874	.04281	66297.	2838.	324577.	.95560	2636861.	39.774	2.566	20
25	.00921	.04503	63459.	2858.	310165.	.95366	2312283.	36.438	2.505	25
30	.00983	.04800	60601.	2909.	295792.	.94913	2002119.	33.038	2.520	30
35	.01119	.05443	57692.	3140.	280744.	.94050	1706327.	29.576	2.542	35
40	.01348	.06525	54552.	3560.	264040.	.92861	1425583.	26.133	2.550	40
45	.01630	.07836	50992.	3996.	245190.	.91246	1161543.	22.779	2.555	45
50	.02063	.09822	46996.	4616.	223727.	.88891	916353.	19.498	2.562	50
55	.02695	.12646	42380.	5360.	198874.	.85271	692626.	16.343	2.569	55
60	.03765	.17248	37021.	6385.	169582.	.79663	493753.	13.337	2.569	60
65	.05472	.24132	30635.	7393.	135095.	.71049	324171.	10.582	2.554	65
70	.08435	.34833	23243.	8096.	95984.	.59255	189076.	8.135	2.501	70
75	.12803	.48076	15147.	7282.	56875.	.38904 /C/	93092.	6.146	2.410	75
80	.21716	....	7865.	7865.	36217.	....	36217.	4.605	4.605	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 expectation of life at Birth as an input parameter in the Coale and Demeny Model Life Tables

Figure 9.5

Expectation of Life at Exact Age, Eastern Province, 1990
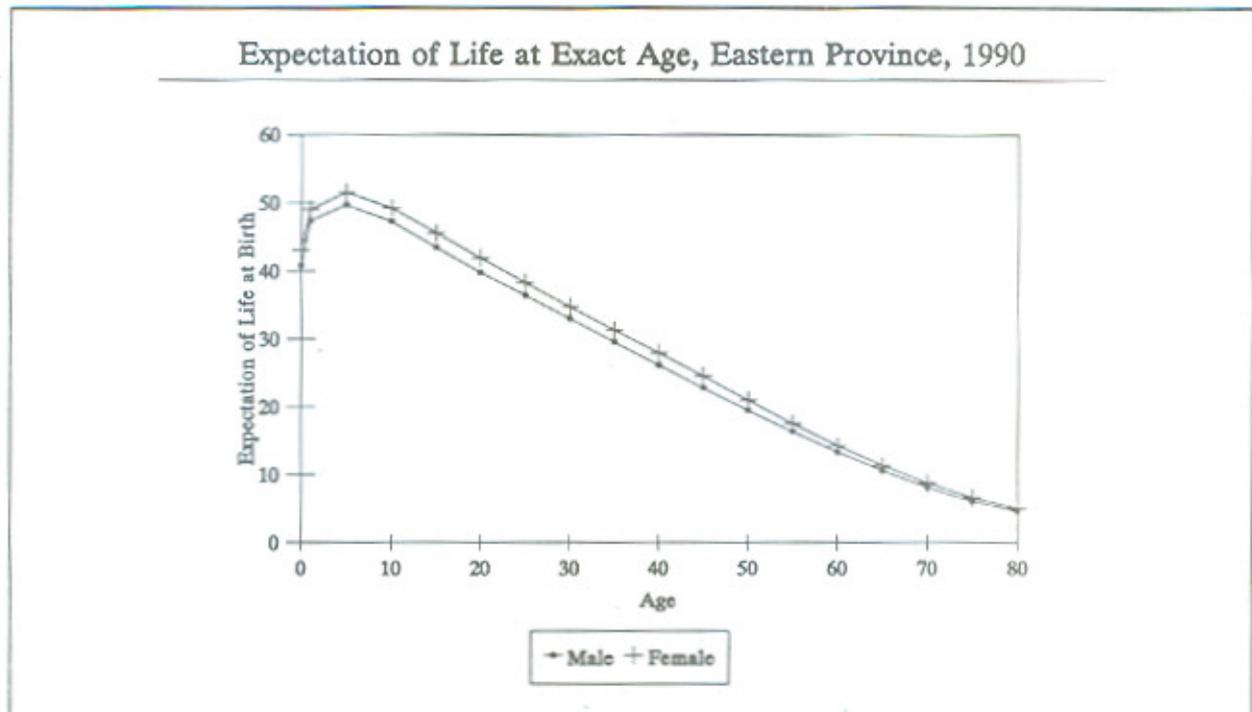
Table 9.10 shows the probabilities of dying and surviving for females. Expectation of life at each age group are equally presented in the same table. The probabilities of survival for adult females reduce by slight margins in the age group 25-54 years. Chances of survival by this age group are nearly 1.0000. As it is the case with males, visible declines in probabilities of surviving are noticed at age group 70-74 years.

Table 9.10

Coale and Demeny North Model Life Table for Eastern Province - Females, 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	.15354	.13961	100000	13961.	90925.	.81542 /A/	4310000.	43.100	0.350	0
1	.03274	.12054	86039.	10371.	316787.	.90388 /B/	4219075.	49.037	1.361	1
5	.01066	.05189	75668.	3927.	368523.	.95979	3902288.	51.571	2.500	5
10	.00565	.02788	71741.	2000.	353706.	.97148	3533765.	49.257	2.500	10
15	.00600	.02955	69741.	2061.	343617.	.96829	3180060.	45.598	2.531	15
20	.00696	.03422	67680.	2316.	332722.	.96315	2836443.	41.910	2.548	20
25	.00809	.03965	65364.	2592.	320462.	.95725	2503721.	38.304	2.546	25
30	.00941	.04600	62773.	2887.	306762.	.95069	2183259.	34.780	2.541	30
35	.01080	.05260	59885.	3150.	291635.	.94473	1876496.	31.335	2.527	35
40	.01191	.05784	56735.	3282.	275516.	.93995	1584862.	27.934	2.514	40
45	.01300	.06300	53453.	3368.	258970.	.93055	1309346.	24.495	2.536	45
50	.01616	.07775	50086.	3894.	240985.	.91047	1050375.	20.972	2.575	50
55	.02191	.10406	46191.	4807.	219408.	.87567	809391.	17.523	2.597	55
60	.03209	.14898	41385.	6166.	192130.	.81944	589982.	14.256	2.601	60
65	.04892	.21869	35219.	7702.	157440.	.73525	397852.	11.296	2.578	65
70	.07602	.31981	27517.	8800.	115758.	.62445	240412.	8.737	2.520	70
75	.11503	.44424	18717.	8315.	72285.	.42011 /C/	124654.	6.660	2.438	75
80	.19863	....	10402.	10402.	52369.	....	52369.	5.034	5.034	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 expectation of life at birth as an input parameter in the Coale and Demeny Model Life Tables.

The pattern of expectation of life at older age groups is such that females are expected to live an average of 38.3 years at age group 25-29 years. Life expectancy reduces to 17.5 years by age group 55-59 years. By age group 65-69 years, females are expected to live for an average 11.3 years. Generally, females are expected to live much longer years in the future as compared to males when expectation of life is analysed by sex. Figure 9.5 confirms the disparities in life expectancies between males and females.

9.8 SUMMARY

The results from the 1990 Census show that all mortality indicators for Eastern Province have increased over the last 1980-1990 intercensal period. The crude death rate (CDR) increased from 18.1 in 1980 to 25.2 deaths per 1000 population in 1990. Similarly, crude death rates for males and females have also increased over the same period. It has also been established that crude death rate of males is higher than that of females by 7.9 percent. Infant mortality rate increased from 128 in 1980 to 149 deaths per 1,000 live births in 1990. Child and under-five mortality have also increased. Rural areas exhibit high infant and child mortality rates as compared to urban areas of Eastern Province. All the districts in Eastern Province have recorded high infant and child mortality rates in 1990, except Katete.

Analysis of infant, child and under-five mortality rates by socio-economic variables has revealed some disparities. Children born to females with no formal schooling and primary level of education tend to exhibit high mortality rates as compared to their counterparts born to females with secondary level of education or more. Children born to full-time housewives experience lower mortality rates as compared to other economic activity categories. The agricultural sector category recorded high mortality rates as compared to the non-agricultural sector.

The trend of infant, child and under-five mortality rates have shown an increasing pattern since the late 1980's up to the time of the 1990 Census. The expectation of life has, however, drastically decline in Eastern Province since the 1980's. Today, newly born infants are expected to live an average of 40 years unlike in the 1970's when they were expected to live an average of 45 years or more.

Life expectancy by age reveals a much favourable survival pattern for females as compared to males. In many cases, differences of 2 years or more at each age group are common. This is especially true in age group 25-39 years. Thereafter, at much older age groups the gap is reduced to less than 2 years.

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 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 Eastern 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

These persons lack 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 any degree.

Multiple disabilities

Having more than one of the above stated disabilities.

10.3 DISTRIBUTION OF DISABLED PERSONS

Table 10.1 shows that the number of persons recorded as disabled in Eastern Province in 1990 is 10,776. Of these, 5,662 are male and the remaining 5,124, are female. About a third of the disabled in the Province are crippled. These form the largest proportion of the disabled. The lowest proportion (13.3 percent) comprises the blind.

Chipata district has the largest number of the disabled among all districts in the province while Chadiza has the least with 3,474 and 612 respectively. In both the rural and urban areas of the province, the majority of the disabled are in the crippled category and the least in the blind category. A similar pattern exists in all the districts except Chama, Lundazi and Petauke in which the lowest proportions are those of the mentally retarded. The largest proportions, however, are those of the crippled, even in these three districts. In all the districts, and the province at large, there are more disabled males than females.

Table 10.1

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

Residence and Sex		Type of Disability						
		Total Number	Total	Blind	Deaf/ Dumb	Crippled	Mentally Retarded	Multiple Disabilities
Eastern								
	Both sexes	10,776	100.0	13.3	16.8	31.3	14.3	24.2
	Male	5,652	100.0	11.8	16.2	32.9	15.3	23.8
	Female	5,124	100.0	15.1	17.5	29.5	13.3	24.6
Residence								
Rural								
	Both sexes	10,223	100.0	13.5	16.8	30.9	14.5	24.2
	Male	5,319	100.0	11.9	16.1	32.4	15.5	24.0
	Female	4,904	100.0	15.3	17.6	29.2	13.4	24.5
Urban								
	Both sexes	553	100.0	9.4	16.6	38.7	11.4	23.9
	Male	333	100.0	9.3	16.5	40.5	12.0	21.6
	Female	220	100.0	9.5	16.8	35.9	10.5	27.3
Districts								
Chadiza								
	Both sexes	612	100.0	8.8	15.2	29.6	22.9	23.5
	Male	339	100.0	7.1	14.7	31.6	25.4	21.2
	Female	273	100.0	11.0	15.8	27.1	19.8	26.4
Chama								
	Both sexes	634	100.0	16.2	18.5	33.6	12.6	19.1
	Male	329	100.0	12.8	19.1	35.0	12.2	21.0
	Female	305	100.0	20.0	17.7	32.1	13.1	17.0
Chipata								
	both sexes	3,474	100.0	12.7	16.4	33.9	14.4	22.6
	Male	1,877	100.0	10.6	16.1	35.5	15.2	22.6
	Female	1,597	100.0	15.2	16.6	32.1	13.5	22.7
Katete								
	Both Sexes	1,435	100.0	10.0	18.5	29.2	15.7	26.7
	Male	747	100.0	9.4	18.1	31.1	16.2	25.3
	Female	688	100.0	10.6	18.9	27.2	15.1	28.2
Lundazi								
	Both Sexes	2,002	100.0	15.9	17.2	32.9	15.6	18.4
	Male	1,034	100.0	13.8	16.3	35.3	16.7	17.8
	Female	968	100.0	18.1	18.2	30.4	14.4	19.0
Petauke								
	Both Sexes	2,619	100.0	14.4	16.2	27.6	11.0	30.8
	Male	1,326	100.0	14.1	14.6	28.3	12.1	30.9
	Female	1,293	100.0	14.8	17.9	26.8	9.8	30.7

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Table 10.2 shows the proportion of the disabled with respect to total population in the province.

Table 10.2

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

Residence	Total Population	Type of Disability					
		Total	Blind	Deaf/Dumb	Crippled	Mentally Retarded	Multiple Disabilities
Eastern							
Total	965,967	1.1	0.1	0.2	0.3	0.2	0.3
Rural	877,552	1.2	0.2	0.2	0.4	0.2	0.3
Urban	88,415	0.6	0.1	0.1	0.2	0.1	0.1
Districts							
Chadiza	63,210	1.0	0.1	0.2	0.3	0.2	0.2
Chama	51,772	1.2	0.2	0.2	0.4	0.2	0.2
Chipata	29,372	1.2	0.2	0.2	0.4	0.2	0.3
Katete	138,469	1.0	0.1	0.2	0.3	0.2	0.3
Lundazi	171,602	1.2	0.2	0.2	0.4	0.2	0.2
Pateuke	249,542	1.0	0.2	0.2	0.3	0.1	0.3

Table 10.2 shows that slightly over 1 percent of the provincial population comprises the disabled. The proportion of the total population that comprises the disabled in Chama, Chipata and Lundazi is 1.2 percent in each case while in each of the remaining districts, it is 1 percent. In Eastern Province rural on one hand, 1.2 percent of the population comprise the disabled. Compared to 0.6 percent of the urban population.

10.4 CHARACTERISTICS OF DISABLED PERSONS

Sex Ratios

The sex ratios of the disabled by type of disability and residence are shown in Table 10.3. Sex ratio indicates the number of males per 100 females. The sex ratio of the total disabled in the province is 110.3. This means that there are 110.3 males for every 100 disabled females. The sex ratios range from 86.1 among the blind to 127.4 among the mentally retarded. The largest sex ratio in rural areas (125.8) is that of the mentally retarded and the smallest (84.4) is that of the blind. In urban areas, all sex ratios are above 100, the largest being 173.9 for the mentally retarded and the smallest, 120.0 for those with multiple disabilities.

Table 10.3

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

Residence	Type of Disability and Sex Ratio					
	Total	Blind	Deaf/Dumb	Crippled	Mentally Retarded	Multiple Disabilities
Eastern						
Total	110.3	86.1	101.7	122.9	127.4	106.9
Rural	108.5	84.4	99.7	120.3	125.8	106.2
Urban	151.4	147.6	148.6	170.9	173.9	120.0
Districts						
Chadiza	124.2	80.0	116.3	144.6	159.3	100.0
Chama	107.9	68.9	116.7	117.3	100.0	132.7
Chipata	117.5	82.2	114.3	129.8	132.6	117.1
Katete	108.6	95.9	103.8	124.1	116.3	97.4
Lundazi	106.8	81.7	96.0	124.1	124.5	100.0
Petauke	102.6	97.9	84.0	108.1	126.0	103.3

In all the districts, total sex ratios are above 100. This means that there are more disabled males than females. However, the blind have sex ratios of less than 100 in all districts, and so do the deaf/dumb in Lundazi and Petauke, as well as the multiple disabled in Katete.

Age Structure

Table 10.4 displays the age structure of the disabled in broad age groups.

Table 10.4

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

Type of Disability	Age Group			
	Total	0 - 14	15 - 59	60 +
Blind	13.3	9.3	10.3	31.6
Deaf/Dumb	16.8	19.7	15.5	16.5
Crippled	31.3	21.6	37.3	31.1
Mentally Retarded	14.3	11.6	16.6	8.3
Multiple Disabilities	24.2	37.8	20.3	12.5
Total	100.0	100.0	100.0	100.0
Total Number	10,776*	3,255	5,716	1,729

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

The table shows that among children aged 0-14 years, the majority have multiple disabilities making up 37.8 percent. Almost 22 percent of these children are crippled, 19.7 percent dumb and deaf, 11.6 percent mentally retarded and 9.3 percent are blind. Among those aged 60 and above, the majority (31.6 percent) are blind, closely followed by the crippled who make up 31.1 percent. The lowest proportion of the aged (8.3 percent) are mentally retarded. The crippled form the largest proportion of those aged 15-59 years, while the blind make up the lowest proportion (37.3 percent and 10.3 percent, respectively).

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Usually Economically Active Disabled Population

Table 10.5 presents data on the percentage distribution of disabled persons by type of disability and usual economic activity. (For detailed definitions of economic activities refer to chapter six).

It may be noted from the table as well as Figure 10.1 that out of 8,245 economically active disabled persons, about 40 percent are reported to be working. This proportion is fairly close to that of those who are not available for work, who make up a third of the economically active disabled population. Only 14 percent of this population are seeking work.

Table 10.5

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

Usual Economic Activity	Type of Disability					
	Total	Blind	Deaf/Dumb	Crippled	Mentally Retarded	Multiple Disabilities
Working	39.7	31.9	47.6	43.0	31.3	39.7
Seeking work	1.4	0.8	2.0	1.4	1.3	1.7
Available for work	2.7	2.0	2.8	2.6	2.3	3.9
Homemaker	10.6	7.7	13.5	9.7	6.6	15.2
Student	7.2	5.1	8.1	8.1	3.4	9.7
Not available for work	33.3	48.2	22.9	32.5	43.1	24.4
Not Stated	5.0	4.3	3.1	2.8	11.9	5.4
Percentage total	100.0	100.0	100.0	100.0	100.0	100.0
Total Number	8,245	1,198	1,307	2,571	781	2,293

Figure 10.1

Usual Economic Activity of Disabled Persons, Eastern Province, 1990

Not Available for Work 35%

Working 42%

Student 8%

Available for Work 3%

Homemaker 11%
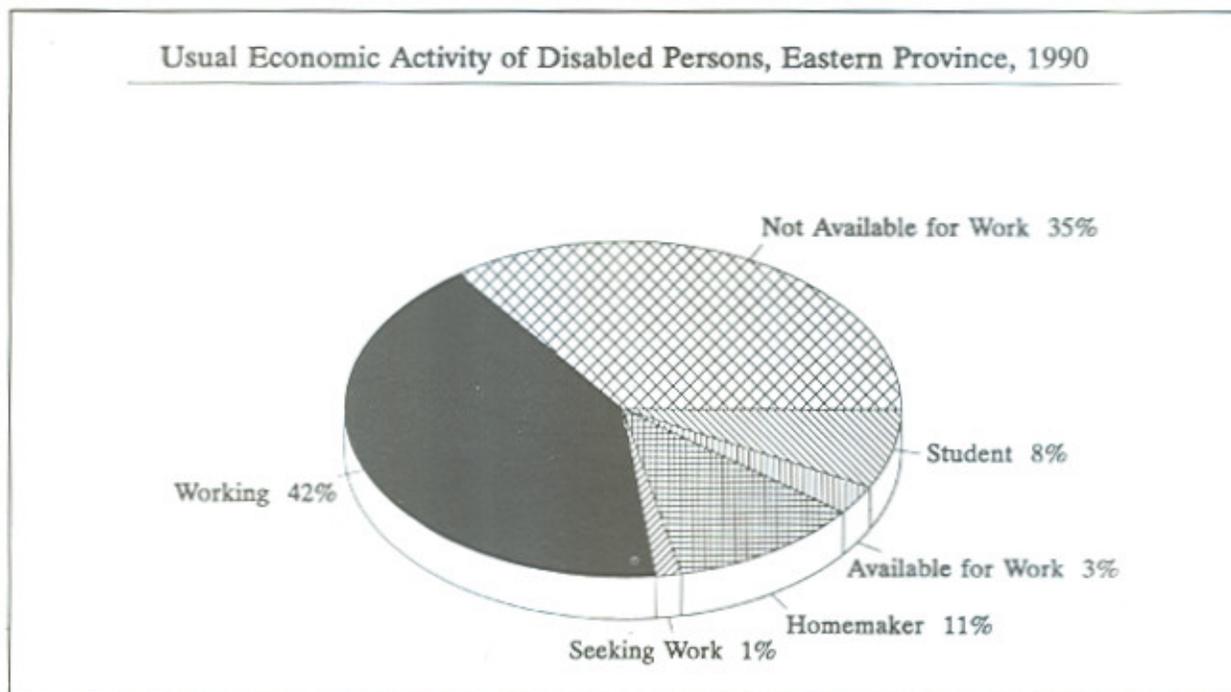
Seeking Work 1%

The majority of the blind (48.2 percent) are reported not to be available for work, while less than 1 percent are seeking work. Furthermore, 5.1 percent of the blind are students. Unlike the blind, the majority of the deaf/dumb, crippled and those with multiple disabilities are working. In all forms of disability, very few proportions of the disabled are seeking work or available for work.

The employment status of the disabled household heads are shown in Table 10.6. Slightly over 60 percent of all the disabled are employed as family workers. The second most common category is that of the self employed who comprise 29.3 percent of the disabled household heads. Less than 1 percent of the disabled population comprises employers while employees make up 7.3 percent.

Table 10.6

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

Type of Disability	Employment Status						
	Total Number	Percentage Total	Employer	Employee	Self Employed	Family Worker	Not Stated
Total	535	100.0	0.9	7.3	29.3	60.6	1.9
Blind	55	100.0	-	9.1	20.0	69.1	1.8
Deaf/Dumb	116	100.0	1.7	1.7	37.1	57.8	1.7
Crippled	165	100.0	1.2	8.5	30.3	57.6	2.4
Mentally Retarded	118	100.0	-	6.8	33.1	57.6	2.5
Multiple Disabilities	81	100.0	1.2	12.3	17.3	69.1	-

None of the blind and mentally retarded are reported to be employers. Among the other forms of disability, less than 2 percent are employers in each case. In all disability groups, family workers make up the majority, followed by the self employed.

Educational Status of Disabled Population

The distribution of disabled persons by level of education completed is presented in Table 10.7. Out of 9,828 disabled persons five years and older, 69.1 percent have had no formal education. Furthermore, a negligible proportion have completed higher levels of education. About a quarter have completed primary level while 4.3 percent have completed secondary levels.

Table 10.7

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

Type of Disability	Level of Education						
	Total Number	Percentage Total	No Education	Primary	Secondary	Higher Level	Not Stated
Total	9,828	100.0	69.1	24.6	4.3	0.0	2.0
Blind	1,339	100.0	76.0	19.5	2.8	-	1.7
Deaf/Dumb	1,668	100.0	76.2	19.6	1.4	-	2.8
Crippled	3,211	100.0	61.5	30.6	6.2	0.0	1.7
Mentally Retarded	1,458	100.0	74.9	18.9	5.0	-	1.2
Multiple Disabilities	2,152	100.0	66.6	26.6	4.4	-	2.3

Among the blind, slightly over three quarters have completed no form of education and none have completed higher levels of education. Like the blind, none of the deaf/dumb, mentally retarded and those with multiple disabilities have completed higher levels of education.

10.5 SUMMARY

The 1990 Census recorded a total number of 10,776 disabled persons in Eastern Province, giving a proportion of 1.1 percent of the total population. The data has shown that there are more disabled persons in rural than urban areas. Males comprise a larger proportion of the disabled than females.

Distribution of the disabled by type of disability shows that the largest number is that of the crippled. The other disabilities in order of magnitude are multiple disabilities, deaf/dumb, mentally retarded and blind. The distribution of the disabled population by education status indicates that 69.1 percent have no formal schooling. Those who have completed primary education constitute 24.6 percent.

In terms of economic activity, 39.7 percent of the disabled are working, and make up the majority of the disabled persons aged 12 years and older.

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 members, such as age, sex and household size.

Housing Unit

An independent place of abode intended for habitation by at least one household. It has 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 the sewerage system.

11.3 HOUSING CHARACTERISTICS

Housing characteristics provide indicators to assess living conditions of a population. The housing characteristics analysed facilities in this chapter include number of rooms, construction materials, sources of water supply, toilet, energy used for cooking and lighting.
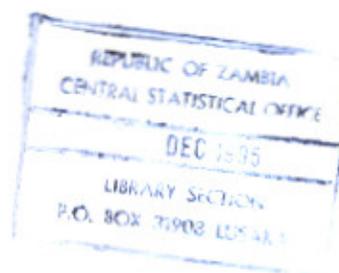
The number of rooms includes bedrooms and living rooms. Verandas, lobbies, kitchens, bathrooms and toilets are not included. In all, there are 184,770 households occupying 184,432 housing units in Eastern Province. Table 11.1 presents data on the distribution of households by the number of rooms of their housing units. Close to half (47.4%) of the households in the province occupy two-roomed housing units while 10.2 percent occupy one-roomed housing units. This pattern is similar to that of the rural areas of the province. In urban areas however, only 3.5 percent of households occupy one-roomed housing units compared to 10.9 percent in rural areas.

Table 11.1

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

Residence	Number of H/holds	Total	Number of Rooms										
			1	2	3	4	5	6	7	8	9	10+	Not Stated
Eastern Province													
Total	184,770	100.0	10.2	47.4	22.9	11.4	4.4	1.5	0.7	0.4	0.2	0.3	0.6
Rural	169,612	100.0	10.9	48.1	22.3	10.7	4.3	1.5	0.7	0.4	0.2	0.3	0.6
Urban	15,158	100.0	3.5	39.3	29.1	18.9	5.4	1.5	0.7	0.5	0.2	0.3	0.7
Districts													
Chadiza	11,883	100.0	7.4	45.4	26.2	12.5	4.8	1.4	0.7	0.4	0.1	0.2	0.9
Chama	10,115	100.0	17.7	45.7	22.1	10.4	3.1	0.6	0.2	0.1	0.0	0.1	0.3
Chipata	55,382	100.0	5.5	48.6	24.3	12.8	4.9	1.6	0.8	0.5	0.2	0.3	0.5
Katete	28,101	100.0	10.8	56.8	19.0	8.0	2.9	0.9	0.5	0.3	0.1	0.2	0.4
Lundazi	32,681	100.0	8.7	52.2	22.1	9.7	3.7	1.6	0.7	0.4	0.2	0.3	0.3
Petauke	46,608	100.0	15.9	37.9	23.4	12.9	5.2	1.7	0.8	0.4	0.2	0.3	1.2

Figure 11.1

Households by Districts, Eastern Province, 1990

Chipata 30%
Chama 5%
Chadiza 6%
Katete 15%
Lundazi 18%
Petauke 25%

Figure 11.2

Households by Household Size, Eastern Province, 1990

24%
20%
28%
29%

Household Size
■ 1 - 2
▨ 3 - 4
▦ 5 - 6
▨ 7 +

Table 11.2

Households by Household Size, Number of Rooms and Residence, (Percent), Eastern Province, 1990
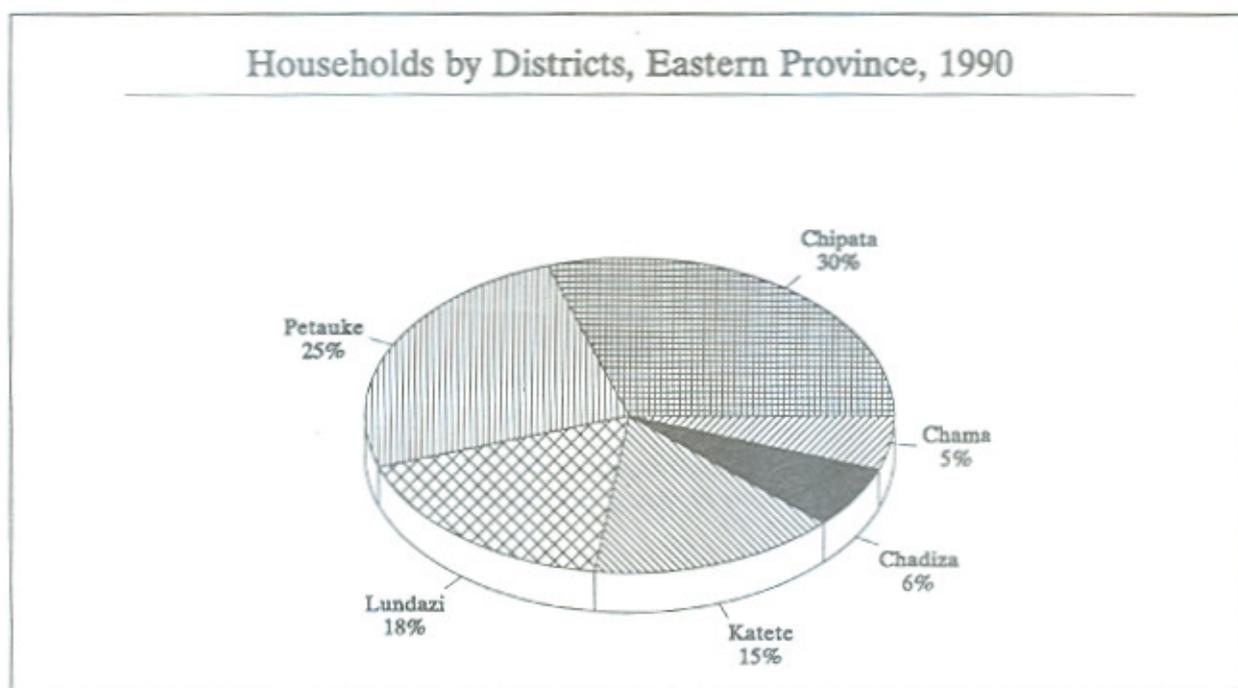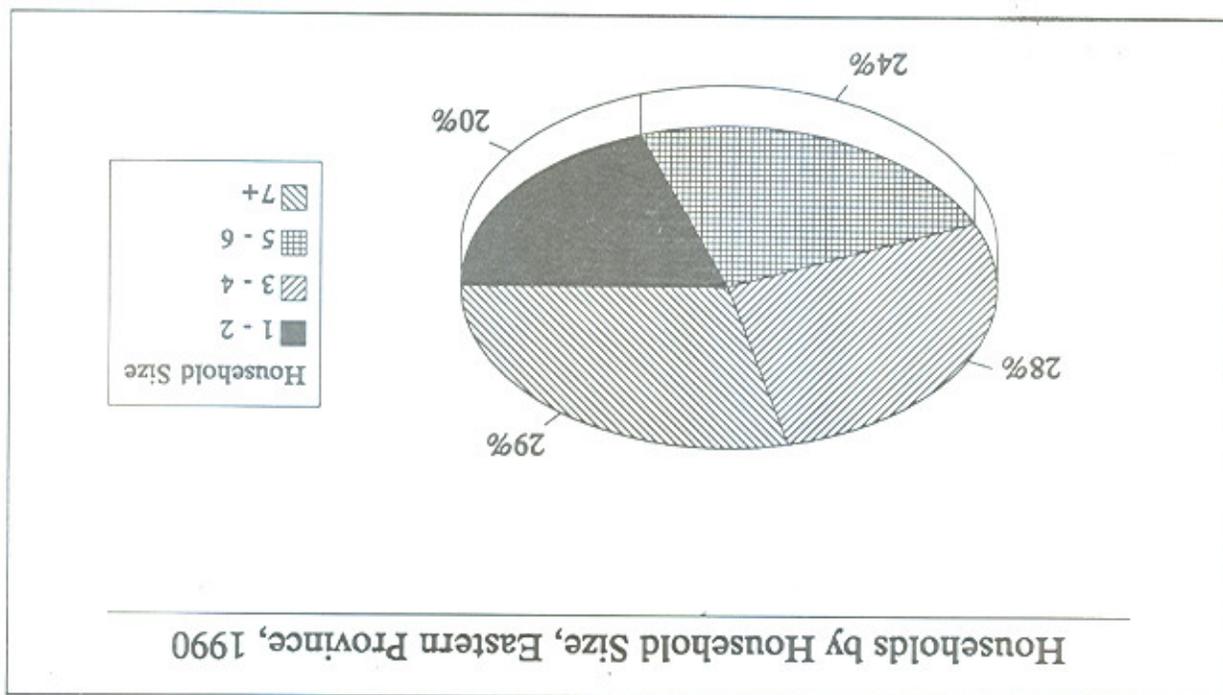
| Residence and Household Size | Households | Total | Number of Rooms | | | | | | | Average No of Rooms | Average Persons Per Room |
			1	2	3	4	5	6+	Not Stated		
Eastern Province											
Total	184,770	100	10.2	47.4	22.9	11.4	4.4	3.1	0.6	2.7	1.9
1-2	36,300	100	17.3	61.3	14.8	3.9	1.2	0.8	0.7	2.1	0.8
3-4	51,554	100	12.1	55.5	22.1	6.8	2.0	1.0	0.5	2.4	1.5
5-6	43,887	100	8.6	45.7	27.3	12.3	3.8	1.8	0.6	2.6	2.1
7+	53,029	100	5.0	31.4	25.5	20.3	9.4	7.7	0.7	3.3	2.7
Rural											
Total	169,612	100	10.9	48.1	22.3	10.7	4.3	3.1	0.6	2.6	1.9
1-2	33,785	100	17.6	61.9	14.3	3.4	1.1	0.7	0.6	2.1	0.8
3-4	48,049	100	12.6	56.0	21.8	6.3	1.8	0.9	0.5	2.3	1.5
5-6	40,483	100	9.1	46.2	27.0	11.7	3.7	1.7	0.6	2.6	2.1
7+	47,265	100	5.5	32.0	24.6	19.6	9.6	8.0	0.8	3.3	2.7
Urban											
Total	15,158	100	3.5	39.3	29.1	18.9	6.9	3.5	0.7	3.0	1.9
1-2	2,515	100	8.4	54.5	22.1	9.3	2.8	2.0	0.9	2.5	0.6
3-4	3,475	100	4.5	49.4	26.6	13.4	4.0	1.5	0.5	2.7	1.3
5-6	3,404	100	2.4	40.1	30.8	19.4	4.3	2.2	0.7	2.9	1.9
7+	5,764	100	1.2	26.1	32.7	26.2	7.9	5.2	0.7	3.9	2.7

Among the districts, Katete has the largest proportion of households occupying one or two roomed housing units while Chipata has the least with 67.6 and 54.1 percent respectively. Very few households occupied housing units with more than five rooms in all districts.

Data on the number of rooms occupied by households sizes is presented in Table 11.2. As earlier assessed, the majority of households occupy two-roomed structures. It can also be observed from the table and figure 11.2 that the majority of households consist of at least seven members. The high proportion of households occupying two-roomed structures and that of households with at least five members may imply overcrowding. Overcrowding is more apparent in households with at least seven members as they have the largest number of persons per room on average.

In rural areas, 5.5 percent of households with at least seven members occupy one roomed housing units while 32 percent of them occupy two roomed structures and 8 percent occupy at least six roomed structures. In urban areas, 1.2 percent of households with at least seven members occupy 1 roomed structures, 26.1 percent occupy two roomed structures and 5.2 percent occupy at least six roomed structures.

Construction materials of walls and roofs

Table 11.3 shows proportions of building materials of walls and roofs calculated on the basis of construction materials of walls with respect to roofing materials.

Table 11.3

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

Construction Materials of Walls	Number of H/units	Total	Construction Materials of Roof						
			Concrete/ Cement	Asbestos Sheets	Iron Sheet Corrugated	Grass/ Thatch	Tiles	Other	Not Stated
Burnt Bricks	19,534	100.0	3.3	13.3	58.7	24.1	0.2	0.2	0.2
Mud Bricks	25,979	100.0	0.5	1.9	5.7	91.5	0.1	0.1	0.1
Concrete Blocks	6,135	100.0	1.9	51.4	41.6	4.6	0.1	0.2	0.2
Stone	155	100.0	4.5	11.0	19.4	60.0	1.3	-	3.9
Iron Sheets	470	100.0	3.8	1.7	56.0	32.1	0.9	0.2	5.3
Asbestos/Wood/Hardboard	265	100.0	0.4	16.2	24.9	51.7	0.8	4.9	1.1
Pole and Dagga	117,699	100.0	-	0.3	0.8	98.4	0.1	0.4	0.1
Grass	1,447	100.0	-	0.6	1.1	93.1	0.3	2.8	2.1
Other	12,748	100.0	0.3	0.5	1.3	94.5	0.1	1.1	2.2
Total	184,432	100.0	0.5	3.7	9.2	85.9	0.1	0.4	0.3

Figure 11.3

Occupied Housing Units by Construction Materials of Roof, Eastern Province, 1990

Roof Materials

Figure 11.4

Occupied Housing Units by Construction Materials of Walls, Eastern Province, 1990

Wall Materials
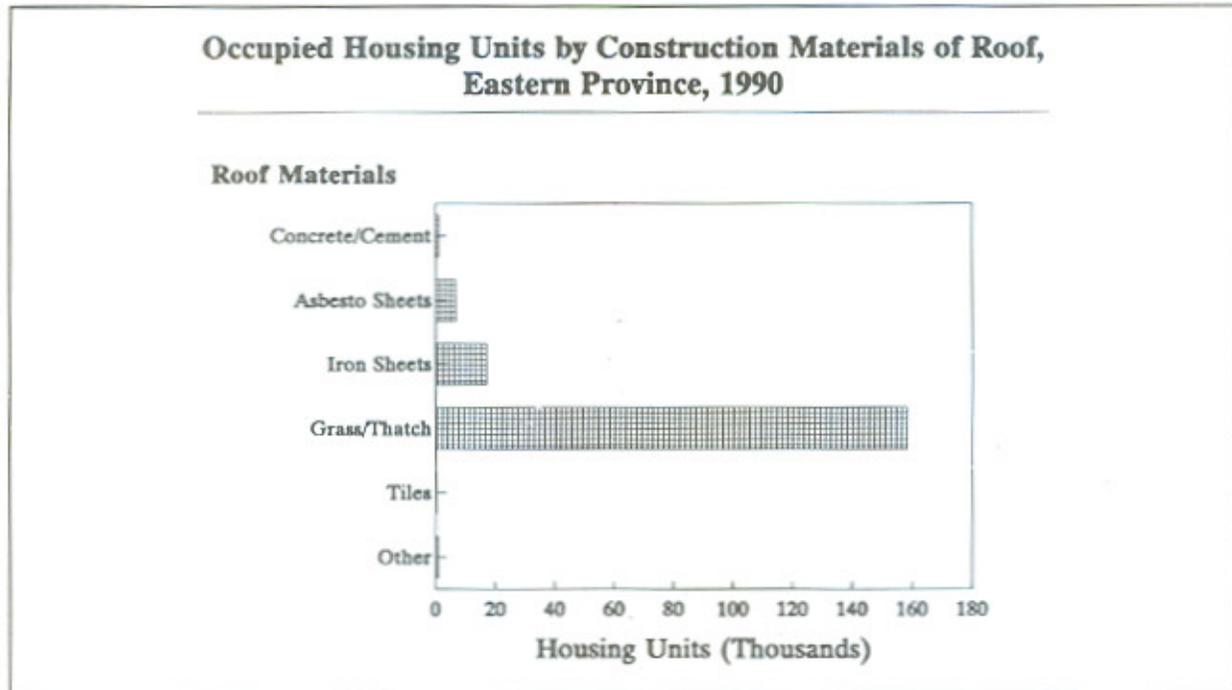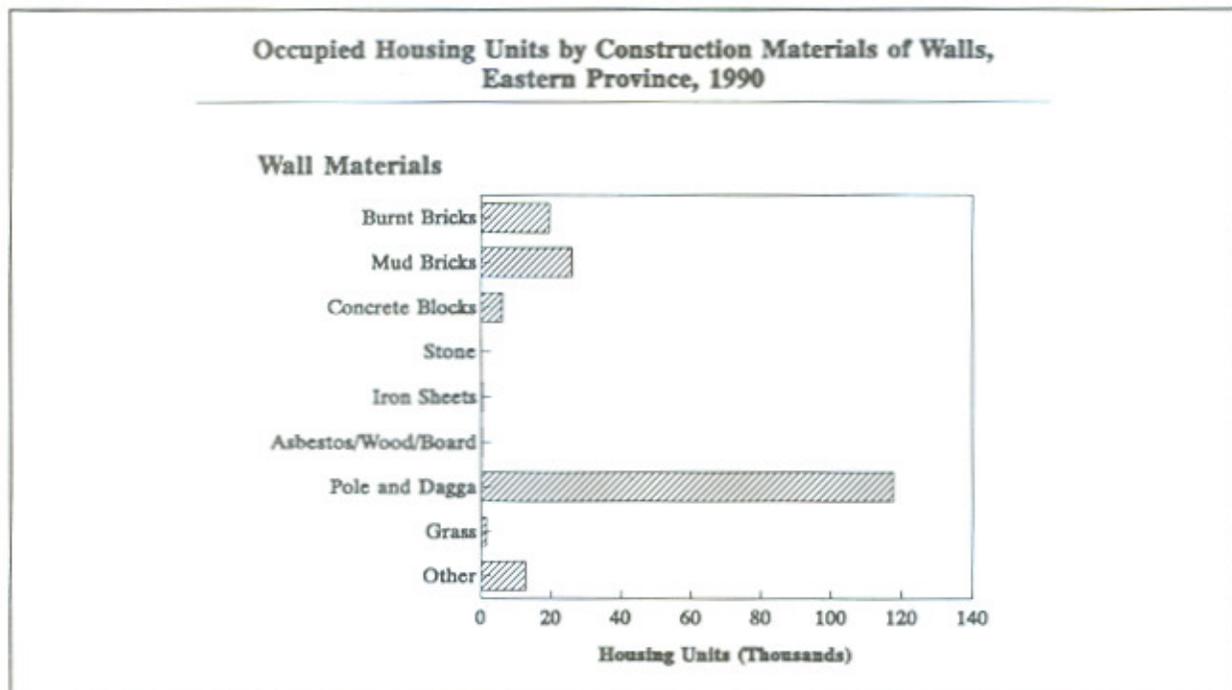
Out of a total of 184,432 housing units in the province, 85.9 percent have roofs made of grass. Proportions of those with roofs made of concrete or tiles together are less than 1 percent.

Although grass is the most common roofing material, the majority of housing units with burnt brick walls have iron sheet roofs, while only a quarter of them have grass roofs. Slightly over half of those with concrete block walls have asbestos roofs while only 4.6 percent of them have grass roofs. Over 90 percent of housing units with mud brick walls, pole and dagga walls and grass walls have grass roofs.

Table 11.4 also shows construction materials of walls and roofs, however, in this case, proportions are calculated on the basis of roofing materials with respect to those of walls.

Table 11.4

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

Construction Materials of Walls	Total	Construction Materials of Roof						
		Concrete/ Cement	Asbestos Sheets	Iron Sheet Corrugated	Grass/ Thatch	Tiles	Other	Not Stated
Burnt Bricks	10.6	67.4	38.7	67.7	3.0	19.1	5.0	5.9
Mud Bricks	14.1	13.5	7.4	8.8	15.0	13.8	5.2	7.4
Concrete Blocks	3.3	12.2	46.9	15.1	0.2	3.7	1.3	1.8
Stone	0.1	0.7	0.3	0.2	0.1	1.1	-	1.2
Iron Sheets	0.2	1.9	0.1	1.6	0.1	2.1	0.1	4.9
Asbestos/Wood/Hardboard	0.1	0.1	0.6	0.4	0.1	1.1	1.8	0.6
Pole and Dagga	63.8	-	5.0	5.2	73.1	47.3	61.7	18.0
Grass	0.8	-	0.1	0.1	0.9	2.1	5.8	6.1
Other	6.9	4.2	0.9	1.0	7.6	9.6	19.0	54.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	184,432	962	6,732	16,943	158,391	188	705	512
Rural								
Burnt Bricks	9.1	73.1	49.4	74.8	3.0	11.8	3.7	7.0
Mud Bricks	13.7	13.5	7.7	7.8	14.3	14.9	3.9	8.2
Concrete Blocks	1.2	5.8	29.1	7.0	0.2	2.5	0.6	0.7
Stone	0.1	0.8	0.5	0.5	0.0	0.6	-	1.4
Iron Sheets	0.2	1.8	0.1	1.7	0.1	1.9	-	5.9
Asbestos/Wood/Hardboard	0.1	0.1	0.9	0.5	0.1	1.2	1.5	0.7
Pole and Dagga	67.8	-	10.6	6.9	74.1	54.7	65.1	20.7
Grass	0.8	-	0.2	0.1	0.9	2.5	6.2	6.6
Other	7.0	0.5	1.5	1.0	7.4	9.9	19.0	48.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	169,429	765	2,950	11,769	152,710	161	648	426
Urban								
Burnt Bricks	27.4	45.4	30.4	51.6	3.2	63.0	19.3	-
Mud Bricks	18.9	13.8	7.1	11.1	34.3	7.4	21.0	3.5
Concrete Blocks	27.6	37.2	60.8	33.5	0.4	11.1	8.8	7.0
Stone	0.1	0.5	0.1	0.1	0.0	3.7	-	-
Iron Sheets	0.6	2.0	0.1	1.3	0.2	3.7	1.8	-
Asbestos/Wood/Hardboard	0.2	-	0.4	0.2	0.1	-	5.3	-
Pole and Dagga	19.1	-	0.7	1.4	48.4	3.7	22.8	4.7
Grass	0.2	-	0.1	0.0	0.4	-	1.8	3.5
Other	5.9	1.0	0.4	0.8	13.0	7.4	19.3	81.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	15,003	196	3,782	5,174	5,681	27	57	86

The most common construction material for walls is pole and dagga which caters for 63.8 percent of the province's housing units.

However, only 5.0 percent and 5.2 percent of housing units with asbestos sheet and iron sheet walls, respectively, are made of pole and dagga walls. Burnt bricks and concrete blocks are the most common building materials of walls for housing units with asbestos or iron sheet roofs.

In urban areas, unlike rural areas, the majority of housing units have burnt brick or concrete block walls. In urban areas, only housing units with grass roofs are rarely made of burnt brick or concrete walls. These housing units usually have mud brick or pole and dagga walls. In rural areas, the pattern is similar to that of the province as a whole.

Construction materials of Walls and Floors

Table 11.5 shows proportions of building materials calculated on the basis of building materials of walls with respect to those of floors.

Table 11.5

Occupied Housing Units by Construction **Material of Walls and Floors, (Percent), Eastern 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	19,534	100.0	74.9	24.3	0.2	0.1	0.3	0.2
Unburnt/Mud Bricks	25,979	100.0	10.0	89.4	0.2	0.1	0.1	0.2
Concrete Blocks/Slab	6,135	100.0	92.4	5.5	1.2	0.5	0.1	0.3
Stone	155	100.0	25.8	69.7	0.6	0.6	0.6	2.6
Iron Sheets	470	100.0	49.6	45.7	0.6	-	3.4	0.6
Asbestos/Hardboard/Wood	265	100.0	41.5	54.7	1.9	-	1.1	0.8
Pole and Dagga	117,699	100.0	2.0	97.3	0.2	0.1	0.2	0.2
Grass	1,447	100.0	2.1	86.7	0.5	0.3	7.4	3.0
Other	12,748	100.0	3.7	91.2	0.2	0.1	2.2	2.6
Total	184,432	100.0	14.2	84.7	0.2	0.1	0.4	0.4

Mud is the most commonly used construction material of floors. This accounts for 84.7 percent of housing units. Less than 1 percent of them have floors made of either wood or marble while 14.2 percent have concrete floors.

Out of 19,534 housing units with burnt brick walls, 74.9 percent have concrete floors while 24.3 percent have floors made of mud. The majority of the structures with walls made of concrete blocks or iron sheets (like those with burnt brick walls) have concrete floors while the majority of the remaining housing units have mud floors. The use of wood or marble in constructing floors is not common.

In Table 11.6, construction materials of floors are the basis upon which proportions are calculated, with respect to building materials of walls.

Table 11.6

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

Construction Materials of Walls	Total	Construction Material of Floor					
		Concrete/ Cement	Mud	Wood (not Wooden Tile)	Marble	Other	Not Stated
Burnt Bricks	10.6	56.1	3.0	10.0	6.8	6.9	5.0
Unburnt/Mud Bricks	14.1	9.9	14.9	13.8	15.0	3.6	7.2
Concrete Blocks/Slab	3.3	21.7	0.2	18.2	15.0	1.0	2.2
Stone	0.1	0.2	0.1	0.2	0.5	0.1	0.5
Iron Sheets	0.2	0.9	0.1	0.8	-	2.1	0.4
Asbestos/Hardboard/Wood	0.1	0.4	0.1	1.2	-	0.4	0.2
Pole and Dagga	63.8	8.9	73.3	49.0	54.5	35.4	37.3
Grass	0.8	0.1	0.8	1.8	2.3	14.1	5.4
Other	6.9	1.8	7.4	5.0	5.9	36.4	41.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	184,432	26,105	156,146	400	220	759	802
Rural							
Burnt Bricks	9.1	65.2	3.0	8.5	5.5	6.7	4.5
Unburnt/Mud Bricks	13.7	9.3	14.2	14.7	17.7	3.4	7.8
Concrete Blocks/Slab	1.2	10.4	0.2	4.6	0.6	0.3	1.6
Stone	0.1	0.2	0.1	0.3	0.6	0.1	0.6
Iron Sheets	0.2	1.0	0.1	0.3	-	2.1	0.4
Asbestos/Hardboard/Wood	0.1	0.5	0.1	0.3	-	0.4	0.3
Pole and Dagga	67.8	11.4	74.2	62.9	65.7	35.7	41.8
Grass	0.8	0.2	0.8	2.3	2.8	14.0	5.8
Other	7.0	1.9	7.3	6.2	7.2	37.2	37.2
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	169,429	16,473	151,036	307	181	728	704
Urban							
Burnt Bricks	27.4	40.4	3.8	15.0	12.8	9.7	8.2
Unburnt/Mud Bricks	18.9	11.0	34.4	10.8	2.6	6.5	3.1
Concrete Blocks/Slab	27.6	41.1	1.4	63.4	82.0	19.4	7.1
Stone	0.1	0.1	0.1	-	-	-	-
Iron Sheets	0.6	0.7	0.3	2.2	-	3.2	-
Asbestos/Hardboard/Wood	0.2	0.3	0.1	4.3	-	-	-
Pole and Dagga	19.1	4.5	47.1	3.2	2.6	29.0	5.1
Grass	0.2	0.0	0.5	-	-	16.1	2.0
Other	5.9	1.8	12.3	1.1	-	16.1	74.5
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	15,003	9,632	5,110	93	39	31	98

The most common construction materials of walls for housing units with floors made of mud, wood or marble is pole and dagga. For those with concrete floors, however, burnt brick walls are the most common, followed by concrete ones. This pattern is similar to that of rural areas. In urban areas, concrete walls are very common, except for housing units with mud floors in which it accounts for only 1.4 percent. Pole and dagga walls are most prevalent in housing units with mud floors.

Water Supply and Sanitation

The proportion of households using what could be termed safe water can be obtained through the analysis of households by main source of water supply. This data is presented in Table 11.7.

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Table 11.7

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

Main source of water supply	1980	Residence - 1990								
		Total	Rural	Urban	Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
Piped water inside H/unit	1.7	2.4	0.8	20.2	1.4	1.1	5.0	1.2	1.0	1.3
Piped water outside H/unit	3.6	3.9	1.2	34.2	2.8	3.8	7.8	1.4	2.9	1.7
Piped Water Beyond 100m	2.5	2.2	0.6	19.8	1.6	1.2	4.3	1.5	1.6	0.9
Well/borehole	51.3	48.1	50.6	19.7	47.9	29.9	58.9	54.4	24.6	51.8
River or Stream	37.8	36.3	39.2	4.3	37.6	60.2	19.0	32.6	64.9	33.5
Other	3.2	6.3	6.9	0.5	7.9	2.9	4.2	7.9	4.3	9.8
Not Stated	-	0.9	0.8	1.2	0.9	0.9	0.7	1.0	0.7	1.0
Total	100	100	100	100	100	100	100	100	100	100
Total Households	150,890	184,770	169,612	15,158	11,883	10,115	55,382	28,101	32,681	46,608

Figure 11.5

Households by Main Source of Water Supply, Eastern Province

1980 Census — Well/Borehole 51.3, Piped Inside 1.7, Other 3.2, Piped over 100m 2.5, Piped Outside 3.6, River/Stream 37.8

1990 Census — River/Stream 36.3, Not Stated 0.9, Other 6.3, Piped over 100m 2.2, Piped Inside 2.4, Piped Outside 3.9, Well/Borehole 48.1
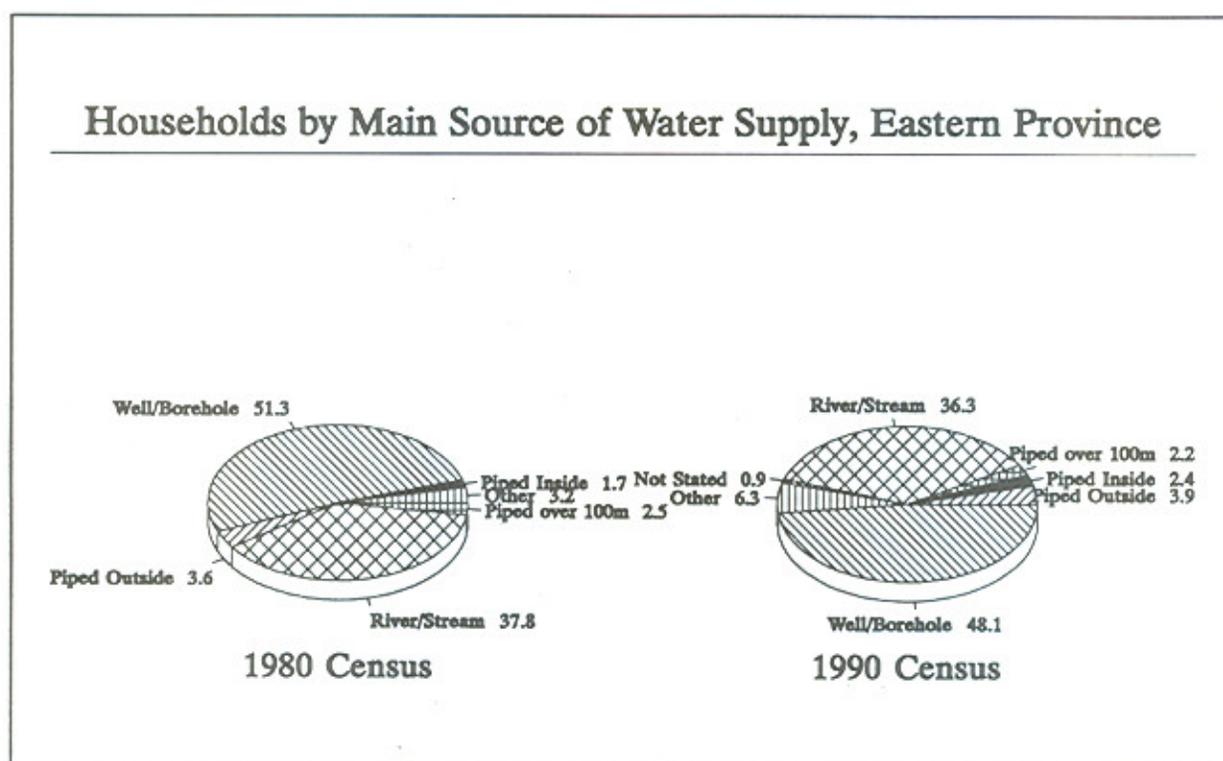
It can be observed from the table that only 8.5 percent of the households in the province have access to piped water, 2.4 percent of whom have this source inside the housing units, 3.9 percent have it outside their dwellings but within 100 metres and 2.2 percent beyond 100 metres. Almost half of the households use water from the well or borehole while 36.3 percent draw their water from rivers or streams. The proportion of households with access to piped water has increased from 7.8 percent in 1980 to 8.5 percent while that of those drawing water from rivers/streams has decreased from 37.8 percent in 1980 to 36.3 percent in 1990.

Only about 3 percent of rural households have access to piped water. The majority depend on water from wells or boreholes, and these make up 50.6 percent. About 40 percent draw water from rivers or streams. In urban areas about three-quarters of the households have access to piped water. Only 4.3 percent of the urban households use water from rivers or streams while 19.7 percent draw their water from boreholes or wells.

The well or borehole is the most common source of water in all districts except Chama and Lundazi in which households mostly depend on water from rivers or streams.

With such a small proportion of households with access to safe water (piped water in this case, since the well and borehole is not distinguished by protected and unprotected) the disposal of human waste becomes an issue of concern especially where the most common toilet facilities are pit latrines. When located near underground or open surface water sources, pit latrines may contaminate water.

Table 11.8

Households by type of toilet and residence (Percent), Eastern Province, 1990

Type of Toilet	Residence								
	Total	Rural	Urban	Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
Flush	2.9	1.0	23.9	1.9	1.8	5.8	1.4	1.6	1.6
Bucket	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.1
Aqua-Privy	0.3	0.1	3.2	0.1	0.1	0.9	0.1	0.1	0.1
Pit Latrine	38.7	36.4	63.5	30.1	39.5	40.5	26.8	34.8	48.2
Other	56.5	60.8	7.9	65.2	57.6	51.6	70.3	62.4	47.5
Not Stated	1.6	1.6	1.4	2.6	1.1	1.0	1.4	1.1	2.6
Total	100	100	100	100	100	100	100	100	100
Total Households	184,770	169,612	15,158	11,883	10,115	55,382	28,101	32,681	46,608

Information on toilet facilities is presented in Table 11.8. From the table, it is indicated that only about 3 percent of households in the province use flush toilets. About 39 percent use pit latrines. The proportion of households who had access to toilet facilities other than the flush toilet, bucket, aqua privy or pit latrine is 56.5 percent. The bucket and aqua privy are used by less than 1 percent of the households.

About 24 percent of urban households use flush toilets compared to 1 percent in rural areas. Within all the districts 'other' toilet facilities are the most common followed by the pit latrine except for Petauke district in which the most common is the pit latrine closely followed by other toilet facilities. Considering that the list of toilet facilities is exhaustive, 'other' may be taken to mean bush.

Domestic Energy

Table 11.9 shows the main sources of energy used for cooking. The proportion of households that uses electricity for cooking is 1.4 percent, while that of those using wood is 93.2 percent. Coal and gas are used by a negligible proportion. Charcoal is used by 3 percent of households while another 1.6 percent uses paraffin. A high proportion of urban households use electricity compared to rural households. However, in both rural and urban areas, wood is the most common source of cooking energy.

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Table 11.9

Households by Main Source of Energy used for Cooking and District, (Percent), Eastern Province, 1990

Main source of Energy for cooking	Total	Residence		Districts					
		Rural	Urban	Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
Electricity	1.4	0.3	14.0	0.4	0.0	3.8	0.6	0.4	0.5
Gas	0.2	0.2	0.3	0.2	0.1	0.2	0.2	0.2	0.2
Paraffin	1.6	1.5	1.8	1.1	0.8	1.8	1.7	1.2	1.7
Wood	93.2	96.4	58.3	97.1	97.6	88.9	95.4	94.7	94.4
Charcoal	3.0	1.1	24.6	0.9	0.9	4.9	1.5	2.9	2.7
Coal	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.1	0.1	0.0	0.1	0.2	0.1	0.2	0.1	0.1
Not Stated	0.4	0.3	0.8	0.3	0.3	0.3	0.3	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total households	184,770	169,612	15,158	11,883	10,115	55,382	28,101	32,681	46,608

Negligible proportions of households within all the districts use electricity for cooking except Chipata in which 3.8 percent use this source. Gas and coal are uncommon sources in all districts.

The use of wood fuel for cooking purposes has increased between the 1980-1990 intercensal period.

Table 11.10

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

Energy Source	1980	1990
Electricity	0.6	1.4
Gas and Kerosene	1.1	1.8
Wood, Charcoal, Coal	95.3	96.2
Other	3.0	0.1
Not stated	-	0.4
Total	100.0	100.0

It is shown in Table 11.10 that the proportion of households using wood fuel and coal for cooking purposes has increased marginally from 95.3 percent in 1980 to 96.2 percent in 1990. Electricity was used by 0.6 percent of the households in 1980 and by 1.4 percent in 1990. Gas and paraffin users have also increased in proportion from 1.1 in 1980 to 1.8 percent in 1990.

The main sources of lighting energy are presented in Table 11.11. The table shows that 82.1 percent of the housing units use paraffin for lighting purposes. Gas and candle are used by 0.9 percent together while electricity is used by only 2.6 percent.

Table 11.11

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

Main source of energy for lighting	Total	Rural	Urban	Districts					
				Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
Electricity	2.6	0.7	23.7	1.9	0.4	5.4	1.5	1.3	1.6
Gas	0.5	0.5	0.9	0.3	0.3	0.7	0.7	0.4	0.6
Paraffin	82.1	82.9	72.3	80.7	57.6	85.4	83.9	77.3	85.9
Candle	0.4	0.3	1.2	0.3	0.4	0.4	0.4	0.5	0.4
Other	13.8	15.0	0.9	16.3	40.8	7.6	13.3	20.0	10.8
Not Stated	0.6	0.6	1.0	0.5	0.5	0.5	0.5	0.5	0.7
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of H/units	184,432	169,429	15,003	11,853	10,103	55,213	28,079	32,630	46,572

In both rural and urban areas, as well as all the districts, paraffin is the most common source of lighting energy. In the districts, the proportions using paraffin for this purpose range from 57.6 percent is Chama to 85.9 in Petauke. Candle is used by less than one percent of households in each district.

11.4 OWNERSHIP STATUS OF HOUSING UNITS

The ownership status of housing units is shown in Table 11.12. The table shows that 93.5 percent of the housing units in the province are owned by individuals. The Central Government owns 3.2 percent, the District Council owns 1.6 percent, while the Parastatal and Private Organisations together own 1 percent. In both rural and urban areas, the majority of housing units are owned by individuals, although in rural areas, it is to a larger extent. About 97 percent of housing units in rural areas and 61 percent in urban areas are owned by individuals. The proportion of dwellings owned by the Central Government are 2.0 percent in rural areas and 17.7 in urban areas. The District Council owns less than 1 percent of the housing units in rural areas while in urban areas the Council owns about 16 percent.

Table 11.12

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

Ownership Status	Total	Rural	Urban	DISTRICTS					
				Chadiza	Chama	Chipata	Katete	Lundazi	Petauke
Central Govt.	3.2	2.0	17.7	3.2	3.3	4.9	1.8	2.7	2.5
District Council	1.6	0.3	15.9	0.9	0.7	3.6	0.8	0.7	0.5
Parastatal	0.4	0.2	2.6	0.3	0.1	0.8	0.1	0.3	0.3
Private Org.	0.6	0.5	2.1	1.0	0.2	0.9	0.3	0.6	0.6
Individual	93.5	96.5	60.7	94.2	95.3	89.3	96.4	95.2	95.1
Not Stated	0.6	0.6	1.1	0.4	0.4	0.5	0.6	0.6	1.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
H/units	184,432	169,429	15,003	11,835	10,103	55,213	28,079	32,630	46,572

Figure 11.6

Housing Units by Ownership Status, Eastern Province, 1990
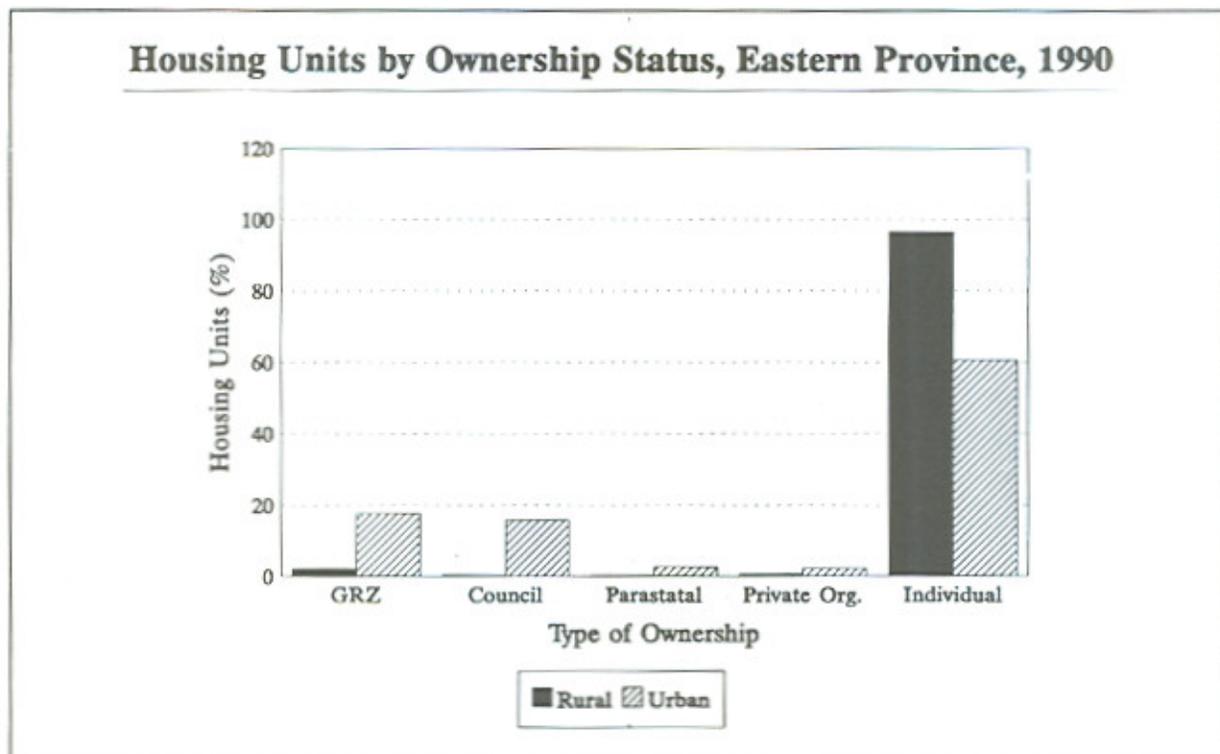
In all districts, the majority of housing units are owned by individuals. Very few dwellings are owned by organisations.

A total of 9,991 households in the province occupy rented housing units, 4,853 of whom are in rural areas and the remaining 5,138 in urban areas. Of the 9,991 households, 42.1 percent rent their structures from individual landlords, 27.6 percent from Central Government, 17.0 percent from the District Council, 4.2 percent from Parastatal companies, 4.5 percent from private organisations while 4.6 percent did not state their landlords.

Table 11.13

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

Residence		Number of H/holds	Total	Landlord					
				Central Government	District Council	Parastatal Organisations	Private Organisations	Individual	Not Stated
Eastern Province	- Total	9,991	100	27.6	17.0	4.2	4.5	42.1	4.6
	- Rural	4,853	100	28.2	3.3	2.3	5.9	54.3	6.0
	- Urban	5,138	100	27.0	29.9	6.1	3.2	30.5	3.3
Districts	Chadiza	451	100	43.7	15.3	1.6	10.0	21.5	8.0
	Chama	388	100	52.6	7.2	0.5	1.0	33.0	5.7
	Chipata	5,013	100	19.3	25.0	6.0	4.4	41.4	3.9
	Katete	872	100	22.2	5.0	1.2	2.5	63.3	5.7
	Lundazi	1,252	100	44.8	12.3	2.6	6.6	30.2	3.4
	Petauke	2,015	100	31.3	7.2	3.5	3.9	48.5	5.6

Figure 11.7

Households in Occupied Rented Housing Units, Eastern Province, 1990
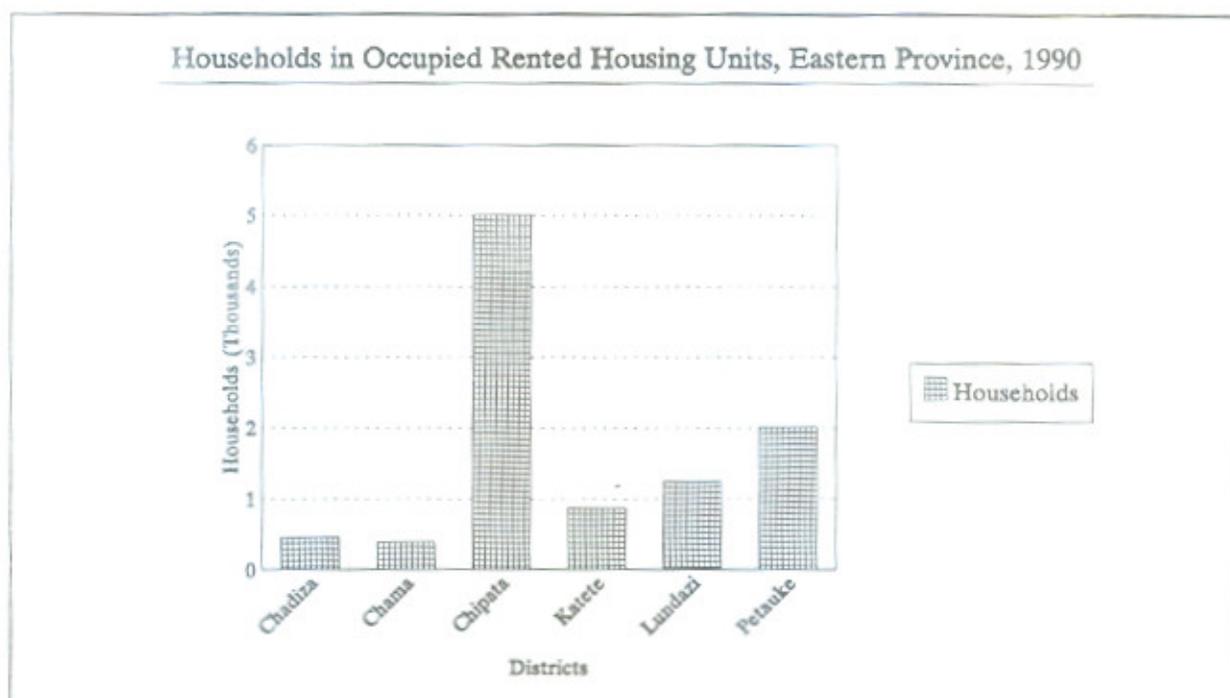
In urban areas, differences in proportions of households renting dwellings from the Central Government, District Council and individuals are small. In rural areas, while over half of the households rent their housing structures from individual landlords, only 3.3 percent rent from the District Council and 28.2 percent from the Central Government.

The Central Government is the most common landlord in Chadiza, Chama and Lundazi districts. Individual landlords are the second most common in these districts and the most common in the remaining districts. Parastatal and Private Organisations are not very common landlords in all the districts.

11.5 HOUSEHOLD SIZE AND COMPOSITION

Household Size

The distribution of households by sex of household head and household size is shown in Table 11.14. It can be observed from the table that out of 184,779 households in the province, 148,546 are headed by males and the remaining 36,233 by females.

For male headed households, the majority of households constitute four people while that of female headed ones constitute three members. However, the proportions of three and four member households headed by males were are almost the same.

Table 11.14

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

Sex of Household Head and District		Number of H/holds	Total	Household Size									
				1	2	3	4	5	6	7	8	9	10+
Eastern													
	Male	148,546	100	5.2	11.4	13.9	14.0	13.0	11.3	9.5	6.9	4.9	9.9
	Female	36,233	100	18.0	13.9	14.3	13.6	12.2	9.2	6.5	4.2	2.9	5.2
Chadiza													
	Male	10,025	100	4.9	11.3	13.0	14.2	12.7	12.0	10.0	7.2	4.8	9.9
	Female	1,858	100	18.0	13.6	14.3	14.7	12.6	9.3	6.1	3.9	3.2	4.3
Chama													
	Male	8,599	100	4.6	10.7	15.3	14.8	14.0	12.4	9.6	6.7	4.4	7.5
	Female	1,517	100	15.8	13.2	16.0	13.9	13.2	9.6	6.7	4.0	3.2	4.4
Chipata													
	Male	43,856	100	6.2	11.6	13.0	13.0	12.3	10.8	9.4	7.3	5.3	11.1
	Female	11,526	100	20.8	13.9	13.6	13.3	11.4	8.6	6.3	4.1	2.8	5.2
Katete													
	Male	22,004	100	4.9	12.5	14.6	15.1	13.5	11.6	9.4	6.6	4.4	7.4
	Female	6,096	100	18.8	14.9	15.1	13.7	12.6	9.1	6.0	3.7	2.3	3.8
Lundazi													
	Male	28,888	100	4.9	11.7	15.3	14.4	13.2	10.8	9.0	6.3	4.6	10.6
	Female	3,793	100	20.0	15.3	15.8	13.1	11.4	9.1	5.5	3.5	2.1	4.2
Petauke													
	Male	35,174	100	4.8	10.5	13.2	14.0	13.4	11.7	9.8	7.2	5.1	10.3
	Female	11,443	100	14.5	13.0	14.0	13.9	12.7	9.8	7.2	4.8	3.6	6.5

In all the districts, the largest proportion of households constitute three or four persons. The proportion of households increases with increasing household size up to household size three or four after which the proportions start declining. This is also true for male headed households. For female headed households however, the largest proportion is that of single member households. There is a tendency for female headed households to have larger proportions for smaller household sizes than male headed households.

Average household sizes are shown in Table 11.15. The average household size for the entire province increased from 4.3 in 1980 to 5.2 in 1990. In rural areas it increased from 4.2 to 5.2 while that of urban areas increased from 5.4 to 5.8 percent. Among the districts Chadiza and Petauke have the largest average household size of 5.3 while Katete has the lowest of 4.9. The average household size for female headed households is lower than that of male headed ones.

Table 11.15

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

Sex of Household Head and Residence	1980	1990
Eastern Province		
Total	4.3	5.2
Male	4.7	5.4
Female	3.6	4.3
Rural	4.2	5.2
Urban	5.4	5.8
Districts		
Chadiza	-	5.3
Chama	-	5.1
Chipata	-	5.2
Katete	-	4.9
Lundazi	-	5.2
Petauke	-	5.3

Table 11.16 shows the distribution of households by household size.

Table 11.16

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

Number of Household Members	1980	1990
1	17.2	7.7
2-3	28.2	25.9
4-6	33.7	37.7
7+	20.9	28.7
Total	100.0	100.0

The proportion of single member households has declined by about 10 percent between 1980 and 1990. That of two or three members has also decreased. Proportions of larger households, however, have increased between the intercensal period 1980-90.

Household Composition

The household composition discussed in this chapter includes age, sex and marital status of household heads. Also discussed are completed education levels of household heads, relationship of household members to household head and the presence of children below age 12 years of age in a household.

Marital Status of Household Heads

Table 11.17 and Figure 11.8 show that the highest proportion of male heads of households is that of the married while for female heads it is that of the widowed with 83.8 percent and 48.6 percent, respectively. Only 11.3 percent of the female heads are married.

Table 11.17

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

Marital Status	Eastern Province		Rural		Urban	
	Male	Female	Male	Female	Male	Female
Never Married	1.7	4.0	1.4	3.2	5.2	18.2
Married	83.8	11.3	83.6	11.2	85.6	13.6
Widowed	1.1	48.6	1.1	50.0	0.8	25.6
Divorced	1.1	23.2	1.1	22.9	1.2	27.1
Separated	0.7	10.0	0.7	9.9	0.8	11.4
Not Stated	11.7	2.9	12.2	2.8	6.4	4.2
Total	100.0	100.0	100.0	100.0	100.0	100.0
Households	148,546	36,236	135,426	34,198	13,120	2,038

Figure 11.8

Household Heads by Marital Status, Eastern Province, 1990

Legend: Widowed, Never Married, Married, Separated, Divorced
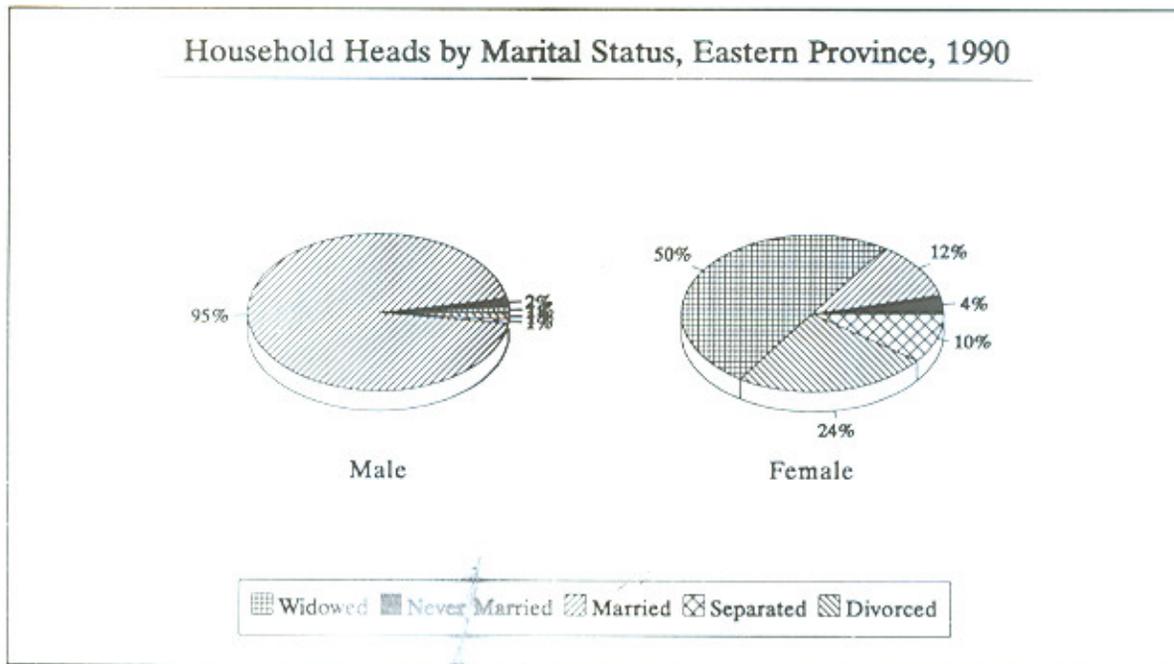
There are no marked variations in distribution of household heads by marital status and sex in rural and urban areas. Both areas have a similar pattern as that of the province as a whole.

Table 11.18 shows the distribution of heads of households by age sex and marital status. The low proportions of heads of households who have never been married (1.7 and 4.0 percent for males and females, respectively) imply universality of marriage among heads of households. In age groups 12-14, however, 45 and 77 percent of male and heads of households, respectively, have never been married. In age group 15-19 relatively large proportions of male and female household heads have never married. For older age groups, proportions for the never married are much lower. From age group 20-24 years upwards, over 80 percent the male heads are married. In old age groups, large proportions are widowed or divorced.

Table 11.18

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

Age of Household Head	Number of h/hold 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	20	13	100.0	100.0	45.0	76.9	40.0	7.7	-	7.7	-	7.7	-	-	15.0	-
15-19	829	252	100.0	100.0	26.5	43.6	68.5	22.6	0.2	5.2	0.5	17.5	0.5	9.5	3.8	1.6
20-24	10,868	1,185	100.0	100.0	7.0	26.7	85.2	18.1	0.1	5.6	0.5	29.9	0.4	18.0	6.8	1.8
25-29	20,452	2,020	100.0	100.0	3.5	15.4	85.7	14.6	0.2	10.5	0.6	40.6	0.4	16.8	9.6	2.1
30-34	20,777	2,669	100.0	100.0	1.5	7.2	86.4	15.8	0.3	17.3	0.8	39.0	0.4	18.1	10.5	2.6
35-39	15,403	2,658	100.0	100.0	0.9	2.7	85.6	14.4	0.4	24.3	1.1	39.6	0.5	15.3	11.5	3.7
40-44	14,321	3,655	100.0	100.0	0.7	2.0	84.2	15.4	0.5	34.6	1.3	31.7	0.5	13.3	12.6	3.0
45-49	13,269	3,939	100.0	100.0	0.7	1.6	82.9	12.9	0.9	45.0	1.4	25.8	0.7	11.4	13.3	3.4
50-54	12,995	4,888	100.0	100.0	0.5	1.6	81.7	10.3	1.0	54.4	1.3	21.1	0.7	9.2	14.6	3.4
55-59	11,140	3,767	100.0	100.0	0.4	1.3	82.4	9.9	1.4	62.3	1.2	16.3	0.9	6.9	13.8	3.3
60-64	10,145	4,129	100.0	100.0	0.4	1.3	81.5	7.8	1.8	68.5	1.3	14.1	0.8	5.5	14.2	2.8
65+	18,327	7,052	100.0	100.0	0.4	2.0	80.9	6.4	4.3	76.0	1.4	9.7	0.8	3.9	11.9	2.0
Not Stated	-	19	100.0	100.0	-	5.3	:	-	-	-	-	-	1.1	-	-	94.7
Total	148,546	36,236	100.0	100.0	1.7	4.0	83.8	11.3	1.1	48.6	1.1	23.2	0.7	10.0	11.6	2.9

Educational level of household heads

Table 11.19 shows the distribution of household heads by level of education completed. It can be observed from the table that over half of household heads in the province have never received any formal schooling and the proportion is higher in rural than urban areas. About a third of the heads have completed primary level of education in both rural and urban areas. Forty percent of urban household heads have completed their secondary education and 8.4 percent of their rural counterparts have completed this level.

Table 11.19

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

Residence and Sex of Household Head	Number of Households	Total	Level of education				
			No Schooling	Primary	Secondary	Higher	Not Stated
Eastern							
Total	184,782	100	53.4	33.2	10.9	0.1	2.4
Rural	169,624	100	56.1	33.2	8.4	0.0	2.3
Urban	15,158	100	22.3	33.8	40.0	0.6	3.3
Sex of Head							
Male	148,546	100	46.9	37.9	12.7	0.1	2.4
Female	36,236	100	79.7	14.0	3.9	0.0	2.4
Districts							
Chadiza	11,883	100	64.1	25.6	7.8	0.0	2.5
Chama	10,116	100	52.2	35.4	10.9	0.1	1.4
Chipata	55,383	100	46.5	35.1	15.5	0.2	2.7
Katete	28,100	100	63.3	27.2	7.0	0.0	2.5
Lundazi	32,682	100	46.0	40.5	12.1	0.1	1.3
Petauke	46,618	100	58.1	31.0	8.0	0.1	2.9

The majority of both the male and female heads of households have never received any formal education. The proportions, however, vary considerably; 46.9 percent for males and 79.7 percent for females. A negligible proportion for both male and female heads has received higher education.

There are no considerable variations in the distribution of household heads by level of education completed among the districts as the majority of them have never received any formal education, the second largest proportion being of those who have completed primary education and the third largest being those who have completed secondary education. Negligible proportions have completed higher education in all districts.

Usually Economically Active

Table 11.20 indicates that the majority of households have 1 or 2 members who are economically active. About 15 percent of the households in the province have no member who is economically active. The proportions in rural and urban areas of households which have no economically active member are 15.7 and 8.7 percent respectively.

Of the households with at least 7 members, 18.2 percent and 35.8 percent have only one economically active member in rural and urban areas, respectively. About 8 percent and 6 percent of these households have no economically active member. 15.5 percent and 6.5 percent with at least six economically active members in rural and urban areas, respectively.

Table 11.20

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

Residence and Household Size	No. of Household	Total	Members usually economically active						
			0	1	2	3	4	5	6+
Eastern Province									
Total	347,609	100	15.1	37.0	22.0	11.1	6.6	3.8	4.3
1-2	34,665	100	28.5	54.5	17.0	-	-	-	-
3-4	74,827	100	15.8	44.1	27.7	9.9	2.4	-	-
5-6	81,279	100	12.2	34.6	25.6	15.3	8.2	3.5	0.7
7+	156,838	100	7.8	20.1	16.9	16.4	13.8	10.3	14.6
Rural									
Total	324,996	100	15.7	35.7	22.1	11.3	6.7	3.9	4.5
1-2	32,197	100	29.5	53.2	17.3	-	-	-	-
3-4	70,619	100	16.2	42.9	28.3	10.1	2.4	-	-
5-6	76,586	100	12.5	33.0	25.8	15.7	8.6	3.6	0.7
7+	145,594	100	8.1	18.2	16.2	16.7	14.4	10.9	15.5
Urban									
Total	22,613	100	8.7	51.4	20.9	9.5	4.7	2.3	2.5
1-2	2,468	100	14.3	71.8	13.9	-	-	-	-
3-4	4,208	100	10.5	60.5	19.8	7.4	1.8	-	-
5-6	4,693	100	7.9	53.4	23.2	10.3	3.7	1.3	0.2
7+	11,244	100	5.6	35.8	23.2	14.3	9.2	5.4	6.5

Relationship to household head

The distribution of household heads by relationship of household members to household heads is presented in Table 11.21.

Out of 139,293 households with spouses, 95.3 percent are not in polygamous unions. A negligible proportion of these households has 5 or 6 spouses. The proportion of household heads with their own sons or daughters in the households decreases with increasing number of persons. The majority of households with step sons or daughters or unrelated persons have only one such person. Rural and urban areas have a similar pattern as that of the province at large.

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Table 11.21

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

Relationship to Head and Residence	Number of Households	Total	Number of Persons					
			1	2	3	4	5	6+
Eastern Total								
Spouse	139,293	100	95.3	3.9	0.6	0.1	0.0	0.0
Own son/daughter	143,126	100	21.5	19.7	16.8	13.9	10.7	17.4
Step son/daughter	9,444	100	48.0	23.0	13.1	7.3	3.9	4.7
Other relations	66,802	100	41.5	22.2	13.1	8.2	5.3	9.7
Unrelated	~8,929	100	65.4	17.1	6.7	3.3	1.7	5.8
Not stated	598	100	60.0	12.9	8.4	2.8	3.0	12.9
Rural								
Spouse	127,672	100	95.2	4.1	0.6	0.1	0.0	0.0
Own son/daughter	13,274	100	21.9	19.9	16.9	13.9	10.6	16.7
Step son/daughter	8,890	100	47.9	22.9	13.2	7.4	4.0	4.6
Other relations	59,754	100	41.4	21.8	13.1	8.2	5.4	10.1
Unrelated	4,123	100	64.7	18.0	7.0	3.5	1.6	5.1
Not stated	514	100	61.1	13.6	7.6	2.9	3.3	11.5
Urban								
Spouse	11,621	100	97.2	2.4	0.2	0.1	0.0	-
Own son/daughter	11,852	100	17.1	17.2	15.7	13.3	11.5	25.1
Step son/daughter	554	100	50.2	24.7	11.6	6.7	2.9	4.0
Other relations	7,048	100	41.8	25.7	13.3	8.4	4.2	6.5
Unrelated	806	100	68.7	12.9	5.3	2.1	1.7	9.2
Not Stated	84	100	53.6	8.3	13.1	2.4	1.2	21.4

Children Below 12 years of Age

Table 11.22 presents data on the presence of children below 12 years old in households. About 21 percent of male headed households have at least 4 members who are below the age of 12 years while the proportion is about 12 percent for female headed households. The proportion of households with no child below 12 years of age is 24.2 percent for male headed households and 38.2 percent for their female counterparts.

Table 11.22

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

Sex of Household Head and Residence		Members below 12 years of age					
	Total	0	1	2	3	4+
Eastern Province							
Male	100	24.2	19.4	19.1	16.4	20.9
Female	100	38.2	20.0	17.4	12.6	11.8
Rural							
Male	100	24.3	19.6	19.2	16.4	20.5
Female	100	38.4	20.0	17.4	12.6	11.7
Urban							
Male	100	23.8	16.6	17.9	16.7	25.0
Female	100	34.0	21.0	17.6	14.2	13.3
Chadiza							
Male	100	22.3	17.9	18.7	17.0	24.1
Female	100	36.5	19.3	17.2	13.0	13.9
Chama							
Male	100	21.0	20.5	20.3	17.8	20.3
Female	100	36.2	20.5	17.6	14.2	11.5
Chipata							
Male	100	26.5	18.9	18.3	15.5	20.9
Female	100	42.3	20.0	16.3	11.3	10.1
Katete							
Male	100	24.6	19.4	19.4	16.5	20.1
Female	100	37.7	19.9	17.7	12.9	11.9
Lundazi							
Male	100	22.7	20.8	20.1	16.3	20.1
Female	100	41.0	21.3	16.9	11.3	9.5
Petauke							
Male	100	23.8	19.0	18.9	17.0	21.3
Female	100	33.9	19.8	18.4	14.0	13.9

Households with one child below 12 years of age are higher in proportion for female headed households than for male headed households. However, the proportion with two or more children is higher for male headed than for female headed households. In some districts however, the proportion of households with two children below the age of 12 years is higher for female than for male headed households.

SUMMARY

Analysis of housing characteristics for Eastern Province has shown that most households comprise at least seven members. Two roomed housing units are the most commonly occupied by households in the province. It is also observed that grass, pole and dagga and mud are the most common construction materials of roofs, walls and floors respectively.

The vast majority of households in the province depend on water from wells, boreholes, rivers or streams. Piped water is not a common source of water supply. More than half of the households use toilet facilities other than the flush toilet, bucket, aqua privy and pit latrine. The main sources of energy for cooking and lighting are wood and paraffin respectively.

Over 90 percent of the housing units in the province are owned by individuals, while Parastatal and Private Organisations together own 1 percent. Individuals also make up the largest proportion of landlords. In urban areas however, proportion of Central Government, District Council and individual landlords do not differ much.

There are more male than female headed households in the province. Male headed households also tend to be larger in size than female headed ones. The majority of male heads are married while the widowed make up the majority of the female heads. More than half of the heads of households have had no formal schooling in the province as well as rural areas in particular. In urban areas, the majority of household heads have completed secondary level of education.

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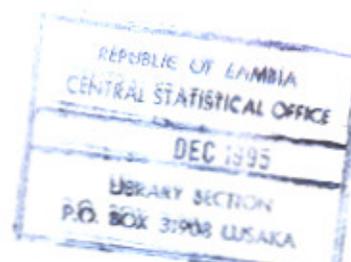
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APPENDIX I

KEY PERSONS INVOLVED IN THE 1990 CENSUS ANALYSIS

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APPENDIX II

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	☐ 1
2 DISTRICT NAME	☐☐ 2 - 3
3 CSA NUMBER	☐☐☐ 4 - 6
4 RURAL/URBAN	☐ 7
5 SEA NUMBER	☐ 8 CD ☐ 9
6 CENSUS BUILDING NUMBER (CBN)	☐☐☐ 13 - 14
7 HOUSING UNIT NUMBER (HUN)	☐☐
8 HOUSEHOLD NUMBER (HHN)	☐ 15
AREA IDENTIFICATION	
9 VILLAGE/LOCALITY NAME	
10 RESIDENTIAL ADDRESS/VILLAGE NAME	
11 CHIEF'S AREA	☐☐☐ 16 - 18
12 WARD	☐☐ 19 - 20
13 INSTITUTION/COLLECTIVE QUARTER	☐ 21

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	☐ 22

SUMMARY COUNT (DEFACTO POPULATION CODE 1 AND 2 OF P -3)			
CODE	MALE	FEMALE	TOTAL
1			
2			
TOTAL			

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GENERAL CHARACTERISTICS

RECORD TYPE	SERIAL NUMBER	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 (a) Is ...... 1 - Usual member present last night? 2 - Visitor? 3 - Usual member absent? (Enter Code)	RELATIONSHIP What is ......'s relationship to the head of h/hold? 1 - Head 2 - Spouse 3 - Own Son/daughter 4 - Step Son/daughter 5 - Other relative 6 - Unrelated (Enter Code)	SEX What is ......'s sex? 1 - Male 2 - Female	AGE What is ......'s age? (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		☐	☐	☐	☐☐	☐	☐	☐	☐
	2		☐	☐	☐	☐☐	☐	☐	☐	☐
	3		☐	☐	☐	☐☐	☐	☐	☐	☐
	4		☐	☐	☐	☐☐	☐	☐	☐	☐
	5		☐	☐	☐	☐☐	☐	☐	☐	☐
	6		☐	☐	☐	☐☐	☐	☐	☐	☐
	7		☐	☐	☐	☐☐	☐	☐	☐	☐
	8		☐	☐	☐	☐☐	☐	☐	☐	☐
	9		☐	☐	☐	☐☐	☐	☐	☐	☐
	0		☐	☐	☐	☐☐	☐	☐	☐	☐
	1		☐	☐	☐	☐☐	☐	☐	☐	☐
	2		☐	☐	☐	☐☐	☐	☐	☐	☐
	3		☐	☐	☐	☐☐	☐	☐	☐	☐
	4		☐	☐	☐	☐☐	☐	☐	☐	☐
	5		☐	☐	☐	☐☐	☐	☐	☐	☐
	6		☐	☐	☐	☐☐	☐	☐	☐	☐
	7		☐	☐	☐	☐☐	☐	☐	☐	☐
	8		☐	☐	☐	☐☐	☐	☐	☐	☐
	9		☐	☐	☐	☐☐	☐	☐	☐	☐
	0		☐	☐	☐	☐☐	☐	☐	☐	☐

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GENERAL CHARACTERISTICS

MIGRATION

S E R I A L N U M B E R	Where was........................born ?		What is ....'s country of citizenship ?	How long has........ ....been continuously living in this district ?	
	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)	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)	(For non Zambians write name of country and enter its code. For Zambians just enter code 148)	(Enter completed years and months)	
				Years	Months
	P - 8		P - 9	P - 10	
	35 - 37	38	39 - 41	42 - 43	44 - 45
1					
2					
3					
4					
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6					
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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					
2					
3					
4					
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7					
8					
9					
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1					
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8					
9					
0					

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EDUCATION

S E R I A L N U M B E R	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	☐	☐	☐	☐☐	☐☐☐
2	☐	☐	☐	☐☐	☐☐☐
3	☐	☐	☐	☐☐	☐☐☐
4	☐	☐	☐	☐☐	☐☐☐
5	☐	☐	☐	☐☐	☐☐☐
6	☐	☐	☐	☐☐	☐☐☐
7	☐	☐	☐	☐☐	☐☐☐
8	☐	☐	☐	☐☐	☐☐☐
9	☐	☐	☐	☐☐	☐☐☐
0	☐	☐	☐	☐☐	☐☐☐
1	☐	☐	☐	☐☐	☐☐☐
2	☐	☐	☐	☐☐	☐☐☐
3	☐	☐	☐	☐☐	☐☐☐
4	☐	☐	☐	☐☐	☐☐☐
5	☐	☐	☐	☐☐	☐☐☐
6	☐	☐	☐	☐☐	☐☐☐
7	☐	☐	☐	☐☐	☐☐☐
8	☐	☐	☐	☐☐	☐☐☐
9	☐	☐	☐	☐☐	☐☐☐
0	☐	☐	☐	☐☐	☐☐☐

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		ECONOMIC ACTIVITY	EMPLOYMENT STATUS	OCCUPATION	INDUSTRY
S E R I A L N U M B E R	What was ...... mainly doing in the last 7 days? 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)	What has ...... mainly been doing since .....1989? 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)	Since ....1989? has ...been mainly? 1 - an employer? 2 - an employee? 3 - self-employed? 4 - an unpaid family worker?	What was ....'s main occupation since.... 1989? (Write name of occuption and enter code)	What kind of main product of service is (was) produced? Where ...... works/worked? (Write name of industry and enter code)

		P - 19	P - 20	P - 21	P.....................22	P.............................23
		64	65	66	67 - 69	70 - 72
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FORM CPHA-9001

FOR FEMALES 12 YEARS AND OVER

FERTILITY (Own children ever born alive)

FOR PERSONS 12 YRS AND OVER

MARITAL STATUS	AGE AT FIRST MARRIAGE	LIVE BIRTH	AGE AT FIRST 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?	Of the children born to you alive - ||||||

Of the children born to you alive -

a. How many are still living with you?
How many of these are male and how many are female?

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?

MARITAL STATUS:
1-Married?
2-Separated?
3-Divorced?
4-Widowed?
5-Never married? (If male GO TO next person other-wise go to next person or M-1 if last person)

AGE AT FIRST MARRIAGE:
What was his/her age when he/she first got married? (If male GO TO next person other-wise go to F-1. If female, GO TO F-1.) (Give age in completed years only)

LIVE BIRTH:
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)

AGE AT FIRST LIVE BIRTH:
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?

P-24	P-25	F-1	F-2	F-3		F-4					
				Male	Female	Male	Female	Male	Female	Male	Female
73	74-75	76	77-78	79-80	81-82	83-84	85-86	87-88	89-90	91-92	93-94

		FERTILITY (Own children ever born alive)						GENERAL COMMENTS
		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 ? 1 - 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	
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FORM CPHA-9001

MORTALITY				HOUSING CHARACTERISTICS		
M-1 Has there been any death in this household since 1989 ?	1 - Yes 2 - No - Go to HH-1	24		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
M-2 How many died ? How many of these are	Male ?	25				
	Female ?	26				

HOUSEHOLD CHARACTERISTICS						
What is the main source of energy used for lighting by this household ?	1 - Electricity 2 - Gas 3 - Paraffin/Kerosene 4 - Candle 5 - Other	27		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
What is the main source of energy used for cooking in this household ?	1 - Electricity 2 - Gas 3 - Paraffin/Kerosene 4 - Wood 5 - Charcoal 6 - Coal 7 - Other	28		H-3 What are the walls of this housing unit made of?	1 - Burnt bricks 2 - Unburnt ormud bricks 3 - Concrete blocks/slab 4 - Stone 5 - Iron sheets 6 - Asbestos/hardboard/Wood 7 - Pole and degga/mud 8 - Grass 9 - Other	47
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		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
Is this toilet inside or outside this housing unit ?	1 - Yes 2 - No	30		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
Is this toilet exclusively used by members of this household ?	1 - Yes 2 - No	31		H-6 How many living rooms and bedrooms does this housing unit have ?	Living rooms bedrooms	51 52 - 53
Is this housing unit owned by any member of this household ?	1 - Yes 2 - No - Go to HH-8	32		H-7 Does this housing unit have a kitchen ?	1 - Yes 2 - No	54
HH-7 Was this housing unit -	1 - Built by any member of this household ? Go to HH-13 2 - Bought ? 3 - Inherited/given	33		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
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		AGRICULTURAL ACTIVITY		
Is this housing unit rented from the employer of any member of this household ?	1 - Yes 2 - No - Go to HH-11	35		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
HH-10 Is the employer -	1 - The Central Govt? 2 - The District Council? 3 - A Parastal ? 4 - A Private Organ. ? 5 - An individual ? GO to HH-12	36		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
HH-11 Is this housing unit rented from -	1 - The Central Govt? 2 - The District Council? 3 - A Parastal ? 4 - A Private Organ. ? 5 - An individual ?	37		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
Is this housing unit owned by -	1 - The Central Govt? 2 - The District Council? 3 - A Parastal ? 4 - A Private Organ. ? 5 - An individual ?	38		ENUMERATOR - Complete an Agriculture supplement questionnaire for each of the responses: 'NO' in A-2 and 'Yes' in A-3.		
HH-13 - How many radios does this household/institution have ?		39---41				
How many television sets does this household/institution have?		42---44				

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