2000 Census of Population and Housing

Western Province Analytical Report

Volume Nine

Published by

Central Statistical Office,
P. O. Box 31908, Lusaka, Western.

Tel: 260-01-251377/253468
Fax: 260-01-253468

E-mail: info@zamstats.gov.zm
Website: www.zamstats.gov.zm

September, 2004

Preface

The 2000 Census of Population and Housing was undertaken from 16th October to 15th November, 2000. This was the fourth census since Independence in 1964. The other three were carried out in 1969, 1980 and 1990. The 2000 Census operations were undertaken with the use of Grade 11 pupils as enumerators, Primary School Teachers as supervisors, Professionals from within Central Statistical Office and other government departments being as Trainers and Management Staff. Professionals and Technical Staff of the Central Statistical Office were assigned more technical and professional tasks.

This report presents detailed analysis of issues on evaluation of coverage and content errors; population, size, growth and composition; ethnicity and languages; economic and education characteristics; fertility; mortality and disability.

The success of the Census accrues to the dedicated support and involvement of a large number of institutions and individuals. My sincere thanks go to Co-operating partners namely the British Government, the Japanese Government, the United States Agency for International Development (USAID), United Nations Population Fund (UNFPA), the Norwegian Government, the Dutch Government, the Finnish Government, the Danish Government, the German Government, University of Michigan, the United Nations High Commission for Refugees (UNHCR) and the Canadian Government for providing financial, material and technical assistance which enabled the Central Statistical Office carry out the Census.

Finally, we would like to show gratitude to the people of Western for co-operating in providing the valuable information, to the enumerators, supervisors, master trainers, provincial census officers, district census officers and to all others who contributed to the collection, processing and compilation of this valuable information in one way or another.

Dr. Buleti G. Nsemukila
Director of Census and Statistics

September, 2004

Table of Contents

CHAPTER 4: LANGUAGE OF COMMUNICATION AND ETHNICITY

CHAPTER 5: EDUCATION CHARACTERISTICS

CHAPTER 6: ECONOMIC CHARACTERISTICS

CHAPTER 7: FERTILITY LEVELS, PATTERNS AND TRENDS

CHAPTER 8: CHILD MORTALITIY

CHAPTER 9: DISABILITY

List of Tables

CHAPTER 1: BACKGROUND

CHAPTER 2: EVALUATION OF COVERAGE AND CONTENT ERRORS

CHAPTER 3: POPULATION SIZE, GROWTH AND COMPOSITION

CHAPTER 4: LANGUAGE AND ETHNICITY

CHAPTER 5: EDUCATION CHARACTERISTICS

CHAPTER 6: ECONOMIC CHARACTERISTICS

CHAPTER 7: FERTILITY LEVELS, PATTERNS AND TRENDS

CHAPTER 8: CHILD AND ADULT MORTALITY

CHAPTER 9: DISABILITY

List of Figures

CHAPTER 2: EVALUATION OF COVERAGE AND CONTENT ERRORS

CHAPTER 3: POPULATION SIZE, GROWTH AND COMPOSITION

CHAPTER 4: LANGUAGE ANMD ETHNICITY

CHAPTER 5: EDUCATION CHARACTERISTICS

CHAPTER 6: ECONOMIC CHARACTERISTICS

CHAPTER 7: FERTILITY

CHAPTER 8: MORTALITY

CHAPTER 9: DISABILITY

Abbreviations/Acronyms

AIDS	Acquired Immune Deficiency Syndrome
ASFR	Age Specific Fertility Rate
CBR	Crude Birth Rate
CEB	Children Ever Born
CFS	Completed Family Size
CMR	Child Mortality Rate
CSO	Central Statistical Office
CWR	Child-Woman Ratio
EMIS	Education Management Information System
GDP	Gross Domestic Product
GFR	General Fertility Rate
GPI	Gender Parity Index
HIV	Human Immune Virus
ICF	International Classification of Functioning
IMR	Infant Mortality Rate
ISCED	International Standard Classification of Education
LCMS	living Conditions Monitoring Survey
NAC	National AIDS/STD/TB/ Council
NRR	Net Reproduction Rate
PAS	Population Analysis Spreadsheet
SAP	Structural Adjustment Programme
SADC	Southern African Development Community
TFR	Total Fertility Rate
UMR	Under-Five Mortality Rate
UN	United Nations
WHO	World Health Organisation
ZCS	Zambia Community School

Executive Summary

Western province's population recorded as at 16th October 2000 (Census Night), is 765,088, comprising 371,844 males and 393,244 females. The majority of the population, 88 percent or 679,562 lives in rural areas, while the urban areas have the remaining 12 percent or 85,526. Of the total population, 43.8 percent are below the age of 15, with a median age of 18 years.

Western Province's population grew at an average annual growth rate of 1.6 percent between 1969-1980, 2.2 percent between 1980-1990, and finally 1.8 percent during the period, 1990-2000. Thus the province's population has continued to grow, though at a declining rate. The province's average population density stands at 6.1 persons per square kilometer, with the highest population density occurring in Mongu district, with 16.1 persons per square kilometer.

Though Household-Headship is still dominated by males, the results from the census show that more than one in four households or 26.6 percent is female headed. There is very little variation by rural or urban residence. Senanga has the highest percentage of female-headed households at 29 percent.

A total of 663,842 persons reported their predominant language of communication in the 2000 census, with Lozi being the most spoken language, spoken by 60.0 percent of the population as their predominant language of communication, followed by Mbunda spoken by 12.4 percent, Luvale is spoken by 4.4 percent, Nkoya by 4.1 percent, Manshi by 3.4 percent, Luchavi by 2.1 percent and Koma by 1.7 percent of the population. English is used by only 0.2 percent of the population, as their predominant language of communication, despite it being the country's official language.

Census results show that 50.6 percent of the provincial population is literate i.e. is able to read and write in any language, with 55.3 of males and 46.4 percent of females able to read and write in any language. Literacy rates have increased from the 1990 rate of 48.1 percent. About Fifty percent of the population in rural areas can read and write in any language compared to 78 percent of the population in urban areas.

The province's labour force population stands at 305,368. However, economic participation rates stand at 71 percent for males, and 68 percent for females. The labour force has increased by 66 percent between 1990 and 2000. About 91.7 percent of the labour force is in rural areas, while 8.3 percent is in urban areas. Forty eight percent of the labour force is in the young age group of 12-29 years.

The employed population increased by 88.5 percent between 1990 and 2000. The female employed population increased by 130.6 percent, while the male employed population increased by 56 percent.

The number of the unemployed declined by 48.1 percent between 1990 and 2000. The size of the male unemployed population declined by 50.7 percent, while that of females decreased by 44.5 percent.

Economic activities are still organized around family labour as evidenced by the predominance (94.8 percent) of workers who are classified as either self-employed or unpaid family workers. In contrast, only 5.1 percent were classified as employees or employers. The transformation of the Zambian economy in the 1990's seems to have reduced employment opportunities in the formal sector,

thereby forcing a large part of the labour force into the informal sector. There is a large concentration of workers (88 percent) in the Agricultural and related occupations.

Western province's fertility has continued to decline although at a slow pace. The drop in urban childbearing is the principle reason for the overall decline in fertility levels in the country. The Total Fertility Rate (TFR) for rural areas estimated at 6.1 is higher than the 4.7 estimated for urban areas. Western province's TFR at 5.9 is relatively high.

Infant mortality rate has remained relatively stable between 1990 and. However, the IMR is still high, with about one in every seven infants dying before reaching their first birthday. Childhood mortality rate between has declined by 2 percent in the period 1990 and 2000, from 113 to 111 deaths per 1000 children. Under-five mortality, however has recorded an increase of 15 percent in the period 1990 to 2000, with about one in five under-five children dying before their fifth birthday. The decline in the IMR has led to a slight increase in the Life Expectancy at birth from 43 years in 1990 to 44 years in the year 2000. Adult survivorship levels have deteriorated between 1990-2000. Male adults have higher chances of surviving than females.

The disabled population forms 3.8 percent of total population of Western province. The proportion of the disabled is higher in rural than urban areas.

Physical disability is the most common type of disability affecting about 36 percent of the disabled population, while ex-mental is the least common type of disability accounting for four percent of the disabled population. Disease is the most common cause of disability reported by about 54 percent of the disabled population.

More than fifty percent of the disabled have never been to school and another one third have completed primary education. Amongst all categories of disability, the largest proportions of the disabled are self-employed. The least proportion is among the employers. The most common occupation among the disabled is agriculture, which takes up about 92.8 percent.

Chapter 1

BACKGROUND

1.1 Geography

Western Province covers an area of 126,386 square kilometres, which is about 17 percent of the total area of Zambia. Administratively the province is divided into seven districts, namely: Kalabo, Kaoma, Lukulu, Mongu, Senanga Sesheke and Shang'ombo. Mongu is the provincial capital.

The province' soils consist of vast sand on the upland and alluvial rich loam soils in the plain. The Zambezi River intersects the plain, covering an area 12, 950 square kilometres, about 10 percent of the total land area in the province. Every year during the rain season the plains experience floods from December to July.

1.2 Population

According to the 2000 Census, the population of Western Province was 765,088. It has increased from 410,087 in 1969, 486,455 in 1980 and 638,756 in 1990, thus representing a rise in average annual growth rate from 1.6 percent during the 1969-1980 intercensal period to 2.2 during the 1980-1990 intercensal period and a drop to 1.8 percent in 1990-2000. In all the three intercensal periods the provincial average annual growth rate is lower than that of the country as whole, which currently stands at 2.5.

Western Province is sparsely populated, however, its average population density has been increasing from 3.2 in 1969, 3.8 in 1980, and 5.1 in 1990 to 6.1 in 2000. Its density is lower than that of the whole country, which is 13.1 persons per square kilometres.

At district level, Kaoma and Mongu have the largest population shares, each accounting for 21 percent of the provincial population. Lukulu has the least number of people accounting for only 8.6 percent of the province population. Mongu, the provincial headquarters also has the highest population density (15.2 persons per square kilometre). Sesheke, the largest district in the province on the other hand, is the most sparsely populated (2.4 persons per square kilometres.

Table 1.1: Population Distribution Area, Density, and Annual Growth Rate by District, Western Province 1969,1980, 1990 and 2000

District	Population				Percentage Distribution				Area (Sq.Km)	Density				Growth Rate (%)		
	1969	1980	1990	2000	1969	1980	1990	2000		1969	1980	1990	2000	1969-80	1980-90	1990-00
Kalabo	105,893	98,496	103,878	114,806	25.82	20.25	16.3	15.01	17,526	6	5.6	5.9	6.6	-0.7	-0.1	1.0
Kaoma	56,450	70,066	116,616	162,568	13.77	14.4	18.3	21.25	23,315	2.4	3	5.0	7	2	4.8	3.4
Lukulu	-	44,800	54,053	68,375	-	9.21	8.5	8.94	16,291	0	2.7	3.3	4.2	-	1.5	2.4
Mongu	110,123	114,405	150,129	162,002	26.85	23.52	23.5	21.17	10,075	10.9	11.4	14.9	16.1	0.3	2.2	0.8
Senanga	88,602	101,957	98,804	109,119	21.61	20.96	15.5	14.26	15,537	5.7	6.6	6.4	7	1.3	3.1	1.0
Sesheke	49,019	56,731	68,424	78,169	11.95	11.66	10.7	10.22	29,272	1.7	1.9	2.3	2.7	1.3	1.4	1.3
Shang'ombo	-	-	46,852	70,049	-	-	7.3	9.16	14,369	0	0	3.3	4.9	-	-	4.1
Western Province	410,087	486,455	638,756	765,088	100	100	100	100	126,385	3.2	3.8	5.1	6.1	1.6	2.2	1.8
Zambia	4,056,995	5,661,801	7,759,117	9,885,591	100	100	100	100	752,612	5.4	7.5	10.3	13.1	3.1	2.7	2.5

Source: CSO, 1969,1980, 1990, 2000 Census of Population and Housing

1.3 Economy

The major economic activity in the province is agriculture, particularly cattle rearing which support about 80 percent of the people and crop production in some of the richer soils of the region. The province is also a natural habitat for fruit trees. Another economic activity being done is fishing.

Not only is cattle a source of income, it is also a source of draught power and manure for crop production. Cattle population has continued to grow from 547,150 herds in 1990 to 604,000 in 2000. However, there has been a decline in the growth rate to 1.04 in 2000 from 6.7 percent in 1990 due to prevalence of animal diseases.

In terms of crop production, Western Province is a cereal deficit province. The most important food crops in the province are rice grown in the wetlands and maize in the uplands. The province also has a comparative advantage in horticulture with major fruit trees being cashew nuts, citrus and mangoes.

1.4 Forestry

The Kalahari Miombo woodlands and Evergreen Woodlands are rich in commercial timber species such as Mukwa, Mukusi, Muzauli and Mwandi and have attracted numerous timber merchants who mainly export processed logs.

1.5 Tourism

Among the tourist attractions is the traditional Kuomboka Ceremony. The Ceremony involves the re-location of the Lozi Paramount Chief (Litunga) from winter to summer capitals Lealui to Limulunga and back.

1.6 Education

The province has a total of 535 schools and two primary school teachers training colleges. Of the schools, 437 are primary schools, 76 basic schools and 22 secondary schools.

1.7 Health

The Province has eleven hospitals, five are mission hospitals and one is a General Hospital. There are also 111 health centers. However, the distribution is uneven rendering them too distant and therefore difficult to access. Table 1.2 shows that the distribution of health institutions by district and gives more details.

Table 1.2: Number of Health Facilities by District and Province, Western Province, 2004

District	*Government*	Mission	Private	Total	Beds	Cots
Kalabo	14	2	-	16	340	21
Kaoma	21	2	-	23	392	9
Lukulu	11	2	-	13	155	1
Mongu	27	1	-	28	378	48
Senanga	14	-	-	14	255	25
Sesheke	14	2	-	16	309	28
Shang'ombo	11	1	-	12	99	6
Total	112	10	0	122	1,928	138

1.8 HIV/AIDS

The disease burden in the province has been compounded by the HIV/AIDS pandemic, which is a major concern in the province. The 2001 Zambia Demographic and Health Survey estimated the HIV/AIDS levels to be thirteen percent among adults aged 15- 49 years for Western province, see Table 1.3 for details.

Table 1.3: HIV Prevalence Among Men and Women Aged 15-49 Years by Province, 2004

Province	Percent Positive			Number Tested
	Men	Women	Total	
Central	13.4	16.8	15.3	306
Copperbelt	17.3	22.1	19.9	775
Eastern	11.0	16.1	13.7	471
Luapula	8.6	13.3	11.2	299
Lusaka	18.7	25.0	22.0	559

Northern	6.2	10.0	8.3	517
North-Western	9.5	8.8	9.2	166
Southern	14.6	20.2	17.6	408
Western	8.3	16.9	13.1	306
Zambia	12.9	17.8	15.6	3,807

Source: CSO, CboH and ORC Macro: 2001/2002 ZDHS, February 2003, Page 236

Chapter 2

EVALUATION OF COVERAGE AND CONTENT ERRORS

2.1 Introduction

Data evaluation is the assessment of the quality of data. In evaluating the data, sometimes it is adjusted in order to ensure that it is of acceptable standard. The adjustment is done on the basis of the responses to the following questions that were asked during the Census:

- 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 Concepts and Definitions

Listed below are the definitions of the major concepts used in this chapter.

- **Census of Population:** Complete enumeration of persons during a specified period in a demarcated geographical area.

- **Child-Woman Ratio:** Number of children aged 0-4 years in a population to every 1,000 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.

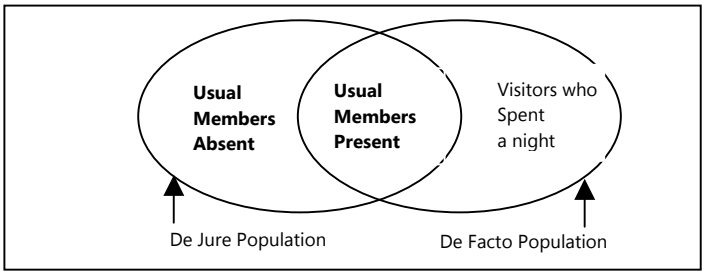
- De facto Population: **This refers to the usual household members present and visitors who spent the census night at any given household. This however excludes:**

(a) Foreign diplomatic personnel accredited to Zambia; and

(b) Zambian nationals accredited to foreign embassies and their family members who live with them abroad and, Zambian migrant workers and students in foreign countries who were not in the country at the time of the census.

- De jure Population: **This refers to usual household members present and usual household members temporarily absent at the time of the census. These include institutional populations in places such as hospitals/health centers, prisons and academic institutions (universities, colleges and boarding schools).**

Thus, the de facto and the de jure population can be diagrammatically represented as follows:



- **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 old.

- **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 Type of Population used in Evaluating the Coverage and Content Errors

In the analysis of the coverage and content errors, the de facto population has been used. This is so because we would like to analyse the information obtained from the people who gave us their details and not those we did not talk to or collect the information from.

2.4 Methods of Evaluation

During enumeration, checks and controls are instituted to minimise errors in the census. Despite instituting data control measures, there are usually several errors in the census data. For instance, some people may be completely omitted, others may be enumerated more than once, or some characteristics of an individual such as age, sex, fertility and economic activity of the canvassed individual may be incorrectly reported or tabulated. In general, two approaches are used to evaluate the quality of data, direct and indirect methods.

The direct method basically involves the carrying out of 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 and later compared with that collected during the actual census. The matching process of the two sets of data can then be used to evaluate the quality of the census data. With regard to the 2000 Census of Population and Housing, the PES was carried out between February and March 2001. 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 employ the comparison of data using both internal and external consistency checks. Internal consistency checks compare relationships of data within the same census data, whereas external consistency checks compare census data with data generated from other sources. For instance, one can compare data on education obtained during a census with administrative data maintained by the Ministry of Education.

2.4.1 Coverage Error

This type of error is made when omission or duplication resulting in under- or over-enumeration occurs. Some factors, which contribute to this, include errors arising from inaccessibility, poor co-operation with respondents, difficulties in communication and lack of proper boundary descriptions. Coverage errors are usually highlighted by examining certain statistics such as growth rate, age composition, child-woman ratio and dependency ratio.

2.4.1.1 Age Composition

Table 2.1 shows the age composition of the population of Western Province for 1980, 1990 and 2000 Censuses.

Table 2.1: Population Distribution by Broad Age Groups, Western Province, 1980, 1990, and 2000

Age Group	Population					
	1980	Percent	1990	Percent	2000	Percent
00-14	215,683	44.3	264,150	43.5	317,243	44.8
15-64	243,674	50.1	312,791	51.5	358,010	50.6
65+	27,097	5.6	29,872	4.9	32,880	4.6
Total	486,455	100.0	606,813	100.0	708,133	100.0

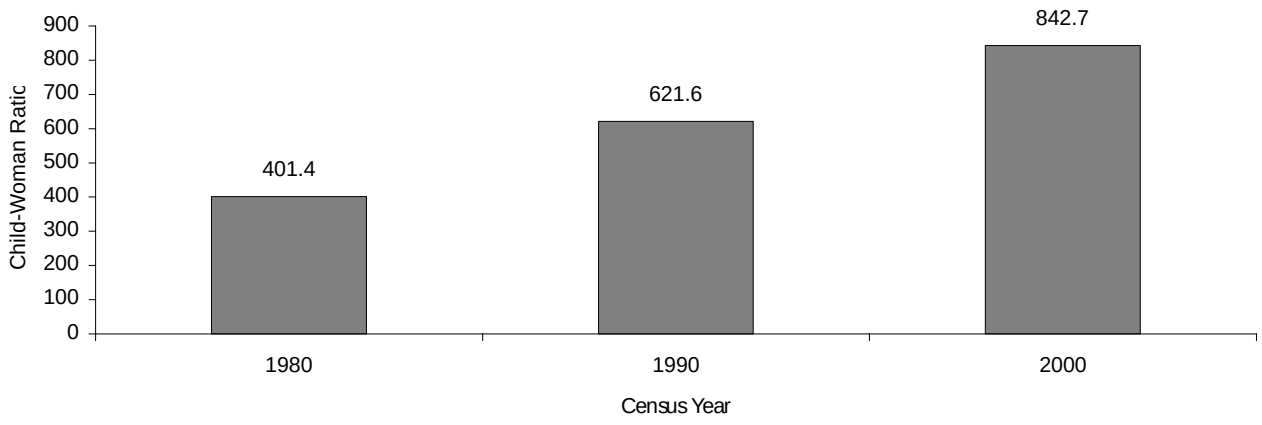
Source: CSO, 1980, 1990, and 2000 Census of Population and Housing

The proportion of children 0-14 years dropped from 44.3 percent in 1980 to 43.5 percent in 1990 but rose to 44.8 percent in 2000. There was a reduction in the proportion of adults (15-64) from 51.5 percent in 1990 to 50.6 percent in 2000. The proportion of persons aged 65 years or older has been declining since 1980 (See Table 2.1). The population distribution shows that the quality of age data by broad age groups is acceptable.

2.4.1.2 Child-Woman Ratio

The child-woman ratio increased from 401.4 in 1980 to 621.6 in 1990 and then further increased to 842.7 per 1000 women aged 15-49 years in 2000 (See Figure 2.1). This is in line with the increase in the percentage of the population in the 0-14 year age group. The increase in the proportion of the population 0-14 years and the increase in the child-woman ratio between 1990 and 2000 appear to have been caused by the decline in child mortality.

Figure 2.1: Child-Woman Ratio, Western Province, 1980, 1990, and 2000

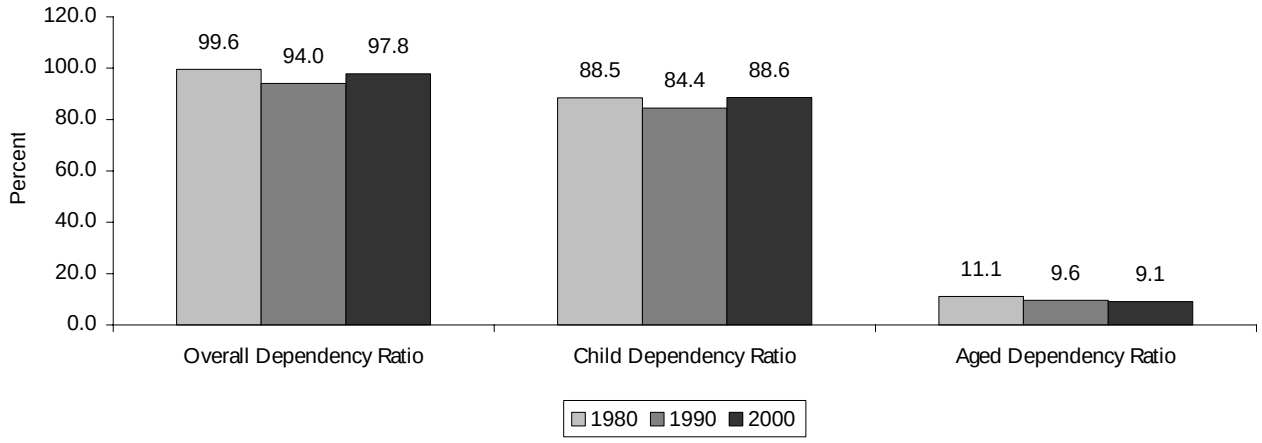


Sources: CSO, 1980, 1990, and 2000 Census of Population and Housing

2.4.1.3 Dependency Ratio

The overall dependency ratio for the population of Western Province for 1980, 1990 and 2000 Censuses were 99.6, 94.0, and 97.8 per 100 persons in the age group 15-64 years respectively. This means that for every 100 persons in the age range 15-64 years, there were 97.8 persons in the age groups 0-14 and 65 years or older in 2000. The proportion of population 65 years or older decreased from 4.9 percent in 1990 to 4.6 percent in 2000. The age dependency ratio for the population aged 65 years and over to that of 15-64 years (Old Age Dependency Ratio) was 9.6 for 1990 and 9.1 in 2000 while that of children increased from 84.4 in 1990 to 88.6 in 2000 (See Figure 2.2).

Figure 2.2: Dependency Ratio, Western Province, 1980, 1990, and 2000



Sources: CSO, 1980, 1990, and 2000 Census of Population and Housing

2.5 Content Error

Content errors refer to instances where characteristics such as age, sex, marital status, and economic activity of a person enumerated in a census or survey are incorrectly reported or tabulated. Content errors are caused by either a respondent giving a wrong response or by the enumerator recording an incorrect response. 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 2000 Census, age was recorded in completed years. Some content errors are being estimated by the use of the Myers' Index, Sex-ratios, Age-ratios and Survival-ratios.

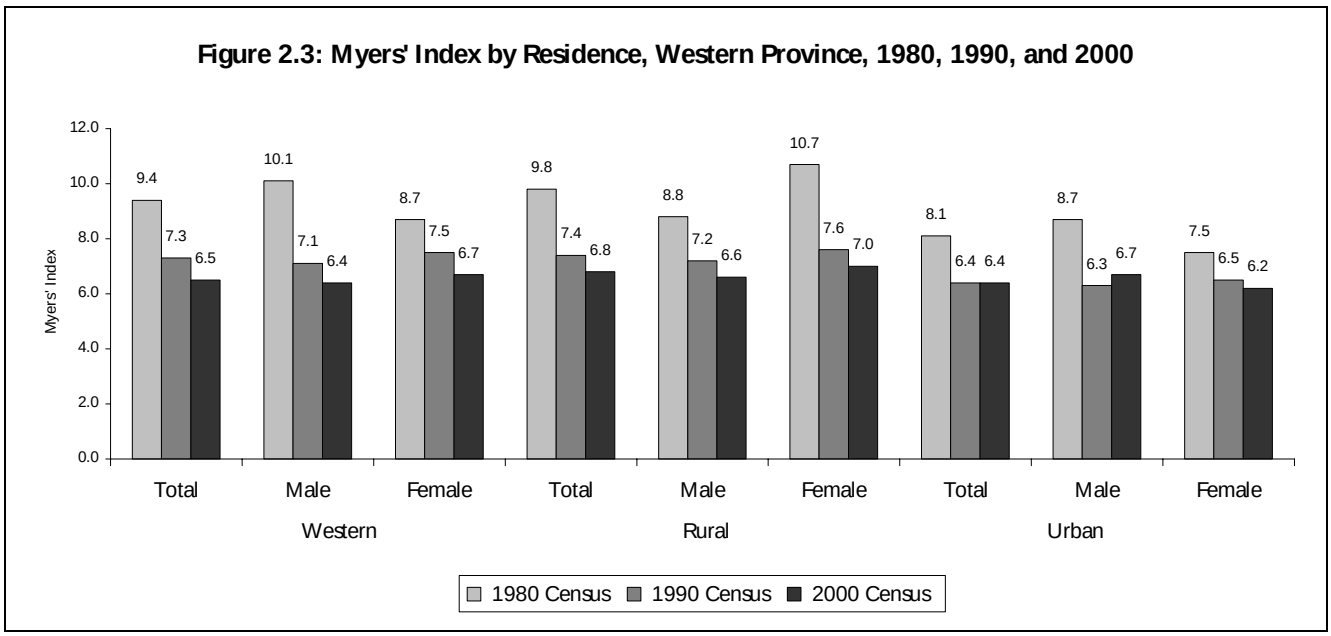
2.5.1 Digit Preference

Digit preference is the tendency of respondents to report ages ending with certain digits in preference to other digits. Digit preference is most pronounced among population subgroups having a low educational status. The causes and patterns of digit preference vary from one culture to another. Age misreporting, net under-enumeration and non-reporting or misclassification of age contribute to heaping (Shryock, et.al. 1976).

Investigation of age heaping in the Western Province is done through the calculation of Myers' Index. This index has been calculated for 1980, 1990, and 2000 Censuses data and is presented in Figure 2.3. A high Myers' Index implies poor age reporting whereas a low Myers' Index indicates good age reporting. The maximum value of Myers' Index is 90 and the minimum value is 0.

Figure 2.3 shows the results of digit preference in age data for Western Province using Myers' Index. Western Province experienced a decline between 1980 and 2000 for the province as a whole as well as in rural and urban areas. The index dropped from 9.4 in 1980 to 7.3 in 1990 and later to 6.5 in 2000. For the rural areas, the Myers' Index declined from 9.8 in 1980 to 7.4 in 1990 and to 6.8 in 2000 while for the urban areas, the index dropped from 8.1 in 1980 to 6.4 in 1990 and remained at 6.4 in 2000 (See Figure 2.3).

Results from Figure 2.3 show that the index for males was greater than that of females in 1980 (Compare 10.1 and 8.7) while in 1990 and in 2000, the Myers' Index for males was lower than that of females. Myers' Index for males dropped from 10.1 in 1980 to 7.1 in 1990 and declined further to 6.4 in 2000 while that of females declined from 8.7 in 1980 to 7.2 in 1990 and later to 6.7 in 2000. Generally, the Index shows that age reporting has been better in urban areas than in rural areas since 1980 due to the small Index observed. Results from Figure 2.3 show that the accuracy of age reporting for the province as a whole was better for females than males in 1980 but the reverse is observed for 1990 and 2000. Overall, other than in 1980 when the index was more than 10, the index has been less than 10 implying that age reporting has been good in the province.



Sources: CSO, 1980, 1990, and 2000 Census of Population and Housing

Table 2.2 shows the most preferred digits in decreasing order of preference for the three censuses. This shows that there was age heaping in Western Province. Preference for digits 0, 2, and 8 among males and females in 1980 and 1990 was observed while in 2000, the preference for 0, 5, and 8 was observed.

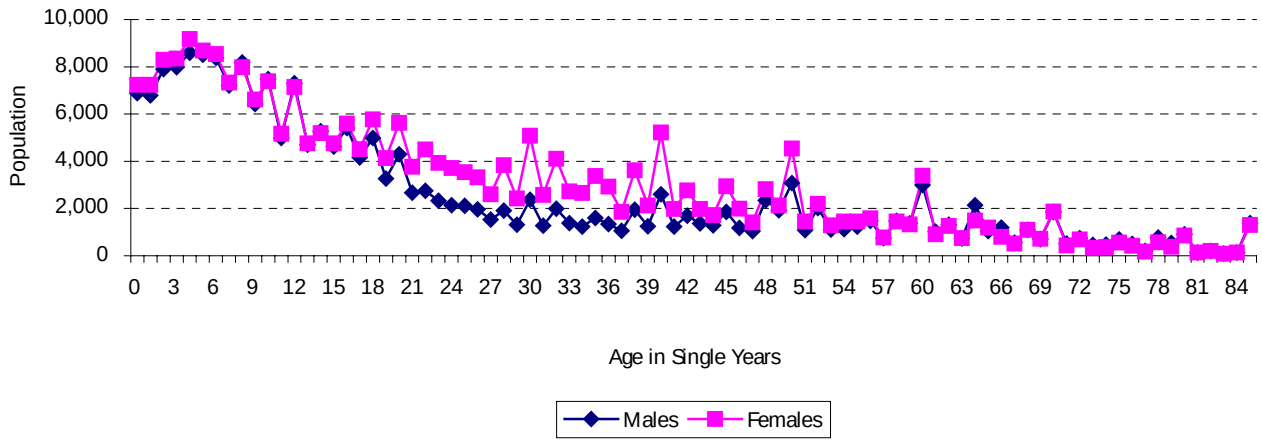
Table 2.2: Most Preferred Digits, Western Province, 1980, 1990, and 2000

Residence	Most Preferred Digits and Census Year			
	Sex	**1980**	**1990**	**2000**
Zambia	Both Sexes	0, 8, 2	0, 8, 2	0, 8
	Male	0, 8, 2	0, 8, 2	0, 8
	Female	0, 8, 2	0, 8, 2	0, 8
Rural	Both Sexes	0, 8, 2	0, 8, 2	0,5,8
	Male	0, 8	0, 8, 2	0,5,8
	Female	0, 8, 2	0,2	0, 8
Urban	Both Sexes	0, 8, 2	0, 8	0, 8
	Male	0, 8, 2	0, 8	0, 8
	Female	0, 8, 2	0, 8, 2	0, 8

Source: CSO, 1980, 1990, and 2000 Census of Population and Housing

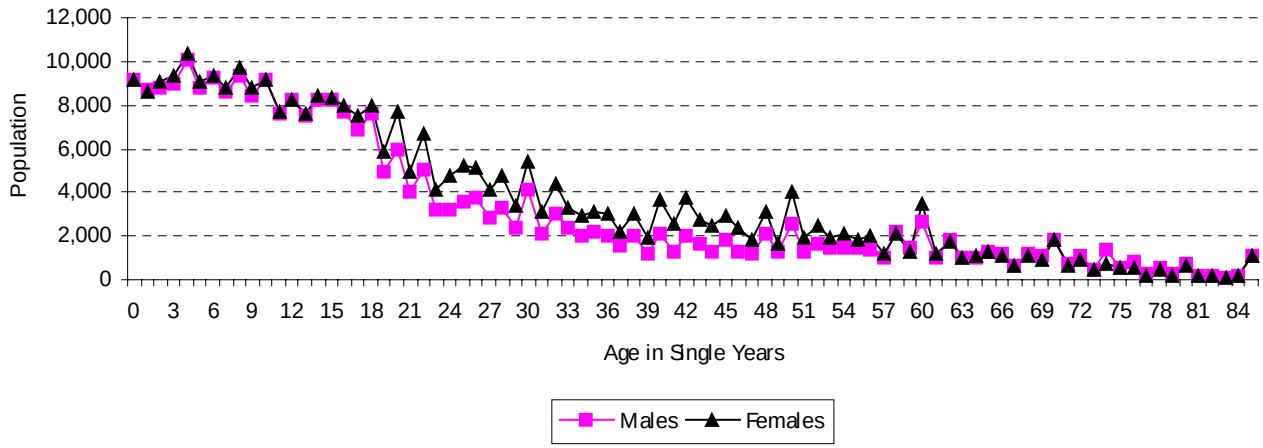
Age misreporting errors are also presented in Figures 2.4 to 2.9. The graphs provide a quick inspection of the nature of the data. It is usual to find relative high percentages recorded on ages ending in 0,5 and even numbers. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under reported ages. A comparison of Figures 2.4, 2.5, and 2.6 shows that the peaks and troughs are higher for ages reported below age 60 in all census years. There is no noticeable difference in the height of the peaks and troughs for ages reported after age 60 in 1980, 1990, and 2000 Censuses.

Figure 2.4: Population Distribution in Single Years, Western Province, 1980



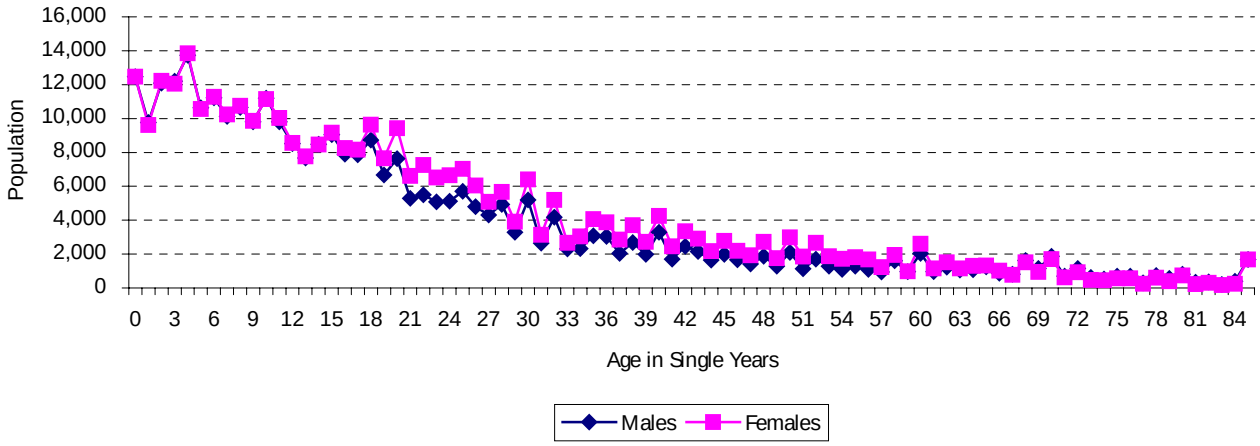
Source: CSO, 1980 Census of Population and Housing

Figure 2.5: Population Distribution in Single Years, Western Province , 1990



Source: CSO, 1990 Census of Population and Housing

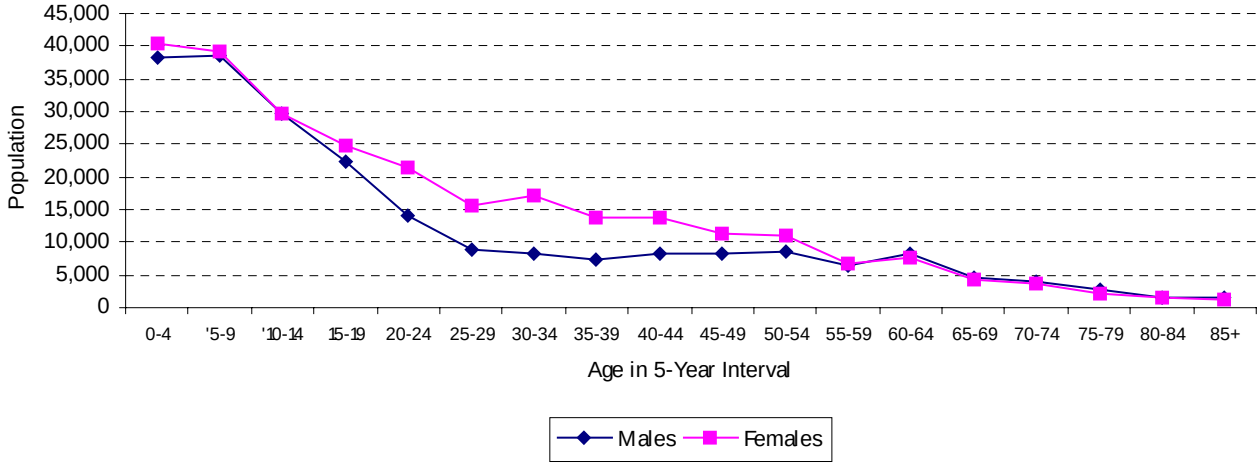
Figure 2.6: Population Distribution in Single Years, Western Province , 2000



Source: CSO, 2000 Census of Population and Housing

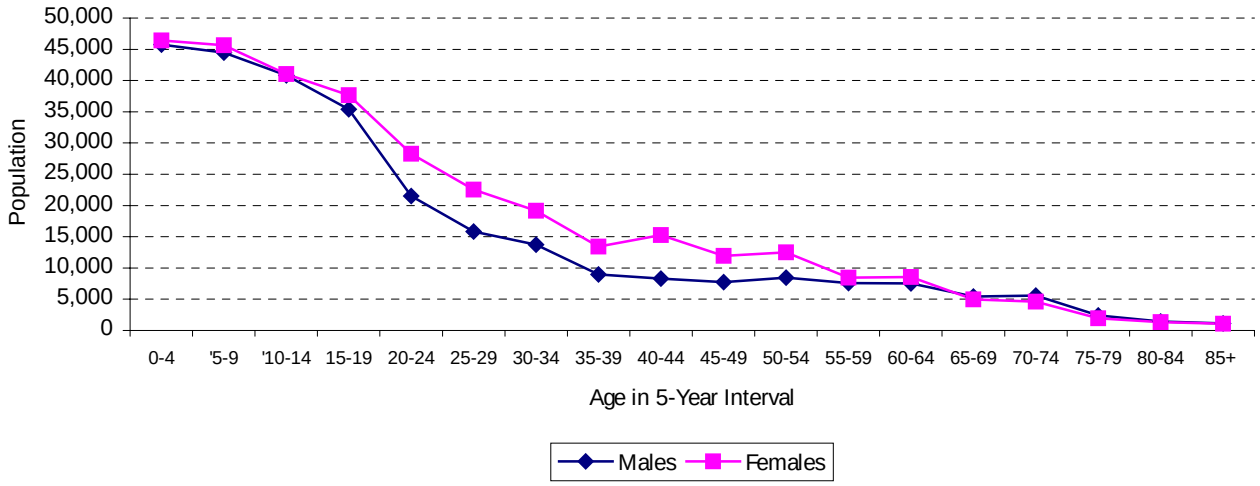
The smoothness of the curves in Figures 2.7 2.8, and 2.9 show that grouping single year age data into five year age groups improves irregularities in age data arising from age misreporting.

Figure 2.7: Population Distribution by 5-Year Age Group, Western Province , 1980



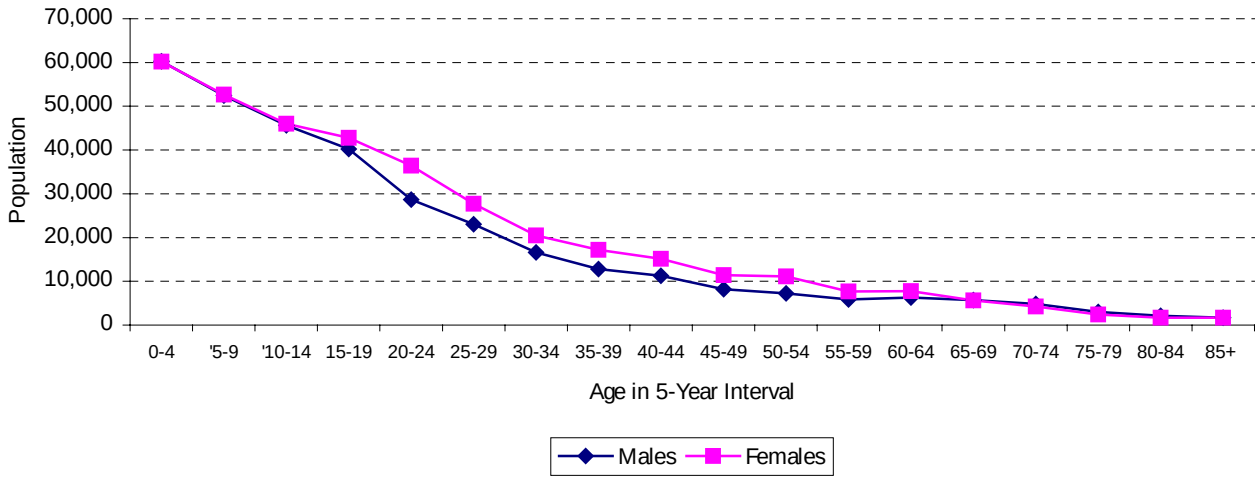
Source: CSO, 1980 Census of Population and Housing

Figure 2.8: Population Distribution by 5-Year Age Group, Western Province , 1990



Source: CSO, 1990 Census of Population and Housing

Figure 2.9: Population Distribution by 5-Year Age Group, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

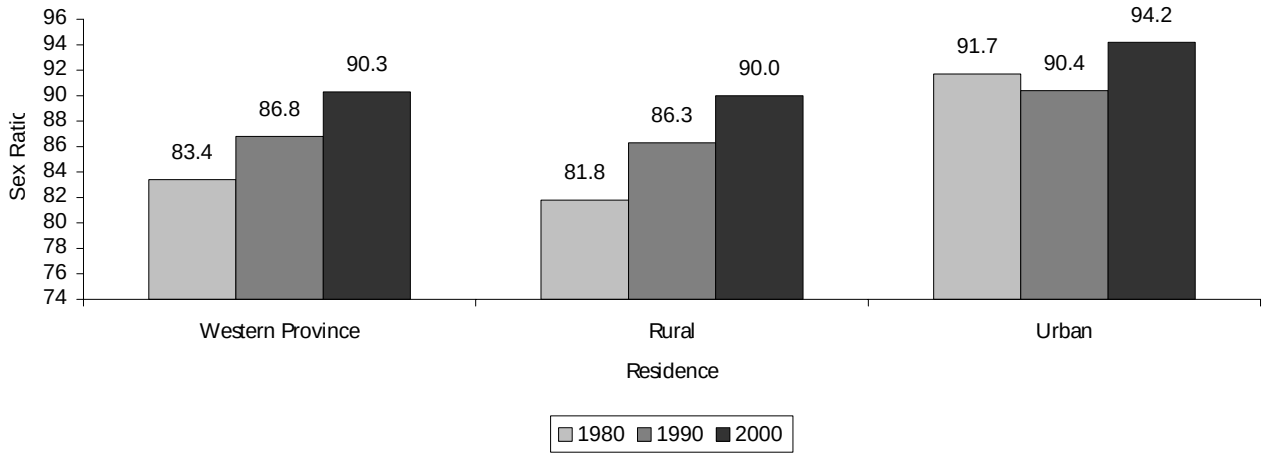
2.5.2 Sex-ratios

A sex-ratio is the number of males per 100 females. A sex-ratio of less than 100 shows that there are more females than males while a sex-ratio of 100 indicates an equal number of males and females. In the absence of big fluctuations in births, deaths and migration, the sex-ratios are expected to be high at infant ages because the sex-ratio at birth is favourable to males. After early childhood, the ratios are expected to decline continuously to reach very low levels at the highest ages when female mortality is much lower than the male mortality.

In a natural process where data on population is accurately recorded, the sex-ratios by age group are expected to start from about 102 to 106 at birth depending on the cultural set up being examined and gradually decline progressively until the lowest is recorded in the oldest age group. Although more males than females are born, there is sex difference in mortality as the population grows older such that males die off faster than females and this leads to the reversal of the sex-ratio from above 102 at birth to below 100 and sometimes even below 90 in older age groups. Departure from this expected norms suggest errors in the data.

The overall sex-ratio for Western Province using the 1980, 1990 and 2000 Census data shows an increase from 83.4 to 86.8 and to 90.3 males per 100 females respectively, see Figure 2.10. In all the three censuses, the sex-ratio is below 100 showing more females than males in Western province. Observations also show that the sex-ratio has been increasing in Western Province. In terms of residence, the sex-ratio was higher in urban areas than in rural areas for 1980, 1990 and 2000 Censuses. Further observations show that the sex ratio in the rural and urban areas increased by the same margin between 1990 and 2000 (Compare 86 to 90 in rural areas with 90 to 94 in urban areas). The pattern of sex-ratios cannot only be attributed to errors in the data, Sex-ratios are also influenced by sex selective migration. One could say that those who could have left Western Province to other provinces returned back between 1990 and 2000. The refugee situation in Western Province cannot also be ruled out. This is confirmed by the increase in the sex ratio both in rural and urban areas of Western Province between 1990 and 2000.

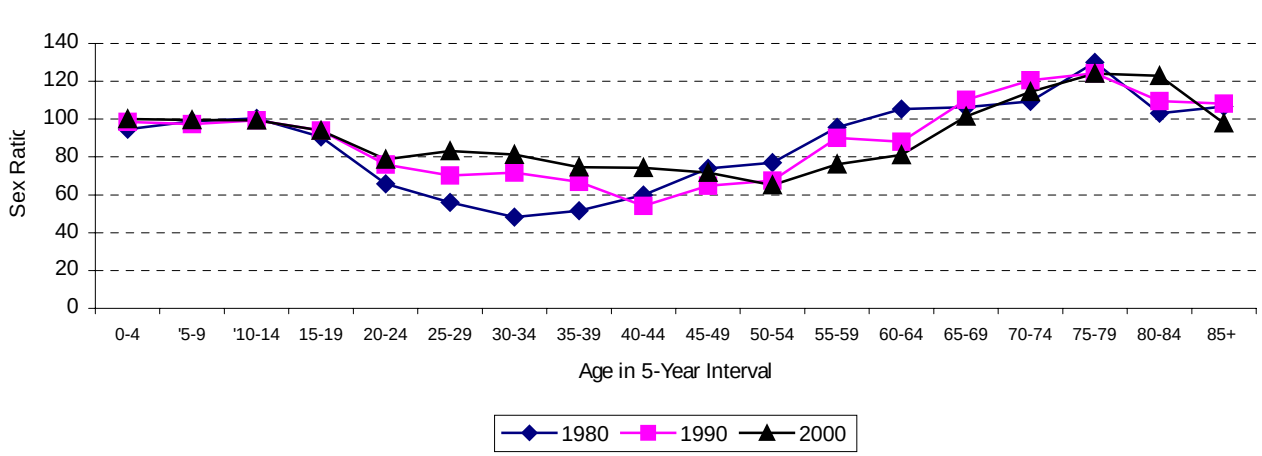
Figure 2.10: Sex Ratios for Western Province, 1980, 1990, and 2000



Sources: CSO, 1980, 1990, and 2000 Censuses of Population and Housing

An analysis of age-specific sex-ratios for 1980 reveals a deficit of males in age groups 0-4, 5-9, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54, and 60-64 whereas that for 1990 reveals a deficit of males in the age ranging from 0 to 64. For the 2000 Census, the age group 0-4 and the age range 15 to 64 shows a deficit of males (See Figure 2.11 and Table 2.3 for details). There are many possible factors responsible for this, including mortality as well as the sex-selective migration. The tendency by men to over estimate their age could have shifted men into older ages while the tendency by women to under-state their age could have shifted them into young ages, hence, causing errors in age and sex data.

Figure 2.11: Sex Ratio by 5-Year Age Group and Census Year, Western Province, 1980,1990 and 2000



Source: CSO, 1980, 1990, and 2000 Censuses of Population and Housing

Table 2.3: Sex-Ratios By Age Group and Residence, Western Province, 1980,1990 and 2000

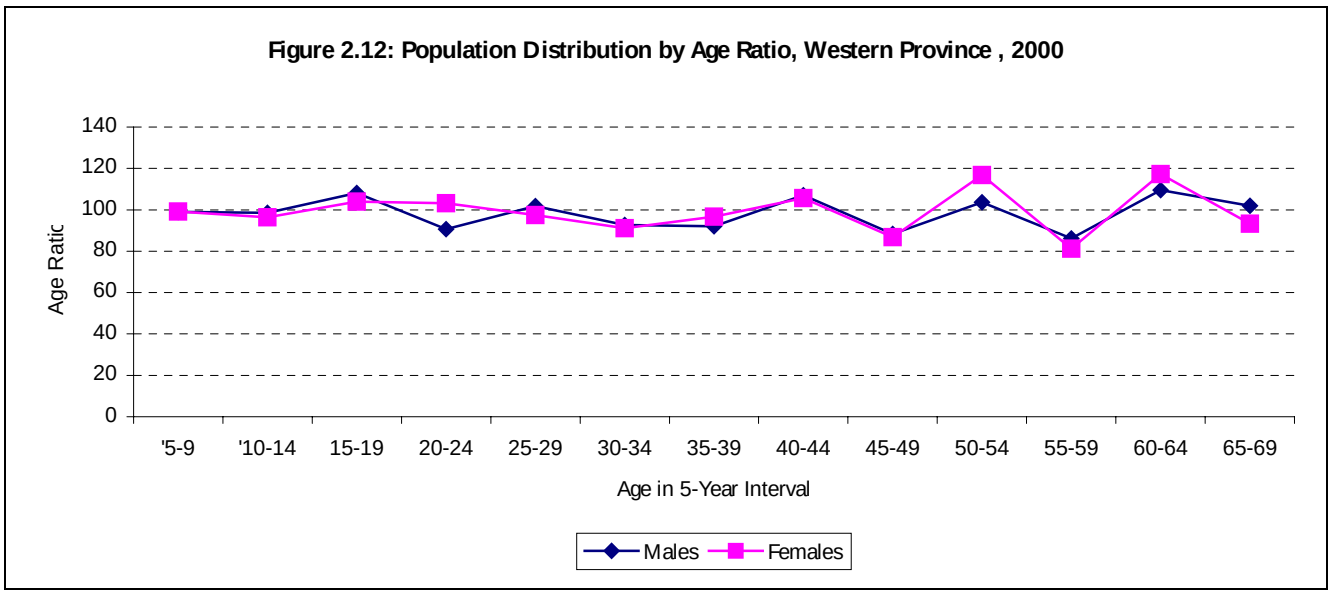
Age Group	1980			1990			2000		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
Total	**83.4**	**81.8**	**91.7**	**86.8**	**86.3**	**90.4**	**90.3**	**90.0**	**94.2**
00-04	94.7	94.2	96.7	98.5	98.0	102.5	100.1	99.9	101.8
05-09	98.8	99.1	97.3	97.4	97.5	96.6	99.6	99.4	99.3
10-14	100.4	101.6	95.2	99.4	100.9	90.6	99.3	100.4	93.2
15-19	90.5	90.3	91.7	94.0	95.0	88.3	94.0	93.6	94.4
20-24	65.8	65.1	68.5	76.0	76.2	74.7	78.8	77.1	88.5
25-29	56.1	52.9	68.9	70.2	69.4	74.6	83.2	82.0	91.5
30-34	48.2	43.6	71.8	71.7	70.9	76.0	81.3	80.8	89.8
35-39	51.7	46.7	80.0	66.8	63.5	86.1	74.6	73.8	87.5
40-44	59.9	54.8	93.1	54.2	49.4	98.8	74.4	73.3	86.4
45-49	73.9	68.2	120.3	64.9	60.0	117.0	71.7	70.2	92.2
50-54	77.1	71.5	122.2	67.6	64.1	111.2	65.2	63.1	108.6
55-59	95.7	90.2	145.9	90.0	87.5	121.5	76.1	75.5	107.3
60-64	105.3	102.6	132.6	88.1	87.9	90.5	81.1	81.7	93.8
65-69	106.3	105.0	120.5	110.2	110.8	100.6	101.4	104.1	88.5
70-74	109.4	110.5	100.3	120.5	122.5	90.6	114.4	117.5	94.7
75-79	130.0	131.8	112.7	124.3	128.5	71.6	124.1	129.4	74.8
80-84	103.1	102.7	107.4	109.6	113.3	71.1	122.9	128.1	67.0
85+	106.7	106.8	105.9	108.1	112.2	64.9	97.9	102.5	59.1

Sources: CSO 1980, 1990, and 2000 Censuses of Population and Housing

2.5.3 Age-ratios

The quality of age data can also be evaluated by examining age-ratios. An age-ratio may be defined as the ratio of the population 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 (Shryock et al, 1976). In normal circumstances, when there are no major changes in fertility, mortality or migration, the age-ratios do not deviate much from 100, hence, any substantial deviation is explained in terms of age misreporting.

Results from the 1980 Census show that age groups with age-ratios less than 100 in 1980 for males are 10-14, 20-24, 25-29, 30-34, 35-39, 55-59 and 65-69 while for females, the age groups are 10-14, 15-19, 25-29, 30-34, 35-39, 45-49, 55-59 and 65-69. In 1990, the age groups with ratios less than 100 are 20-29, 35-39, 40-44, 45-49 and 65-69 for males. For females, the age groups showing an age-ratio of less than 100 are 10-14, 20-24, 25-29, 30-34, 35-39, 45-49, 55-59 and 65-69. In 2000, the age groups with ratios less than 100 for males are 10-14, 20-24, 25-29, 30-34, 35-39, 40-44,45-49, 50-54 and 55-59 while for females, the age groups are 10-14, 25-29, 30-34, 35-39, 40-44, 45-49, 55-59, and 65-69. See Figure 2.12 and Tables 2.4, 2.5, and 2.6 for details. The substantial deviations of the age-ratios are suggestive distortions arising from age misreporting. Results from Tables 2.4, 2.5, 2.6 and Figure 2.12 suggest that reporting of age is less satisfactory for females than males as shown by having a higher average age-ratio deviation for females than males.



Source: CSO 1980, 1990, and 2000 Censuses of Population and Housing

Table 2.4: Population by Five Year Age Group, Sex, Age Ratio and the Age-Sex Accuracy Index, Western Province, 1980

Age	Population		Age ratio		Deviation from 100		Sex ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	38,146	40,296					94.7	
5-9	38,702	39,158	114.0	112.0	14.0	12.0	98.8	4.2
10-14	29,744	29,624	97.3	92.7	-2.7	-7.3	100.4	1.6
15-19	22,434	24,778	102.2	96.9	2.2	-3.1	90.5	-9.9
20-24	14,178	21,544	90.7	106.4	-9.3	6.4	65.8	-24.7
25-29	8,822	15,722	78.6	81.3	-21.4	-18.7	56.1	-9.7
30-34	8,262	17,127	103.2	115.6	3.2	15.6	48.2	-7.9
35-39	7,195	13,908	87.5	90.3	-12.5	-9.7	51.7	3.5
40-44	8,183	13,664	105.3	108.5	5.3	8.5	59.9	8.2
45-49	8,345	11,288	100.5	91.8	0.5	-8.2	73.9	14.0
50-54	8,423	10,924	115.0	122.2	15.0	22.2	77.1	3.2
55-59	6,305	6,590	75.8	70.4	-24.2	-29.6	95.7	18.6
60-64	8,207	7,793	150.5	142.7	50.5	42.7	105.3	9.7
65-69	4,604	4,332	75.1	75.4	-24.9	-24.6	106.3	1.0
70-74	4,053	3,704	-	-	0.0	0.0	109.4	3.1
75+	5,581	4,820	-	-	-	-	115.8	-
Total	221,184	265,271	-	-	185.5*	208.6*	-	119.1*
Mean	-	-	-	-	14.3	16.0	-	8.5

Source: CSO 1980 Census of Population and Housing
Note: * Shows total irrespective of sign.

Age-Sex Accuracy Index = 3 times mean difference in sex ratios plus mean deviations of male and female age ratios.
= (3 x 8.5) + 14.3 + 16.7
= 55.8

The Age-Sex Accuracy Index reduced from 55.8 in 1980 to 46.7 in 1990 and later to 34.6 in 2000. The United Nations define age data as "accurate, inaccurate and highly inaccurate" if the age accuracy index lies below 20, between 20-40 and 40 and above, respectively. In as far as the United Nations Age-Sex Accuracy Index is concerned, the 1980 and 1990 age data were "highly inaccurate" whereas the 2000 were "inaccurate".

Table 2.5: Populations by Five Year Age Group, Sex, Age Ratio and the Age-Sex Accuracy Index, Western Province, 1990

Age	*Population*		Age ratio		Deviation From 100		Sex ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	5,872	5,726					102.6	
5-9	5,633	5,834	99.43	99.32	-0.6	-0.7	96.6	-6.6
10-14	5,459	6,023	102.76	104.86	2.8	4.9	90.7	-5.9
15-19	4,991	5,653	116.54	111.04	16.5	11.0	88.3	-2.4
20-24	3,106	4,160	82.77	92.20	-17.2	-7.8	74.7	-13.6
25-29	2,515	3,370	95.20	95.94	-4.8	-4.1	74.6	-0.1

30-34	2,177	2,867	104.10	108.02	4.1	8.0	76.0	1.3
35-39	1,668	1,937	91.41	88.90	-9.0	-11.1	86.1	10.2
40-44	1,473	1,491	101.87	100.00	1.9	0.0	98.8	12.6
45-49	1,223	1,046	97.29	86.10	-2.7	-13.9	117.0	18.2
50-54	1,042	937	106.23	113.39	6.2	13.4	111.2	-5.9
55-59	739	608	94.49	80.34	-5.5	-19.7	121.5	10.3
60-64	521	576	96.47	121.56	-3.5	21.6	90.5	-31.0
65-69	342	340	87.66	78.84	-12.3	-21.2	100.6	10.2
70-74	259	285	-	-	0	0	90.6	-10.1
75+	243	350	-	-	-	-	69.7	-
Total	**37,265**	41,202	-	-	**86.8***	137.2*	-	137.7*
Mean	-	-	-	-	6.7	10.6	-	9.8

Source: CSO 1990 Census of Population and Housing

Note: * Shows total irrespective of sign.

Age-Sex Accuracy Index = 3 times mean difference in sex ratios plus mean deviations of male and female age ratios.
= (3 x 9.8) + 6.7 + 10.6
= 46.7

Table 2.6: Populations by Five Year Age Group, Sex, Age Ratio and the Age-Sex Accuracy Index, Western Province 2000

Age	Population		Age ratio		Deviation From 100		Sex ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	60,277	60,188					100.1	
5-9	52,463	52,666	99.0	99.2	-1.0	-0.8	99.6	-0.5
10-14	45,671	45,979	98.5	96.3	-1.5	-3.7	99.3	-0.3
15-19	40,226	42,814	108.2	103.9	8.2	3.9	94.0	-5.4
20-24	28,667	36,402	90.6	103.2	-9.4	3.2	78.8	-15.2
25-29	23,055	27,702	101.8	97.4	1.8	-2.6	83.2	4.5
30-34	16,633	20,453	92.7	91.1	-7.3	-8.9	81.3	-1.9
35-39	12,836	17,210	92.1	96.7	-7.9	-3.3	74.6	-6.7
40-44	11,250	15,128	107.1	105.7	7.1	5.7	74.4	-0.2
45-49	8,179	11,405	88.3	86.8	-11.7	-13.2	71.7	-2.7
50-54	7,266	11,148	103.6	116.8	3.6	16.8	65.2	-6.5
55-59	5,847	7,684	86.1	81.2	-13.9	-18.8	76.1	10.9
60-64	6,316	7,789	109.6	117.2	9.6	17.2	81.1	5.0
65-69	5,679	5,603	101.9	93.3	1.9	-6.7	101.4	20.3
70-74	4,833	4,225	-	-	0.0	0.0	114.4	13.0
75+	6,736	5,802	-	-	-	-	116.1	-
Total	335,934	372,198	-	-	84.8*	104.9*	-	93.1*
Mean	-	-	-	-	6.5	8.1	-	6.7

Source: CSO 2000 Census of Population and Housing

Note: * Shows total irrespective of sign.

Age-Sex Accuracy Index = 3 times mean difference in sex ratios plus mean deviations of male and female age ratios.
= (3 x 6.7) + 6.5 + 8.1
= 34.6

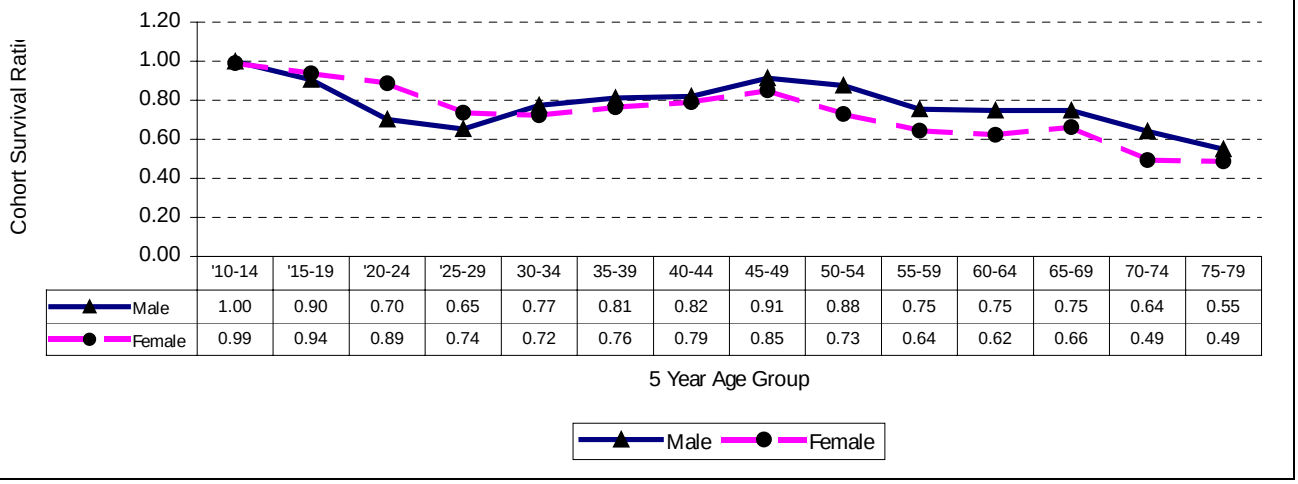
2.5.4 Survival-ratios

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. It is also assumed that influence of abnormal mortality through wars, disasters, diseases, etc, over a 10-year period should be absent.

Cohort survival-ratio refers to the survival-ratio of the population in a given age group to the next age whereas overall survival-ratio refers to the ratio of the population aged say 10 years and above, who will survive to 15 years and above, and so on.

Cohort survival-ratios are expected to be highest at age group 10-14 where mortality is assumed to be lowest and then to decline continuously thereafter. Results from Figure 2.13 shows fluctuations rather than the expected pattern. Fluctuations in the cohort survival-ratios show that there was over-statement or under-statement of ages among males and females.

Figure 2.13: Cohort Survival Ratio by Sex, Western Province, 1990 and 2000



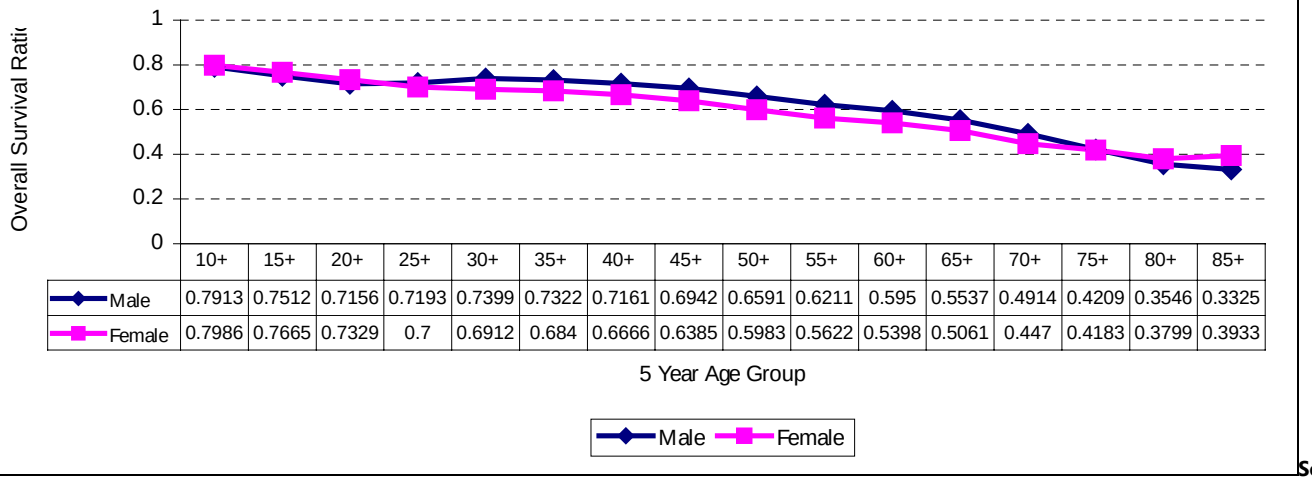
	'10-14	'15-19	'20-24	'25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79
Male	1.00	0.90	0.70	0.65	0.77	0.81	0.82	0.91	0.88	0.75	0.75	0.75	0.64	0.55
Female	0.99	0.94	0.89	0.74	0.72	0.76	0.79	0.85	0.73	0.64	0.62	0.66	0.49	0.49

Sources:

CSO 1980, 1990, and 2000 Censuses of Population and Housing

In the absence of abnormal mortality and migration, the overall survival-ratios should decline continuously as we go up to the older ages. The female ratios should be higher than the male ratios because of lower mortality of females compared to that of males. Results from Figure 2.14 show the opposite of the expected pattern in that the male ratios are higher than the female ratios. This could be an indication of over-statement or under-statement of ages among males and females.

Figure 2.14: Overall Survival Ratio by Sex, Western Province, 1990-2000



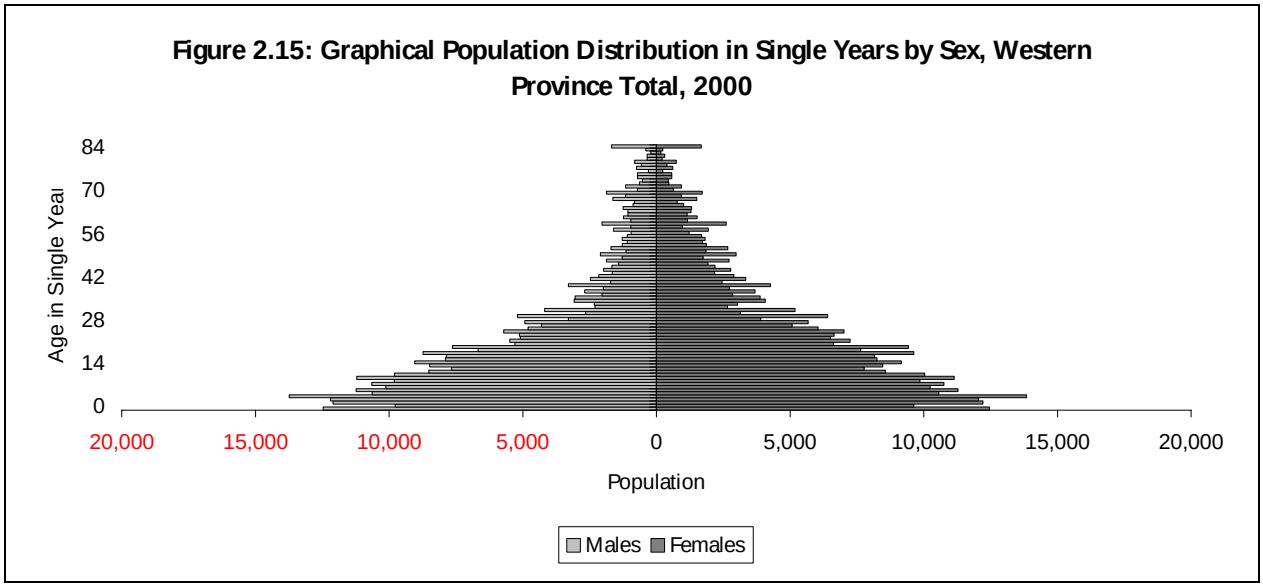
	10+	15+	20+	25+	30+	35+	40+	45+	50+	55+	60+	65+	70+	75+	80+	85+
Male	0.7913	0.7512	0.7156	0.7193	0.7399	0.7322	0.7161	0.6942	0.6591	0.6211	0.595	0.5537	0.4914	0.4209	0.3546	0.3325
Female	0.7986	0.7665	0.7329	0.7	0.6912	0.684	0.6666	0.6385	0.5983	0.5622	0.5398	0.5061	0.447	0.4183	0.3799	0.3933

Source:

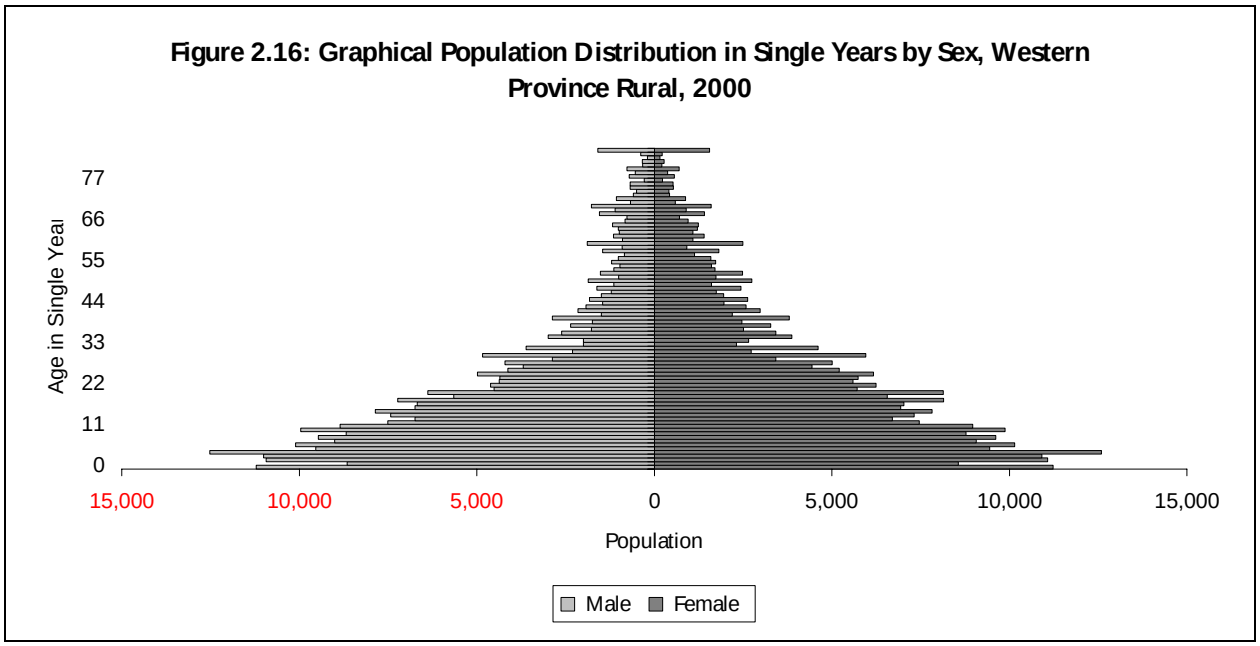
CSO 1980, 1990, and 2000 Censuses of Population and Housing

2.5.5 Population Pyramids

Another way of detecting irregularities in the reported age data of a survey or census is by looking at a Population Pyramid by single years of age. As already observed, when census age data is distributed in single years, one can easily spot out inaccuracies than when it is distributed in five-year age groups. Looking at the population pyramids for the 2000 Census data from Figures 2.15 to 2.17, it can be seen that age misreporting was not severe to warrant the smoothing of data.

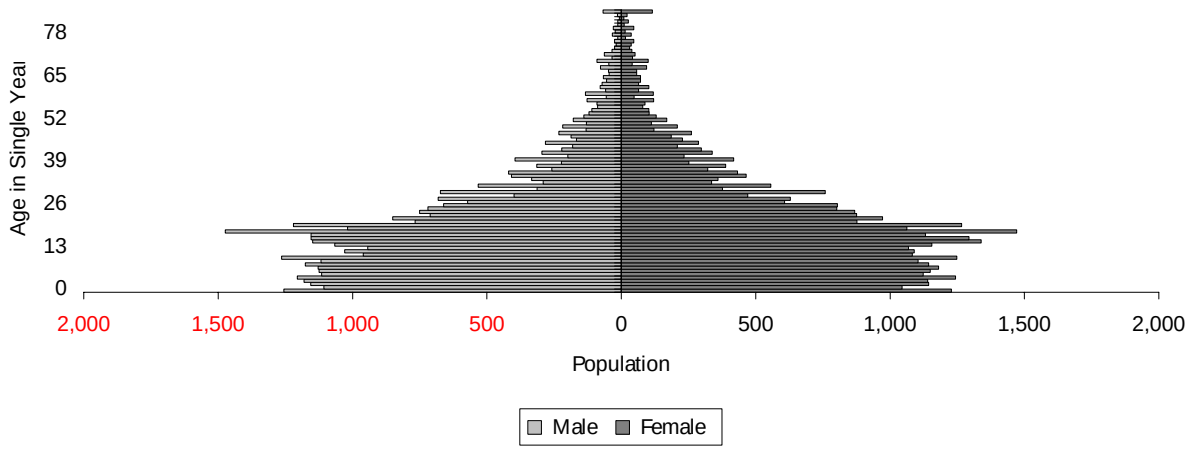


Source: CSO 2000 Census of Population and Housing



Source: CSO 2000 Census of Population and Housing

Figure 2.17: Graphical Population Distribution in Single Years by Sex, Western Province, Urban, 2000

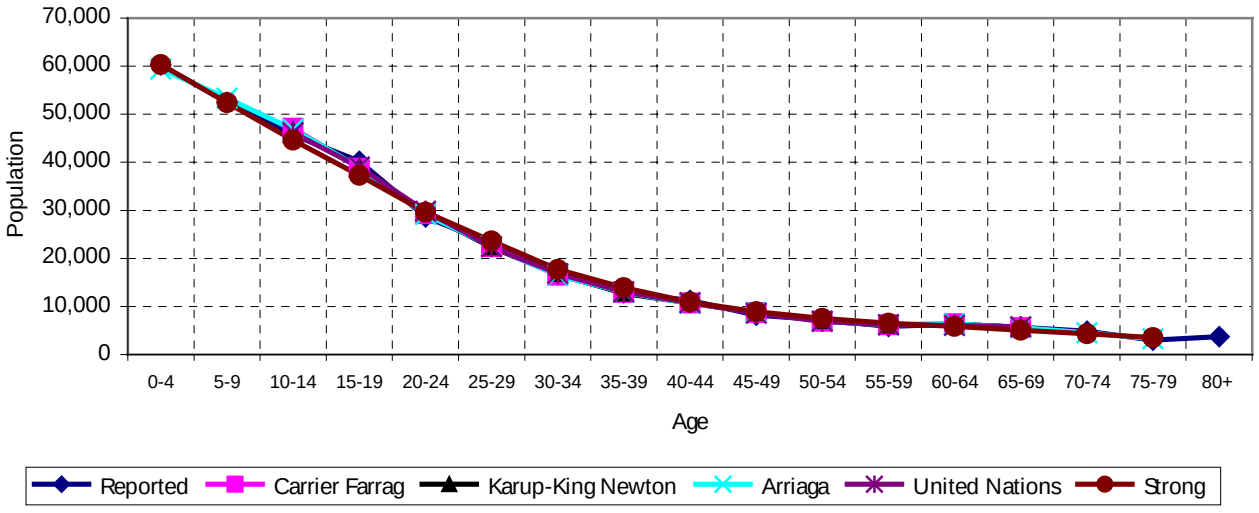


Source: CSO 2000 Census of Population and Housing

Smoothing the age data using selected techniques for light smoothing of the population (Edwardo E. Arriaga: November 1994, pages 11-42) shows that the irregularities in the structure are not severe, see Figures 2.18 and 2.19.

The smoothing of data has been done using AGESMTH software program one of the Population Analysis Spreadsheet (PAS) programmes developed by the United Nations. Selected techniques for light smoothing of the population include Carrier Farrag, Karup-King Newton, Arriaga and United Nations. The strong smoothing technique has also been incorporated.

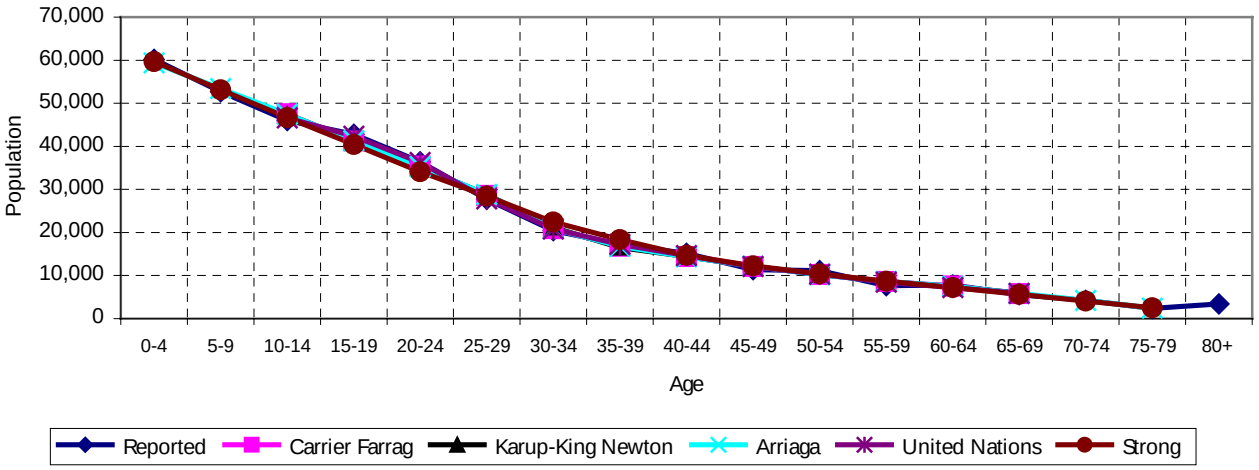
Figure 2.18: Reported and Smoothed Population by 5-Year Age Groups and Smoothing Technique, Western Province, Males, 2000



Source:

CSO 2000 Censuses of Population and Housing

Table 2.19: Reported and Smoothed Population by 5-Year Age Groups and Smoothing Technique, North-Western Province, Females, 2000



Source:

CSO 2000 Censuses of Population and Housing

Given that the irregularities in the reported proportions are small, it is not recommended to smooth the 2000 Census of Population and Housing data because genuine irregularities in the reported pattern might be smoothed out.

2.6 Summary

Western Province has a young population. Out of the total number of 708,133 persons in 2000, 44.8 percent were below age 15, 50.6 percent were aged 15-64 and 4.6 percent were aged 65 years or older. The overall

dependency ratio of the province increased from 94.0 in 1990 to 97.8 dependants per 100 persons aged 15-64 for the 2000 Census year. Western Province has more females than males and a sex-ratio of 90.3 males per 100 females was recorded in 2000**.** There was age heaping among males and females, with 0,5 and 8 being the most preferred digits in 2000. The 2000 age data showed an improvement over the 1980 and 1990 age data in as far as the Age-Sex Accuracy Index is concerned which declined from 55.8 in 1980 to 46.7 in 1990 and later to 34.6 in 2000.

Chapter 3

POPULATION SIZE, GROWTH AND COMPOSITION

3. 1 Introduction

In Zambia, the first comprehensive Census of Population and Housing was undertaken in 1969 and was followed by another in 1980. Since then, censuses have been conducted regularly every ten (10) years. Taking in account the poor status of the vital registration system, the Census of Population in Zambia has included questions on births and deaths. The Census is designed to collect both de jure and de facto population count. By definition (*see below*) the de facto count is most useful in providing a separate record of a range of characteristics for all individuals enumerated. Characteristics here refer to social, economic and political aspects of a population such as education and economic activity. This therefore provides sound basis for carrying out detailed analysis of the characteristics of persons or groups of a population based on the de facto count.

In general, censuses of population are useful for social, economic, political planning of a country. For instance, population data analysed by age are essential in preparing current population estimates and projections of households, school enrollment, labour force and further projections of requirements for schools, teachers, health services, food and housing.

This chapter presents a trend analysis of the population size, population growth rates, population distribution and composition (i.e. demographic, social and economic) from the census results of 1980, 1990 and 2000. Analysis of population composition is based on the de facto as opposed to the de jure population of Zambia. As such, analysis is only possible by use of the former population count, which provides individual social and economic characteristics.

3.2 Concepts and Definitions

Concepts and definitions adopted during the census and used in this chapter and throughout the report are as follows:

- *De facto Population*

This count includes usual household members and visitors who spent the census night at that household. This however excludes:

a) Foreign diplomatic personnel accredited to Zambia; and

b) Zambian nationals accredited to foreign embassies and their family members who live with them abroad and, Zambian migrant workers and students in foreign countries who were not in the country at the time of the census.

- *De jure Population*

This refers to usual household members *present* and usual household members temporarily *absent* at the time of the census. These include institutional populations in places such as hospitals/health centers, prisons and academic institutions (universities, colleges, boarding schools, etc).

- *Population Growth Rate*

Refers to the change in the size of the population as a proportion of the total population of an area. Estimated on a yearly basis gives us the average annual growth rate for each year of the inter-censal period.

- **Population Composition**

This 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:

- Demographic characteristics such as age and sex,
- Social characteristics such as ethnicity and citizenship, and
- Economic characteristics such as economic activity.

- *Age*

The age of an individual in all censuses undertaken in Zambia is commonly defined in terms of the age of the person at his/her last birthday *before* the census date.

- *Household*

A group of persons who normally live and eat together. These people may or may not be biologically related to each other and make common provision for food and other essentials for living.

- **Head of Household**

This refers to a person who makes day-to-day decisions concerning the running of the household and is also regarded as such by all household members.

- **Population Density**

Density of population is defined as the number of people resident within a standard unit of area, in this case, measured per square kilometer (Pressant, 1985).

- **Citizenship**

Citizenship defined as 'the legal nationality of each person', is not necessarily linked to place of birth. Rather, citizenship is acquired through various means such as being born within state (or elsewhere with parents of the given nationality), through naturalization or marriage (Pressant,1985).

- **Age Dependency ratio**

Age Dependency ratio refers to the 'joint account of variations in the proportions of children, aged persons, and persons of "working age"' (Shyrock et al., 1972:133). It is therefore, the ratio of children aged 0-14 years and persons aged 65 years and older per 100 persons in the working age group of 15-64 years old.

3.3 Population Size and Growth

The 2000 de jure population for Western Province is 765,088 of which 393,244 are females and 371,844 are males, indicating that females out number males, (see Table 3.1a).

Table 3.1a Population Size (De jure) and Percent Distribution by Sex and Residence, Western Province, 2000

Residence	Both Sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Zambia	9,885,591	100	4,946,298	50.0	4,939,293	50.0
Western	765,088	100	371,844	48.6	393,244	51.4
Rural	679,562	100	329,263	48.5	350,299	51.5
Urban	85,526	100	42,581	49.8	42,945	50.2

Source: CSO, 2000 Census of Population and Housing

In demographic terms, this de jure figure is considered the *true or resident population* of a nation. However, this type of population count does not allow collection of data on various characteristics (social, economic and political) of individuals. As the definition above states, persons in institutions such as prisons and hospitals are counted as a group. The de jure population therefore, becomes important only as far as the age sex distribution is concerned. It is a useful denominator in the calculation of vital education indicators such as gross and net enrolment and intake rates.

The Western Province de facto count, presented in Table 3.1b is 708,133 of which 52.5 percent are females. The de facto population allows for detailed analysis of individuals because these are present at the time of count (*see definition above*). It can be noted that the de jure population is always larger than the de facto population.

Table 3.1b Population Size (De facto) and Percent Distribution by Sex and Residence, Western Province,

(De facto) 2000

Residence	Both Sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Zambia	9,337,425	100	4,594,290	49.2	4,743,135	50.8
Western	708,133	100	336,260	47.5	371,873	52.5
Rural	628,535	100	297,651	47.4	330,884	52.6
Urban	79,598	100	38,609	48.5	40,989	51.5

Source: CSO, 2000 Census of Population and Housing

The 2000 district population sizes for Western Province are displayed in absolute terms in Table 3.2. Among the districts Kaoma and Mongu, have the highest population of 162,568 and 162,002, respectively. The least population is found in Lukulu, with 68,375. Amongst the districts, Mongu continues to be the most urbanised, given that in comparison to others, it bears the highest number of urban population (44,310) in relation to the total provincial urban population of 92,089 or 48 percent of the total urban population.

Table 3.2 Population Size (De jure) by Sex, Residence and Province, Western Province, 2000

District	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	765,088	371,844	393,244	672,999	326,072	346,927	92,089	45,772	46,317
Kalabo	114,806	54,176	60,630	107,240	50,366	56,874	7,566	3,810	37,56
Kaoma	162,568	79,348	83,220	150,205	73,253	76,952	12,363	6,095	62,68
Lukulu	68,375	33,585	34,790	65,276	32,012	33,264	3,099	1,573	15,26
Mongu	162,002	79,300	82,702	117,692	57,388	60,304	44,310	21,912	22,398
Senanga	109,119	52,587	56,532	99,900	48,109	51,791	9,219	4,478	4,741
Sesheke	78,169	39,355	38,814	64,292	32,302	31,990	13,877	7,053	6,824
Shangombo	70,049	33,493	36,556	68,394	32,642	35,752	1,655	851	804

Source: CSO, 2000 Census of Population and Housing

The rate at which Western Province has grown in between censuses of 1969, 1980, 1990 and 2000 are shown in Table 3.3. The table shows that the provincial population has grown from less than half a million (486,455) in 1980 to over three quarters of a million (765,088) in 2000. The province has in general experienced a drop in annual growth rate from 2.2 in 1980-1990 to 1.8 percent in the last inter-censal period. Over the past three decades, the population of Western Province grew the most, at 2.2 percent, during the 1980-1990 inter-censal period. Its annual population growth rate between 1990 and 2000 is lower than the national average of 2.5 percent, presenting a deviation of 0.7 percent. The annual growth rate for rural areas decreased by 0.7 percentage point while that of urban areas increased by over 1.1 percentage points (i.e. from -0.5 in 1990 to 0.6 percent in 2000).

Table 3.3 Population Size and Annual Average Population Growth Rate, Western Province, 1969-2000

Residence/District	Population Size (1980)	Annual Growth (1969-1980)	Population Size (1990)	Annual Growth (1980-1990)	Population size (2000)	Annual Growth ((1990-2000)
Zambia	5,661,801	3.1	7,759,117	2.7	9,885,591	2.5
Western	486,455	1.6	638,756	2.2	765,088	1.8
Rural	404,137	0.1	558,364	2.7	679,562	2.0
Urban	82,318	21.6	80,392	-0.5	85,526	0.6
District						

Kalabo	98,496	-0.7	103,878	-0.1	114,806	1.0
Kaoma	70,066	2	116,616	4.8	162,568	3.4
Lukulu	44,800	-	54,053	1.5	68,375	2.4
Mongu	114405	0.3	150,129	2.2	162,002	0.8
Senanga	101,957	1.3	98,804	-	109,119	1.0
Sesheke	56,731	1.3	68,424	1.4	78,169	1.3
Shangombo*	-	-	46,852	-	70,049	4.1

Sources: CSO, 1969, 1980, 1990 and 2000 Censuses of Population and Housing

"-" denotes not applicable as they refer either to new or non-existent districts.

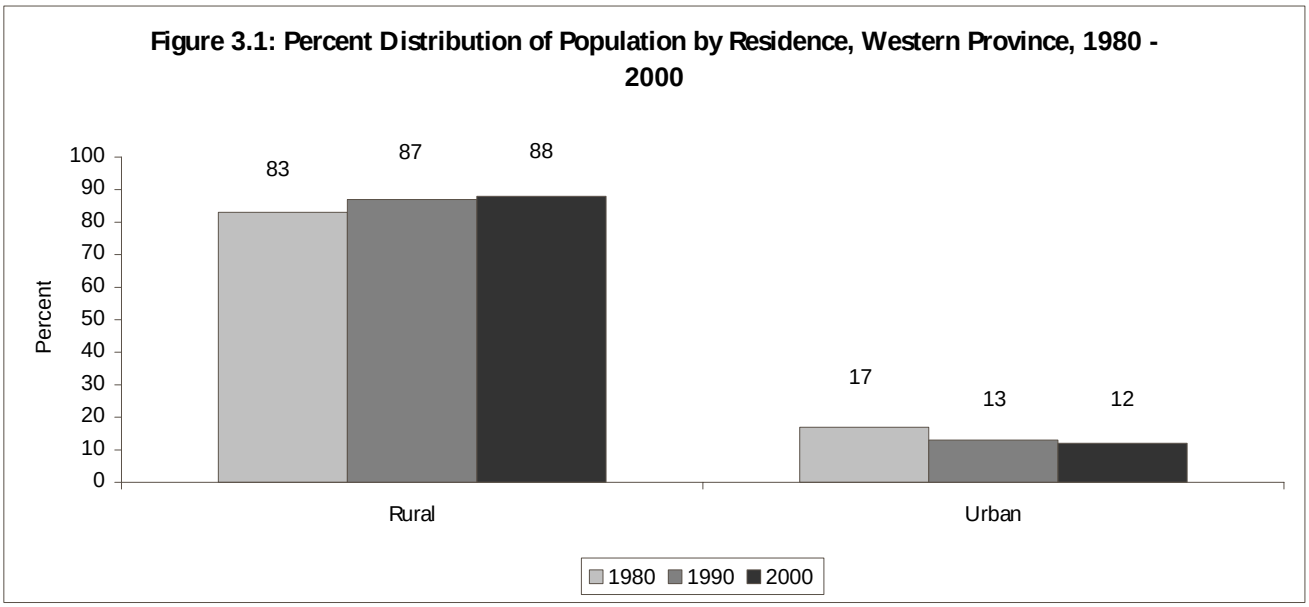
Note: " * " denotes new district

At district level, Shang'ombo, exhibits the highest annual growth rates 4.1 percent between 1990 and 2000. This is typically as a result of its designation as a new district following the apportionment of Senanga into two. This implies a mere carry over of the rural population. Kaoma, which had a high growth rate (4.8 percent) in the previous decade, also exhibits a high annual growth rate at 3.3 percent. Notably, Senanga grew the least during the same period, at a rate of 0.8 percent.

3.4 Population Distribution

The spatial or geographical distribution of the population in Western Province from 1980 to 2000 is shown in Figure 3.1, 3.2 and Table 3.4.

Figure 3.1: Percent Distribution of Population by Residence, Western Province, 1980 - 2000



Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

Figure 3.1 illustrates that about nine in ten persons in Western Province reside in rural areas. The proportion of rural population has steadily increased during the last three decade , from 83 percent in 1980 to 87 and 88 percent in 1990 and 2000, respectively. This implies an urban-rural migration trend, which is apparent in other urbanized provinces of Zambia such as Copperbelt and Lusaka. These provinces have over the years been characterised by economic decline, rendering them unattractive in economic terms. *(Details on internal migration are provided in the 2000 Census Migration and Urbanisation Report*).

The percent distribution of district population from 1980-2000 is shown in Table 3.4 and further illustrated for 2000 in Figure 3.2. Kaoma and Mongu had the largest share of the population in Western Province, with an equal share of 21 percent. Kaoma and Lukulu were the only districts that had an increase in the share of the population in the province. Population shares for the other districts reduced over the ten-year period, with Lukulu exhibiting the lowest of eight and nine percent in 1990 and 2000, respectively.

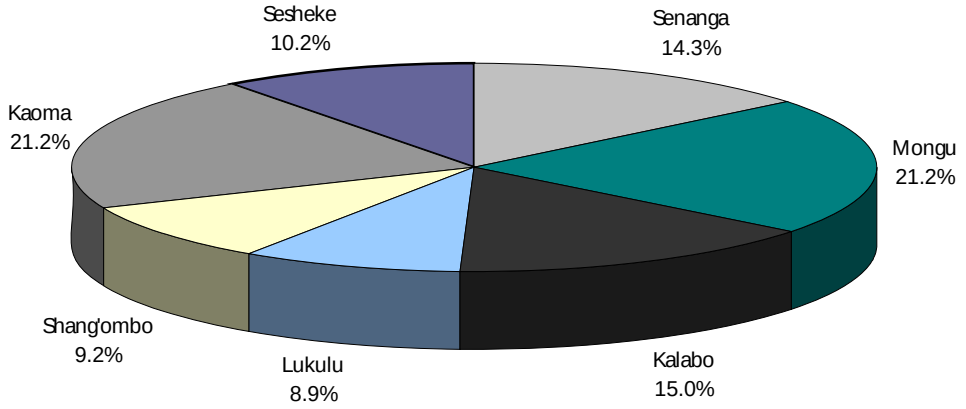
Table 3.4 Population Distribution (De jure) by District, Western Province, 1990 and 2000

Residence	1980		1990		2000	
	Number	Percent	Number	Percent	Number	Percent

Western Province	486,455	100	638,761	100	765,088	100
District						
Kalabo	98,496	20	103,878	16	114,806	15
Kaoma	70,066	14	116,616	18	162,568	21
Lukulu	44,800	9	54,053	8	68,375	9
Mongu	114405	24	150,129	24	162,002	21
Senanga	101,957	21	145,661	16	109,119	14
Sesheke	56,731	12	68,424	11	78,169	10
Shangombo*	-	-	-	7	70,049	9

Sources: CSO, 2000 Census of Population and Housing
Note: " * " denotes new district

Figure 3.2 Population Distribution by District, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

3.4.1 Population Density

Table 3.5 shows the land area and population density for Western Province from 1969 to 2000. Density of population is defined as the number of people resident within a standard unit of area, in this case, measured per square kilometer (Pressant, 1985). Generally, with an increasing population in the past decades, the provincial population density has also been increasing, from 3.3 in 1969 to 3.9 and 6.1 in 1980 and 1990, respectively. In 2000, 6.1 persons per square kilometer were recorded. The provincial population density in 2000 is lower than the national population density of 13.1 persons per square kilometer.

Table 3.5: Area and (de jure) Population Density by District, Western Province, 1969-2000

District	Area (sq.km)	Population Density/Census Year (Population per sq.km)			
		1969	1980	1990	2000
Zambia	752,612	5.4	7.5	10.3	13.1
Western	126,385	3.3	3.9	6.1	6.1
Kalabo	17,526	6.0	5.6	5.9	6.6
Kaoma	23,315	2.4	3.0	5.0	7.0
Lukulu	16,291	-	2.8	3.3	4.2
Mongu	10,075	10.9	11.4	14.9	16.1
Senanga	15,537	3.0	3.4	6.4	7.0
Sesheke	29,272	1.7	2.0	2.3	2.7
Shangombo	14,369	-	-	3.3	4.9

Source: CSO, 2000 Census of Population and Housing

An important feature of the province's population distribution is that Mongu, which has the smallest land area of 10,075 square km, has maintained the highest population density of 10.9 (1969), it increased to 11.4 in

1980. It further increased to 14.2 in 1990 and 16.1 persons per sq. km in 2000. While Mongu's density has increased significantly, those of other districts display slight increases in population density from 1969 to 2000. However, Kalabo's population density declined to 5.6 in 1980 and 1990 and thereafter increased to 6.6 in 2000.

3.5 Population Composition

This section provides some information on the composition of Western Province population in terms of age, sex, age dependency, household headship, marital status, ethnicity, citizenship and economic characteristics.

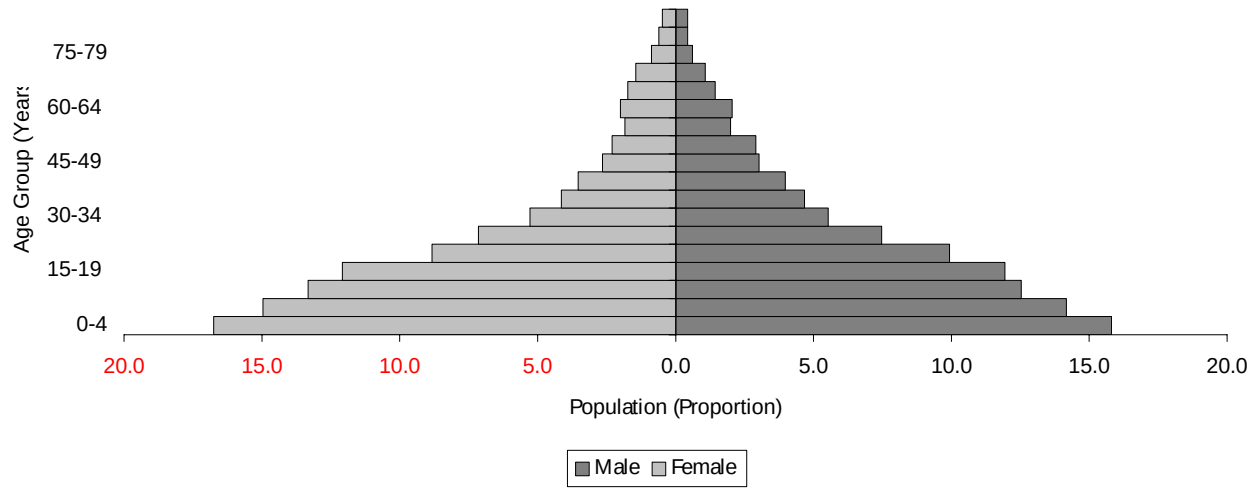
3.5.1 Age and Sex Composition

The analysis of most population phenomena is difficult to understand without taking into consideration the age and sex structure of any given population. Generally, 'tabulations on age and sex are essential in the computation of basic measures related to the factors of population change and in the study of economic dependency. Those tabulations are indispensable for the identification and examination of various functional population groups, such as infants, children, youth, the elderly, women and women in child bearing ages, as well as for other demographic and actuarial analyses' (UN: 1995:1). Further, the age structure of a population is important given that social relationships within a community are considerably affected by the relative numbers at each age.

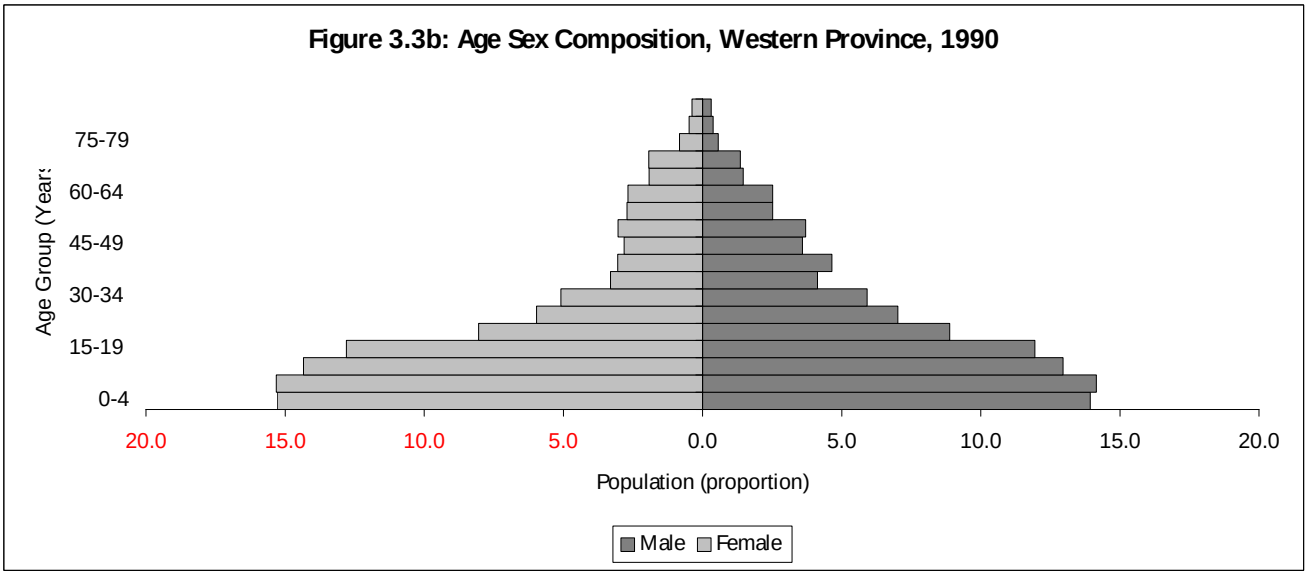
The age and sex structure of population in Western Province is illustrated in proportion by way of population pyramids for 1990 and 2000 in Figure 3.3a and 3.3b. Population pyramids are useful in describing the population by age and sex pictorially. Another important feature of population pyramids is their strength in illustrating whether a population is 'young' or 'old'. Similar to the national pattern, Western Province continues to exhibit a young population given that it bears a high proportion of persons below the age of 15 years. The broad base of the pyramids in both 1990 and 2000 is illustrative of this feature.

In comparative terms, the 2000 population pyramid (Figure 3.3a) has a smoothened appearance along the ages of 0-4 up to the mid 20s, which otherwise had a bump or near-funnel look in 1990 (Figure 3.3b). By comparison, this signifies population gaps from age group 5-9 to 15-19 (see figure 3.4). These population gaps could be attributed to increased mortality, given the ravaging effects of HIV/AIDS pandemic coupled with odds of the declining economic situation in the country. Supporting this likelihood of events also is the evidence that fertility has in the same period decreased (*see chapter on Fertility*).

Figure 3.3a: Age Sex Composition, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing



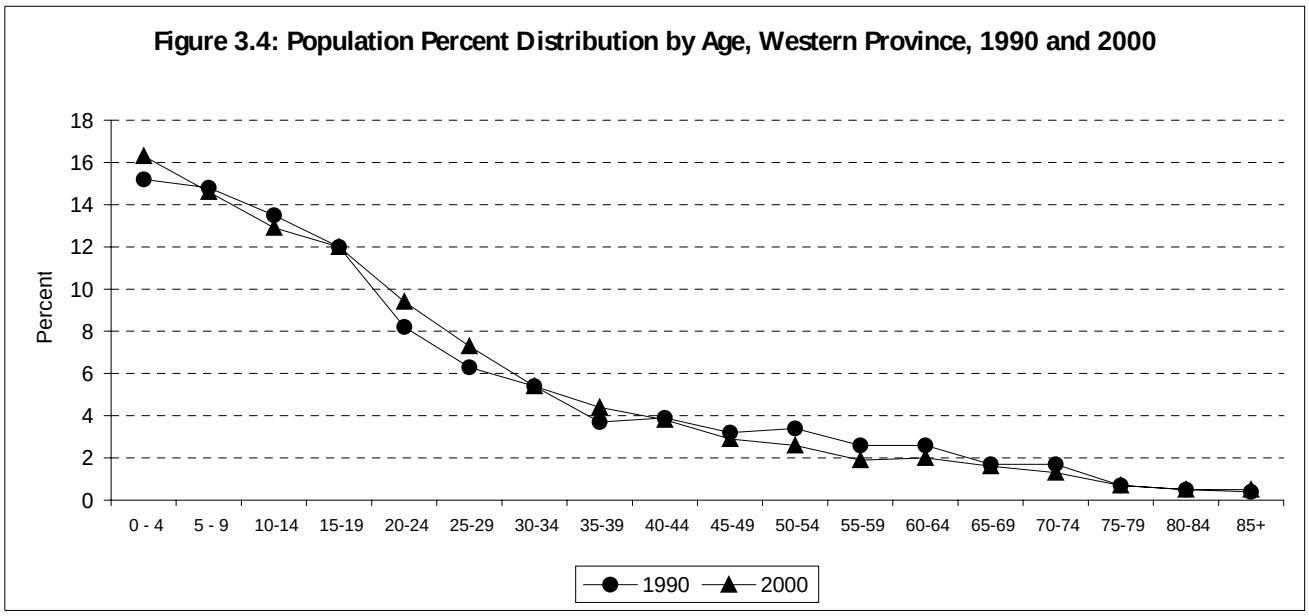
Source: CSO, 2000 Census of Population and Housing

Table 3.6 presents the age-sex population distribution for Western Province, including the rural and urban areas. In 2000, children (0-14 years) constituted 43.8 percent of the total population in Western Province, which is a 0.3 percentage point increase from 43.5 percent recorded in 1990. Similarly, rural and urban populations mostly comprise the child population, with the rural proportion being higher by 2.8 percent (44 vs. 41.2 percent). The proportion for the rest of the population declines towards a thin aged population (of about one and less percent) around the 60s and above. As was predictive in the past decades, this scenario still holds promise for future population growth given the potential that lies in the huge proportion of young persons as they enter reproductive ages of 15 years and above.

Table 3.6 Age-Sex Distribution of Population by Residence (Percent), Western Province, 2000

Age Group	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
0-4	16.3	16.8	15.8	16.5	17.1	16.0	14.0	14.2	13.8
5-9	14.6	15.0	14.2	14.6	15.1	14.2	13.9	14.0	13.8
10-14	12.9	13.3	12.5	12.9	13.4	12.4	13.3	13.0	13.7
15-19	12.0	12.1	11.9	11.6	11.7	11.5	15.6	15.4	15.8
20-24	9.4	8.8	9.9	9.1	8.5	9.7	11.8	11.4	12.2
25-29	7.3	7.1	7.5	7.2	7.0	7.4	8.2	8.2	8.2
30-34	5.4	5.3	5.5	5.3	5.2	5.5	5.9	5.9	5.8
35-39	4.4	4.1	4.7	4.4	4.1	4.7	4.6	4.6	4.6
40-44	3.8	3.5	4.0	3.8	3.5	4.0	3.7	3.7	3.7
45-49	2.9	2.7	3.0	2.9	2.6	3.1	2.8	3.0	2.6
50-54	2.6	2.3	2.9	2.7	2.3	3.0	2.0	2.2	1.8
55-59	1.9	1.8	2.0	2.0	1.9	2.1	1.1	1.3	1.0
60-64	2.0	2.0	2.0	2.1	2.1	2.1	1.0	1.1	1.0
65-69	1.6	1.7	1.4	1.7	1.9	1.5	0.7	0.8	0.7
70-74	1.3	1.5	1.1	1.3	1.6	1.1	0.6	0.6	0.6
75-79	0.7	0.9	0.6	0.8	1.0	0.6	0.3	0.3	0.3
80-84	0.5	0.6	0.4	0.6	0.7	0.5	0.2	0.2	0.3
85+	0.5	0.5	0.4	0.5	0.5	0.5	0.2	0.2	0.3
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Pop	765,088	371,844	393,244	679,562	329,263	350,299	85,526	42,581	42,945

Source: CSO, 2000 Census of Population and Housing



Sources: CSO, 1990 and 2000 Censuses of Population and Housing

3.5.2 Age Dependency Ratio

Table 3.7 reveals that the overall dependency ratio for Western Province in 2000 was 98 per 100 persons in the working group. Its overall dependency ratio is slightly higher than the national ratio of 96 per 100 persons. The table further shows that the burden of dependency on the working age population increased during the. For instance, *overall* and *child* dependency ratios increased by about four persons from 94 and 84 dependants per 100 persons (respectively) in 1990 to 98 and 89 dependants respectively, in 2000.

Table 3.7 also reveals that during the 1990-2000 period, persons in productive ages who reside in rural areas continue to bear a heavy burden of dependants compared to their urban counterparts, whose dependency has decreased. In 2000, for every 100 dependants per 100 persons in rural areas, there were 81 dependants for every 100 persons in urban areas.

Table 3.7 Dependency Ratio by Residence and District, 1990-2000

Residence	Ratios	1990	2000
Zambia	**Overall Dependency Ratios**	95.1	96.2
	Child Dependency Ratios	87.2	90.9
	Aged Dependency Ratios	5.0	5.4
Western	Overall Dependency Ratios	94.0	97.8
	Child Dependency Ratios	84.4	88.6
	Aged Dependency Ratios	9.6	9.1
Rural	Overall Dependency Ratios	95.2	100.1
	Child Dependency Ratios	84.8	90.2
	Aged Dependency Ratios	10.4	9.9
Urban	Overall Dependency Ratios	86.4	81.4
	Child Dependency Ratios	82.1	77.4
	Aged Dependency Ratios	4.3	4.0
Kalabo	Overall Dependency Ratios	94.0	96.9
	Child Dependency Ratios	83.0	86.2
	Aged Dependency Ratios	10.9	10.6
Kaoma	Overall Dependency Ratios	88.1	96.1
	Child Dependency Ratios	79.9	87.8
	Aged Dependency Ratios	8.2	8.2
Lukulu	Overall Dependency Ratios	98.3	104.0
	Child Dependency Ratios	88.1	94.8
	Aged Dependency Ratios	10.2	9.1
Mongu	Overall Dependency Ratios	92.1	92.3
	Child Dependency Ratios	82.2	83.1
	Aged Dependency Ratios	9.9	9.2
Senanga	Overall Dependency Ratios	98.3	99.2
	Child Dependency Ratios	89.5	90.2
	Aged Dependency Ratios	8.8	9.0
Sesheke	Overall Dependency Ratios	96.5	98.9
	Child Dependency Ratios	86.4	89.0
	Aged Dependency Ratios	10.1	9.9
Shang'ombo*	Overall Dependency Ratios		108.5
	Child Dependency Ratios		100.5
	Aged Dependency Ratios		8.0

Source: CSO, 1990 and 2000 Censuses of Population and Housing

Note: " * " denotes new district

Table 3.7 further shows that between 1990 and 2000 census periods, overall and child dependency ratios has increased for all districts, while aged dependency has either reduced or remained static. Mongu, which makes up most of the provincial urban population, recorded only a slight increase. As stated earlier, dependency on the productive population in urban areas did not vary much between 1990 and 2000.

3.5.3 Household Headship

Household headship by various characteristics is presented in Table 3.8. The table shows that close to 1 in 4 households are female headed. In comparison to the national, Western province has more female headed households than the national level of one in five households. With a high rural provincial population, it is not surprising that there are more heads of household in rural (133,874) than urban areas (16,546), about eight times more heads in rural than urban areas. Distinction of household heads by sex is important because it is often associated with aspects of household welfare. For instance, female-headed households are typically poorer than male-headed households (CSO, 1998 & 2003).

Table 3.8: Household Headship by Sex, Marital Status, Residence and District, Western Province, 2000

Residence/ Marital Status/District	Number of Household Heads	Total Percentage of Household heads	Sex of Head	
			Male	Female
Zambia	1,884,741	100.0	81.1	18.9
Residence				
Western	150,420	100.0	73.4	26.6
Rural	133,874	100.0	73.4	26.6
Urban	16,546	100.0	73.0	27.0
Marital Status				
Married	98,823	100.0	95.4	4.6
Separated	5,083	100.0	30.8	69.2
Divorced	14,482	100.0	25.0	75.0
Widowed	19,708	100.0	19.2	80.8
Never Married	11,974	100.0	58.5	41.5
Living Together/Cohabiting	350	100.0	25.4	74.6
District				
Kalabo	23,970	100.0	71.1	28.9
Kaoma	29,984	100.0	74.5	25.5
Lukulu	13,488	100.0	76.2	23.8
Mongu	32,054	100.0	72.7	27.3
Senanga	20,956	100.0	70.6	29.4
Sesheke	15,929	100.0	78.0	22.0
Shangombo	14,039	100.0	72.6	27.4

Source: CSO, 2000 Census of Population and Housing

Table 3.8 further shows that headship of household for a female is more likely to occur when they are cohabiting (75 percent), divorced (75 percent) and widowed (81 percent). Among the married and never married, the majorityof the heads are male. Amongst the districts, Senanga and Kalabo exhibit the highest proportion of female heads of households at 29 percent each, while Sesheke has the least at 22 percent.

3.5.4 Marital Status

Categorisation of marital status in the 2000 Census included married, separated, divorced, widowed, never married and co-habiting which was not available in the 1990 Census. Table 3.9 presents the percentage distribution of marital status of population above 12 years by age, sex, residence and district. The majority of young males and females in the age group 15-19 years have never married. However, slightly over one in six of the females (16 percent) are married compared to three percent of males.

Table 3.9 Percent Distribution of Population 12 years and above by Age, Sex and Marital Status, Western Province, 2000

	Married		Separated		Divorced		Widowed		Never Married		Cohabiting		Total Number of Cases	
Age Group	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
12-14	0.8	0.9	0.0	0.0	0.0	0.1	0.1	0.2	99.0	98.6	0.1	0.1	24,709	24,801
15 - 19	2.3	16.5	0.2	0.7	0.2	0.8	0.2	0.4	97.0	81.1	0.2	0.6	40,102	42,777
20 - 24	23.2	47.8	0.8	2.6	1.0	4.3	0.4	1.4	74.2	42.9	0.4	1.0	28,512	36,286
25 - 29	54.2	60.3	1.6	3.8	2.3	8.3	0.8	3.2	40.5	23.6	0.5	0.7	22,908	27,553
30 - 34	71.1	63.7	2.2	4.6	4.0	11.7	1.8	6.5	20.5	13.0	0.3	0.5	16,878	20,638
35 - 39	78.2	66.5	2.2	4.3	4.7	12.6	2.3	8.3	12.4	8.1	0.2	0.3	13,090	17,416
40 - 44	83.2	64.8	2.1	4.4	4.8	13.0	3.1	12.6	6.6	4.9	0.3	0.3	11,194	15,013
45 - 49	83.8	61.1	2.0	4.3	4.8	14.4	3.6	16.1	5.6	3.8	0.2	0.2	82,81	11,458
50 - 54	82.8	56.7	2.5	3.6	5.2	14.0	5.4	23.0	4.0	2.5	0.1	0.1	72,77	11,019
55+	78.3	35.1	2.3	3.4	6.2	14.4	10.3	44.3	2.7	2.6	0.1	0.1	29,515	30,752
Size	87,754	99,725	2,591	6,572	5,339	18,428	5,080	24,309	101,187	87,584	515	1,095	202,466	237,713

Source: CSO, 2000 Census of Population and Housing

It is a common practice for males to marry later than females with the latter presenting higher rates of those separated, divorced and widowed than their counterparts. This could be due to another common practice of males re-marrying more frequently than females. For instance, Table 3.9 shows that from age 30, the proportion of widows is higher than that of widowers by a range of 4 to 34 percentage points. In the oldest

age group (55 and above), one in ten men compared to about one in two women are widowed. Table 3.9 also shows that about one in two females in their early 20s are married compared to one in four males of the same age.

3.5.5 Ethnicity and Citizenship

In the 2000 Census, ethnicity implied indigenous Zambian tribes while citizenship referred to the continent of origin for non-Zambians. Information on racial characteristics is useful in the analysis of economic and social development in societies where the population is not homogenous. Planning of future development of resources is thus made possible through such analyses (UN: 95).

3.5.5.1 Ethnicity

As might be expected, Table 3.10 shows that the population in Western Province mostly constitutes persons of African origin, with 99.9 percent. The American, Asian, European and 'Other' ethnic groups make up the remaining 0.1 percent. This is similar to the national with 99.5 percent of the population being persons of African origin. This ethnic composition, dominated by Africans, is similar to that of 1990 Population census, with slight variations in proportions. In 1990, the proportion of Africans was 99.2 percent. 'Other' ethnic groups made up the remaining 0.8 percent.

Rural and urban comparison shows a higher presence of non-African ethnic groups in urban than rural areas. It is apparent that there are more males than females of non-African origin.

Table 3.10: Ethnic Composition of the Population by Sex and Residence of Western province, 2000

Residence/Sex		Ethnic Group					
		African	American	Asian	European	Other	Total
Zambia	Male	4,572,026	691	6,272	3,462	11,839	4,594,290
	Female	4,722,128	507	5,576	2,720	12,204	4,743,135
	Both sexes	9,294,154	1,198	11,848	6,182	24,043	9,337,425
Percent of total population		**99.54**	**0.01**	**0.13**	**0.07**	**0.26**	**100**
Western Province	Male	335,914	25	26	53	242	336,260
	Female	371,556	9	12	37	259	371,873
	Both sexes	707,470	34	38	90	501	708,133
Percent of total population		**99.91**	**0.00**	**0.01**	**0.01**	**0.07**	**100**
Rural	Male	297,382	22	15	29	203	297651
	Female	330,631	7	9	16	221	330,884
	Both sexes	628,013	29	24	45	424	628,535
Percent of total population		**99.92**	**0.00**	**0.00**	**0.01**	**0.07**	**100**
Urban	Male	38,532	3	11	24	39	38,609
	Female	40,925	2	3	21	38	40,989
	Both sexes	79,457	5	14	45	77	79,598
Percent of total population		**99.82**	**0.01**	**0.02**	**0.06**	**0.10**	**100**

Source: CSO, 2000 Census of Population and Housing

3.5.5.2 Citizenship

Table 3.11 presents information on the citizenship of the population in Western Province. It is most apparent that the majority of foreign citizens in the province hail from Angola (96 percent), followed by those from Zimbabwe at one percent. 'Other' foreign citizens make up the remaining three percent. Amongst those who stated their citizenship in the 1990 Census, Namibia had the highest proportion (18 percent) of citizens in Western Province. This shows an actual decrease in the number of foreign citizens from Namibia between

1990 and 2000. The influx of foreigners from Angola could be mostly attributed to refugees fleeing from wars and civil strife in this country.

Table 3.11 Foreign Population of Western Province by Citizenship, 1990 and 2000

Country/Region	Percent 1990	Percent 2000	Population 2000
Zimbabwe	1.5	0.9	125
Malawi	0.3	0.1	12
Botswana	0.2	0.1	12
Angola	61	95.8	12,953
Namibia	18.3	0.4	57
South Africa		0.3	38
Other Southern Africa	0.3	0.0	2
Western Africa	0.6	0.5	65
Uganda		0.1	19
Other Eastern Africa	0.3	0.1	20
Congo		0.2	24
Congo DR		0.2	32
Other Central Africa	0.4	0.1	11
Northern Africa	0.2	0.2	27
Other African Countries		0.1	8
Germany		0.1	8
Other Europe	1.1	0.3	47
United States Of America		0.2	24
Other Americas	0.1	0.0	3
Australia		0.0	5
Japan		0.1	12
Other Asia & Oceania	0.3	0.1	9
Not Stated	15.6	0.1	11
Percent Total	100	100	13,524
Total foreign Citizens	12,598		
Percent Foreign Population	2.1	1.9	

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

***Note**: Nationals less than five (5) were grouped under 'Other' totals.*

3.5.6 Economic Characteristics

Data on economic characteristics of the Western Province population was collected during the 2000 Census. Economic characteristics pertaining to labour force participation, employment and unemployment, employment status, occupation, industry and educational attainment are covered in detail in Chapter Six of this report. This section mainly presents summary economic characteristics (Table 3.12).

Table 3.12 Summary of Economic Characteristics, Western Province, 2000

Characteristics	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total Population (12 yrs and above)	440,308	202,551	237,757	388,331	177,730	210,601	51,977	24,821	27,156
Current Labour Force Size	305368	144137	161,231	279,892	130,308	149,584	25,476	13,829	11,647
Current Participation Rate	69.4	71.2	67.8	72.1	73.3	71.0	49.0	55.7	42.9

Age Dependency Ratio	97.8	109.5	88.3	113.3	100.1	89.5	81.4	83.9	79.2
Economic Dependency Ratio	44.2	40.5	47.5	38.7	36.4	40.8	104.0	79.5	133.2

Source: CSO, 2000 Census of Population and Housing

Table 3.12 shows that of the total population in Western Province, 440,308 comprise those over 12 years, commonly referred to as the *working age population*. Majority of these are found in rural than urban areas (388,331 vs. 51,977) and are mostly women. Despite dominance of females in the working age population, majority of these are considered economically inactive due to their classification as full-time homemakers. In all, 69 percent of the total working age population in the province, are economically active or make up the labour force: 71.2 percent for males and 67.8 percent for females.

In general, Table 3.12 indicates that age dependency is higher for persons in rural than urban areas while the reverse is true for economic dependency ratios. Notably, females in the productive age, particularly those in urban areas, tend to experience more stress from persons in the non-productive age groups than the male counterparts. The economic dependency ratio for females in urban areas is more than twice that of rural areas, 133 versus 40.8.

3.6 Summary

Western Province's de jure or simply 'true' or resident population recorded in the 2000 census is 765,088. However, the de facto population adopted for analytical purposes in this chapter and the rest of the report is 708,133 of which 52.5 percent are females. The population has continued to grow from an average annual growth rate of 1.6 percent between 1969-1980 to 2.2 percent between 1980-1990 then at a declining average annual growth rate of 1.8 percent during the last inter-censal period of 1990-2000. The proportion living in rural areas in the past decades has continued to increase, whilst the proportion of the urban population has declined from 13 percent in 1990 to 12 percent in 2000.

Analysis of the age-sex distribution indicates that overtime Western Province has maintained a young population. The proportion of those below the age of 15 years has increased from 43.5 (1990) to 43.8 percent (2000). Population pyramids for 1990 and 2000 indicate a change in the age-sex structure, which could be attributed to increased mortality, particularly for adults. This has been observed by population gaps in 2000 for adults in the 20s and 30s (as of 2000) who may be more affected by the impact of AIDS and as well as complications associated with a declining economy.

Headship of households is still dominated by males, with only one in four being female household heads. In absolute terms, there are almost eight times more heads of household in rural than urban areas. The overall dependency ratio as of 2000 Census was 98 per 100 persons in the economically active group (15-64 years). It has been noted that dependency on productive persons increased during the 1990s. Summary economic characteristics of the population give a provincial labour force size of 305,368, most of which is found in rural areas.

In addition, participation rates for males are higher than females, 71 and 68 percent, respectively. Finally, the chapter indicates that in comparison to rural counterparts, the economic burden on productive persons in urban areas is higher.

Chapter 4

LANGUAGE OF COMMUNICATION AND ETHNICITY

4.1 INTRODUCTION

mbia is a country endowed with many languages. Officially, there are 73 ethnic groups in Zambia with each of them speaking a dialect of the seven language cluster groups. Though language is not invariably synonymous with tribe, it is a fair assumption that the number of dialects of language clusters in the country is equal to the number of tribes.

ere are seven languages or language clusters that are used in Zambia besides English for official purposes such as broadcasting (both on radio and television), literacy campaigns and the official dissemination of information. These are (in alphabetical order), Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga. They represent language clusters around which exist several dialects. Although these languages are taught in schools in specific provinces, the official language of instruction in schools is English. The 2000 Census of Population and Housing collected information on the predominant language of communication in the cluster spoken by an individual as well as the second language. The former referred to the language a person uses most frequently in their day-to-day communication. The second language is the next most frequently used language of communication. The matter of second language shows the phenomenon of trans-tribe character of some languages in that they are spoken by other tribes.

nguages presented in the tables are in five categories. The first set of languages are those most spoken in a given geographical location. Secondly, there are broad groups of languages which are mainly formed by combining languages which were mutually intelligible. For example Tonga, Ila, Lenje and Soli form one language group because they are not mutually unintelligible languages. Thirdly, there is a set of languages which are trans-tribe such as Bemba and nyanja and have become increasing so. Fourthly, there are some languages that are slowly becoming extinct. Accordingly, when for example a person says they are Chishinga, Tabwa, they will say their mother tongue is Bemba. Fifthly, languages presented in the tables also deal with the category of gender. The chapter discusses the distribution of language in relation to the use by men and women. It has been necessary to make observations in this area to help in getting a clearer picture vis-à-vis language as for example in rural and urban areas.

hould be noted from the onset that children under the age of two years and persons with speech impairment did not report any language of communication. This directly implies that the population reported to speak a predominant language cluster hereafter referred to as language of communication is less than the total population of the province. The population speaking a second language of communication is therefore even smaller.

Predominant Language of Communication

4.2.1 Provincial Distribution

Table 4.1 shows the 22 most spoken languages in Western Province. The predominant language of communication in Western Province in the year 2000 was Lozi with 60.0 percent of the population using it.

Table 4.1: Predominant Language of Communication by Residence, Western Province, 2000

Predominant Language Of Communication	*Total*	*Rural*	URBAN
Bemba	0.4	0.1	2.8
Tonga	0.3	0.1	1.2
Luvale	4.4	4.6	2.3
Lunda (North-Western)	0.4	0.4	0.2
Mbunda	12.4	13.3	5.4
Luchazi	2.1	2.2	1.1
Chokwe	0.8	0.8	0.5
Kaonde	0.4	0.4	0.2
Luyana	1.1	1.2	0.0
Kwangwa	0.6	0.7	0.0
Kwandi	0.3	0.3	0.0
Koma	1.7	1.9	0.1
Nyengo	1.3	1.5	0.1
Simaa	0.6	0.7	0.0
Mwenyi	0.6	0.7	0.0
Imilangu	0.2	0.3	0.0
Manshi	3.4	3.7	0.6
Lozi	60.0	57.8	77.7
Nkoya	4.1	4.6	0.7
Nyanja	0.4	0.2	1.8
English	0.2	0.1	1.0
Other Langugage	4.3	4.4	4.3
Percentage Total	100	100	100
Population	663,842	588,879	74,963

Source: CSO, 2000 Census of Population and Housing

In descending order, the first seven widely spoken languages in Western Province are, Lozi (60.0 percent), Mbunda (12.4 percent), Luvale (4.4 percent), Nkoya (4.1 percent), Manshi (3.4 percent), Luchavi (2.1 percent) and Koma (1.7 percent).

These languages with the exception of Mbunda and Luchazi are spoken by 73 percent of the population compared with 71.2 percent of the population speaking the same languages in 1990. This shows a general increase in the collective usage of these languages in the province.

4.2.2. District Distribution

The predominant language of communication in all the districts of Western Province is Lozi. The percentage is highest in Sesheke (89.6 percent), followed by Mongu (84.6 percent) and Senanga (77.8 percent). In Kalabo, it is spoken by slightly over 50 percent of the population. In four districts of Western Province namely Kalabo, Kaoma, Mongu and Senanga, Mbunda is the next most significant predominant language of communication at 15.5, 26.1, 6.0 and 12.9 percent respectively. Furthermore, it is spoken by a significant proportion of the population in Lukulu (8.0 percent) and Shang'ombo (7.0 percent). In Lukulu, 27.1 percent of the population speak Luvale, making it the next predominant language of communication after Lozi (35.6 percent). After Lozi and Luvale, Nkoya is the next significant language in Lukulu at 13.5 percent, it is spoken by almost the same proportion of people in Kaoma (13.4 percent). In Shang'ombo, slightly over 30 percent of the population speak Manshi, making it the next significant language after Lozi (42.5 percent), it is followed by Luyana which is spoken by 11.1 percent of the population. In Sesheke, after Lozi, the remaining languages are spoken in small varying proportions

Table 4.2: Predominant Language of Communication by District, Western Province, 2000

Predominant Language	Total	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shang'ombo
Bemba	0.4	0.1	1.2	0.2	0.5	0.2	0.3	0.1
Tonga	0.3	0	0.5	0.1	0.4	0.1	0.5	0
Luvale	4.4	1.2	5.9	27.1	1.6	1.3	0.9	0.1
Lunda (North-Western)	0.4	0	0.3	3.8	0.1	0	0	0
Mbunda	12.4	15.5	26.1	8.1	6.0	12.9	0.2	7.0
Luchazi	2.1	0.2	8.2	0.9	0.7	0.4	0.3	0.1
Chokwe	0.8	0.1	2.5	0.4	0.1	1	0.3	0
Kaonde	0.4	0	1.8	0.1	0	0	0	0
Luyana	1.1	0	0	0.9	0	0.1	0	11.1
Kwangwa	0.6	0	1.2	0.1	0.9	1.1	0.1	0.1
Kwandi	0.3	0.2	0	0.3	0	0.1	0	2.2
Koma	1.7	8.8	0.4	3	0	0	0	0
Nyengo	1.3	8.1	0.2	0.2	0	0	0	0
Simaa	0.6	3.2	0	0	0	0	0	1.3
Mwenyi	0.6	3.6	0	0.7	0	0	0	0
Imilangu	0.2	1.5	0	0	0	0	0	0.1
Manshi	3.4	2.8	0.6	0	0.1	0.3	0.7	30.6
Lozi	60.0	50.8	32.3	35.6	84.6	77.8	89.6	42.5
Nkoya	4.1	0	13.4	13.5	0.2	0	1.0	0
Nyanja	0.4	0.1	0.9	0.1	0.5	0.2	0.3	0.1
English	0.2	0.1	0.2	0	0.4	0.1	0.2	0
Other Language	4.3	3.7	4.3	4.9	3.9	4.4	5.6	4.7
Total	100	100	100	100	100	100	100	100
Population	663,842	102,270	139,156	56,954	143,373	97,002	66,801	58,286

Source: CSO, 2000 Census of Population and Housing

The predominant languages of communication are one of the indigenous languages in the respective districts. This indicates that all languages are still most widely used in their districts of origin. In all the districts, less than 1 percent of the population speak English as their predominant language of communication. This is despite it being the country's official language of communication, see Table 4.2 for more details.

Predominant Language Groups

re than 70 percent of all languages spoken in Western Province are in the Barotse language group. In addition, 73.6 percent of the rural and 79.3 percent of the urban population speak a language in this group. The next widely spoken languages in Western Province are in the North-Western group (20.5 percent). Languages in the other language groups are spoken in very small proportions with Mambwe and Tumbuka language groups being almost non-existent especially in rural Western Province. The North-Western language group is more prevalent in rural than urban areas of Western Province (21.8 percent compared to 9.8 percent). As expected, English is predominantly spoken in urban areas of Western Province than in rural areas (refer to Table 4.3).

ble 4.3: Predominant Language Groups by Sex and Residence, Zambia, 2000

Predominant Language	Total			Rural			Urban		
of communication	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba	0.5	0.5	0.5	0.2	0.2	0.2	2.9	3.0	2.8
Tonga	0.4	0.4	0.4	0.3	0.3	0.3	1.5	1.5	1.5
North-Western	20.5	20.5	20.4	21.8	21.9	21.7	9.8	9.7	9.8
Barotse	74.2	73.8	74.6	73.6	73.2	73.9	79.3	78.5	80.0
Nyanja	0.5	0.5	0.4	0.3	0.3	0.2	2.2	2.3	2.0
Mambwe	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Tumbuka	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
English	0.2	0.3	0.1	0.1	0.1	0.0	1.0	1.3	0.8
Other Languages	3.7	3.9	3.6	3.8	4.0	3.6	3.1	3.3	3.0
Total	100	100	100	100	100	100	100	100	100
Population	663,842	314,034	349,808	588,879	277,787	311,092	74,963	36,247	38,716

rce: CSO, 2000 Census of Population and Housing

Trends in Language Groups' Distribution, 1980 – 2000

le 4.4 shows trends in the percentage share of each language group for the period 1980 –2000. The Barotse group has remained dominant throughout the last 20 years followed by the North-Western language group.

all the language groups, only the Barotse group showed an increase in usage as a predominant language group with an increase of 5.7 percentage points between 1990 and 2000. The Tonga group had the largest drop in usage of 0.3 percentage points followed by the Bemba group (0.2 percentage points). The English and Nyanja groups remained relatively stable in their usage as predominant languages between 1990 and 2000 censuses. The Mambwe and Tumbuka language groups were almost non-existent in all three censuses.

The distribution of the languages spoken over the last two decades indicates a continued predominance of languages belonging to the Barotse language group (see Table 4.4 for details).

ble 4.4: Predominant Language Groups by Census year, Western Province, 1980 – 2000.

Language group	Percentage of Total Population		
	1980	1990	2000
Bemba	0.7	0.7	0.5
Tonga	0.6	0.7	0.4
North-Western	18.5	27.1	20.5
Barotse	74.2	68.5	74.2
Nyanja	0.8	0.5	0.5
Mambwe	0.0	0.0	0.0
Tumbuka	0.0	0.0	0.0
English	3.0	0.2	0.2
Other	2.2	2.2	3.7
Total	100	100	100
Population	455,758	581,956	663,842

Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

4.5 Second Language of Communication

For each respondent, the census collected information on not only the predominant language of communication but also the second language of communication. Results on the second language of communication are presented in Table 4.5 and Table 4.6. Table 4.5 shows that only 41 percent or 271,359 people in the province spoke a second language. Thus, a fairly large proportion of the people speak more than one language.

Most notable here is the fact that the most spoken second language of communication is Lozi with a percentage share of 39.9 percent followed by English (12.1 percent). Other widely spoken second languages are Mbunda (10.6 percent), Nyanja (6.7 percent), Luvale (5.8 percent) and Bemba (4.0 percent).

Table 4.5: Second Language of Communication by Residence, Western Province, 2000

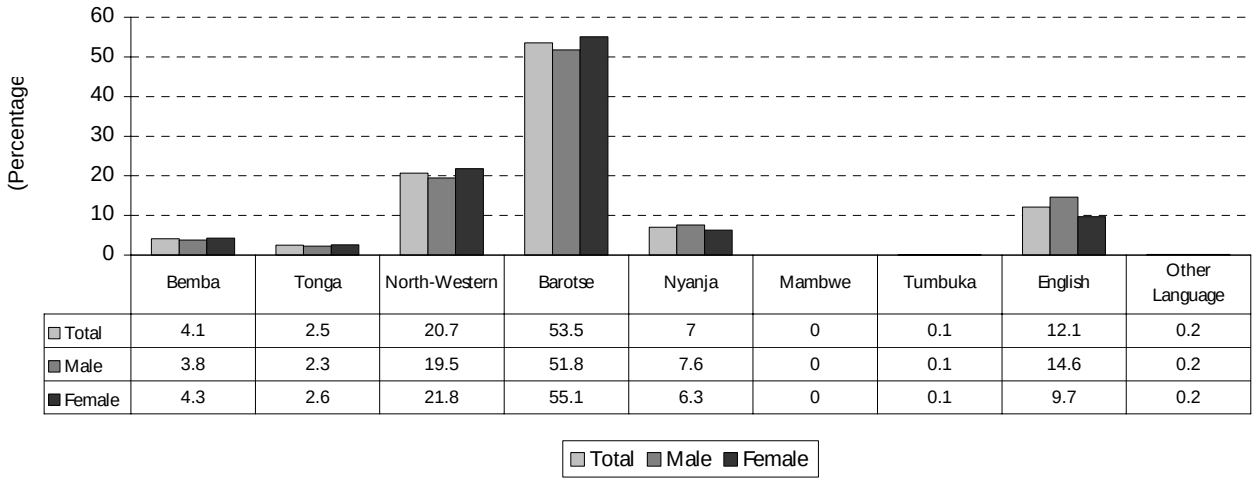
Second Language of Communication	Total	Rural	Urban
Bemba	4.0	3.4	7.4
Tonga	1.9	1.8	2.7
Toka-Leya	0.3	0.4	0.2
Luvale	5.8	6.1	3.5
Lunda (North-Western)	0.8	0.8	0.5
Mbunda	10.6	11.1	7.6
Luchazi	2.0	2.1	0.9
Mbowe	0.1	0.2	0.0
Chokwe	0.9	1.0	0.4
Kaonde	0.5	0.5	0.4
Luyana	0.3	0.4	0.0
Kwangwa	2.8	3.2	0.6
Kwandi	0.3	0.3	0.0
Koma	1.0	1.0	0.8
Nyengo	1.2	1.2	0.5
Simaa	0.6	0.7	0.0
Mwenyi	0.4	0.5	0.2
Imilangu	0.2	0.2	0.0
Manshi	1.2	1.4	0.5
Lozi	39.9	43.7	16.2
Totela	1.2	1.4	0.1
Subiya	0.7	0.7	0.4
Nkoya	3.6	4.0	0.9
Chewa	0.1	0.1	0.2
Nyanja	6.7	5.7	13.1
English	12.1	7.3	41.5
Other Language	0.7	0.7	1.2
Total	100.0	100.0	100.0

total Population	271,359	233,804	37,555

Source: CSO, 2000 Census of Population and Housing

Table 4.6 and Figure 4.1 shows the distribution of the Second language groups by sex and residence. Disaggregated by sex and residence, the language groups present a picture similar to that for predominant languages with the exception of the proportion of the population using English and Nyanja, which is significantly higher.

Figure 4.1: Second Language Group by Sex, Western Province, 2000



	Bemba	Tonga	North-Western	Barotse	Nyanja	Mambwe	Tumbuka	English	Other Language
Total	4.1	2.5	20.7	53.5	7	0	0.1	12.1	0.2
Male	3.8	2.3	19.5	51.8	7.6	0	0.1	14.6	0.2
Female	4.3	2.6	21.8	55.1	6.3	0	0.1	9.7	0.2

Source: CSO, 2000 Census of Population and Housing

The Barotse language group shows dominance in magnitude with 53.5 percent of the population using it. The other language groups showing dominance in magnitude are North-Western (20.7 percent), English (12.1 percent) and Nyanja (7.0 percent). These three language groups account for about two fifths of the population speaking a second language (39.8 percent). It must be noted that English is spoken as the second language of communication by more than two fifths (41.5 percent) of the population in urban areas compared to 7.3 percent of persons using the language in rural areas. There is a difference between urban women who speak English (38.6 percent) and their rural counterparts (5.2 percent). Furthermore, English and Nyanja are the only languages which are more spoken by males than females.

Table 4.6: Second Language Group by Sex and Residence, Western Province, 2000

Second Language Group	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba speaking	4.1	3.8	4.3	3.5	3.3	3.6	7.6	6.7	8.4
Tonga speaking	2.5	2.3	2.6	2.3	2.3	2.4	3.2	2.6	3.8
Northwestern	20.7	19.5	21.8	21.9	20.6	23.0	13.3	12.6	14.0
Barotse	53.5	51.8	55.1	58.8	57.2	60.3	20.4	19.5	21.3
Nyanja speaking	7.0	7.6	6.3	5.9	6.7	5.2	13.5	13.6	13.4
Mambwe	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Tumbuka	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
English	12.1	14.6	9.7	7.3	9.6	5.2	41.5	44.5	38.6
Other Language	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2
Total	100	100	100	100	100	100	100	100	100
Total Population	271,359	131,525	139,834	233,804	112,747	121,057	37,555	18,778	18,777

Source: CSO, 2000 Census of Population and Housing

4.6 ETHNICITY

he 2000 Census of Population and Housing, seven broad groups of tribes were identified. These are: Bemba group, Tonga group, North-Western group, Barotse group, Nyanja or Eastern Group, Mambwe group and the Tumbuka group. The groups are such that all the tribes in Zambia belong to one of these broad tribal groupings. The Bemba group includes all tribes of Luapula Province, some tribes in Central and Copperbelt provinces and all but those tribes belonging to the Mambwe group in the Northern Province. The Tonga group consists of all

the tribes of Southern Province in addition to Lenje from Central Province and also the Soli and Gowa tribes from Lusaka Province.

e North-Western and Barotse groups consist of all the tribes of the North-Western and Western provinces respectively. The Nyanja group (getting its name from the lingua franca from the languages spoken by the people in its group) consists of some tribes of the Eastern Province including the Chikunda of Lusaka Province. Lungu, Mambwe Namwanga, Wina and Tambo make up the Mambwe group while the Tumbuka group is made up of Tumbuka, Senga and the Yombe on the northern part of Eastern Province bordering the Northern Province.

The major indigenous ethnic groups in Western Province are Lozi, Nkoya, Mashi, Koma, Kwangwa and Nyengo. The major ethnic groups in Western Province are Lozi, Nkoya, Mashi, Koma, Kwangwa and Nyengo. However, internal migration has brought about integration of various ethnic tribes in the province, of which Mbunda and Luvale are the most significant non-indigenous ethnic tribes.

The 25 most predominant ethnic groups in Western Province as reported are shown in Table 4.7. In descending order, the 10 largest ethnic groups are Lozi (42.8 percent), Mbunda (15.4 percent) , Luvale (5.8 percent), Kwangwa (5.2 percent), Nkoya (4.9 percent), Mashi (4.6 percent), Luchazi (2.5 percent), Africans (2.1 percent), Koma (2.0 percent) and Nyengo (1.9 percent).

Table 4.7: Ethnic groups by Residence, Western Province, 2000

Tribe/Nationality	Total	Rural	Urban
Bemba	0.6	0.3	2.9
Tonga	0.9	0.5	3.6
Toka-Leya	0.7	0.7	0.5
Luvale	5.8	5.8	5.3
Lunda (N/West)	0.7	0.7	0.9
Mbunda	15.4	15.6	13.3
Luchazi	2.5	2.6	1.9
Mbowe	0.3	0.4	0.2
Chokwe	1.2	1.2	1.3
Kaonde	0.5	0.5	0.7
Luyana	1.5	1.7	0.1
Kwangwa	5.2	5.7	1.4
Kwandi	1.2	1.3	0.4
Koma	2.0	2.1	1.3
Nyengo	1.9	2.1	0.7
Simaa	1.0	1.1	0.1
Mwenyi	0.7	0.8	0.2
Imilangu	0.3	0.4	0.1
Mashi	4.6	5.0	1.5
Lozi	42.8	41.3	54.8
Totela	1.0	1.0	0.4
Subiya	0.9	0.9	1.0
Nkoya	4.9	5.3	1.6
Nyanja	0.2	0.1	0.9
Africans	2.1	2.3	0.4
Other Zambian	1.1	0.6	4.5
Total	100	100	100
Population	708,133	628,535	79,598

rce: CSO, 2000 Census of Population and Housing

In terms of residence, among the 10 largest ethnic groups, Kwangwa, Nkoya, Mashi and Nyengo ethnic groups are more prevalent in rural areas than in urban areas of the province. On the other hand, Lozi is more prevalent in urban than in rural areas (54.8 percent versus 41.3 percent). This high prevalence of the language in urban areas is a manifestation of the fact that it is an established lingua franca in the province.

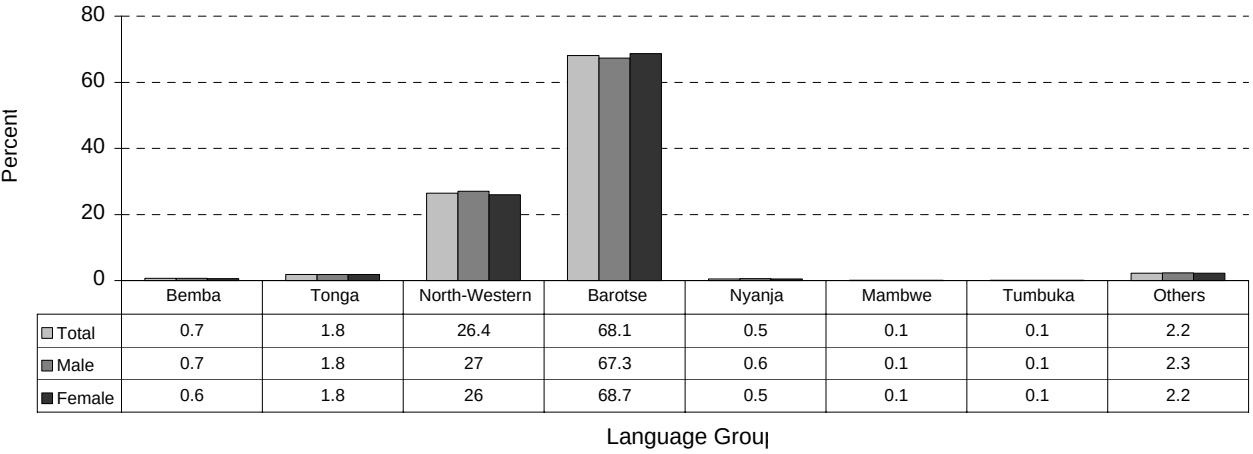
.

Broad Ethnic Groups

e distribution of broad ethnic groups by residence and sex is shown in Table 4.8 and Figure 4.2. Tribes in the Barotse ethnic group account for more than two thirds of all tribes in Western Province. From the previous section, it is clear that more than 74 percent of all people in Western province speak a language from the Barotse language group. Additionally, 68.6 percent and 63.6 percent of the people belonging to the Barotse tribal group reside

in rural and urban areas respectively. The distribution of the people of the Barotse group by sex shows very insignificant variations.

Figure4.2: Broad Ethnic Groups by Sex, Western Province, 2000



	Bemba	Tonga	North-Western	Barotse	Nyanja	Mambwe	Tumbuka	Others
Total	0.7	1.8	26.4	68.1	0.5	0.1	0.1	2.2
Male	0.7	1.8	27	67.3	0.6	0.1	0.1	2.3
Female	0.6	1.8	26	68.7	0.5	0.1	0.1	2.2

rce: CSO, 2000 Census of Population and Housing

ure 4.2 further reveals that in order of size, the North-Western Group is the next largest of the tribal groups at 26.4 percent of the whole population. The others are: Tonga (1.8 percent), Bemba (0.7 percent), Nyanja (0.5 percent), Mambwe and Tumbuka groups (0.1). The others (that is non-Zambian tribes/ethnic groups) account for 2.2 percent of the population. This relatively high prevalence of non-Zambian ethnic groups may be attributed to the presence of refugees in the province particularly from Angola. The distribution by residence of all these tribes show that the Bemba, Tonga, Nyanja, Mambwe and Tumbuka are more prevalent in urban Western Province. This is a typical characteristic of the distribution of tribes from outside the province. Persons belonging to tribes from outside the province mainly reside in the urban areas chiefly for economic reasons.

ble 4.8: Broad Ethnic Groups by Sex and Residence, Western Province,2000

Tribe/Nationality	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba	0.7	0.7	0.6	0.3	0.4	0.3	3.5	3.7	3.3
Tonga	1.8	1.8	1.8	1.4	1.4	1.4	4.9	5.0	4.8
North-Western	26.4	27.0	26.0	26.8	27.4	26.3	23.6	24.2	22.9
Barotse	68.1	67.3	68.7	68.6	68.0	69.2	63.6	62.3	64.9
Nyanja	0.5	0.6	0.5	0.3	0.3	0.3	2.6	2.8	2.4
Mambwe	0.1	0.1	0.1	0.0	0.0	0.0	0.6	0.6	0.5
Tumbuka	0.1	0.1	0.1	0.0	0.1	0.0	0.7	0.8	0.6
English	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	2.2	2.3	2.2	2.4	2.5	2.4	0.6	0.6	0.6
Total	100	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Population	708,133	336,260	371,873	628,535	297,651	330,884	79,598	38,609	40,989

Source: CSO, 2000 Census of Population and Housing

Provincial Level, a significant proportion of the population belongs to the Barotse or North-Western tribal groups. These two groups make up 94.5 percent of the population in Western Province. This distribution stays the same by residence.

Table 4.9: Ethnic Groups by District, Western Province, 2000

Tribe/Nationality	Total	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shangombo
Bemba	0.6	0.2	0.9	0.3	0.8	0.3	0.7	0.2
Tonga	0.9	0.3	1.0	0.3	1.2	0.5	2.2	0.3
Ila	0.1	0.0	0.1	0.0	0.1	0.1	0.5	0.0
Toka-Leya	0.7	0.5	0.2	0.1	0.4	0.2	4.6	0.2
Luvale	5.8	3.1	6.9	26.1	4.3	2.1	3.1	0.4
Lunda (N/West)	0.7	0.1	0.7	4.8	0.4	0.1	0.1	0.0
Mbunda	15.4	21.7	22.8	10.7	13.8	15.3	2.5	9.9
Luchazi	2.5	0.5	8.0	1.6	1.7	0.9	0.9	0.3
Mbowe	0.3	0.5	0.1	2.0	0.2	0.1	0.1	0.1
Chokwe	1.2	0.2	2.8	1.1	0.6	1.6	1.0	0.2
Kaonde	0.5	0.0	2.1	0.1	0.2	0.1	0.2	0.1
Luyana	1.5	0.1	0.1	0.7	0.6	0.1	0.1	14.6
Kwangwa	5.2	0.4	3.9	0.8	13.7	6.4	3.2	0.8
Kwandi	1.2	1.9	0.5	0.9	0.3	1.7	1.2	3.6
Koma	2.0	8.8	1.2	3.0	0.5	0.1	0.1	0.0
Nyengo	1.9	10.0	0.5	0.2	0.5	0.3	0.8	0.3
Simaa	1.0	5.2	0.1	0.0	0.0	0.1	0.0	1.3
Mwenyi	0.7	4.1	0.1	0.8	0.1	0.0	0.0	0.0
Imilangu	0.3	2.1	0.0	0.0	0.0	0.0	0.0	0.1
Mashi	4.6	5.5	0.9	0.1	0.5	1.0	1.6	35.5
Lozi	42.8	32.1	22.0	31.0	55.2	66.9	62.9	28.9
Totela	1.0	0.4	0.1	0.0	0.5	0.7	5.0	1.9
Subiya	0.9	0.5	0.3	0.1	0.8	0.5	5.0	0.3
Nkoya	4.9	0.6	14.2	14.5	1.2	0.3	2.5	0.1
Chewa	0.1	0.1	0.2	0.0	0.2	0.1	0.1	0.0
Ngoni	0.1	0.0	0.2	0.0	0.2	0.0	0.1	0.0
Nyanja	0.2	0.1	0.2	0.1	0.3	0.1	0.3	0.1
Tumbuka	0.1	0.0	0.2	0.0	0.2	0.0	0.2	0.0
Africans	2.1	0.8	8.8	0.1	0.3	0.1	0.1	0.4
Total	100	100	100	100	100	100	100	100
Population	708,133	108,404	148,699	61,166	152,686	103,627	71,129	62,422

Source: CSO, 2000 Census of Population and Housing

le 4.9 shows that the most predominant ethnic groups at District Level with an exception of Kaoma, Lukulu and Shang'ombo follow the provincial pattern. Lozi is the predominant ethnic group in five districts of Western province namely Kalabo, Lukulu, Mongu, Senanga and Sesheke. Furthermore, a significant proportion of the population in Kaoma and Shang'ombo belong to the Lozi ethnic group (22.0 and 28.9 percent respectively). In Kaoma, Mbunda is the predominant ethnic group at 22.8 percent followed closely by the Lozi ethnic group. It is also the next ethnic group in Kalabo, Mongu and Senanga. In Shang'ombo, 35.5 percent of the population belong to the Mashi ethnic group, making it the most significant ethnic group in the district, followed by the Lozi ethnic group.

4.8 Summary

There are 663,842 persons who spoke a predominant language. Of the total population, just about half of the Population in Western Province reported to speak a second language at all representing 271,359 people.

As the predominant language of communication, Lozi remains the most widely spoken language in Western Province with a percentage share of 60.0 percent of the whole population. Mbunda is the next most widely spoken language at 12.4 percent.

The distribution of languages by residence shows that of the seven most spoken predominant languages of communication, Lozi, is more widely used in urban areas as opposed to Mbunda, Luvale, Nkoya, Manshi Luchazi and Kaoma which are mostly spoken in rural areas.

i is spoken by 77.7 percent people in urban compared to 57.8 percent people in rural areas. About half of the persons speak more Mbunda in rural areas than in urban areas (13.3 versus 5.4 percent).

Chapter 5

EDUCATION CHARACTERISTICS

5.1 Introduction

Education plays a fundamental role in the overall development of nations. It is for this reason that education has been declared by many countries as a human rights issue as attested to by the 1990 Jomtien declaration on Education For All and 1990 Convention on the Rights of the Child. As such, the Zambian Government has recognized the important role of education in grooming morally and intellectually upright individuals with the intentions of using the acquired skills and knowledge for the overall development of the country.

However, these declarations have come under threat in the light of economic recessions being experienced by many developing countries including Zambia. In the case of Zambia, the post independence era was marked by drastic policy shifts in the education sector. The sector experienced exceptional expansion during the early years of political independence as a result of efforts aimed at redressing previous impediments and discrimination in the case of access and participation in education. After 1990, two major policies were at play in as far as education provision was concerned, namely "Focus on Learning of 1992 and "Educating Our Future" of 1996. Despite these well-articulated policies, the last decade witnessed subdued expansion in the sector mainly as a result of new policy initiatives, which included among others, liberalized market economy with its attendant privatization, liquidation/ closure of industries and retrenchments, and the reintroduction of user service fees as a cost-sharing measure.

The embracement and implementation of these largely over ambitious policies of economic liberalization and privatization as blueprints for socio-economic transformation under Structural Adjustment Programme (SAP), adversely affected all sectors of the economy including education. These new economic measures resulted in increased poverty levels, which manifested themselves in high unemployment, poor performance of the agriculture sector and growth of the informal sector at the expense of the shrinking formal sector. Education and poverty have definitely an impact on each other.

5.2 Census Undertaking and Education

There are four main sources of education statistics in Zambia:

- Annual school censuses (sometimes supplemented by school surveys) conducted by Ministry of Education
- Household Surveys conducted by the Central Statistical Office
- Population Censuses conducted by Central Statistical Office and
- Administrative registers

The strength of a population census is that it is undertaken on the basis of a complete count of the population. This means that analysis of the education sector in this case can be done at the smallest administrative unit in the country such as districts and constituencies. For any conscious policy target setting, there is need to identify areas where primary, secondary or tertiary school attendance is particularly poor.

Therefore, censuses in general provide a good basis for monitoring the participation of the population in an education system and also reveal the absorption power of the same system. The 2000 Census of Population and Housing captured the following education aspects for all persons as per UN recommendations for the 2000 census round:

- Literacy, i.e. whether an individual can read and write in any language,
- School attendance
- Academic Educational attainment
- Professional or Vocational attainment, and
- Fields of study.

This chapter looks at school attendance as a measure of participation in the education system at all levels and literacy levels as a measure of effectiveness of the education system. In addition, various fields of study that have been undertaken in Western Province have been shown.

5.3 CONCEPTS AND DEFINITIONS

- **EDUCATIONAL SYSTEM**

An education system refers to a set of programmes tailored to impart knowledge and skills, formally acquired through a framework of an established schooling system, or informally through interaction with one's society, in an individual. The term "Education" is understood to comprise all deliberate, systematic and organized communication designed to bring about learning.

The education system in Zambia conforms to the 1997 International Standard Classification of Education (ISCED97), which consists of 7 levels of education provision. These levels can be outlined as follows:

- Level 0: Early childhood Education programmes including Pre-Schools
- Level 1: Primary education programmes
- Level 2: Junior Secondary Education programmes (Also referred to as Upper Basic education)
- Level 3: Upper Secondary Education programmes (Also referred to as High School education)
- Level 4: "A" Level Education programmes
- Level 5: College and undergraduate education programmes, and
- Level 6: Graduate and Post Graduate education programmes

In Zambia, formal education is mainly based on a three-tier system, which starts with primary education from grade 1 to 7, followed by secondary education from grade 8 up to 12. The next level relate to tertiary education, which basically include college and university education. Selective examination of pupils in grades 7, 9 and 12 inhibit universal progression of pupils from one level to another. The primary and secondary cycles last for 7 and 5 years respectively. Alternatively, the duration of tertiary education varies widely depending on the education program load and certification requirements. These three levels constitute formal education system. According to the 1996 education policy, the government of Zambia intends to abolish grade 7 examinations by 2015 in order to achieve universal education up to grade 9.

In addition to primary and secondary education, the last two decades saw the mushrooming of community schools and some institutions offering early childhood education mainly in urban areas. Some of the pre-schools have since started enrolling children in formal grades. This development has made it increasingly difficult to monitor school enrolment and attendance since these schools fall outside the data collection and monitoring system implemented by the Ministry of Education. In addition to early childhood institutions, there has been an increase in community schools which mainly cater for the less privileged or vulnerable children including school drop-outs and orphans. Some of the major characteristics of community schools are that they are near to homes of learners, they are not demanding in terms of entry requirements and that they are community driven. The enrolment levels in these schools have tremendously increased from less than 10,000 in 1996 to over 50,000 learners by 2000 (ZCSS, 1999). However, efforts are under way towards the establishment of a sector-wide Education Management Information System (EMIS), which will comprehensively cover all institutions of learning including privately run ones.

Another form of learning in Zambia takes place through non-formal education, which comprises continuing and adult education. There is also education for better living that is normally imparted through both the media and theatre (MOE, EFA 2000 Assessment).

- **SCHOOL ATTENDANCE**

School attendance is, in population censuses, defined as attendance at any accredited educational institution or programme, public or private, for organized learning at any level of education. The primary school entry

age in Zambia is seven years. Taking the admission age to grade 1 as 7 years, the following age-grade match applies for a given educational level:

- Lower primary (Lower basic) grades 1,2,3 and 4 correspond to pupils aged 7 to 10 years.
- Upper primary (Middle basic) grades 5,6 and 7 correspond to pupils aged 11 to 13 years.
- Junior secondary (Upper basic) grades 8 and 9 correspond to pupils aged 14 and 15 years.
- Senior Secondary (High School) grades 10,11 and 12 correspond to pupils aged 16 to 18 years.
- Students above the age of 18 years are, by expectation, supposed to be in higher institution of learning.

However, there are in most cases age-grade mismatches arising from either early entry or late exist from a given level of education.

- **GROSS SCHOOL ATTENDANCE RATE**

Gross School Attendance Rate is defined as the ratio of the population aged five years and over attending a specified education level to the applicable official school-age population. In some instances where there is rampant under-age and over-age enrolment, the ratio can be over 100 percent. This indicator is mainly used to measure the absorption capacity of an education system at any designated level.

- **NET SCHOOL ATTENDANCE RATE**

The Net School Attendance Rate measures the proportion of the school-age population that is attending a designated level of education. This indicator is much more refined than the crude gross attendance rate and is widely used in education planning. The gross and net attendance rates are used to determine the extent of underage and overage school attendance in an education system. The difference between gross and net school attendance is an indication of the degree of under-age and over age enrolment at a designated level of education.

- **ACADEMIC EDUCATION COMPLETED**

This is the highest level of formal education that an individual has attained or completed regardless of duration in school. Education qualifications acquired such as certificate, diploma, or degree are included in the educational outputs. If an individual is attending grade seven, the highest level completed is grade six. In this chapter, adding 1 to the variable defining highest level of education completed determines current grade for those reported to be presently attending school.

- **LITERACY**

Literacy refers to the ability to read and write in any language. Members of the population who are able to read and write are said to be Literate.

5.4 Literacy Rates

General Literacy Rate refers to the proportion of the population aged 5 years and above who can read and write. Adult Literacy Rate refers to the percentage of the population aged 15 years and above who can read and write. Youth Literacy Rate is in this case defined as the proportion of the population aged 15 to 24 years who are literate.

5.4.1 Literacy Levels for the Population Aged 5 Years and Above.

A literate nation is more likely to develop than an illiterate one since the former is much more knowledgeable about realities of life. Table 5.1 shows that in the year 2000 the literacy rate for the population aged 5 years and above only marginally improved to 50.6 percent from the 1990 level of 48.1 percent. The literacy rate for the province in 2000 is slightly below the national literacy rate of 55.3 percent for the population aged 5 years and above Results further show that the problem of illiteracy is still more common among the female than

their male counterpart since 1990. The table reveals that 54 percent of females was illiterate compared to 45 percent of males by the year 2000.

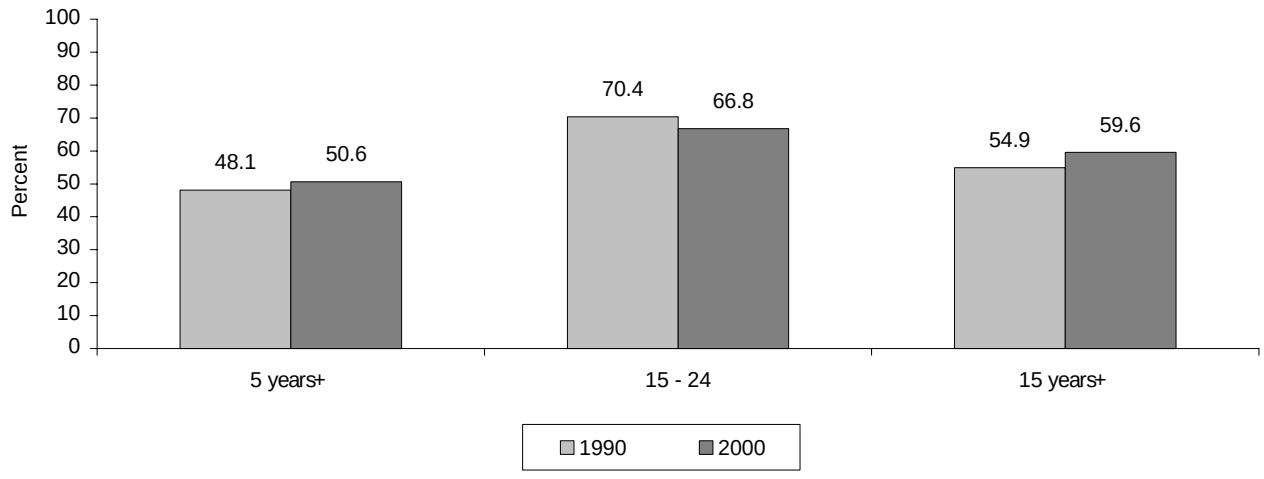
In rural areas, the proportion of the population that could read and write in any language improved by about 2 percent to 46.7 percent in 2000 from 44.9 percent in 1990. More than half of the rural population aged 5 years and above remained illiterate compared to less than one third of the urban population. Whilst there was little improvement in literacy levels in rural areas, the urban population registered a higher increase from 69 percent in 1990 to 78 percent in 2000.

Table 5.1: Literacy Rates by Age Group, Sex and District, Western Province, 1990–2000

Province and Residence	5+	15 - 24	15+	Population
Zambia (1990)	**55.3**	**74.9**	**66.0**	**6,181,285**
Western Province (1990)				
Both Sexes	48.1	70.4	54.9	514,769
Male	54.2	74.6	65.7	236,381
Female	42.9	66.8	46.3	278,388
Rural	44.9	67.5	51.5	447,886
Urban	69.3	87.4	77.7	66,883
Zambia (2000)	**55.3**	**70.1**	**67.2**	**7,680,705**
Western Province (2000)				
Both Sexes	50.6	66.8	59.6	587,717
Male	55.3	70.8	68.1	276,028
Female	46.4	63.2	52.6	311,689
Rural	46.7	62.3	55.7	514,584
Urban	77.9	91.3	87.3	73,133
District (2000)				
Kalabo	46.8	63.8	54.6	90,867
Kaoma	48.5	63.8	57.3	123,705
Lukulu	46.5	62.1	55.5	49,641
Mongu	61.9	77.5	71.1	128,186
Senanga	49.7	65.7	59.8	85,482
Sesheke	60.5	78.7	71.7	59,320
Shangombo	28.0	41.6	33.6	50,516

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Figure 5.1: Literate Population by age group,(Percent), Western Province, 1990 and 2000



Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Comparison of literacy rates for districts in Western Province reveals high rates in Mongu (62 percent), followed by Sesheke district at 60 percent, in the year 2000. Shang'ombo district recorded the lowest rates of about 28 percent. Overall, results indicate that the population in predominantly rural districts is less likely to be literate than the population in urbanized districts.

5.4.2 Literacy Levels for the Population Aged 15–24 Years (Youth Literacy)

Youth literacy rate declined from 70.4 percent in 1990 to 66.8 percent in 2000. The drop in the proportion of the population aged 15 to 24 years was similar among both females and males. The problem of youth illiteracy is more likely to be high among female than male population. The youth literacy rate for the province in 2000 is lower than the national youth literacy rate of 70.1 percent.

The problem of youth illiteracy is still more of a rural than urban phenomena. By the year 2000, 38 percent of the youths in rural areas compared to 9 percent in urban areas were illiterate. The youth literacy rate in rural areas declined from 67.5 percent to 62.3 percent between 1990 and 2000. The rate also dropped in urban areas by about 4-percentage points between 1990 and 2000.

Shang'ombo district recorded the lowest youth literacy rate of 42 percent in the year 2000, followed by Lukulu district at 62 percent. The districts with the highest proportion of literate youths are Sesheke and Mongu districts, at 79 and 78 percent respectively. The problem of youth literacy is more identifiable with predominantly rural districts than the urbanized ones in Western Province.

5.4.3. Literacy Levels for the Population Aged 15 Years and Above (Adult Literacy Rates)

Adult literacy rate increased from 54.9 percent to 59.6 percent between 1990 and 2000 in Western Province (Figure 5.1). The provincial adult literacy rate is below the national adult literacy rate of 67.2 percent. The proportion of female adults who were literate increased by more than 6 percentage points from 46.3 percent to 52.6 percent while the male rate increased by more than 2 percentage point, from 65.7 percent to 68.1 percent. In rural areas, the rate increased by four-percentage point over the 1990 level (51.5 percent) compared to the increase of more than 9 percentage points in the case of urban areas.

Mongu (71.7 percent) had the highest rates of adult literacy closely followed by Sesheke (71.1 percent), Shangombo and Kalabo districts had the lowest rates of 33.6 percent and 54.6 percent, respectively in 2000.

5.5 School Attendance

One of the measures used to assess the participation of the population in an education system and the absorption capacity of the system is school attendance. Analysis of school attendance becomes more meaningful if the information available relates to the population of official school age.

Table 5.2 and Figure 5.2 show the population aged 5 years and above presently attending school. Overall, the proportion of the population presently attending school slightly increased from 21.8 percent in 1990 to 23.1 percent in 2000. The provincial proportion of the population attending school in 2000 is below the national average of 26.7 percent. Since 1990, there have been proportionately more males attending school than females. The percentage of both males and females attending school marginally increased between 1990 and 2000 from 24.7 and 19.3 percent to 25.5 and 21.0 percent, respectively.

During the same period under review, there was an increase in the proportion of children aged 5 to 14 years presently attending school between 1990 and 2000. This population cohort almost befits the official primary school age population. Marginal declines were recorded for the secondary and tertiary school age population (15 – 29 years).

Table 5.2: Population age 5 years and above Presently Attending School by sex and age group, (Percent), Western Province, 1990 – 2000

Age	1990				2000			
	Total	Male	Female	Population	Total	Male	Female	Population
Western	21.8	24.7	19.3	514,769	23.1	25.5	21.0	587,717

5 – 9	22.5	21.6	23.3	89,962	28.6	27.1	30.0	105,192
10 – 14	61.3	60.6	62.0	81,718	66.9	66.6	67.2	91,732
15 – 19	44.0	51.5	37.0	72,865	42.1	49.5	35.2	82,884
20 – 24	11.9	18.3	7.0	49,674	8.6	12.4	5.6	64,806
25 – 29	3.6	4.5	3.0	38,270	2.4	3.0	1.9	50,479
30 – 44	2.1	2.6	1.7	78,677	1.8	2.3	1.4	94,276
45+	0.7	1.0	0.5	103,603	1.0	1.4	0.6	98,348

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Table 5.3 shows school attendance rates by residence and age group in Western Province. Results in the table reveal that almost one in every five persons in rural areas of Western Province was attending school, as opposed to one in every three in urban areas. However, there was some minor increase in the proportion of the rural population attending school from 20.1 percent in 1990 to 20.8 percent by 2000. In urban areas, the percentage of the population attending school increased by about 6 percentage points from 33.3 percent in 1990 to 39.1 percent in 2000 (Figure 5.2).

Table 5.3: Population age 5 years and above Presently Attending School by residence and age group, (Percent), Western Province, 1990 – 2000

	1990				2000			
Age	**Total**	**Rural**	**Urban**	**Population**	**Total**	**Rural**	**Urban**	**Population**
Western	21.8	20.1	33.3	514,796	23.1	20.8	39.1	587,717
5 – 9	22.5	19.9	40.3	89,962	28.6	24.9	56.4	105,192
10 – 14	61.3	57.9	82.3	81,718	66.9	63.7	88.6	91,732
15 – 19	44.0	41.2	60.6	72,865	42.1	37.7	66.0	82,884
20 – 24	11.9	10.9	17.5	49,674	8.6	6.6	20.0	64,806
25 – 29	3.6	3.6	3.8	38,270	2.4	2.1	4.5	50,479
30 – 44	2.1	2.1	1.8	78,686	1.8	1.6	2.6	94,276
45+	0.7	0.7	0.7	103,621	1.0	0.9	1.7	98,348

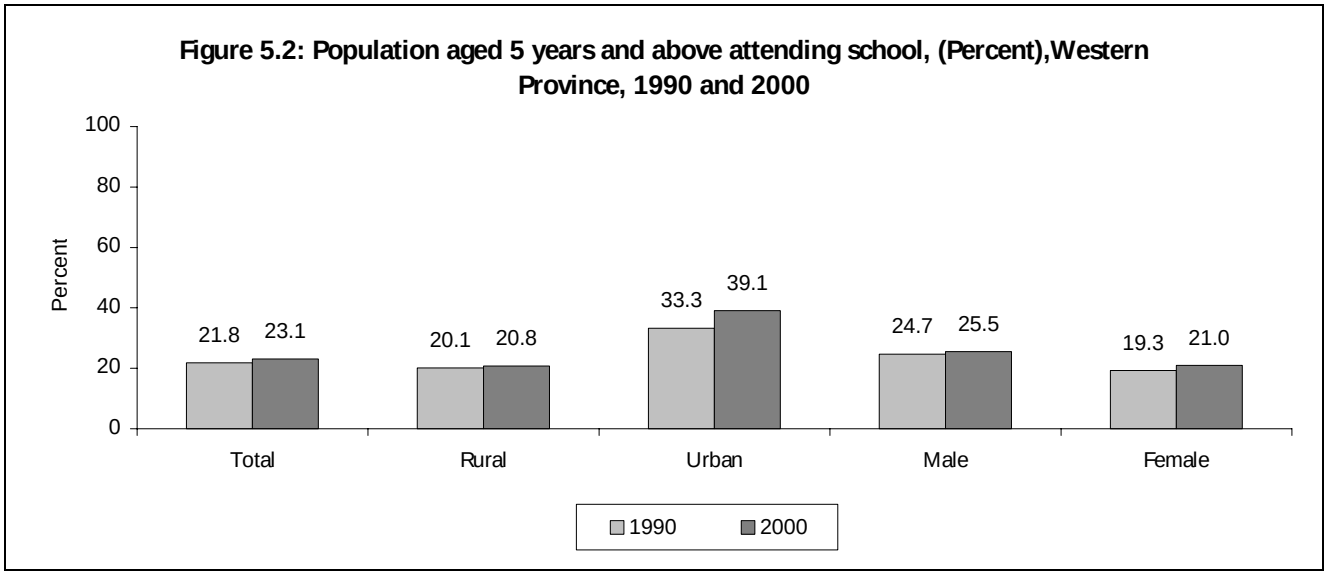
Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Furthermore, Table 5.4 reveals that females are less likely to be attending school than their male counterpart particularly those residing in rural areas. However, the proportion of the rural males attending school almost remained at the 1990 level of about 23 percent while that of females slightly increased from 18 to 19 percent during the intercensal period. Variations in the proportion of the population presently attending school in all the six districts of Western Province have also been observed. Table 5.4 shows that during the year 2000, nearly one in every four persons aged 5 years and above attended school in Mongu and Sesheke districts compared to almost one in every six in Shangombo District the district with the lowest attendance rates.

Table 5.4: Population age 5 years and above Presently Attending School by Residence, (Percent), Western Province, 1990 – 2000

Province and Residence	**Sex**			**Population**
	Total	**Male**	**Female**	
Zambia (1990)	**25.8**	**28.1**	**23.6**	**6,181,285**
Western Province (1990)				
Total	21.8	24.7	19.3	514,769
Rural	20.1	23.0	17.5	447,886
Urban	33.3	35.5	31.3	66,883
Zambia (2000)	**26.7**	**28.7**	**24.9**	**7,680,705**
Western Province (2000)				
Total	23.1	25.5	21.0	587,717
Rural	20.8	23.1	18.8	514,584
Urban	39.1	41.7	36.7	73,133
District (2000)				
Kalabo	21.5	24.3	19.2	90,867
Kaoma	23.8	26.3	21.6	123,705
Lukulu	21.6	24.0	19.5	49,641
Mongu	26.7	28.8	24.7	128,186
Senanga	21.9	23.7	20.3	85,482
Sesheke	25.9	28.1	23.9	59,320
Shangombo	15.1	17.8	12.8	50,516

Sources: CSO, 1990, and 2000 Censuses of Population and Housing



Sources: CSO, 1990, and 2000 Censuses of Population and Housing

5.6. School Attendance by the Primary School Age Population (7–13 Years)

Analysis of school attendance makes sense when the data relates to some official school age population. In Zambia the official primary school age range is 7 to 13 years. This population cohort constitutes the target population for offering primary education. However, some of the members of this cohort may not be attending exactly primary grades (Grades 1 to 7). Table 5.5 shows that school attendance by the population aged 7 to 13 years had increased from 49 percent in 1990 to 56 percent in 2000. In 2000, the proportion of the primary school age population attending school in the province is below the national average of 62.2 percent. Both the male and female attendance rates reflected in 2000 increased by about 7 percentage points over the 1990 levels, which were at 47.8 and 50.1 percent, respectively. For this age cohort, females were more likely to be attending school than their male counterpart (Refer to figure 4).

Table 5.5 shows that in 1990, 45 percent of the children aged 7 to 13 years were attending school in rural areas, compared to 73 percent in urban areas. The school attendance rates increased to 52 and 84.7 percent for the rural and urban areas by 2000, respectively. School attendance among rural girls rose by 7 percentage points from about 46.3 percent in 1990 to 53.2 percent by 2000. In urban areas, female school attendance rate increased by 11 percentage points from 73.6 percent to 85 percent between 1990 and 2000. The same pattern was observed for the rural and urban boys of primary school age. Despite the high rate of increase in rural areas, these results clearly indicate the continued disparities in education participation between the rural and urban children of primary school age. Urban children are more likely to be attending school than their rural counterpart (refer to Figure 5.3)..

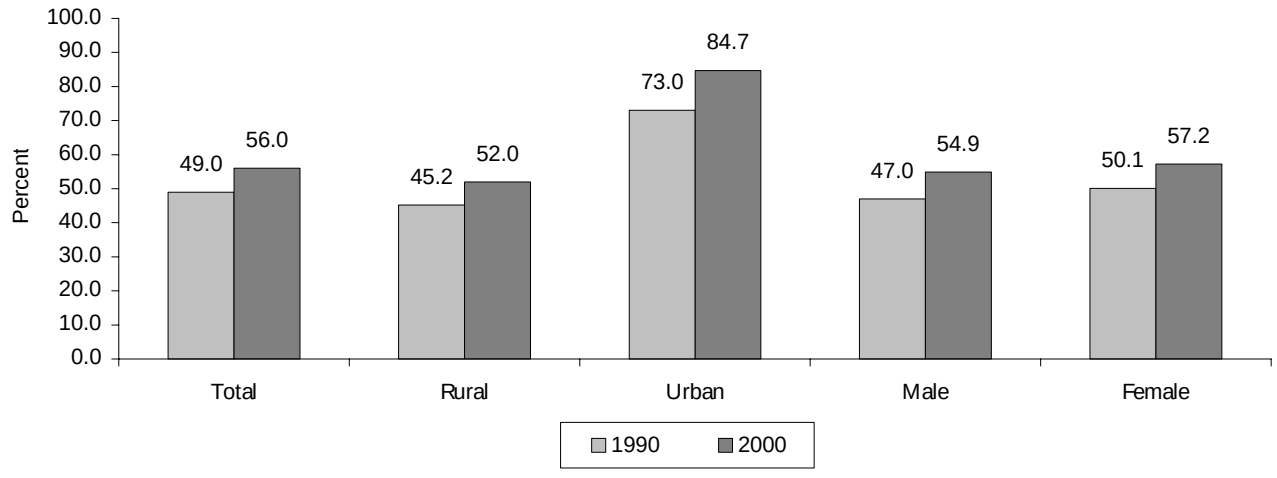
Table 5.5 also reveals that in 2000, Shangombo District had the lowest percentage of children attending school (32.9 percent), followed by Kalabo (52.1 percent) while Mongu and Sesheke had the highest rate of 65.5 percent each. No major sex differences were observed during the review period, although girls were more likely to be attending school than boys since 1990 (Refer to table 5.5 and figure 5).

Table 5.5: Population aged 7 to 13 years Presently Attending School by sex and Residence, (Percent), Western Province, 1990 – 2000

Province and Residence	Primary School Attendance Rates			
	Total	Male	Female	Population
Zambia (1990)	55.8	55.4	56.2	1,486,062
Western Province (1990)				
Total	49.0	47.8	50.1	118,647
Rural	45.2	44.1	46.3	102,749
Urban	73.0	72.4	73.6	15,898
Zambia (2000)	62.2	61.8	62.6	1,826,590
Western Province (2000)				
Total	56.0	54.9	57.2	136,215
Rural	52.0	50.8	53.2	119,379
Urban	84.7	84.3	85.0	16,836
District (2000)				
Kalabo	52.1	51.0	53.2	20,865
Kaoma	56.8	56.0	57.5	28,749
Lukulu	53.7	52.6	54.8	11,606
Mongu	65.5	64.1	66.9	28,738
Senanga	54.9	53.1	56.7	19,679
Sesheke	65.5	63.7	67.3	13,912
Shangombo	32.9	32.7	33.1	12,666

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Figure 5.3: Population aged 7 to 13 years attending school, (Percent), Western Province, 1990 and 2000



Sources: CSO, 1990, and 2000 Censuses of Population and Housing

5.7 Gross Primary School Attendance Ratios of All Ages

Gross school attendance rate at primary level shows the ratio of children of all ages attending exact primary grades to the school age population for that level. Due to school enrolment and attendance of under and over-aged children in primary schools, the ratio is sometimes more than 100 percent. Table 5.6 shows an increase in gross primary school attendance ratio from 67.6 percent in 1990 to 73 percent in 2000. The provincial gross school attendance rate in 2000, is below the national average of 79.1 percent. The increase in the gross rate is slightly more for females from 65.5 percent in 1990 to 71.7 percent in 2000, than for males

from 69.8 percent to 74.4 percent, respectively. Since 1990, children in urban parts of Western province are more likely to be attending primary school than their rural counterparts. In rural areas, the gross rate increased from 64.2 to 69.4 percent between 1990 and 2000. The rate for boys in rural areas increased from 66.5 percent to 70.7 percent while that of females increased from 61.9 percent to 68 percent during the same intercensal period. In urban areas, the ratio increased from 89.8 to 99.1 percent between 1990 and 2000. Both the male and female gross rates reflected in 2000 increased by about 9 percentage points over the 1990 levels, which were at 91.3 and 100.6 percent, respectively. In both years, the ratio of males is higher than that of females. Results from the last two census surveys further demonstrate that more males than females have had access to primary education in relative terms. The Gender Parity Index (GPI) calculated as a ratio of female gross rate to that of males slightly increased from 0.94 in 1990 to 0.96 in 2000, an indication of diminishing inequality in terms of participation of girls and boys in primary education.

By the year 2000, the Gross Primary School Attendance Ratios for urban population remained above those obtaining in rural areas. The GPI for 2000 results exhibits gross inequality in terms of education participation in rural (0.96) than in urban areas, (0.97). Therefore, gender equality in terms of education participation is more attainable in urban than rural parts of Western province.

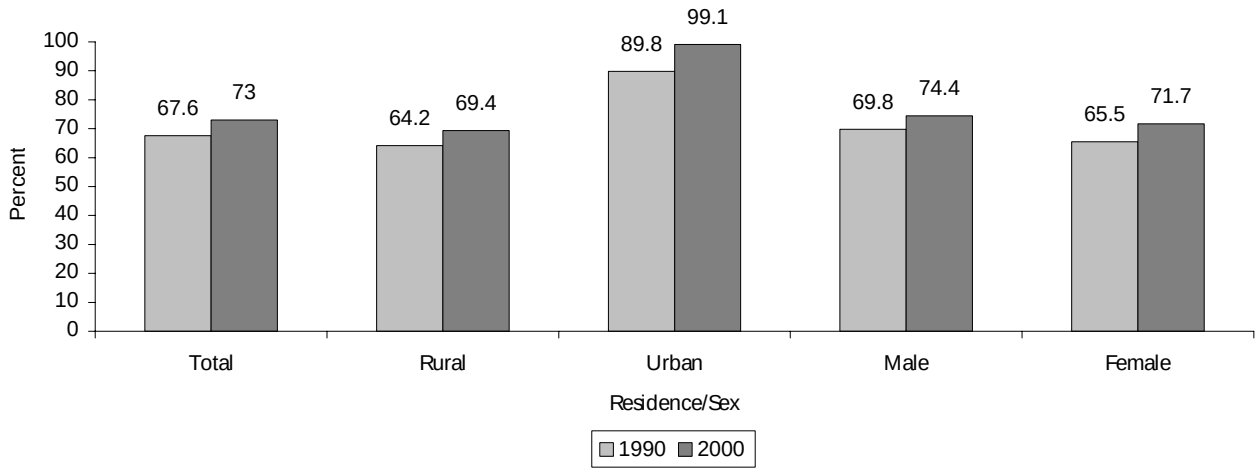
District level analysis of the 2000 Gross Primary School Attendance Rates shows high levels of participation in Sesheke (84.4 percent) and Mongu (79.1 percent) districts. Education participation in gross terms was lowest in Shang'ombo District at 46.9 percent followed by Senanga at 69.5 percent. The scenario in the year 2000 revealed more attendance among boys than girls in all the 7 districts.

Table 5.6: Gross Primary School Attendance Ratio by sex, Residence and Districts, Western Province, (Percent) 1990 – 2000

Province and Residence	**Gross attendance rate**			
	Total	**Male**	**Female**	Population
Zambia (1990)	82.3	85.7	78.9	1,486,062
Western Province (1990)				
Total	67.6	69.8	65.5	118,647
Rural	64.2	66.5	61.9	102,749
Urban	89.8	91.3	88.3	15,898
Zambia (2000)	79.1	81.4	76.8	1,826,590
Western Province (2000)				
Total	73.0	74.4	71.7	136,215
Rural	69.4	70.7	68.0	119,379
Urban	99.1	100.6	97.6	16,836
District (2000)				
Kalabo	72.0	73.4	70.7	20,865
Kaoma	76.1	78.2	74.1	28,749
Lukulu	73.2	75.0	71.5	11,606
Mongu	79.1	79.7	78.4	28,738
Senanga	69.5	69.8	69.2	19,679
Sesheke	84.4	85.5	83.3	13,912
Shangombo	46.9	49.2	44.5	12,666

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Figure 5.4: Gross Primary school attendance ratios by sex and residence, Western Province, 1990 and 2000



Sources: CSO, 1990, and 2000 Censuses of Population and Housing

5.8 Net Primary School Attendance by Children Aged 7 to 13 Years

Net School Attendance Rate at Primary Level shows the percentage of the primary school age population currently attending exactly primary grades (Grades 1 to 7). Table 5.7 shows an increase in the proportion of the primary school age population attending primary education, from 42.8 percent in 1990 to 54.5 percent by the year 2000. An increase in the proportion of the primary school age population attending primary education was also observed at national level from 55 percent in 1990 to 60 percent, however the provincial proportion is below the national average. The proportions of boys and girls attending primary education increased from 41.7 and 43.9 percent to 53.5 and 55.5 percent, respectively. Since 1990, no major sex differences were revealed in terms of net school attendance rates between boys and girls although the percentage of girls were slightly higher than those of boys. The attendance of girls of primary school age has been slightly higher than that of boys by about two percentage point in both the total and rural areas and by one percentage point in urban areas of the province (see Figure 5.5). During the 1990-2000 intercensal period, the percentage of eligible primary school age children not in school declined from 57 to 46 percent.

Since 1990, Net Primary School Attendance Rates have been higher in urban than in rural areas, clearly indicating a higher likelihood of urban children to be in school than their rural counterparts. In 1990, 60 percent of the rural children aged 7 to 13 years were out of primary education compared to 36 percent of their urban counterpart. By 2000, the proportion of children attending school in rural areas drastically increased by 11 percentage points, from 40 percent to about 51 percent. These results imply that one in every 2 children aged 7 to 13 years in rural areas was attending primary education by 2000. In urban areas, net school attendance increased by 16 percentage points, from about 64 percent in 1990 to about 80 percent in 2000. Results of the 2000 census show that nearly a fifth of urban children were out of primary school compared to almost half of the rural children. No major sex differences were noticed since 1990, an indication of near gender parity in net attendance at primary level.

The urban – rural differences are mainly as a result of existing disparities in resource allocation and availability of accessible amenities such as schools, health facilities, recreational facilities and pre-schools. The Living Conditions Monitoring Surveys have shown that long distance to schools inhibits school attendance particularly for younger children who may not safely walk alone to school (CSO: LCMS; 1996, 1998).

Analysis of net primary school attendance rates, by district, shows differences in school participation by the eligible children aged 7 to 13 years. In 2000, school attendance for the primary school age children ranged from 64.2 and 62.8 percent in Sesheke and Mongu districts to as low as 31.8 percent in Shangombo District. In

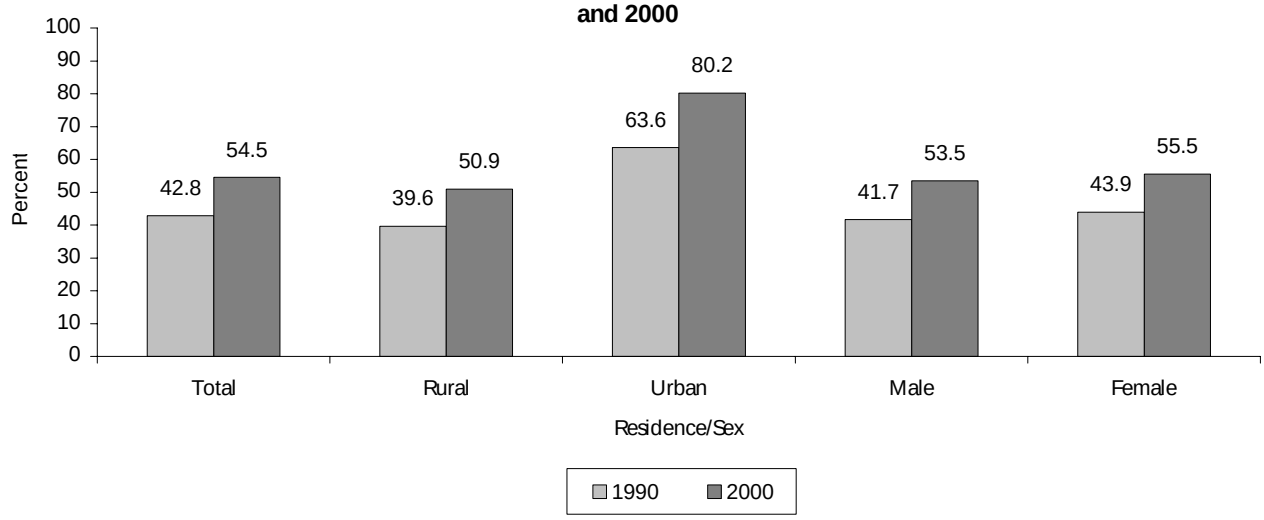
all districts, girls were more likely to be attending school than boys, though the sex differences were insignificant.

Table 5.7: Net Primary School Attendance Rates by sex, Residence and District, (Percent) Western Province, 1990 – 2000

Province and Residence	Net Primary School Attendance Rates			
	Total	**Male**	Female	**Population**
Zambia (1990)	55.0	54.6	55.3	1,486,062
Western Province (1990)				
Total	42.8	41.7	43.9	118,647
Rural	39.6	38.5	40.6	102,749
Urban	63.6	63.0	64.2	15,898
Zambia (2000)	60.0	59.8	60.2	1,826,590
Western Province (2000)				
Total	54.5	53.5	55.5	136,215
Rural	50.9	49.8	52.0	119,379
Urban	80.2	80.6	79.9	16,836
District (2000)				
Kalabo	51.0	50.0	51.9	20,865
Kaoma	55.3	54.5	56.0	28,749
Lukulu	52.8	51.8	53.9	11,606
Mongu	62.8	61.9	63.8	28,738
Senanga	53.6	52.0	55.2	19,679
Sesheke	64.2	62.7	65.8	13,912
Shangombo	31.8	31.7	31.9	12,666

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Figure 5.5: Net Primary school attendance Ratios by sex and residence, Western Province, 1990 and 2000



Sources: CSO, 1990, and 2000 Censuss of Population and Housing

5.9 School Attendance by the Secondary School Age Population (14-18 Years)

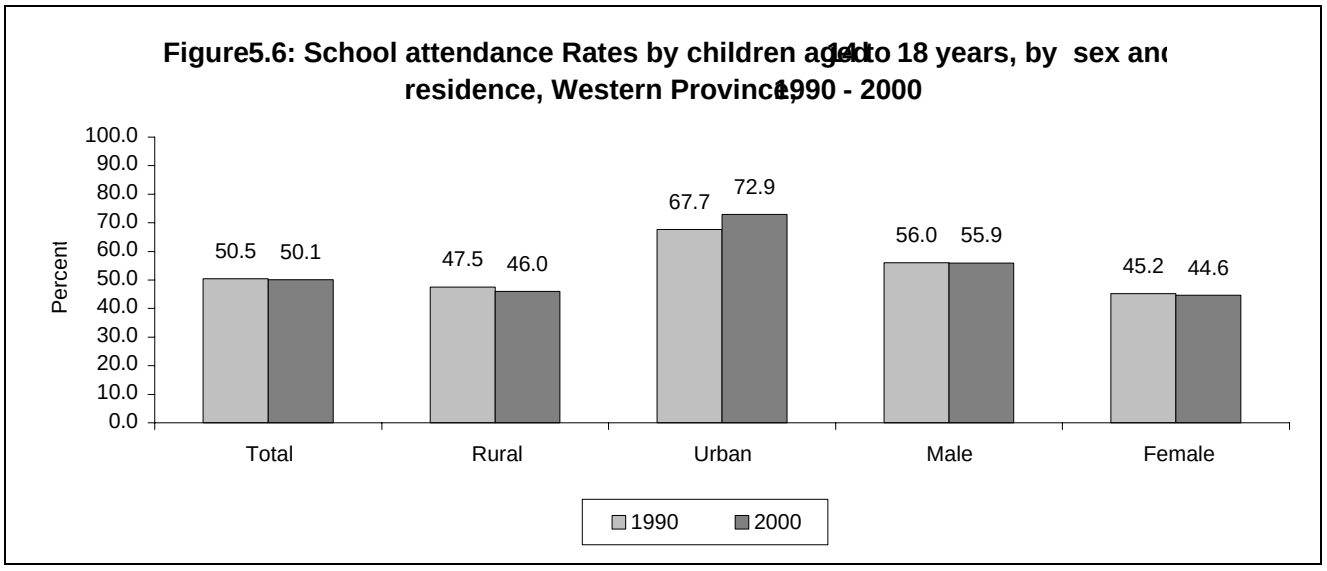
Table 5.8 shows the proportion of children aged 14 to 18 attending school in Western Province. Overall, the percentage of children attending school remained static at about 50 percent between 1990 and 2000 (Figure 5.6). The population rate is below the national average of 54 percent. Since 1990, there were proportionately more boys (56 percent) than girls (45 percent) attending school. A slight decrease was observed in the rate of attendance in rural areas from about 47 to 46 percent, whereas in urban areas the rate increased from 68 to 73 percent by 2000. Once again, the proportion of boys attending school was much higher in both rural and urban areas than for girls. These results clearly indicate that the problem of the girl child is more associated to older (14 to 18 years) than younger children (7 to 13 years). At primary level there is normally near equality in terms of school attendance by boys and girls.

In 2000 school attendance by children of secondary school age was lowest in Shangombo district (35.5 percent), followed by Senanga and Lukulu districts (47 and 49.1 percent, respectively). The highest rates were exhibited in Sesheke (56.2 percent) and Mongu (59 percent) districts (Refer to Table 5.8).

Table 5.8: Population aged 14 to 18 years Presently Attending School by Sex and Residence, (Percent), Western Province, 1990 – 2000

Province and Residence	School Attendance Rates			
	Total	**Male**	**Female**	**Population**
Zambia (1990)	53.9	61.1	47.1	996,450
Western Province (1990)				
Total	50.5	56.0	45.2	78,774
Rural	47.5	53.2	42.0	67,250
Urban	67.7	73.2	62.8	11,524
Zambia (2000)	53.9	61.3	47.0	1,105,484
Western Province (2000)				
Total	50.1	55.9	44.6	85,558
Rural	46.0	52.0	40.2	72,425
Urban	72.9	77.8	68.3	13,133
District (2000)				
Kalabo	49.3	56.2	43.1	13,271
Kaoma	51.4	57.0	45.9	18,291
Lukulu	49.1	56.1	42.3	7,026
Mongu	54.7	59.8	49.9	19,214
Senanga	47.0	51.1	42.9	12,312
Sesheke	56.2	61.9	50.3	8,316
Shangombo	35.5	42.6	29.0	7,128

Sources: CSO, 1990, and 2000 Censuses of Population and Housing



Sources: CSO, 1990, and 2000 Censuses of Population and Housing

5.10 Gross Secondary School Attendance Rates

Results in Table 5.9 reveal that sizeable proportions of children of secondary school age have no access to secondary education. At provincial level, the proportion of children attending secondary education expressed as a percentage of the eligible secondary school age population increased from 27 percent in 1990 to 37 percent by 2000. In comparison to the national the gross attendance ratios which increased from 34.6 to 44.5 percent the provincial rate is below the national average in both 1990 and 2000. The gross ratios have remained higher in urban than in rural areas. The increase in the ratios between 1990 and 2000 was more pronounced in urban, from 51 percent to 80 percent, than in rural areas, from 23 percent to 29 percent. The gross attendance ratios indicate that females, more especially those residing in rural areas, are less likely to attend secondary education than their male counterpart in the province.

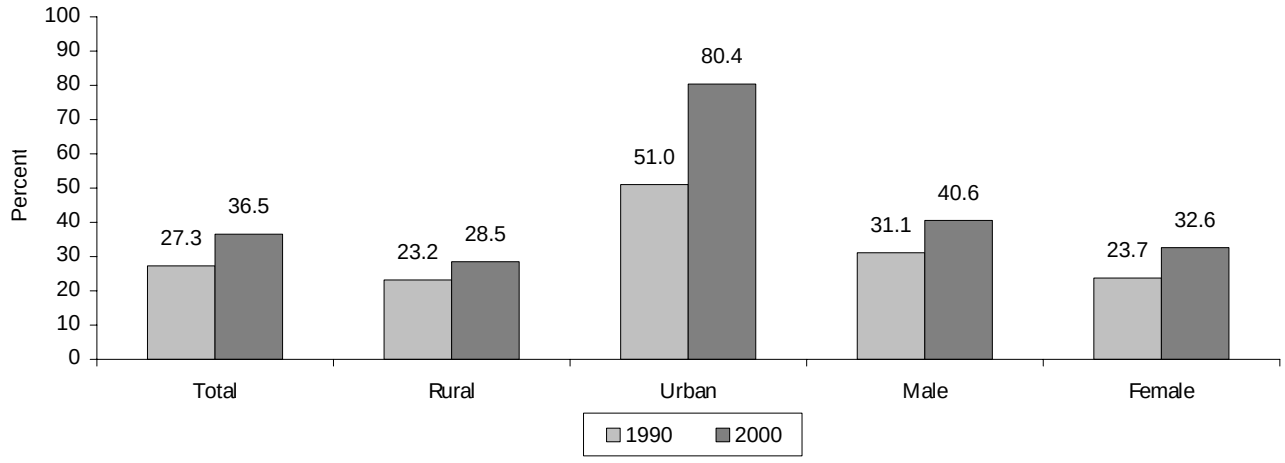
The 2000 Census results further reveal high levels of participation in secondary education in Mongu District (49.9 percent), followed by Sesheke District (39.2 percent). Shang'ombo District recorded the least rate of gross attendance of about 19.4 percent. Secondary school attendance in Lukulu, Kalabo and Senanga districts were equally low as the rates were below the provincial average of about 36.5 percent (Refer to Table 5.9).

Table 5.9: Gross Secondary School Attendance Ratio by sex, and Residence, Western Province, 1990and 2000

Province and Residence	Gross secondary attendance			
	Total	Male	Female	Population
Zambia (1990)	34.6	40.4	29.0	996,450
Western Province (1990)				
Total	27.3	31.1	23.7	78,774
Rural	23.2	26.9	19.6	67,250
Urban	51.0	56.8	46.0	11,524
Zambia (2000)	44.5	50.2	39.1	1,105,484
Western Province (2000)				
Total	36.5	40.6	32.6	85,558
Rural	28.5	32.1	25.1	72,425
Urban	80.4	87.6	73.6	13,133
District (2000)				
Kalabo	29.6	34.2	25.3	13,271
Kaoma	36.8	41.3	32.3	18,291
Lukulu	28.5	33.4	23.8	7,026
Mongu	49.9	53.2	46.7	19,214
Senanga	35.3	38.2	32.4	12,312
Sesheke	39.2	43.8	34.5	8,316
Shangombo	19.4	23.0	16.2	7,128

Sources: CSO, 1990, and 2000 Census esof Population and Housing

Figure 5.7: Gross Secondary Attendance Ratios by Sex and Residence, Western Province, 1990 and 2000



Sources: CSO, 1990, and 2000 Censuses of Population and Housing

5.11 Net Secondary School Attendance Rates by Children Aged 14 to 18 Years

Table 5.10 shows the percentage distribution of eligible children attending secondary education. Results in table 5.10 indicate that a significant proportion of the secondary school age population has no access to education. In 1990, only about 16.5 percent of the children aged 14 to 18 years were attending secondary education. This proportion increased to approximately 25.5 percent in 2000. Since 1990 there were proportionately more boys than girls attending secondary school. The provincial rate is below the national average of 30.9 percent.

Differences in net secondary school attendance rates have existed between rural and urban areas since 1990. In that year, the proportion of urban eligible children attending secondary education (34 percent) was more than twice that of their rural counterpart (14 percent). Net secondary school attendance rate for rural areas increased from about 14 percent in 1990 to 20.0 percent in 2000. In urban areas, the proportion of eligible children attending secondary education increased from about 34 to 56 percent during the same period.

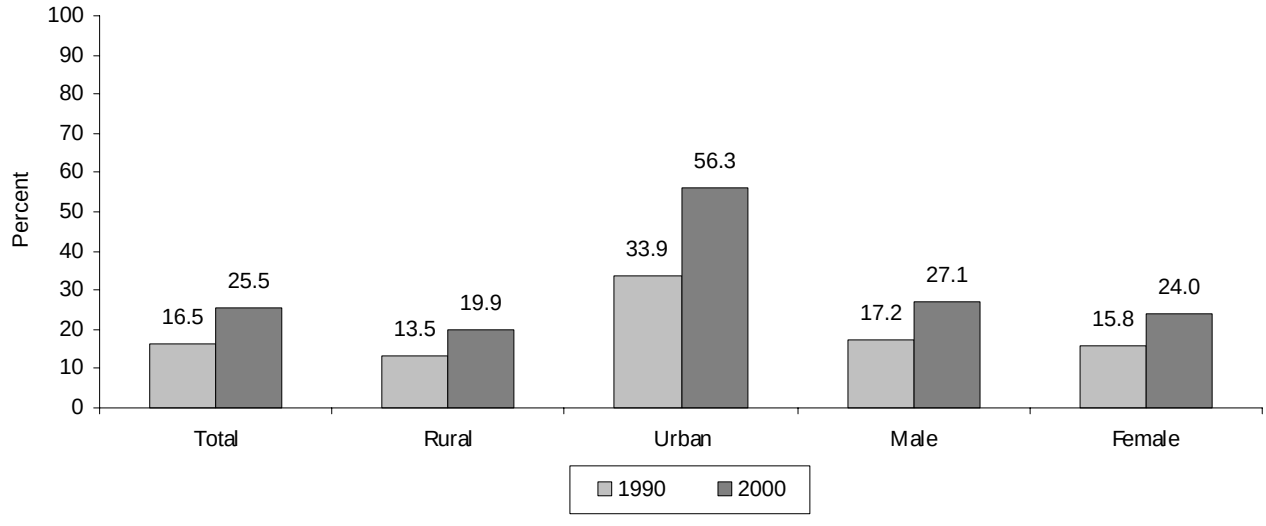
Analysis of the 2000 census results by districts show that Shangombo District had the least net secondary rate of 13 percent, followed by Lukulu (20 percent), and Kalabo (20.3 percent). In the same year Mongu and Sesheke districts recorded the highest rates of 35.5 and 28 percent respectively.

Table 5.10: Net Secondary School Attendance Ratio by Sex and Residence, (Percent) Western Province, 2000

Province and Residence	Net Secondary Attendance Rates			
	Total	Male	Female	Population
Zambia (1990)	21.4	22.8	20.0	996,450
Western Province (1990)				
Total	16.5	17.2	15.8	78,774
Rural	13.5	14.3	12.7	67,250
Urban	33.9	35.2	32.8	11,524
Zambia (2000)	30.9	33.3	28.7	1,105,484
Western Province (2000)	25.5	27.1	24.0	85,558
Total	19.9	21.4	18.5	72,425
Rural	56.3	58.9	53.8	13,133
Urban				
District (2000)				
Kalabo	20.3	22.3	18.5	13,271
Kaoma	24.7	26.3	23.1	18,291
Lukulu	20.0	22.4	17.6	7,026
Mongu	35.5	36.9	34.3	19,214
Senanga	25.2	26.1	24.3	12,312
Sesheke	28.1	29.6	26.5	8,316
Shangombo	13.3	15.0	11.7	7,128

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Figure 5.8: Net Secondary attendance Ratios by sex and residence, Western Province, 1990 and 2000



Sources: CSO, 1990, and 2000 Censuses of Population and Housing

5.12 Distribution of the Population by Selected Fields of Study

Table 5.11 shows the distribution of the population by some selected field of study and sex. The table reveals that the most popular fields of study since 1990 have been Teacher training, Nursing, Agriculture and Industrial Engineering

The results also clearly indicate that males have a wider variety of fields of specialization than their female counterpart. Further examination of the results in table 5.11 highlights the fact that very few females have been attempting more technically oriented fields of study such as engineering and other technical programmes since 1990. Except for Nursing, secretarial training, service trade and textile trade, where there were more females than males, males dominate participation in all training courses.

The results also clearly indicate that males have a wider variety of fields of specialization than their female counterpart. Further examination of the results in table 5.11 highlights the fact that very few females have been attempting more technically oriented fields of study such as engineering and other technical programmes since 1990.

Table 5.11: Population (5 years and above) by Sex and Field of Study, 1990 – 2000

Field of Study	1990			2000		
	Total	Male	Female	Total	Male	Female
Natural Science	68	70.6	29.4	39	87.2	12.8
Civil Engineering	65	98.5	1.5	67	98.5	1.5
Electronic Engineering	101	92.1	7.9	128	96.9	3.1
Mechanic Engineering	228	96.1	3.9	358	95.8	4.2
Mining Engineering	93	86.0	14.0	46	95.7	4.3
Industrial Engineering	423	55.3	44.7	22	81.8	18.2
Architecture	118	60.2	39.8	34	91.2	8.8
Medicine/Surgery	161	88.2	11.8	98	90.8	9.2
Pharmacy	141	78.0	22.0	81	77.8	22.2
Nursing	528	13.4	86.6	1837	58.4	41.6
Medical Technology	150	94.0	6.0	160	90.6	9.4
Computer Science	9	77.8	22.2	48	43.8	56.3
Economics	49	32.7	67.3	55	72.7	27.3
Accountancy	349	88.8	11.2	493	83.0	17.0
Teacher Training	3,081	66.0	34.0	3318	62.0	38.0
Law/jurisprudence	238	94.5	5.5	240	93.8	6.3
Fine arts	26	88.5	11.5	39	89.7	10.3
Social Welfare	81	76.5	23.5	69	81.2	18.8
Criminology	200	93.0	7.0	251	88.8	11.2
Business Administration	221	91.4	8.6	195	81.5	18.5
Secretarial Training	120	35.8	64.2	171	14.6	85.4
Office Machine	55	80.0	20.0	27	81.5	18.5
Service Trade	84	54.8	45.2	97	47.4	52.6
Agriculture/Forestry/Fisheries	477	90.6	9.4	396	87.1	12.9
Wood Working	228	97.4	2.6	246	97.2	2.8
Textile Trade	86	62.8	37.2	122	30.3	69.7

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Note: The ISIC codes for field of study have been reduced to 3 digits to enhance analysis. However, this could lead to the lumping up of specific fields of study into a broad class based on a 3 digit description.

Table 5.12 shows the distribution of the population aged 5 years and above by field of study and education level completed. The table reveals the type of restrictions education attainment imposes on field of study. Results clearly indicate that the minimum education level required for the majority of the fields of study is grades 10 – 12. This is more of the case for those in the field of engineering, medicine, natural and social sciences. Other programmes such as Accountancy, Business Administration, Teacher Training, Journalism and Secretarial training have overtime become more demanding in terms of educational entry requirements.

Table 5.12: Education level completed by Field of Study (Percent), Western Province, 2000

Field of Study	Size	Total	Level of Education Completed				
			1-7	8-9	10-12	'A' Level	Degree
Natural Science	39	100	7.7	.	61.5	2.6	28.2
Civil Engineering	67	100	11.9	13.4	61.2	.	13.4
Electronics/Engineering	128	100	10.2	7	62.5	4.7	15.6
Mechanics/Engineering	358	100	7.8	10.3	72.6	1.1	8.1
Chemical Engineering	12	100	25	25	41.7	.	8.3
Mining Engineering	46	100	41.3	15.2	32.6	.	10.9
Industrial Engineering	22	100	45.5	22.7	31.8	.	.
Metallurgical Engineering	18	100	22.2	5.6	66.7	.	5.6
Architecture	34	100	11.8	5.9	64.7	.	17.6
Other Engineering	85	100	8.2	10.6	57.6	2.4	21.2
Medicine/Surgery	98	100	10.2	11.2	55.1	1	22.4
Pharmacy	81	100	13.6	11.1	64.2	1.2	9.9
Dentistry	30	100	6.7	3.3	83.3	3.3	3.3
Nursing	1,837	100	10.7	12	66.4	0.8	10.1
Medical Technology	160	100	6.3	5.6	65.6	0.6	21.9
Veterinary	112	100	17	7.1	56.3	4.5	15.2
Computer Science	48	100	2.1	6.3	64.6	6.3	20.8
Economics	55	100	9.1	9.1	69.1	.	12.7
Accountancy	493	100	4.7	5.3	72	2	16
Teacher Training	3,318	100	4.9	5.6	66.8	1.3	21.3
Law/jurisprudence	240	100	10.4	9.6	50.4	0.4	29.2
Journalism	25	100	.	4	80	12	4
Fine arts	39	100	25.6	15.4	48.7	2.6	7.7
Social Welfare	69	100	5.8	10.1	71	.	13
Criminology	251	100	10.4	13.9	61.8	1.2	12.7
Business Administration	195	100	6.2	8.7	62.6	5.6	16.9
Secretarial Training	171	100	4.1	12.9	73.7	2.3	7
Shorthand Typing	171	100	5.8	17.5	62	0.6	14
Clerical typing	171	100	6.4	18.7	64.3	1.2	9.4
Office Machine	27	100	18.5	14.8	66.7	.	.
Service Trade	97	100	27.8	21.6	41.2	.	9.3
Agriculture/Forestry/Fisheries	396	100	8.1	9.8	64.6	1.5	15.9
Food/Drink Production	41	100	14.6	17.1	58.5	.	9.8
Wood Working	246	100	25.6	22.8	43.5	0.8	7.3
Textile Trade	122	100	15.6	22.1	58.2	.	4.1

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

Note: The ISIC codes for field of study have been reduced to 3 digits to enhance analysis. However, this could lead to the lumping up of specific fields of study into a broad class based on a 3 digit description.

5.13 Certificate and Diploma Holders by Level of Education Completed

Table 5.13 shows the education level completed by certificate and diploma holders in Western Province. It is important to note that certification referred to here relates to the one conferred after grade 12 and A-level of education. Overall, the number of certificate holders declined by 36 percent between 1990 and 2000 from 10,186 to 7,462. The percent decrease was more pronounced among the males than their female counterpart. The proportion of persons with certificates who had attained grades 1 to 7 declined from 32.8 percent in 1990 to 12.4 percent in 2000, whilst the proportions attaining higher grades increased drastically. On the other hand, the number of diploma holders with grades 10-12 increased by 13 percent in 2000. There was a decline in the proportions at all education levels except for those who completed grades 10-12. This situation applies to males and females as well. (Refer to table 5.13).

Table 5.13 Certificates and Diplomas by level of Education and Sex, Western Province, 1990-2000

Certificates	Size	Education Level Completed				
		1-7	8-9	10-12	'A' Level	Total
Certificates						
Western 1990						
Total	10,186	32.8	15.2	51.6	0.4	100
Male	7,061	34.9	14.7	50.0	0.4	100
Female	3,125	28.1	16.5	55.2	0.3	100
Western 2000						
Total	7,463	12.4	13.5	72.4	1.6	100
Male	4,899	13.7	13.9	70.7	1.7	100
Female	2,564	9.9	12.9	75.8	1.5	100
Diploma						
Western 1990						
Total	1,194	7.5	6.5	76.8	9.2	100
Male	997	7.4	6.4	77.7	8.4	100
Female	197	7.6	7.1	72.1	13.2	100
Western 2000						
Total	1,068	4.2	3.1	89.8	2.9	100
Male	919	4.5	3.4	89.3	2.8	100
Female	149	2.7	1.3	92.6	3.4	100

Sources: CSO, 1990, and 2000 Censuses of Population and Housing

5.14 Summary

In Western Province literacy rates improved only by 3 percent between 1990 and 2000, from 48 percent to about 51 percent. Thus nearly half of all persons 5 years and above were illiterate in 2000. Literacy rates for males and urban are much higher than those for females and rural areas respectively. The youth (15-24) and adults (15 years +) recorded better overall rates of 67 percent and 60 percent respectively, in 2000.

In 2000, 23 percent of the 5 years and above were in school an increase of only 2 percent from the 1990 level. Males had a higher attendance rate of 26 percent compared to 21 percent for the females in 2000.

Gender disparities in enrollments are more significant at secondary level of education and beyond. The males have only a slightly higher attendance rate at primary education level.

Children coming from the following groups are disadvantaged: rural, female. Rural and female children are less likely to enroll and progress beyond primary level.

The most popular fields of study are teacher training, secretarial training, accountancy and nursing. This being a typical rural province, it has a limited number of institutions of higher learning.

Chapter 6

ECONOMIC CHARATERISTICS

6.1 Introduction

Individuals engage in economic activities in order to attain and sustain a certain acceptable level of consumption of goods and services. Engagement in these activities not only ensures a person's livelihood but also equips an individual with the means of acquiring and sustaining the basic needs of life such as food, clothing and shelter.

Most studies have revealed that the employment levels to a large extent determine the production and consumption levels of any given economy. In a developing country like Zambia, it becomes imperative to constantly measure and monitor changes in the levels of economic activities because fluctuations in labourforce, participation rates, employment levels and economic dependency levels have an impact on poverty and vice versa.

In the population censuses of 1990 and 2000, data pertaining to economic characteristics of the population was collected. The main topics covered were:

- Labour-force participation
- Employment and unemployment
- Employment status
- Occupation
- Industry and
- Educational attainment

The methodology of analysis employed is exploratory data analysis using the 1990 and 2000 population censuses.

6.2 Concepts and Definitions

- **Working Age Population:** The working age population is defined as all persons aged 12 years and over.

- **Employed Population:** The employed population includes all persons who: work for remuneration in the form of wages, salaries, commissions or pay in kind; operate their own businesses without employing others, and; work in a family business or farm without pay or profit.

- **Unemployed Population:** The unemployed population is composed of those who are unemployed and seeking work and those who are not seeking work but are available for work.

- **Economically Inactive Population:** This category includes all persons who are full time housewives/home-makers, full time students and those who are not available for work aged 12 years and over.

- **Economically Active Population (Labourforce):** The economically active population or the Labour force is defined as all persons aged 12 years and above whose main economic activity status is to supply their labour force to the production of economic goods and services. It is composed of the employed and unemployed. It includes all those who are working, those who are unemployed but seeking work and those not seeking work but available for work. Included also are those unpaid on family business.

- **Economic Dependency Ratio:** Economic dependency measures the extent to which the economically inactive population is dependent on the economically active population. Therefore, the economic dependency ratio is the ratio of the economically inactive population divided by the economically active population.

- **Labourforce Paticipation Rates:** The Labour force participation rate is defined as the proportion of persons of a particular age- group who were in the labour force. It measures the extent to which a particular age group and/or sex involved in economic activities.

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

- **Occupation:** Occupation is a concept, which identifies a set of characteristics of a job and a group of specific tasks that are performed by a person.

- **Industry:** Industry or economic sector defines the type of product or service produced at a workplace.

- **Unemployment rate:** Expressed as a percentage, this is a ratio of the unemployed population and the economically active population.

6.3 Working-Age Population

Figure 6.1 is a diagrammatic presentation of the various categories of the population of working age. In the 1990 and 2000 Population and Housing Census, the working-age population is defined as all persons aged 12 years and over.

Figure 6.1: Working Age Population 12 years and Above

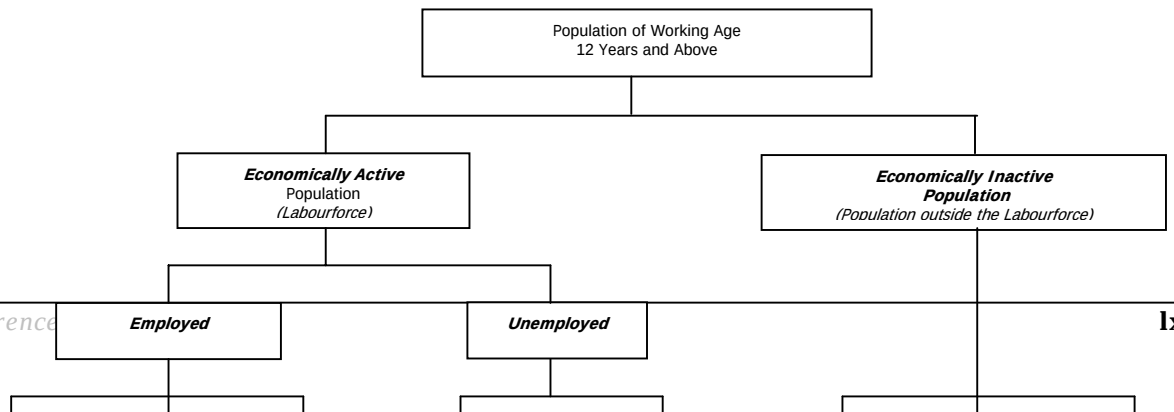


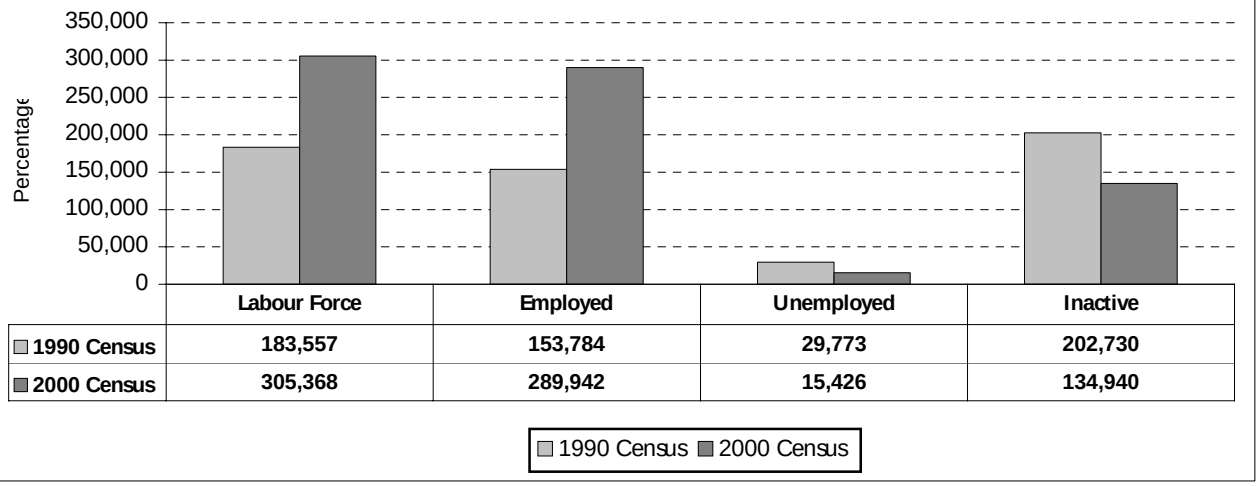
Table 6.1 presents the population 12 years and over by age group, residence and sex for 1990 and 2000. According to this table, the working-age population in Western province increased by 12.5 percent over the ten-year period. The increase of the male working-age population of 15.6 percent is higher than the increase of 10 percent for the female working-age population. In rural areas, the working-age population has increased by 14 percent, while the increase in urban areas is marginal at 2 percent. The increase of 17.2 percent for the male working–age population in rural areas is more than the increase of 11.6 percent for the female working-age population; In urban areas, there was a marginal increase in the male working-age population increased of 5.1 percent while that of the female working population declined by 0.6 percent.

Table 6.1: Population 12 years and Over by Broad Age Groups-Residence and Sex Western Province, 1990 and 2000

Residence and Sex	Year	Size	Total	12-19	20-24	25-29	30-59	60+	Not Stated
Total	1990	391,369	100	31	13	10	35	12	0
	2000	440,308	100	30	15	12	33	11	0
Percent increase		12.5							
Male	1990	175,260	100	34	12	9	31	13	0
	2000	202,551	100	32	14	11	31	12	0
Percent increase		15.6							
Female	1990	216,109	100	29	13	10	37	10	0
	2000	237,757	100	28	15	12	35	10	0
Percent increase		10.0							
Rural									
Total	1990	340,422	100	30	12	9	35	13	0
	2000	388,311	100	29	14	11	34	11	0
Percent increase		14.07							
Male	1990	151,643	100	34	12	9	31	15	0
	2000	177,740	100	31	14	11	31	13	0
Percent increase		17.2							
Female	1990	188,779	100	28	13	10	38	11	0
	2000	210,601	100	27	15	11	36	10	0
Percent increase		11.6							
Urban									
Total	1990	50,947	100	34	14	11	34	6	0
	2000	51,977	100	36	18	12	29	5	0
Percent increase		2.0							
Male	1990	23,617	100	35	13	11	35	6	0
	2000	24,821	100	36	17	12	29	5	0
Percent increase		5.1							
Female	1990	27,330	100	34	15	12	32	6	0
	2000	27,156	100	35	18	12	29	5	0
Percent increase		-0.6							

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Figure 6.2: Current Economically Active Population (12 Years and Over) Western Province, 1990 and 2000



Sources: CSO, 1990 and 2000 Censuses of Population and Housing

6.4 The Economically Inactive Population

Table 6.2 shows the current economically inactive population by reason of activity, residence and sex in 2000. Over half (57 percent) of the inactive population is female, while just over a two fifths (43 percent) are male. About 80 percent are in rural areas while 20 percent are in urban areas. Studying (55 percent) is the most important reason for inactivity, followed by other reasons (27 percent) and lastly homemaking (18). Groups of people included in the category of those who are economically inactive for "other reasons" include pensioners, those that are too old to work, prisoners, invalids, beggars and the disabled. In both rural and urban areas, the reasons for inactivity are in an order similar to the one for the whole province. However, it can be noted that there are slightly more home makers in the urban areas (20 percent) than in the rural areas (18 percent); slightly more students in the urban areas (60 percent) than in the rural areas (54 percent); and there are more economically inactive people for other reasons in rural areas (28 percent) compared to urban areas (20 percent).

In 2000, both males and females are economically inactive mainly because of studying (69 percent and 44 percent respectively).

Table 6.2: Current Economically Inactive Population By Reason For Inactivity, Residence And Sex, Western Province, 2000

Residence and Sex	Reason For Inactivity				
	Total Number	Total	Home Maker	Student	Other
Central Province					
Total	134,940	100.0	18.2	55.1	26.7
Rural	108,439	100.0	17.8	54.1	28.2
Urban	26,501	100.0	20.0	59.5	20.5
Sex					
Male	58,414	100.0	2.6	69.3	28.1
Female	76,526	100.0	30.2	44.3	25.5

Source: CSO, 2000 Census of Population and Housing

6.5 Economically Active Population (Labour Force)

Figure 6.1 gives an illustration of the economically active population and economically inactive population. The economically active population by residence and sex are given in Table 6.3. According to this table , the labour force increased by 66 percent, from 183,557 in 1990 to 305,368 in 2000 in absolute terms. However, the average annual growth rate was 5.2 percent. The provincial average annual growth rate in labour force between 1990 and 2000 is significantly higher than the national average of 3.8 percent, presenting a deviation of 1.4. The increase of 104 percent in the female labour force is significantly more than the increase of 38 percent in the male labour force. A big proportion of the labour force (88.6 percent in 1990 and 91.7 percent in 2000) is in rural areas, as compared to the labour force in urban areas (11.4 percent in 1990 and 8.3 percent in 2000).

TABLE 6.3: TRENDS IN THE LABOUR-FORCE AND AVERAGE ANNUAL GROWTH RATE OF THE LABOUR-FORCE, WESTERN PROVINCE, 1990 AND 2000

District	1990	2000	Average Annual Growth rate

ZAMBIA	**2,162,487**	**3,165,151**	**3.8**
WESTERN PROVINCE	183,557	305,368	5.2
Kalabo	30,423	49,190	4.9
Kaoma	36,474	65,680	6.1
Lukulu	13,641	26,493	6.9
Mongu	42,958	62,630	3.8
Senanga	43,475	48,588	1.1
Sesheke	16,586	30,511	6.3
Shang'ombo	-	22,276	-

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Note: "* " New Districts, "-" Not applicable as they refer to either new or non-existent districts.

Lukulu, Sesheke and Kaoma districts recorded the highest average annual growth rates in the Labourforce between 1990 and 2000 of 6.9, 6.3 and 6.1 percent respectively. Senanga district recorded the lowest average annual growth rate of 1.1 Percent. The other districts to register an average annual growth rate in the labourforce below the provincial level were Kalabo (4.9 Percent) and Mongu (3.8 Percent).

In terms of percentage distribution of the labourforce in 2000, Kaoma district has the highest (21.5 Percent), followed by Mongu and Kalabo districts with 20.5 percent and 16.1 percent respectively. Lukulu and Shang'ombo districts have the least with 8.7 percent and 7.3 percent respectively.

Table 6.4: Percentage Distribution of the Labour-Force, Western Province, 2000

District	Total	Male	Female
Western Province Total	100.0	100.0	100.0
Kalabo	16.1	15.2	16.9
Kaoma	21.5	21.2	21.7
Lukulu	8.7	8.5	8.8
Mongu	20.5	21.4	19.7
Senanga	15.9	15.4	16.4
Sesheke	10.0	10.6	9.5
Shang'ombo	7.3	7.7	6.9

Source: CSO, 2000 Census of Population and Housing

Of the 305,368 total labour force in Western province in 2000, 289,942 or 94.9 percent are employed. The employed population increased by 88.5 percent from 153,784 in 1990 to 289,942 in 2000. The proportion of the employed population residing in rural areas has increased form 89.2 percent in 1990 to 92.8 percent in 2000 while the proportion of the employed labour force residing in urban areas has decreased from 10.8 percent in 1990 to 7.2 percent in 2000.

The unemployed population is composed of those who are unemployed and seeking work and those who are not seeking work but available for work.

According to Table 6.5 the unemployed population has declined by 48.2 percent from 29,773 in 1990 to 15,426 in 2000. The decline of 50.7 percent in the male unemployed population is much more than the decline in the female unemployed population of 44.5 percent.

In 1990 there were more unemployed people in the rural areas (85.4 percent for total; 87 percent for males and 83.1 percent for females) than in the urban areas (14.6 percent for total; 13 percent for males and 16.9 percent for females). In 2000 the same situation prevails, there are more unemployed people residing in the rural areas (70.6 percent for total; 71.7 percent for males and 69.1 percent for females) compared to urban areas (29.4 percent for total; 28.3 percent for males and 30.9 percent for females). However, the proportion of the unemployed residing in urban areas increased in 2000.

Table 6.5: Current Economically Active Population 12 Years and Over- Residence and Sex, Western Province, 1990 and 2000

Activity & Sex	Residence							
	1990				2000			
	Total Number	Total	Rural	Urban	Total Number	Total	Rural	Urban
Population								
Total	391,369	100	87	13	440,308	100	88.2	11.8
Male	175,260	100	86.5	13.5	202,551	100	87.7	12.3
Female	216,109	100	87.4	12.6	237,757	100	88.6	11.4
Labour Force								
Total	183,557	100	88.6	11.4	305,368	100	91.7	8.3
Male	104,430	100	87.6	12.4	144,137	100	90.4	9.6
Female	79,127	100	89.9	10.1	161,231	100	92.8	7.2
Employed								
Total	153,784	100	89.2	10.8	289,942	100	92.8	7.2
Male	86,797	100	87.7	12.3	135,443	100	91.6	8.4
Female	66,987	100	91.2	8.8	154,499	100	93.8	6.2
Unemployed								
Total	29,773	100	85.4	14.6	15,426	100	70.6	29.4
Male	17,633	100	87.0	13	8,694	100	71.7	28.3
Female	12,140	100	83.1	16.9	6,732	100	69.1	30.9
Inactive								
Total	202,730	100	85.8	14.2	134,940	100	80.4	19.6
Male	68,473	100	85.2	14.8	58,414	100	81.2	18.8
Female	134,257	100	86.1	13.9	76,526	100	79.7	20.3
Not Stated	5,082	100	76.3	23.7	0	0	0.0	0.0
Total	2,357	100	77.7	22.3	0	0	0.0	0.0
Male	2,725	100	75.1	24.9	0	0	0.0	0.0
Female	2,725	100	75.1	24.9	0	0	0	0

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Out of the total Working population of 440,308, 134,940 were classified as being economically inactive. The economically inactive population has declined by 33.4 percent from 202,730 in 1990 to 134,940 in 2000. Economic inactivity in males has declined by 14.7 percent from 68,473 in 1990 to 58,414 in 2000. Similarly, female economic inactivity has declined by 43.0 percent from 134,257 in 1990 to 76,526 in 2000. In 2000 there are more economically inactive persons in the rural areas than in the urban areas. The same situation pertained for 1990 with more economically inactive persons residing in the rural areas than in the urban areas.

Table 6.6 shows the economically active and economically inactive population by age, sex and nature of current economic activity. For the Labour Force and the employed, the peak age group is 35-54 years (26.7 percent for total; 25.5 percent for males and 27.7 percent for females) and (27.5 percent for total; 26.3 percent for males and 28.5 percent for females) respectively.

For the unemployed population, the peak is in the age groups 12-19 years (33.9 percent for total: 29.5 percent for males and 39.6 percent for females) and 20-24 (28.5 percent for total; 28.6 percent for males and 28.4 percent for females).

In so far as the economically inactive population is concerned, the peak is in the 12-19 age group largely due to the fact that this is the age-range where you have a lot of school going persons on a full time basis.

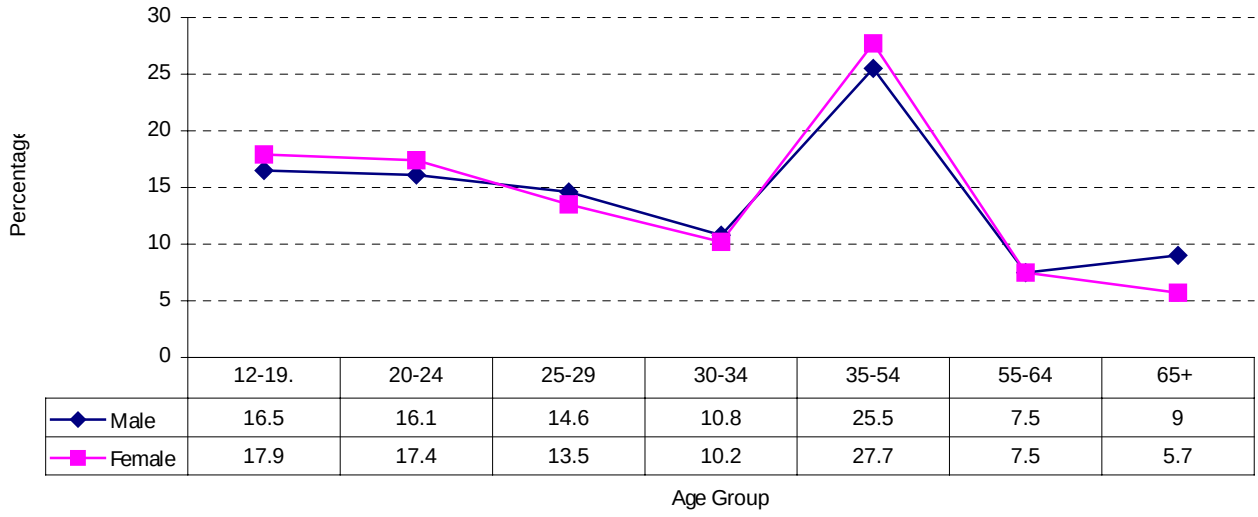
Figure 6.3 shows a diagrammatic presentation by age and sex of the economically active population in 2000. The peak is in the age-range 35-54

Table 6.6: Economically Active Population (12 Years and older) by Age, Sex, and Nature of Current Economic Activity, Western Province, 2000

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	305,368	100.0	17.2	16.8	14.0	10.5	26.7	7.5	7.3	0.0
Male	144,137	100.0	16.5	16.1	14.6	10.8	25.5	7.5	9.0	0.0
Female	161,231	100.0	17.9	17.4	13.5	10.2	27.7	7.5	5.7	0.0
Employed										
Total	289,942	100.0	16.3	16.2	13.9	10.7	27.5	7.8	7.6	0.0
Male	135,443	100.0	15.6	15.3	14.4	11.0	26.3	7.9	9.5	0.0
Female	154,499	100.0	16.9	16.9	13.5	10.4	28.5	7.8	5.9	0.0
Unemployed										
Total	15,426	100.0	33.9	28.5	15.5	7.4	11.2	2.0	1.5	0.0
Male	8,694	100.0	29.5	28.6	16.8	8.3	13.0	2.0	1.7	0.0
Female	6,732	100.0	39.6	28.4	13.7	6.3	8.8	1.9	1.3	0.0
Inactive										
Total	134,940	100.0	59.1	10.0	5.7	4.0	9.9	3.4	7.8	0.0
Male	58,414	100.0	70.3	9.0	3.3	2.2	5.4	2.4	7.4	0.0
Female	76,526	100.0	50.6	10.8	7.5	5.4	13.4	4.2	8.1	0.0

Source: CSO, 2000 Census of Population and Housing

Figure 6.3: Economically Active Population (12 Years and Over) by Age and Sex, Western Province, 2000



Source: CSO, 2000 Censuses of Population and Housing

6.6 Economic Dependency Ratios

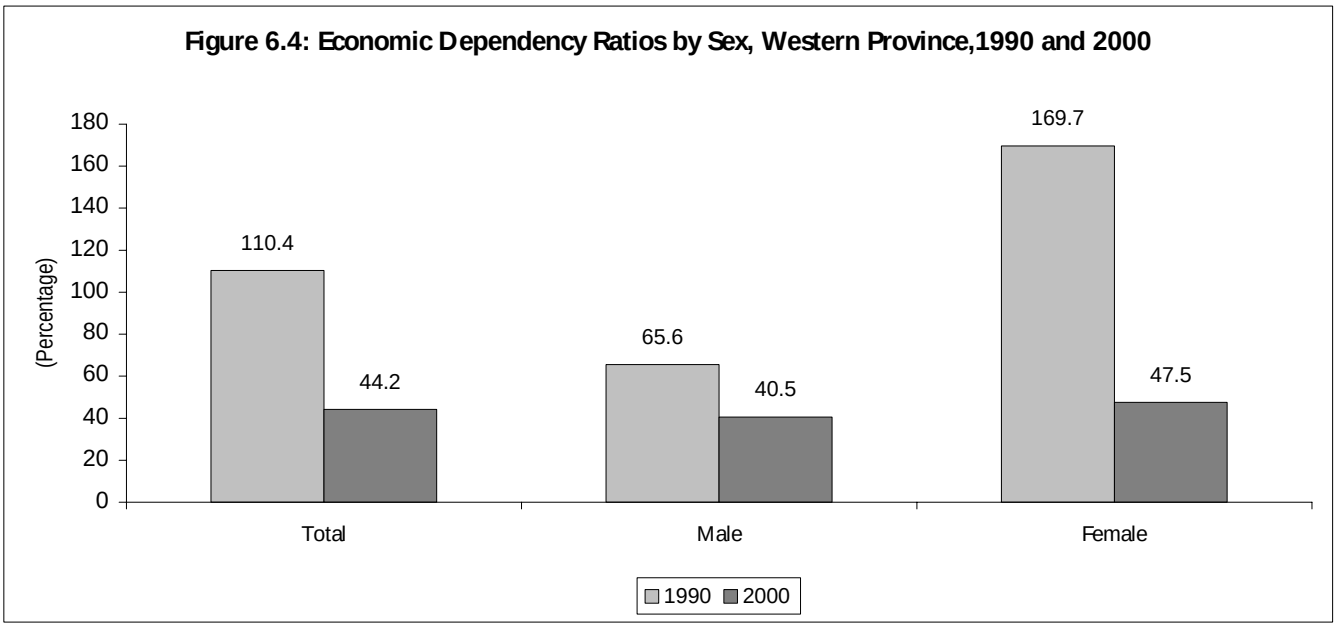
Table 6.7 shows the current economically active population and economic dependency ratios by sex and residence. The table shows that the ratios have decreased for all the categories. Notable decreases are for females from 170 percent in 1990 to 47 percent in 2000 and rural areas (107 percent in 1990 to 39 percent in 2000). The dependency ratio for urban areas decreased by 33 percentage points. A diagrammatical illustration of the decreases are indicated in figure 6.4.

The decline in the economic dependency ratio in Western province is significantly more than the decline at national level between 1990 and 2000 (110.4 in 1990 to 44.2 in 2000 at provincial level versus 114 in 1990 to 79 in 2000 at national level). The economic dependency ratio for the province is less than the national economic dependency ratio, in 2000.

Table 6.7: Current Economically Active Population and Economic Dependency Ratio by Sex and Residence, Western Province, 1990 and 2000

Labour Force	1990	2000
Total Zambia	2,162,487	3,165,151
Total Western Province	183,557	305,368
Male	104,430	144,137
Female	79,127	161,231
Rural	162,632	280,022
Urban	20,925	25,346
Economic dependency ratios (Percentage)		
Total Zambia	114.0	79.0
Total Western Province	110.4	44.2
Male	65.6	40.5
Female	169.7	47.5
Rural	107.0	38.7
Urban	137.6	104.4

Sources: CSO, 1990 and 2000 Censuses of Population and Housing



Sources: CSO, 1990 and 2000 Censuses of Population and Housing

6.7 Current Labour Force Participation Rates

The Labour force participation rate is defined as the proportion of persons of a particular age- group who are in the labour force. It measures the extent to which a particular age and/or sex group is involved in economic activities. Labour force participation rates by age, sex, and residence are shown in table 6.9.

There was an increase in the working-age population involved in economic activities between the two censuses. In 1990 the labour force participation was 47 percent as compared to 69 percent in 2000. The increase in the female labour force from 37 percent to 68 percent is more than the increase for males from 60 percent to 71 percent.

The provincial labour force participation rates in 2000 are higher than national rates. In 1990 the provincial labour force participation rate was just slightly higher than the national labour force participation rate.

The Labour force participation rates have increased most in Lukulu district (41.5 percent in 1990 to 71.9 percent in 2000).Mongu district had the least increase (46 percent in 1990 to 64 percent in 2000

Table 6.8: Trends in Labour force Participation Rates by District and Sex, 1990 and 2000 (Percentage)

District	1990			2000		
	Total	Male	Female	Total	Male	Female
Zambia	46.6	62.6	31.9	56	67	45
Western Province	46.9	59.6	36.6	69.4	71.2	67.8
Kalabo	48.4	59.2	40.4	71.7	72.1	71.3
Kaoma	49.2	61.6	38.4	70.6	71.0	70.4
Lukulu	41.5	56.3	29.6	71.9	71.9	72.0
Mongu	45.9	58.6	35.6	64.3	67.8	61.3
Senanga	50.5	63.8	40.1	76.2	75.6	76.7
Sesheke	39.7	52.9	27.9	68.9	72.1	65.9
Shang'ombo	-	-	-	61.2	69.3	54.7

Source: CSO, 1990 and 2000 Censuses of Population and Housing

The increase in the rural labour force participation rate from 48 percent to 72 percent is greater than the increase in the urban areas from 41 percent in 1990 to 49 percent in 2000 (refer to table 6.9).

The increase in labour force participation rates is greater for females than for males in both rural and urban areas. In the rural areas, the female participation rate has increased from 38 percent in 1990 to 71 percent in 2000, while the male participation rate has increased from 60 percent in 1990 to 73 percent in 2000. In the urban areas, the female labour force participation rate has increased from 29 percent in 1990 to 43 percent in 2000. Similarly the participation rate of males has increased from 55 percent in 1990 to 56 percent in 2000.

An examination of the labour force participation rates by age reveals that they are lowest (40 percent) in the age-group 12-19 years, rose with the increase in ages to reach a peak of 87 percent for the age-group 40-44 years, and then start to decline until it reaches 68 percent for the oldest age-group 65 years and over. The pattern of the distribution of the labour force participation rates by age in rural and urban areas are similar to the pattern described above for the total population. The patterns are also the same for both sexes except for the pattern for females in urban areas where the peak is reached in the age group 45-49 age group.

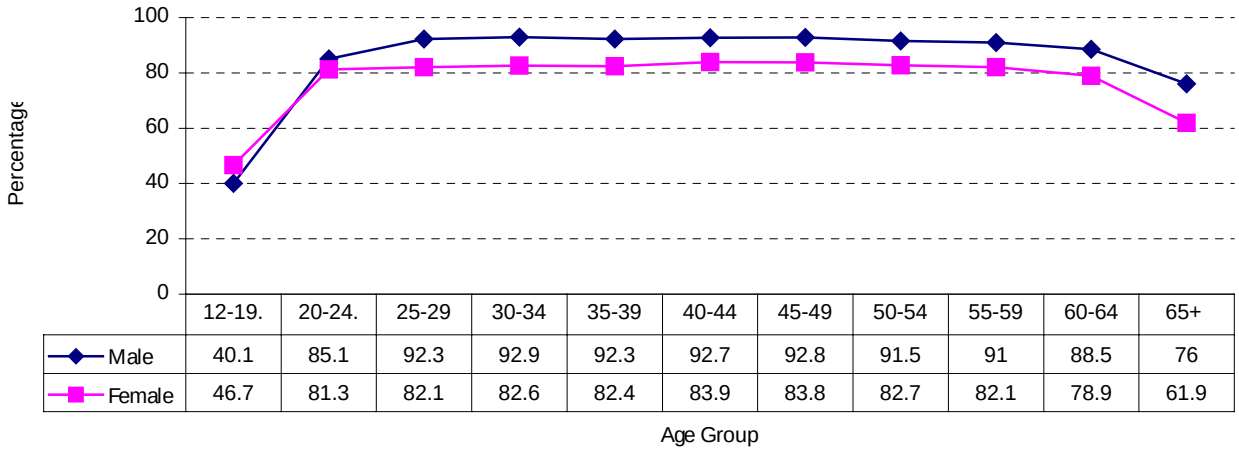
The male labour force participation rates are higher than those for females at every age group except 12-19; this pattern is the same between the two sexes in both rural and urban areas.

Table 6.9: Current Labour Force Participation Rates by Age, Sex and Residence, Western Province, 1990 and 2000

Age-Group	Current Participation Rates								
	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
1990	46.9	59.6	36.6	47.8	60.3	37.7	41.0	54.8	29.2
2000	69.4	71.2	67.8	72.1	73.3	71.0	49.0	55.7	42.9
12-19	39.7	36.7	42.7	43.5	40.1	46.7	16.7	15.1	18.2
20-24	79.1	81.5	77.2	82.9	85.1	81.3	55.7	61.2	50.8
25-29	84.8	91.6	79.2	86.7	92.3	82.1	71.9	86.6	58.5
30-34	85.5	92.4	79.9	87.2	92.9	82.6	73.2	88.5	59.4
35-39	85.4	92.2	80.2	86.6	92.3	82.4	75.7	91.4	61.9
40-44	86.6	92.6	82.1	87.6	92.7	83.9	77.6	91.3	65.9
45-49	86.5	92.5	82.2	87.5	92.8	83.8	78.0	89.8	67.2
50-54	85.1	90.8	81.3	86.1	91.5	82.7	73.8	85.1	61.5
55-59	84.7	89.9	80.7	85.9	91.0	82.1	67.7	77.5	57.2
60-64	81.9	87.5	77.3	83.3	88.5	78.9	59.8	71.5	48.8
65+	68.0	75.0	60.0	69.4	76.0	61.9	42.8	55.6	32.3

Sources: CSO, 1990 and 2000 Census of Population and Housing

Figure 6.5: Current Labour Force Participation Rates by Age and Sex, Western Province Rural, 2000

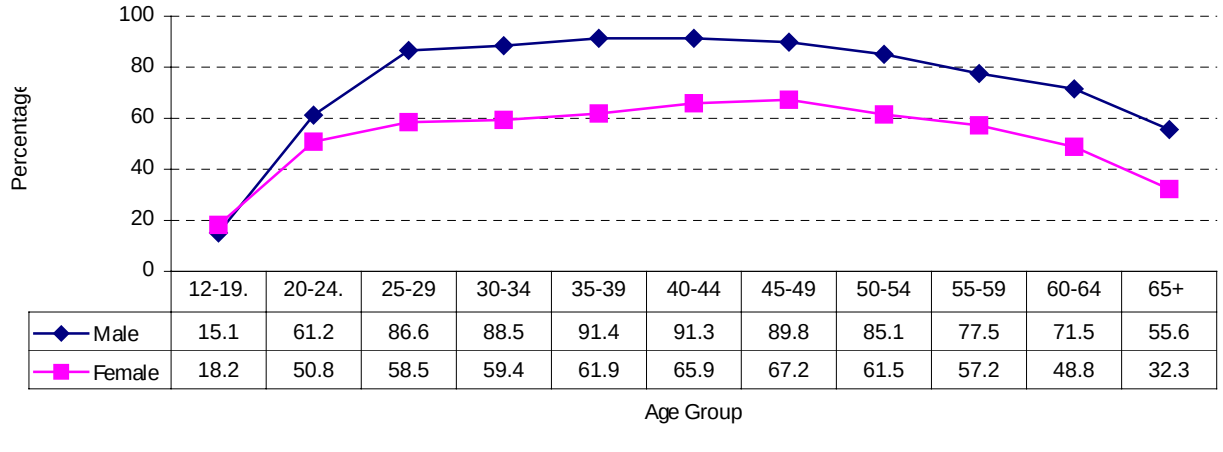


	12-19.	20-24.	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Male	40.1	85.1	92.3	92.9	92.3	92.7	92.8	91.5	91	88.5	76
Female	46.7	81.3	82.1	82.6	82.4	83.9	83.8	82.7	82.1	78.9	61.9

Age Group

Sources: CSO, 2000 Census of Population and Housing

Figure 6.6: Current Labour Fource Participation Rates by Age and Sex, Western Province Urban, 2000



	12-19.	20-24.	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Male	15.1	61.2	86.6	88.5	91.4	91.3	89.8	85.1	77.5	71.5	55.6
Female	18.2	50.8	58.5	59.4	61.9	65.9	67.2	61.5	57.2	48.8	32.3

Age Group

Source: CSO, 2000 Census of Population and Housing

6.8 Employment Status, Occupation And Industrial Classification

The occupational and industrial structure and employment status of a country's workforce reflect the level of its economic development and the efficiency with which it uses and allocates its resources. If economic progress is experienced in a country, this will easily be seen from the increased division and specialization of its labour force. In an economy in which economic progress is negligible, it is typical to find the majority of the workforce employed in it's primary industries. The work force are found in various forms of self-employment activities and unskilled work. These activities are in the agricultural sector and other occupations characterized by low skill requirements.

6.8.1. Employment status

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

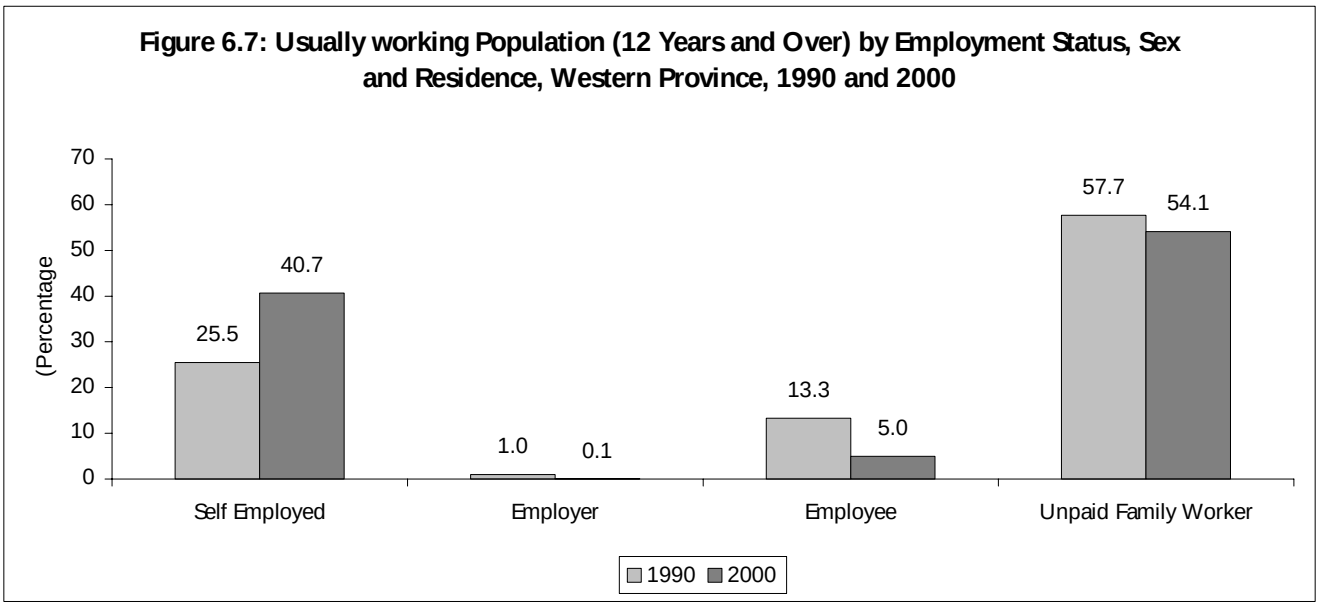
Table 6.10 shows that the usually working population increased by 114 percent between 1990 and 2000 from 138,060 in 1990 to 294,856 in 2000.

In terms of employment status, the total self-employed persons as a proportion of the total usually working population increased from 25.5 percent in 1990 to 40.7 percent in 2000. The ratio of the self-employed persons by sex has also increased between the two intercensal periods. However, the increase in the male self-employed persons (from 29 percent in 1990 to 56 percent in 2000) is more than the increase in the female self-employed persons (from 21 percent in 1990 to 28 percent in 2000). With regard to residence, a similar pattern is observed where the proportion of the male self-employed population has increased by a bigger percentage (from 30.6 percent in 1990 to 57.7 percent for the rural areas and from 18.6 percent to 38.2 percent for the urban areas) than the female self-employed population which has increased from 20.1 percent in 1990 to 27.1 percent in 2000 for the rural areas and from 25.7 percent in 1990 to 39.0 percent in 2000.

There has been a decrease in the proportion of the workforce classified as employers. From a proportion of one percent in 1990, it dropped to 0.1 percent in 2000. A similar trend by sex and residence is observed.

The proportion of the total population classified as employees decreased from 13 percent in 1990 to 5 percent in 2000. The decrease in the male employees (from 18 percent in 1990 to 8 percent in 2000 is more than the decrease in the female employees (from 6 percent in 1990 to 3 percent in 2000). In general, both urban and rural areas experienced a drop in employees between the intercensal periods.

The proportion of the unpaid family workers has decreased in general from 58 percent in 1990 to 54 percent in 2000. A similar pattern is observed for rural areas where the proportion of unpaid family workers has decreased from 63 percent in 1990 to 56 percent in 2000, the biggest decrease is in the male unpaid family worker from 54 percent in 1990 to 38 percent in 2000. Whereas in urban areas there has been an increase in the proportion of unpaid family workers from 16 percent in 1990 to 27 percent in 2000.



Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Table 6.10: Percent Distribution of the Usually Working Population 12 Years and Over by Employment Status, Sex and Residence, Western Province 1990 and 2000

Employment Status and Sex	Residence					
	Total		Rural		Urban	
	1990	2000	1990	2000	1990	2000
Total Number						
Total	138,060	294,856	123,133	273,304	14,927	21,552
Male	79,230	134,452	69,257	123,070	9,973	11,382
Female	58,830	160,404	53,876	150,234	4,954	10,170
Total Percentage						
Total	100	100	100	100	100	100
Male	100	100	100	100	100	100
Female	100	100	100	100	100	100
Self Employed						
Total	25.5	40.7	26	40.9	21	38.6
Male	29.1	56.1	30.6	57.7	18.6	38.2
Female	20.6	27.9	20.1	27.1	25.7	39
Employee						
Total	13.3	5	8.1	2.7	55.9	34
Male	18.3	8	11.7	4.7	64.1	44.1
Female	6.5	2.5	3.4	1.2	39.4	22.6
Employer						
Total	1	0.1	0.8	0.1	2.9	0.6
Male	1.4	0.2	1.2	0.1	3.5	0.8
Female	0.5	0.1	0.4	0	1.7	0.3
Unpaid-Family Worker						
Total	57.7	54.1	62.7	56.3	16.3	26.9
Male	48.8	35.8	54.2	37.5	10.7	16.9
Female	69.7	69.5	73.6	71.6	27.6	38.1
Not Stated						
Total	2.5	0	2.4	0	3.9	0
Male	2.4	0	2.3	0	3.1	0
Female	2.7	0	2.5	0	5.6	0

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

6.8.2. Working population by occupation

Occupation is a concept, which identifies a set of characteristics of a job and a group of specific tasks that are performed by a person.

The distribution of male and female workers among occupations shows some similarities. The three most important occupations for males are Agriculture (58 percent in 1990 and 85 percent in 2000), Production and

related workers (4 percent in 1990 and 4 percent in 2000), and Sales workers (3 percent in 1990 and 4 percent in 2000).

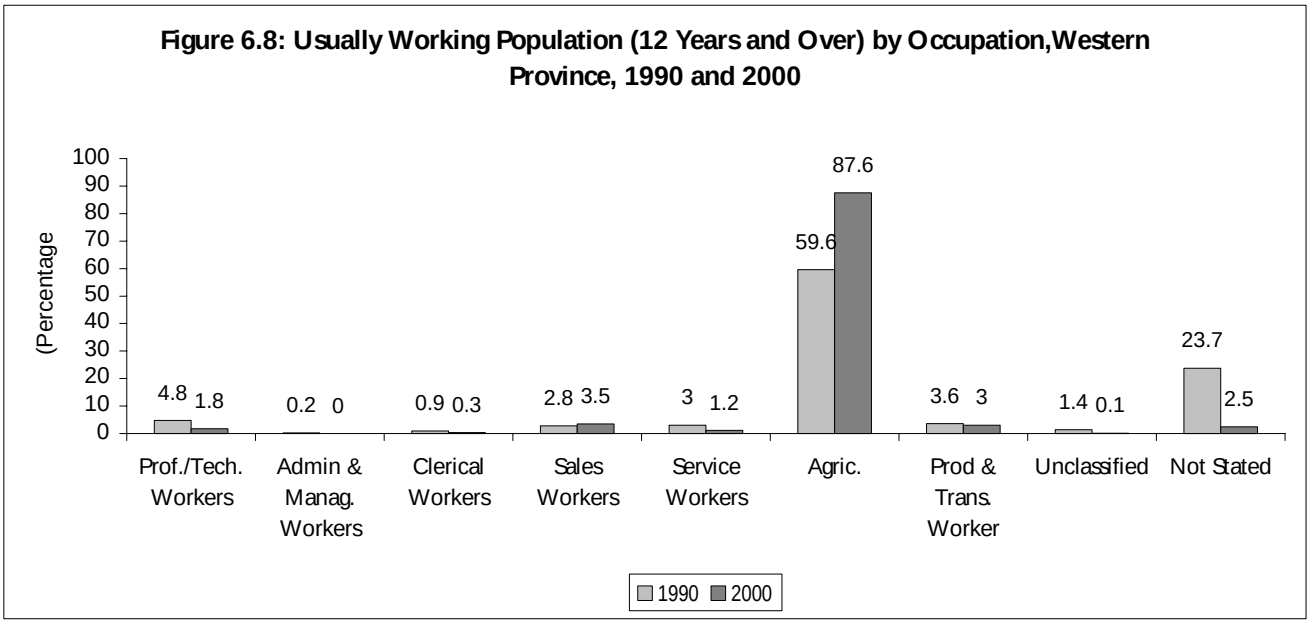
The three most popular occupations for females are Agriculture (62 percent in 1990 and 89 percent in 2000), Sales workers (3 percent in 1990 and 3 percent in 2000) and Production and related (3 in 1990 and 2 percent in 2000).

In rural areas, the distribution of workers among the various occupations is similar to the one for the whole nation. The differences between the distributions of male and female workers over the various occupations in rural areas are not so significant. The distribution of workers over occupations in urban areas is different from both that of the total and that of the rural areas. In urban areas, workers are more widely distributed over many occupations, and not concentrated in few occupations. The four most popular occupations in urban areas are Agriculture (31 percent in2000), Sales workers (27 percent in 2000), Production (13 percent in 2000) and Professional (11 percent in 2000).

Table 6.11: Percent Distribution of the Usually Working Population By Occupation, Sex and Residence, Western Province -1990 and 2000

Occupation	Year	Percentage of Working Population								
		Total			Rural			Urban		
		Both	Male	Female	Both	Male	Female	Both	Male	Female
Total Number of Workers	1990	138,060	79,230	58,830	23,133	69,257	53,876	14,927	9,973	4,954
	2000	294,856	134,452	160,404	273,304	123,070	150,234	21,552	11,382	10,170
Total (%)	1990	100	100	100	100	100	100	100	100	100
	2000	100	100	100	100	100	100	100	100	100
Professional, Technical	1990	4.8	5.4	3.9	3.3	3.9	2.5	16.7	15.3	19.6
	2000	1.8	2.6	1.2	1.1	1.7	0.6	10.7	11.6	9.6
Administrative & Managing	1990	0.2	0.3	0.1	0.1	0.2	0	1.2	1.6	0.4
	2000	0	0.1	0	0	0	0	0.4	0.7	0.1
Clerical & Related	1990	0.9	1	0.8	0.3	0.4	0.2	6.4	5.7	7.7
	2000	0.3	0.4	0.2	0.1	0.1	0	2.6	2.8	2.4
Sales Workers	1990	2.8	2.9	2.6	1.7	1.8	1.5	11.9	10.4	15.1
	2000	3.5	3.7	3.3	1.6	1.8	1.5	27.4	24.3	30.8
Service Workers	1990	3	4.1	1.5	1.9	2.4	1.1	12.4	15.8	5.4
	2000	1.2	1.7	0.8	0.5	0.6	0.4	10.4	13.3	7.1
Agriculture, Animal Husbandry	1990	59.6	57.7	62.3	65.3	64.2	66.8	12.6	12.5	12.9
	2000	87.6	85.2	89.5	92.1	90.7	93.2	30.6	26.2	35.5
Production & Related	1990	3.6	4.2	2.7	2.8	3.3	2.2	9.8	10.6	8.3
	2000	3	3.7	2.4	2.2	2.6	1.8	13.4	16.2	10.3
Unclassified	1990	1.4	1.5	1.3	1.2	1.3	1.1	3.2	3	3.4
	2000	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2
Not Stated	1990	23.7	22.9	24.8	23.4	22.5	24.6	25.8	25.1	27.2
	2000	2.5	2.6	2.5	2.4	2.5	2.4	4.2	4.6	3.9

Sources: CSO, 1990 and 2000 Censuses of Population and Housing



Sources: CSO, 1990 and 2000 Censuses of Population and Housing

6.8.3. Working population by Industry

Industry or economic sector defines the type of product or service produced at one's workplace. The distribution of the usually working population 12 years and over by industry and employment status for 1990 and 2000 is shown in Table 6.12.

The industrial structure in Western Province continues to be dominated by the Agriculture industry. In 2000 the Agricultural sector employed 88 percent of the workers, secondary activities together employed 1.9 percent, while tertiary industries together employed 7 percent. In comparison to 1990, the Agricultural and Trade sectors are the only industries that had an increase in the 2000. The rest of the sectors have shown a decline. The most significant are Manufacturing (3 percent in 1990 to 2 percent in 2000). A study of the mobility of workers from one industry to another shows that apart from trade all non-agricultural industries have experienced manpower losses during the 1990's, while the Agricultural industry is the only industry which has gained significant amount of manpower. This suggests that the majority of retrenches, retirees and those who are fired, have taken up agricultural activities. The industrial distribution of workers by employment status revealed that the unpaid family workers (69 percent in 1990 and 94 percent in 2000) and the self-employed (70 percent in 1990 and 88 percent in 2000) were in the Agricultural sector. Employees are more widely distributed over the industries than other statuses. Employers were more predominant in Agriculture (33 percent in 1990 and 42 percent in 2000) and Community and Personal Services (30 percent in 1990 and 17 percent in 2000).

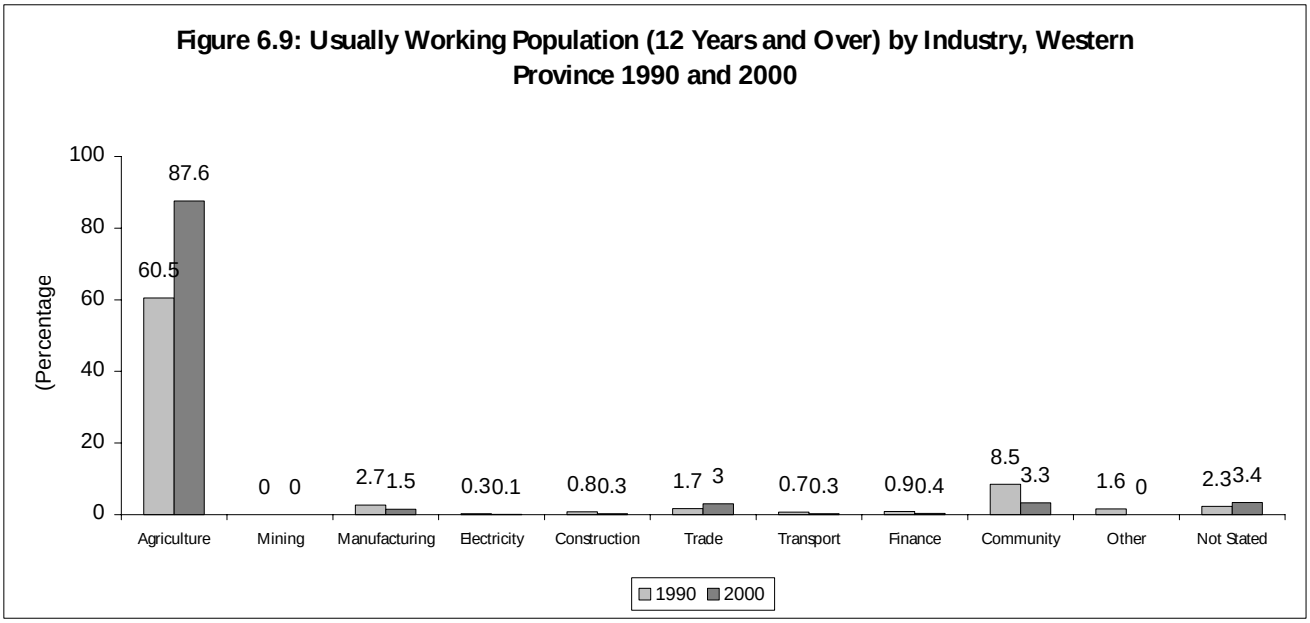
Table 6.12: Percent Distribution of the Usually Working Population (12 Years and Over) by Employment Status and Industry, Western Province, 1990 and 2000

Industrial and Year	Year	Total Number Working	Self Employed	Employee	Employer	Unpaid Family Worker
Total	1990	138,060	35,178	18,294	1,451	79,653
	2000	294,856	120,106	14,829	301	159,620
Western Province	1990	100	100	100	100	100
	2000	100	100	100	100	100
Agriculture	1990	60.5	70	14.9	33.4	68.9
	2000	87.6	88.4	15.8	41.5	93.8
Mining	1990	0.0	0.0	0.2	0.3	0.0
	2000	0.0	0.0	0.2	0.3	0.0
Manufacturing	1990	2.7	5.9	4.9	5.3	0.8
	2000	1.5	2.2	3.7	5.0	0.7
Electricity	1990	0.3	0.0	1.8	0.7	0.0
	2000	0.1	0.0	2.1	1.0	0.0
Construction	1990	0.8	0.8	4	2	0.1
	2000	0.3	0.3	3.7	0.7	0.0

Trade	1990	1.7	3.2	4.5	5.0	0.4
	2000	3.0	4.0	10.1	25.2	1.5
Transport	1990	0.7	0.2	4.4	3.0	0.0
	2000	0.3	0.1	4.6	1.0	0.0
Finance	1990	0.9	1.5	2.8	2.1	0.1
	2000	0.4	0.5	2.8	2.0	0.1
Community	1990	8.5	5	44.2	30.1	1.6
	2000	3.3	1.2	47.7	17.3	0.8
Other	1990	1.6	1.5	3.9	2.4	1.2
	2000	0	0	0	0	0
Not Stated	1990	2.3	11.9	14.4	15.4	26.9
	2000	3.4	3.2	9.3	6.0	3.0

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Figure 6.9: Usually Working Population (12 Years and Over) by Industry, Western Province 1990 and 2000



Sources: CSO, 1990 and 2000 Censuses of Population and Housing

The distribution of the usually working population by employment status in each industry is shown in Table 6.13. Unpaid family workers (57.7 percent in 1990 and 54.1 percent in 2000) are the most predominant status for all industries. The Employees are prominent in all industries, except those of Agriculture in both 1990 and 2000. The employment status of employer was of no importance in any industry in both 1990 and in 2000. Self-employed is prominent in the manufacturing, Trade and Finance industries in 2000 (61.1 percent in Manufacturing,54.7 percent in Trade and 52.4 percent in Finance). Unpaid family workers are dominant in the Agricultural industry in both Censuses.

Table 6.13: Percent Distribution of the Usually Working Population (12 Years and Over) by Employment Status and Industry, Western Province 1990 and 2000

Industrial and Year		Total Number Working	Total	Self Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total	1990	138,060	100.0	25.5	13.2	1.1	57.7	2.5
	2000	294,856	100.0	40.7	5.0	0.1	54.1	0.0
Agriculture	1990	83,473	100.0	29.5	3.3	0.6	65.7	0.9
	2000	258,284	100.0	41.1	0.9	0.0	58.0	0.0
Mining	1990	62	100.0	21.0	66.1	6.4	6.5	0
	2000	44	100.0	22.7	63.6	2.3	11.4	0.0
Manufacturing	1990	3,768	100.0	55.0	23.8	2.0	17.3	1.9
	2000	4,389	100.0	61.1	12.6	0.3	26.0	0.0
Electricity	1990	356	100.0	1.7	91.8	3.1	1.1	2.3
	2000	339	100.0	5.0	92.3	0.9	1.8	0.0
Construction	1990	1,174	100.0	23.7	62.3	2.5	9.7	1.8
	2000	956	100.0	35.9	57.9	0.2	6.0	0.0

Trade	1990	2,356	100.0	48.4	34.9	3.1	11.9	1.7
	2000	8,855	100.0	54.7	17.0	0.9	27.4	0.0
Transport	1990	950	100.0	6.0	85.0	4.5	1.9	2.6
	2000	833	100.0	14.3	81.5	0.4	3.8	0.0
Finance	1990	1,210	100.0	44.9	12.8	2.6	7.4	2.3
	2000	1,247	100.0	52.4	33.3	0.5	13.8	0.0
Community	1990	11,705	100.0	15.0	69.0	3.7	11.0	1.3
	2000	9,809	100.0	14.5	72.0	0.5	12.9	0.0
Other	1990	2,267	100.0	22.6	31.2	1.7	42.3	2.2
	2000	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Not Stated	1990	30,739	100.0	13.6	8.6	0.7	69.6	7.5
	2000	10,100	100.0	38.2	13.7	0.2	47.9	0.0

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Table 6.14 and Table 6.15 show the distribution of the usually working population by industry, sex and residence for the year 2000. The majority of the labourforce are employed in the agricultural sector (88 percent) followed by Community and Personal services sector with 3 percent. By residence, the rural areas employ 92 percent in the Agricultural industry. Whereas in urban areas the Agriculture, the Trade, Restaurants and Hotels and Community and Personal services sectors account for 32 percent, 25 percent and 21 percent respectively.

Table 6.14 Percentage Distribution of Working Population by Industry, Residence and Sex, Western Province, 2000

Industry	Total Number	Rural	Urban	Male	Female
Total Number	294,856	273,304	21,552	134,452	160,404
Total Percentage	100	100	100	100	100
Agriculture	87.6	92.0	31.7	85.1	89.7
Mining & Quarrying	0.0	0.0	0.0	0.0	0.0
Maufacturing	1.5	1.1	7.0	1.5	1.5
Electricity, Gas & Water	0.1	0.0	1.0	0.2	0.0
Construction	0.3	0.2	1.8	0.7	0.0
Trade, Restaurant and Hotel	3.0	1.3	24.6	3.0	3.0
Transport and Communication	0.3	0.1	2.9	0.6	0.0
Finance and Real Estates	0.4	0.2	3.1	0.6	0.3
Community and Personal Services	3.3	1.9	21.4	4.5	2.3
Not Stated	3.4	3.2	6.5	3.9	3.1

Source: CSO, 2000 Census of Population and Housing

Disaggregated by gender, 90 percent of the usually working population of females are in the Agricultural sector while 3 percent are in the Trade, Restaurant and Hotel sector.

Table 6.15 Usually Working Population by Industry, Residence and Sex, Western Province, 2000

Industry	Total Number	Total Percent	Male	Female	Rural Number	Total Percent	Male	Female	Urban Number	Total Percent	Male	Female
Total	294,856	100	46	54	273,304	100	45	55	21,552	100	53	47
Agriculture	258,284	100	44	56	251,455	100	44	56	6,829	100	46	54
Mining & Quarrying	44	100	91	9	38	100	97	3	6	100	50	50
Manufacturing	4,389	100	45	55	2,883	100	44	56	1,506	100	46	54
Electricity, Gas & Water	339	100	89	11	119	100	85	15	220	100	92	8
Construction	956	100	99	1	563	100	99	1	393	100	99	1
Trade, Restaurant and Hotel	8,855	100	46	54	3,555	100	45	55	5,300	100	46	54
Transport and Communication	833	100	94	6	211	100	99	1	622	100	92	8
Finance and Real Estates	1,247	100	60	40	587	100	59	41	660	100	61	39
Community and Personal Services	9,809	100	62	38	5,191	100	64	36	4,618	100	59	41

Source: CSO, 2000 Census of Population and Housing

For males 85 percent are in the agricultural sector while 5 percent are in Community and Personal services sector.

For the total working population by industry, sex and residence, 46 percent were males and 54 percent were females. The Mining, Electricity, Construction and Transport sector account for the majority of the male working population of 91 percent, 89 percent, 99 percent and 94 percent respectively. The distribution by rural and urban does not differ much from the total distribution.

6.9 Educational Attainment

The main objective of human resource development is to prepare the optimal number of people with the right qualifications for the right jobs at the right time.

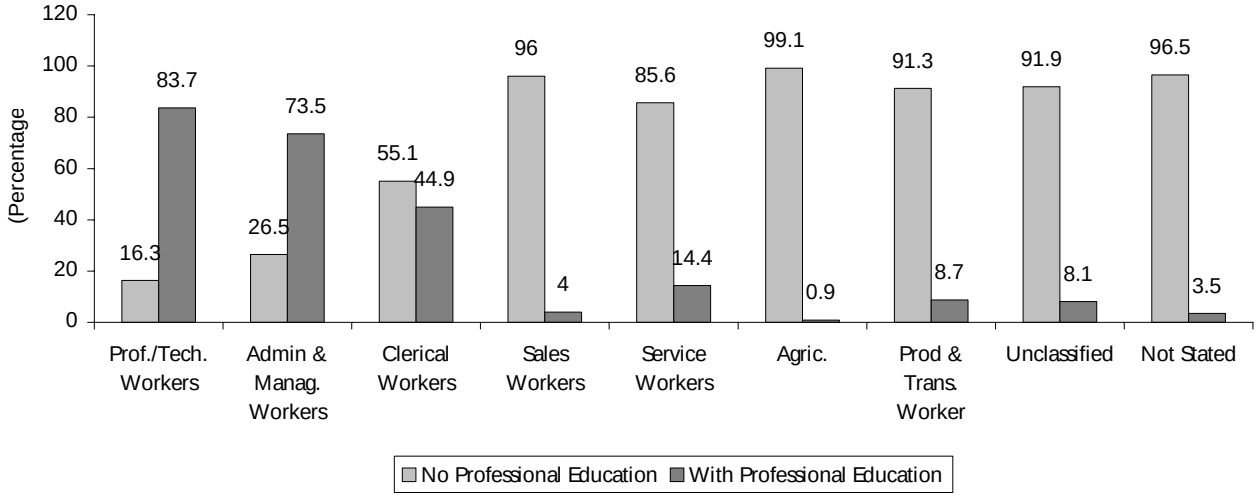
It is necessary for country to invest time and money in the development of its human resources because of the benefits, which result from increased efficiency, and productivity of those who receive training. Then specific type and number of skills required will be determined by the needs of economic growth and development. The total human resources needed in a country will by definition be equal to the number required to maintain the existing level of output, plus the number of required to produce the planned additional volume of output, not forgetting to add some percentage for those who will die, retire, be upgraded, become disabled or emigrate. The information required on the development of human resources should give indications of the number of workers who possess skills that are critical for sustained economic development. Professional education is training which will enable a person to practice in an occupation in which only those who have acquired a pre-determined amount of knowledge, usually at degree level can practice. Vocational education is training which prepares one for a specific occupation or family of occupations, but at a level that is lower than professional education.

Table 6.16 shows the distribution of the usually working population 12 years and over by professional/vocational training and occupation in 2000. The data shows that 97 percent of the province's workforce have absolutely no professional /vocational education while only 3 percent have such education. The distribution among the various occupations shows that slightly more than four fifths of those in the Professional, Technical and related occupations have professional education, while less than a fifth do not have. About three quarters of the Administrative and Managerial occupations have professional education while a quarter do not have. For the Clerical and related workers, the distribution is almost equal (55 with no professional education while 45 percent have). Over three quarters of the sales, service, Agriculture and production workers do not have professional education. A comparison of the distribution of male and female worke4rs by professional/vocational workers does not show significant differences.

An examination of the levels of training of those who are reported to have professional education shows that more than four fifths (82.2 percent) are trained at Certificate level, 14 percent are trained up to Diploma level and only 4 percent are trained up to Degree level. The proportion that has been trained up to Degree level in the province is still very low by 2000 (refer to Table 6.16).. A substantial number of workers trained up to Diploma level are in the three occupations; Administrative and managerial (30.9 percent); Professional and technical (17.7 percent) and Sales workers (18 percent). The majority (ranging from 44.3 percent to 92.1 percent) of the workers are trained up to Certificate level in all the remaining occupations. The proportion of

Diploma and degree holders is higher for males than for females, while the opposite is true of certificate holders. This pattern is the same in the majority of the occupations.

Figure 6.10: Usually Working Population (12 Years and Over) by Professional Training; Occupation, Western Province 2000



Source: CSO, 2000 Census of Population and Housing

Table 6.16: Usually Working Population 12 Years and over by Professional/Vocational Training; Occupation and Sex (Percent), Total Western Province 2000

Sex And Occupational Category	Total Usually Working Population	Working Population			Working Population With Professional Education				
		Total	No Professional Education	With Professional Education	Number Having Professional Education	Total	Certificate	Diploma	Degree
Both Sexes									
Total	294,856	100	96.9	3.1	9,146	100	82.2	13.9	3.9
Prof/Tech	5,375	100	16.3	83.7	4,498	100	77.7	17.7	4.6
Admin. Managerial	132	100	26.5	73.5	97	100	44.3	30.9	24.7
Clerical & Related	761	100	55.1	44.9	342	100	89.8	8.5	1.8
Sales workers	10,264	100	96.0	4.0	411	100	75.9	18.0	6.1
Service workers	3,580	100	85.6	14.4	514	100	90.7	7.8	1.6
Agric	258,177	100	99.1	0.9	2,239	100	87.9	9.7	2.4
Production	8,801	100	91.3	8.7	763	100	92.1	6.3	1.6
Unclassified	260	100	91.9	8.1	21	100	66.7	19.0	14.3
Not Stated	7,506	100	96.5	3.5	261	100	80.5	13.8	5.7
Males									
Total	134,452	100	95.2	4.8	6,436	100	78.0	17.1	4.9
Prof/Tech	3,459	100	17.0	83.0	2,872	100	70.4	23.4	6.2
Admin. Managerial	112	100	22.3	77.7	87	100	40.2	32.2	27.6
Clerical & Related	475	100	68.4	31.6	150	100	80.0	16.0	4.0
Sales workers	4,917	100	94.6	5.4	265	100	69.4	22.6	7.9
Service workers	2,254	100	80.0	20.0	450	100	90.0	8.4	1.6
Agric	114,575	100	98.5	1.5	1,774	100	86.0	11.3	2.7
Production	5001	100	87.3	12.7	635	100	91.2	6.9	1.9
Unclasfied	112	-	-	-	11	-	0.0	0.0	0.0
Not Stated	3,547	100	94.6	5.4	192	100	76.6	16.1	7.3
Females									
Total	160,404	100	98.3	1.7	2,710	100	92.1	6.3	1.5
Prof/Tech	1,916	100	15.1	84.9	1,626	100	90.7	7.6	1.8
Admin. Managerial	20	100	50.0	50.0	10	100	80.0	20.0	0.0
Clerical & Related	286	100	32.9	67.1	192	100	97.4	2.6	0.0
Sales workers	5,347	100	97.3	2.7	146	100	87.7	9.6	2.7
Service workers	1,326	100	95.2	4.8	64	100	95.3	3.1	1.6
Agric	143,602	100	99.7	0.3	465	100	95.3	3.4	1.3
Production	3,800	100	96.6	3.4	128	100	96.9	3.1	0.0
Unclasfied	148	100	93.2	6.8	10	100	80.0	10.0	10.0
Not Stated	3,959	100	98.3	1.7	69	100	91.3	7.2	1.4

Source: CSO, 2000 Census of Population and Housing

Table 6.17 shows the usual working population 12 years and over by professional/vocational training, occupation and sex in 1990. Intercensal comparisons of training in human resources shows that the proportion of those having professional education declined from 7 percent in 1990 to 3 percent in 2000 while those having no professional qualification increased from 93 percent in 1990 to 97 percent in 2000.

The comparison of those educational levels reached by those having professional/vocational training shows that the proportion of those who are trained at the level Certificate declined from 88 in 1990 to 82.2 in 2000. In contrast, the proportion of individuals that attained the level of Diploma training and degree training increased from 12 percent in 1990 to 14 percent in 2000 and from one percent in 1990 to 4 percent in 2000 respectively. The above pattern of change between the two censuses is maintained all the occupations. It should be noted that there is a remarkable increase in the proportion of those trained at Degree level in the two occupations of Administrative and Managerial from three percent in 1990 to 25 percent in 2000, and Professional and Technical from one percent in 1990 to five percent in 2000.

Table 6.17: Usually Working Population 12 Years and over by Professional/Vocational Training; Occupation and Sex (Percent), Total Western Province, 1990

Profession	Total Usually Working Population	Working Population			Working Population With Professional Education				
		Total	No Professional Education	With Professional Education	Number having Professional Education	Total	Certificate	Diploma	Degree
Both Sexes									
Total	138,060	100.0	93.2	6.8	9,387	100.0	87.5	11.8	0.7
Prof/Tech.	6,556	100.0	33.3	66.7	4,370	100.0	83.2	15.5	1.3
Admin. Managerial	286	100.0	49.5	50.5	145	100.0	64.3	32.9	2.8
Clerical & Related	1,297	100.0	57.8	42.2	547	100.0	91.1	8.9	0.0
Sales Workers	3,809	100.0	92.7	7.3	277	100.0	87.3	12.4	0.4
Service Workers	4,135	100.0	85.1	14.9	614	100.0	93.2	6.6	0.2
Agic., Husbandry	82,328	100.0	97.8	2.2	1,831	100.0	91.6	8.3	0.1
Production	4,956	100.0	92.0	8.0	397	100.0	93.9	6.1	0.0
Classified	1,984	100.0	94.2	5.8	115	100.0	84.2	14.9	0.9
Not Stated	32,709	100.0	96.5	3.5	1,133	100.0	93.1	6.8	0.1
Male									
Total	79,230	100.0	91.1	8.9	7,012	100.0	85.9	13.3	0.8
Prof/Tech.	4,242	100.0	32.6	67.4	2,861	100.0	79.6	18.8	1.6
Admin. Managerial	259	100.0	50.8	49.2	127	100.0	62.2	35.4	2.4
Clerical & Related	825	100.0	65.7	34.3	283	100.0	85.7	14.3	0.0
Sales Workers	2,272	100.0	90.2	9.8	222	100.0	86.4	13.2	0.5
Service Workers	3,257	100.0	82.5	17.5	570	100.0	92.9	6.9	0.2
Agic., Husbandry	45,690	100.0	96.5	3.5	1,578	100.0	90.9	9.0	0.1
Production	3,344	100.0	90.0	10.0	333	100.0	93.1	6.9	0.0
Classified	1,228	100.0	91.9	8.1	100	100.0	84.8	14.1	1.0
Not Stated	18,113	100.0	94.7	5.3	961	100.0	93.1	6.9	0.0
Female									
Total	58,830	100.0	96.0	4.0	2,378	100.0	91.9	7.5	0.6
Prof/Tech.	2,314	100.0	34.8	65.2	1,509	100.0	90.1	9.1	0.8
Admin. Managerial	27	100.0	36.0	64.0	17	100.0	81.3	12.5	6.3
Clerical & Related	472	100.0	44.2	55.8	264	100.0	97.0	3.0	0.0
Sales Workers	1,537	100.0	96.4	3.6	55	100.0	90.9	9.1	0.0
Service Workers	878	100.0	94.9	5.1	44	100.0	97.7	2.3	0.0
Agic., Husbandry	36,638	100.0	99.3	0.7	253	100.0	96.0	4.0	0.0
Production	1,612	100.0	96.1	3.9	63	100.0	98.4	1.6	0.0
Classified	756	100.0	98.0	2.0	15	100.0	80.0	20.0	0.0
Not Stated	14,596	100.0	98.8	1.2	172	100.0	93.0	6.4	0.6

Source: CSO, 1990 Census of Population and Housing

Table 6.18 shows the usually working population 12 years and over by field of training and professional/vocational training level completed by 2000. The biggest proportion of the province's workforce of 56.7 percent had not received training at any level by 2000. There is more concentration of training in the Social Sciences and Arts than in the Natural Sciences. The following are the five most popular fields of training for those who received professional/vocational training in 2000: Teacher training (33 percent); Nursing (17 percent); Accountancy (5 percent); Agriculture (4 percent) and Mechanical Engineering (3 percent).

A comparison of fields of training by level of training completed shows patterns, which are similar to the one, described for the total workers who had received professional training by 2000.

Table 6.18: Usually Working Population (12 Years and Over) by Field of Training and Professional/vocational Training Completed (percent), Western Province, 2000

Field of Training	Total usually Working Population	No Professional Education	Professional/vocational training			
			Total	Certificate	Diploma	Degree
Total Working Number	294,856	285,710	9,146	7,518	1,273	355
Total	100	100	100	100	100	100
Natural science	0.0	0.0	0.4	0.1	0.8	3.7
Civil engineering	0.0	0.0	0.7	0.6	0.9	1.4
Elec. & Electronic Engineering.	0.0	0.0	1.2	1.2	1.5	1.4
Mechanical Engineering	0.1	0.0	3.4	3.6	2.4	3.1
Chemical Engineering	0.0	0.0	0.1	0.1	0.2	0.0
Mining Engineering	0.0	0.0	0.4	0.4	0.2	1.1
Industrial Engineering	0.0	0.0	0.0	0.0	0.0	0.0
Metallurgical Engineering	0.0	0.0	0.2	0.1	0.5	0.3
Architectural& T/Planning	0.0	0.0	0.3	0.3	0.5	0.6
Other Engineering	0.0	0.0	0.8	0.8	0.7	2.3
Medicine and Surgery	0.0	0.0	0.9	0.6	1.8	3.9
Pharmacy	0.0	0.0	0.7	0.8	0.6	0.0
Dentistry	0.0	0.0	0.3	0.3	0.2	0.6
Nursing	0.5	0.0	17.0	18.6	11.8	3.7
Medical Technology	0.1	0.0	1.6	0.7	5.3	8.7
X-RAY Technology	0.0	0.0	0.2	0.2	0.5	0.6
Veterinary	0.0	0.0	1.1	1.0	1.5	1.1
Statistics.	0.0	0.0	0.2	0.2	0.3	0.6
Mathematics	0.0	0.0	0.2	0.1	0.2	0.8
Computer Science.	0.0	0.0	0.4	0.4	0.5	0.6
Economics	0.0	0.0	0.4	0.2	0.9	3.1
Accountancy	0.1	0.0	4.6	3.6	9.8	8.2
Teacher Training.	1.0	0.0	33.3	33.5	34.4	24.8
Law and Jurisprudence	0.1	0.0	2.4	2.6	1.6	2.0
Journalism	0.0	0.0	0.2	0.2	0.4	0.0
Fine Arts	0.0	0.0	0.4	0.3	0.5	1.1
Physical Education	0.0	0.0	0.2	0.2	0.2	0.6
Library Science	0.0	0.0	0.1	0.1	0.0	0.6
Social Welfare	0.0	0.0	0.7	0.6	0.9	1.7
Criminology	0.1	0.0	2.5	2.8	1.2	0.6
Business Administration	0.1	0.0	1.8	1.2	4.4	5.4
Secretarial Training.	0.0	0.0	1.6	1.8	0.7	0.3
Shorthand Typing	0.0	0.0	1.5	1.8	0.2	0.0
Clerical Typing	0.0	0.0	1.4	1.7	0.2	0.0
Operating of Off. Machine	0.0	0.0	0.3	0.3	0.4	0.0
Service Trade	0.0	0.0	0.9	1.0	0.3	0.6
Radio & TV Broadcasting	0.0	0.0	0.1	0.1	0.1	0.0
Fire Protection & Fire Fighting	0.0	0.0	0.2	0.2	0.0	0.0
Agriculture, Forestry & Fishery	0.1	0.0	4.0	3.7	4.9	7.0
Food and drink Processing	0.0	0.0	0.4	0.4	0.3	0.0
Wood working	0.1	0.0	2.5	2.9	0.2	0.3
Textile Trades.	0.0	0.0	1.0	1.2	0.2	0.3
Leather Trades.	0.0	0.0	0.2	0.2	0.1	0.0
Other Programmes	0.3	0.0	9.1	9.4	7.4	9.3
No Training	56.7	58.5	0.0	0.0	0.0	0.0
Not stated	40.2	41.5	0.2	0.3	0.1	0.0

Source: CSO, 1990 Census of Population and Housing

6.10 Unemployment

The unemployed population consists of all persons 12 years and over who are actively seeking work or are available for work during reference period, i.e. the last seven days before the enumeration day. Poor economic conditions are primarily responsible for unemployment, although demographic trends do affect the growth and composition of the labour force. A high unemployment ratio generally means that many people are without jobs because of a shortfall in employment opportunities. The unemployment rate is found by measuring the number of unemployed persons against the labour force.

Table 6.19 and 6.20 shows unemployment rates by sex and residence for 1990 and 2000. There was a decline in the overall unemployment rate from 16 percent in 1990 to 5 percent in 2000. Both males and females experienced a significant drop in the unemployment rate from 17 percent in 1990 to 6 percent in 2000 and 15 percent in 1990 to 4 percent in 2000, respectively.

The total unemployment rate for the province is significantly lower than the national unemployment rate in 2000 (5 percent compared with the national rates of 13 percent). The same case prevailed in 1990.

Unemployment rates declined in all the districts of Western Province with Sesheke district recording the biggest decline from 21 percent in 1990 to 6 percent in 2000. Senanga and Lukulu also recorded significant declines in the unemployment rate from 17 percent in1990 to 3 percent in 2000 and 18 percent in 1990 to 4 percent in 2000, respectively. Disaggregated by sex, the unemployment rates for males declined most in Senanga district followed by Sesheke district. For Females the unemployment rates declined most in Sesheke district followed by Lukulu district. Mongu district recorded the least decline in the unemployment rates for both males and females.

Table 6.19: Trends in Unemployment Rates by District and Sex, Western Province, 1990 and 2000

District	1990			2000		
	Total	Male	Female	Total	Male	Female
Zambia	15.0	14.1	16.7	12.9	14.1	11.3
Western Province	16.2	16.9	15.3	5.1	6.0	4.2
Districts						
Kalabo	14.5	16.5	12.4	4.5	5.5	3.8
Kaoma	11.3	11.7	10.8	3.2	3.8	2.6
Lukulu	18.1	18.3	17.9	3.6	4.8	2.7
Mongu	18.0	17.2	19.0	9.3	10.3	8.4
Senanga	17.3	18.8	15.4	2.5	3.0	2.2
Sesheke	21.3	21.9	20.2	5.7	7.3	4.1
Shang'ombo				6.1	7.1	5.1

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

In the rural areas the unemployment rate has declined for both male and females. The total unemployment rate declined from 16 percent in 1990 to 4 percent in 2000. The Male unemployment rate declined from 17 percent in 1990 to 5 percent in 2000 while the Female unemployment rate declined from 14 percent in 1990 to 3 percent in 2000. Similarly the unemployment rates declined in urban areas. The total unemployment rate declined

from 21 percent in 1990 to 18 percent in 2000. However, the male urban unemployment rate remained relatively stable at 18 percent, while the urban female unemployment rate declined from 26 percent in 1990 to 18 percent in 2000. Overall the decline in the unemployment rates in rural areas is more than the decline in urban areas.

Table 6.20: Unemployment Rates by Sex and residence 1990 and 2000

Residence	Sex	1990	2000
Western Province	Total	16.2	5.1
	Male	16.9	6.0
	Female	15.3	4.2
Rural	Total	15.6	3.9
	Male	16.8	4.8
	Female	14.2	3.1
Urban	Total	20.7	17.8
	Male	17.7	17.8
	Female	25.7	17.9

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Current unemployment rates by age, sex and residence in 2000 are shown in Table 6.21 and illustrated for in 2000 in Figure 6.11. This figure shows that unemployment is a more serious problem in the young age groups 12-14 (10.4 percent); 15-19 (9.8 percent);; 20-24 (8.6 percent) and 25-29 (5.6 percent). The peak is in the age-group 12-14 years. This pattern is the same for both sexes, and in both rural and urban areas.

The overall unemployment rate of 6 percent for males is higher than that of females of 4 percent. A comparison of the rates by age between the two sexes shows that apart from the age-group 70-74 years, the male unemployment rates are higher than the female unemployment rates at all ages.

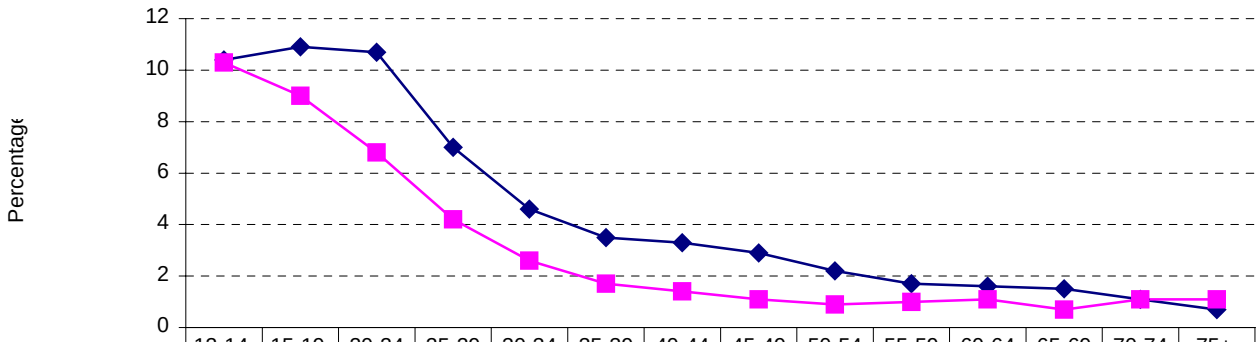
In both rural and urban areas, the male unemployment rates are higher than the female unemployment rates at all ages.

Table 6.21: Current Unemployment Rates by Age, Sex and Residence, Western Province, 2000

Age Group	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Total	5.1	6.0	4.2	3.9	4.8	3.1	17.8	17.8	17.9
12-14	10.4	10.4	10.3	9.2	9.3	9.1	39.8	43.7	36.7
15-19	9.8	10.9	9.0	7.8	8.9	7.0	39.1	40.8	37.9
20-24	8.6	10.7	6.8	5.9	7.8	4.4	32.5	33.1	31.8
25-29	5.6	7.0	4.2	4.1	5.3	3.0	18.1	18.7	17.3
30-34	3.6	4.6	2.6	2.8	3.8	2.0	9.8	10.7	8.5
35-39	2.5	3.5	1.7	2.1	3.0	1.3	6.6	7.1	5.9
40-44	2.3	3.3	1.4	2.0	2.9	1.2	5.3	5.9	4.5
445-49	1.9	2.9	1.1	1.6	2.5	0.9	5.0	6.2	3.4
50-54	1.5	2.2	0.9	1.2	1.8	0.8	5.2	6.0	4.0
55-59	1.3	1.7	1.0	1.1	1.4	0.8	5.4	6.0	4.4
60-64	1.3	1.6	1.1	1.1	1.3	1.0	5.3	6.4	3.9
65+	1.0	1.1	0.9	0.9	1.0	0.9	3.9	4.8	2.6

Source: CSO, 2000 Census of Population and Housing

Figure 6.11: Usually Unemployed by Age and Sex, Western Province, 2000



	12-14.	15-19.	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75+
Male	10.4	10.9	10.7	7	4.6	3.5	3.3	2.9	2.2	1.7	1.6	1.5	1.1	0.7
Female	10.3	9	6.8	4.2	2.6	1.7	1.4	1.1	0.9	1	1.1	0.7	1.1	1.1

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

Table 6.22 shows the usually unemployed population by level of education completed and age in 2000.

Almost three quarters (74.1 percent) of the unemployed population in the country either completed no education or had a rudimentary education of grade 1 to 7. About a quarter of the unemployed population (24 percent) had secondary school education of grade 8 to 12. Those who have 'A' level education and Degree constitute 2 percent. The distribution of the unemployed population by age shows that the proportion of those who have no education increase with the increase in age, while the proportion of those with grade 1-7 and 8-12 decrease with the increase in age.

The data in table 6.22 strongly suggests that unemployment in the country is a bigger problem for those with little or no education. However, this also appears to be a growing problem for those with a secondary education of grade 8-12, especially in the age group 20-49 years.

Table 6.22: Usually Unemployed, by Level of Academic Educational Completed and Age, Western Province Total, 2000

Age Group	Total Number Unemployed	Total	Never Attended	Grade 1-7	Grade 8-12	"A" Level	Degree
Total	145,452	100.0	23.4	50.7	23.9	0.2	1.8
12-19	86,725	100.0	9.8	67.8	22.2	0.2	0.0
20-24	17,568	100.0	22.8	26.8	48.7	0.6	1.0
25-29	9,130	100.0	33.3	28.4	33.3	0.3	4.7
30-34	5,790	100.0	38.1	29.3	23.7	0.4	8.5
35-39	4,529	100.0	41.5	28.4	19.7	0.3	10.1
40-44	3,361	100.0	43.5	29.5	17.9	0.4	8.7
45-49	2,490	100.0	49.7	28.8	12.3	0.2	9.0
50-54	2,491	100.0	61.3	23.6	8.7	0.2	6.1

55-59	1,783	100.0	63.4	22.3	8.4	0.5	5.4
60-64	2,123	100.0	71.8	20.1	3.9	0.3	4.0
65+	9,462	100.0	78.8	16.3	2.7	0.1	2.0

Source: CSO, 2000 Census of Population and Housing

6.11 Marital Status of the Unemployed

Table 6.23 shows the distribution of the currently unemployed population by marital status, sex and residence. According to the table, the majority (71.1 percent) of the unemployed population had never been married, 19.5 percent were married and 8.8 percent were either widowed, divorced or separated. The proportion of the female never married unemployed population is higher (70.3 percent) than the male never married unemployed population (67.5 percent) in rural areas. In contrast the male never married unemployed population in urban areas is slightly higher than that of females (77.2 percent compared to 76.7 percent).

Table 6.23: Currently Unemployed by Marital Status, Sex and Residence, (Percent), Zambia, 2000

Residence and Sex	Total Number Unemployed	Marital Status						
		Total	Married	Separated	Divorced	Widowed	Never Married	Living Together
Total								
Both Sexes	15,426	100.0	19.5	1.9	4.1	2.8	71.1	0.7
Male	8,694	100.0	25.2	1.1	1.9	1.1	70.2	0.5
Female	6,732	100.0	12.0	2.9	6.9	5.0	72.3	0.9
Rural								
Both Sexes	10,890	100.0	21.3	2.2	4.3	2.9	68.7	0.6
Male	6,237	100.0	28.1	1.2	1.6	1.1	67.5	0.4
Female	4,653	100.0	12.2	3.5	7.8	5.4	70.3	0.9
Urban								
Both Sexes	4,536	100.0	15.0	1.3	3.6	2.4	76.9	0.7
Male	2,457	100.0	17.9	0.9	2.5	1.0	77.2	0.6
Female	2,079	100.0	11.7	1.7	5.0	4.1	76.7	0.9

Source: CSO, 2000 Census of Population and Housing

6.12 Youth Unemployment

Data presented in Table 6.24 shows that youth unemployment is high in the province, 9.8 percent for the age group 15-19 and 8.6 percent in the age group 20-24. Comparing these rates with the rest of the age groups (refer to Table 6.21 above) it can be seen that youth unemployment is still an issue of concern in the province. In terms of residence youth unemployment is higher in urban areas as opposed to rural areas. The reason here could be that youths in rural areas may be involved in agricultural activities thereby reducing the number of those unemployed whereas in urban areas where there are less agricultural activities youths end up having no employment. It is interesting to note that in all cases male unemployment rates are higher than female unemployment rates. The rates are also higher among youths in the age group 15-19 as opposed to those in the age group 20-24. This however could be attributed to the fact that youths in the age group 15-19 could still be attending school.

Table 6.24: Youth Unemployment Rate by Residence and Sex, 2000

Age Group	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female

Total	5.1	6.0	4.2	3.9	4.8	3.1	17.8	17.8	17.9
15-19	9.8	10.9	9.0	7.8	8.9	7.0	39.1	40.8	37.9
20-24	8.6	10.7	6.8	5.9	7.8	4.4	32.5	33.1	31.8

Sources: CSO, 2000 Census of Population and Housing

6.13 Summary

The size of the working-age population in Western has increased by 12.5 percent between 1990 and 2000. The distribution of this population by age shows that it declines with the increase in age, just as the total population.

The Labour force has increased by 66 percent between 1990 and 2000. In 2000, 92 percent of the Labour force is in rural areas while 8 percent is in urban areas. About half of the Labour force is in the young age group of 12-29 years.

The employed population has increased by 88 percent. The female employed population has increased by an impressive 131 percent, while male employed Labour force increased by 56 percent.

The number of the unemployed has in declined by 48 percent between 1990 and 2000. The size of the male unemployed population has declined by 51 percent, while that of females has in declined by 45 percent. There are more unemployed persons in the rural than in the urban areas for both males and females. In 2000, unemployment is a more serious problem for the young age group of 12-29 years than for the adult age group of 30 years and over.

Lack of adequate education seems to have contributed to the problem of unemployment for the affected persons. The majority of the unemployed are young people.

The economically inactive population has declined by 33 percent against an increase of 66 percent in the Labour force between 1990 and 2000. This implies that most of the 12.5 percent increase in the working-age population between 1990 and 2000 has increased the inactive population but not more than the Labour force. Hence the Labour force participation rate has increased from 47 percent in 1990 to 69 percent in 2000. Similarly the overall unemployment rate has reduced from 16 percent in 1990 to 5 percent in 2000.

Economic activities in Western Province are still organized around family Labour as evidenced by the predominance (94.8 percent) of workers who are classified as either self-employed or unpaid family workers. In contrast, only 5.1 percent are classified as employees or employers. The transformation of the Zambian economy in the 1990's seems to have reduced employment opportunities in the formal sector, thereby forcing a large part of the Labour force into self-employment in the informal sector. There is a large concentration of workers (87.6 percent) in the Agricultural and related occupations partly because of the ease of entry into the sector even with individuals with very low educational attainment.

Lack of industrialization in the country is reflected by the continued predominance of the primary economic activities of Agriculture, which employed over two fifths (87.6 percent) of the workforce in 2000. This situation has been exacerbated by the economic recession of the 1990's, which has caused manpower losses in all the non-agricultural industries and manpower gains in the Agriculture industry.

A very big proportion of 56.7 percent of the province's workforce had not received training at any level by 2000. This could explain the large number of people who find themselves in primary activities of Agriculture.

Chapter 7

FERTILITY LEVELS, PATTERNS AND TRENDS

7.1 Introduction

Fertility is one of the dynamics of population change. Fertility analysis is important in understanding past, current and future trends of population size, composition and growth. Information on fertility levels, patterns and trends experienced by a country is important for socio-economic planning, monitoring and evaluating programs.

7.2 Concepts and Definitions:

- **Fertility:** refers to the frequency of occurrence of live births among women in a population.
- **Crude Birth Rate (CBR):** is the number of live births per thousand mid-year population during a specified period.
- **Completed Family Size (Mean Parity):** is the number of children ever born to women who have completed their reproduction i.e. those aged 45-49.
- **Age Specific Fertility Rate (ASFR):** is the number of live births per thousand women of a specific age group during a specific period.
- **Total Fertility Rate (TFR):** is the number of children that a woman would have by the end of her childbearing period if she were to experience the currently observed age-specific fertility rates.
- **Child Woman Ratio (CWR):** is the ratio of all children aged 0-4 to women aged 15-49 in the population.
- **General Fertility Rate (GFR):** is the number of live births occurring during a specified period per thousand women of childbearing age.
- **Gross Reproduction Rate (GRR):** refers to the average number of female births that a woman would give birth to by the time she reaches the end of her reproduction if she experienced age specific fertility rates prevailing in that year.
- **Net Reproduction Rate (NRR):** refers to the average number of female births born to women aged 15-49, that would survive to the end of their reproductive period after experiencing the prevailing fertility and mortality levels.

7.3 Nature and Quality of Fertility Data

7.3.1 Data Availability and Limitations

The 2000 Census of Population and Housing collected data on fertility using a question on Children Ever Born (CEB) and a question on births in the last twelve months prior to the census. Information was collected from all women present in the household at the time of enumeration. Information on CEB was collected from women aged 12 years and older, while information on births in the last 12 months prior to the census was collected from women aged 12-49 years.

The question on CEB provides required information for estimating lifetime fertility of women. Estimates of Completed Family Size (Mean Parity) were computed using data from this question.

Information collected using the question on births in the 12 months prior to the census is useful in estimating current fertility. Data collected using this question was used in the computation of Age Specific Fertility Rates (ASFR), Total Fertility Rates (TFR), Gross Reproduction Rates (GRR) and the Net Reproduction Rates (NRR).

It is important to note that data on CEB sometimes do not yield good results due to omission of births, particularly by women aged 35 years and above. Children who died soon after birth, those born before marriage and not living with the mother for example, are usually omitted in the census, especially that birth histories are not used to collect this information in the census. Mean parities calculated from children ever born data are also affected by age misreporting by women (See Chapter 2).

In order to reduce on the chances of children being omitted, especially children who have died or live in different households from those of their mothers, the 2000 Census of Population and Housing included questions on whether the child lives in the same household as the mother or whether the child lives elsewhere, and whether the child died. The sex of the child was asked for each of these questions.

7.3.2 Data Evaluation and Adjustment

The 2000 Census fertility analysis used the Trussel variant of the Brass PF ratio technique to adjust the fertility data and to come up with adjusted Age Specific Fertility Rates (ASFR) and adjusted Total Fertility Rates (TFR). The PF ratio technique originally developed by William Brass provides a method for adjusting reported age specific fertility rates (based on births in the 12 month period prior to the census), to the 'actual ' level of fertility (based on CEB). The PF ratio technique was used to adjust fertility on the basis of the age of the mother at the time of the census, and not the age of the child.

While the Gompertz Relational Technique yielded reasonable estimates of adjusted TFR, the PF Ratio technique was used because it yielded both adjusted ASFR and TFR (See Table 7.1). The analysis of the PF Ratios showed that areas that had experienced fertility declines e.g. urban areas had PF ratios that were rising by age of women suggesting patterns of recent fertility decline, while rural areas with almost constant fertility showed PF ratios with very little deviations from the standard. The analysis and adjustment of fertility used different sets of spreadsheets in the Population Analysis Spreadsheets (PASEX), developed by the US Census Bureau.

Table 7.1: Comparison of TFR obtained from the Gompertz Technique and the Trussel/Brass PF Ratio Technique by Province, Zambia, 2000

Province	Gompertz Relational 2+2 Points based on ASFR and CEB Avg. (20-34)	Trussel-Brass PF Ratio Avg. (P2/F2:P3/F3: P4/F4)
Zambia	**6.0**	**6.0**
Central	6.2	6.1
Copperbelt	5.2	5.2
Eastern	6.6	6.7
Luapula	7.0	7.1
Lusaka	4.6	4.6
Northern	6.9	7.0
North Western	6.3	6.6
Southern	6.3	6.3
Western	5.8	5.9

Source: CSO, 2000 Census of Population and Housing

7.4 Fertility Levels, Patterns and Trends

Table 7.2 presents information on the current fertility levels for Western province. According to the 2000 Census results, the total fertility rate is 5.9. This means that on average, a woman in Western province at the beginning of her child bearing years, will give birth to about 5.9 children by the end of her reproductive period if current fertility levels remain constant. The provincial TFR is just slightly below the national average of 6.0.

Table 7.2 further shows observed and Adjusted Age Specific Fertility Rates (ASFR) and Total Fertility Rates (TFR) for Western province, rural and urban estimated for the 2000 Census. Total Fertility Rate

(TFR) is lower by one for women in urban areas with a TFR of 4.7, compared with a TFR of 6.1 for women in rural areas.

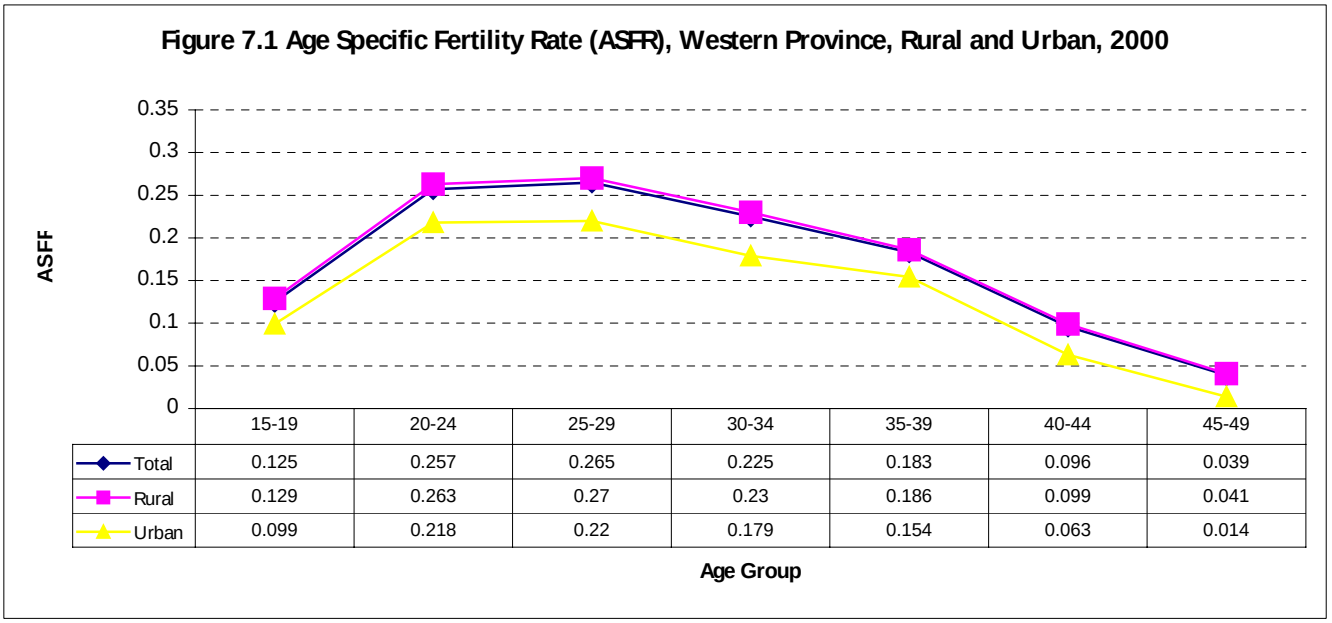
The ASFR provides a measure of fertility variation by age of women and helps in the calculation of Total Fertility Rate (TFR). In this chapter ASFR refers to the prevailing fertility patterns for women aged 15-49 when plotted on a graph, the ASFR shows a characteristic pattern with an initial rise from low levels in the younger ages rising to a peak usually in the 20s and then falling in the older ages (See figure 7.1).

Table 7.2: Age Specific Fertility rate (ASFR) and Total Fertility rate (TFR), Western Province and Rural/Urban, 2000.

Age Group	Total				Rural				Urban			
	Total Women	Births	Observed ASFR	Adjusted ASFR	Total Women	Births	Observed ASFR	Adjusted ASFR	Total Women	Births	Observed ASFR	Adjusted ASFR
15-19	42,781	3,598	0.084	0.125	36,483	3,205	0.088	0.129	6,298	393	0.062	0.099
20-24	36,287	7,229	0.199	0.257	31,428	6,460	0.206	0.263	4,859	769	0.158	0.218
25-29	27,562	5,848	0.212	0.265	24,249	5,297	0.218	0.270	3,313	551	0.166	0.220
30-34	20,644	3,759	0.182	0.225	18,256	3,434	0.188	0.230	2,388	325	0.136	0.179
35-39	17,419	2,625	0.151	0.183	15,562	2,402	0.154	0.186	1,857	223	0.120	0.154
40-44	15,015	1,248	0.083	0.096	13,520	1,169	0.086	0.099	1,495	79	0.053	0.063
45-49	11,462	425	0.037	0.039	10,379	410	0.040	0.041	1,083	15	0.014	0.014
Observed TFR			**4.7**				**4.9**				**3.5**	
Adjusted TFR				**5.9**				**6.1**				**4.7**

Source: CSO, 2000 Census of Population and Housing

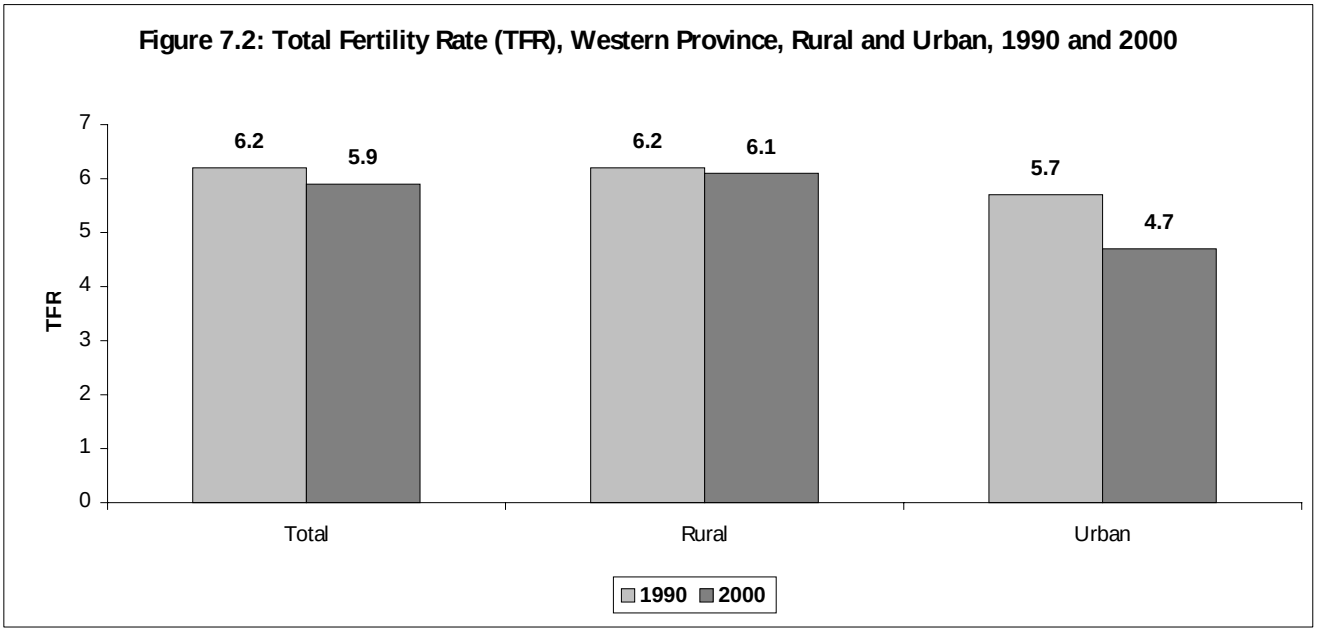
The table, as well as Figure 7.1 shows that childbearing is at its peaks in the age group 25-29 after which it steadily declines. In both rural and urban areas, the peak of childbearing is at the same age group. Women in urban areas have lower ASFR at all ages.



Source: CSO, 2000 Census of Population and Housing

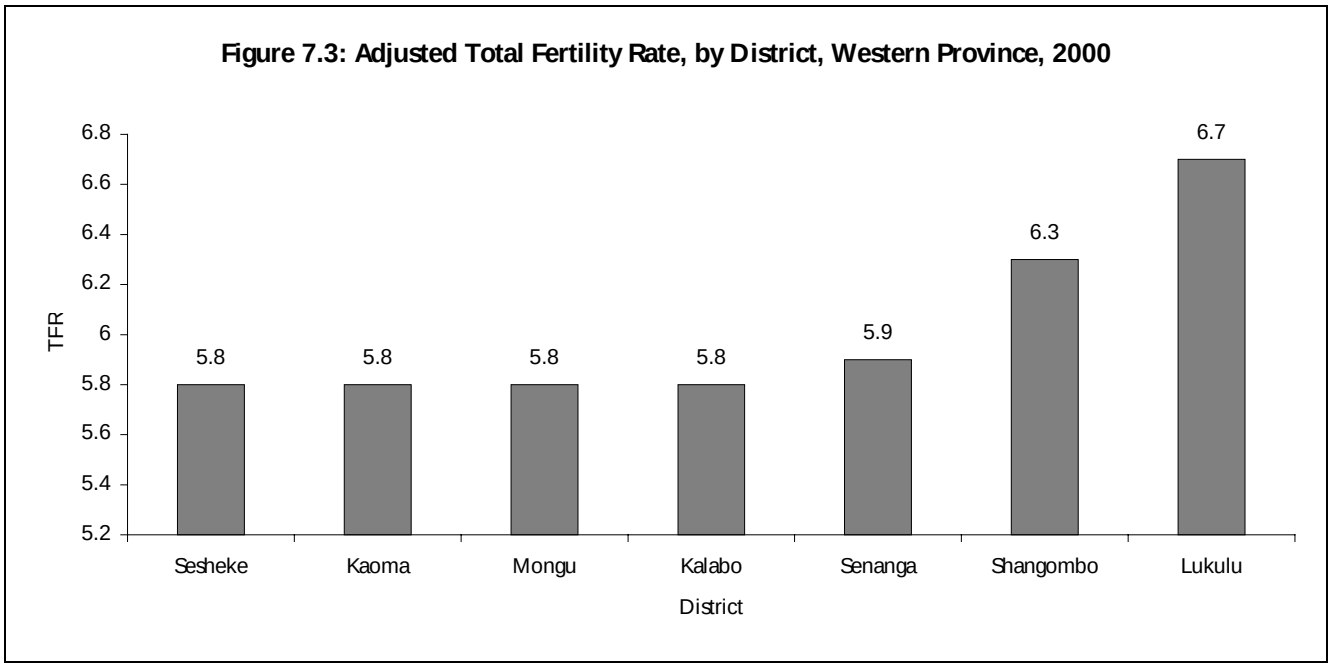
Fertility has declined slightly between 1990 and 2000. While fertility for women in rural areas shows very little change between over the ten year period declining from 6.2 to 6.1, urban women have experienced a drop in fertility of about one child (Figure 7.2), from 5.7 in 1990 to 4.7 in 2000. The decline in fertility in the urban areas could point to the fact that urban areas may have the socio-economic conditions necessary for fertility decline such as access to reproductive health services, better and enhanced access to education by both girls and boys etc as opposed to the conditions prevailing in rural areas.

Though fertility has been declining in Western province, the rate of decline has been rather slow, with TFR declining from 6.2 in 1990 to 5.9 in 2000 (Figure 7.2).



Source: CSO, 2000 Census of Population and Housing

Among the districts, Lukulu has the largest TFR of 6.7 followed by Shang'ombo with 6.3. The least TFR of 5.8 was recorded in four of the districts namely: Sesheke, Kaoma, Mongu and Kalabo while Senanga has the same TFR as the provincial average of 5.9 (see figure 7.3).



Source: CSO, 2000 Census of Population and Housing

7.5 Fertility Differentials by Background Characteristics of Women aged 15-49

This section shows differences in levels of fertility according to various background characteristics of women. These include marital status, economic status and education levels.

7.5.1 Fertility Differentials by Marital Status

Marital status has a bearing on the fertility levels of women because of the amount of exposure to the risk of pregnancy that married women have compared to other women. The 2000 Census results show that married women have higher fertility with TFR of 6.4, compared to 6.1 for widowed, 5.8 for divorced, 5.4 for separated, 5.2 for living together (co-habiting); and least among the never married (3.7).

Table 7.3: Fertility Differentials by Marital Status, Western Province, 2000

Districts	Marital status						
	Total	Married	Separated	Divorced	Widowed	Never Married	Living Together
Kalabo	**5.8**	**6.0**	**4.1**	**4.6**	**5.3**	**3.3**	**3.7**
Kaoma	**5.8**	**5.9**	**4.6**	**4.8**	**4.6**	**3.2**	**5.3**
Lukulu	**6.7**	**6.8**	**4.3**	**5.8**	**6.1**	**4.3**	**0.0**
Mongu	**5.8**	**5.8**	**5.5**	**4.2**	**4.9**	**3.0**	**5.0**
Senanga	**5.9**	**5.9**	**4.2**	**4.9**	**4.7**	**3.6**	**3.0**
Sesheke	**5.8**	**5.8**	**4.8**	**4.2**	**4.6**	**2.7**	**0.0**
Shang'ombo	**6.3**	**6.8**	**5.2**	**6.0**	**6.4**	**3.1**	**5.7**
Western	**5.9**	**6.4**	**5.4**	**5.8**	**6.1**	**3.7**	**5.2**

Source: CSO, 2000 Census of Population and Housing

7.5.2 Fertility Differentials by Economic Status

Table 7.4 shows the fertility levels of working and non working women. Definitions of working are described in detail in Chapter six. Women classified as working have a slightly lower total fertility rate of 5.7 compared to 5.9 for those classified not working. This pattern holds true for all the districts in the province.

Table 7.4: Fertility Differentials by Economic Status, Western Province, 2000

Districts	Economic Status		
	Total	Working	Not Working
Kalabo	5.8	5.6	5.9
Kaoma	5.8	5.5	5.8
Lukulu	6.7	6.5	6.8
Mongu	5.8	5.6	6.0
Senanga	5.9	5.7	6.0
Sesheke	5.8	5.5	5.8
Shang'ombo	6.3	6.5	5.8
Western	5.9	5.7	5.9

Source: CSO, 2000 Census of Population and Housing

7.5.3 Fertility Differentials by level of Education

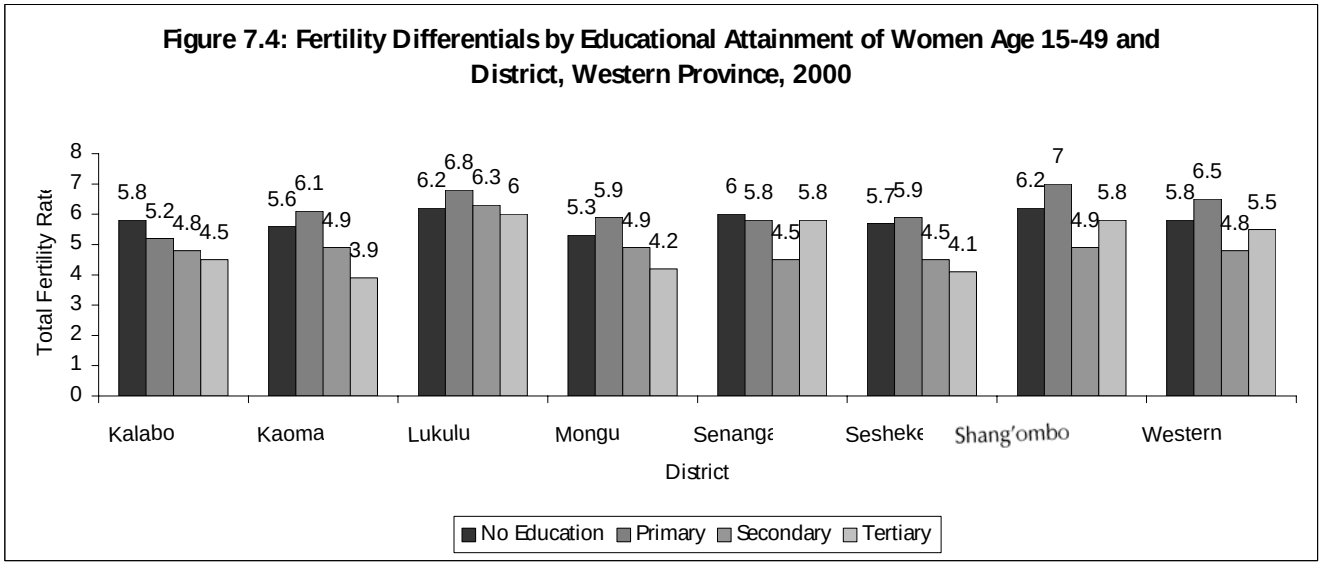
Table 7.5 shows the fertility levels according to women's levels of education in Western Province. Women with tertiary education have lower fertility than women in other education categories. For instance, women with tertiary education had a TFR of 5.5 compared with TFR of 5.8 for women without any schooling. The difference is highest in Kaoma districts where women without schooling have on average about two children more than those with tertiary education.

While it has been observed that women without any schooling have a lower fertility than those who have completed primary education, this pattern may not necessarily be true as most women without any schooling or who did not complete their primary education may have reported to have done so. Ideally the fertility differentials between women without any schooling and those with primary education should be small, however with those with primary education exhibiting lower fertility than those without any schooling.

Table 7.5: Fertility Differentials by level of Education, Western Province, 2000

District	Level of education				
	Total	No Education	Primary	Secondary	Tertiary
Kalabo	5.8	5.8	5.2	4.8	4.5
Kaoma	5.8	5.6	6.1	4.9	3.9
Lukulu	6.7	6.2	6.8	6.3	6.0
Mongu	5.8	5.3	5.9	4.9	4.2
Senanga	5.9	6.0	5.8	4.5	5.8
Sesheke	5.8	5.7	5.9	4.5	4.1
Shang'ombo	6.3	6.2	7.0	4.9	5.8
Western Province	**5.9**	**5.8**	**6.5**	**4.8**	**5.5**

Source: CSO, 2000 Census of Population and Housing



Source: CSO, 2000 Census of Population and Housing

7.6 Gross Reproduction Rate (GRR)

From Table 7.6, it can be observed that the GRR for women in Western Province is estimated at 2.3. This means that by the time a woman reaches the end of her reproductive period, she will have given birth to 2.3 female children if she conforms to the current observed age specific fertility patterns. The provincial GRR is the same as the national average of 2.3. Women in rural areas give birth to a large number of girls (2.4 per thousand live births) by the time they reach the end of their reproductive age compared to women in urban areas with a GRR of 1.7.

Table 7.6: Gross Reproduction Rate (GRR), Western Province, Rural and Urban, 2000

Age Group	Total			Rural			Urban		
	Total Women	Female Births	ASFR (f)	Total Women	Female Births	ASFR (f)	Total Women	Female Births	ASFR (f)
15-19	42,781	1,797	0.042	36,483	1,586	0.043	6,298	211	0.034
20-24	36,287	3,585	0.099	31,428	3,201	0.102	4,859	384	0.079
25-29	27,562	2,822	0.102	24,249	2,563	0.106	3,313	259	0.078
30-34	20,644	1,886	0.091	18,256	1,730	0.095	2,388	156	0.065
35-39	17,419	1,275	0.073	15,562	1,166	0.075	1,857	109	0.059
40-44	15,015	582	0.039	13,520	546	0.040	1,495	36	0.024
45-49	11,462	198	0.017	10,379	193	0.019	1,083	5	0.005
GRR			**2.3**			**2.4**			**1.7**

Source: CSO, 2000 Census of Population and Housing

7.7 Net Reproduction Rate

The Net Reproduction Rate is more useful in theoretical demography because it helps in determining the replacement levels of women by taking into consideration the effect of both fertility and mortality on the daughters born to women.

An NRR equal to 1.0 is referred to as the "replacement level fertility" because it indicates that on average each woman will be replaced by exactly one daughter after a generation. A higher value indicates a growing population and a lower value shows a declining population. The NRR for Western province in 2000 was estimated at 1.5 daughters, implying that each woman will be replaced by almost two daughters who will survive up to the end of their reproductive age. The NRR is higher in rural (1.5) than in Urban areas (1.3). This means that the population will continue growing at a faster rate in rural than in urban areas (See Table 7.7)

Table 7.7: Net Reproduction Rate (NRR), Western Province, Rural- Urban, 2000

	Total			Rural			Urban		
Age Group	ASFR (f)	Survival Ratios	*ASFR (f)	ASFR f)	Survival Ratios	*ASFR (f)	ASFR (f)	Survival Ratios	*ASFR (f)
15-19	0.042	0.6970	0.0293	0.043	0.6885	0.0296	0.034	0.8203	0.0279
20-24	0.099	0.6756	0.0669	0.102	0.6668	0.0680	0.079	0.8047	0.0636
25-29	0.102	0.6515	0.0665	0.106	0.6423	0.0681	0.078	0.7866	0.0614
30-34	0.091	0.6245	0.0568	0.095	0.6150	0.0584	0.065	0.7663	0.0498
35-35	0.073	0.5947	0.0434	0.075	0.5848	0.0439	0.059	0.7437	0.0439
40-44	0.039	0.5629	0.0220	0.040	0.5526	0.0221	0.024	0.7182	0.0172
45-49	0.017	0.5301	0.0090	0.019	0.5195	0.0099	0.005	0.6901	0.0035
NRR			**1.5**			**1.5**			**1.3**

Source: CSO, 2000 Census of Population and Housing

Note*:*ASFR at prevailing rates of mortality*

NRR has declined over the last 20 years (Table 7.8). This implies that population has been growing, but at a declining rate. Between 1980 and 1990, the NRR was constant 2.0 and declined to 1.5 in 2000. In rural areas NRR increased between 1980 and 1990 from 1.9 to 2.0, then declined to 1.5 in 2000 while that of urban areas has been declining since 1980 from 2.3 in 1980 to 1.3 in 2000.

Table 7.8: Trends in Net Reproduction Rate (NRR), Western Province, 1980-2000

	Year of Census		
Residence	1980	1990	2000
Total	2.0	2.0	1.5
Rural	1.9	2.0	1.5
Urban	2.3	1.8	1.3

Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

7.8 Mean Parity

Mean Parity is the number of children ever born to women who have completed their reproduction i.e. those aged 45-49. The mean parity for the women aged 15-49 is usually referred to as the Completed Family Size (CFS) and should be equal to TFR under constant fertility, mortality and migration.

Table 7.9 shows that the Completed Family Size (CFS) or mean parity for women in Western Province is 6.3 children per woman, with rural women having a lower CFS of 6.3 compared with their urban counterparts with 6.4 children per woman. The mean parity for the province is below the national average of 6.8 children per woman.

Another measure of trends in fertility is comparing the TFR with the mean number of CEB to women at the end of their childbearing period, aged 45-49 (mean parity). While TFR is a measure of current fertility, mean parity measures past or completed fertility. Overall, Women age 45–49 reported having given birth to an average of 6.3 children. This compares with a TFR of 5.9 for women age 15-49, the difference may be attributed to the observed fertility decline overtime.

Table 7.9: Observed Mean Parity, Western Province, Rural and Urban, 2000

Age Group	Total	Rural	Urban
15-19	0.3	0.3	0.2
20-24	1.3	1.3	1.0
25-29	2.5	2.6	2.1
30-34	3.8	3.9	3.3
35-39	4.9	4.9	4.7
40-44	6.0	6.0	5.8
45-49	**6.3**	**6.3**	**6.4**

Source: CSO, 2000 Census of Population and Housing

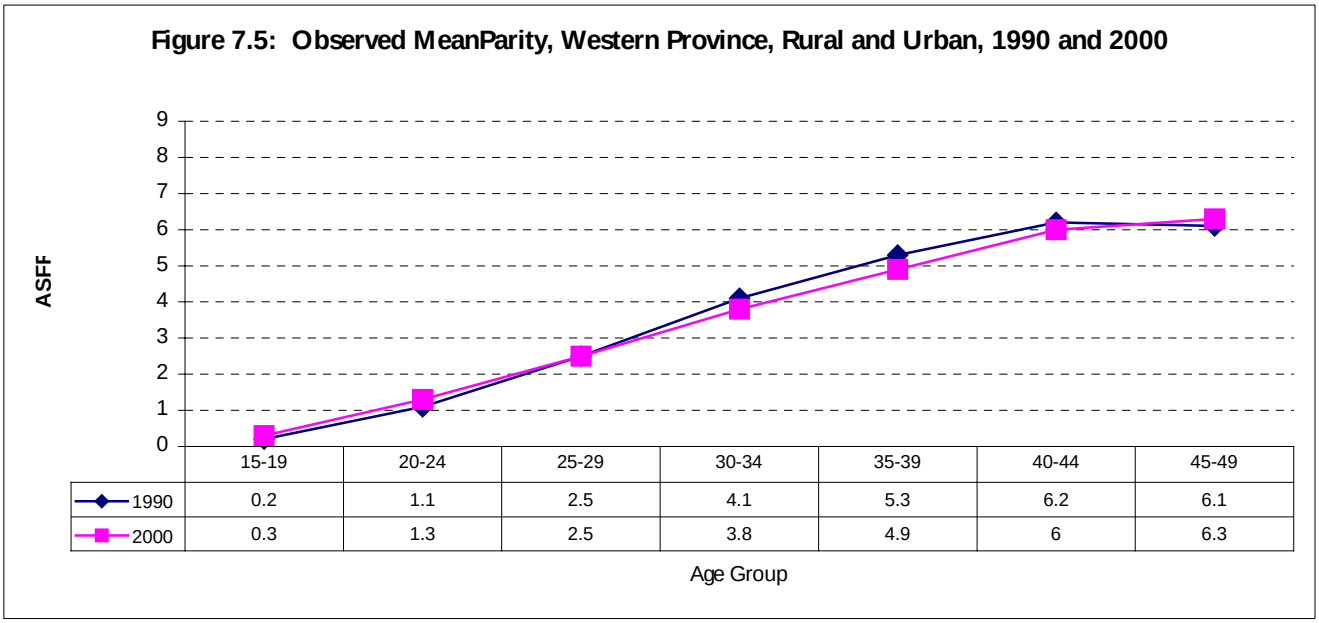
Table 7.10 and Figure 7.5 show that mean parity or CFS for Western Province has increased slightly between 1990 to 2000 from 6.1 to 6.3. While mean parity has increased in the younger and oldest age groups, it has reduced in the middle ages and remained constant in age group 25-29.

Table 7.10: Observed Mean Parity, Western Province, 1990-2000

Age Group	Mean Parity (1990)*	Mean Parity (2000)
15-19	0.2	0.3
20-24	1.1	1.3
25-29	2.5	2.5
30-34	4.1	3.8
35-39	5.3	4.9
40-44	6.2	6.0
45-49	6.1	6.3

Source: CSO, 2000 Census of Population and Housing

Note: 1990 estimates extracted from Analytical Report Vol.9, of the 1990 Census of Population, Housing and Agriculture, CSO 1995.



Source: CSO, 2000 Census of Population and Housing

7.9 Other Fertility Indicators

Table 7.11 shows a summary of other fertility indicators for districts of Western Province. These include Crude Birth Rate (CBR), Child Woman Ratio (CWR) and General Fertility Rate (GFR). The table shows that the Crude Birth Rate (CBR) range from 31.9 in Mongu to 42.6 in Shang'ombo. The General

Fertility Rate, Child Woman Ratio and Gross Reproduction Rate are lowest in Mongu and highest in Shang'ombo.

Table 7.11: Summary of Fertility Indicators by District, Western Province 2000

District	Adjusted Total Fertility Rate	Crude Birth Rate	General Fertility Rate	Child Woman Ratio	Mean Parity	Gross Reproduction Rate
Western	5.9	35	145	680	6.3	2.3
Kalabo	5.8	33.1	133.8	635	5.8	2.2
Kaoma	5.8	34.3	150.8	667	6.3	2.4
Lukulu	6.7	36.3	154.5	761	6.5	2.4
Mongu	5.8	31.9	130.5	627	6.4	2.1
Senanga	5.9	33.3	140.7	718	6.8	2.2
Sesheke	5.8	35.2	154.8	686	6.7	2.4
Shang'ombo	6.3	42.6	178.0	769	6.2	2.9

Source: CSO, 2000 Census of Population and Housing

7.10 Summary

Over the past decade, fertility levels for Western Province have declined from 6.2 to 5.9. The drop in urban childbearing is the principle reason for the overall decline in fertility levels in Western province. TFR dropped from 5.7 in 1990 to 4.7 in 2000 while that of the rural areas declined slightly from 6.2 to 6.1.

Child bearing is at its peak in the age group 25-29 years after which it declines steadily. Lukulu has the largest TFR (6.7) among the districts while Sesheke, Kaoma, Mongu and Kalabo have the least (5.8).

Generally, fertility rates are highest in Shang'ombo and lowest in Mongu. These include Crude Birth Rate, General Fertility Rate, Child Woman Ratio and Gross Reproduction Rate.

Chapter 8

CHILD AND ADULT MORTALITY

8.1. Introduction

Basic demographic information on the number of deaths by age and sex in a population is a critical input for the determination and evaluation of health policies and programmes, according to the World Health Organisation (WHO, 2002:1). Specifically, child mortality data are important for evaluating and monitoring progress on governments' child survival targets and intervention measures. Equally important for planning and programme implementation purposes is information on adult mortality. This is of particular importance in the era of HIV/AIDS as the pandemic affects the most productive and reproductive ages (15-49 years).

Indirect demographic methods are used to derive both child and adult mortality indicators. Information on child mortality estimation was based on the reports of the mothers, aged 15-49 years, of the survival of their children by sex. This gives information on children surviving and not surviving out of the total children ever born per woman (mother) in the reproductive age group (15-49 years). The United Nations Mortality measurement package, Mortpak-Lite as well as Q-5, were used to compute child mortality indicators, namely, infant mortality rate (IMR), child mortality rate (CMR), under-five mortality rate (UMR) and life expectancy at birth (e_0) based on the Coale-Demeny North Model. It is worth noting that these child mortality indicators are based on life tables that were developed on mortality data in the pre-AIDS era. WHO (2002:13) notes that if deaths from HIV/AIDS were to be excluded, life expectancy at birth in some countries in Southern Africa including Zambia would be 15 to 20 years higher.

Information on the number of adult deaths by age and sex in the household was not collected in the 2000 round of Census of Population and Housing. Therefore, measurement of adult mortality was based on estimates of life expectancies by age for ages 10 - 70 years. The measurements were computed using the Population Analysis Spreadsheet (PAS) and two consecutive census populations by 5-year age groups as an input into the measurement (Preston-Bennett Mortality Technique) (US Bureau of the Census, 1994:161). This method indirectly takes into account the effects of the HIV/AIDS pandemic on the population that would not be captured from the model life tables and is also based on large numbers of the populations.

8.2 Concepts and Definitions

- *Mortality* refers to the occurrence of deaths in a population.
- *Infant mortality rate* (IMR) ($_{\mathbf{1}}q_{\mathbf{0}}$) refers to the number of deaths among infants aged below one year per thousand (1,000) live births per year
- *Child mortality rate* (CMR) ($_{\mathbf{5}}q_{\mathbf{1}}$) refers to the number of deaths among children aged between exact age one and five years per thousand (1,000) live births per year
- *Under-five mortality rate* (UMR) ($_{\mathbf{5}}q_{\mathbf{0}}$) refers to the number of deaths among children aged below five years per thousand (1,000) live births per year. UMR, therefore, constitutes both the infant and child mortality.
- *Life expectancy at birth* ($e_{\mathbf{0}}$) refers to the average number of years a newly born child is expected to live, if the current existing mortality conditions were to prevail for a long time.
- *Life expectancy at exact age* ($e_{\mathbf{x}}$) refers to the average number of years a person aged X years is expected to live, if the current existing mortality conditions were to prevail for a long time and;
- *Adult mortality* ($_{\mathbf{60}}q_{\mathbf{15}}$) refers to the number of deaths that occur to persons in the age range 15 to 60 years.

8.3 Infant Mortality Rate: Levels, Trends and Differentials

Table 8.1 shows the infant mortality rates in Western Province from 1980 to 2000. Between 1990 and 2000, infant mortality rate (IMR) has declined slightly in Western Province by about 2 percent, from 141 to 138 infant deaths per 1000 live births. Inspite of this decline, IMR is still higher than that of 1980 (106).

In comparison with the national infant mortality indicator in 2000, the infant mortality rate for the province is significantly higher than that of the national average of 110 deaths per 1000 live infant births.

Table 8.1: Infant Mortality Rate by Sex, Residence and District, Western Province, 1980-2000

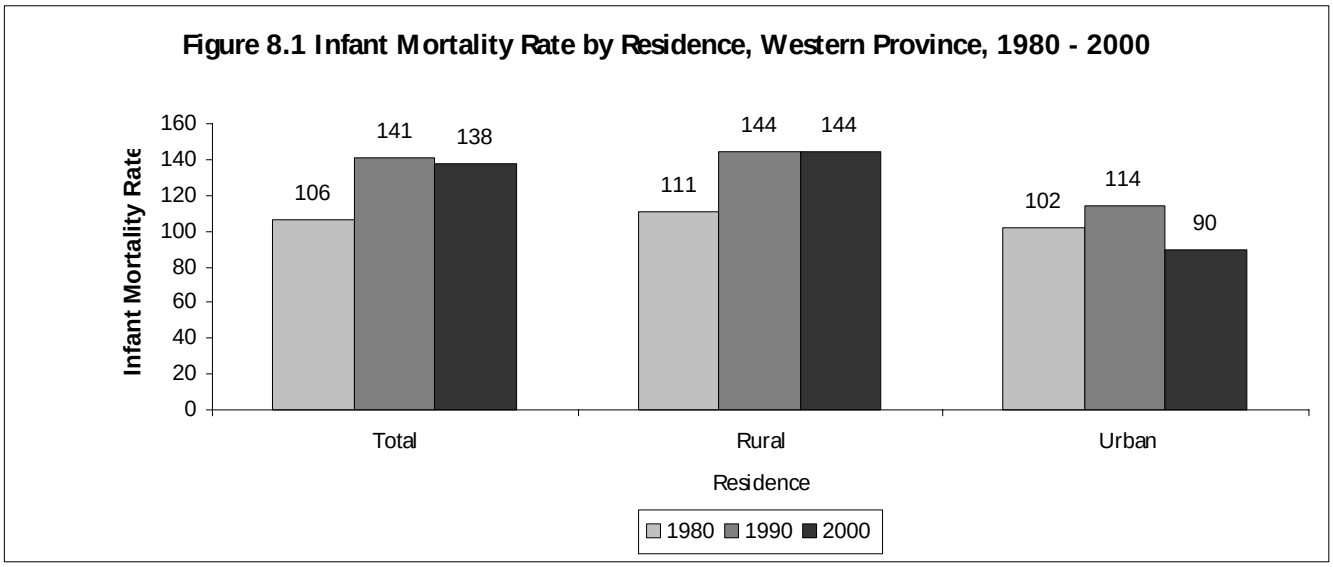
Residence and Sex	Infant Mortality Rate (per '000)		
	1980	1990	2000
Zambia	**99**	**124**	**110**
Western	106	141	138
Residence			
Rural	111	144	144
Urban	101	114	90
Sex of Child			
Male	117	148	14
Female	95	133	136
District (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Kalabo	163	170	76
Kaoma	143	145	126
Lukulu	123	126	25
Mongu	118	128	78
Senanga	141	149	65
Sesheke	132	134	120
Shang'ombo	139	142	33

Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.3.1 Infant Mortality Rate by Residence

There are rural and urban differentials in IMR (Figure 8.1), with the former experiencing higher levels than the latter. In 1980, for instance, IMR in rural areas was 111 while that of urban areas was 101. A similar pattern was observed in 2000 when IMR was 144 in rural areas and 90 in urban areas .

In rural areas of Western province, IMR increased from 111 in 1980 to 144 in 1990 and remained stable at 144 between 1990 and 2000. In urban areas it increased from 101 in 1980 to 114 in 1990 and declined to 90 deaths per 1000 live births in 2000. This result shows that children in rural areas of Western Province experience a higher risk of dying before age one than urban infants

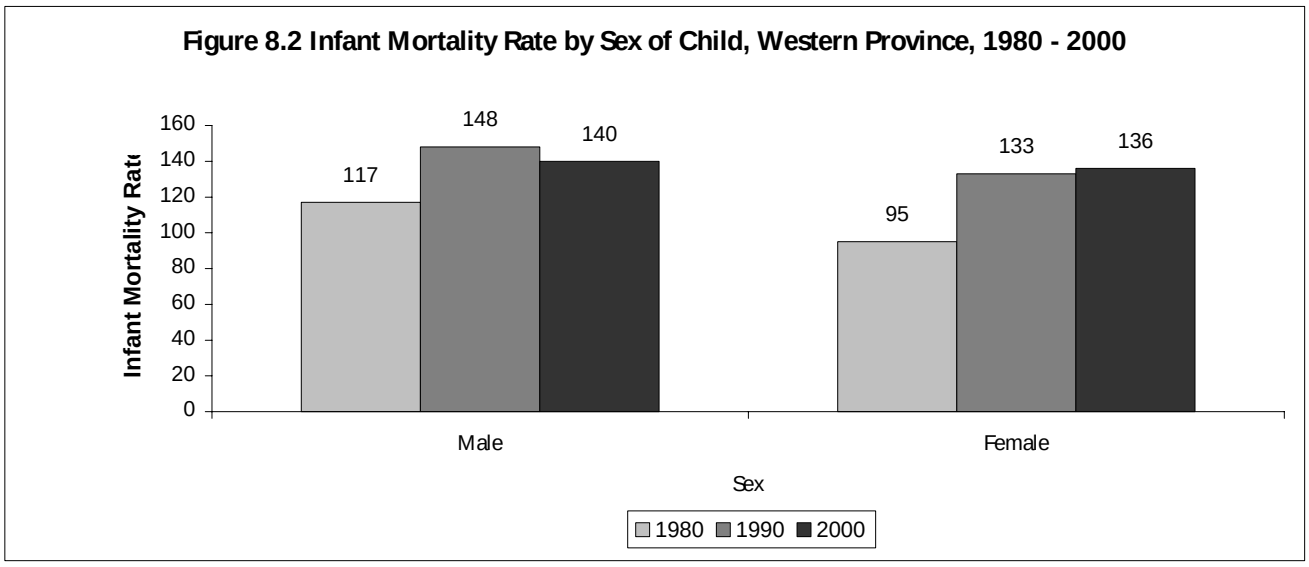


Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.3.2 Infant Mortality Rate by Sex

Results presented in Figure 8.2 show that males have a higher IMR than females. In 2000, 140 deaths per 1000 live births occurred among males compared to 136 deaths for females. A similar pattern is also observed in 1980 and 1990. In 1980, 117 male compared to 95 female infants died before reaching age one. In 1990, 148 male infants compared to 133 female infants died before reaching age one.

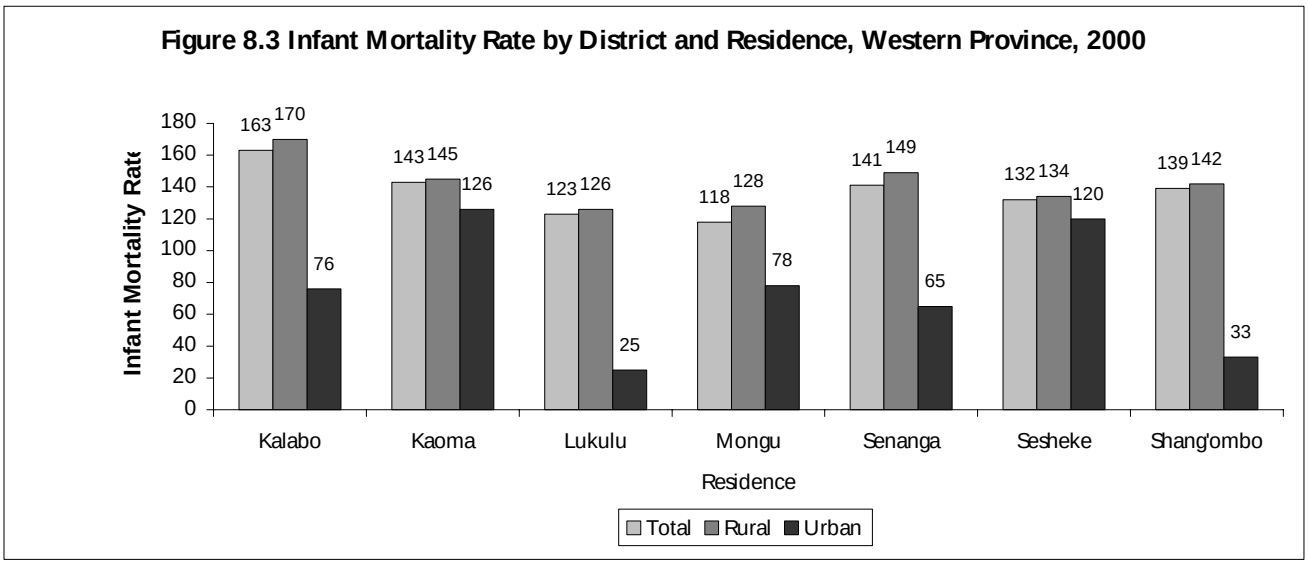
In all the censuses 1980,1990 and 2000 the pattern of infant mortality by sex is similar to the national picture; there is a higher IMR among males than females. However, the national average rates are significantly lower than the provicial rates.



Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.3.3 Infant Mortality Rate by District

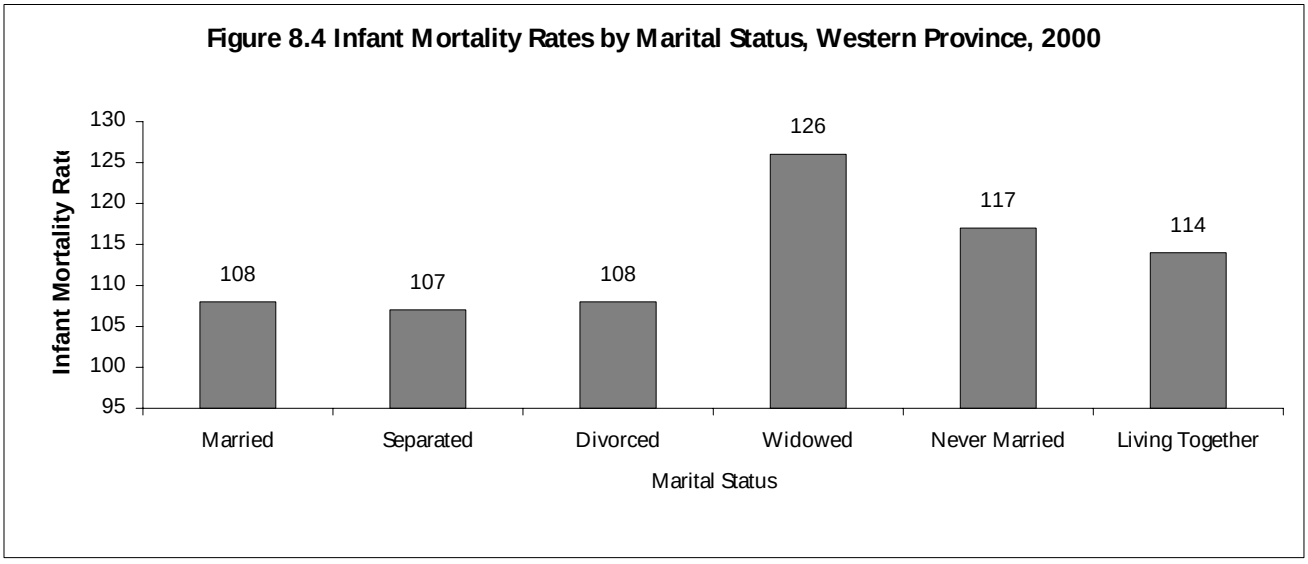
Figure 8.3 shows that Kalabo district has the highest IMR (163 deaths per 1000 live births), followed by Kaoma and Senanga district with IMR of 143 and 141 deaths per 1000 live births, respectively. Mongu district has the lowest IMR (118 deaths per 1000 live births). In terms of residence, it is evident that infant in rural areas of all the districts have higher risks of dying before age one than in urban areas, the differences are significantly high in five districts namely, Kalabo, Lukulu, Senanga, Mongu and Shang'ombo.



Sources: CSO, 2000 Census of Population and Housing

8.3.4 Infant Mortality Rate by Marital Status of Mother

Figure 8.4 and Table 8.2 show that infants born to mothers who are widowed have the highest IMR (126) with the lowest among separated mothers (107). In both rural and urban areas, the highest rates are among the widowed and the lowest among the separated mothers. The IMR in urban areas are much lower than those in rural areas among all the marital status categories.



Sources: CSO, 2000 Census of Population and Housing

Table 8.2: Infant Mortality Rate by Marital status and Residence, Western Province, 2000

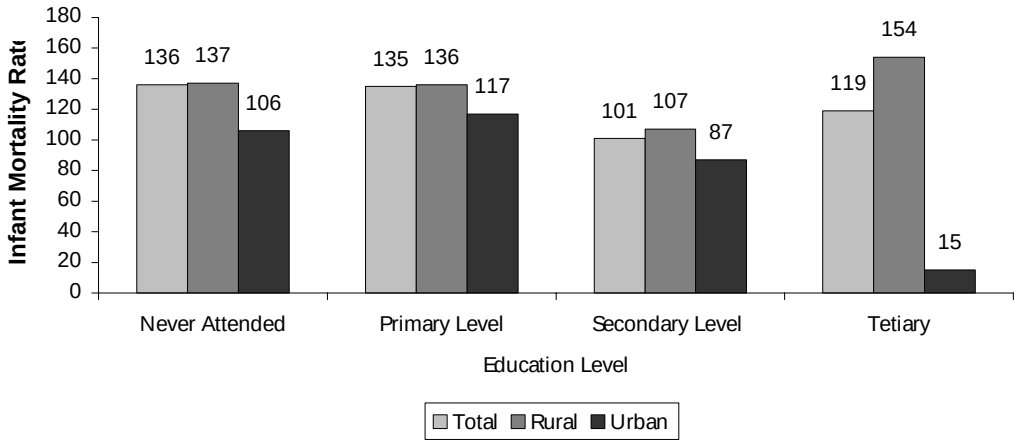
Marital Status	Under Five Mortality Rate (per '000)		
	Total	Rural	Urban
Married	108	112	76
Separated	107	111	62
Divorced	108	109	86
Widowed	126	128	111
Never Married	117	123	88
Living Together	114	114	-

Sources: CSO, 2000 Census of Population and Housing

8.3.5 Infant Mortality Rate by Education Level of Mother

Figure 8.5 shows that IMR varies with level of education of mothers. Infants born to mothers who have never attended school or those with primary level of education have higher risks of dying before age one (almost one in every 7 children born). Infants born to mothers with secondary level education have the lowest IMR. For mothers with tertiary education one in every eight infants survived to age one.

Figure 8.5 Infant Mortality Rates by Education Level, Western Province, 2000

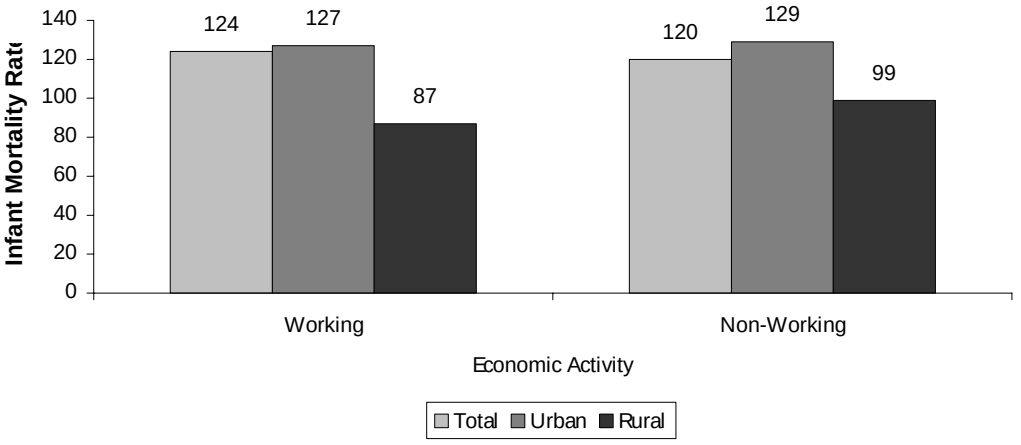


Sources: CSO, 2000 Census of Population and Housing

8.3.6 Infant Mortality by Economic Activity of Mother

Infants born to working mothers have higher chances of dying before age one than those born to non-working mothers. The differences are not very significant (124 compared to 120 deaths per 1000 live births respectively), representing about 3 percent higher deaths among the working mothers.

Figure 8.6 Infant Mortality Rates by Economic Activity, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

8.4 Child Mortality Levels, Trends and Differentials

Table 8.3 shows that Child Mortality Rate (CMR) increased from 77 in 1980 to 113 in 1990 and then declined slightly to 110 in 2000.

Western province has had a significantly higher child mortality rate for all the three census years compared to the national average. In 2000, the child mortality rates were 110 and 82 for Western province and Zambia, respectively.

Table 8.3: Child Mortality Rate by Sex, Residence and District, Western Province, 1980-2000

Residence and Sex	Child Mortality rate (per'000)		
	1980	1990	2000
Zambia	**71**	**96**	**82**
Western	77	113	110
Residence			
Rural	82	116	116
Urban	74	86	61
Sex of Child			
Male	88	113	105
Female	67	114	117
Districts (2000)	**Total** (2000)	**Rural** (2000)	**Urban** (2000)
Kalabo	134	140	48
Kaoma	115	117	99
Lukulu	96	100	7
Mongu	90	101	50
Senanga	114	121	39
Sesheke	105	107	93
Shang'ombo	112	114	12

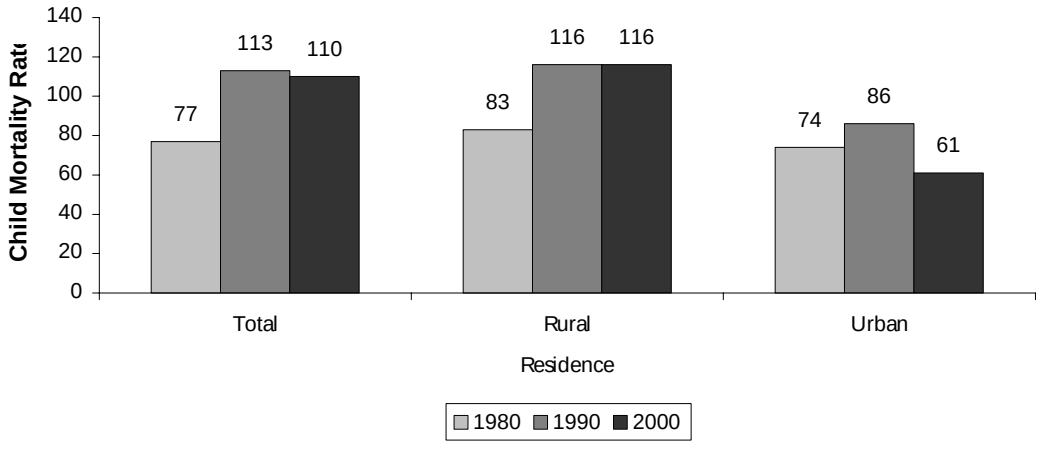
Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.4.1 Child Mortality Rate by Residence

The pattern of CMR is similar to that of IMR. Children born to mothers residing in rural areas have higher risks of dying between age one and five than those in urban areas (116 compared to 61 deaths per 1000 children) (Figure 8.7).

In rural areas, CMR remained stable at 116 deaths per 1000 children between 1990 and 2000, where as in urban areas CMR declined by 29 percent from to 86 to 61 deaths per 1000 children.

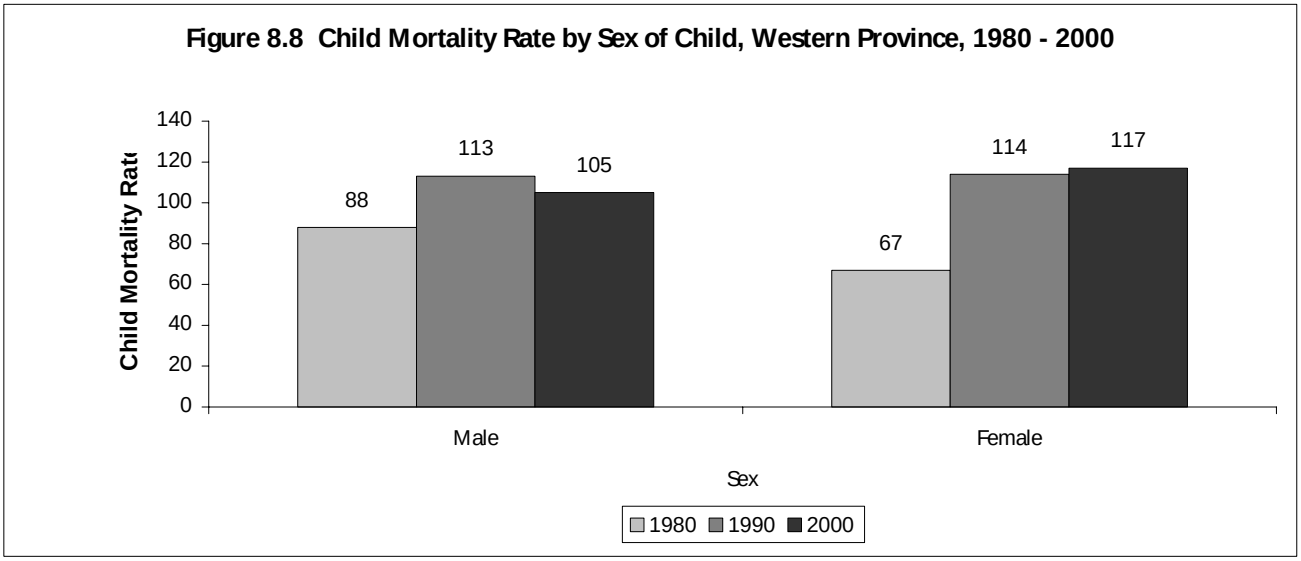
Figure 8.7 Child Mortality Rates by Residence, Western Province, 1980 - 2000



Sources: CSO, 1980, 1990 and 2000 Census of Population and Housing

8.4.2 Child Mortality Rate by Sex

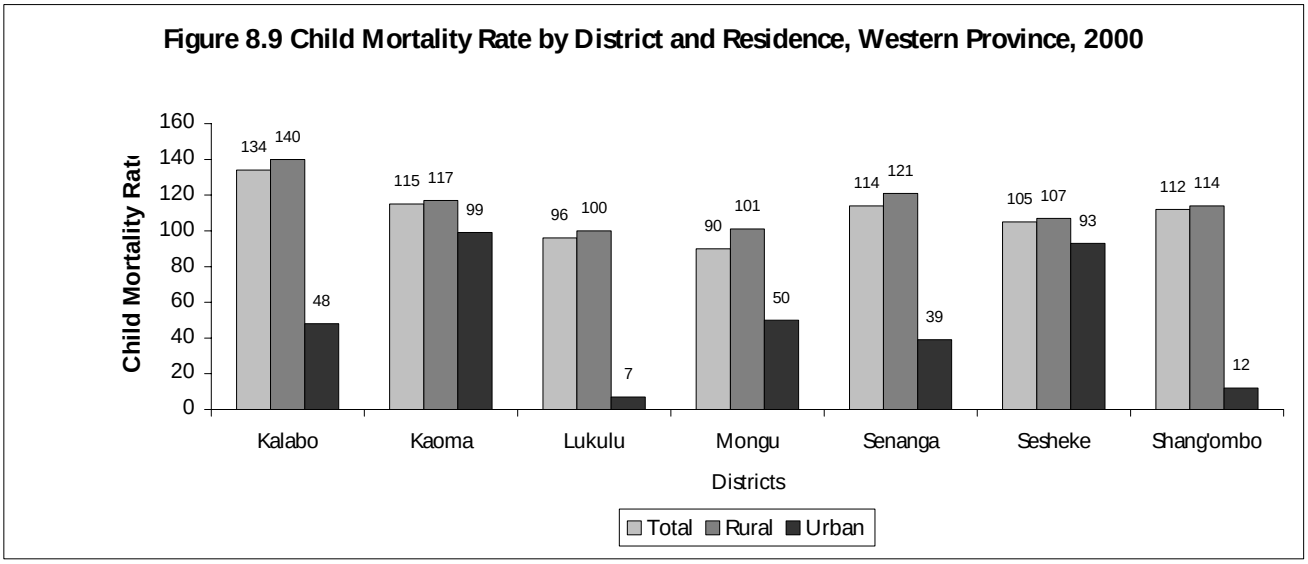
Figure 8.8 shows that CMR is higher (117 deaths per 1000 children) among female than male children (105 deaths per 1000 children). A similar pattern was also observed in1990. In 1990, 114 female and 113 male died between age one and five per 1000 children. In contrast, in 1980 CMR was higher for male than female children (88 male versus 67 female children). Furthermore, the CMR levels for 1980 are lower than those of 1990 and 2000.



Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.4.3 Child Mortality by District

Figure 8.9 shows a comparison of districts with regards to CMR. Kalabo has the highest CMR (134 deaths per 1000 children) followed by Kaoma and Senanga with CMR of 115 and 114 deaths per 1000 children, respectively. CMR is lowest in Mongu (90) and Lukulu (96). The figure further shows that children born to mothers residing in rural areas in all the districts have higher risks of dying between age one and five than those born to mothers in urban areas. These differences are significantly high in Kalabo, Lukulu, Mongu, Senanga and Shang'ombo.

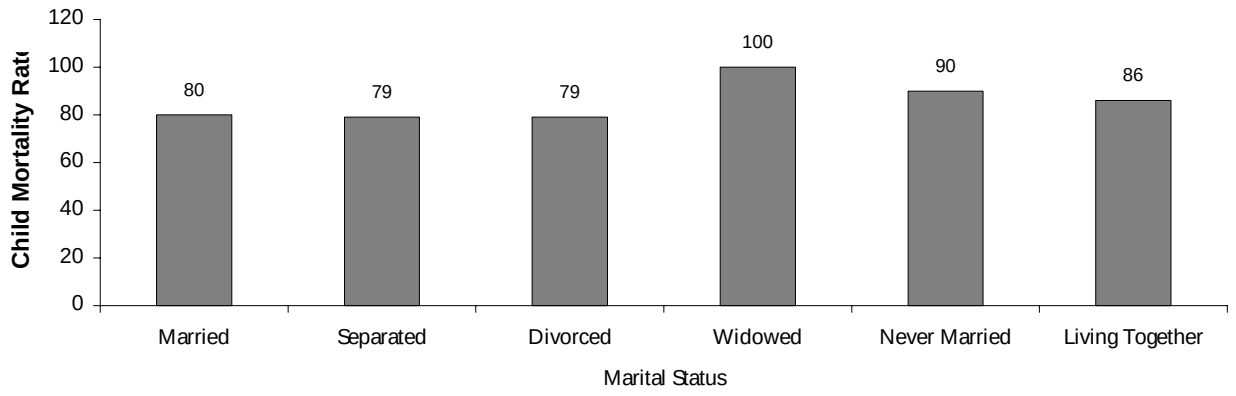


Source: CSO, 2000 Census of Population and Housing

8.4.4 Child Mortality Rate by Marital Status of Mother

Figure 8.10 and Table 8.4 shows that children of widowed mothers have the highest CMR (100) while those of separated and divorced mothers have the lowest (79). Children of never married (90) and cohabiting mothers have high CMRs.

Figure 8.10 Child Mortality Rate by Marital Status, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

Table 8.4 further shows that in rural areas, the lowest CMR is among the divorced (81) and highest among the widowed (101). In urban areas, like rural areas, the highest CMR is among the widowed. However, the lowest is among the separated.

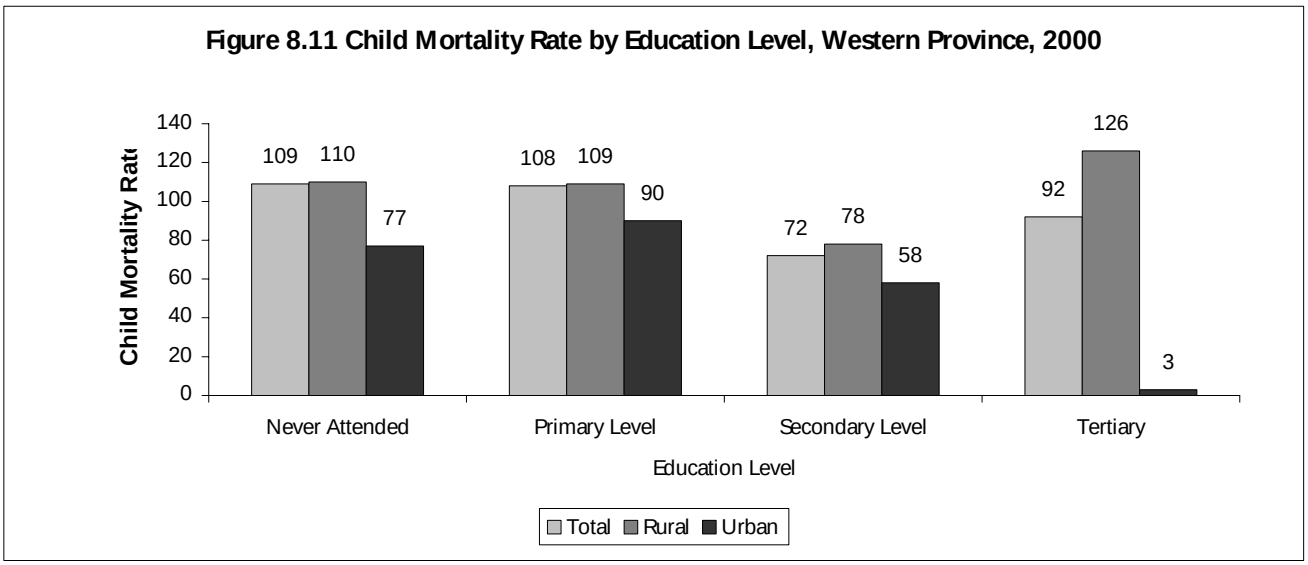
ble 8.4: Child Mortality Rate by Marital Status and Residence, Western Province, 2000

Marital Status	Child Mortality rate (per'000)		
	Total	Rural	Urban
Married	80	84	47
Separated	79	83	35
Divorced	79	81	57
Widowed	100	101	83
Never Married	90	96	59
Living Together	86	86	-

Source: 2000 Census of Population and Housing

8.4.5 Child Mortality Rate by Education Level of Mother

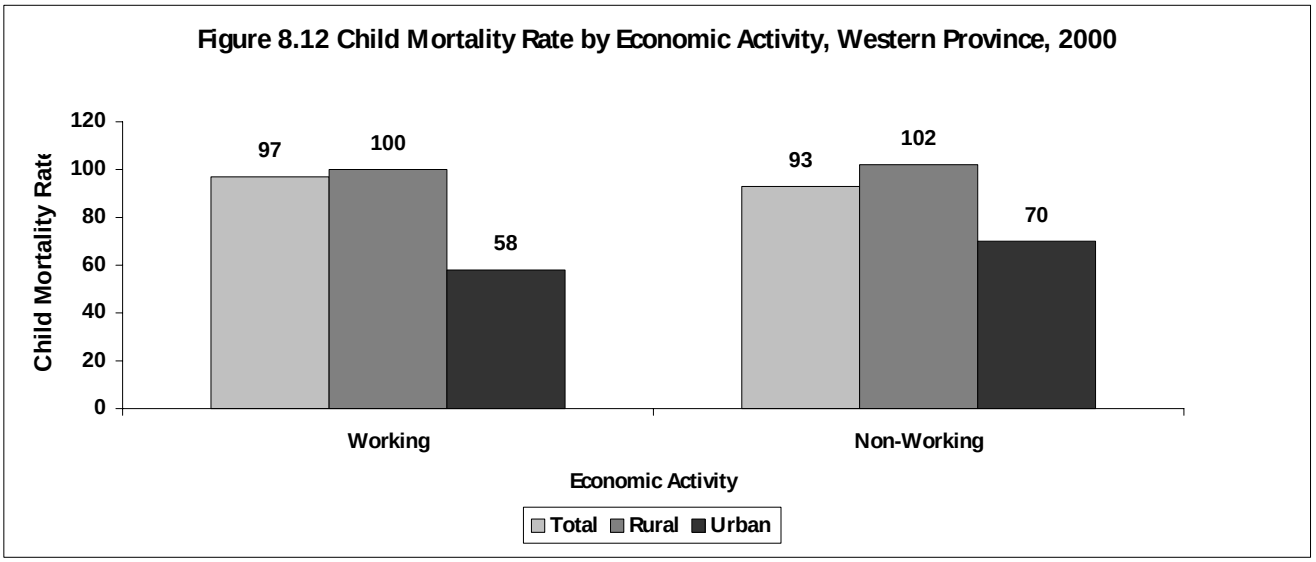
Figure 8.11 compares the CMR among women with different levels of education. The lowest CMR was observed among women who had attained secondary level of schooling (72 deaths per 1000), while the highest CMR was observed among mothers who have never attended school (109 deaths per 1000 children). CMR for mothers with primary level of education is slightly lower than for mothers with no education (108 deaths per 1000 children). CMR for children born to mothers with tertiary school education was higher than for those born to mothers with secondary education at 92 deaths per 1000 children (one in every 11 children compared to one in every 14 children).



Source: CSO, 2000 Census of Population and Housing

8.4.6 Child Mortality Rate by Economic Activity of Mother

In Western province, children born to working mothers have higher chances of dying between age one and five than those born to non-working mothers. The differences though are not very significant (97 compared to 93 deaths per 1000 children, respectively). See Figure 8.12.



Source: CSO, 2000 Census of Population and Housing

8.5 Under-Five Mortality Rate Levels, Trends and Differentials

Table 8.5 show that Under-five Mortality Rate (UMR) has declined slightly between 1990 and 2000 by about 2 percent, from 238 to 233 deaths per 1000 children. However, despite this decline the 2000 levels are significantly higher than the 1980 one (233 compared with 132 deaths per 1000 children), indicating that about 101 more children died before reaching age five in 2000 than in 1980 for every 1000 children born.

The UMR for Western province is significantly higher that the national rate (233 compared to 183 deaths per 1000 children).

Table 8.5: Under five Mortality Rate by Sex, Residence and District, Western Province, 1980-2000

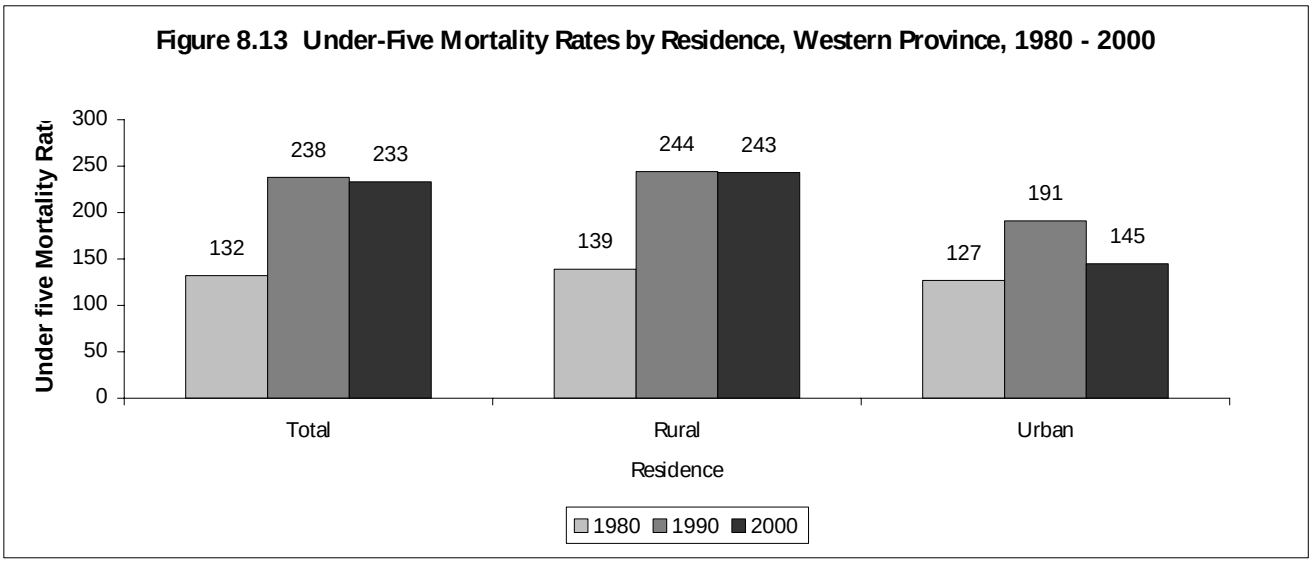
Residence and Sex	Under Five Mortality Rate (per '000)		
	1980	1990	2000
Zambia	121	**208**	**183**
Western	132	238	233
Residence			
Rural	138	244	243
Urban	126	191	145
Sex of Child			
Male	143	244	230
Female	121	232	237
Districts (2000)	**Total** (2000)	**Rural** (2000)	**Urban** (2000)
Kalabo	275	286	121
Kaoma	242	245	213
Lukulu	207	213	31
Mongu	198	216	123
Senanga	239	252	101
Sesheke	224	227	201
Shang'ombo	235	240	45

Sources: 1980, 1990 and 2000 Censuses of Population and Housing

8.5.1 Under Five Mortality Rate by Residence

The rural and urban differences in UMR is similar to IMR and CMR, with rural areas experiencing higher levels than urban areas. In 2000, UMR in rural areas was 68 percent higher than in urban areas (243 compared with 145 deaths per 1000). A similar pattern was observed in 1980 and 1990.

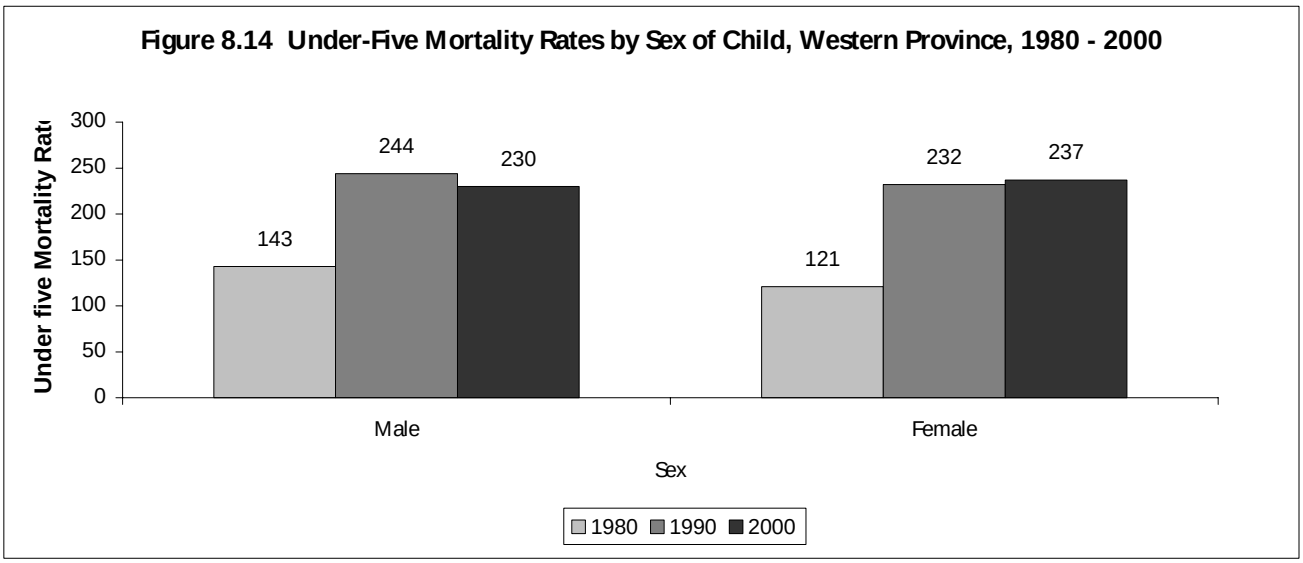
The pattern of UMR in both rural and urban areas is similar to provincial pattern. In rural areas, UMR has declined from 244 to 243 deaths per 1000 live births and in urban areas it declined form 191 to 145 deaths per 1000 live births.



Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.5.2 Under Five Mortality Rate by Sex

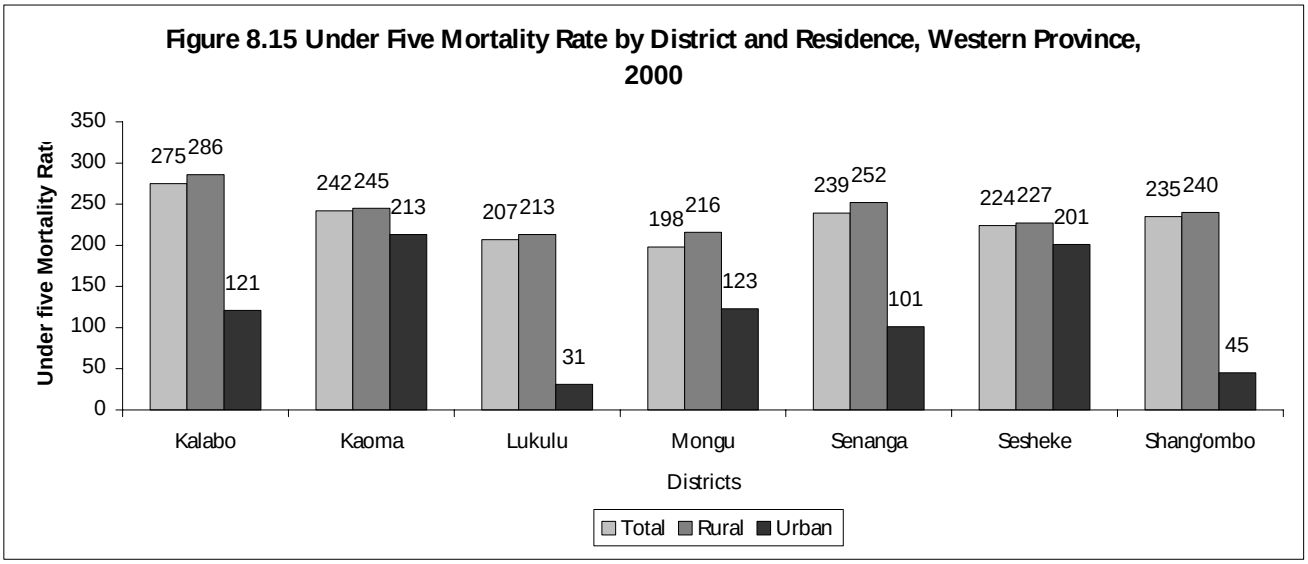
Figure 8.14 shows that in 2000, UMR for female children was higher (237) than that of male children (230). The pattern is different in 1980 and 1990, when UMR was higher for male than female children. In 1980, 143 male and 121 female, and in 1990, 244 male and 232 female children die before reaching their fifth birthday.



Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.5.3 Under Five Mortality Rate by District

Figure 8.15 compares UMR for districts. Overall UMR is high in all the districts of Western Province, with Kalabo having the highest UMR (275 deaths per 1000 children), followed by Kaoma (242) and Senanga (239) districts. Mongu, with UMR of 198 deaths per 1000 children has the lowest. In all the districts of Western Province, children born to mothers residing in rural areas have higher risks of dying before reaching their fifth birthday than those in urban areas.

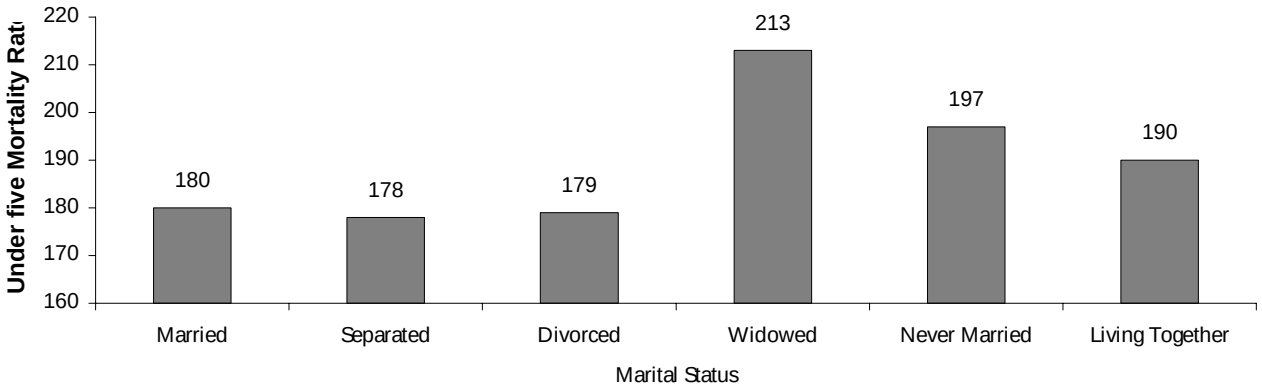


Source: CSO, 2000 Census of Population and Housing

8.5.4 Under Five Mortality Rate by Marital Status of Mother

Table 8.6 and Figure 8.16 show that children born to mothers who are widowed, never married or co-habiting have higher chances of dying before reaching age five (almost 1 in every 5 children), than those born to mothers who are currently married, separated or divorced (almost 1 in every 6 children).

Figure 8.16 Under Five Mortality Rate by Marital Status, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

Table 8.6 further shows that in both rural and urban areas, UMR is highest among the widowed. In rural areas, it is lowest among the divorced while in urban areas, it is lowest among the separated.

ble 8.6: Under five Mortality Rate by Marital Status and Residence, Western Province, 2000

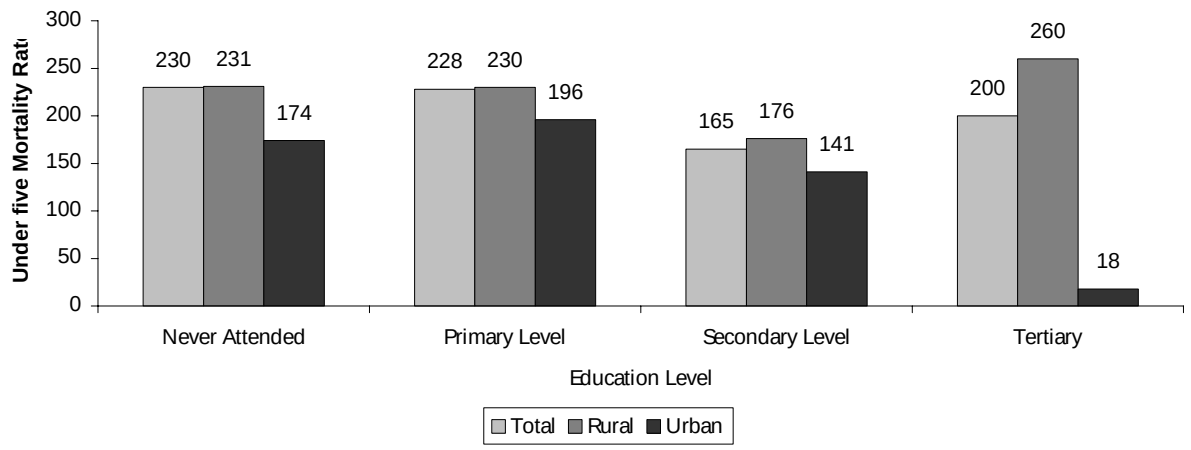
Marital Status	Under Five Mortality Rate (per '000)		
	Total	Rural	Urban
Married	180	186	119
Separated	178	184	95
Divorced	179	182	138
Widowed	213	216	185
Never Married	197	207	143
Living Together	190	189	-

Source: 2000 Census of Population and Housing

8.5.5 Under five Mortality Rate by Education Level of Mother

UMR varies with level of education of mother (see Figure 8.17). Children born to mothers with who have only completed primary education or have no education at all are at the greatest risk of not celebrating their fifth birthday (almost 1 in every 4 children born) while those born to mothers with secondary level of education have the least chance of dying before age 5.

Figure 8.17 Under Five Mortality Rate by Education Level, Western Province, 2000

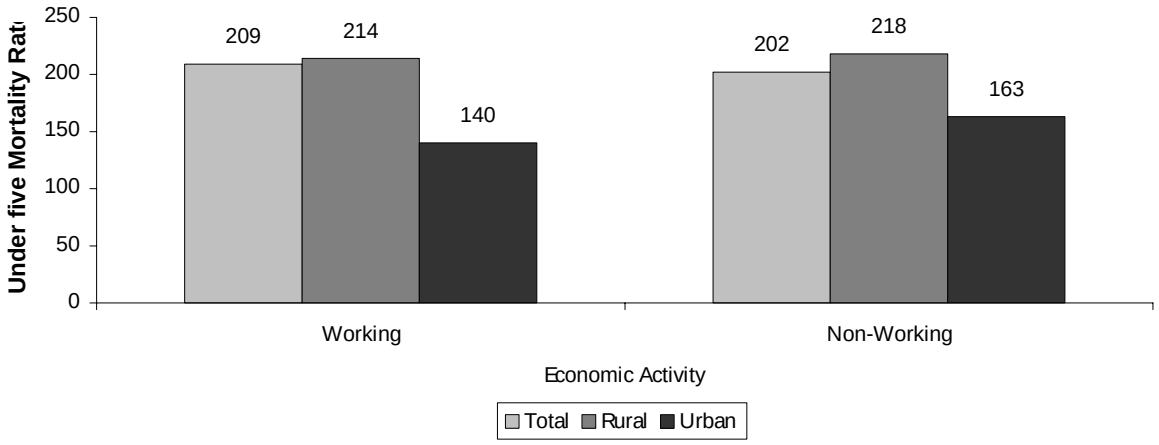


Source: CSO, 2000 Census of Population and Housing

8.5.6 Under five Mortality Rate by Economic Activity of Mother

Results in Figure 8.18 show that children born to working mothers are at greater risks of not surviving to age five than those born to non-working mothers. The differences are not very significant (209 compared to 202 deaths per 1000 children, respectively), representing about 4 percent higher deaths among the working mothers.

Figure 8.18 Under Five Mortality Rate by Economic Activity, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

8.6 LIFE EXPECTANCY AT BIRTH: LEVELS, TRENDS AND DIFFERENTIALS

Table 8.7 shows that there has been a slight increase in Life Expectancy at Birth between 1990 and 2000 from 43 to 44. In 1980, life expectancy was estimated at 50. It is also observed that female babies experience higher expectation of life at birth at 53, 44 and 44 years in compared to males 48, 42 and 44 years in 1980, 1990 and 2000, respectively.

The life expectancy at birth for Western province is lower than the national in 2000 (44 years compared with 50 years).

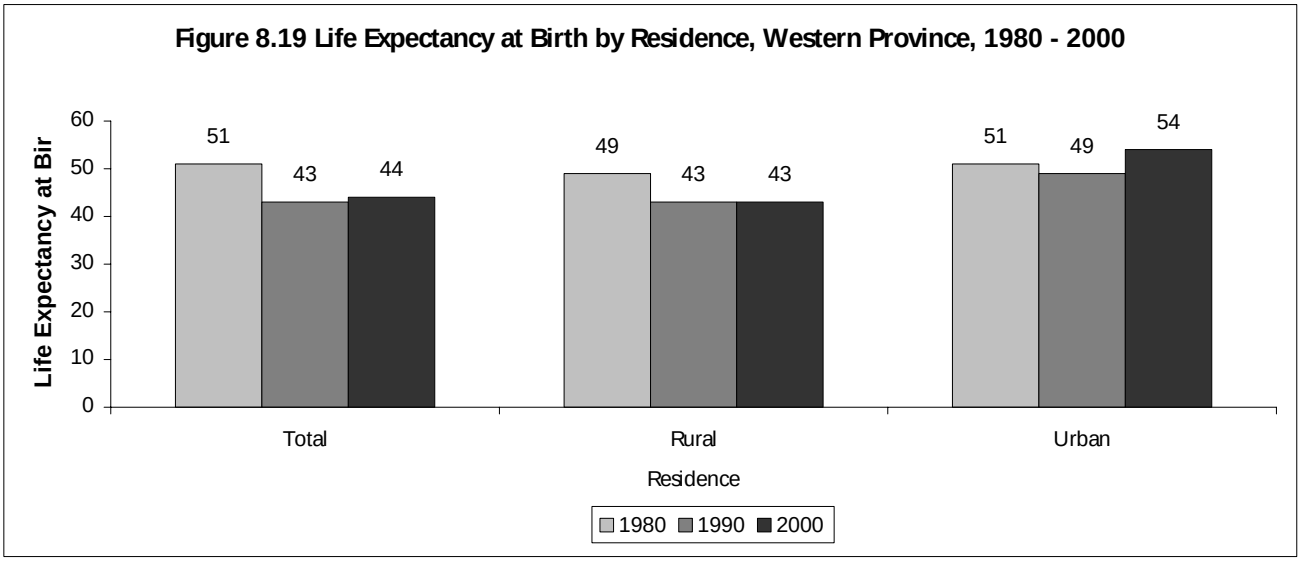
Table 8.7: Life Expectancy at birth by Sex, Residence and District, Western Province, 1980-2000

Residence and Sex	Life Expectancy at Birth (Years)		
	1980	1990	2000
Zambia	**52**	**47**	**50**
Western	50	43	44
Residence			
Rural	49	43	43
Urban	51	49	54
Sex of Child			
Male	48	42	44
Female	53	44	44
Districts (2000)	**Total (**2000)	**Rural** (2000)	**Urban** (2000)
Kalabo	39.5	38.5	58.2
Kaoma	42.8	42.5	47.3
Lukulu	46.7	46.0	72.1
Mongu	47.9	45.9	57.0
Senanga	43.3	41.8	61.0
Sesheke	45.0	44.6	47.5
Shang'ombo	44.0	43.2	69.4

Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.6.1 Life Expectancy at Birth by Residence

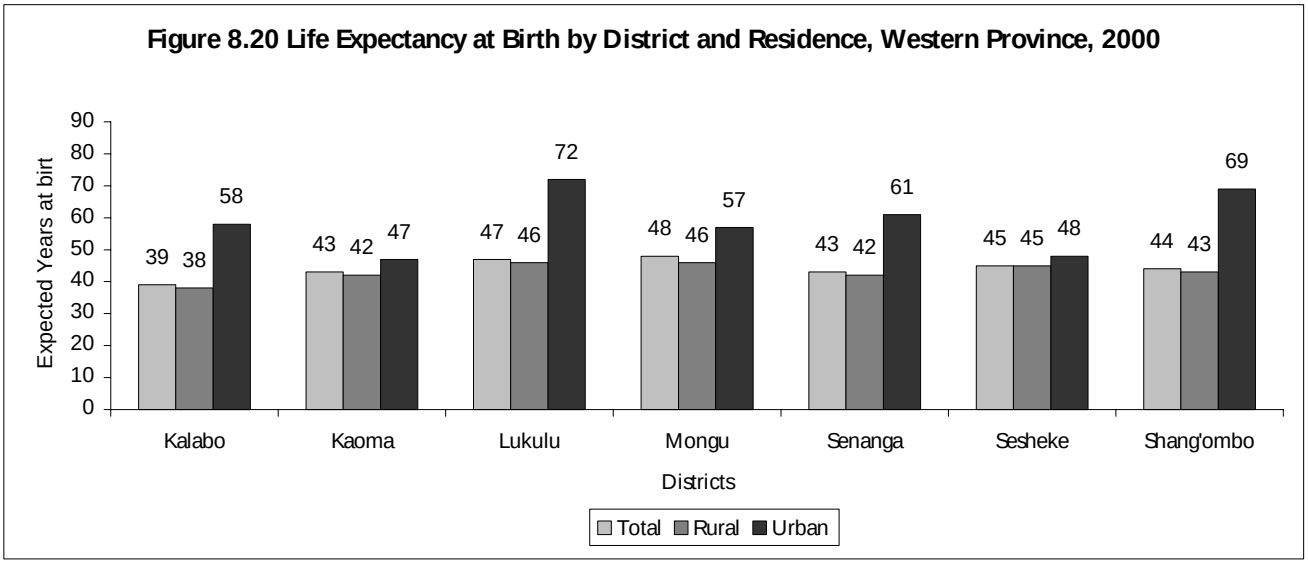
In terms of residence life expectancy has remained stable in rural areas between 1990 and 2000 at 43 years, where as in the urban areas life expectancy has increased from 49 to 54. This shows that newly born babies in urban areas have a higher expectation of life at birth than their rural counterparts. In the urban areas life expectancy was 51, 49 and 54 while the rural areas it was 49, 43 and 43 in 1980, 1990 and 2000, respectively. See Figure 8.19.



Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.6.2 Life Expectancy at Birth by District

Figure 8.20 shows that among the districts, Life Expectancy at Birth is lowest in Kalabo (39) followed by Kaoma and Senanga (43). Mongu has the highest Life expectancy at Birth of 48 years followed by Lukulu (47). Life Expectancy differentials by residence show that babies born to mothers residing in urban areas of all the districts have a higher number of years expected to live that their rural counterparts.

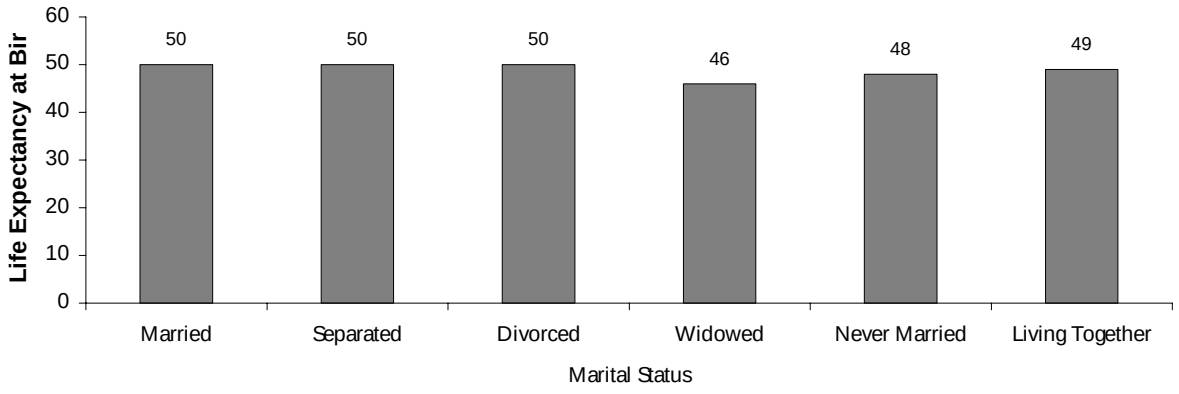


Source: CSO, 2000 Census of Population and Housing

8.6.3 Life Expectancy at Birth by Marital Status of Mother

Figure 8.21 and Table 8.8 show that there are no notable differences in Life Expectancy at Birth differentials by marital status of mother (Figure 8.21). The life expectancy ranges from 46 years for children born to widowed mothers to 50 years to those born to married, separated and divorced mothers.

Figure 8.21 Life Expectancy at Birth by Marital Status, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

Table 8.8 further shows that while differences in life expectancy within rural and within urban areas are not high, the high, the differences between rural and urban areas for all marital status categories are high.

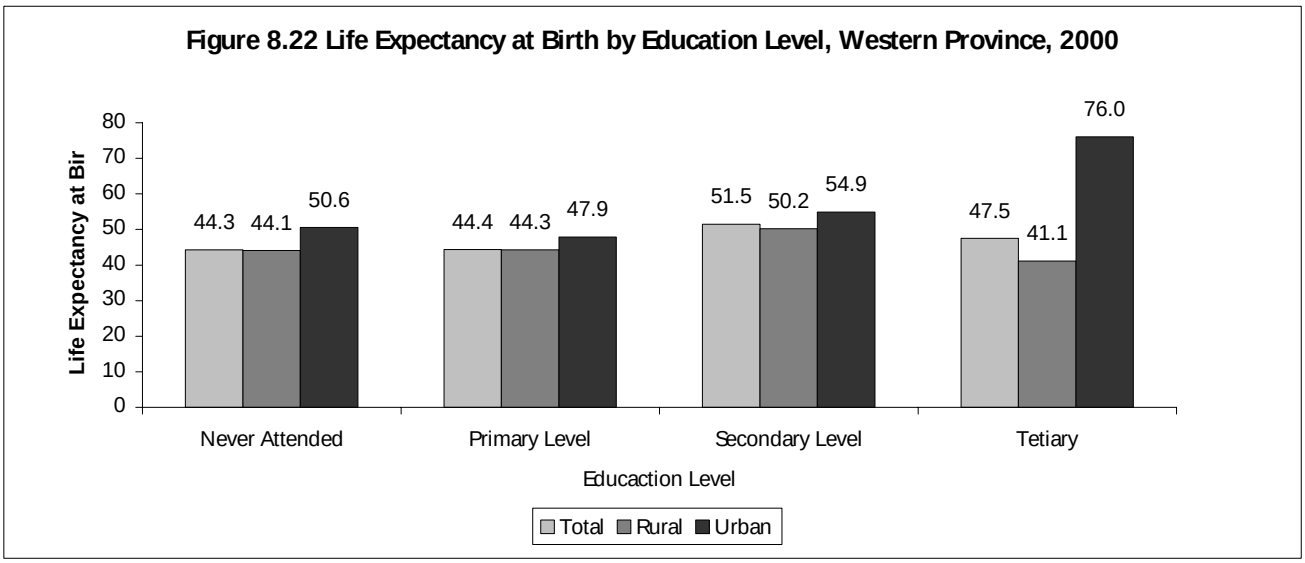
ble 8.8: Life Expectancy at Birth by Marital Status and Residence, Western Province, 2000

Marital Status	Life Expectancy at Birth (Years)		
	Total	Rural	Urban
Married	49.9	49.1	57.6
Separated	50.2	49.3	60.8
Divorced	49.9	49.6	54.8
Widowed	46.0	45.9	49.3
Never Married	47.9	46.7	54.6
Living Together	48.7	48.7	-

Source: CSO, 2000 Census of Population and Housing

8.6.4 Life Expectancy at Birth by Education Level of Mother

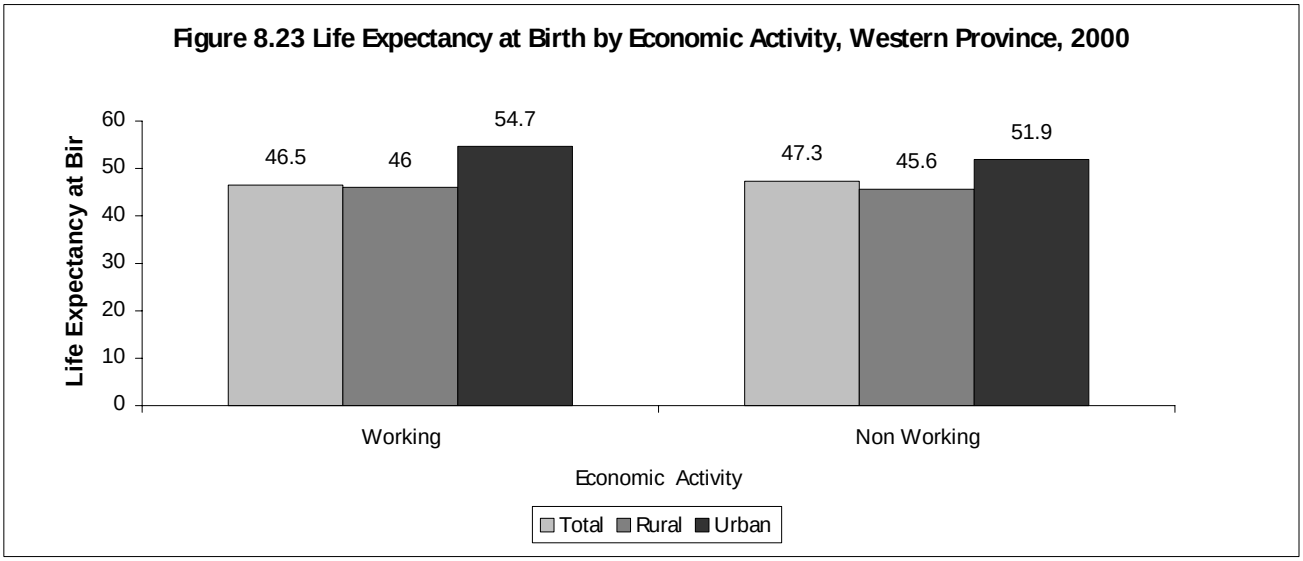
A comparison of children of mothers with different levels of education shows that Life Expectancy at Birth is lowest among children of mothers with primary or less formal education (94) and highest among children born to mothers with secondary education (51 years).



Source: CSO, 2000 Census of Population and Housing

8.6.5 Life Expectancy at Birth by Economic Activity of Mother

Children born to non-working mothers have a higher expectation of life at birth than those born to working mothers. The difference, however, is not so significant (47 years compared to 46 years, respectively).

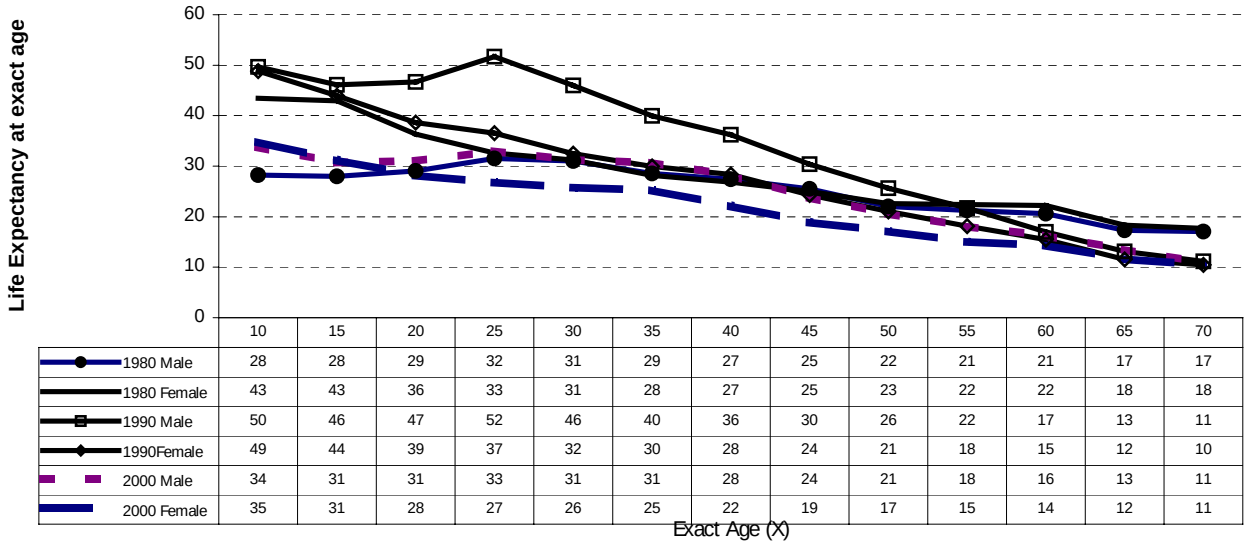


Source: CSO, 2000 Census of Population and Housing

8.7. Adult Mortality: Life Expectancy Levels, Trends and Differentials

Results in Figure 8.24 show that adult Life Expectancy increased between 1980 and 1990, then decreased in 2000. The decrease may be attributed to the HIV/AIDS pandemic. There was a steep decline in life expectancy at exact ages 20-40, for both males and females. In 1980, life expectancy for males has been more or less the same as that of females between ages 25 and 70. At lower ages, that of males has been much lower than that of females. In 1990 and 2000, life expectancy for males was higher than that of females at almost all ages.

Figure 8.24: Adult Life Expectancy Levels (At Exact Ages 10-70) by Sex of, Western Province, 1980-2000

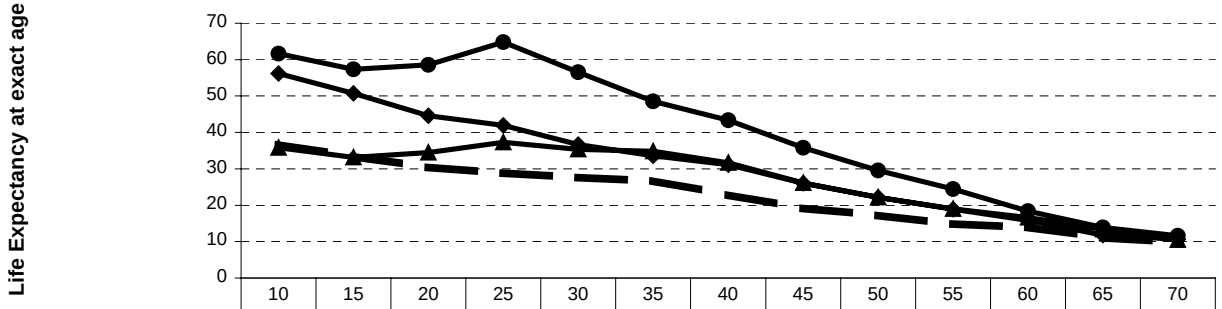


	10	15	20	25	30	35	40	45	50	55	60	65	70
1980 Male	28	28	29	32	31	29	27	25	22	21	21	17	17
1980 Female	43	43	36	33	31	28	27	25	23	22	22	18	18
1990 Male	50	46	47	52	46	40	36	30	26	22	17	13	11
1990Female	49	44	39	37	32	30	28	24	21	18	15	12	10
2000 Male	34	31	31	33	31	31	28	24	21	18	16	13	11
2000 Female	35	31	28	27	26	25	22	19	17	15	14	12	11

Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

Differentials by residence in Figure 8.25 and 8.26 show that adults in rural areas have higher life expectancies at all ages than in urban areas. In rural areas in both 1990 and 2000, males live longer than females at all ages except at 10, 15 and 70 in 2000. The gap is even wider between age 20 and 50 years in 1990 and between 25 and 45 in 2000. In urban areas, on the contrary, the pattern is different. Although females have lower life expectancies than males between age 20 and 40 in 1990 and between age 10 and 35 in 2000, they have higher life expectancies at older ages.

Figure 8.25: Adult Survivorship Levels by Sex of Adult, Western Province, Rural 1990-2000

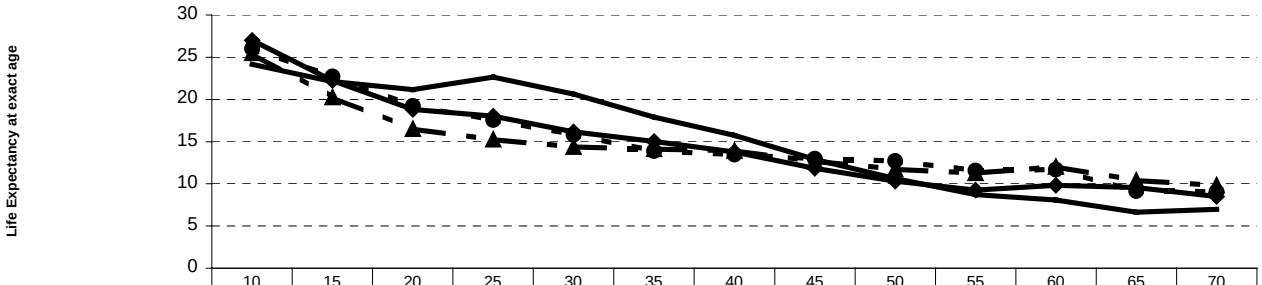


	10	15	20	25	30	35	40	45	50	55	60	65	70
1990 Male	62	57	59	65	57	49	43	36	30	24	18	14	12
1990Female	56	51	45	42	37	34	31	26	22	19	16	12	11
2000 Male	36	33	34	37	35	35	32	26	22	19	17	13	10
'2000 Female	37	33	30	29	28	27	23	19	17	15	14	11	10

Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

The figures also show that in rural areas, there has been very large decline in life expectancy between 1990 and 2000 for both male and female adults. In urban areas on the contrary, there has been no major variation in life expectancy between 1990 and 2000. At some ages, it has remained the same, while at older ages, it has even increased.

Figure 8.26: Trends in Adult Survivorship Level by Sex of Adult, Western Province, Urban, 1990-2000



	10	15	20	25	30	35	40	45	50	55	60	65	70
1990 Male	24	22	21	23	21	18	16	13	11	9	8	7	7
1990Female	26	23	19	18	16	14	13	13	13	12	12	9	9
2000 Male	27	22	19	18	16	15	14	12	10	9	10	10	9
2000 Female	25	20	17	15	14	14	14	13	12	11	12	10	10

Exact Age (Years)

Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.8. Summary

Infant mortality rate has declined in Western Province by about 2 percent between 1990 and 2000. Despite the decline, the levels are still high, with one in seven infants dying before their first birthday. At district level, Kalabo registered the highest infant deaths and Mongu the least. In Kalabo district 1 in 6 infants do not survive to their first birthday compared to 1 in 8 in Mongu. Higher Infant mortality risks are associated with mothers who live in rural areas, have no or less education, currently not married and working.

Child Mortality Rate (CMR) has remained declined slightly between 1990 and 2000, from 113 to 110 deaths per 1000 children. However, the 2000 level is still above the 1980 one (77 deaths per 1000). At the district level CMR was highest in Kalabo (134) and lowest in Mongu (90). Higher incidents of dying among children aged between exact age 1 and 5 were observed in those born to rural mothers, mothers who are widowed, never married and living together with a partner, mothers with no formal education and working mothers.

The Under five Mortality Rate declined slightly in Western Province between 1990 and 2000 from 238 to 233 deaths per 1000. At district level, Mongu district recorded the least under-five deaths and Kalabo district recorded the highest. About one in four under five children in Kalabo die before reaching age five. Greater numbers of children dying before their fifth birthday were associated with mothers from rural areas, with no formal education, widowed and working.

Life expectancy at birth in Western Province has improved slightly by about one year in 1990 to 2000 period (rose from about 43 to 44 years). At district level, Kalabo district registered the lowest life expectancy at birth of 39 years, compared with the highest, Mongu at 48 years. Low Life Expectancy at Birth is also associated with babies born to rural mothers, never married and widowed mothers, mothers with a low level educational (never attended or primary) and working.

Adult Life Expectancy increased between 1980 and 1990, then decreased in 2000. Currently, life expectancy for males is higher than that of females at almost all ages. Adults in rural areas have higher life expectancies at all ages than in urban areas. Although females have lower life expectancies than males between age 20 and 40 in 1990 and between age 10 and 35 in 2000, they have higher life expectancies at older ages.

Chapter 9
DISABILITY

9.1 INTRODUCTION

Zambia has been collecting disability data in all the four censuses of 1969, 1980, 1990 and 2000. In collecting information for the past four censuses 1969, 1980, 1990, and 2000, categories used are shown in Table 9.1. During the 2000 Census of population and housing, data collected on disability included eight categories, unlike the 1990 Census where only five categories were captured. This was in recognition of the varying degrees of disability. The increase in the number of disability categories in the 2000 Census was also aimed at capturing more persons with disability who were left out in the previous censuses such as those who are partially sighted and hard of hearing.

Persons with disabilities have the same rights as other citizens to opportunities for self-actualization and participation in the economic and social development of this country. Information on persons with disabilities is important for addressing barriers that limit their enjoyment of these human rights and their integration into the mainstream of society.

Table 9.1: Disability Categories used in Censuses 1969 - 2000

1969	1980	1990	2000
1. Blind 2. Deaf and/or mute 3. Loss of limb 4. Sick	1. Blind 2. Deaf and/or mute 3. Crippled, or loss of limb 4. Mentally Retarded 5. Sick 6. Combination of two or more categories	1. Blind 2. Deaf-Dumb 3. Crippled 4. Mentally Retarded 5. Multiple Disabilities	1. Blind 2. Partially sighted 3. Deaf/Dumb 4. Hard of Hearing 5. Mentally ill 6. Ex- Mental 7. Mentally Retarded 8. Physically Handicapped

Source: CSO, 1969, 1980, 1990 and 2000 Censuses of Population and Housing

The International Classification of Functioning (ICF), Disability and Health provide a theoretical framework for classifying health related human functioning. The ICF provides standardized concepts that provide a standardized classification framework for data compilation. The use of a common framework also contributes to greater comparability of data at the national and international levels and makes it relevant to various users (UN, 2001).

Among the principles of the ICF is neutrality; i.e. classifying disabilities in a neutral language with no use of negative terms. In this chapter, however, some terms used may not be neutral but have been used as was done during data collection. However, effort has been made to provide in brackets the neutral terms that are internationally accepted as will be observed in this and provincial chapters on disability.

9.2 CONCEPTS AND DEFINITIONS

According to the 2000 Census definition, disability refers to a person who is limited in the kind or amount of activities that he or she can do because of on-going difficulties due to a long term physical, mental or health problem. This is in line with the National Policy on Disability which defines disability as any restriction or lack of ability to perform any action in the manner or within the range considered 'normal' for a human being and would or would not entail the use of supportive and auxiliary aids (World Health Organization).

Types of Disability

- Blind (Visually Impaired)- complete loss of sight
- Partially sighted- loss of one eye or poor sight but not complete blindness
- Deaf/Dumb (speech impaired)- complete loss of sense of hearing/speech
- Hard of Hearing- Partial loss of sense of hearing but not complete loss
- Mentally ill- A disorder related to the individuals mental state or state of mind
- Ex-mental- a person that suffered from mental disorder before but is now rehabilitated or undergoing rehabilitation
- Mentally retarded- a person that is very slow to learn or has deficiency of mental intellect
- Physically handicapped (Physically disabled)- A person with a physical impairment relating to the loss of bodily stature

CAUSES OF DISABILITY

- Congenital/Prenatal- disabilities which one is born with
- Disease/illness- e.g. Leprosy, Polio, cataract, etc
- Injury/Accident/Trauma- road accidents, injuries from accidental falls, fire, etc
- Other - e.g. unsuccessful medical operation, wrongful application/misuse of traditional and conventional medicine

9.3 Limitations of Data on Disability

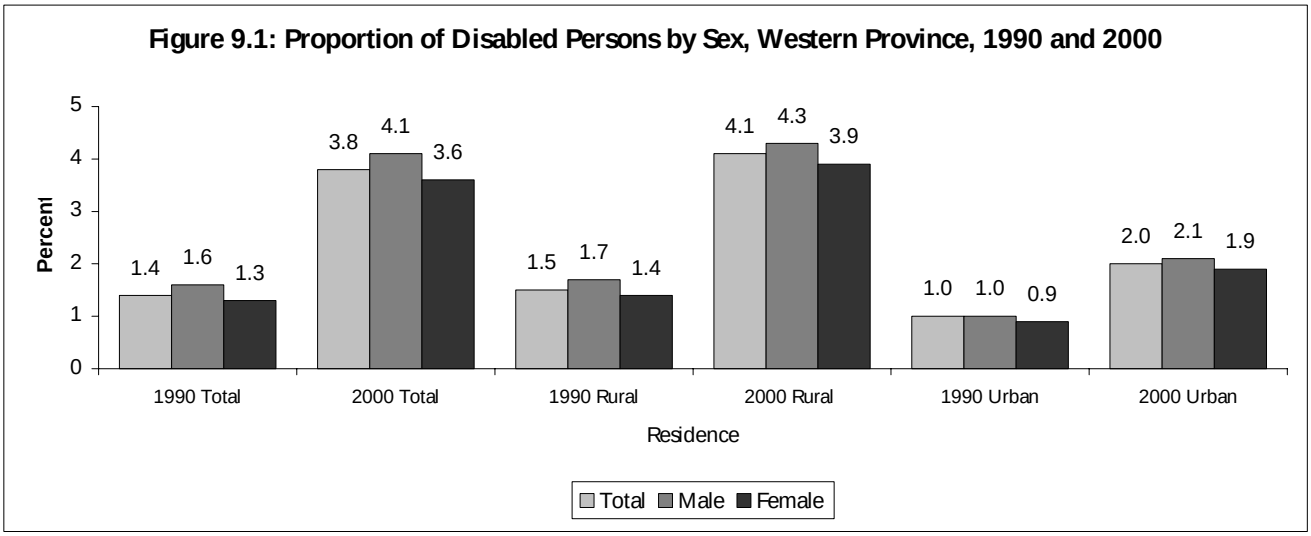
Policy makers and planners require data on disabled persons. Information needs are more than just basic counts of the number of people with disabilities but also on the quality of life of people living with disabilities.

The categories employed in the current census, however, do not take into account the international definitions of disabilities, which include variations in the intensity of disability, such as the loss of feelings in fingers (UN, 1996).

Detailed data on disability can only be included in a specialized survey. Census data on disability are collected mainly to study the socio-economic situations of these individuals. Since the census is a large exercise, which includes a lot of topics, it becomes difficult to include a lot of questions on one topic.

9.4 Proportion of the Disabled to the Total Population

Out of a total population of 708,133**,** 27,180 reported to be disabled; a proportion of 3.8 percent of the total population. This is just slightly higher than the national proportion at 2.7 percent. This proportion was an increase over 1990 census when only 1.4 percent of the total provincial population reported to be disabled. An examination of the proportions of the disabled between the two censuses, may indicate that there has been an increase in the prevalence of disability between 1990 and 2000. While this may be true, the observed increase was largely caused by the increase in the categories of the disabled.



Source: CSO, 1990 and 2000 Censuses of Population and Housing

Table 9.2: Proportion of the Disabled by Sex and Residence, Western Province, 1990 and 2000

Sex and year	Total Population			**Proportions Of The Disabled**		
	Total	**Rural**	**Urban**	*Total*	**Rural**	**Urban**

1990						
Zambia	7,383,097	4,477,814	2,905,283	0.9	1.1	0.7
Western Province						
Total	606,813	528,346	78,467	1.4	1.5	1.0
Male	282,053	244,788	37,265	1.6	1.7	1.0
Female	324,760	283,558	41,202	1.3	1.4	0.9
2000						
Zambia	9,337,425	5,990,356	3,347,069	2.7	3.2	0.2
Total	708,133	628,535	79,598	3.8	4.1	2.0
Male	336,260	297,651	38,609	4.1	4.3	2.1
Female	371,873	330,884	40,989	3.6	3.9	1.9

Sources: CSO, 1990 and 2000 Censuses of Population and Housing

A comparison between rural and urban areas show that rural areas have a larger proportion of persons with disabilities. About 4 percent of the population of rural areas is disabled compared to 2 percent in urban areas. Differentials also exist between males and females. In both rural and urban areas, the proportion of the disabled is higher for males than females.

9.5 Types of Disability

The distribution of disabled persons by type of disability in Western Province is shown in Table 9.3. The table shows that out of a total of 27,180 persons reported to be disabled, 50.1 percent are male and 49.9 percent are female.

As mentioned earlier, the types of disability include the blind, partially sighted, deaf/dumb, hard of hearing, mentally ill, mentally retarded, ex-mental and the physically handicapped. Table 9.3 and Figure 9.2 also show that the physically handicapped form the largest proportion of the disabled persons (35.9 percent). The second most common disability is partial sight, which was reported by 32.8 percent of the disabled population. Some disability categories such as ex-mental (3.1 percent) and mental retardation (3.8 percent) are less common. The provincial pattern is similar to the national with the physically handicapped forming the largest proportion of the disabled persons (38.8 percent), followed by the partially sighted (30.2 percent). As observed at provincial level ex-mental is the least common form of disability at national level.

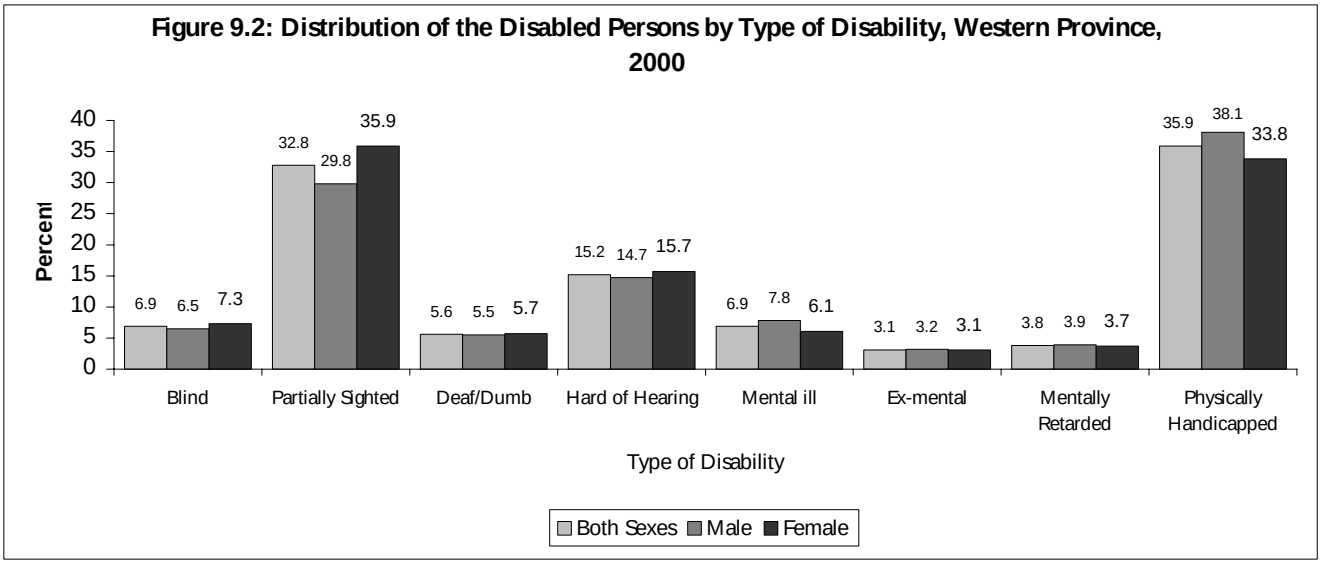
Table 9.3 also shows that there are more male than female persons with disabilities; (13,626 against 13,554). Among the male, physical disability is the most common form of disability while partial sightedness is the most common among females. However, for the females, the difference in proportion between the partially sighted and physically handicapped is minimal (35.9 percent versus 33.8 percent). The pattern of disabled across the districts is similar to the province although proportions vary. Physical disability is the most common in all the districts apart from Shang'ombo. The proportion of the physically handicapped range from 31.5 percent in Shang'ombo to 39.1 percent in Sesheke. Partially sighted is the next most common form of disability among the districts, ranging from 29.8 percent in Senanga to 36.4 percent in Sesheke. The proportion of the deaf and dumb varies slightly between districts and ranges from 5.0 percent in Sesheke to 7.3 percent in Shangombo. Ex-mental is the least common form of disability in all the districts with lukulu having the highest proportion at 4.2 percent.

Table 9.3: Percent Distribution of the Disabled by Type of Disability and District, Western Province, 2000

Cause of Disability	Zambia	Western	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shang'ombo
Total disabled	256,690	27,180	4,675	5,190	2,152	5,334	3,836	3,994	1,999
Blind	5.3	6.9	7.4	5.6	5.9	7.3	8.4	5.3	8.9
Partially sighted	30.2	32.8	33.7	35.0	26.3	31.8	29.8	36.4	33.6
Deaf/dumb	6.2	5.6	5.2	5.2	6.3	5.5	5.9	5.0	7.3
Hard of hearing	12.4	15.2	13.7	15.2	11.9	14.0	16.8	17.7	17.7
Mentally ill	8.1	6.9	6.6	5.3	6.4	8.2	9.1	6.8	5.5
Ex-mental	3.6	3.1	3.3	2.5	4.2	2.5	3.6	3.6	2.8
Mentally retarded	5.4	3.8	3.4	3.7	4.4	4.0	3.9	4.1	2.8
Physically handicapped	38.8	35.9	34.7	36.5	37.0	37.1	33.6	39.1	31.5
Male	135,613	13,626	2,253	2,673	1,162	2,726	1,838	1,972	1,002
Blind	5	6.5	6.5	5.3	5.9	7.1	8.2	5.0	8.0
Partially sighted	27.7	29.8	30.7	33.1	25.4	27.5	25.1	33.8	30.4
Deaf/dumb	6.2	5.5	5.3	4.5	6.3	6.0	6.1	4.5	7.0
Hard of hearing	11.5	14.7	14.5	14.6	11.9	13.3	16.9	16.0	16.6
Mentally ill	8.8	7.8	7.3	5.6	6.5	9.6	10.4	7.8	6.4
Ex-mental	3.7	3.2	3.3	2.7	4.6	2.8	3.8	3.2	2.2
Mentally retarded	5.6	3.9	3.7	3.6	3.7	4.3	4.3	4.2	2.7
Physically handicapped	40.7	38.1	37.6	38.4	38.2	37.9	36.8	40.9	35.5
Female	121,077	13,554	2,422	2,517	990	2,608	1,998	2,022	997
Blind	5.6	7.3	8.3	5.8	6.0	7.6	8.6	5.6	9.8
Partially sighted	33	35.9	36.4	36.9	27.3	36.2	34.2	39.0	36.8
Deaf/dumb	6.2	5.7	5.1	6.0	6.3	5.0	5.6	5.5	7.6
Hard of hearing	13.3	15.7	13.0	15.9	12.0	14.7	16.8	19.4	18.9
Mentally ill	7.3	6.1	6.0	4.9	6.3	6.7	7.9	5.9	4.6
Ex-mental	3.6	3.1	3.2	2.4	3.7	2.2	3.5	4.0	3.3
Mentally retarded	5.3	3.7	3.2	3.7	5.3	3.7	3.6	4.0	2.9
Physically handicapped	36.7	33.8	31.9	34.5	35.6	36.2	30.7	37.4	27.5

Source: CSO, 2000 Census of Population and Housing

Note: It is worth noting that the percentages will not necessarily add up to 100 because some persons reported more than one disability.



Source: CSO, 2000 Census of Population and Housing

9.6 AGE STRUCTURE OF THE DISABLED

The age structure of the disabled is shown in Table 9.4. Data shows that the number of the disabled increases with increasing age up to age group 20-24 at which it reaches the peak and then it starts declining up to age group 35-39. After this age group, the numbers fluctuate. Across age groups 0-4 to 55-59, the largest proportion of the disabled are physically handicapped closely followed by the partially sighted. For the older age groups, the largest proportion is partially sighted closely followed by the physically handicapped.

Table 9.4: Percent Distribution of the Disabled by Type of Disability and Age, Western Province, 2000

Age and Sex	Type of Disability								
	Total	Blind	Partially Sighted	Deaf/Dumb	Hard of Hearing	Mentally ill	Ex Mental	Mentally Retarded	Physically Handicapped
0 - 4	766	3.0	17.0	12.7	12.7	5.2	1.8	3.3	36.9
5-9	1,345	2.5	13.9	13.9	24.1	7.5	3.3	4.8	31.3
10-14	1,657	3.1	16.2	11.8	19.7	8.4	3.2	6.2	34.8
15 - 19	1,699	4.9	17.4	9.8	15.3	10.6	4.1	7.7	35.8
20 - 24	1,713	5.1	18.8	9.3	12.1	11.6	4.9	7.1	36.4
25 - 29	1,653	4.8	2.2	6.8	12.0	13.6	4.1	6.4	39.9
30 - 34	1,650	4.6	21.0	4.8	10.8	10.8	5.0	4.5	43.0
35 - 39	1,429	4.3	25.3	3.9	10.8	10.1	3.8	4.4	42.5
40 - 44	1,406	51.1	31.6	4.2	11.5	9.2	4.1	3.3	37.8
45 - 49	1,400	4.6	34.1	2.8	10.1	7.9	3.4	3.0	39.7
50 - 54	1,682	4.3	38.3	4.3	11.9	5.6	3.9	3.0	36.7
55 - 59	1,406	6.3	40.1	2.3	1.3	4.3	2.2	2.3	38.0
60 - 64	1,884	8.0	43.8	3.8	14.6	4.6	2.6	1.8	35.2
65-69	1,873	8.0	44.8	2.1	15.8	3.3	2.2	1.8	36.1
70-74	1,888	10.8	51.8	2.6	17.5	2.6	1.6	1.3	31.8
75+	3,729	15.5	52.3	2.6	21.2	2.3	1.3	2.1	29.6
Total	27,180	6.9	32.8	5.6	15.2	6.9	3.1	1.5	35.9

Source: CSO, 2000 Census of Population and Housing

9.7 Causes of Disability

The various causes of disability were categorized as prenatal, disease, injury and 'other'. Of these, the most common cause is disease, which was reported by 54.1 percent of the disabled population. Disease was also cited as the most common cause of disability at national level, reported by 38.9 percent of the disabled population. Prenatal causes were reported by 10.6 percent, injury causes by 11.6 percent, and other by 7.0 percent while 17.6 percent reported that they did not know the cause of their disability.

Some causes of disability affect females more than males. These include disease and other causes. Injuries and congenital/prenatal cause are more common among males than females.

Table 9.5: Percent Distribution of the Disabled by District and Cause, Western Province, 2000

Cause of Disability	Zambia	Western	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shang'ombo
Total disabled	256,690	27,180	4,675	5,190	2,152	5,334	3,836	3,994	1,999
Congenital/pre-natal	13.7	10.6	10.2	11.7	15.3	9.6	8.3	10.2	11.0
Disease/illness	38.9	54.1	61.3	50.0	54.3	50.5	53.3	53.9	59.9
Injury/accident/trauma	17.2	11.6	9.3	13.0	15.9	11.2	9.9	13.2	9.2
Other	9.3	7.0	4.6	9.0	7.0	7.1	6.4	8.1	6.4
Unknown	20.2	17.6	14.0	18.4	18.5	21.0	20.1	16.1	11.9
Male	135,613	13,626	2,253	2,673	1,162	2,726	1,838	1,972	1,002
Congenital/pre-natal	13.7	10.9	10.8	12.0	13.9	9.9	8.9	10.3	11.5
Disease/illness	36.3	51.6	57.8	47.0	52.6	48.9	51.4	51.3	56.7
Injury/accident/trauma	20.7	14.4	11.7	15.8	18.6	13.9	12.1	17.1	12.3
Other	8.9	6.7	4.7	8.8	7.1	6.1	5.5	8.3	6.1
Unknown	19.4	17.4	13.7	18.9	18.7	20.6	19.0	15.8	12.2
Female	121,077	13,554	2,422	2,517	990	2,608	1,998	2,022	997
Congenital/pre-natal	13.7	10.3	9.6	11.4	17.0	9.3	7.8	10.1	10.5
Disease/illness	41.9	56.7	64.5	53.1	56.3	52.1	55.1	56.3	63.2
Injury/accident/trauma	13.2	8.7	7.1	10.1	12.8	8.4	7.9	9.4	6.1
Other	9.7	7.3	4.5	9.1	7.0	8.2	7.2	7.9	6.7
Unknown	21	17.8	14.3	17.8	18.4	21.5	21.1	16.5	11.6

Source: CSO, 2000 Census of Population and Housing

Note: It is worth noting that the percentages will not necessarily add up to 100 because some persons reported more than one cause of disability.

As already mentioned, 54.1 percent of the disabled population cited disease as a cause of their disability in Western Province. Among the districts, Kalabo has the largest proportion of 61.3 percent while Kaoma has the least proportion with 50.0 percent reporting disease as a cause of disability. In all districts a larger proportion of the disabled females cited disease as a cause of their disability than their male counterparts.

Education Levels of the Disabled

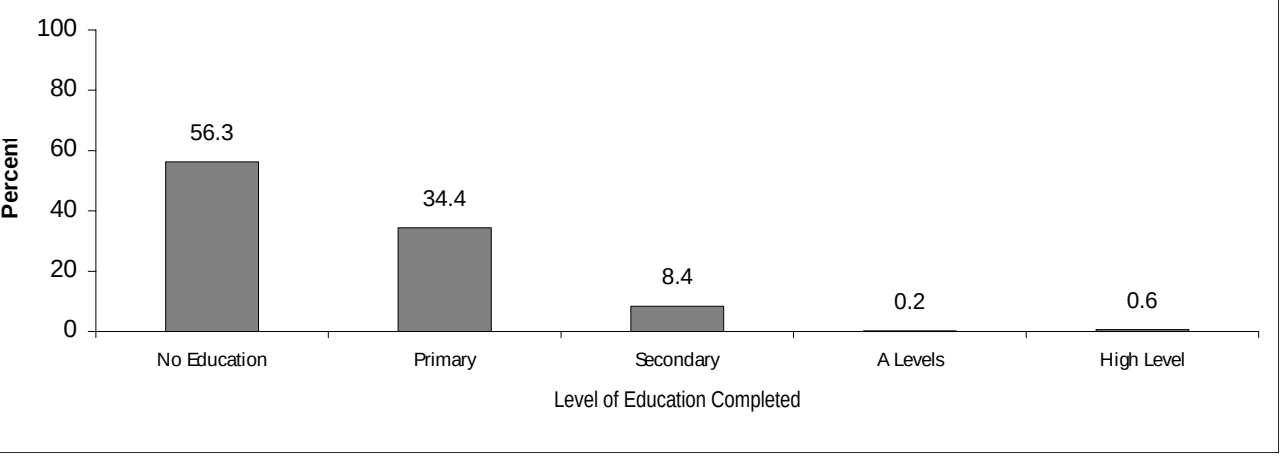
le 9.6 and Figure 9.3 show the percent distribution of the disabled persons 5 years and over, by type of disability and level of education. More than fifty percent of the disabled persons in this category have had no education and one third have completed primary education. Proportions of persons who have had no education vary from 51.2 percent among the physically handicapped to 79.5 among the deaf/dumb. The highest proportion of those who completed higher education was among the ex-mental.

Table 9.6: Percent Distribution of the Disabled Persons 5 Years and Over, by Type of Disability and Level of Education, Western Province, 2000

Type of Disability	Level of Education Completed						
	Total Number	Percentage Total	No Education	Primary	Secondary	A Levels	Higher Level
Blind	1,846	100.0	76.1	18.1	5.3	0.0	0.4
Partially Sighted	8,789	100.0	57.5	34.6	7.1	0.3	0.5
Deaf/Dumb	1,416	100.0	79.5	15.9	4.2	0.0	0.4
Hard of Hearing	4,043	100.0	61.3	33.4	4.7	0.1	0.4
Mentally Ill	1,847	100.0	58.9	28.5	11.6	0.1	1.0
Ex-Mental	827	100.0	51.9	36.3	10.4	0.0	1.5
Mentally Retarded	1,003	100.0	59.6	33.2	6.3	0.1	0.8
Physically Handicapped	9,486	100.0	51.2	37.6	10.3	0.3	0.6
Total	26,414	100.0	56.3	34.4	8.4	0.2	0.6

rce: CSO, 2000 Census of Population and Housing

Figure 9.3: Distribution of the Disabled Population, 5 years and Older by Level of Education, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

Economic Activity of the Disabled

le 9.7 and Figure 9.4 show the economic activities of the disabled persons 12 years and above. Close to two thirds of the disabled persons are working and one third are students. This pattern is similar to the national with over half of the disabled persons working and one third students. It is worth noting that none of the disabled persons falls in the categories "not available for work" and "available for work" but not seeking work. Details on the definitions of the various economic activities are given in Chapter 6.

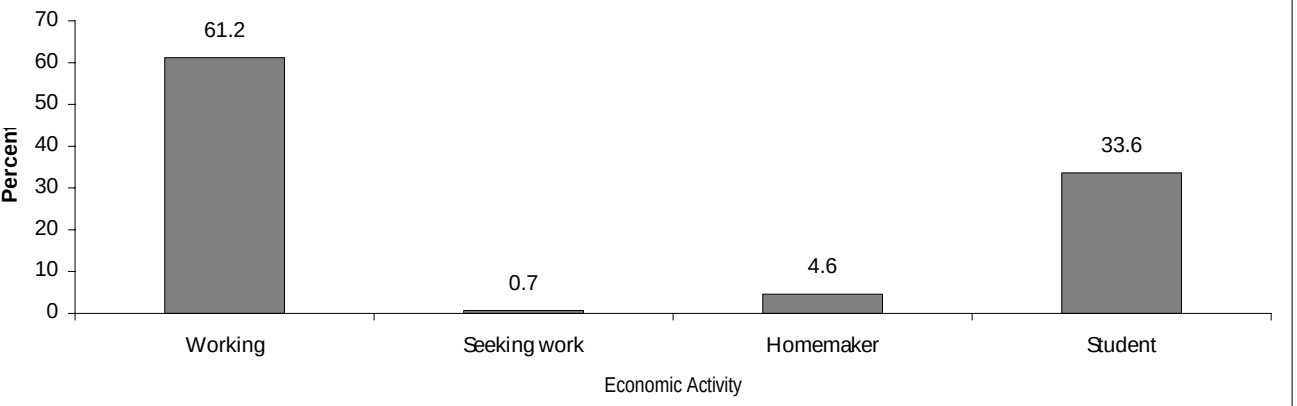
ong the blind and mentally ill the majority are students while in the rest of the disability categories, the majority are working followed by students.

Table 9.7: Percent Distribution of the Disabled Persons 12 Years and Over, by Type of Disability and Economic Activity, Western province 2000

Usual Economic Activity	Type of Disability									
	Zambia	Western	Blind	Partially Sighted	Deaf/Dumb	Hard of Hearing	Mentally ill	Ex Mental	Mentally Retarded	Physically Handicapped
Working	55.5	61.2	26.5	70.6	59.5	67	35.8	63.5	48.4	57.4
Seeking work	2.6	0.7	0.2	0.4	0.6	0.7	0.6	0.4	0.9	0.8
Homemaker	8.8	4.6	1.5	2.6	4.2	5.8	3.1	6	6.3	4.9
Student	33.1	33.6	71.8	26.4	35.1	26.6	60.5	33.8	44.4	36.9
Percent Total	100	100	100	100	99.5	100	100	103.7	100	100
Total Number	194,039	23,693	1,758	8,245	1,107	3,485	1,641	721	880	8,599

rce: CSO, 2000 Census of Population and Housing

Figure 9.4: Distribution of the Disabled Persons, 12 years and Older by Economic Activity, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

0 Occupation of the Disabled

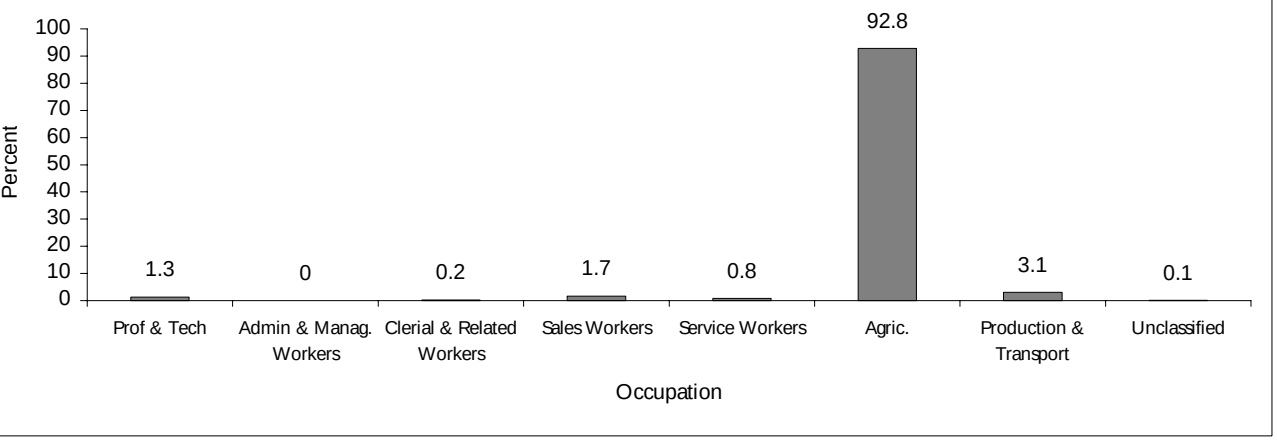
a on occupation of the disabled persons was also collected during the 2000 census. Table 9.8 and Figure 9.5 show that the most common occupation among the disabled is agriculture (92.8 percent). None of the disabled is in administrative/managerial occupations and rest are hardly common.

Table 9.8: Percent Distribution of the Usually Working Disabled by Type of Disability and Occupation, Western Province, 2000

Type of Disability	Occupation									
	Total Number	Percent Total	Prof & Tech	Admin & manag. Workers	Clerical & Related Workers	Sales Workers	Service Workers	Agric.	Production and Transport	Unclass.
Blind	450	100.0	0.5	0.0	0.5	1.8	0.0	96.3	0.9	0.0
Partially Sighted	5,685	100.0	0.3	0.0	0.0	1.3	0.0	97.4	1.0	0.0
Deaf/Dumb	639	100.0	0.0	0.0	0.0	1.8	1.1	95.6	1.5	0.0
Hard Hearing	2,283	100.0	0.0	0.0	0.0	1.0	1.5	94.1	3.5	0.0
Mentally ill	560	100.0	0.2	0.0	0.2	1.3	1.6	94.5	2.3	0.0
Ex Mental	446	100.0	0.7	0.0	0.0	2.2	2.0	91.7	3.1	0.2
Mentally Retarded	415	100.0	0.0	0.0	0.0	1.2	1.2	94.7	2.4	0.5
Physically Handicapped	4,809	100.0	1.8	0.0	0.2	2.3	0.8	90.4	4.4	0.1
Total	15,287	100.0	1.3	0.0	0.2	1.7	0.8	92.8	3.1	0.1

Source: CSO, 2000 Census of Population and Housing

Figure 9.5: Distribution of the Usually Working Disabled Persons by Occupation, Western Province, 2000



rce: CSO, 2000 Census of Population and Housing

1 Employment Status of the Disabled household heads

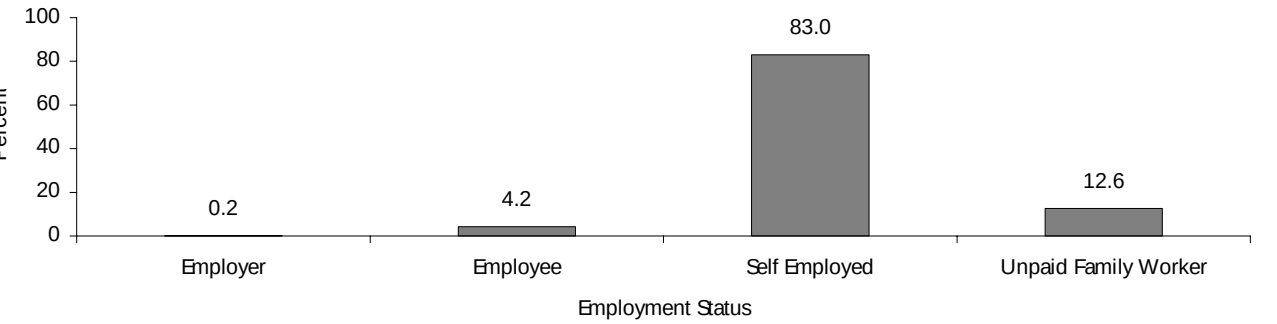
le 9.9 and Figure 9.6 show the usual employment status of the disabled household heads age 12 years and over. Amongst all categories of disability, the largest proportion of the disabled household heads is self-employed while the least proportion is among the employers. Variations between the various disability categories are minimal.

Table 9.9: Percent Distribution of the Disabled Household Heads by Type of Disability and Employment Status, Western Province, 2000

Type of Disability	Employment status					
	Total Number	Percentage Total	Employer	Employee	Self Employed	Family Worker
Blind	273	100.0	0.3	5.6	82.7	11.5
Partially Sighted	3,840	100.0	0.1	2.1	83.3	14.5
Deaf/Dumb	229	100.0	0.0	4.4	81.2	14.4
Hard of Hearing	992	100.0	0.3	2.7	84.0	13.0
Mentally Ill	202	100.0	0.0	3.5	81.7	14.9
Ex-Mental	440	100.0	0.0	3.5	81.7	14.9
Mentally Retarded	293	100.0	0.0	0.7	85.3	14.0
Physically Handicapped	2,656	100.0	0.2	5.8	81.3	12.7
Not Stated	26	100.0	0.0	0.0	84.6	15.4
Total	8,951	100.0	0.2	4.2	83.0	12.6

rce: CSO, 2000 Census of Population and Housing

Figure 9.6: Distribution of the Disabled Household Heads by Employment Status, Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

9.12 Summary

Out of the total population of Western province, 3.8 percent is disabled. The proportion of the disabled is higher in rural than urban areas. There are slightly more disabled male (50.1 percent) than female (49.9 percent).

Physical disability is the most common type of disability affecting about 35.9 percent of the disabled population while the ex mental form the smallest proportion of 3.1 percent.

ease is the most common cause of disability reported by about 54.1 percent of the disabled population while 'other' is the least, reported by 7.0 percent. Injury is more commonly reported by males than females while disease is more common among females than males.

htly over half of the disabled have never been to school and about one third have completed primary education. As regards the employment status, the largest proportions of the disabled are self-employed while the least proportion is among the employers amongst all categories of disability. The most common occupation among the disabled is agriculture, which takes up about 93 percent.

REFERENCES

Arriaga, E. A (1994); Population Analysis with Microcomputers, Volume 1: Presentation Techniques. Bucen, Washington DC, USA.

Central Statistical Office (1995); 1990 Census of Population, Housing and Agriculture: Central Province Analytical Report, Vol. 1, Government Printers, Lusaka, Zambia.

Central Statistical Office (1995); 1990 Census of Population, Housing and Agriculture: Central Province Descriptive Tables Report, Vol. 1, Government Printers, Lusaka, Zambia.

Central Statistical Office (1995); 1990 Census of Population, Housing and Agriculture: Zambia Analytical Report, Vol. 10, Government Printers, Lusaka, Zambia.

Central Statistical Office (1998); Living Conditions Monitoring Survey in Zambia,1998. CSO, Lusaka.

Central Statistical Office [Zambia], Central Board of Health [Zambia], and ORC Macro. (2003);Zambia Demographic and Health Survey, 2001-2002. Calverton, Maryland, USA: CSO, CBoH and ORC Macro.

Central Statistical Office [2003], MCDSS, National Disability Policy

Henry Shyrock Jacob S. Siegel, and Associates (1972); The Methods and Materials of Demography. Condensed Edition by Edward Stockwell, Academic Press, New York, USA.

Hinde, Andrew (1998); Demographic Methods. MPG Books, Great Britain.

Pressant, Roland (1985); The Dictionary of Demography, Dotesios Printers Ltd, Trowbridge, Wiltshire.

Pressat, Roland (1988); The Dictionary of Demography. Basil Blackwell Ltd, United Kingdom.

Shryock Henry S. et al (1976); The Methods and Materials of Demography. Academic Press INC, London.

United Nations (1983); Manual X: Indirect Techniques for Demographic Estimation. UN, New York, USA.

United Nations (1996); Manual for the Development of Statistical Information for Disability Programmes and Policies, New York, USA.

United Nations (2001); Guideline and Principles for the Development of Disability Statistics, New York.

United Nations (1996); Manual for the development of Statistical information for disability programs and policies, New York., 1996

World Health Organisation (2002); World Mortality in 2000: Life Tables for 191 Countries. World Health Organisation (WHO), Geneva.

Appendix A

KEY PERSONS INVOLVED IN THE ANALYSIS

Analysts

- **Margaret Tembo Mwanamwenge**
- **Chibwe Lwamba**
- **Iven Sikanyiti**
- **Patrick Mumba Chewe**
- **Sheila Shimwambwa Mudenda**
- **Christine S. Chikolwa**
- **Stanely Kamocha**
- **Besa Muwele**
- **Solomon Tembo**
- **Mushota Kabaso**
- **Richard Banda**
- **Goodson Sinyenga**

Assistant Analysts

- **Litia Simbangala**
- **Alfeyo Chimpunga**
- **Josephine Chewe**
- **Chola Nakazwe**
- **Gerson Banda**
- **Musumali Shindano**
- **Palver Sikanyiti**
- **Linda Chonya**
- **Chilelu Kakanwa**

Internal Editors

- **Dr. Buleti G. Nsemukila**
- **William C. Mayaka**
- **Modesto F. C. Banda**
- **Peter Mukuka**
- **John Kalumbi**
- **Margaret Tembo Mwanamwenge**
- **Chibwe Lwamba**

- **Patrick Mumba Chewe**
- **Dorothy Kaemba**
- **Chola Nakazwe**
- **Palver Sikanyiti**
- **Josephine Chewe**

External Editors

- **Dr. Greater Banda**
- **Dr. Jacob R. S. Malungo**
- **Dr. Rosemary Musonda**
- **Dr. Alex Simwanza**
- **Bwendo Mulengela**
- **Raymond Chipoma**
- **Sapriano Banda**
- **Linda Bangweta**
- **Edward C. Simukoko**
- **Bupe Musonda**
- **Keizia Mbita Katyamba**
- **Solomon Kagulula**
- **Doris Mutunwa**

Programmers

- **Joseph V. Chanda**
- **George Namasiku**
- **Elijah Kashona**
- **Gift Himuhya**

- **Anthony Nkole**
- **Perry Musenge**
- **Webster S. Chileshe**
- **Makoselo C. Bowa**

Support Staff

- Margaret M. Ndakala
- Chilekwa Munkonge
- Alice Mbewe
- Micheal Kunda
- Akayombokwa Ngubai