



**ZAMBIA**

# **2010 CENSUS OF POPULATION AND HOUSING**

## **WESTERN PROVINCE ANALYTICAL REPORT**

Published by

Central Statistical Office  
Nationalist Road  
P.O. Box 31908  
Lusaka

[www.zamstats.gov.zm](http://www.zamstats.gov.zm)  
email: [info@zamstats.gov.zm](mailto:info@zamstats.gov.zm)

March, 2014

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# Foreword

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The 2010 Census of Population and Housing was conducted between 16th October and 15th November 2010. Complete enumeration in all parts of the country was achieved by 30th November 2010. The 2010 Census of Population and Housing marked the fifth national population census that Zambia has successfully conducted since independence in 1964. Previous censuses were conducted in 1969, 1980, 1990 and 2000.

This report presents analytical results of the population in Western Province based on data from the 2010 Population and Housing Census. The report presents detailed analysis of issues of Population Size, Growth and Distribution; Education, Economic characteristics, Disability and Coverage and Content errors.

I would like to thank all our cooperating partners that supported the 2010 Census of Population and Housing. Special gratitude goes to the United Nations Population Fund (UNFPA), the United Kingdom AID (UKAID-formerly DFID), the United States Agency for International Development (USAID) and the African Development Bank (AfDB) for their material, financial and technical support to the Government of the Republic of Zambia (GRZ) and the Central Statistical Office (CSO) during this mammoth national exercise.

I also extend my sincere gratitude to the people of Western Province and all the residents of Western Province for the support and cooperation during the census. I hope the information contained in this report will be effectively used by all to plan and deliver development to the people of Western Province.



Alexander B. Chikwanda, MP  
Minister of Finance

March, 2014



## Acknowledgements

The 2010 Census of Population and Housing was successfully conducted between 16th October and 15th November 2010. However, field enumeration was only concluded in all parts of the country on 30th November 2010. Scanning of the 2010 Census questionnaires started in April 2011 and was successfully concluded in August 2011. Data verification and development of edit and imputation specifications and programmes started in May and was completed in November 2011.

I would like to commend and thank the Government of the Republic of Zambia (GRZ) for its commitment to take stock of its population including special groups by conducting the 2010 Census of Population and Housing. I would like to pay gratitude to the Treasury headed by the then Secretary to the Treasury Mr. Likolo Ndalamei and the current Secretary to the Treasury Mr. Fredson K. Yamba for their personal commitment to the 2010 Census. The continued support from the Government is a great indicator of the importance attached to information for planning and monitoring the development agenda set forth.

I would also like to pay sincere gratitude to UNFPA, UKAID, USAID and AfDB for the financial, material and technical support so far rendered to the 2010 Census.

I take special mention of the National Census Committee chaired by the then Secretary to the Cabinet, Dr. Joshua L. Kanganja, assisted by Mr. C. Evans Chibiliti, the then Deputy Secretary to the Cabinet (Finance and Economic Development). I also acknowledge the immense contribution of the National Census Steering Committee, the Provincial Census Committees and the District Census Committees in supporting the day-to-day monitoring and supervision of the entire census operation at the national, provincial and districts levels, respectively.

I extend sincere appreciation and gratitude to the various administrative and technical committees that spearheaded the preparation and execution of the 2010 Census of Population and Housing at different levels. These include the Cartographic Technical Committee chaired by the Surveyor General Mr. Danny Mubanga, Planning and Methodology Committee Chaired by Dr. Namuunda Mutombo (UNZA), Census Publicity Committee chaired by Mr. Gilbert Maimbo (former Director – ZANIS), the Logistics and Security Committee chaired by Mr. Daniel Bowasi (former Director Human Resource and Administration Ministry of Finance and National Planning) and the Data Processing Committee chaired by the late Dr. Jacob Mulenga from Centralised Computer Services Department (CCSD) of Ministry of Finance and National Planning.

I would further like to thank the 2010 Census Secretariat, in particular the former Deputy Director in charge of Social Statistics, Mr. William C. Mayaka, Mr. Iven Sikanyiti (Current Deputy Director in charge of Social Statistics), the former Census Manager, Mr. Richard Banda and the Current Census Manager, Ms. Nchimunya Nkombo, Mr. Palver Sikanyiti (Deputy Census Manager), Mr. Modesto Banda (Former Deputy Director - Agriculture and Environment Statistics), Mr. Peter Mukuka (Former Deputy Director - Information, Research and Dissemination), Mr. Goodson Sinyenga (Deputy Director -

Economic Statistics) and other members of the Secretariat for their dedication and hard work during the most challenging and difficult stages of the Census. Special recognition goes to the census analysis team for the tireless work of putting this report together.

I would like to extend and recognize the contribution of the data processing staff for the hard work and commitment during the data capture and processing of the 3.2 million census questionnaires. Special mention should be made of the IT Manager, Mr. Frank Kakungu and his Assistant Ms. Catherine Mwape, Mr. Chanda Lubemba, Senior Systems Analyst (Examinations Council of Zambia), Ms. Barbara Muyabi, Mr. Michelo Munzele and Mr. Siphon Inambao for effectively and efficiently coordinating the entire data processing exercise.

I also thank the mapping and cartographic teams for their work during the preparatory phase. I extend gratitude to the Regional Statisticians for effectively supporting the 2010 Census exercise from preparation, enumeration and post enumeration phases. I also make mention of the Provincial Census Officers, all the Master Trainers and Assistant Master Trainers for effectively coordinating the census in the various provinces and districts of assignment. I thank all the Supervisors and Enumerators for the job well done and for enduring the challenges of census data collection. Special gratitude go to staff of the Central Statistical Office and other institutions who all in one way or the other contributed to the successful conduct of the 2010 Census.

Lastly but not the least, I would like to extend my sincere gratitude to the technical staff from the US Bureau of the Census, for their dedication and commitment during the development of edit and imputation specifications and programmes, data verification and editing, tabulation of the 2010 Census data and demographic data analysis. The skills transfer and capacity building that was done during this process will continue to serve CSO for many years to come.

I also thank the two census advisors Dr. Jeremiah Banda from AfDB and Dr. Griffith Feeney from DFID for their technical support to the census.

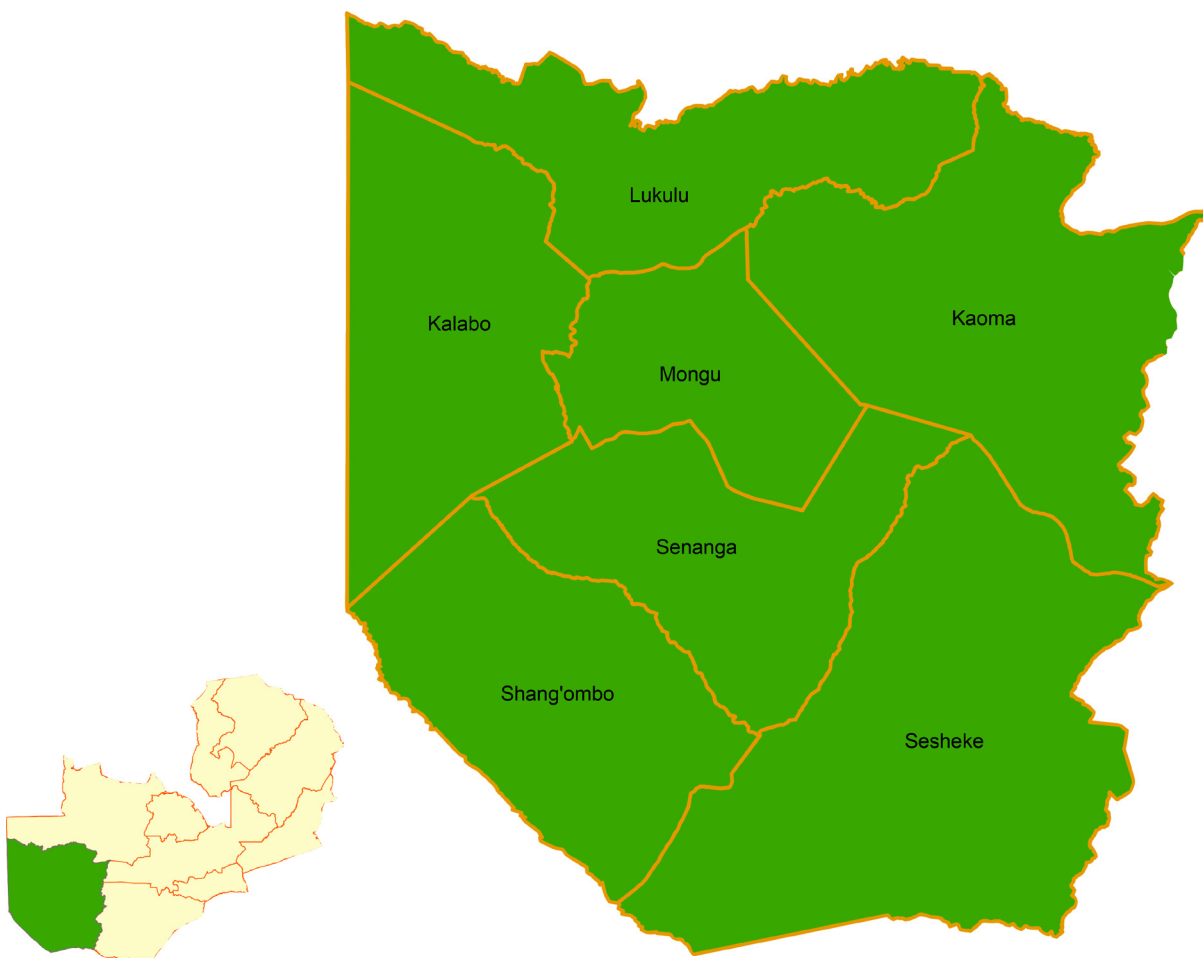
I hope all stakeholders and data users will make effective use of this Analytical Report.



John Kalumbi  
Director  
Census and Statistics

March, 2014

## **Chapter 1: Provincial Profile; Western Province**



# Chapter 1

## Provincial Profile: Western Province



### 1.0 Introduction

Western Province covers an area of 126,386 square kilometres, which is about 17 percent of the total area of Zambia. The province has the largest land area and the third lowest concentration of people in Zambia.

### 1.1 Administration

Western Province is administratively divided into seven districts, namely; Kalabo, Kaoma, Lukulu, Sesheke, Mongu, Senanga and Shangómbo. At the time of the 2010 Census, Western Province had 17 constituencies and 150 wards. The provincial administration offices are situated in Mongu District.

### 1.2 Natural resources

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

Sioma River Camp is located 12 km south of the Sioma (Ngonye) Falls midway between Sesheke and Senanga in Western Province, 315 km from Livingstone (Victoria Falls) and 113 km from Katimo Mulilo, the border post between Zambia and Namibia.

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.

Western Province is famous for the rich culture and the annual traditional ceremony by the Lozi speaking people called Kuomboka. Kuomboka is a word in the Lozi Language which literally means to get out of water. The Ceremony involves the re-location of the Lozi Paramount Chief (Litunga) from the winter palace Lealui to the summer palace Limulunga.

Among other tourist attractions include national parks namely; Liuwa plain (situated on the Upper Zambezi Flood Plains) and Sioma Ngwezi national parks covering the areas of 3,660 square kilometres and 5,000 square kilometres of vast grassland and wooded islands respectively.

### 1.3 Languages

English is the official language of communication and instruction in Western Province. The main local language of communication in Western Province is Lozi spoken by the majority, followed by Mbunda. However, there are a number of other local languages spoken in the province.

### 1.4 Religion

Zambia was officially declared a Christian nation according to the 1996 constitution while upholding the right of every person to enjoy that persons freedom of conscience or religion.

### 1.5 Health

In 2010, the health system in the province had 13 hospitals, 137 Health Centres and 24 Health Posts. Government Health Facilities were 159, Private Health Facilities were 4 and Mission Health Facilities were 11.

**Table 1.1: Number of Health Facilities by Facility Type, Ownership and District, Western Province 2010**

Type of Facility	District							
	Total	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shangombo
Level 3 Hospital	0	0	0	0	0	0	0	0
Level 2 Hospital	1	0	0	0	1	0	0	0
Level 1 Hospital	12	2	4	1	0	1	3	1
(UHCs)	10	1	2	1	4	1	1	0
(RHCs)	127	17	26	13	24	16	16	15
Health Posts (HPs)	24	1	2	4	4	5	5	3
<b>Total</b>	<b>174</b>	<b>21</b>	<b>34</b>	<b>19</b>	<b>33</b>	<b>23</b>	<b>25</b>	<b>19</b>
<b>Ownership</b>								
GRZ	159	19	30	17	33	23	21	16
Mission	11	2	2	1	0	0	4	2
Private	4	0	2	1	0	0	0	1
<b>Total</b>	<b>174</b>	<b>21</b>	<b>34</b>	<b>19</b>	<b>33</b>	<b>23</b>	<b>25</b>	<b>19</b>

Source: Ministry of Health, 2010

The disease burden in the province has been compounded by the HIV/AIDS pandemic, which is a major concern in the province. The 2007 Zambia Demographic and Health Survey estimated the

HIV prevalence to be 15.2 percent among adults aged 15-49 years for Western Province. The infant mortality rate was 97 deaths per 1000 live births. The under-five mortality rate was 139 deaths per 1000 live births.



## 1.6 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. Not only are 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. The province is also a natural habitat for fruit trees. Another economic activity being done is fishing.

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 fruits and mangoes.

The agriculture sector over the period 2005 to 2010 achieved a number of successes in the province. All key crops recorded an increase in production especially maize and cassava. Cassava production had the highest increase of 492,270 metric tonnes between 2004/2005 and 2009/2010 farming seasons, representing an increase of 416.2 percent.

During the same period, Rice production also recorded an increase of 8,978 metric tonnes representing 425.5 percent over the 2005 production levels. Western Province was among the provinces with the highest production increase in maize and cassava.

## 1.7 Education

In the education sector, a number of schools, classrooms and teachers' houses were rehabilitated, expanded and constructed in Western Province in order to increase access to education. Access to education varied among the regions, Western Province had the lowest at 45 percent (MOF, 2011).

The province had a total of 535 schools, of which 437 were primary schools, 76 basic schools and 22 secondary schools. The province had two primary school teachers training colleges.

The provincial literacy level was at 61.6 percent among persons aged 5 years and older, 82.0 percent among the youths and 72.5 percent among the adults. The percentage of persons currently attending school was at 29.6 percent. For basic education infrastructure during the period 2006 to 2009, Western Province had 59 basic schools constructed and 54 rehabilitated. In the same period, 267 classrooms and 16 teachers' houses were constructed (MOF, 2011).

## 1.8 Gender Issues

Gender issues are concerned with promoting equality between the sexes and improvement in the status of both women and men in society. It is well understood that social and economic development can only be attained when there is equal participation of both men and women in the development process.

Zambia's vision on gender as stated in the "Vision 2030" is to achieve gender equity and equality in the socio-economic development process by 2030. In this regard, the government has put in place a Gender policy which ensures the advancement of gender mainstreaming policies and legislation.

## 1.9 Poverty

Western Province is among provinces with the highest poverty levels. The living conditions monitoring surveys results of 2006 and 2010 shows that overall poverty levels in Western Province declined from 83.3 percent in 2006 to 80.4 percent in 2010. On the other hand, extreme poverty declined by 0.6 percentage points, from 64.6 percent in 2006 to 64.0 percent in 2010.

**Table 1.2: Overall and Extreme Poverty by Rural/Urban, Western Province 2006 and 2010**

Province/ Rural-Urban	2006		2010	
	Overall %	Extreme %	Overall %	Extreme %
Western	83.3	64.6	80.4	64.0
Rural	87.6	69.4	85.7	69.5
Urban	55.8	33.6	46.5	28.5

Source: CSO: Living Conditions Monitoring Statistics, 2006 and 2010

### 1.10 Census of population and Housing Undertaking

The 2010 Census is the fifth National Census of Population and Housing conducted in Zambia since independence in 1964. The country has so far conducted censuses in 1969, 1980, 1990 and 2000.

The 2010 Census of Population and Housing was carried out from 16th October to 15th November, 2010. Field staff included school leavers who worked as Census Enumerators and Census Supervisors who were mostly teachers and civil servants. Some Civil Servants from various government departments and ministries worked as Master Trainers, Assistant Master Trainers and Provincial Census Officers.

#### 1.10.1 The Main Objectives of the Census of Population and Housing

The main objectives of the 2010 Census of Population and Housing included:

- To provide accurate and reliable information on the size, composition and distribution of the population of Zambia at the time of the census;*
- To provide information on the demographic and socio-economic characteristics of the population of Zambia at the lowest administrative level - the Constituency and Ward;*
- To provide indicators for measuring progress towards national and international development goals in a timely and user friendly manner;*
- To provide information on the number and characteristics of households engaged in agriculture and other economic activities;*
- To provide an accurate sampling frame for future inter-censal household and population based surveys;*
- To provide information identifying the number of eligible voters for the 2011 General Elections.*

- *To provide a census that meets national and international standards and allows for comparability with other censuses;*
- *To provide information on the housing characteristics of the population.*

### 1.10.2 Methodologies Applied in the 2010 Census of Population and Housing

Prior to the 2010 Census undertaking, a comprehensive mapping exercise was conducted. The mapping strategy for 2010 census was Geographical Information System (GIS) driven and involved the use of the Global Positioning System (GPS) and satellite imagery. The GPS was used to map rural areas while the urban areas were mapped using high resolution satellite imagery.

The 2010 Census used a single questionnaire to capture individual, household and housing characteristics from the population, whereas the 2000 Census used two different questionnaires, Form A (Household and Housing Characteristics) and Form B (Individual Characteristics) to collect information from the population.

During data capturing, the 2010 Census used Optical Mark Reading (OMR) and Intelligent Character Recognition (ICR) technology, whereas the 2000 Census used the OMR technology only.

The 2010 Census included the following questions which were not in the 2000 census:

- *Deaths of Household Members during the 12 months period prior to the census enumeration, as well as cause of death for all reported deaths.*
- *Maternal deaths to women aged 12–49 years during the reference period (12 months prior to the Census).*
- *Albinism.*
- *Orphanhood and Fosterhood*

The 2010 Census used school leavers that had completed their Secondary School Education within 2 to 5 years prior to the Census as Enumerators while the 2000 Census used Grade Eleven School Pupils.

### 1.10.3 Presentation of Results

The analysis in this report is based on the geography that existed at the time of the census in 2010.

## **CHAPTER 2**

# **POPULATION SIZE, GROWTH AND DISTRIBUTION**

### **2.0 Summary**

In 2010, the population for Western Province was 902,974. This was an increase from 765, 088 in 2000. The population grew at an average annual rate of 1.7 percent during the 2000-2010 inter-censal period. This average annual rate was lower than 1.8 percent recorded in 1990-2000 inter-censal period.

In 2010, 13.3 percent of the population was residing in urban areas while 86.7 percent was in rural areas. Kaoma District had the largest population at 189,290, followed by Mongu District with 179,585. Lukulu District had the lowest population at 86,002.

The province is sparsely populated with a population density of 7.1 persons per square kilometre. Mongu District was the most densely populated with 17.8 persons per square kilometre while Sesheke District was the least densely populated with 3.4 persons per square kilometre.

# Chapter 2

## Population Size, Growth and Distribution



### 2.1 Introduction

This chapter presents an analysis of the size, growth and distribution of the population for Western Province. Trends in the population size, growth and distribution are also presented using data from previous censuses.

### 2.2 Concepts and Definitions

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

#### De Facto Population

This refers to household members and visitors who spent the census night at a household. However, this excludes:

- *Foreign diplomatic personnel accredited to Zambia*
- *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.*

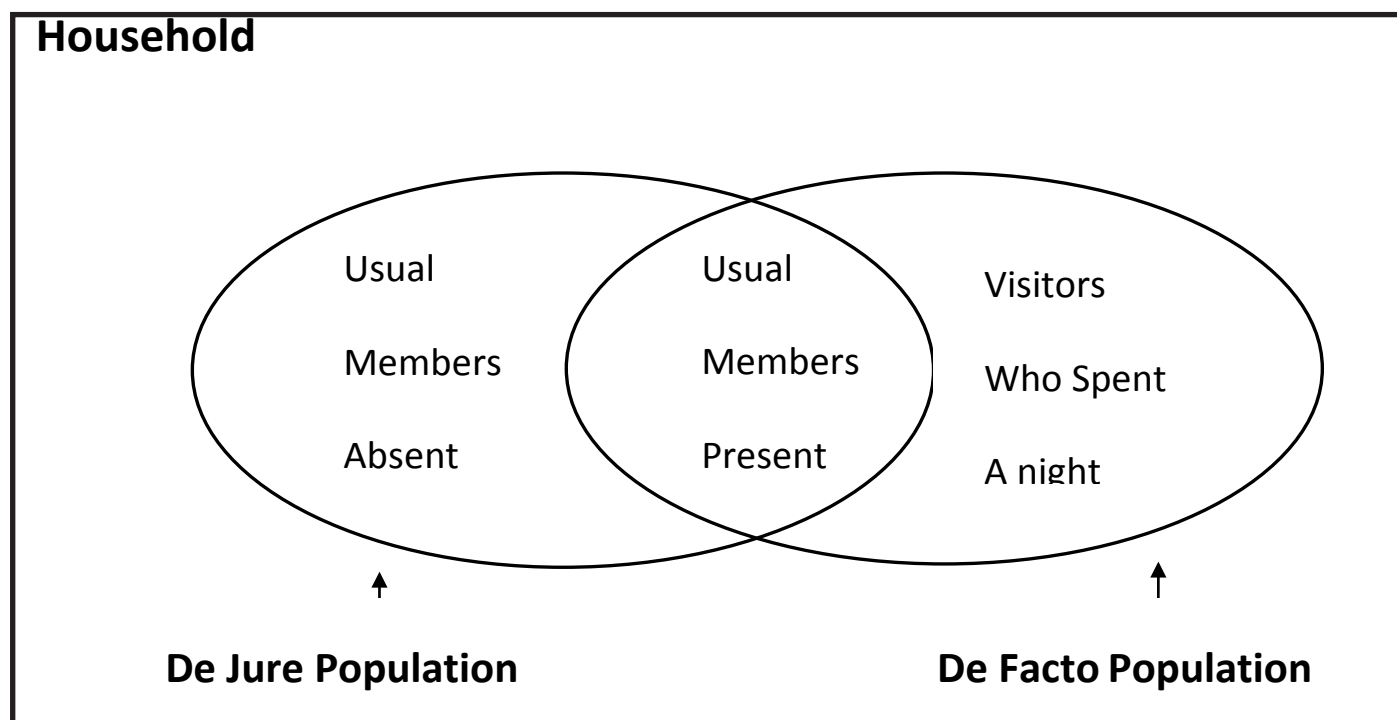
#### De jure Population

This refers to usual household members present and usual household members temporarily absent at the time of the census. In a de jure Census, institutional populations in places such as hospitals or health centres, prisons and academic institutions like universities, colleges and boarding schools are counted as members of their usual household. Figure 2.1 presents a diagrammatic picture of the de facto and de jure populations.

#### De Jure and De facto Populations

The de jure count is considered the true or resident population of a country. It is used for the age-sex distribution and is also used as a denominator in the calculation of vital indicators for sectors such as education e.g. deriving gross and net enrolment rates. However, the de jure population is not used in the analysis of data on various social, economic and health characteristics as some variables would be missing for individuals who were absent from the household at the time of the census.

Figure 2.1: Diagrammatic presentation of the De facto and the De jure Populations



#### Population Growth Rate

This 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, it gives the average annual growth rate for each year of the inter-censal period.

### 2.3 Population Size

This is the absolute number of people that was enumerated at the time of the census. Table 2.1 shows the population size for Western Province by rural/urban from 1990 to 2010. The population in Western Province increased from 638,756 in 1990 to 765,088 in 2000 and further increased to 902,974 in 2010. This represented a percentage increase of 19.8 percent in 1990-2000 inter-censal period and 18.0 percent in 2000-2010 inter-censal period.



**Table 2.1: Population Size by Rural/Urban, Western Province 1990- 2010.**

Rural/Urban	1990-2000			2000-2010		
	1990	2000	Percent change	2000	2010	Percent Change
<b>Western Province</b>	<b>638,756</b>	<b>765,088</b>	<b>19.8</b>	<b>765,088</b>	<b>902,974</b>	<b>18.0</b>
Rural	558,364	679,562	21.7	679,562	783,123	15.2
Urban	80,392	85,526	6.4	85,526	119,851	40.1

Sources: 1990, 2000 and 2010 Censuses of Population and Housing.

The population in rural areas increased from 679,562 in 2000 to 783,123 in 2010 while the urban population increased from 85,526 in 2000 to 119,851 in 2010. This represents an increase of 15.2 percent in rural and 40.1 percent in urban areas.

Table 2.2 shows the percentage distribution of the population by sex and rural/urban for Western Province in 2010. Of the total population in 2010, there were 433,505 males and 469,469 females. This constituted 48.0 and 52.0 percent of the total population for males and females, respectively.

**Table 2.2: Total Population (De jure) and Percent Distribution by Sex and Rural/urban, Western Province, 2010**

Rural/Urban	Total Population		Male Population		Female Population	
	Number	Percent	Number	Percent	number	Percent
<b>Western Province</b>	<b>902,974</b>	<b>100</b>	<b>433,505</b>	<b>48.0</b>	<b>469,469</b>	<b>52.0</b>
Rural	783,123	100	375,753	48.0	407,370	52.0
Urban	119,851	100	57,752	48.2	62,099	51.8

Sources: 2010 Census of Population and Housing.

Table 2.3 shows the distribution of the total population by sex, rural/urban and district for Western Province. Kaoma District

had the largest population at 189,290 followed by Mongu District with 179,585. Lukulu District had the lowest population at 86,002.

**Table 2.3: Total Population (DE Jure) by Sex, Rural/Urban and District, Western Province 2010.**

District	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
<b>Western Province</b>	<b>902,974</b>	<b>433,505</b>	<b>469,469</b>	<b>783,123</b>	<b>375,753</b>	<b>407,370</b>	<b>119,851</b>	<b>57,752</b>	<b>62,099</b>
Kalabo	128,904	60,114	68,790	125,602	58,543	67,059	3,302	1,571	1,731
Kaoma	189,290	91,872	97,418	169,439	82,214	87,225	19,851	9,658	10,193
Lukulu	86,002	41,390	44,612	75,427	36,319	39,108	10,575	5,071	5,504
Mongu	179,585	85,964	93,621	127,261	60,860	66,401	52,324	25,104	27,220
Senanga	126,506	60,428	66,078	112,404	53,652	58,752	14,102	6,776	7,326
Sesheke	99,384	48,913	50,471	81,946	40,448	41,498	17,438	8,465	8,973
Shang'ombo	93,303	44,824	48,479	91,044	43,717	47,327	2,259	1,107	1,152

Source: 2010 Census of Population and Housing.

Mongu District was the most urbanized with an urban population of 52,324 while Shang'ombo District had the smallest urban population at 2,259. Kaoma District recorded the largest rural population at 169,439 while Lukulu District recorded the smallest rural population at 75,427.

Table 2.4 shows population distribution by district and sex. In 2000, Kaoma District had the largest population (162,568) while Lukulu District recorded the smallest population (68,375). In 2010, similar trends were observed with Kaoma having the largest population (189,290) and Lukulu with the smallest population (86,002).

**Table 2.4: Population (De jure) by Sex and District, Western Province 2000 and 2010.**

District	2000			2010		
	Total	Male	Female	Total	Male	Female
<b>Western Province</b>	<b>765,088</b>	<b>371,844</b>	<b>393,244</b>	<b>902,974</b>	<b>433,505</b>	<b>469,469</b>
Kalabo	114,806	54,176	60,630	128,904	60,114	68,790
Kaoma	162,568	79,346	83,220	189,290	91,872	97,418
Lukulu	68,375	33,585	34,790	86,002	41,390	44,612
Mongu	162,002	79,300	82,702	179,585	85,964	93,621
Senanga	109,119	52,587	56,532	126,506	60,428	66,078
Sesheke	78,169	39,355	38,814	99,384	48,913	50,471
Shang'ombo	70,049	33,493	36,556	93,303	44,824	48,479

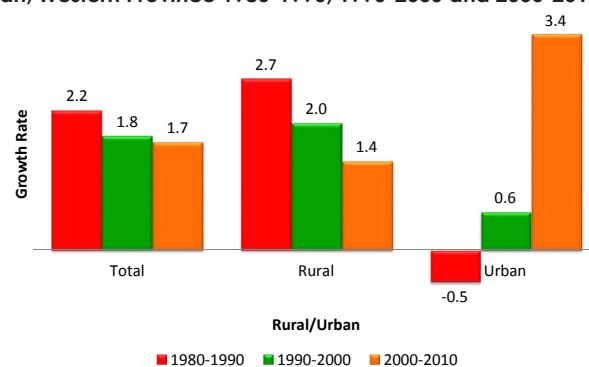
Source: 2000 and 2010 Censuses of Population and Housing.

## 2.4 Population Growth

The population of Western Province has continued to grow over the past three decades. Figure 2.2 shows average annual population growth rate for Western Province between 1980 and 2010. The population grew at an average annual population growth rate of 1.7 percent during the 2000 to 2010 inter censal period. This was a decrease from an average annual growth rate of 1.8 percent recorded during the 1990-2000 inter-censal period. During the 1980-1990 inter-censal period, the province had recorded a growth rate of 2.2 percent.

The urban population grew at a rate of 3.4 percent per annum between 2000 and 2010. This was an increase from 0.6 percent recorded between 1990 and 2000. The rural population grew at a rate of 1.4 percent per annum between the 2000 and 2010 inter-censal period. This was a decrease from 2.0 percent recorded in the 1990-2000 inter-censal period.

Figure 2.2: Average Annual Rate of Population Growth by Rural/Urban, Western Province 1980-1990, 1990-2000 and 2000-2010



Sources: 1980, 1990, 2000 and 2010 Censuses of Population and Housing.

Table 2.5 shows the average annual population growth rate for Western Province by rural/urban and district during the 2000-2010 inter-censal period.

Rural/Urban	Population Size 2000	Population Size 2010	Annual Growth Rate (2000-2010)
<b>Western Province</b>	<b>765,088</b>	<b>902,974</b>	<b>1.7</b>
Rural	679,562	783,123	1.4
Urban	85,526	119,851	3.4
<b>District</b>			
Kalabo	114,806	128,904	1.2
Kaoma	162,568	189,290	1.5
Lukulu	68,375	86,002	2.3
Mongu	162,002	179,585	1.0
Senanga	109,119	126,506	1.5
Sesheke	78,169	99,384	2.4
Shang'ombo	70,049	93,303	2.9

Source: 2000 and 2010 Censuses of Population and Housing.

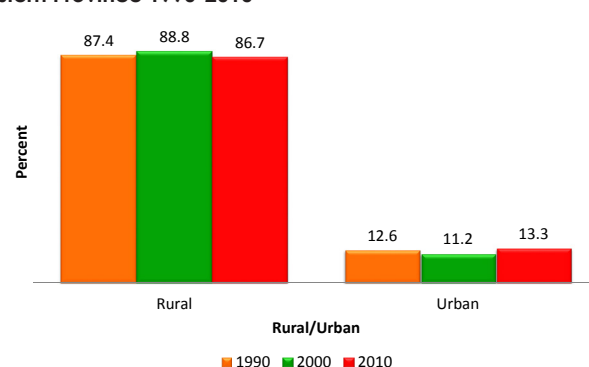
Shang'ombo District had the fastest growing population with an average annual population growth rate of 2.9 percent in the 2000-2010 inter-censal period while Mongu District had the lowest growth rate at 1.0 percent per year.

## 2.5 Population Distribution

The population of Western Province has remained largely rural. Figure 2.3 shows the percentage distribution of the population by rural/urban in 1990, 2000 and 2010.

Between 1990 and 2000, the rural population of Western Province increased from 87.4 percent to 88.8 percent and then reduced to 86.7 percent in 2010. The urban population was 12.6 percent in 1990 and reduced to 11.2 percent in 2000 and later increased to 13.3 percent in 2010.

Figure 2.3: Percentage Distribution of Population by Rural/Urban, Western Province 1990-2010



Sources: 1990, 2000 and 2010 Censuses of Population and Housing.

Table 2.6 shows the percentage distribution of the population by rural/urban and district from 2000 to 2010. Between 2000 and 2010, the contribution of Kalabo, Kaoma, Mongu and Senanga

districts to the provincial population reduced while that of Lukulu, Sesheke and Shangombo districts increased.

District and Rural/Urban	2000		2010		Percentage Change
	Population	Percent	Population	Percent	
<b>Western Province</b>	<b>765,088</b>	<b>100</b>	<b>902,974</b>	<b>100</b>	
Rural	679,562	88.8	783,123	86.7	-2.1
Urban	85,526	11.2	119,851	13.3	2.1
<b>District</b>					
Kalabo	114,806	15.0	128,904	14.3	-0.7
Kaoma	162,568	21.2	189,290	21.0	-0.2
Lukulu	68,375	8.9	86,002	9.5	0.6
Mongu	162,002	21.2	179,585	19.9	-1.3
Senanga	109,119	14.3	126,506	14.0	-0.3
Sesheke	78,169	10.2	99,384	11.0	0.8
Shang'ombo	70,049	9.2	93,303	10.3	1.1

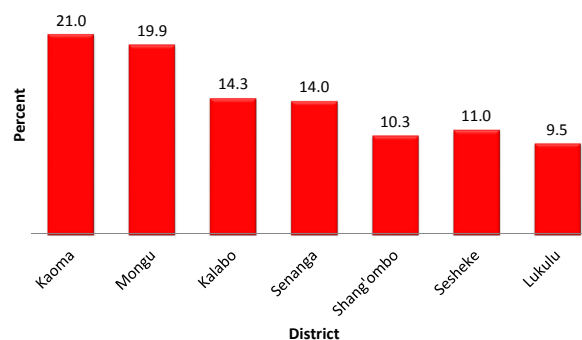
Sources: , 2000 and 2010 Censuses of Population and Housing.

Figure 2.4 shows the percentage distribution of the population by district. In 2010, Kaoma District had the largest proportion of the population at 21.0 percent while Lukulu District had the smallest population at 9.5 percent.

## 2.6 Population Density

Population density is defined as the total number of persons per square kilometre. Table 2.7 shows Western Province's area and population density by district in 2000 and 2010. Western Province has a total surface area of 126,386 square kilometres. The province was sparsely populated with a population density of 7.1 persons per square kilometre representing an increase of 0.9 persons per square kilometre from 2000.

**Figure 2.4: Percentage Distribution of Population by Districts, Western Province 2010.**



**Table 2.7: Area and Population Density (De Jure) by District, Western Province 2010.**

District	Area (Sq.Km)	Population	Population Density (Population per Sq. Km)	
			2000	2010
<b>Western Province</b>	<b>126,386</b>	<b>902,974</b>	<b>6.2</b>	<b>7.1</b>
Kalabo	17,526	128,904	7.2	7.4
Kaoma	23,315	189,290	7.3	8.1
Lukulu	16,291	86,002	4.6	5.3
Mongu	10,075	179,585	12.6	17.8
Senanga	15,537	126,506	7.2	8.1
Sesheke	29,279	99,384	2.8	3.4
Shang'ombo	14,369	93,303	6.3	6.5

Source: 2000 and 2010 Censuses of Population and housing.

Mongu District had the highest population density of 17.8 persons per square kilometer. Kaoma and Senanga districts were second each with a population density of 8.1 persons per square

kilometer. Sesheke District was the least densely populated district at 3.4 persons per square kilometer.





## **CHAPTER 3**

# **POPULATION COMPOSITION AND DEMOGRAPHIC CHARACTERISTICS**

### **3.0 Summary**

Western Province had a young population with 46.5 percent of persons aged below 15 years.

The median age was 16.5 years. The median age was higher in urban areas at 18.5 years compared to 16.1 years in rural areas.

The Overall Dependency Ratio was 102.0 persons per 100 persons aged between 15 and 64 years. Child and Aged Dependency Ratios were 94.0 persons and 8.0 persons, respectively.

The overall sex ratio was 92.3 males per 100 females, while the sex ratio at birth was 104.0 males per 100 females.

# Chapter 3

## Population Composition and Demographic Characteristics



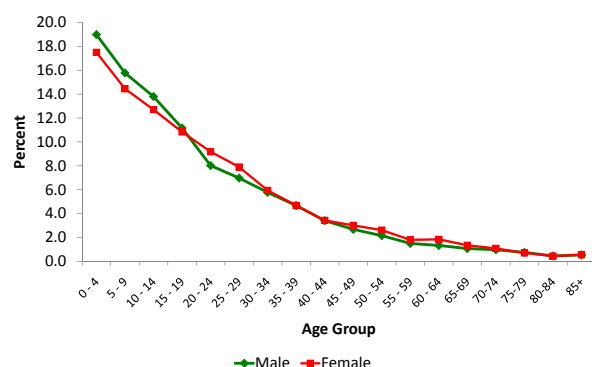
### 3.1 Population Composition

Information on the age and sex structure is essential in the analysis of demographic processes such as fertility, mortality and migration. The analysis in this chapter focuses on the age and sex composition of the population.

### 3.2 Age And Sex Composition

The 2010 Census collected information on sex and age in completed years at the time of enumeration. Figure 3.1 presents the percent age distribution by sex for the province in 2010. The distribution shows high percentages in the younger ages. The percentage decreases with increase in age.

**Figure 3.1: Percent Age Distribution by Sex, Western Province 2010**

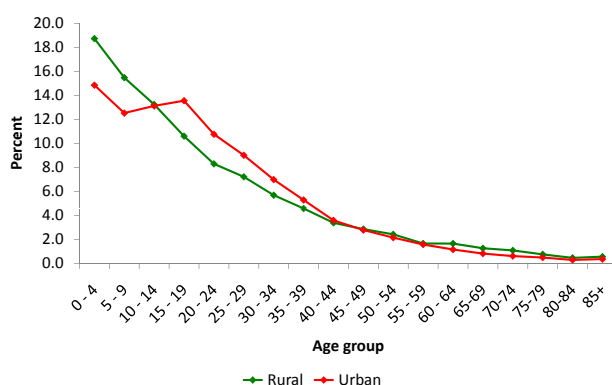


Source: 2010 Census of Population and Housing

A comparison between males and females shows minimal differences in the percentage distribution with an exception of the population aged 0-14 years and 20-29 years. The age group 0-14 years had fewer females while the age group 20-29 years had fewer males than females.

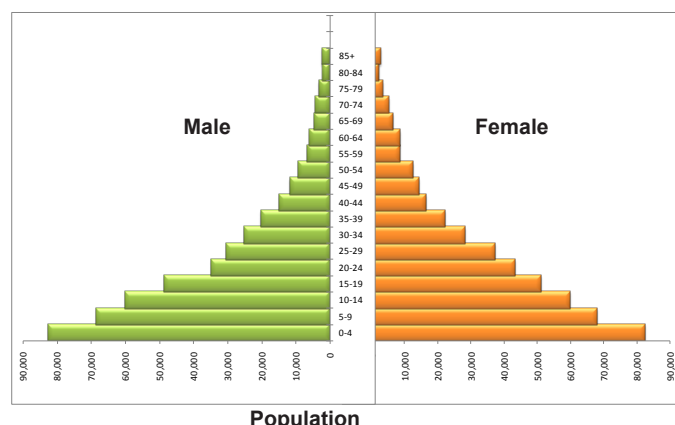
Figure 3.2 shows the age distribution by rural/urban. A comparison of the percentage distribution shows a higher percent of the population aged 0-9 years in rural areas. However, the proportion of the population aged 15-39 years in urban areas was higher than that of rural areas.

**Figure 3.2: Percent Age Distribution by Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

**Figure 3.2.1: Population Age and Sex Structure, Western Province 2010**

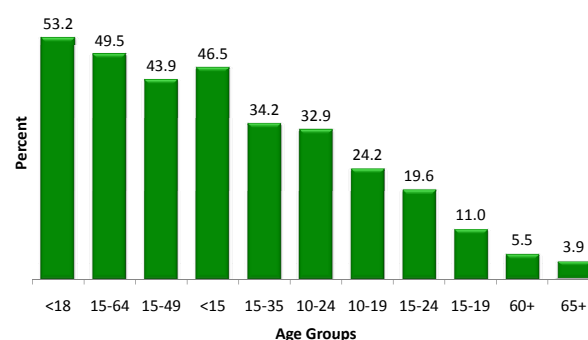


Source: 2010 Census of Population and Housing

For the purpose of policy interventions, proportions of some selected age groups have been presented. Selected age groups include adolescents aged 10-19 years; young people aged 10-24 years; children aged below 15 years; children aged below 18 years; persons in middle and later adolescence stages aged 15-19 years; youths aged 15-24 years; persons in the reproductive age group aged 15-49 years; youths aged 15-35 years; persons in the labour force aged 15-64 years and the elderly aged 60 years and older and 65 years and older.

Figure 3.3 shows the population proportions by selected age groups. The population aged below 18 years had the highest percent at 53.2. The elderly population aged 65 years and older had the lowest percent at 3.9. The population aged 15-24 and 15-35 years had proportions of 19.6 and 34.2 percent, respectively.

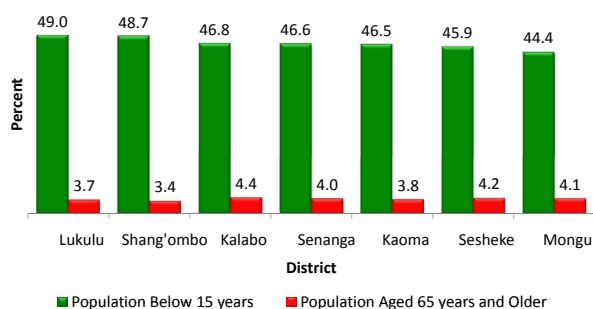
**Figure 3.3: Population Proportions by Selected Age Groups, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 3.4 shows the percentage distribution of children aged below 15 years and the elderly (65 years and older) by District. Lukulu District had the highest percentage of children below 15 years at 49.0 percent while Mongu District had the lowest at 44.4 percent. Kalabo District had the highest percentage of the elderly aged 65 years and older at 4.4 percent while Shang'oambo District recorded the lowest at 3.4 percent.

**Figure 3.4: Percentage Distribution of Population Aged Below 15 Years and the Population 65 Years and Older by District, Western Province 2010**



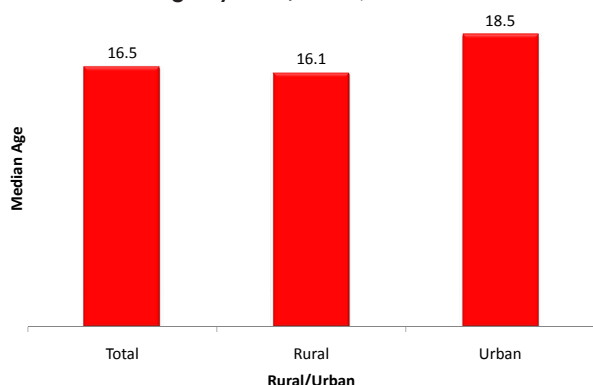
Source: 2010 Census of Population and Housing

### 3.3 Median Age

Median age is the age that divides the population into two numerically equal groups i.e. half the population are younger than that age while half are older. A median age that is lower than 20 years shows a young population; that between 20 and 30 years indicates an intermediate population that is either becoming younger or ageing; while a population with a median age above 30 years is an old population.

Figure 3.5 shows the median age by rural/urban. The median age for Western Province was 16.5 years. The median age was higher in urban areas at 18.5 years than in rural areas at 16.1 years.

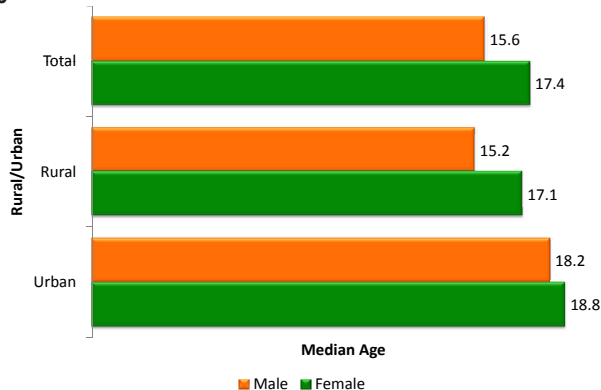
**Figure 3.5: Median Age by Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 3.6 shows the median age by sex and rural/urban. Overall, the median age was 15.6 and 17.4 years for males and females, respectively. The median age for females was generally higher than that of males.

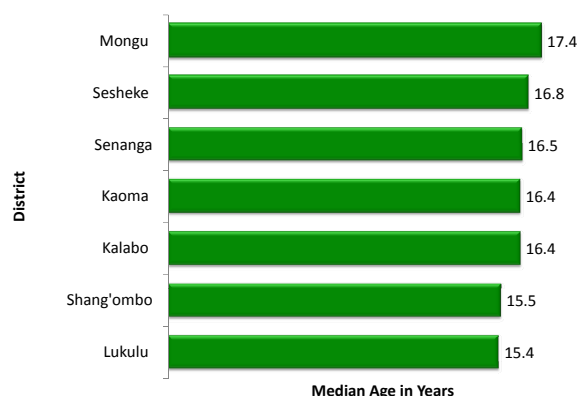
**Figure 3.6: Median Age by Sex and Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 3.7 shows the median age by District. The median age ranges from 15.4 years in Lukulu District to 17.4 years in Mongu District.

**Figure 3.7: Median Age by District, Western Province 2010**



Source: 2010 Census of Population and Housing

### 3.4 Age Dependency Ratio

Age Dependency Ratio is the ratio of population aged 0-14 years and persons aged 65 years and older, per 100 persons in the working age group of 15-64 years old. It shows the burden of dependency on the productive population.

The following age dependency ratios have been calculated in this section:

- a) Child Dependency Ratio:** The number of children aged below 15 years per 100 persons aged between 15 and 64 years
- b) Aged Dependency Ratio:** The number of persons aged 65 years and older per 100 persons aged between 15 and 64 years.
- c) Overall Dependency Ratio:** The number of children below 15 years and elderly persons aged 65 years and older per 100 persons aged between 15 and 64 years.

Table 3.1 shows Age Dependency Ratio in 1990, 2000 and 2010. In 2010, the Overall Dependency Ratio was 102.0 per 100 persons aged 15-64 years; while the Child and Aged Dependency Ratios were 94.0 and 8.0 persons for every 100 persons aged 15-64 years, respectively. Between 2000 and 2010, the Overall and Child Dependency Ratios decreased while the Aged Dependency Ratio increased.

**Table 3.1: Age Dependency Ratio, Western Province 1990, 2000 and 2010**

Western Province	Age Dependency Ratios	1990	2000	2010
	Overall Dependency Ratio	94.0	105.4	102.0
	Child Dependency Ratio	84.4	100.2	94.0
	Aged Dependency Ratio	9.6	5.2	8.0

Sources: 1990, 2000 and 2010 Censuses of Population and Housing

Table 3.2 shows the Overall, Child and Aged Dependency Ratio by District. Lukulu District had the highest Overall Dependency Ratio (111.5 persons) while Mongu District had the lowest (94.0 persons).

**Table 3.2: Overall, Child and Aged Dependency Ratios by District, Western Province 2010**

District	Age Dependency Ratios		
	Overall	Child	Aged
Kalabo	104.6	95.7	8.9
Kaoma	101.1	93.5	7.5
Lukulu	111.5	103.6	7.8
Mongu	94.0	86.1	7.9
Senanga	102.8	94.6	8.2
Sesheke	100.2	91.8	8.4
Shang'ombo	108.8	101.8	7.0

Source: 2010 Census of Population and Housing

### 3.5. Sex Composition

This section analyses the composition of males and females in the population using sex ratio. Sex ratio is the number of males per 100 females. This type of sex ratio is also called the masculinity ratio. A value above 100 indicates excess of males over females.

Another indicator analysed is sex ratio at birth, which is the ratio of males per 100 females at birth. The percent deficit male has been used to show the percent at which males are fewer than females. It is the difference between the male and female population divided by the total population, expressed as a percentage. A negative value shows a deficit of males while a positive value shows an excess of males.

#### 3.5.1 Sex Ratio and Percent Deficit of Males

Table 3.3 shows sex ratio and percent deficit of males by rural/urban and district. Western Province had fewer males per 100 females, with a sex ratio of 92.3. This indicates that a deficit of males amounted to 4.0 percent of the total population.

Sesheke District had the highest sex ratio at 96.9 males per 100, a 1.6 percent deficit of males. Kalabo District had the lowest sex ratio at 87.4 males per 100 females, translating into a 6.7 percent deficit of males.

**Table 3.3: Sex Ratio and Percent Deficit of Males by Rural/Urban and District, Western Province, 2010**

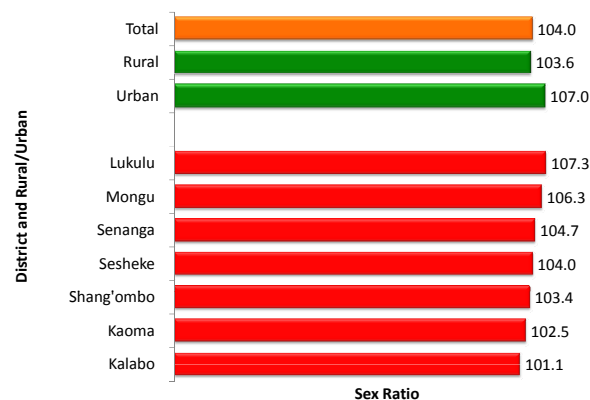
Region/ District	Sex Ratio	Percent Male Deficit
<b>Western Province</b>	<b>92.3</b>	<b>-4.0</b>
Rural	92.2	-4.0
Urban	93.0	-3.6
<b>District</b>		
Kalabo	87.4	-6.7
Kaoma	94.3	-2.9
Lukulu	92.8	-3.7
Mongu	91.8	-4.3
Senanga	91.4	-4.5
Sesheke	96.9	-1.6
Shang'ombo	92.5	-3.9

Source: 2010 Census of Population and Housing

#### 3.5.2 Sex Ratio at Birth

The births in the last twelve (12) months were used as a proxy for the calculation of the sex ratio at birth. Figure 3.8 shows the sex ratios by rural/urban and district. The sex ratio at birth in Western Province was 104.0 males per 100 females. In rural and urban areas, the sex ratio at birth was 103.6 and 107.0 males per 100 females, respectively.

**Figure 3.8: Sex Ratio at Birth by Rural/Urban and District, Western Province 2010**



Source: 2010 Census of Population and Housing

Lukulu District had the highest sex ratio at birth of 107.3 males per 100 females while Kalabo District had the lowest at 101.1 males per 100 females.



## **CHAPTER 4**

### **SOCIAL CHARACTERISTICS**

#### **4.0 Summary**

In 2010, Western Province recorded 441,717 persons aged 15 years and older. Of these 48.0 percent were married. Rural areas had a higher proportion of the population aged 15 years and older who were married (49.7 percent) compared to urban areas (38.6 percent).

For the population aged 15 years and older, the median age at first marriage was 21.2 years. The median age at first marriage was lower in rural areas at 21.0 years compared to urban areas at 22.7 years. Males had a higher median age at first marriage than females at 24.8 years and 19.6 years, respectively.

In 2010, Western Province had 180,179 households. There were more households in rural than urban areas at 156,026 and 24,153, respectively. The average household size in 2010 was 5.0 persons. Male headed households had a larger average household size at 5.4 than female headed households with 4.3 persons.

In terms of Religious affiliation, Protestants and Catholics made 84.2 percent and 11.3 percent of the population, respectively. Muslims and other religious affiliation made up 1.2 percent of the population.

More than three quarters (87.0 percent) of individuals aged below 18 years did not have birth certificates. Of the population aged 16 years and older, 80.9 percent had Green National Registration Cards.

## Chapter 4 Social Characteristics

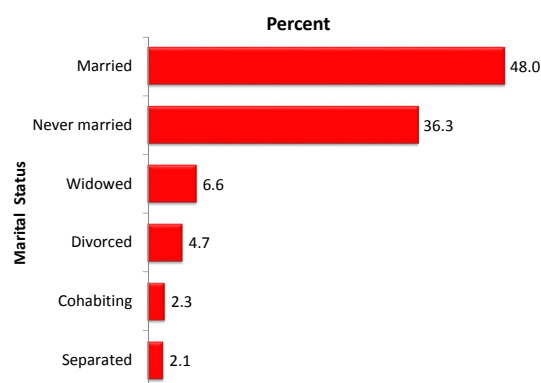


### 4.1 Marital Status

Marital status is the categorization of the population in relation to whether an individual has never been married, is married, cohabiting, separated, divorced or widowed. Marital status was analysed for the population aged 15 years and older. In 2010, the population aged 15 years and older in Western Province was 441,717. Of these 198,148 were males and 243,569 were females.

Figure 4.1 presents the percentage distribution of the population aged 15 years and older by marital status for Western Province. The figure shows that 48.0 percent of the population aged 15 years and older were married and 36.3 percent were never married. The widowed and divorced made up 6.6 percent and 4.7 percent of the population aged 15 years and older, respectively while 2.3 percent were cohabiting and 2.1 percent were separated.

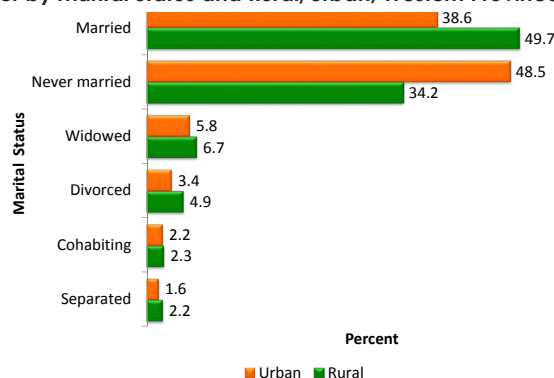
**Figure 4.1: Percentage Distribution of the Population Aged 15 years and Older by Marital Status, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 4.2 shows the percentage distribution of the population 15 years and older by marital status and rural/urban. The percentage of the married was higher in rural areas at 49.7 percent compared to urban areas at 38.6 percent. Urban areas had a higher percentage of the population aged 15 years and older who had never married at 48.5 percent compared to rural areas at 34.2 percent.

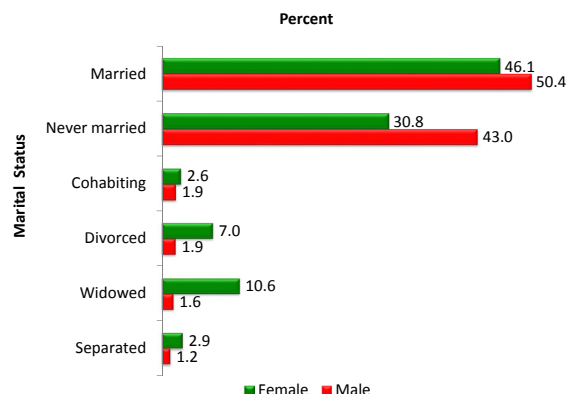
**Figure 4.2: Percentage Distribution of the Population 15 years and Older by Marital Status and Rural/Urban, Western Province 2010**



Source: 2010 Census of population and Housing.

Figure 4.3 shows the percentage distribution of the population aged 15 years and older by marital status and sex. There were more males who had never been married at 43.0 percent compared to their female counterparts at 30.8 percent. More females were widowed (10.6 percent) compared to males (1.6 percent).

**Figure 4.3: Percentage Distribution of the Population 15 Years and Older by Marital Status and Sex, Western Province 2010**



Source: 2010 Census of Population and Housing

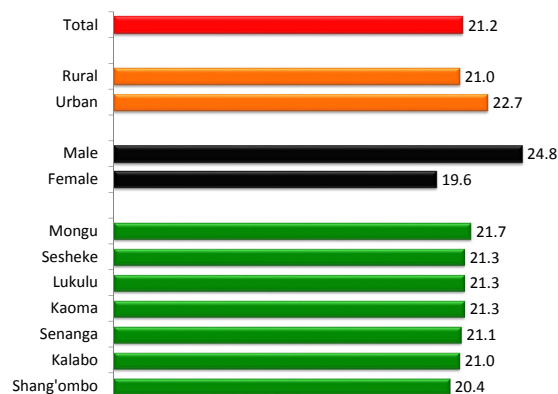
### 4.2 Median Age At First Marriage

Median age at first marriage divides the married population into two parts, showing that 50 percent got married before the median age and 50 percent married after reaching the median age.

Figure 4.4 shows the median age at first marriage by rural/urban, sex and district. The median age at first marriage for Western Province was 21.2 years for the population aged 15 years and older. The median age at first marriage was 21.0 years in rural areas and 22.7 years in urban areas. The median age at first marriage for males was 24.8 years while that of females was 19.6 years.

Mongu District had the highest median age at first marriage (21.7 years) while Shang'ombo District had the least with 20.4 years.

**Figure 4.4: Median Age at First Marriage by Rural/Urban, Sex and District, Western Province 2010**



Source: 2010 Census of population and Housing.

### 4.3 Household Composition

Household composition is a derived variable that classifies all households according to the relationships among the people in them, and whether there is a family nucleus present or not.

A **Household** refers to a group of people who normally live and eat together. These may or may not be related by blood, marriage or adoption, but make common provision for food or other essentials for living and they have only one person whom they all regard as head of household. A household can also have one member.

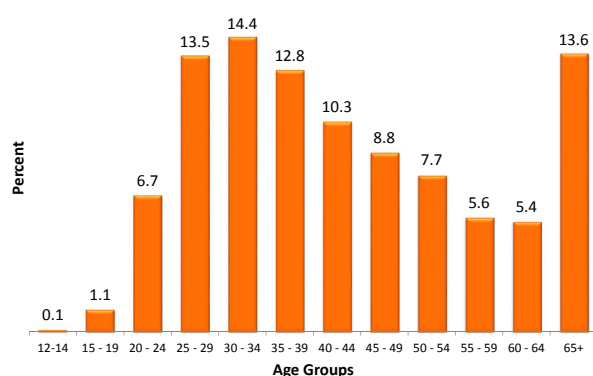
A **Household head** is a person all members of the household regard as the head. He or she makes day to day decisions governing the running of the household. In cases of one member households, the member is taken as the household head.

A **Usual household member** is a person who has been living in the household for at least 6 (six) months or has joined the household and intends to live with the household for six months or longer.

#### 4.3.1 Household Headship

In 2010, there were 180,179 households in Western Province. There were more households in rural than urban areas at 156,026 and 24,153 respectively. Household heads made up 20.0 percent of the Western Province population. Figure 4.5 shows the distribution of household heads by age. The majority of household heads (51.0 percent) were aged between 25 and 44 years. Households headed by persons aged below 20 years made up a total of 1.2 percent of the number of heads.

**Figure 4.5 Percentage Distribution of Household Heads by Age Group, Western Province 2010**

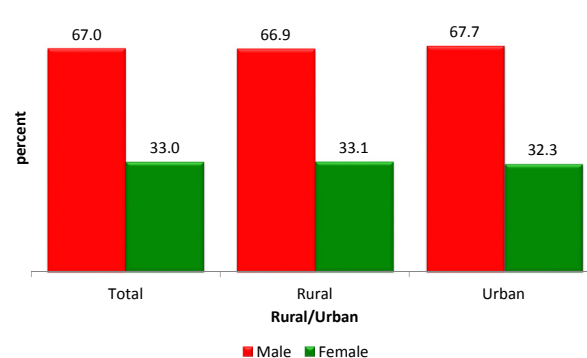


Source: 2010 Census of population and Housing.

Figure 4.6 shows the percentage distribution of household heads by sex and rural/urban. Overall, there were more male household heads at 67.0 percent compared to female household heads at 33.0 percent.

The percentage of male headed households were higher than the female headed households in both rural and urban areas.

**Figure 4.6: Percentage Distribution of Household Heads by Sex and Rural/Urban, Western Province 2010**



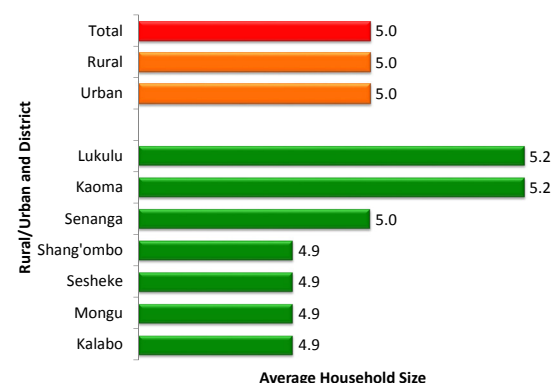
Source: 2010 Census of population and Housing.

#### 4.3.2 Household Size

Figure 4.7 shows the average household size by rural/urban and district. The average household size in Western Province in 2010 was 5.0 persons. Rural and urban areas had an equal average household size of 5.0 persons each.

Lukulu and Kaoma districts had the highest average household size at 5.2 persons followed by Senanga District at 5.0 persons. The rest of the districts had an average household size of 4.9 persons.

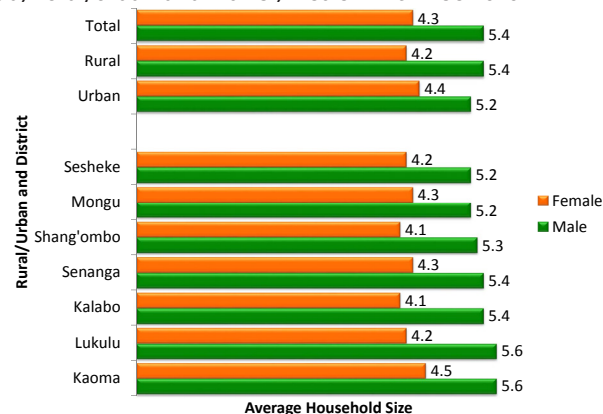
**Figure 4.7: Average Household Size by Rural/Urban and District Western Province 2010**



Source: 2010 Census of population and Housing.

Figure 4.8 shows the average household size by sex of household head, rural/urban and district. Male headed households had a higher average household size of 5.4 than female headed households with 4.3 persons.

**Figure 4.8: Average Household Size by Sex of the Household Head, Rural/Urban and District, Western Province 2010**

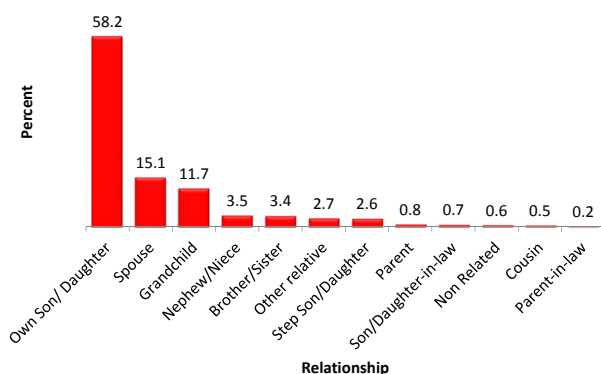


Source: 2010 Census of population and Housing.

### 4.3.3 Relationship To Head

Figure 4.9 shows the percentage distribution of the population by relationship to the household head. In 2010, 58.2 percent of the persons enumerated in the households were biological children to the household heads while 15.1 and 11.7 percent were spouses and grand children of the heads of households, respectively.

**Figure 4.9: Percentage Distribution of the Population by Relationship to Household Head, Western Province 2010**

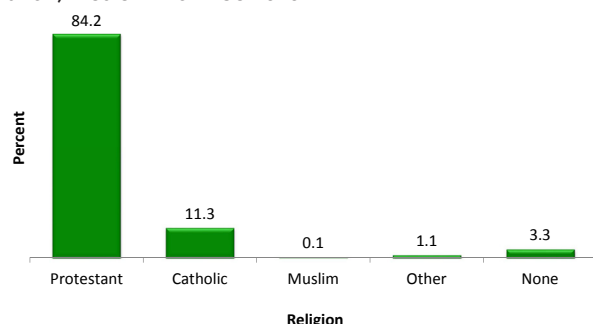


Source: 2010 Census of population and Housing.

## 4.4 Religion

Figure 4.10 shows the percentage distribution of the population by religious affiliation. In 2010, Protestants accounted for 84.2 percent of the population in Western Province while 11.3 percent were Catholics.

**Figure 4.10: Percentage Distribution of Population by Religious Affiliation, Western Province 2010**

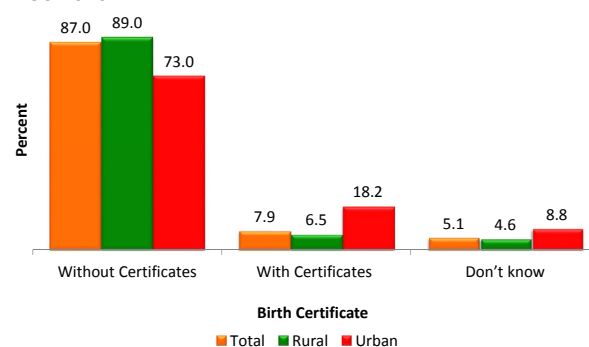


Source: 2010 Census of Population and Housing

## 4.5 Birth Certificates

Figure 4.11 shows the percentage distribution of the population aged below 18 years with or without birth certificates. In 2010, 87.0 percent of those aged below 18 years did not have birth certificates while only 7.9 percent had birth certificates. The proportion of those without birth certificates was higher in rural at 89.0 percent than in urban areas at 73.0 percent.

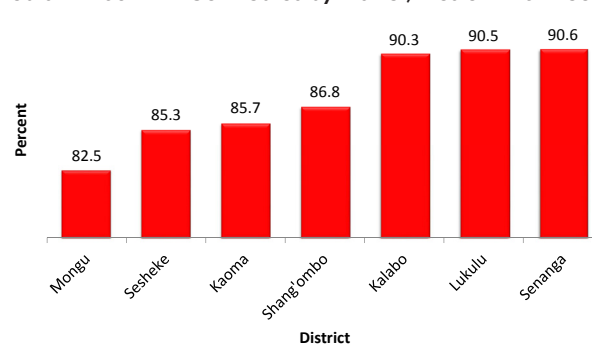
**Figure 4.11: Percentage Distribution of the Population Aged Below 18 Years With or Without Birth Certificates by Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 4.12 shows the percentage distribution of the population aged below 18 years without birth certificates by district. Senanga district had the highest proportion of persons without birth certificates at 90.6 percent while Mongu district had the lowest at 82.5 percent.

**Figure 4.12: Percentage Distribution of the Population Aged Below 18 Years Without Birth Certificates by District, Western Province 2010**

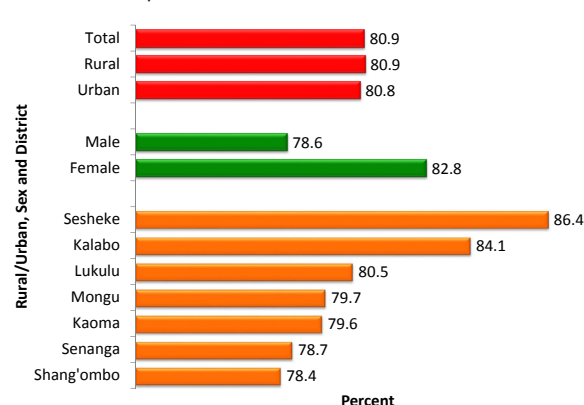


Source: 2010 Census of Population and Housing

## 4.6 Holders Of Green National Registration Cards

In Zambia, the age at which one is required to obtain a Green National Registration Card (NRCs) is 16 years. Figure 4.13 shows the percentage distribution of people aged 16 years and older with green National Registration Cards by rural/urban, sex and district. In 2010, 419,760 citizens in Western Province were aged 16 years and older. Of these, 80.9 percent had NRCs.

**Figure 4.13: Percentage Distribution of Eligible Population (16 years and older) with Green National Registration Cards by Sex, Rural/Urban and District, Western Province 2010**



Source: 2010 Census of Population and Housing



The district with the highest proportion of persons with green NRCs was Sesheke (86.4 percent) and Shang'ombo had the lowest (78.4 percent).

#### 4.7 The Voting Population

The 2010 Census collected information on the number of registered voters at the time of the Census. This included people who were registered during the previous registration exercise as well as those registered during the 2010 registration exercise.

There were a total of 384,990 eligible voters (18 years and older) of which 265,106 (68.9 percent) were registered voters. Table 4.1 shows the population of eligible voters and registered voters by rural/urban and sex. Of the registered voters, 86.7 percent were residing in rural areas while 13.3 percent were in urban areas. Males made up 43.1 percent while females made up 56.9 percent of registered voters.

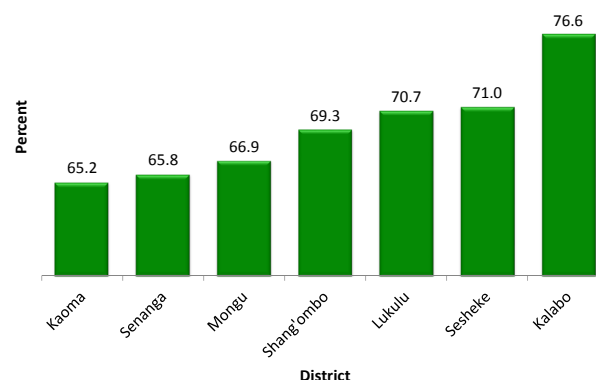
**Table 4.1: Percent Distribution of Eligible and Registered Voters (Persons Aged 18 Years and Older) by Rural/Urban and Sex, Western Province 2010**

Rural/Urban and Sex	Eligible Voters(18 years and older)	Registered voter
<b>Western Province</b>	<b>384,990</b>	<b>265,106</b>
Rural	85.1	86.7
Urban	14.9	13.3
Sex		
Male	44.2	43.1
Female	55.8	56.9

Source: 2010 Census of Population and Housing

Figure 4.14 shows the percentage of registered voters among eligible voters by district. Kalabo District had the highest proportion of registered voters at 76.6 percent while Kaoma District had the lowest proportion at 65.2 percent.

**Figure 4.14: Percentage of Registered Voters Among Eligible Voters by District, Western Province 2010**



Source: 2010 Census of Population and Housing



## **CHAPTER 5**

# **EDUCATION CHARACTERISTICS**

### **5.0 Summary**

In 2010, Western Province had a literacy rate of 61.6 percent. Literacy rates for rural and urban areas were 58.3 and 82.2 percent, respectively. Males had a higher literacy rate (64.9 percent) than females (58.8 percent).

Of the population aged 5 years and older, 29.6 percent were currently attending school. The net primary and secondary school attendance rates were 67.1 percent and 36.6 percent, respectively.

The net primary school attendance rate was 65.3 percent in rural areas and 79.7 percent in urban areas. At secondary level, net secondary school attendance rate was 31.3 percent in rural areas and 63.6 percent in urban areas.

The Gender Parity Index was 0.94 indicating that there were gender inequalities in school attendance for males and females. Rural and urban Gender Parity Index were 0.93 and 1.00, respectively.

Of the population aged 25 years and older, 60.3 percent had completed primary school, 30.8 percent had completed secondary school and 8.6 percent had completed tertiary education.

In rural areas, the completion rate was 67.3 percent, 26.9 percent and 5.5 percent for primary, secondary and tertiary education, respectively. In urban areas, the highest completion rate was for secondary at 48.8 percent, followed by primary at 28.3 percent and the lowest was tertiary education at 22.7 percent.

# Chapter 5

## Education Characteristics



### 5.1 Introduction

Education is a basic human right and is of central importance to the economic and social development of a nation. There are various benefits of education such as promoting economic growth, national productivity, innovations and social cohesion.

The current Education Policy supports free primary education for all. This is in line with the second Millennium Development Goal which is to 'achieve universal primary education, that is to ensure by 2015 children everywhere, boys and girls alike, will be able to complete a full course of primary schooling' (UN, 2000).

The population census in general provides a good basis for monitoring the participation of the population in an education system. The 2010 Census captured the education characteristics of the population such as literacy, school attendance, educational attainment, professional or vocational education attainment and fields of study.

### 5.2: Concepts And Definitions

#### *School Attendance*

This is defined as attendance at any accredited educational institution or programme, public or private, for organized learning at any level of education.

#### *Gross School Attendance Rate*

Gross school attendance rate is defined as the ratio of the population aged five years and older attending a specified education level to the applicable official school-age population. In some instances where there is extensive 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 percentage of the school-age population that is attending a designated level of education. This indicator is much more refined than the gross attendance rate and is widely used in education planning. The gross and net attendance rates are used to determine the extent of under and over age school attendance in an education system.

#### *Education Attainment*

This is the highest level of formal education that an individual has completed regardless of duration in school. It is the highest grade completed within the most advanced level attended in the education system of the country where the education was received.

#### *Literacy*

Literacy refers to the ability to both read and write in any language. Members of the population who are able to read and write are literate, while those who cannot read and write in any language are considered illiterate.

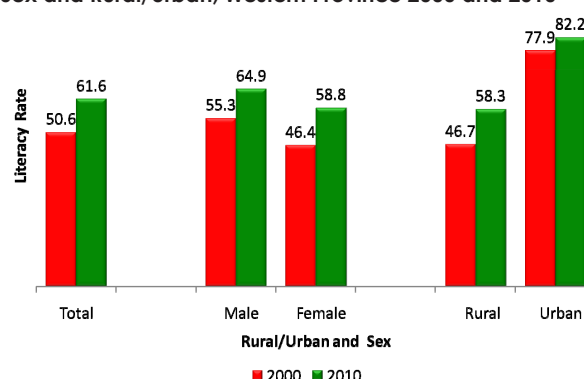
#### *Gender Parity Index*

The Gender Parity Index (GPI) is the number of female students enrolled in primary, secondary and tertiary education to the number of male students in each level. A GPI of less than 1 indicates that there are fewer females than males in the formal education system to the appropriate school-age population. A gender parity index of more than 1 means that there are more females than males attending school. A score of 1 reflects equal enrolment rates for males and females.

### 5.3. Literacy

Figure 5.1 shows literacy rate for the population aged 5 years and older by sex and rural/urban in 2000 and 2010. The percentage of persons aged 5 years and older that were literate was 61.6 percent in 2010. This was an increase of 11.0 percentage points from 50.6 percent in 2000. In 2010, the literacy rate for males was higher (64.9 percent) than that of females (58.8 percent). The literacy rate in rural and urban areas increased for both males and females between 2000 and 2010.

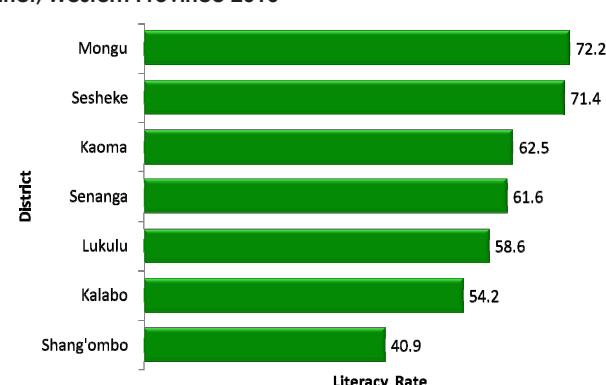
**Figure 5.1: Literacy Rate for Population Aged 5 years and Older by Sex and Rural/Urban, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 5.2 shows literacy rates of the population aged 5 years and older by district. The district with the highest literacy rate in 2010 was Mongu District at 72.2 percent, followed by Sesheke with 71.4 percent. Shang'ombo District had the lowest literacy rate at 40.9 percent.

**Figure 5.2: Literacy Rate of Population Aged 5 Years and Older by District, Western Province 2010**

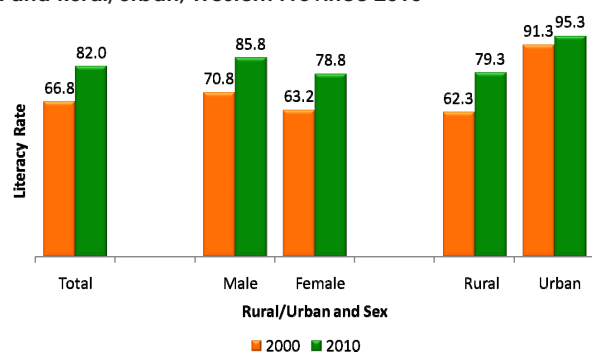


Source: 2010 Census of Population and Housing

### 5.3.1: Literacy Rate for the Youth Population (15 -24 Years)

Youth literacy is one of the indicators used to assess the achievement of the universal primary education. Figure 5.3 shows literacy rates for the population aged 15 to 24 years by sex and rural/urban. The youth literacy for Western Province was 82.0 percent in 2010. This was an increase from 66.8 percent in 2000. Between 2000 and 2010, male and female literacy rates increased by 15.0 percentage points for males and 15.6 percentage points for females. The literacy rates for both rural and urban areas increased between 2000 and 2010.

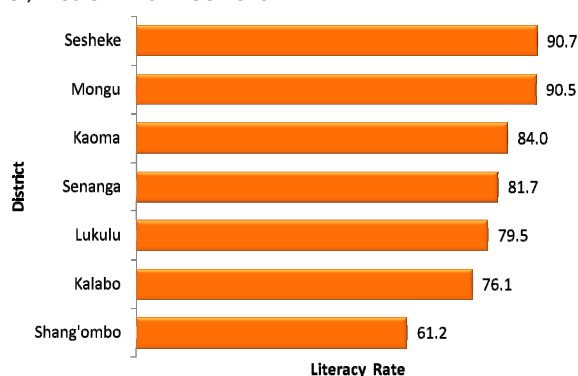
**Figure 5.3: Literacy Rates for Youth Population (15 - 24 Years) by Sex and Rural/Urban, Western Province 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 5.4 shows levels in literacy rate for the population aged 15 to 24 years by district. Sesheke District had the highest youth literacy rate (90.7 percent) while Shang'ombo District had the lowest (61.2 percent).

**Figure 5.4: Literacy Rate for Youth Population (15 - 24 Years) by District, Western Province 2010**

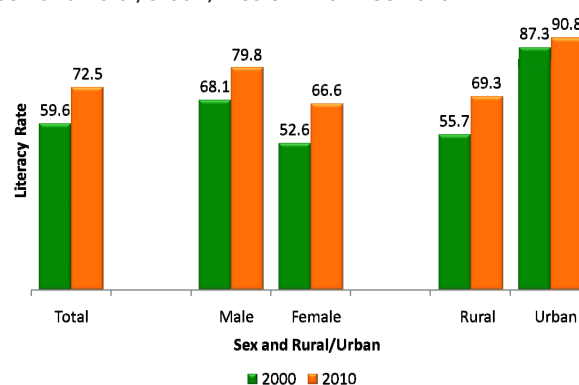


Source: 2010 Census of Population and Housing

### 5.3.2: Literacy Rate for the Adult population (15 Years and Older)

Figure 5.5 shows the literacy rate for the adult population (15 years and older) by sex and rural/urban. The adult literacy rate for Western Province increased from 59.6 percent in 2000 to 72.5 percent in 2010. Adult literacy rate for both males and females improved between 2000 and 2010.

**Figure 5.5: Literacy Rate for Adult Population (15 Years and Older) by Sex and Rural/Urban, Western Province 2010**

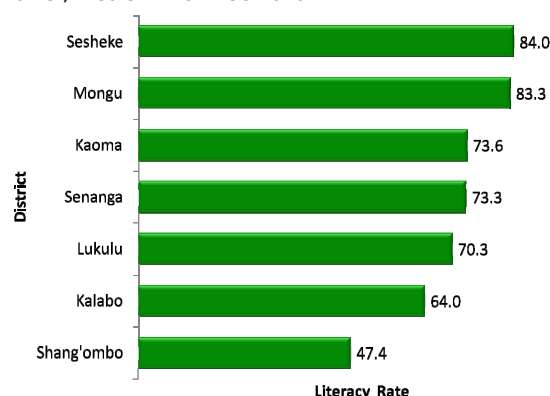


Sources: 2010 Censuses of Population and Housing

In 2010, the adult literacy rate for urban areas was higher (90.8 percent) than that of rural areas (69.3 percent). The percentage point increase in the adult literacy rate between 2000 and 2010 was higher in rural (13.6 percentage point) than urban areas (3.5 percentage points).

Figure 5.6 shows the literacy rate for the adult population (15 years and older) by district. Sesheke District had the highest adult literacy rate at 84.0 percent. It was followed by Mongu District at 83.3 percent. Shang'ombo District had the lowest adult literacy rate at 47.4 percent.

**Figure 5.6: Literacy Rate for Adult Population (15 Years and Older) by District, Western Province 2010**



Source: 2010 Census of Population and Housing

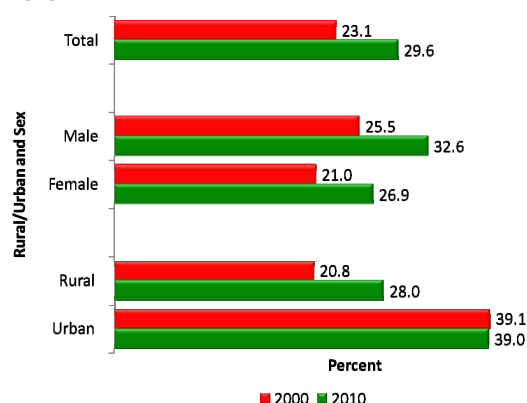
## 5.4: School Attendance

The primary school official entry age in Zambia is seven years. Grades 1 to 7 correspond to pupils aged 7 to 13 years while grades 8 to 9 correspond to pupils aged 14 to 15 years. Grades 10 to 12 correspond to pupils aged 16 to 18 years. The population above 18 years are expected to be in higher institutions of learning.

Figure 5.7 shows the percentage of the population aged 5 years and older that were currently attending school by sex and rural/urban. In 2010, 29.6 percent of the population was currently attending school. This was an increase from 23.1 percent in 2000.



**Figure 5.7: Percentage of Population (5 Years and Older) Currently Attending School by Sex and Rural/Urban, Western Province 2000 and 2010**

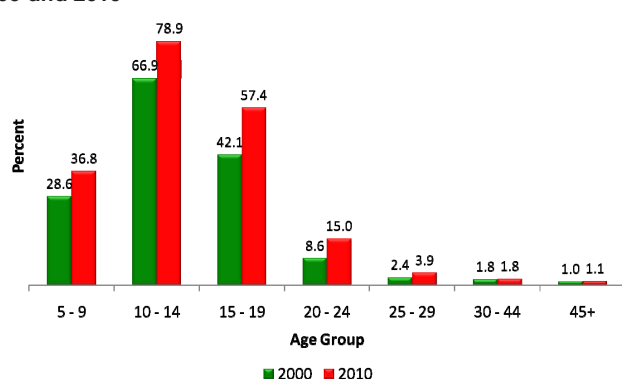


Sources: 2000 and 2010 Censuses of Population and Housing

In rural and urban areas, the percentage of the population aged 5 years and older that was currently attending school in 2010 was 28.0 percent and 39.0 percent, respectively. This shows an increase of 7.2 percentage points in rural areas and slight decrease of 0.1 percentage points in urban areas. The percentage of males currently attending school increased from 25.5 percent in 2000 to 32.6 percent in 2010 while that of females increased from 21.0 percent in 2000 to 26.9 percent in 2010.

Figure 5.8 shows the percentage distribution of the population aged 5 years and older currently attending school by 5 year age groups. The figure shows that for almost all the age groups, there was an increase in the proportion of the population that was currently attending school. The age group 10-14 years had the highest population currently attending school at 78.9 percent in 2010. This shows an increase of 12.0 percentage points from 66.9 percent in 2000. The current school attendance rate for the age group 15-19 years increased from 42.1 percent in 2000 to 57.4 percent in 2010.

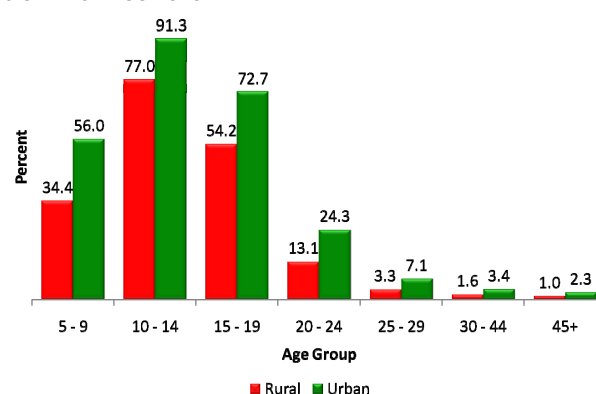
**Figure 5.8: Percentage Distribution of the Population (5 Years and Older) Currently Attending School by Age Group, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 5.9 shows the percentage distribution of the population (5 years and older) currently attending school by age group and rural/urban. Across all age groups, the population currently attending school was higher in urban than in rural areas. The age group 10-14 years had the highest proportion of the population currently attending school in both rural and urban areas at 77.0 and 91.3 percent, respectively.

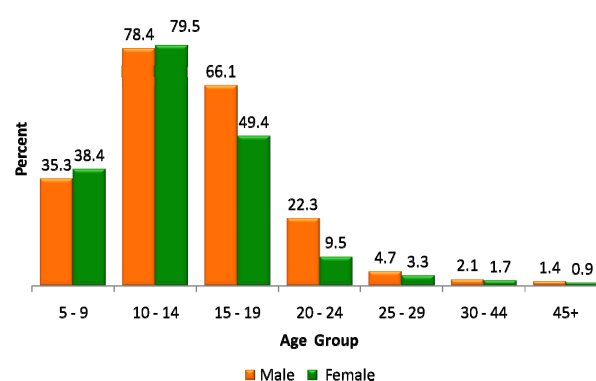
**Figure 5.9: Percentage Distribution of the Population (5 Years and Older) Currently Attending School by Rural/Urban and Age Group, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 5.10 shows the percentage distribution of the population currently attending school by sex and age group. There were more females currently attending school in younger age groups (5 – 14 years) than males. The age group 10-14 had the highest percentage of the population currently attending school for both males and females at 78.4 and 79.5 percent, respectively.

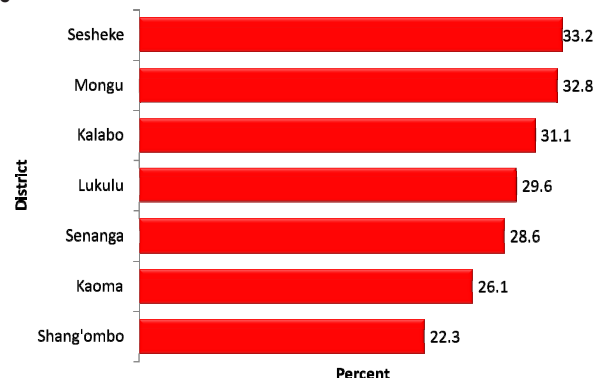
**Figure 5.10: Percentage Distribution of the Population (5 years and older) Currently Attending School by Sex and Age group, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 5.11 shows percentage distribution of the population (5 years and older) that was currently attending school by district. Sesheke District had the highest proportion of the population that was currently attending school at 33.2 percent while Shang'ombo District had the lowest at 22.3 percent.

**Figure 5.11: Percentage Distribution of Population (5 Years and Older) Currently Attending School by District, Western Province 2010**

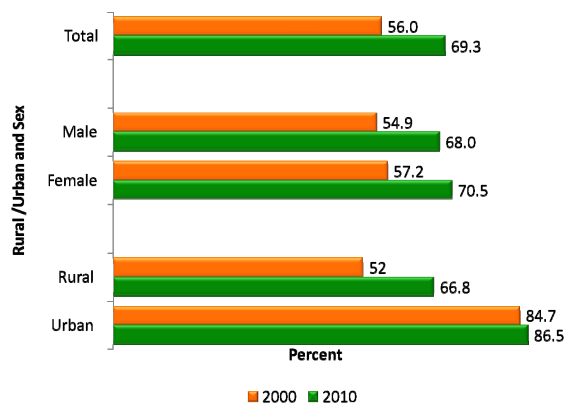


Source: 2010 Census of Population and Housing

### 5.4.1 Primary School Attendance

Figure 5.12 shows the percentage of the population aged 7 to 13 years that was currently attending primary school by sex and rural/urban. Primary school attendance rate increased from 56.0 percent in 2000 to 69.3 percent in 2010. In 2010, 66.8 percent of the population aged 7–13 years was currently attending primary school in rural areas, compared to 86.5 percent in urban areas.

**Figure 5.12: Percentage of the Population Aged 7 to 13 Years Currently Attending Primary School by Sex and Rural/Urban, Western Province 2000 and 2010**

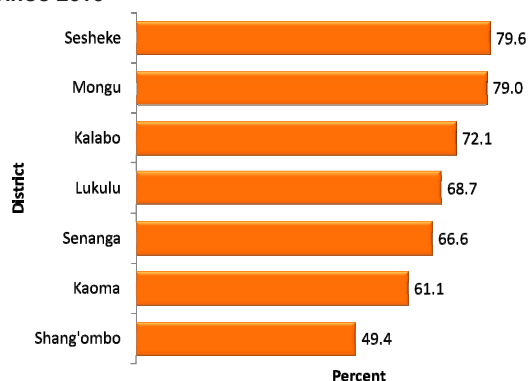


Sources: 2000 and 2010 Censuses of Population and Housing

Male primary school attendance rate increased from 54.9 percent in 2000 to 68.0 percent in 2010 while female attendance rate increased from 57.2 percent in 2000 to 70.5 percent in 2010.

Current primary school attendance rate by district is shown in Figure 5.13. Sesheke District had the highest proportion of the population currently attending primary school (79.6 percent) while Shang'ombo District had the lowest (49.4 percent).

**Figure 5.13: Percentage Distribution of the Population Aged 7 to 13 Years Currently Attending Primary School by District, Western Province 2010**

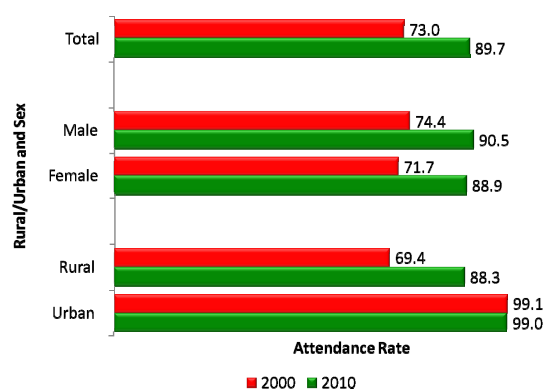


Source: 2010 Census of Population and Housing

### 5.4.2 Gross Primary School Attendance Rate

Figure 5.14 shows gross primary school attendance rate by sex and rural/urban. The gross primary school attendance rate increased from 73.0 percent in 2000 to 89.7 percent in 2010. The gross attendance rate was higher in urban areas (99.0 percent) than in rural areas (88.3 percent). Males recorded higher gross primary school attendance rate at 90.5 percent compared to females at 88.9 percent.

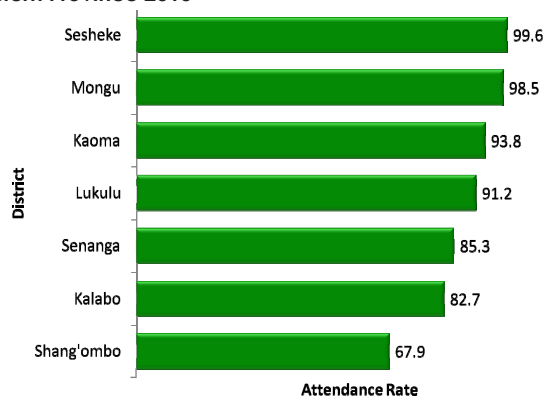
**Figure 5.14: Gross Primary School Attendance Rate by Sex and Rural/Urban, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 5.15 shows the gross primary school attendance rates by district. Sesheke District had the highest gross primary school attendance rate at 99.6 percent, followed by Mongu District with 98.5 percent. Shang'ombo District had the lowest gross primary school attendance rate at 67.9 percent.

**Figure 5.15: Gross Primary School Attendance Rates by district, Western Province 2010**



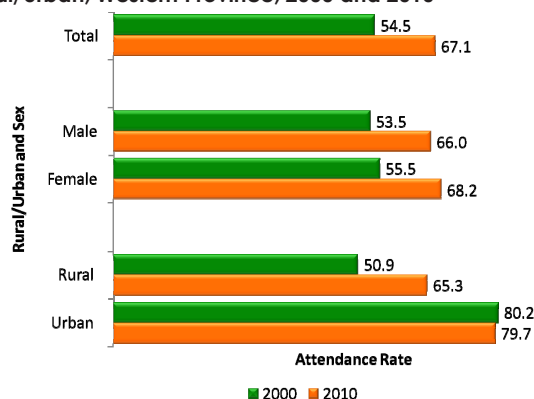
Source: 2010 Census of Population and Housing

### 5.4.3 Net Primary School Attendance Rate

Net primary school attendance rate shows the percentage of the primary school age population (7 to 13 years) currently attending primary grades (Grades 1 to 7). Figure 5.16 shows net primary school attendance rates by sex and rural/urban. The net primary school attendance rate increased from 54.5 percent in 2000 to 67.1 percent in 2010. The increase in net primary school attendance rate means that the percentage of eligible primary school age children not in school declined from 45.5 percent in 2000 to 32.9 percent in 2010.

In rural areas, the net primary school attendance rate increased from 50.9 percent in 2000 to 65.3 percent in 2010 while that of urban areas decreased from 80.2 percent to 79.7 percent during the same period. Between 2000 and 2010, the net primary school attendance rate for males increased from 53.5 percent to 66.0 percent and from 55.5 percent to 68.2 percent for females.

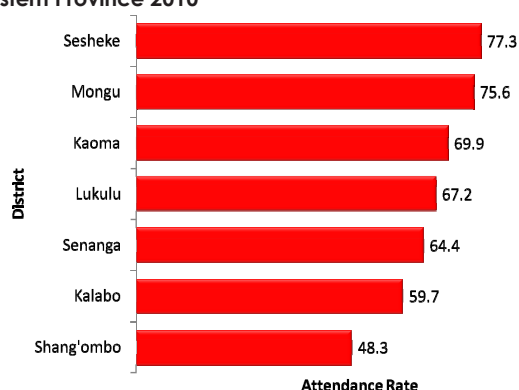
**Figure 5.16: Net Primary School Attendance Rate by Sex and Rural/Urban, Western Province, 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 5.17 shows net primary school attendance rates by district. Sesheke District had the highest net primary school attendance rate at 77.3 percent while Shang'ombo district had the lowest at 48.3 percent.

**Figure 5.17: Net Primary School Attendance Rate by District, Western Province 2010**

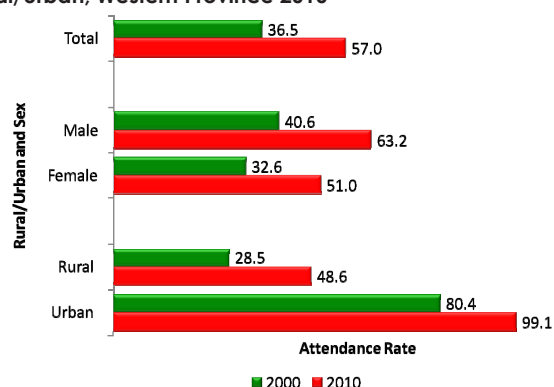


Source: 2010 Census of Population and Housing

#### 5.4.4 Gross Secondary School Attendance Rate

Figure 5.18 shows gross secondary school attendance rates by sex and rural/urban. The overall gross secondary school attendance for the population aged 14-18 years increased from 36.5 percent in 2000 to 57.0 percent in 2010. In rural areas secondary school attendance rate increased from 28.5 percent in 2000 to 48.6 percent in 2010 while in urban areas it increased from 80.4 percent in 2000 to 99.1 percent in 2010. The male gross attendance rate increased from 40.6 percent in 2000 to 63.2 percent in 2010 while that of females increased from 32.6 percent to 51.0 percent during the same period.

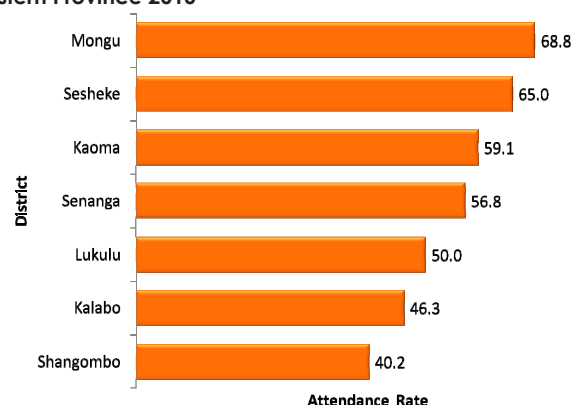
**Figure 5.18: Gross Secondary School Attendance Rate by Sex and Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 5.19 shows gross secondary school attendance rates by district. Mongu District had the highest gross secondary school attendance rate at 68.8 percent while Shang'ombo district had the lowest at 40.2 percent.

**Figure 5.19: Gross Secondary School Attendance Rate by District, Western Province 2010**



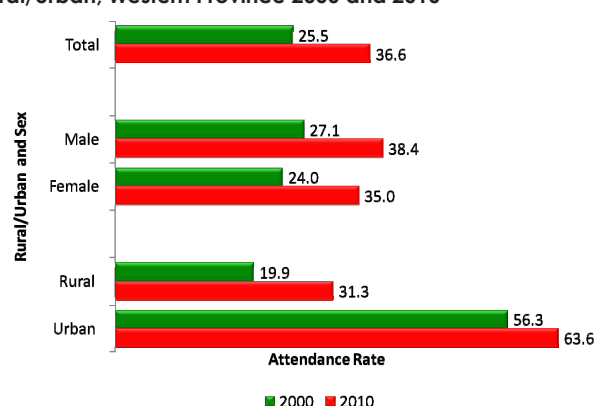
Source: 2010 Census of Population and Housing

#### 5.4.5 Net Secondary School Attendance Rate

Net secondary school attendance rate show the percentage of the secondary school age population (14-18 years) currently attending secondary grades 8 to 12. Figure 5.20 shows net secondary school attendance rate by sex and rural/urban. The net secondary school attendance rate increased from 25.5 percent in 2000 to 36.6 percent in 2010.

In 2000, the net secondary school attendance rate for rural areas was 19.9 percent while that of urban areas was 56.3 percent. The net secondary school attendance rate in 2010 increased to 31.3 and 63.6 percent in rural and urban areas, respectively. More children in urban areas were attending secondary school than their rural counterparts.

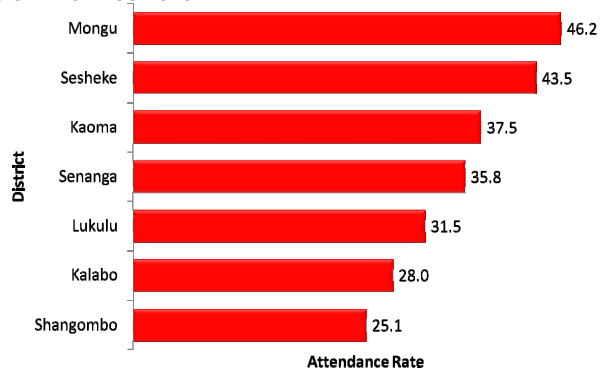
**Figure 5.20: Net Secondary School Attendance Rate by Sex and Rural/Urban, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

In both 2000 and 2010, the net secondary school attendance rate for males was higher than females. The net secondary school attendance rate for males increased from 27.1 percent in 2000 to 38.4 percent in 2010 while that of females increased from 24.0 percent in 2000 to 35.0 percent in 2010.

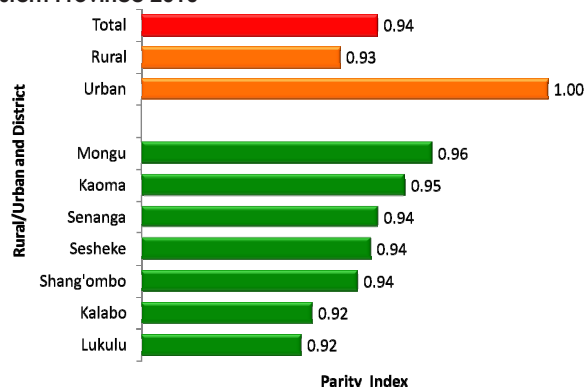
Figure 5.21 shows net secondary school attendance rates by district. Mongu District recorded the highest net secondary school attendance rate at 46.2 percent while Shang'ombo district had the lowest at 25.1 percent in 2010.

**Figure 5.21: Net Secondary School Attendance Rate by District, Western Province 2010**

Source: 2010 Census of Population and Housing

## 5.5 Gender Parity Index

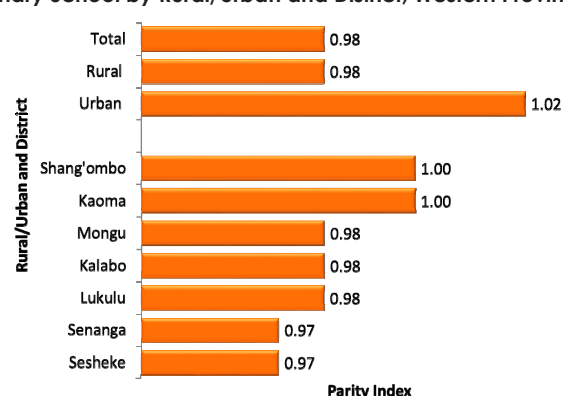
Gender Parity Index (GPI) shows the disparities in education and helps in addressing unequal access to education among females in developing countries. Figure 5.22 shows gender parity index by rural/urban and district. Overall, the gender parity index for those currently attending school was 0.94, implying that there were less females than males that were currently attending school.

**Figure 5.22: Gender Parity Index by District and Rural/Urban, Western Province 2010**

Source: 2010 Census of Population and Housing

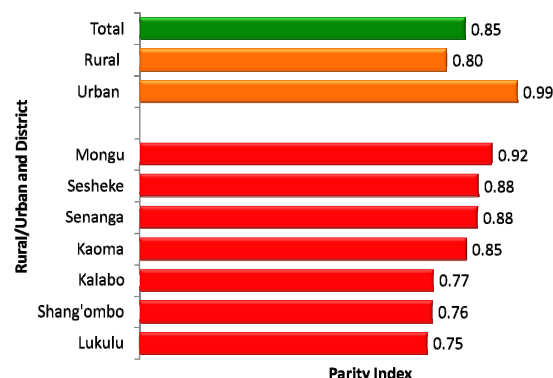
The GPI for rural areas was 0.93 while that of urban areas was 1.00. Mongu District had the highest GPI of 0.96 while Lukulu District had the lowest at 0.92.

Figure 5.23 shows gender parity index for the population currently attending primary school by rural/urban and district. The Gender Parity Index for those currently attending primary school was 0.98. The GPI for rural areas was 0.98 while that of urban areas was 1.02. Shang'ombo and Kaoma districts had the highest GPI at 1.00 each, while Senanga and Sesheke districts had the lowest at 0.97 each.

**Figure 5.23: Gender Parity Index for Population Currently Attending Primary School by Rural/Urban and District, Western Province 2010**

Source: 2010 Census of Population and Housing

Figure 5.24 shows Gender Parity Index for population currently attending secondary school by rural/urban and district. The GPI for those currently attending secondary school was 0.85. In rural areas the GPI was 0.80 while that of urban areas was 0.99 showing that there was more equality in access to secondary education in urban than rural areas. Mongu District had the highest GPI at 0.92 and Lukulu District had the lowest at 0.75.

**Figure 5.24: Gender Parity Index for Population Currently Attending Secondary School by Rural/Urban and District, Western Province 2010**

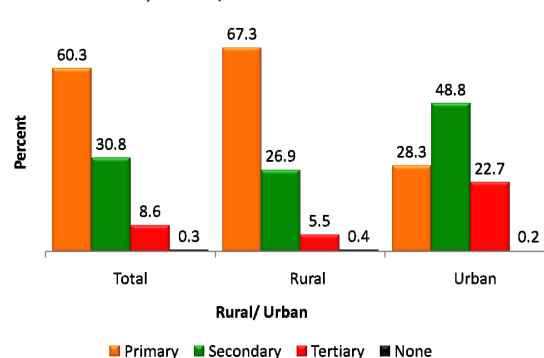
Source: 2010 Census of Population and Housing

## 5.6 Highest Education Level Completed

Educational attainment is the highest level of education completed in the country where the education was received (United Nations, 1998). The United Nations recommends that educational attainment be included among the basic areas of census inquiry and that data on the subject be collected for all persons 5 years of age and older.

Indicators on highest education qualification level completed and highest professional/vocational qualification in this analysis uses the population aged 25 years and older. Note that the population below 25 years of age may still be attending school and that the measures for these persons would tend to understate their eventual educational attainment to some degree (Siegel and Swanson, 2004).

Figure 5.25 shows the percentage distribution of population (25 years and older) that have ever attended school by highest education level completed and rural/urban. In 2010, 60.3 percent had completed primary level, 30.8 percent had completed secondary and 8.6 percent have completed tertiary.

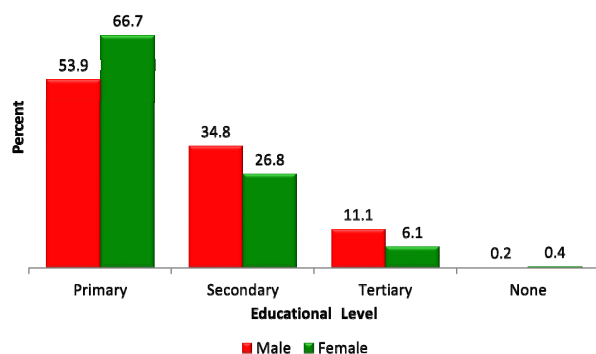
**Figure 5.25: Percentage Distribution of Population (25 Years and Older) that Ever Attended School by Highest Education Level Completed and Rural/Urban, Western Province 2010**

Source: 2010 Census of Population and Housing

In rural areas, 67.3 percent of the population had primary as the highest level of education completed while 28.3 percent had completed the same level of education in urban areas. Secondary education was the highest level of education completed in urban areas at 48.8 percent. The percentage of the population that had completed tertiary education was higher in urban areas (22.7 percent) than in rural areas (5.5 percent).

Figure 5.26 shows the percentage distribution of population (25 years and older) that have ever attended school by highest education level completed and sex. There were more females (66.7 percent) who had primary education as the highest level completed than males (53.9 percent). The percentage of males who had secondary and tertiary as their highest level of education completed was higher than that of females.

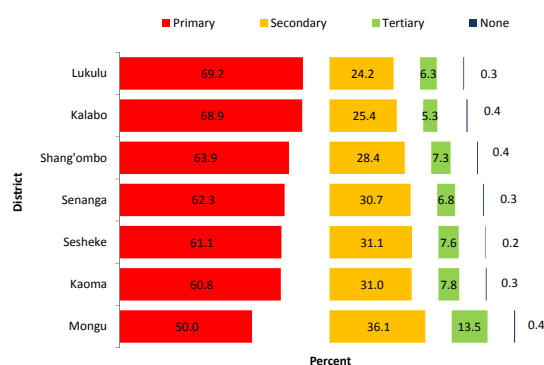
**Figure 5.26: Percentage Distribution of Population (25 Years and Older) that Ever Attended School by Highest Level of Education Completed and Sex, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 5.27 shows the percentage distribution of the population (25 years and older) that ever attended school by highest education level completed and district. Mongu District had the highest percentage of the population with tertiary education as the highest level completed at 13.5 percent. Kalabo District had the lowest completion of tertiary education at 5.3 percent.

**Figure 5.27: Percentage Distribution of Population (25 Years and Older) that Ever Attended School by Highest Education Level Completed and District, Western Province 2010**

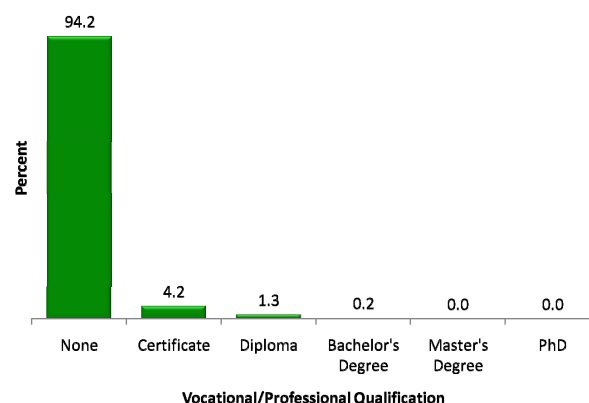


Source: 2010 Census of Population and Housing

## 5.7 Highest Professional/Vocational Qualification Completed

Figure 5.28 shows the percentage distribution of population (25 years and older) by highest professional/vocational qualification completed. Certificate holders constituted 4.2 percent followed by diploma holders at 1.3 percent. Only 0.2 percent of the population had bachechor's degree.

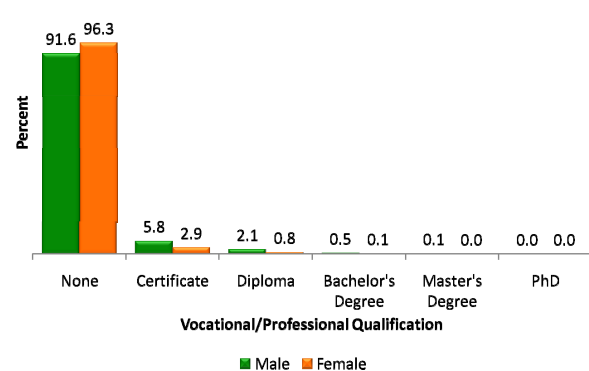
**Figure 5.28: Percentage Distribution of Population (25 Years and Older) by Highest Professional/Vocational Qualification Completed, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 5.29 shows the percentage distribution of population (25 Years and Older) by highest professional/vocational qualification completed and sex. In all professional and vocational qualification categories, males had higher percentages compared to females. The highest percentage difference was recorded in the Certificate category where males accounted for 5.8 percent compared to 2.9 percent for females.

**Figure 5.29: Percentage Distribution of the Population (25 Years and Older) by Highest Professional/Vocational Qualification Completed and Sex, Western Province 2010**



Source: 2010 Census of Population and Housing

## 5.8 Field of Study

Table 5.1 shows the percentage distribution of population (25 years and older) by field of study and sex. Teacher training was the field of study reported by 2.4 percent of the total population. The fields of study including nursing, accountancy, business administration law, agriculture, forestry, wood working, electrical and mechanical engineering collectively accounted for 1.6 percent.



**Table 5.1: Percent Distribution of Population (25 years and older) by Field of Study and Sex, Western Province 2010**

Field of Study	Number	Percent of Population	Percent	
			Percent Males	Percent Females
<b>Total</b>	<b>282,721</b>		<b>44.3</b>	<b>55.7</b>
Natural science (e.g. biological science programme chemistry programme geological programme etc).	105	0.0	81.0	19.0
Civil engineering	111	0.0	98.2	1.8
Electrical and electronics engineering	312	0.1	96.8	3.2
Mechanical engineering	435	0.2	96.8	3.2
Chemical engineering	19	0.0	78.9	21.1
Mining engineering	46	0.0	82.6	17.4
Industrial engineering	26	0.0	73.1	26.9
Metallurgical engineering	14	0.0	78.6	21.4
Architectural and town planning engineering	25	0.0	88.0	12.0
Other engineering	119	0.0	99.2	0.8
Medicine and surgery	117	0.0	87.2	12.8
Pharmacy	195	0.1	63.6	36.4
Dentistry	43	0.0	76.7	23.3
Nursing	1,309	0.5	45.1	54.9
Medical technology	154	0.1	86.4	13.6
X-Ray technology	18	0.0	94.4	5.6
Veterinary	98	0.0	89.8	10.2
Statistics	32	0.0	93.8	6.3
Mathematics	49	0.0	61.2	38.8
Computer science/Economics	323	0.1	62.2	37.8
Accountancy	677	0.2	78.3	21.7
Teacher training	6,919	2.4	53.8	46.2
Law and jurisprudence (includes magistrates and judges)	362	0.1	83.7	16.3
Journalism	53	0.0	69.8	30.2
Fine arts	79	0.0	78.5	21.5
Physical education	40	0.0	60.0	40.0
Library science	23	0.0	60.9	39.1
Social welfare	256	0.1	53.5	46.5
Criminology	187	0.1	85.0	15.0
Business administration and related programmes	331	0.1	77.9	22.1
Secretarial training	218	0.1	22.5	77.5
shorthand typing	168	0.1	27.4	72.6
Clerical Typing	102	0.0	39.2	60.8
Operating of office machines	28	0.0	64.3	35.7
Service trade (e.g. cooking tourist trade etc.)	164	0.1	46.3	53.7
Radio and television broadcasting	21	0.0	66.7	33.3
Fire protection and fire fighting	50	0.0	74.0	26.0
Agriculture forestry and fishery	579	0.2	83.1	16.9
Food and drinks processing trades programmes	63	0.0	49.2	50.8
Wood working	466	0.2	95.9	4.1
Textile trades	178	0.1	25.8	74.2
Leather trades	44	0.0	61.4	38.6
Other programmes	2,397	0.8	78.3	21.7
None	265,766	94.0	43.0	57.0

Source: 2010 Census of Population and Housing

The percentage of males in all fields of study were higher than females except in nursing, secretarial training, shorthand, clerical typing, service trade and food and drinks processing and textile trades.



## **CHAPTER 6**

### **ECONOMIC CHARACTERISTICS**

#### **6.0 Summary**

The population aged 12 years and older was 502,434 in Western Province in 2010. Out of these, 85.0 percent were in rural areas while 15.0 percent were in urban areas. Males comprised 45.4 percent of total population aged 12 years and older while females comprised 54.6 percent.

Of the population aged 12 years and older, 320,702 were in the labour force, out of which 88.6 percent were in rural areas and 11.4 percent were in urban areas.

The unemployment rate was 7.7 percent of the total labour force. Urban unemployment was 22.8 percent while rural unemployment rate was 5.7 percent. The unemployment rate for males was 9.0 percent compared to 6.5 percent for females.

The youth unemployment rate was 10.1 percent. Urban youth unemployment rate was higher (30.3 percent) than the rural unemployment rate (7.2 percent). The unemployment rate for male youths (11.7 percent) was higher than that of female youths (8.7 percent).

Of the employed population, the highest proportion was unpaid family workers (47.9 percent) and the lowest was employers (0.3 percent).

## Chapter 6 Economic Characteristics



### 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. In a developing country like Zambia, it becomes imperative to constantly measure and monitor changes in the levels of economic activities because fluctuations in labour force participation rates, employment levels and economic dependency levels have an impact on poverty.

### 6.2 Concepts and Definitions

Concepts and definitions used in this chapter are as follows:

**Labourforce Participation Rate:** This is a ratio of the economically active population to the working age population expressed as a percent.

**Unemployment rate:** This is the proportion of the labour force who have no jobs, are available for work and are seeking work in a given reference period in the total labour force expressed as a percent.

**Youth Unemployment Rate:** This was defined as a proportion of the labour force aged 15-35 years who had no jobs, were available for work and were seeking work in a given reference period in the total youthful labour force expressed as a percent.

In the 2000 and 2010 population Censuses, data pertaining to economic characteristics of the population 12 years and older were collected and analyzed. The main topics covered are:

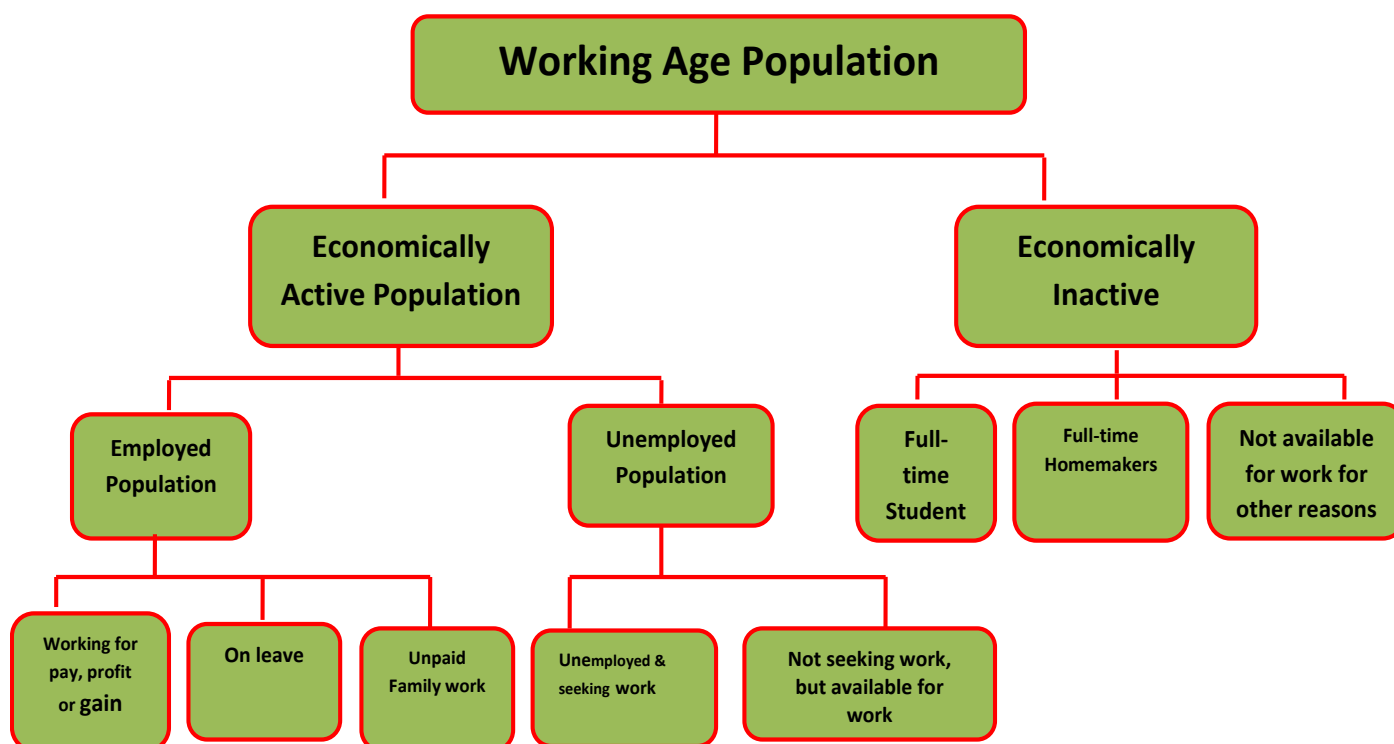
- i) *Labour force participation*
- ii) *Economic dependency*
- iii) *Employment and unemployment*
- iv) *Employment status*
- v) *Occupation*
- vi) *Industry*

### 6.3 Working Age Population

The working-age population was defined as all persons 12 years and older. This is the population from which measurement of the economic characteristics of the population is based.

Figure 6.1 shows the various components of the population 12 years and older. It shows the composition of the economically active and economically inactive population, including their sub components.

Figure 6.1: Organogram for the structure of Population Aged 12 Years and Older



The question asked in the 2010 Census to determine the economic activity status was *'What did (NAME) do in the last 7 days and last 12 months?'* The reference period for the response categories was the last 7 days (Current activity status) and last 12 months (Usual activity status).

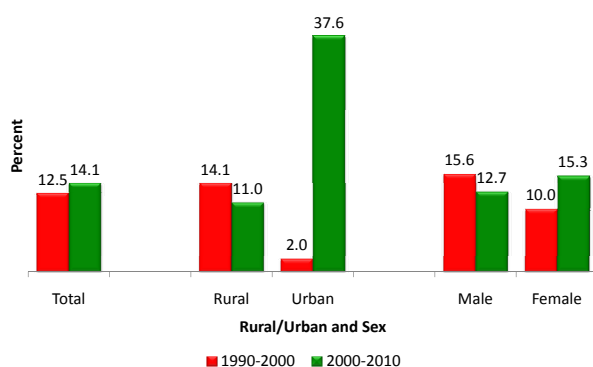
### 6.3.1 Percentage Change in the Population aged 12 years and older between 2000 and 2010

In 2010, the population aged 12 years and older represented 60.0 percent of the total population of Western Province while in 2000, it represented 57.5 percent. The population 12 years and older (Working age population) increased from 440,308 in 2000 to 502,434 in 2010, representing 14.1 percent increase.

Figure 6.2 shows the percentage change in the population 12 years and older (Working Age Population) of Western Province by rural/urban and sex.

During 1990-2000 and 2000-2010 inter-censal periods, the working age population in urban areas increased from 2.0 percent to 37.6 percent while in rural areas, it decreased from 14.1 percent to 11.0 percent, respectively. The percentage change by sex showed an increase in the female working age population compared to the decrease among the male working age population during the 1990-2000 and 2000-2010 inter-censal periods.

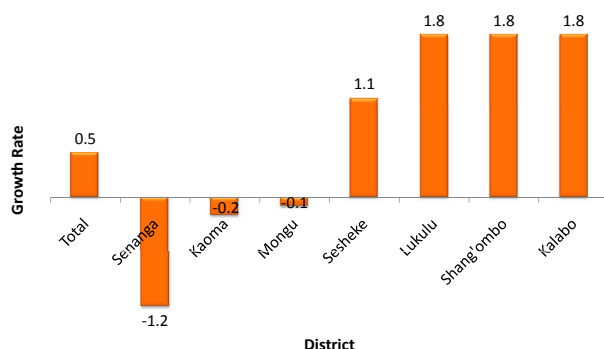
**Figure 6.2: Percentage Change in Working Age Population 12 Years and Older by Rural/Urban and Sex, Western Province 1990-2000 and 2000 – 2010**



Sources: 1990, 2000 and 2010 Censuses of Population and Housing

Figure 6.3 shows the average annual growth rate of the labour force by district between 2000 and 2010 in Western Province. The labour force average annual growth rate was 0.5 percent. This growth was lower than the national labour force average annual growth rate which was recorded at 3.0 percent.

**Figure 6.3: Average Annual Growth Rate of the Labour force by District, Western Province 2000-2010**



Sources: 2000 and 2010 Censuses of Population and Housing

Kalabo, Lukulu and Shang'ombo districts recorded the highest labour force average annual growth rate of 1.8 percent each while Senanga District recorded the lowest annual growth rate at -1.2 percent.

## 6.4 Economic Activity Status

The population 12 years and older is subdivided into two broad economic activity status categories, namely economically active and the economically inactive. The economic activity status thus refers to whether a person aged 12 years and older is in the labour force or outside the labour force.

### 6.4.1 Economically Active

The economically active population (labour force) comprises persons who during the 7 days prior to the census night were either employed (i.e. employers, employees and unpaid family workers) or unemployed (i.e. without work but actively looking for work and those willing to work).

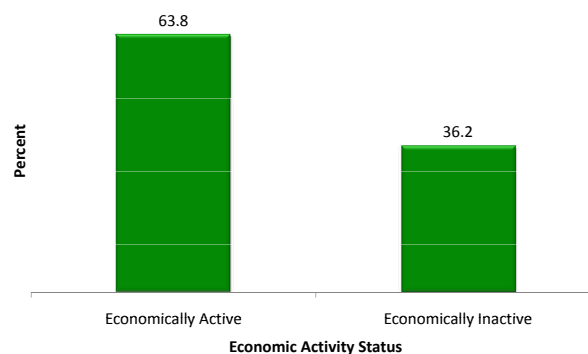
The analysis for the economic activity status is based on the current (in the 7 days prior to the census night) economic activity of the population. In 2010, the population of the labour force in Western Province was 320,702 persons. Of these, 153,230 were males and 167,472 were females.

### 6.4.2 Economically Inactive

The economically inactive population comprises people who during the reference period, were outside the labour force. These included full-time students, full-time homemakers (e.g. full-time housewives) and those not available for work for other reasons such as, not able to work due to sickness, old age, beggars, among others.

Figure 6.4 shows the percent share of the population 12 years and older by economic activity status. Of the population 12 years and older, 63.8 percent were economically active while 36.2 percent were economically inactive.

**Figure 6.4: Percentage of Population (12 Years And Older) by Economic Activity Status, Western Province 2010**



Source: 2010 Census of Population and Housing

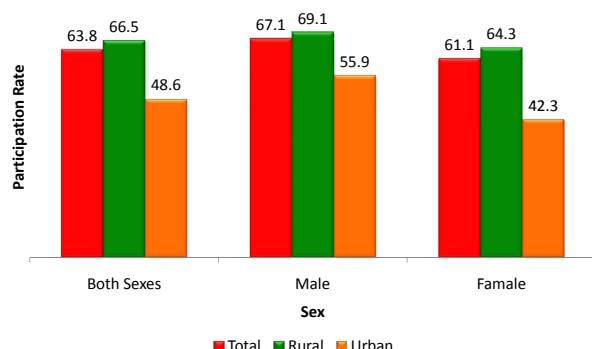
## 6.5 Labour Force Participation Rate

The labour force participation rate shows how much of the population is economically active. Figure 6.5 shows participation rates for the population 12 years and older by sex and rural/urban. In 2010, labour force participation rate (Activity status rate) was 63.8 percent in Western Province. Males had a higher participation rate at 67.1 percent compared to females at 61.1 percent.



Rural/urban analysis shows that labour force participation rate was higher in rural areas (66.5 percent) compared to that recorded in urban areas (48.6 percent). The results also shows that labour force participation rates for males were higher than that of females in both rural and urban areas.

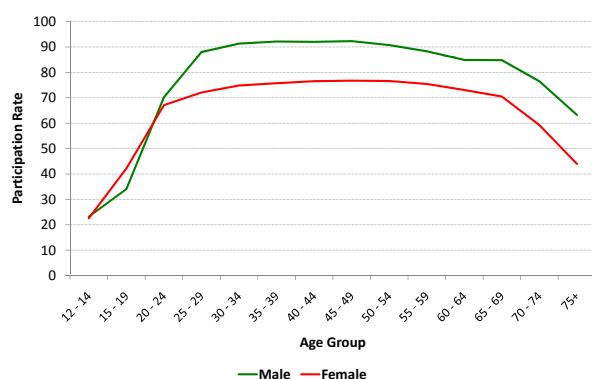
**Figure 6.5: Labour Force Participation Rate for Population (12 Years and Older) by Sex and Rural/ Urban, Western Province, 2010**



Source: 2010 Census of Population and Housing

Figure 6.6 shows the labour force participation rate for the population 12 years and older by age and sex. Labour force participation among males was higher than that of females except for the age group 15-19.

**Figure 6.6: Labour Force Participation Rate for the Population (12 Years and Older) by Age Group and Sex, Western Province 2010**



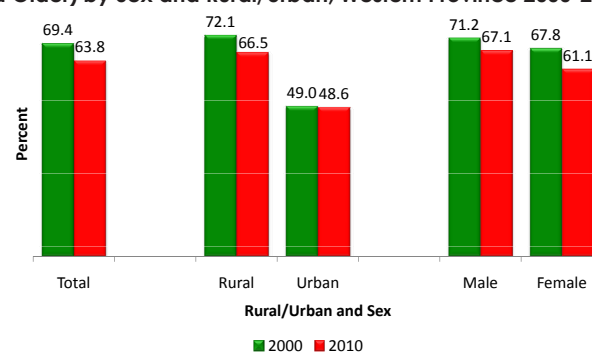
Source: 2010 Census of Population and Housing

The participation rate for both sexes increased with progression in age. However, labour force participation rate declined in older ages, 50 years and older.

Figure 6.7 shows labour force participation rate for population aged 12 years and older by sex and rural/urban. The labour force participation rate was 69.4 percent in 2000 and 63.8 percent 2010.

The labour force participation rate for males decreased from 71.2 percent in 2000 to 67.1 percent in 2010, representing a 4.1 percentage point decrease. For the females, the labour force participation rate decreased by 6.7 percentage points from 67.8 percent in 2000 to 61.1 percent in 2010.

**Figure 6.7: Labour Force Participation Rate for Population (12 Years and Older) by Sex and Rural/Urban, Western Province 2000-2010**

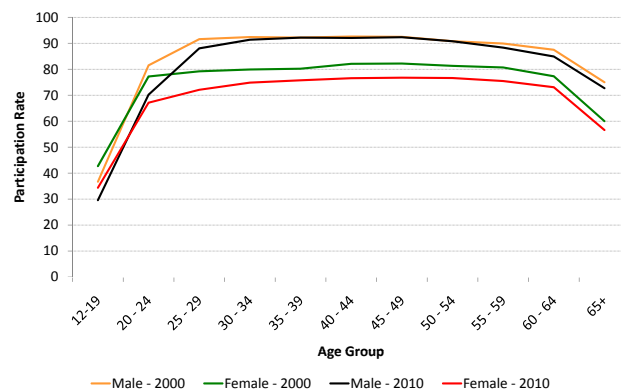


Sources: 2010 Census of Population and Housing

The labour force participation rate was higher in rural areas (66.5 percent) than in urban areas (48.6 percent) in 2010. This pattern was also observed in 2000 where 72.1 percent labour force participation rate was recorded in rural areas compared to 49.0 percent in urban areas. However, labour force participation rate decreased in all categories between 2000 and 2010.

Figure 6.8 shows labour force participation rate for population 12 years and older by age group and sex in 2000 and 2010. The results show that there was a reduction in the male participation rate in 2010 compared to 2000 except for the age groups 35-39 and 50-54 which revealed constant participation rates of 92.2 percent and 90.8 percent respectively between the two censuses. The 2010 female participation rates were lower than the 2000 throughout all the age groups.

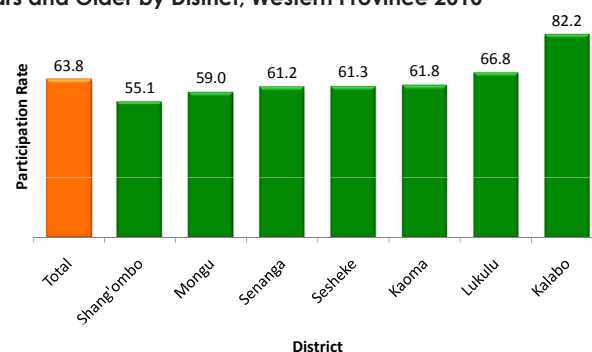
**Figure 6.8: Labour Force Participation Rate for Population (12 Years and Older) by Age Group and Sex, Western Province 2000 and 2010**



Sources: 2010 Census of Population and Housing

Figure 6.9 shows the labour force participation rates for the population 12 years and older by district. Kalabo district had the highest labour force participation rate (82.2 percent) while Shang'ombo district had the lowest (55.1 percent).

**Figure 6.9: Labour Force Participation Rate for the Population 12 Years and Older by District, Western Province 2010**



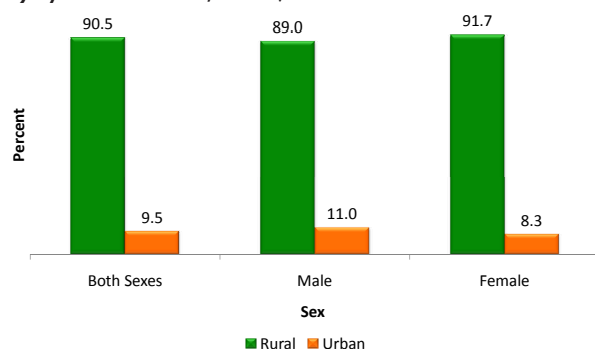
Source: 2010 Census of Population and Housing

## 6.6 Employed Population

Employment in Zambia is measured as a percentage of the labour force. In the 2010 census, it consisted of those who reported to be working or on leave during the reference period (seven days prior to the census night). Out of 320,702 persons in the labour force, 296,040 persons were employed, representing 92.3 percent of the labour force. Out of the employed population, 47.1 percent were male and 52.9 percent were female.

Figure 6.10 shows the percentage of employed population by sex and rural/urban. The results show that there were more employed persons in rural areas (90.5 percent) than in urban areas (9.5 percent). In rural areas, female employment accounted for 91.7 percent while male employment was at 89.0 percent. In the urban areas, male employment was higher (11.0 percent) compared to female employment (8.3 percent).

**Figure 6.10: Percentage of Employed Population (12 Years and Older) by Sex and Rural/Urban, Western Province 2010**



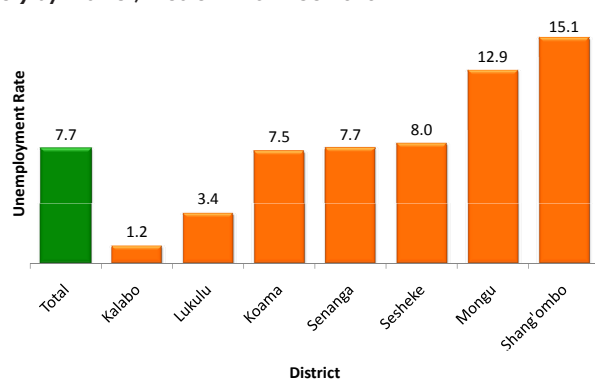
Source: 2010 Census of Population and Housing

## 6.7 Unemployment

The unemployed population consists of all persons 12 years and older who were actively seeking work or were available for work during the period, seven days prior to the census night. Unemployment is a state of total lack of work for those persons within the employable age available for work but without work, looking for work but did not do anything i.e. zero hours of work in the 7 days prior to the census night.

Figure 6.11 shows unemployment rates of Western Province for the population aged 12 years and older by district. Of the 320,702 persons in the labour force 24,662 (7.7 percent) were unemployed. Shan'gombo District had the highest unemployment rate at 15.1 percent and Kalabo District had the lowest unemployment rate at 1.2 percent.

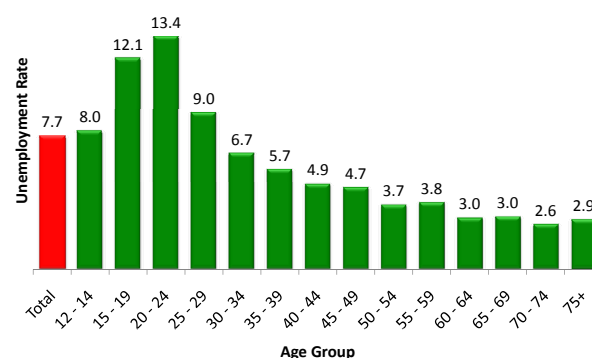
**Figure 6.11: Unemployment Rate for Population (12 Years and Older) by District, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 6.12 shows unemployment rate of the population (12 years and older) by age group. The highest unemployment rate was in the age group 20-24 years at 13.4 percent, followed by the age group 15-19 years at 12.1 percent. The lowest unemployment rate was 2.6 percent in the age group 70-74.

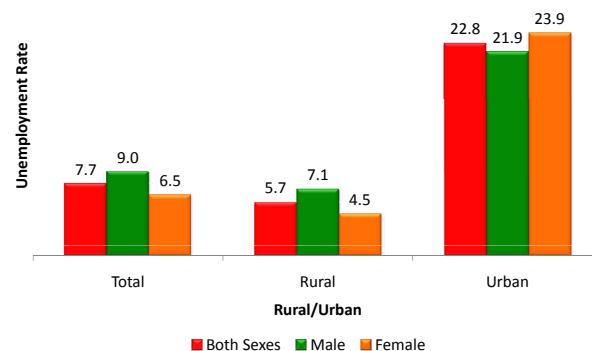
**Figure 6.12: Unemployment Rate of Population (12 Years and Older) by Age Group, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 6.13 shows unemployment rate of population (12 years and older) by sex and rural/urban. Unemployment rate for Western Province was 9.0 percent for males and 6.5 percent for females. Unemployment was higher in urban areas (22.8 percent) than in rural areas (5.7 percent). In rural areas, males recorded a higher unemployment rate (7.1 percent) than females (4.5 percent). Females recorded higher unemployment rate (23.9 percent) than males (21.9 percent) in urban areas.

**Figure 6.13: Unemployment Rate of Population (12 Years and Older) by Sex and Rural/Urban, Western Province 2010**

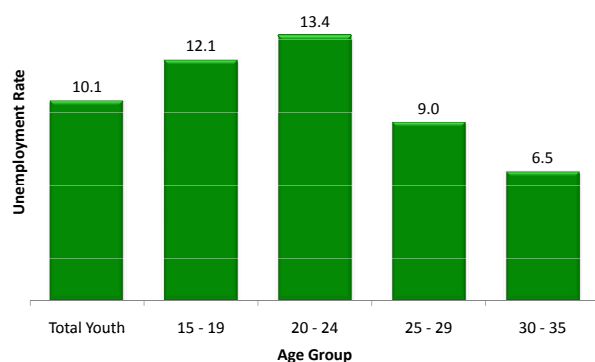


Source: 2010 Census of Population and Housing

### 6.7.1 Youth Unemployment

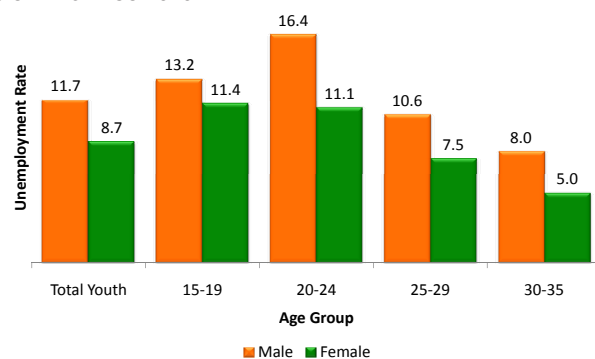
The national youth policy defines a youth as any person aged 15-35 years. In this chapter, this age group has been used to analyse youth unemployment. The youth population in the labour force was 179,337 representing 56.0 percent of the total labour force. Of these, 46.9 percent were male while 53.1 percent were female. In terms of rural/urban, 87.5 percent were in rural areas and 12.5 percent in urban areas.

The youth unemployment rate by age group is shown in Figure 6.14. Out of the 179,337 youths in the labour force, 10.1 percent were unemployed. The highest youth unemployment rate was in the age group 20-24 years at 13.4 percent while the lowest rate was for youth population in the age group 30-35 years at 6.5 percent.

**Figure 6.14: Youth Unemployment Rate by Age Group, Western Province 2010**

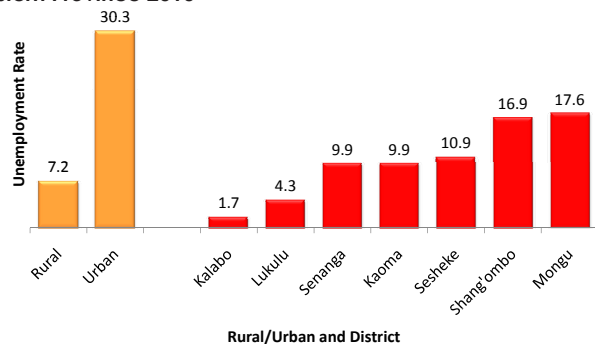
Source: 2010 Census of Population and Housing

Figure 6.15 shows the youth unemployment rate by age group and sex. Overall, unemployment rates for male youths were higher than female youths in all age groups. The total youth unemployment rate for males was 11.7 percent compared to 8.7 percent for females. The age group with the highest disparity between males and females was 20-24 years with 16.4 percent for males and 11.1 percent for females.

**Figure 6.15: Youth Unemployment Rate by Age Group and Sex, Western Province 2010**

Source: 2010 Census of Population and Housing

Figure 6.16 shows the youth unemployment rate by rural/urban and district. The youth unemployment rate was higher in urban areas (30.3 percent) than in rural areas (7.2 percent). Mongu District reported the highest youth unemployment rate of 17.6 percent and Kalabo District recorded the lowest rate of 1.7 percent.

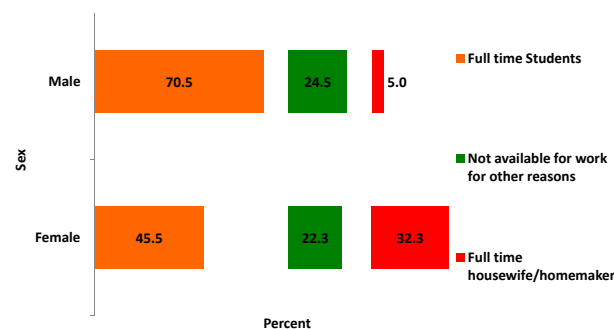
**Figure 6.16: Youth Unemployment Rate by Rural/Urban and District, Western Province 2010**

Source: 2010 Census of Population and Housing

## 6.8 Economically Inactive Population

The economically inactive population refers to persons who reported to be either full-time homemakers (e.g. full-time housewives), full-time students or not available for work for other reasons (e.g. beggars, too sick to work and so on).

Figure 6.17 shows the percentage distribution of the economically inactive population by reason of inactivity. The highest proportion of the economically inactive population for both males and females were full time students at 70.5 and 45.5 percent, respectively. Among females, full time homemaker/housewife constituted 32.3 percent of the economically inactive population.

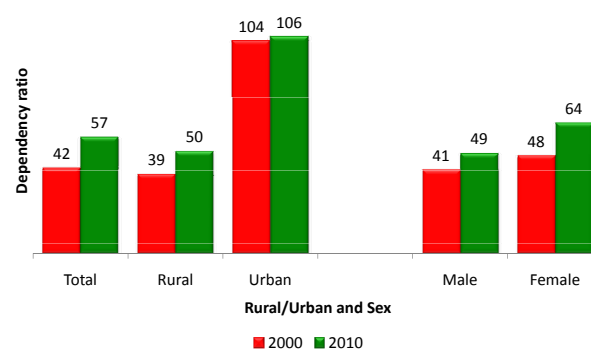
**Figure 6.17 Percentage Distribution of the Economically Inactive Population (12 Years and Older) by Reason of Inactivity, Western Province 2010**

Source: 2010 Census of Population and Housing

## 6.9 Economic Dependency Ratio

Economic dependency measures the extent to which the economically inactive population is dependent on the economically active population. It is the ratio of the economically inactive persons to a 100 economically active persons.

Figure 6.18 shows the economic dependency ratio by sex and rural/urban. The economic dependency ratio increased from 42 persons in 2000 to 57 persons in 2010. This means that the number of the inactive people that depended on the economically active people increased by fifteen (15). Overall, the economic dependency ratio increased between 2000 and 2010 for all categories.

**Figure 6.18 Dependency Ratio by Sex and Rural/Urban, Western Province 2000 and 2010**

Sources: 2000 and 2010 Censuses of Population and Housing

## 6.10 Employment Status, Occupation and Industrial Classification

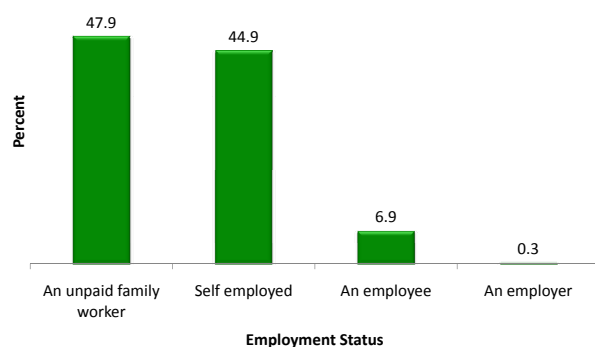
The employment status, occupational and industrial structure of a country's workforce reflects the level of its economic development and the efficiency with which it uses and allocates its resources. The analysis that follows is based on the usually working population, (i.e. those that were working in the 12 months prior to the census night) as this reflects the characteristics of the population for a longer period.

### 6.10.1 Employment Status

Employment status refers to whether a person 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, salaries, commissions, tips, piece rates, or pay in kind. A self-employed worker is a person who operates his or her own economic enterprise or engages independently in a profession or trade, and hires no employees. An unpaid family worker is a person who works without pay in an economic enterprise operated by a related family member of the same household (including peasant farmers).

Figure 6.19 shows the percentage distribution of usually working population (12 years and older) by employment status. The results show that the highest proportion of the usually working population were unpaid family workers at 47.9 percent, followed by the self-employed at 44.9 percent. The lowest proportion was for employers at 0.3 percent.

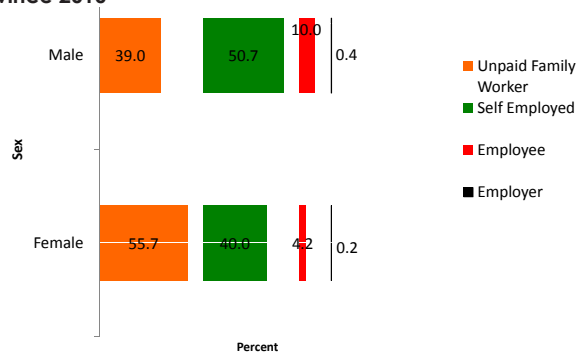
**Figure 6.19: Percentage Distribution of Usually Working Population (12 Years and Older) by Employment Status, Western Province 2010**



Source: 2010 Census of Population and Housing

The distribution of the usually working population by employment status and sex is shown in Figure 6.20. The figure shows that 55.7 percent of the females were reported to be unpaid family workers, followed by those who reported to be self-employed at 40.0 percent. The highest proportion of males 50.7 percent was self-employed, followed by those who reported to be unpaid family workers at 39.0 percent.

**Figure 6.20: Percentage Distribution of Usually Working Population (12 Years and Older) by Employment Status and Sex, Western Province 2010**



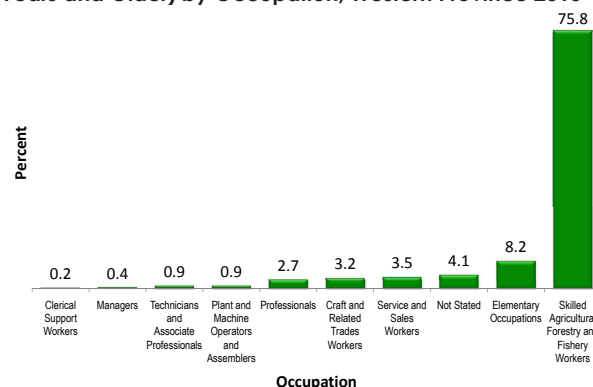
Source: 2010 Census of Population and Housing

### 6.10.2 Working Population by Occupation

Occupation is defined as the actual work or task that a person does in his/her main job at his/her place of work whether in paid employment, unpaid family work or self-employment.

Figure 6.21 shows the percentage distribution of the usually working population (12 years and older) by occupation. The main occupation among the usually working population was the skilled agricultural, forestry and fishing at 75.8 percent, followed by the elementary occupations at 8.2 percent. Managers accounted for 0.4 percent of the total working age population. The lowest proportion was that of clerical support workers accounting for 0.2 percent of the total working age population.

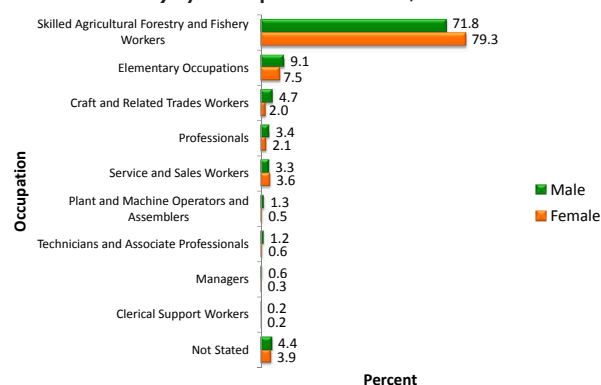
**Figure 6.21: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 6.22 shows the percentage distribution of the usually working population (12 years and older) by occupation and sex. The largest percent share of the working population for both male and female was skilled agriculture, forestry and fishing, 71.8 and 79.3 percent, respectively.

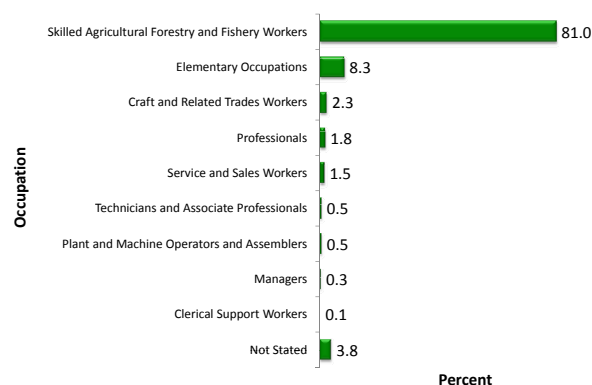
**Figure 6.22: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation and Sex, Western Province 2010**



Source: 2010 Census of Population and Housing

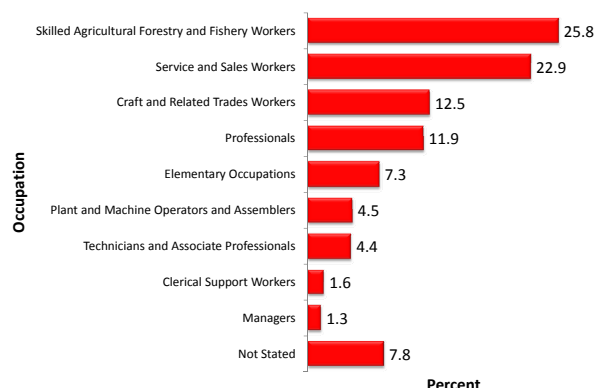
Figures 6.23 and 6.24 show the percentage distribution of the usually working population (12 years and older) by occupation for rural and urban areas, respectively. The largest percent share of the usually working population in rural areas was in the skilled agriculture, forestry and fishing occupation (81.0 percent), followed by elementary occupations (8.3 percent). Clerical Support workers had the lowest proportion at 0.1 percent



**Figure 6.23: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation, Rural, Western Province 2010**

Source: 2010 Census of Population and Housing

In urban areas, the largest percent share of the usually working population was skilled agriculture forestry and fishery workers (25.8 percent), followed by the services and sales occupation (22.9 percent). The lowest percentage in urban areas was for managers at 1.3 percent.

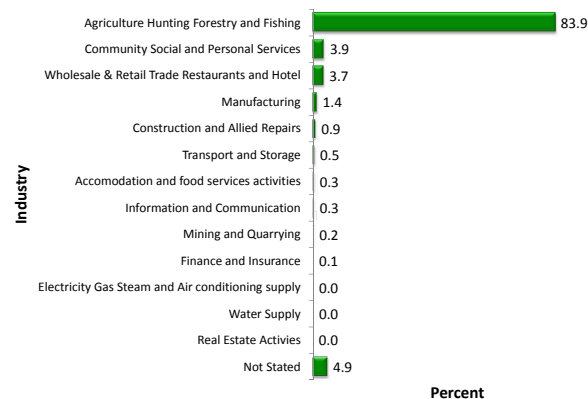
**Figure 6.24: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation, Urban, Western Province 2010**

Source: 2010 Census of Population and Housing

### 6.10.3 Working Population by Industry

Industry is defined as the type of activity carried out by an enterprise where a person works. Industry categorisation used the International Standard Industrial Classification of All Economic Activity Revision IV (ISIC Rev. 4).

The percentage distribution of the usually working population by industry is shown in Figure 6.25. The agriculture industry accounted for 83.9 percent of the usually working population. Other industries with notable proportions of the usually working population were community, social and personal services and wholesale and retail trade with 3.9 and 3.7 percent, respectively.

**Figure 6.25: Percentage Distribution of Usually Working Population (12 Years and Older) by Industry, Western Province 2010**

Source: 2010 Census of Population and Housing

Figures 6.26 and 6.27 show the percentage distribution of the usually working population (12 years and older) by industry in rural and urban areas, respectively. The agriculture industry accounted for 89.3 percent of the usually working population in rural areas. Community, social and personal services; Wholesale and retail trade; Manufacturing; and Construction collectively accounted for 5.4 percent.

**Figure 6.26: Percentage Distribution of Usually Working Population (12 Years and Older) by Industry, Rural, Western Province 2010**

Source: 2010 Census of Population and Housing

In urban areas, Agriculture industry accounted for 30.4 percent of the usually working population, followed by Wholesale & retail trade, restaurants and hotels at 22.5 percent, Community social and personal services (21.1 percent) and Manufacturing (5.0 percent).

**Figure 6.27: Percentage Distribution of Usually Working Population (12 Years and Older) by Industry, Urban, Western Province 2010**

Source: 2010 Census of Population and Housing



## **CHAPTER 7: FERTILITY CHARACTERISTICS**

### **7.0 Summary**

The Total Fertility Rate (TFR) for Western Province was 6.0. The TFR in rural areas was 6.3 and 4.3 in urban areas. Shan'gombo and Sesheke districts recorded the highest TFR at 6.3 each. Mongu District had the lowest at 5.4.

The Crude Birth Rate (CBR) in 2010 was 36 live births per 1000 mid -year population. Rural areas had a higher CBR of 37 compared to urban areas at 28 live births per 1000 mid-year population.

The Child Woman Ratio (CWR) for Western Province in 2010 was 802 children (0-4 years) per 1000 women aged 15 to 49 years. The CWR for rural areas was 846 compared with 566 in urban areas.

The General Fertility Rate (GFR) was recorded at 153. Rural areas had a GFR of 162 and urban areas had 103.

The completed family size was 5.7 children; 5.7 for rural and 5.5 for urban areas.

The Gross Reproduction Rate (GRR) was 2.4. The GRR for rural and urban areas were 2.5 and 1.6, respectively.

The Net Reproduction Rate (NRR) was 1.7. The NRR for rural and urban areas were 1.8 and 1.2, respectively. The mean age at child bearing (MACB) for the year 2010 was 29.4 years.

# Chapter 7:

## Fertility Characteristics



### 7.1 Introduction

Fertility remains one of the most important aspects of census undertaking. The census provides a unique opportunity to collect reliable data on migration and fertility, which is very hard to do in a survey. It provides information to help understand and appreciate past, current and future trends of the population size, composition and growth. Fertility data leads planners, government, non-governmental organizations, among others, to evidence based socio-economic planning, monitoring and evaluation for various current and future aspects of population development. There were two fertility questions in the 2010 Census of Population and Housing. One asked all females 12 years and older if they ever had a live birth, broken down by whether these children were still living or not. The second question asked females, 12 to 49 years old if they had any live births in the 12 months preceding the Census, also broken down by whether these children were still alive or not.

### 7.2 Concepts and Definitions

- **Age Specific Fertility Rates (ASFR):** Is the annual number of births to women in a particular age group per 1000 women in that age group.
- **Child Woman Ratio (CWR):** The ratio of all children aged 0-4 years to women aged 15-49 years in the population.
- **Completed Family Size (Mean Parity):** is the number of children ever born to women who have completed their reproduction i.e. those aged 50 and older.
- **Crude Birth Rate (CBR):** Is the annual number of live births per thousand population present at mid-year.
- **Fertility:** refers to the occurrence of live births among women in a population.
- **General Fertility Rate (GFR):** The number of live births occurring in a year 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 reached the end of her reproduction if she experienced age specific fertility rates prevailing in that year.
- **Mean Age at Child Bearing (MACB):** Is the mean age of mothers at the birth of their children if women were subject throughout their lives to the age-specific fertility rates observed in a given year. It is computed as the sum of age-specific fertility rates weighted by the midpoint of each group.
- **Mean Parity:** Refers to the completed family size (CFS)
- **Net Reproduction Rate (NRR):** refers to the average number of female births born to women aged 15-49 years that would survive to the end of their reproductive period after experiencing the prevailing fertility and mortality levels.

- **Total Fertility Rate (TFR):** Is the average number of live births a woman would have by age 50 if she were subject, throughout her life, to the age specific fertility rates observed in a given year. The calculation assumes there is no mortality and is expressed as number of children per woman.

### 7.3 Data Availability and Limitations

Fertility measurement in most developing countries, Zambia inclusive, is still a significant challenge. This is so because direct methods of measuring fertility, such as the vital registration system, are still underdeveloped. As a result, the 2010 Census applied indirect estimation methods to measure fertility. The 2010 Census followed international standards in asking questions on children ever born and births occurring in the 12 months prior to Census Night. The question on 'children ever born' provides a total record of women's child bearing experience from the beginning of their reproductive period to the current age (Manual X 1983 pp 31). The average number of children ever born, obtained by dividing the number of reported children by the number of women is a measure of the fertility experience of a cohort of women (Ibid 1983 pp33). The question on Children Ever Born (CEB) provides estimates for lifetime fertility and completed mean parity or family size.

Data from the question on 'births occurring 12 months prior to the census' was used to estimate Age Specific Fertility Rates (ASFRs), Total Fertility Rates (TFR), Gross Reproduction Rates (GRRs) and Net Reproduction Rates (NRRs) for national, provincial and district levels.

Omission of children by women responding to the census question on children ever born and births in the last twelve months may introduce errors in the estimation of fertility, especially those that died or are living elsewhere. In view of this weakness, the 2010 Census broke down this question to include other questions such as 'how many children are living with you?', 'how many are living elsewhere?' and 'how many are dead?' This form of investigation has the advantage of providing more accurate data for making appropriate estimates (Ibid 1983 pp 27).

### 7.4 Evaluation and Justification for Adjustments

The 2010 Census data on fertility was evaluated for completeness of reporting of children ever born and births in the last 12 months using the Coale-Demeny and Brass Empirical formula technique. Using data for CEB, the Brass empirical formula yielded this result:  $(P_2)(P_4/P_3)^4 = (1.342)(3.859/2.623)^4 = 7.897$ . Observed average parity for women 45-49 years for the 2010 Census was 6.018. Comparing the Brass empirical formula result with observed parity for women 45-49 years, it is clear that there was under reporting of children. This therefore called for the adjustment of reported fertility in order to come up with adjusted Age Specific Fertility Rates (ASFRs) and Total Fertility Rates (TFRs).

The 2010 Census therefore applied the P/F Ratio Technique, which uses children ever born data to adjust fertility data for underreporting in number of births that occurred in the last 12

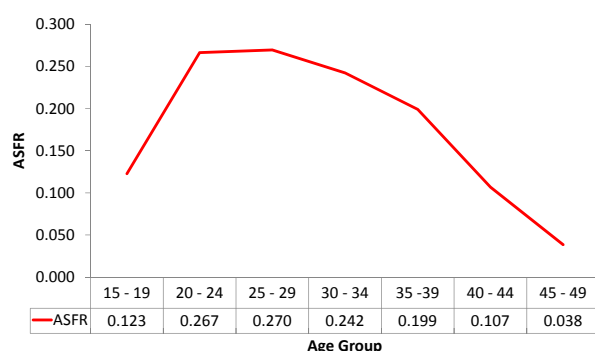
months prior to the census (Arriaga et al 2005). The P/F Ratio Technique is based on cumulating fertility (represented by letter 'F') up to ages 20, 25, ...50 (49) which are later adjusted and compared with CEB, represented by letter 'P'. The general assumption of this technique is that the number of children ever born is more accurately reported than births in the last year. In the same way, the P/F Ratio Technique also assumes that the completeness of data is the same for all age groups of women; that the reporting of the average number of children ever born per woman is complete at least up to ages 30 or 35 years; that there is no age misreporting of women of childbearing age; and that the pattern and level of fertility have not changed in the 10-15 years prior to the census (Coale and Trussel, 1974).

## 7.5 Fertility Indicators

### 7.5.1 Adjusted Age Specific Fertility Rates

Figure 7.1 shows the Adjusted Age Specific Fertility Rates. The age group with the highest ASFR in 2010 was 25-29 years. This was followed by the age group 20-24 years.

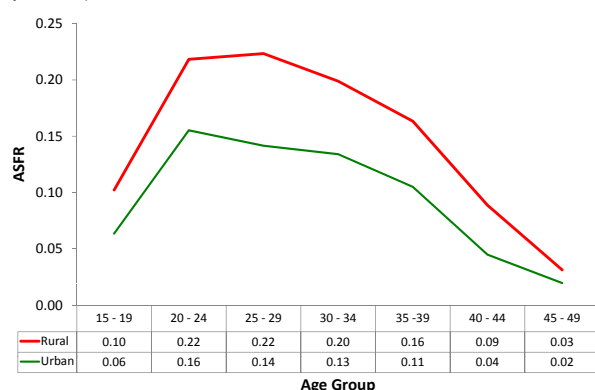
**Figure 7.1: Adjusted Age Specific Fertility Rate (ASFR) by Age Group, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 7.2 shows the Adjusted Age Specific Fertility Rates by rural/urban. Results show that child bearing starts early in rural areas compared to urban areas. The peak for child bearing in rural areas was in the age group 25-29 years, while in urban areas the peak was in the age group 20-24 years.

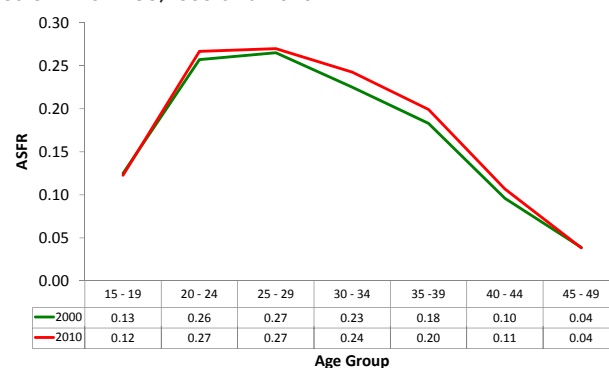
**Figure 7.2: Adjusted Age Specific Fertility Rate by Age Group and Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 7.3 shows trends in the adjusted ASFR for Western Province for the years 2000 and 2010. Results show that the peak of child bearing in both 2000 and 2010 was in the age group 25-29 years.

**Figure 7.3: Adjusted Age Specific Fertility Rate by Age Group, Western Province, 2000 and 2010**

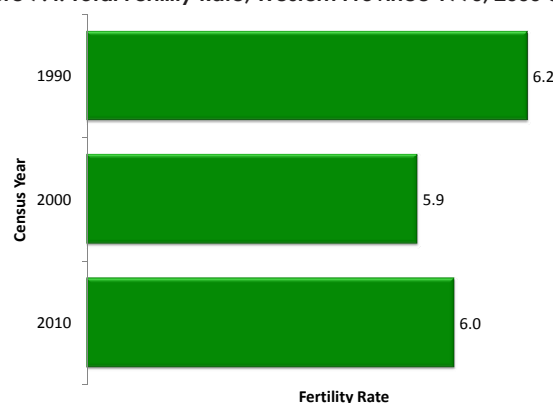


Source: 2000 and 2010 Censuses of Population and Housing

### 7.5.2 Total Fertility Rate

Figure 7.4 shows trends in Total Fertility Rate (TFR) in Western Province from 1990, 2000 and 2010. The results show that the TFR declined from 6.2 in 1990 to 5.9 in 2000 and increased to 6.0 in 2010.

**Figure 7.4: Total Fertility Rate, Western Province 1990, 2000 and 2010**

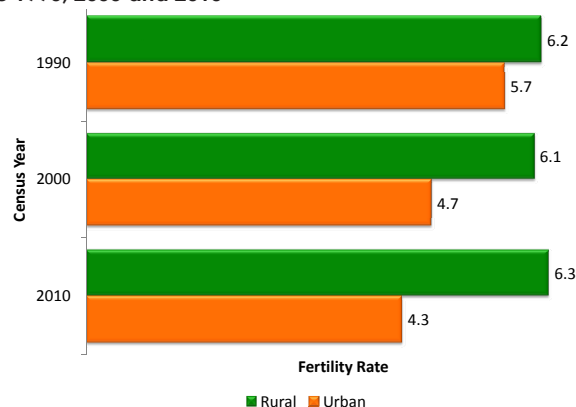


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

#### 7.5.2.1 Total Fertility Rate by Rural/Urban

Figure 7.5 shows the trends in Total Fertility Rate by rural/urban from 1990 to 2010. There were some variations in TFR at rural/urban level. Results show that between 1990 and 2000 the TFR for rural areas in Western Province declined from 6.2 to 6.1 and increased to 6.3 in 2010. The TFR in urban areas declined from 5.7 in 1990 to 4.7 in 2000 and further declined to 4.3 in 2010. Generally, the rural total fertility rates have been consistently high whereas the urban total fertility rates have been declining.

**Figure 7.5: Total Fertility Rate (TFR) by Rural/Urban, Western Province 1990, 2000 and 2010**

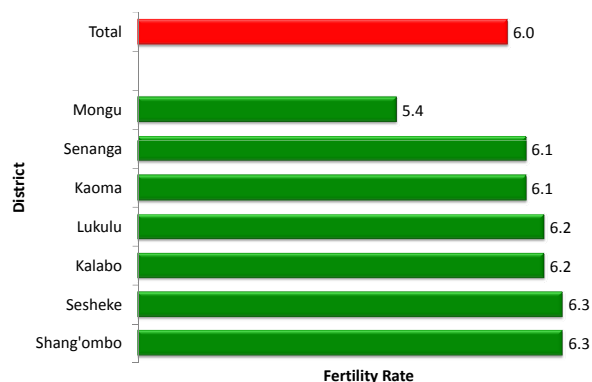


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

### 7.5.2.2 Total Fertility Rate by District

Figure 7.6 shows total fertility rates by district. In 2010, Mongu District had the lowest TFR at 5.4. Shan'gombo and Sesheke Districts had the highest at 6.3 each. In Western Province, apart from Mongu District at 5.4, all the districts recorded a TFR higher than the provincial estimate.

Figure 7.6: Total Fertility Rate by District, Western Province 2010

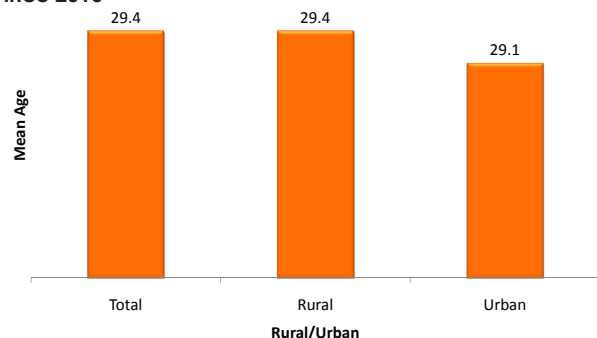


Source: 2010 Census of Population and Housing

### 7.5.3 Mean Age at Child Bearing (MACB)

Figure 7.7 shows the Mean Age at Child Bearing (MACB). In 2010, the MACB for Western Province was 29.4 years. The rural and urban MACB were 29.4 and 29.1, respectively.

Figure 7.7: Mean Age at Child Bearing by Rural/Urban, Western Province 2010

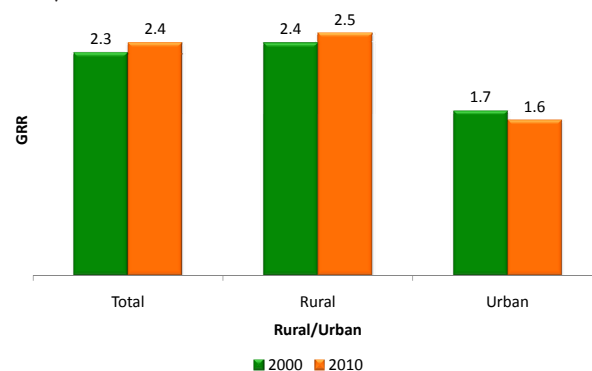


Source: 2010 Census of Population and Housing

### 7.5.4 Gross Reproduction Rate (GRR)

Figure 7.8 shows trends in the Gross Reproduction Rate by rural/urban in 2000 and 2010. The GRR increased from 2.3 in 2000 to 2.4 in 2010. In 2010, the GRR was higher in rural areas at 2.5 compared to 1.6 in urban areas.

Figure 7.8: Gross Reproduction Rate by Rural/Urban, Western Province, 2000 and 2010

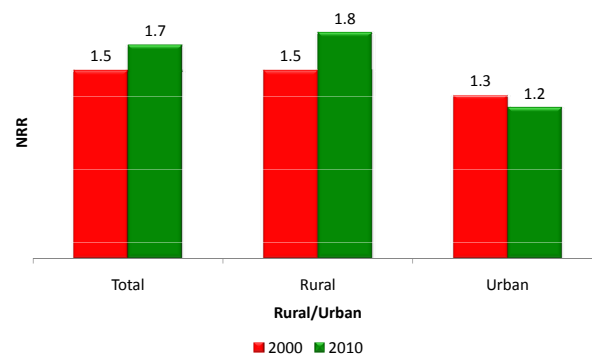


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

### 7.5.5 Net Reproduction Rate (NRR)

Figure 7.9 shows trends in the Net Reproduction Rate by rural/urban in 2000 and 2010. The NRR increased from 1.5 in 2000 to 1.7 in 2010. In 2010, the NRR was higher in rural areas at 1.8 compared to 1.2 in urban areas.

Figure 7.9: Net Reproduction Rate by Rural/Urban, Western Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

### 7.5.6 Other Fertility Indicators

Several other indices of fertility can also be measured from data on births and population (Arriaga et al., 2005). These include the Crude Birth Rate (CBR), Child-Woman Ratio (CWR), Completed Family Size (CFS) and General Fertility Rate (GFR). Table 7.1 shows a summary of fertility indicators by rural/urban and district. In 2010, the CBR was at 36 live births per 1000 mid-year population, while the CWR was at 802 births per 1000 women aged 15-49 years. Other indicators such as the GFR and CFS were at 153 and 5.7, respectively.

Table 7.1: Fertility Indicators By Rural/Urban and District Western Province 2010

Census year Rural/Urban and province	Total Fertility Rate (TFR)	Completed Family Size (CFS)	Crude Birth Rate (CBR)	Child Woman Ratio (CWR)	General Fertility Rate (GFR)	Gross Reproduction Rate (GRR)	Net Reproduction Rate (NRR)
Western Province	6	5.7	36	802	153	2.4	1.7
Rural	6.3	5.7	37	846	162	2.5	1.8
Urban	4.3	5.5	28	566	103	1.6	1.2
<b>Fertility indicators - Districts</b>							
Kalabo	6.2	5.6	39	801	163	2.6	1.8
Kaoma	6.2	5.6	36	798	153	2.4	1.7
Lukulu	6.2	5.4	37	874	161	2.5	1.9
Mongu	5.4	5.8	34	726	138	2.1	1.4
Senanga	6.1	5.9	36	813	154	2.4	1.6
Sesheke	6.3	6.1	37	822	164	2.5	1.9
Shan'gombo	6.3	5.2	35	866	151	2.4	1.8

Source: 2010 Census of Population and Housing

## 7.6 Fertility Differentials and Selected Background Characteristics of Women Aged 15-49 Years

The section presents results on the fertility levels by various background characteristics of women. These characteristics include religious affiliation, education level and economic characteristics.

### 7.6.1 Total Fertility Rate by District and Religious Affiliation of Women Aged 15-49 Years

Table 7.2 shows fertility levels by religious affiliation of women. Total Fertility Rate was higher among Muslim women 7.5, followed by women with no religious affiliation at 7.0. The lowest total fertility rate was among the Catholic women at 5.6.

District	All Women	Religious Affiliation of Women (15-49 years)					
		Catholics	Protestants	Muslims	Hindus	Other	None
<b>Western Province</b>	<b>6.0</b>	<b>5.6</b>	<b>6.0</b>	<b>7.5</b>	-	<b>5.8</b>	<b>7.0</b>
Kalabo	6.2	6.1	6.1	6.1	-	5.9	6.6
Kaoma	6.1	6.0	6.1	-	-	5.8	10.0
Lukulu	6.2	5.6	6.2	-	-	6.9	7.7
Mongu	5.4	4.6	5.4	5.1	-	5.7	6.3
Senanga	6.2	6.2	6.2	11.8	-	4.8	8.3
Sesheke	6.3	6.6	6.3	3.0	-	3.5	4.0
Shang'ombo	6.3	6.2	6.2	1.6	-	9.4	7.0

Source: 2010 Census of Population and Housing

Note: (-) missing due to insufficient number of cases for calculating TFR

### 7.6.2 Total Fertility Rate by Education Attainment of Women Aged 15-49 Years

Table 7.3 shows the total fertility rate for women by their education attainment and district. Total Fertility Rate was

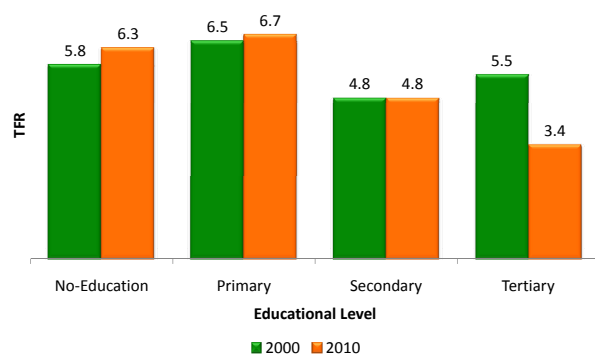
higher among women with primary education (6.7), followed by women with no education (6.3). Women with tertiary education had the lowest total fertility rate at 3.4.

District	All Women	Education Level Attainment (15-49 years)			
		No education	Primary	Secondary	Tertiary
<b>Western Province</b>	<b>6.0</b>	<b>6.3</b>	<b>6.7</b>	<b>4.8</b>	<b>3.4</b>
Kalabo	6.2	6.0	6.7	5.4	5.0
Kaoma	6.1	6.2	6.8	4.8	4.7
Lukulu	6.2	6.2	6.6	5.1	5.4
Mongu	5.4	6.0	6.4	4.3	3.7
Senanga	6.2	6.5	6.6	5.2	3.2
Sesheke	6.3	7.0	7.4	4.8	2.6
Shang'ombo	6.3	6.4	6.6	5.3	2.6

Source: 2010 Census of Population and Housing

Figure 7.10 shows TFR by women's education attainment in 2000 and 2010. The results show that women with primary education had the highest total fertility rate in both 2000 and 2010. In 2000, the lowest total fertility rate was among women with secondary education while in 2010, the lowest was among women with tertiary education.

**Figure 7.10: Total Fertility Rate by Education Attainment of Women Aged 15-49 Years, Western Province 1990, 2000 and 2010**

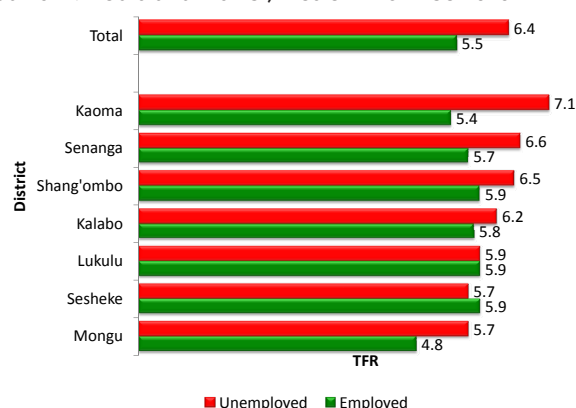


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

### 7.6.3 Total Fertility Rate by Employment Status of Women Aged 15-49 Years

Figure 7.11 show the total fertility rate by employment status of women aged 15-49 years and district. The total fertility rate was higher among unemployed women (6.4) than that of the employed women (5.5). The same pattern was observed for all the districts except for Sesheke District that had a higher TFR for the employed than that of the unemployed women. Lukulu District recorded the same TFR for both the unemployed and the employed women 15-49 years.

**Figure 7.11: Total Fertility Rate by Employment Status of Women Aged 15-49 Years and District, Western Province 2010**



Source: 2010 Census of Population and Housing





## **CHAPTER 8**

# **CHILDHOOD MORTALITY CHARACTERISTICS**

### **8.0 Summary**

The infant mortality rate (IMR) declined from 141.0 deaths per 1000 live births in 1990 to 138.0 deaths per 1,000 live births in 2000 and further declined to 81.5 deaths per 1000 live births in 2010.

The child mortality rate (CMR) declined from 113.0 deaths per 1000 live births in 1990 to 110.0 deaths per 1000 live births in 2000 and further declined to 48.9 deaths per 1000 live births in 2010.

The under-five mortality rate (U5MR) declined from 238.0 deaths per 1000 live births in 1990 to 233.0 deaths per 1000 live births in 2000 and further declined to 130.3 deaths per 1000 live births in 2010.

# Chapter 8

## Childhood Mortality Characteristics



### 8.1 Introduction

Child mortality is a key indicator not only of child health and nutrition but also of the implementation of child survival interventions and, more broadly, of social and economic development (UNICEF, 2011). Reducing the current levels of child mortality is one of eight millennium development goals (MDG4). Though it is a global goal, it is also a national goal set in Zambia's national health strategic plans over time. In the past decade, the government through the Ministry of Health (MOH) has scaled up child health interventions such as the child health week programme aimed at expanding access to immunization and other child health interventions like vitamin A supplementation to the hard to reach children in communities.

Among the major causes of child mortality are infectious diseases like pneumonia, diarrhea, malaria and measles. These diseases are common and affect most children. HIV/AIDS and its related complications, coupled with high levels of malnutrition also contribute to the high disease burden among children under the age of five.

### 8.2 Concepts and Definitions

**Mortality** refers to the occurrence of deaths in a population.

**Age Specific Death Rates (ASDR)** refers to mortality rates from deaths occurring to a specified population age group or sex per 1,000 population in that age group or sex during a given time period.

**Infant mortality rate (IMR)** is usually denoted by the life table notation (1q0) and refers to the number of infant (children below the age of one year) deaths per 1,000 live births occurring during a specified reference period, in this case taken to be one year prior to the census.

**Child mortality rate (CMR)** usually denoted by the life table notation (4q1) refers to the number of child (children aged between exact age one and four years) deaths per 1,000 live births occurring during a specified reference period, in this case taken to be one year prior to the census.

**Under-five mortality rate (U5MR)** usually denoted by the life table notation (5q0) refers to the number of deaths among children aged below the age of five years per 1,000 live births occurring during a specified reference period, in this case taken to be one year prior to the census. U5MR therefore, constitutes both the infant and child mortality.

### 8.3 Collection of Childhood Mortality data in the 2010 Census

Information collected in population and housing censuses on the total number of children ever born and children surviving are used in the estimation of childhood mortality (UN, 1983). Two questions are usually included in a census on children ever born (CEB) and births in the last 12 months prior to the census.

This information is also used in the estimation of fertility.

All women aged 12 years and older in all households were asked whether they had a live birth, including those who died after birth. Follow up questions were asked to find out how many of the children born alive were living in the household by sex, how many were living elsewhere by sex and how many were dead. This information was also collected from all women aged 12-49 years for the 12 months period prior to the census.

### 8.4 Childhood Mortality data evaluation and estimation procedure

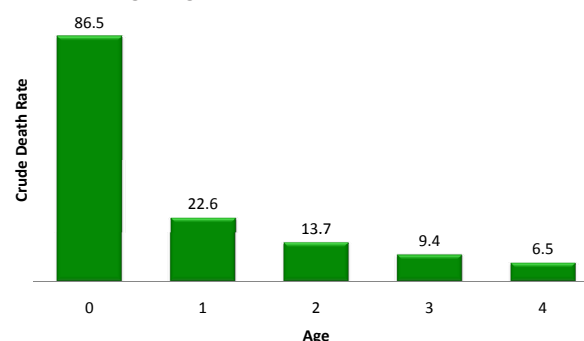
It is well known that the proportions of children ever born who have died are indicators of child mortality and can yield robust estimates of childhood mortality (UN, 1983). However, it is equally well known that children ever born data sometimes suffers from under reporting of dead children, especially those that die early in infancy. Infants that die within 24 hours after birth are sometimes classified not as deaths but as "stillbirths" (Shryock, 1980).

#### 8.4.1 Crude Death Rate

Child mortality data collected using the question on household deaths in the last twelve months was evaluated using demographic methods. Crude mortality rates were computed using observed unadjusted data. Evaluation was made of the observed crude measures. The observed crude death rates for the population aged 0-4 years are shown in Figures 8.1 and 8.2 and Table 8.1.

The observed Crude Death Rate (CDR) presented in Figure 8.1 shows that childhood mortality was higher among infants with 86.5 deaths per 1000 population aged less than one year. The observed CDR declined with increasing age of the child, reaching the level of 6.5 deaths per 1000 population at age four.

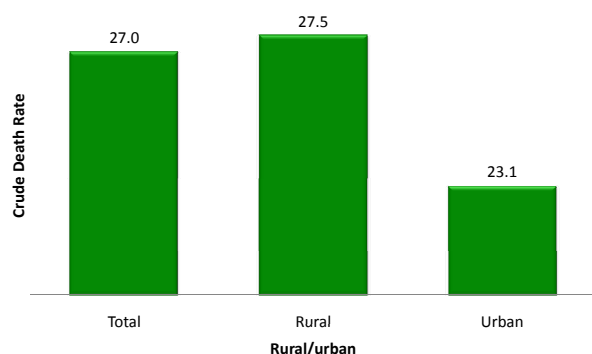
**Figure 8.1: Observed Crude Death Rate per 1000 Population Aged 0-4 Years by Single Age, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 8.2 shows observed crude death rate by rural/urban. The observed crude death rate was 27.0 deaths per 1000 population aged 0-4 years. It was higher in rural areas at 27.5 deaths per 1,000 population aged 0-4 years compared to 23.1 deaths per 1,000 population in urban areas.

**Figure 8.2: Observed Crude Death Rate per 1000 Population Aged 0-4 Years by Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Table 8.1 shows Crude Death Rate by rural/urban, sex and single age for the population aged 0-4 years. The analysis of the crude death rate presented in Table 8.1 provide proxy indications of the expected levels of infant, child and under five mortality rates. The information in the table indicates an infant mortality rate of 87, a child mortality rate of 52 and an under-five mortality rate of 139 deaths per 100 live births.

Similarly, the information in the table approximates the infant mortality rate of 89 for rural areas and 65 for urban areas, a child mortality rate of 52 for rural areas and 51 for urban areas and an under five mortality rate of 141 for rural and 116 for urban.

**Table 8.1: Observed Crude Death Rates (CDR) by Sex and Single Age for Population Aged 0-4 Years, Rural/Urban, Western Province 2010**

Age	Western Province			Rural			Urban		
	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females
0	0.087	0.093	0.080	0.089	0.096	0.083	0.065	0.076	0.054
1	0.023	0.023	0.022	0.022	0.023	0.022	0.026	0.028	0.025
2	0.014	0.014	0.013	0.014	0.014	0.014	0.010	0.013	0.007
3	0.009	0.010	0.009	0.009	0.010	0.008	0.009	0.007	0.011
4	0.006	0.007	0.006	0.007	0.007	0.006	0.006	0.006	0.006

Source: 2010 Census of Population and Housing

Direct estimation procedures were used to generate childhood mortality indicators. These indicators were extracted from the empirical life table generated using information on household deaths in the period 12 months prior to the census. The US Census Bureau spreadsheet LTPOPDTH was used to generate the life tables.

### 8.5 Infant Mortality Rate

Table 8.2 shows Infant Mortality Rate (IMR) by sex and rural/urban for Western Province for the period 12 months prior to the census. In 2010, the IMR was 81.5 deaths per 1000 live births. In rural areas, the IMR was 84.0 deaths per 1000 live births and 62.5 deaths per 1000 live births in urban areas. Estimated IMR was higher for male children than female children in both rural and urban areas.

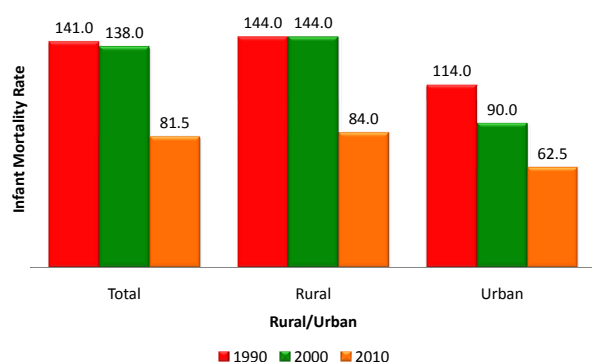
**Table 8.2: Infant Mortality Rate (IMR) by Sex and Rural/Urban, Western Province 2010**

Rural/Urban	Both Sexes	Males	Females
Western Province	81.5	87.6	75.5
Rural	84.0	89.5	78.3
Urban	62.5	72.1	52.3

Source: 2010 Census of Population and Housing

The infant mortality rate presented in Figure 8.3 show declining trends since 1990. The IMR declined from 141.0 deaths per 1,000 live births in 1990 to 81.5 deaths per 1,000 live births in 2010. The decline in IMR occurred in both rural and urban areas since 1990.

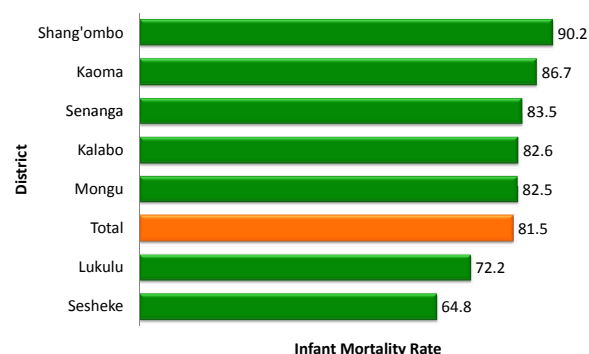
**Figure 8.3: Infant Mortality Rate (IMR) by Rural/Urban, Western Province 1990, 2000 and 2010**



Source: 1990, 2000 and 2010 Censuses of Population and Housing

Infant Mortality Rates (IMRs) by district is presented in Figure 8.4. Lukulu and Sesheke Districts had infant mortality rates below the provincial average of 81.5 infant deaths per 1,000 live births in 2010. The highest Infant mortality rate was in Shang'ombo District at 90.2 infant deaths per 1000 live births while the lowest was in Sesheke District at 64.8 infant deaths per 1,000 live births.

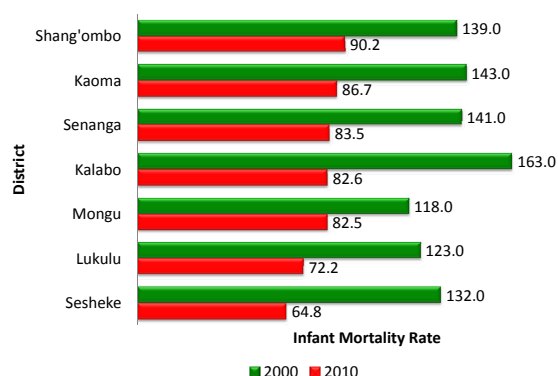
**Figure 8.4: Infant Mortality Rate (IMR) by District, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 8.5 shows infant mortality rate by district in 2000 and 2010. The figure shows that infant mortality declined in all the districts during the period 2000 and 2010. The highest decline in IMR occurred in Kalabo District from 163 deaths per 1,000 live births in 2000 to 82.6 deaths per 1,000 live births in 2010.

**Figure 8.5: Infant Mortality Rate (IMR) By District, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

## 8.6 Child Mortality Rate

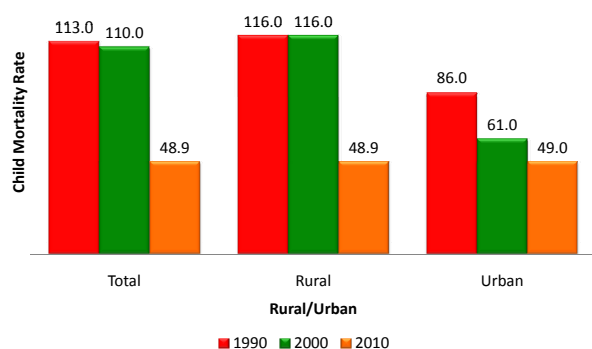
Table 8.3 shows Child Mortality Rate (CMR) by sex and rural/urban in 2010. The CMR for Western Province was 48.9 deaths per 1,000 live births. In rural areas, the CMR was 48.9 deaths per 1,000 live births and 49.0 deaths per 1,000 live births in urban areas. The CMR was higher for male than for female children in both rural and urban areas.

Rural/Urban	Both Sexes	Males	Females
<b>Western Province</b>	<b>48.9</b>	<b>51.0</b>	<b>46.8</b>
Rural	48.9	51.0	46.8
Urban	49.0	51.3	46.8

Source: 2010 Census of Population and Housing

Figure 8.6 shows Child Mortality Rate (CMR) by rural/urban in 1990, 2000 and 2010. The figure suggests improvements in child survival in Western Province as depicted by declining child mortality rate in both rural and urban areas during the two inter-censal periods. Child mortality rate declined in rural areas from 116.0 deaths per 1,000 live births in 1990 to 48.9 deaths per 1,000 live births in 2010. Similarly, child mortality rate declined in urban areas from 86 deaths per 1,000 live births in 1990 to 49.0 deaths per 1,000 live births in 2010.

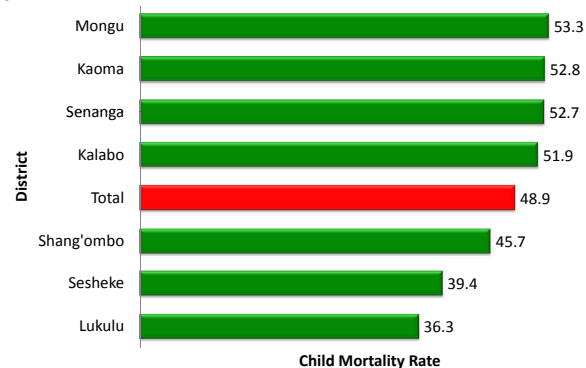
**Figure 8.6: Child Mortality Rate (CMR) by Rural/Urban, Western Province 1990, 2000 and 2010**



Sources: 1990, 2000 and 2010 Censuses of Population and Housing

The Child Mortality Rate (CMR) by district is presented in Figure 8.7. In 2010, the child mortality rate for Lukulu, Sesheke and Shang'ombo Districts were below the provincial average of 48.9 deaths per 1,000 live births. Mongu District had the highest child mortality rate at 53.3 deaths per 1,000 live births while Lukulu District had the lowest child mortality rate at 36.3 deaths per 1,000 live births.

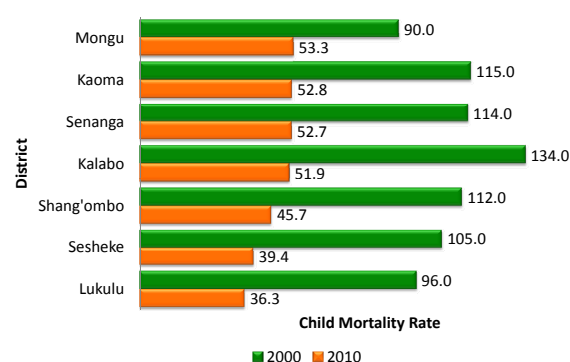
**Figure 8.7: Child Mortality Rate (CMR) by District, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 8.8 shows child mortality rate by district for Western Province. Between 2000 and 2010, child mortality declined in all the districts. Kalabo District had the highest decline in child mortality rate during the inter-censal period from 134.0 deaths per 1,000 live births in 2000 to 51.9 deaths per 1,000 live births in 2010.

**Figure 8.8: Child Mortality Rate (CMR) By District, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

## 8.7 Under-Five Mortality Rate (U5MR)

Table 8.4 shows Under-Five Mortality Rate (U5MR) by sex and rural/urban. The U5MR for Western Province was 130.3 deaths per 1,000 live births. The U5MR in rural areas was 132.9 deaths per 1,000 live births and 111.5 deaths per 1,000 live births in urban areas.

As observed in infant and child mortality, under-five mortality rate was higher for male than female children in both rural and urban areas.

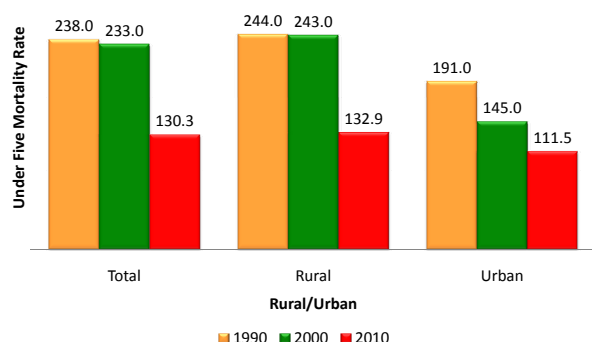
Rural/Urban and Province	Both Sexes	Males	Females
<b>Western Province</b>	<b>130.3</b>	<b>138.6</b>	<b>122.3</b>
Rural	132.9	140.5	125.2
Urban	111.5	123.4	99.1

Source: 2010 Census of Population and Housing

Figure 8.9 shows Under-five Mortality Rate by rural/urban in 1990, 2000 and 2010. The figure shows that under-five mortality declined from 238.0 deaths per 1,000 live births in 1990 to 233.0 deaths per 1,000 live births in 2000. In 2010 the under-five mortality rate further declined to 130.3 deaths per 1,000 live births.

Under-five Mortality rate declined in both rural and urban areas from 1990 to 2010. In rural areas, Under-five Mortality Rate declined from 244.0 deaths per 1,000 live births in 1990 to 132.9 deaths per 1,000 live births in 2010. A decline was also observed in urban areas from 191.0 deaths per 1,000 live births in 1990 to 111.5 deaths per 1,000 live births in 2010.

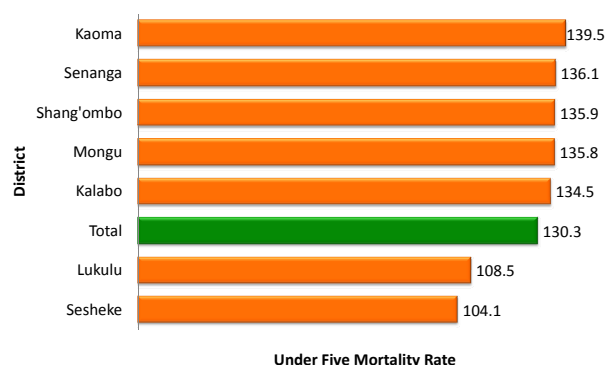
**Figure 8.9: Under five Mortality Rate (U5MR) by Rural/Urban, Western Province 1990, 2000 and 2010**



Sources: 1990, 2000 and 2010 Censuses of Population and Housing  
Note: 1990 and 2000 figures were revised using QFIVE

Figure 8.10 shows Under-five Mortality Rate by district. Lukulu and Sesheke districts had Under-five Mortality Rate below the provincial average of 130.3 deaths per 1,000 live births while the other five districts were above the provincial average. Sesheke District had the lowest Under-five Mortality Rate at 104.1 deaths per 1,000 live births while Kaoma District had the highest at 139.5 deaths per 1,000 live births.

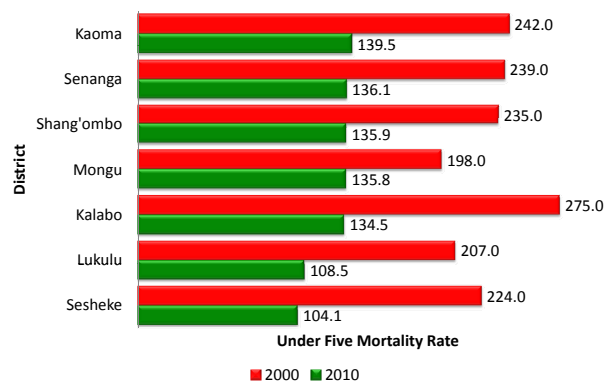
**Figure 8.10: Under Five Mortality Rate (U5MR) by District, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 8.11 shows under-five mortality rate by district in 2000 and 2010. Kalabo District had the highest decline in Under five Mortality Rate during the 2000-2010 inter-censal period from 275.0 deaths per 1,000 live births to 134.5 deaths per 1,000 live births, respectively.

**Figure 8.11: Under Five Mortality Rate (U5MR) by District, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing





## **CHAPTER 9**

# **GENERAL AND MATERNAL MORTALITY CHARACTERISTICS**

### **9.0 Summary**

The Crude Death Rate (CDR) in 2010 was 16.0 deaths per 1,000 population; 17.6 deaths per 1,000 population for males and 14.6 deaths per 1,000 population for females. Rural areas had a higher CDR at 16.0 deaths compared to 15.8 deaths per 1,000 population for urban areas.

The age groups with the highest percentage of reported adult deaths were the age groups 25-29 years for females and 30-34 years for males. For ages below 35 years, the percentages of the reported adult deaths were higher among females than males.

The life expectancy at birth was 45.6 years, 45.9 years in rural areas and 44.5 years in urban areas. Females had a higher life expectancy at birth of 48.3 years compared to 42.9 years for males.

The most common cause of death was sickness/disease accounting for 77.2 percent of all reported causes.

# Chapter 9

## General Mortality Characteristics



### 9.1 Introduction

Mortality data are useful in assessing the performance of national health programmes, including interventions aimed at disease control and prevention. Mortality statistics provide a foundation on which health policy is formulated.

Mortality measure, though a challenge in the absence of complete vital registration is still critical to national planning. Census and surveys still form a major source of mortality information for Zambia. However, the costs and periodicity of census and surveys affect timeliness and accuracy.

A national population census provides a unique opportunity to collect mortality data for district and sub-district level estimates. This is the core advantage of collecting mortality data in a census over other sources. The district level estimates of mortality form critical input into population projections and components of district planning.

### 9.2 Concepts and Definitions

The following concepts and definitions have been used in analyzing General Mortality in this chapter;

- **Death (Mortality):** The complete disappearance of any signs of life at any time after a live birth has occurred.
- **Crude Death Rate (CDR):** The ratio of the number of deaths occurring in a year to the mid-year population expressed per 1,000 population.
- **Age Specific Death Rates (ASDR):** Mortality rates from deaths occurring to a specified population age group or sex per 1,000 population in that age group or sex during a given time period
- **Life Expectancy at Birth (e0):** Average number of years expected to be lived by a birth cohort, based on prevailing age specific mortality rates

### 9.3 Collection of Mortality Data in the 2010 Census

Information on children ever born, children surviving and children dead and direct questions on deaths in the 12 months prior to the census were asked to all households in the census. All households in the census were asked whether there was any member who had died since October 2009, the sex of the deceased, age and the cause of death.

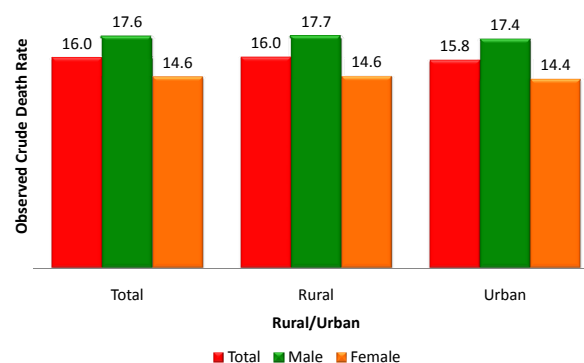
### 9.4 General Mortality

#### 9.4.1 Crude Death Rate (CDR)

Crude Death Rate (CDR) gives a general indication of the levels of mortality in a population. Crude death rate is calculated for 12 month periods such as calendar years or fiscal years so as to eliminate the effect of seasonal or monthly variations on the comparability of the rates (Shryock et al., 1980).

Figure 9.1 shows the observed crude death rate (CDR) for Western Province by sex and rural/urban. The Crude Death Rate was 16.0 deaths per 1,000 population; 17.6 deaths per 1,000 population for males and 14.6 deaths per 1,000 population for females. Overall, males had higher mortality than females in both rural and urban areas. The CDR was higher in rural areas, 16.0 deaths per 1,000 population than 15.8 deaths per 1,000 population in urban areas.

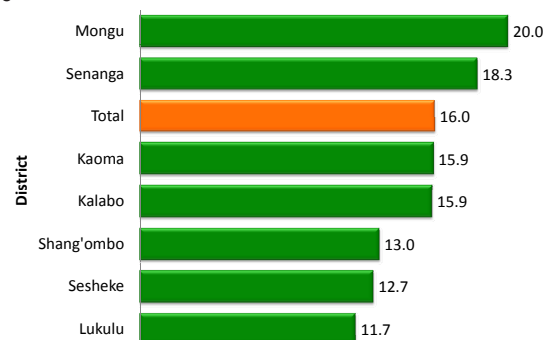
**Figure 9.1: Observed Crude Death Rate (CDR) per 1,000 Population by Sex and Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 9.2 shows Crude Death Rate by district. The figure shows that Mongu and Senanga districts had Crude Death Rates above the provincial average of 16.0 deaths per 1,000 population.

**Figure 9.2: Crude Death Rate (CDR) by District, Western Province 2010**



Source: 2010 Census of Population and Housing

The highest Crude Death Rate was in Mongu District at 20.0 deaths per 1,000 population and the lowest was in Lukulu District at 11.7 deaths per 1000 population.

Table 9.1 shows the observed Crude Death Rate by sex and district. In all the districts, the observed CDR was higher for males than females.

District	Male	Female
Kalabo	18.2	13.9
Kaoma	17.2	14.8
Lukulu	12.6	10.9
Mongu	22.0	18.1
Senanga	20.0	16.9
Sesheke	13.8	11.6
Shang'ombo	14.7	11.5

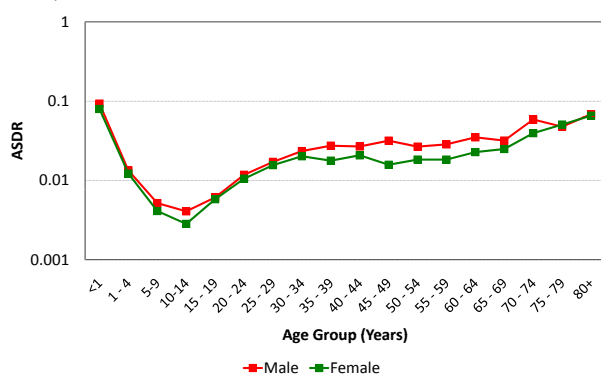
Source: 2010 Census of Population and Housing

### 9.4.2 Age-Sex Specific Death Rate

Age and sex form two important demographic variables in the analysis and understanding of mortality levels and patterns. Certain diseases or mortality risks tend to be age or sex selective. Age-sex specific death rate refers to deaths occurring to a specified population age group or sex per 1,000 population in that age group or sex during a given time period.

Figure 9.3 shows the observed Age-Sex Specific Death Rates for Western Province in 2010. The figure shows a u-shaped characteristic with high mortality at the very young and oldest ages. The high death rate in the age groups less than 1 and 1 to 4 years explains the high child mortality in Western Province. Further, the figure shows increasing mortality in both males and females after age 15 years, levelling off in the mid-thirties for both males and females.

**Figure 9.3: Observed Age-Sex Specific Death Rate by Age Group and Sex, Western Province 2010**



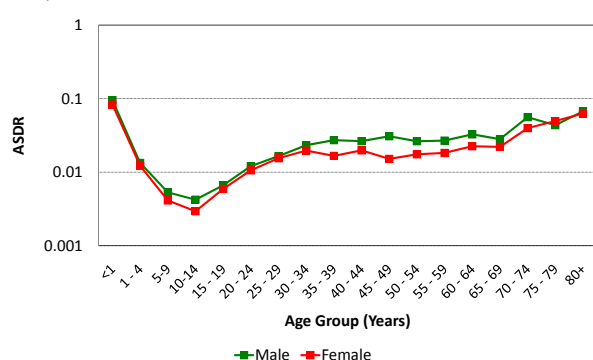
Source: 2010 Census of Population and Housing

Western Province follows the typical u-shaped age specific death rates pattern, starting off high in early childhood, declining to the lowest at the age group 10-14 years and increasing with age. There is a “bump” set off by rising mortality after age 15. The figure also shows higher mortality among males than females, especially in early childhood and after age 30.

Figures 9.4 and 9.5 show Age-Sex Specific Death Rate for rural and urban areas, respectively. In both cases, the mortality pattern is characterized by high mortality in young ages that decline with increasing age until the age of 15 years. After age 15, mortality steadily increases before levelling off in the thirties for females and in the late forties for males and then it increases with age.

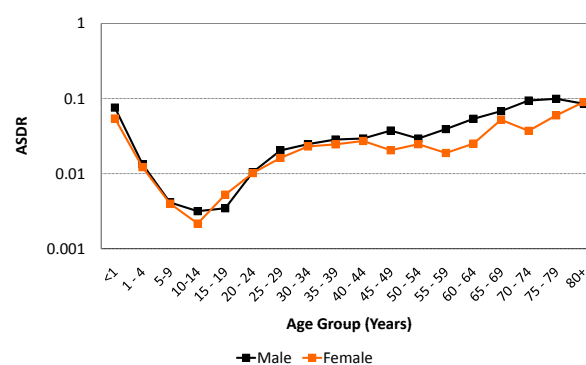
Generally, in both rural and urban areas, mortality was higher among males than females, especially over the age of 30 years.

**Figure 9.4: Observed Age-Sex Specific Death Rate by Age Group and Sex, Western Province Rural 2010**



Source: 2010 Census of Population and Housing

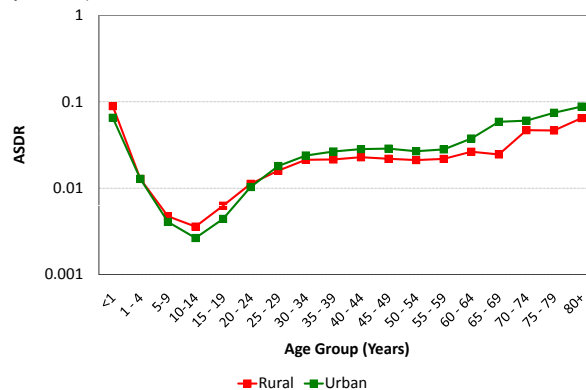
**Figure 9.5: Observed Age-Sex Specific Death Rate by Age Group and Sex, Western Province Urban 2010**



Source: 2010 Census of Population and Housing

Figure 9.6 shows Observed Age-Specific Death Rate by rural/urban for Western Province. The figure shows that above the age of 20 years, mortality is higher in urban areas than in rural areas.

**Figure 9.6: Observed Age Specific Death Rate by Age Group and Rural/Urban, Western Province 2010**

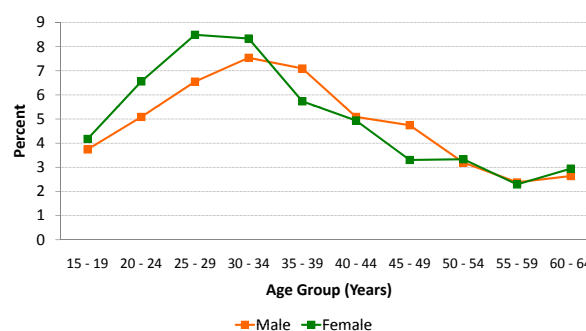


Source: 2010 Census of Population and Housing

In all societies, mortality levels are influenced more by the age structure. However, some causes of death tend to be sex selective. Therefore, mortality tends to vary by age and sex.

Figure 9.7 shows the percentage of reported adult deaths by age group and sex for Western Province. The age groups with the highest percentage of reported adult deaths were the age groups 25-29 years for females and 30-34 years for males. The percentage of reported adult deaths was higher for females than males in the age group 15-34 years, while the percentage of reported adult deaths was higher for males than females among those aged 35 years and older.

**Figure 9.7: Percent Reported Adult Deaths by Age Group and Sex, Western Province 2010**



Source: 2010 Census of Population and Housing

## 9.5 Life Expectancy

Life expectancy refers to the average number of years expected to be lived from a particular age of reference e.g. from age 0 (life expectancy at birth), age 5, age 15, age 45 or age 65. It is computed using prevailing age specific mortality rates and implied life table probabilities. Life expectancy is a useful summary measure because it takes into account the mortality situation at each age yet expresses the result in a single figure (US Census Bureau, 1994).

The most commonly used measure of life expectancy is the life expectancy at birth ( $e_0$ ), which refers to the average number of years expected to be lived by a birth cohort, based on prevailing age specific mortality rates.

Unadjusted data on household deaths was used to generate abridged life tables for Western Province by sex and rural/urban. The 2000 life expectancy estimates were indirectly estimated based on the North Model, while the 2010 estimates are based on empirical data on household deaths collected during the 2010 Census. The US Bureau spreadsheet LTPOPDTH was used to generate life tables from which the estimates of life expectancy at birth had been extracted. Table 9.2 shows life expectancy at birth by sex and rural/urban for Western Province in 2010.

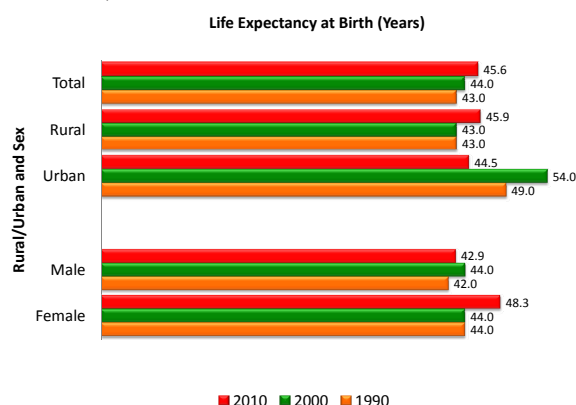
Western Province Rural/Urban	Both Sexes	Males	Females
<b>Western Province</b>	<b>45.6</b>	<b>42.9</b>	<b>48.3</b>
Rural	45.9	44.5	49.9
Urban	44.5	43.8	48.6

Source: 2010 Census of Population and Housing

In 2010, the life expectancy at birth for Western Province was 45.6 years. The life expectancy at birth for rural areas (45.9) was higher than in urban areas (44.5). A possible explanation lies in the high adult mortality in urban areas than in rural areas as explained earlier with the Age-Sex Specific Death Rate. In both rural and urban areas, females had higher life expectancy at birth than males.

Figure 9.8 shows life expectancy at birth by sex and rural/urban in 1990, 2000 and 2010. Life expectancy at birth increased from 43.0 years in 1990 to 45.6 years in 2010. In rural areas, life expectancy at birth increased from 43.0 years to 45.9 years between 1990 and 2010 while in urban areas it reduced from 49.0 years in 1990 to 44.5 years in 2010.

**Figure 9.8: Life Expectancy at Birth by Sex and Rural/Urban, Western Province 1990, 2000 and 2010**

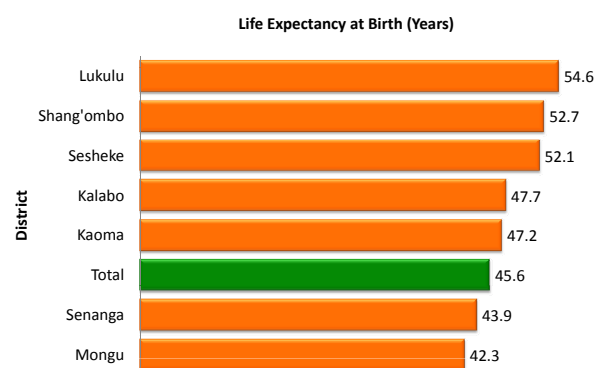


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

For males, life expectancy at birth increased from 42.0 years in 1990 to 42.9 years in 2010. The life expectancy at birth for females increased from 44.0 years in 1990 to 48.3 years in 2010.

Figure 9.9 shows life expectancy at birth by district. In 2010, Senanga and Mongu districts had life expectancy at birth below the provincial average of 45.6 years. Lukulu District had the highest life expectancy at birth of 54.6 years and Mongu District with the lowest life expectancy at birth of 42.3 years.

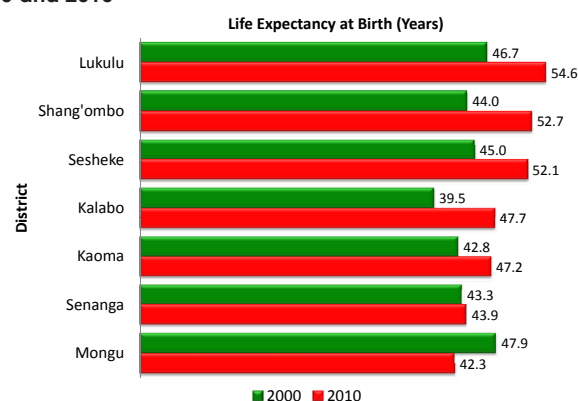
**Figure 9.9: Life Expectancy at Birth by District, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 9.10 shows life expectancy at birth by district for Western Province 2000 and 2010. Caution should also be taken in comparing the estimates for 2000 and 2010 as they are based on different methodologies. The 2000 estimates were based on indirect estimation based on the North Model Life Table, while the 2010 estimates are based on empirical data on household deaths collected during the 2010 Census. All the districts recorded increases except Mongu District that recorded a decline in life expectancy at birth between 2000 and 2010.

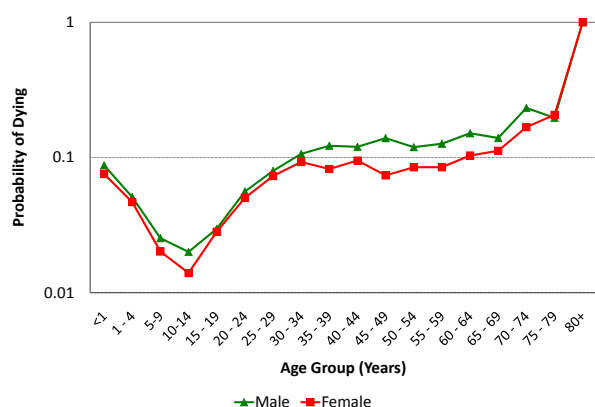
**Figure 9.10: Life Expectancy at Birth by District, Western Province 2000 and 2010**



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 9.11 shows life table function  $_{nqx}$  (probability of dying between exact  $n$  and  $n+x$ ). This is presented by age and sex due to the variability of mortality by age and sex.

**Figure 9.11: Life Table Probability of Dying (nqx) by Age and Sex, Western Province 2010**



Source: 2010 Census of Population and Housing

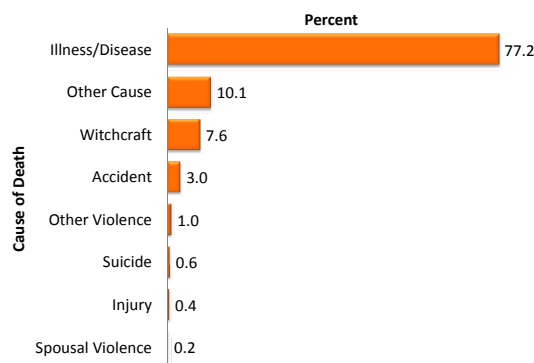
The probability of dying is higher for males than females in all age groups. At age 10, there is an improved survival prospect for both sexes. As mortality increases beyond age 25 years, the gap in the probability of dying between males and females increases and is even wider between the ages of 35 and 65 years. This contributes to the lower life expectancy among males than females.

## 9.6 Cause of Death

Information on the cause of death is important in focusing interventions to prevent and reduce mortality. For all deaths reported during the 2010 Census, cause of death information was collected. However, the broad categories were pre-specified due to limited space on the questionnaire.

Figure 9.12 shows the percentage of reported cause of death for deceased household members as reported by households. The major cause of mortality was illness/disease accounting for 77.2 percent of all reported household deaths. Accidents were cited as a cause of death in 3.0 percent of deaths reported while other causes were cited in 10.1 percent of reported deaths. Spousal violence, suicide and injury accounted for less than one percent each.

**Figure 9.12: Percent Reported Cause of Death for Deceased Household Members that Died 12 Months Prior to the Census, Western Province 2010**

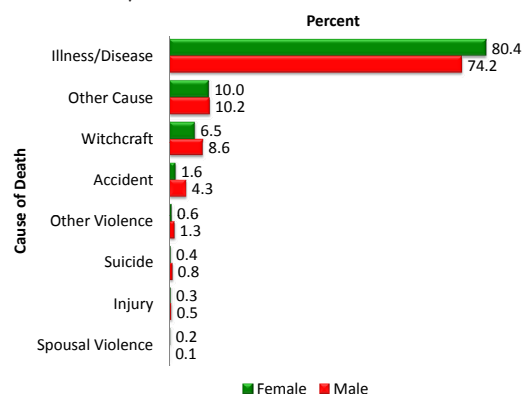


Source: 2010 Census of Population and Housing

Some causes of death are selective due to selective nature of exposure to risk. Hence it is important to look at cause of death by sex so as to assess any variation in cause of death by sex. Figure 9.13 presents information on cause of death by sex of deceased persons reported in the census.

Illness/disease was the major cause of mortality among males and females in Western Province. The percentage for females (80.4 percent) was higher than that for males (74.2 percent). However, the percentages of male deaths attributed to witchcraft, accident, violence, suicide, injury and other causes were higher than those of females.

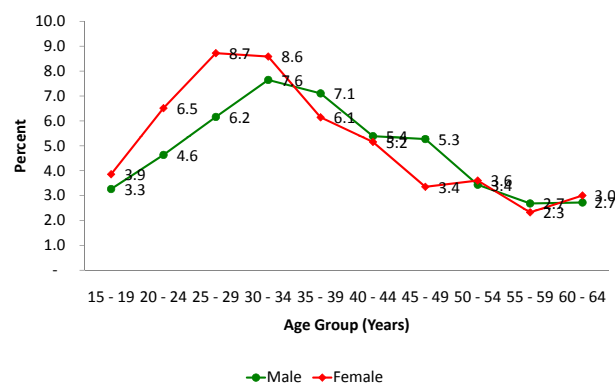
**Figure 9.13: Percent Reported Cause of Death for Deceased Household Members that Died 12 Months Prior to the Census by Sex of Deceased, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 9.14 shows the percentage of reported adult deaths due to illness/disease by age group and sex of the deceased person. The percentage of reported female deaths due to illness/disease was higher than that of males for the age group 15-34 years, while the percentage of males dying from illness/disease was higher than females for ages over 35 years.

**Figure 9.14: Percent Reported Adult Deaths Due to Illness/Disease by Age Group and Sex of Deceased Person, Western Province 2010**



Source: 2010 Census of Population and Housing





## **CHAPTER 10**

# **LANGUAGE AND ETHNICITY**

### **10.0 Summary**

Lozi was the widely used language of communication, spoken by 69.6 percent of the population in Western Province. This was followed by Mbunda at 10.1 percent.

Lozi language was spoken by a higher proportion of the population in all the seven districts of Western Province, namely; Kalabo (57.5 percent), Kaoma (41.8 percent), Lukulu (38.1 percent), Mongu (90.4 percent), Senanga (88.2 percent), Sesheke (96.1 percent) and Shang'ombo (76.3 percent).

Mbunda was widely spoken in the following districts, Kalabo (14.9 percent) and Kaoma (22.5 percent). Over the past three censuses, languages from the Barotse group had remained the most widely used from 68.5 percent in 1990 to 80.3 percent in 2010.

Lozi was the largest ethnic group at 50.3 percent of the population in Western Province.

# Chapter 10

## Language And Ethnicity



### 10.1 Introduction

The Zambian society is endowed with many languages; there are officially 73 ethnic groups, from which, seven language clusters have been identified. There 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.

This chapter presents data on widely used language of communication and ethnicity. Predominant language of communication looks at the language use. Therefore the number of language users does not necessarily reflect the number of people that belong to an ethnic grouping.

The data is presented by sex, rural/urban and district and by census year. Some tables show the data by broad language/ethnic groups and others by single language/ethnic groups. Broad language/ethnic groups are formed using different criteria:

- *By combining most spoken languages in a geographical location such as North-Western language groups*
- *By combining languages which are mutually intelligible. For example, Mambwe, Lungu, Namwanga, Wina and Tambo form one language group called the Mambwe language group because they are mutually intelligible languages.*
- *By combining languages which are trans-tribe such as Nyanja*

To collect ethnicity data, Zambians were asked to indicate their ethnic group. Zambians of different origin and Non-Zambians were asked to indicate a major racial group they belonged to (such as African, Asian, European or American).

It is important to note that during data collection, children under the age of three years whose speech was still developing and persons with speech impairment did not report any language of communication. Therefore, the total population reported to have been speaking any language is less than the de facto population. However, the analysis on ethnicity included all persons in the de facto population.

### 10.2 Concepts and Definitions

#### Ethnicity

This is the tribal group that one identifies himself/herself with. Ethnic group is a self-perceived conception of social group membership.

#### Widely Used Language of Communication

This is the language which is mostly spoken by an individual during their day to day communication, at work, with neighbours or in market places. This is simply the language currently spoken or most often spoken by the individual in his/her present home.

### 10.3: Widely Used Language of Communication

Table 10.1 shows the 24 most spoken languages in Western Province by rural and urban. The widely spoken language of communication in Western Province in the year 2010 was Lozi (69.6 percent); this was followed by Mbunda at 10.1 percent. In rural and urban areas, Lozi was the most spoken language at 68.2 and 77.8 percent, respectively, followed by Mbunda at 10.7 percent for rural areas and 6.1 percent for urban areas.

**Table 10.1: Percentage Distribution of the Population by Widely Spoken Language of Communication and Rural/urban, Western Province, 2010**

Widely Spoken Language of Communication	Total	Rural	Urban
Bemba	0.5	0.1	3.1
Tonga	0.2	0.1	0.6
Luvale	5.1	5.1	5.2
Lunda N/Western	0.3	0.3	0.4
Mbunda	10.1	10.7	6.1
Luchazi	1.6	1.7	1.0
Chokwe	0.5	0.6	0.3
Kaonde	0.3	0.4	0.1
Luyana	0.1	0.1	0.0
Kwangwa	0.2	0.2	0.0
Kwandi	0.1	0.1	-
Koma	1.2	1.4	0.1
Nyengo	1.5	1.7	0.2
Simaa	0.3	0.4	0.0
Mwenyi	0.3	0.4	0.0
Imilangu	0.2	0.2	0.1
Mashi	2.5	2.8	0.3
Lozi	69.6	68.2	77.8
Subiya	0.1	0.2	0.1
Nkoya	4.1	4.6	1.0
Mashasha	0.1	0.1	0.0
Chewa	0.1	0.1	0.1
Nyanja	0.5	0.1	2.5
English	0.1	0.0	0.7
Other Languages	0.5	0.5	0.5
<b>Total Percent</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Total Population</b>	<b>737,287</b>	<b>634,640</b>	<b>102,647</b>

Source: 2010 Census of Population and Housing

Note: Languages that had less than 0.1 percent of the total population in the province were lumped in the "Other Languages" category. "Not applicable", "Not stated" and "Major Racial Group" categories were excluded from the analysis of predominant language of communication.

#### 10.3.1: Language Groups

In this analysis, seven language groups had been identified according to the criteria described in the introduction (10.1). These are (in alphabetical order) Barotse, Bemba, Mambwe, North Western, Nyanja, Tonga and Tumbuka. Table 10.2 shows the percentage distribution of the population by major language groups and rural/urban. Languages in the Barotse group were spoken by 80.3 percent of the population. Of the rural and urban population, 80.5 and 79.5 percent spoke a language from the Barotse group, respectively. Languages from the North Western group were the second most widely spoken in both rural and urban areas at 18.7 and 13.0 percent, respectively.

**Table 10.2: Percentage Distribution of the Population by Major Language Group and Rural/Urban, Western Province 2010**

Language Group	Total	Rural	Urban
Bemba	0.6	0.2	3.2
Tonga	0.3	0.2	0.7
North Western	17.9	18.7	13.0
Barotse	80.3	80.5	79.5
Nyanja	0.5	0.2	2.7
Tumbuka	0.0	0.0	0.0
Mambwe	0.0	0.0	0.0
English	0.1	0.0	0.7
Others	0.2	0.2	0.0
<b>Total Percent</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Total Population</b>	<b>737,287</b>	<b>634,640</b>	<b>102,647</b>

Source: 2010 Census of Population and Housing

**10.3.2: Widely Used Language of Communication by Sex**

Table 10.3 shows the percentage distribution of the widely used language of communication by sex and rural/urban. The table shows that Lozi was the most widely used language of

communication for both males and females at 69.9 and 69.3 percent, respectively. A similar pattern was observed in both rural and urban areas where most males and females reported Lozi as their widely used language of Communication.

**Table 10.3: Percentage Distribution of Widely Used Language of Communication by Sex and Rural/Urban, Western Province 2010**

Widely Spoken Language of Communication	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Bemba	0.5	0.5	0.5	0.1	0.1	0.1	3.1	3.1	3.1
Tonga	0.2	0.2	0.2	0.1	0.1	0.1	0.6	0.6	0.7
Luvale	5.1	5.1	5.0	5.1	5.1	5.0	5.2	5.3	5.1
Lunda (North Western)	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Mbunda	10.1	9.9	10.2	10.7	10.6	10.9	6.1	5.9	6.2
Luchazi	1.6	1.6	1.6	1.7	1.7	1.7	1.0	0.9	1.0
Chokwe	0.5	0.5	0.5	0.6	0.6	0.6	0.3	0.3	0.3
Kaonde	0.3	0.3	0.3	0.4	0.4	0.3	0.1	0.1	0.1
Luyana	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Kwangwa	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0
Kwandi	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Koma	1.2	1.2	1.3	1.4	1.4	1.5	0.1	0.1	0.1
Nyengo	1.5	1.4	1.6	1.7	1.6	1.8	0.2	0.2	0.2
Simaa	0.3	0.3	0.3	0.4	0.3	0.4	0.0	0.0	0.0
Mwenyi	0.3	0.3	0.4	0.4	0.4	0.4	0.0	0.0	0.0
Imilangu	0.2	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.0
Mashi	2.5	2.3	2.6	2.8	2.7	2.9	0.3	0.3	0.3
Lozi	69.6	69.9	69.3	68.2	68.7	67.9	77.8	77.5	78.0
Subiya	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.1
Nkoya	4.1	4.1	4.1	4.6	4.6	4.6	1.0	1.0	1.0
Mashasha	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Chewa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Nyanja	0.5	0.5	0.4	0.1	0.2	0.1	2.5	2.7	2.2
English	0.1	0.2	0.1	0.0	0.0	0.0	0.7	0.9	0.6
Other Languages	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4
<b>Total Percent</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total Population</b>	<b>737,287</b>	<b>346,156</b>	<b>391,131</b>	<b>634,640</b>	<b>297,637</b>	<b>337,003</b>	<b>102,647</b>	<b>48,519</b>	<b>54,128</b>

Source: 2010 Census of Population and Housing

**10.3.3 Widely Used Language of Communication by District**

Table 10.4 shows the percentage distribution of widely used language of communication by district. Lozi language was widely spoken by a higher proportion of the population in all the seven districts of Western Province, namely; Kalabo (57.5

percent), Kaoma (41.8 percent), Lukulu (38.1 percent), Mongu (90.4 percent), Senanga (88.2 percent), Sesheke (96.1 percent) and Shang'ombo (76.3 percent). However, it is shown that Sesheke and Mongu had the largest population speaking Lozi while Lukulu District had the least population of Lozi speakers compared to other districts.

**Table 10.4 Percentage Distribution of the Widely Used Language of Communication by District, Western Province 2010**

Widely spoken Language of Communication	Total	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shang'ombo
Bemba	0.5	0.1	1.6	0.2	0.5	0.2	0.3	0.0
Tonga	0.2	0.0	0.4	0.1	0.2	0.1	0.4	0.0
Luvale	5.1	0.8	6.0	33.5	1.5	0.9	0.4	0.2
Lunda N/Western	0.3	0.0	0.2	2.7	0.0	0.0	0.0	0.0
Mbunda	10.1	14.9	22.5	7.0	5.1	8.6	0.1	4.1
Luchazi	1.6	0.1	6.7	0.6	0.4	0.2	0.3	0.0
Chokwe	0.5	0.0	1.8	0.2	0.1	0.7	0.1	0.0
Kaonde	0.3	0.0	1.5	0.0	0.0	0.0	0.0	0.0
Luyana	0.1	0.0	0.0	0.5	0.0	0.0	0.0	0.0
Kwangwa	0.2	0.0	0.4	0.0	0.3	0.2	0.0	0.0
Kwandi	0.1	0.5	0.1	0.0	0.0	0.0	0.0	0.4
Koma	1.2	6.4	0.4	2.3	0.0	0.0	0.0	0.0
Nyengo	1.5	10.2	0.1	0.1	0.0	0.0	0.0	0.0
Simaa	0.3	2.2	0.0	0.0	0.0	0.0	0.0	0.1
Mwenyi	0.3	2.3	0.0	0.0	0.0	0.0	0.0	0.0
Imilangu	0.2	0.8	0.0	0.0	0.0	0.1	0.1	0.1
Mashi	2.5	3.7	0.3	0.2	0.1	0.1	0.0	18.2
Lozi	69.6	57.5	41.8	38.1	90.4	88.2	96.1	76.3
Subiya	0.1	0.0	0.1	0.0	0.1	0.1	0.7	0.0
Nkoya	4.1	0.0	13.3	13.5	0.1	0.0	0.5	0.0
Mashasha	0.1	0.0	0.4	0.0	0.0	0.0	0.0	0.0
Chewa	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Nyanja	0.5	0.1	1.1	0.1	0.6	0.2	0.5	0.0
English	0.1	0.0	0.1	0.1	0.3	0.1	0.2	0.0
Other Language	0.5	0.2	1.1	0.7	0.2	0.2	0.3	0.4
<b>Total Percent</b>	<b>100</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total Population</b>	<b>737,287</b>	<b>106,304</b>	<b>150,527</b>	<b>71,364</b>	<b>150,545</b>	<b>103,663</b>	<b>81,112</b>	<b>73,772</b>

Source: 2010 Census of Population and Housing

### 10.3.4 Major Language Groups, 1990, 2000 and 2010

Table 10.5 shows the percentage distribution of the population by major language groups from 1990 to 2010. The proportion

of the population speaking languages in the Barotse language group increased from 68.5 percent in 1990 to 80.3 percent in 2010. Bemba, North Western and Tonga language groups reduced between 1990 and 2010.

**Table 10.5 Percentage Distribution of the Population by Major Language Group, Western Province 1990, 2000 and 2010**

Language Group	1990	2000	2010
Bemba	0.7	0.5	0.6
Tonga	0.7	0.4	0.3
North Western	27.1	20.5	17.9
Barotse	68.5	74.2	80.3
Nyanja	0.5	0.5	0.5
Mambwe	0	0	0.0
Tumbuka	0	0	0.0
English	0.2	0.2	0.1
Others	2.2	3.7	0.2
<b>Total Percent</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Total Population</b>	<b>581,956</b>	<b>663,852</b>	<b>737,287</b>

Source: 2010 Census of Population and Housing

## 10.4 Ethnicity

This section shows ethnic groups that had a population of at least 0.1 percent of the total population in Western Province as captured in the 2010 Census. The rest of the ethnic groups are lumped under the “other” category.

### 10.4.1. Ethnicity by Rural/Urban

Table 10.6 shows the percentage distribution of the population by ethnic groups and rural/urban. The Lozi ethnic group had the largest population of the provincial population at 50.3 percent followed by the Mbunda ethnic group at 14.7 percent. The same pattern was observed in rural and urban areas.

Table 10.6: Percentage Distribution of the Population by Ethnicity and Rural/Urban, Western Province 2010			
Ethnicity	Total	Rural	Urban
Bemba	0.7	0.3	3.1
Lunda Luapula	0.1	0.1	0.1
Lamba	0.1	0.0	0.2
Tonga	0.9	0.5	3.5
Lenje	0.1	0.0	0.2
Ila	0.1	0.1	0.3
Toka-Leya	0.5	0.5	0.3
Luvala	6.4	6.2	8.1
Lunda N/Western	0.7	0.6	1.4
Mbunda	14.7	14.8	14.4
Luchazi	2.2	2.2	1.8
Mbowe	0.1	0.1	0.1
Chokwe	1.2	1.2	1.1
Kaonde	0.5	0.5	0.8
Luyana	0.1	0.1	0.1
Kwangwa	2.8	3.1	0.8
Kwandi	0.6	0.7	0.1
Koma	1.6	1.8	0.6
Nyengo	1.9	2.0	0.7
Simaa	0.6	0.6	0.0
Mwenyi	0.5	0.5	0.0
Imilangu	0.3	0.3	0.1
Mashi	4.8	5.4	1.4
Lozi	50.3	49.8	53.4
Totela	0.8	0.9	0.1
Subiya	0.6	0.6	0.4
Nkoya	4.7	5.1	1.8
Chewa	0.2	0.1	0.6
Nsenga	0.1	0.0	0.5
Ngoni	0.1	0.0	0.4
Nyanja	0.2	0.1	0.6
Tumbuka	0.1	0.0	0.6
Mambwe	0.1	0.0	0.3
Namwanga	0.1	0.0	0.2
English	0.0	0.0	0.0
Ethnicity Not Stated	0.4	0.4	0.4
Major racial groups	0.5	0.6	0.3
Other Ethnic Groups	0.8	0.7	1.0
Total Percent	100	100	100
Total Population	836,945	723,388	113,557

Source: 2010 Census of Population and Housing

#### 10.4.2. Ethnicity by Sex and Rural/Urban

Ethnicity was analysed by sex and rural/urban as shown in Table 10.7. The Lozi ethnic group had the largest population of males and females at about 50 percent each. This was followed by the

Mbunda ethnic group at 14.8 percent for males and 14.7 percent for females. The table shows that there were no major differences by sex in the proportions of the population for all ethnic groups in both rural and urban areas.

Ethnicity	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Bemba	0.7	0.7	0.6	0.3	0.3	0.3	3.1	3.3	2.9
Lunda Luapula	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Lamba	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Tonga	0.9	1.0	0.9	0.5	0.6	0.5	3.5	3.7	3.3
Lenje	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Ila	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3
Toka-Leya	0.5	0.4	0.5	0.5	0.5	0.5	0.3	0.3	0.3
Luvala	6.4	6.5	6.3	6.2	6.3	6.1	8.1	8.4	7.8
Lunda N/Western	0.7	0.7	0.7	0.6	0.6	0.6	1.4	1.4	1.3
Mbunda	14.7	14.8	14.7	14.8	14.8	14.7	14.4	14.7	14.2
Luchazi	2.2	2.2	2.2	2.2	2.3	2.2	1.8	1.8	1.8
Mbowe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Chokwe	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.1
Kaonde	0.5	0.5	0.5	0.5	0.5	0.5	0.8	0.8	0.7
Luyana	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Kwangwa	2.8	2.8	2.8	3.1	3.1	3.1	0.8	0.8	0.8
Kwandi	0.6	0.7	0.6	0.7	0.8	0.7	0.1	0.1	0.1
Koma	1.6	1.6	1.7	1.8	1.7	1.9	0.6	0.6	0.6
Nyengo	1.9	1.8	1.9	2.0	1.9	2.1	0.7	0.6	0.7
Simaa	0.6	0.5	0.6	0.6	0.6	0.7	0.0	0.0	0.0
Mwenyi	0.5	0.4	0.5	0.5	0.5	0.6	0.0	0.0	0.0
Imilangu	0.3	0.2	0.3	0.3	0.3	0.3	0.1	0.1	0.1
Mashi	4.8	4.7	5.0	5.4	5.2	5.5	1.4	1.4	1.4
Lozi	50.3	50.2	50.4	49.8	49.9	49.7	53.4	52.1	54.6
Totela	0.8	0.7	0.8	0.9	0.8	0.9	0.1	0.1	0.1
Subiya	0.6	0.5	0.6	0.6	0.6	0.6	0.4	0.3	0.4
Nkoya	4.7	4.7	4.6	5.1	5.2	5.1	1.8	1.8	1.8
Chewa	0.2	0.2	0.2	0.1	0.1	0.1	0.6	0.6	0.6
Nsenga	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.5	0.5
Ngoni	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.5	0.4
Nyanja	0.2	0.2	0.2	0.1	0.1	0.1	0.6	0.7	0.6
Tumbuka	0.1	0.1	0.1	0.0	0.0	0.0	0.6	0.6	0.6
Mambwe	0.1	0.1	0.0	0.0	0.0	0.0	0.3	0.3	0.2
Namwanga	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2
English	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethnicity Not Stated	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5
Major racial groups	0.5	0.6	0.5	0.6	0.6	0.5	0.3	0.3	0.2
Other Ethnic Groups	0.8	0.8	0.7	0.7	0.7	0.7	1.0	1.1	1.0
<b>Total Percent</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>
<b>Total Population</b>	<b>836,945</b>	<b>395,913</b>	<b>441,032</b>	<b>723,388</b>	<b>341,903</b>	<b>381,485</b>	<b>113,557</b>	<b>54,010</b>	<b>59,547</b>

Source: 2010 Census of Population and Housing



## **CHAPTER 11**

### **DISABILITY**

#### **11.0 Summary**

The proportion of the population with disability in Western Province was 2.8 percent. The proportion in rural areas was higher at 3.0 percent than urban areas at 1.7 percent. Sesheke District had the highest proportion of the population with disability at 3.3 percent while Lukulu District had the lowest at 2.3 percent.

The median age for the population with disability was 40.9 years. Physical disability was the most common type of disability at 31.8 percent. The major cause of disability was disease at 48.6 percent.

The literacy rate for the population with disability in Western Province was 48.5 percent. Sesheke District had the highest proportion of the population with disabilities who were literate at 58.1 percent while Shang'ombo District had the lowest proportion of the population with disabilities who were literate at 30.3 percent.

The proportion of the population with disability that had never attended school was 47.6 percent. Generally, the highest level of education attained by the majority of the population with disabilities, regardless of sex was primary education.

The proportion of the population with disabilities who were employed was 95.2 percent. Most of the population with disabilities had agricultural related occupations at 94.4 percent.

# Chapter 11

## Disability



### 11.1 Introduction

Disability is an experience with different parts and aspects. The concept of disability has been evolving. There has been a shift in the perception of disability from an individual and medical condition to a social perspective. The International Classification of Functioning, Disability and Health (ICF) classify disability in three areas that are inter-related:

- *Impairments: problems in body function or changes in body structure such as blindness;*
- *Activity limitations: difficulties in doing certain activities such as walking or eating;*

- *Participation limitations: societal restrictions with regards involvement in any area of life such as being discriminated against in employment or transportation.*

Disability refers to problems faced in any or all three areas of functioning (WHO, 2011).

Zambia has been collecting data on the prevalence of disability through censuses and surveys. This information was collected in all of its five censuses (1969, 1980, 1990, 2000 and 2010). The set of impairments on which data is collected through censuses in Zambia has been increasing, from four to twelve disability categories between 1969 and 2010, as shown in the Table 11.1.

**Table 11.1: Disability Categories used in Censuses, Zambia 1969-2010**

1969	1980	1990	2000	2010
1. Blind	1. Blind	1. Blind	1. Blind	1. Blind
2. Deaf and/or mute	2. Deaf and/or mute	2. Deaf-Dumb	2. Partially sighted	2. Partially sighted
3. Loss of limb	3. Crippled, or loss of limb	3. Crippled	3. Deaf/Dumb	3. Deaf and Dumb
4. Sick	4. Mentally Retarded	4. Mentally Retarded	4. Hard of Hearing	4. Deaf
	5. Sick	5. Multiple Disabilities	5. Mentally ill	5. Hard of Hearing
	6. Combination of two or more categories		6. Ex- Mental	6. Dumb
			7. Mentally Retarded	7. Mentally ill
			8. Physically Handicapped	8. Intellectual
				9. Speech impairment
				10. Physically disabled
				11. Mentally Retarded
				12. Other

Sources: 1969, 1980, 1990, 2000 and 2010 Censuses of Population and Housing

The widening of responses on impairments overtime was meant to capture more people living with disabilities and hence improve the measurement of disability. However, this has made comparability between censuses difficult as some categories have not only changed but also increased.

### 11.2 Concepts and Definitions

Disability in the 2010 Census was defined as a limitation in the kind or amount of activities that an individual can do because of the on-going difficulties due to a long term physical condition, mental condition or health problem. Short term disabilities due to temporary conditions such as broken legs and illness were excluded.

The following concepts and definitions have been used to analyse data on disability.

#### 11.2.1 Type of Disability:

**Blind:** Complete loss of sight in both eyes.

**Partially Sighted:** Loss of one eye or poor sight but does not mean complete blindness.

**Deaf and Dumb:** Complete loss of sense of hearing and speech. The lack or loss of the ability to hear and speak.

**Deaf:** Complete loss of sense of hearing. The lack or loss of the ability to hear.

**Hard of Hearing:** Partial loss of sense of hearing but not complete loss of sense of hearing e.g. the person who uses hearing aids.

**Dumb:** Complete lack of ability to speak.

**Mental Illness:** A condition of mental illness with a substantial, adverse and long-term effect on one's ability to carry out normal day-to-day activities.

**Intellectual:** Intellectual disability is a disability characterized by significant limitations both in intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills. This disability originates before the age of 18.

**Speech Impairment:** This is a condition of people who fail to produce meaningful sound words.

**Physically Disabled:** Any person with a physical abnormality relating to the loss of bodily limbs or any deformity in the bodily stature e.g., the epileptics and leper.

**Mentally Retarded:** Any individual that is either very slow to learn or has deficiency of mental intellect (slow in grasping things, difficulties in remembering things, very slow at responding).

**Other:** Any other disability not mentioned above.

### 11.3 Causes of Disability

The following responses to causes of disability were used in the questionnaire.

- *Congenital/Prenatal – these are disabilities which one is born with.*
- *Disease/Illness e.g. polio, leprosy, cataract.*
- *Injury/Accidents e.g. road accidents, injuries from accidental falls, fire etc.*
- *Spousal Violence – e.g. husband/wife battering.*
- *Other Violence– e.g. violence perpetrated by any other person such as boyfriend or girlfriend.*
- *Unknown –where the respondent did not know the cause of the disability.*
- *Other e.g., unsuccessful medical operation, wrongful application of traditional and conventional medicine.*

### 11.4 Limitations of Disability Data

The method used in the collection of disability data determines the comprehensiveness and quality of the data. Countries using censuses to capture disability data report low prevalence disability rates than those using surveys. This is so because a census is a huge data collection undertaking covering entire populations after long intervals and as such can only include few questions on disability. Specialised surveys can provide extensive information about disability because not only do they provide information on problems in body function and structure but also cover information on origins and impact of the impairments on functioning, service accessibility and unmet needs of the disabled (Altman BM and Barnartt SN, 2006).

The 2010 census did not include detailed questions on disability to be able to bring out the variations in the intensity of the disabilities. In addition, this data did not include the population living with disabilities in institutions.

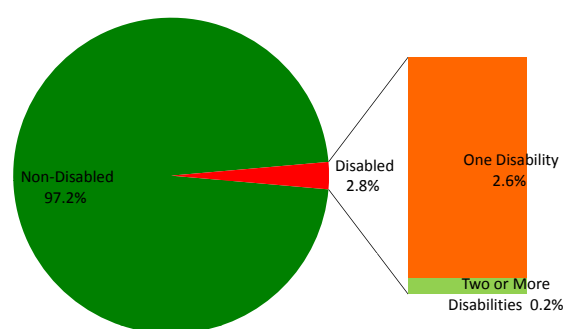
### 11.5 General Characteristics

This section discusses the distribution and age structure of the population with disabilities. Types and causes of disability are also discussed in this section.

#### 11.5.1 Distribution of the Disabled and Non-Disabled Population

Figure 11.1 shows the percentage distribution of the population by disability status. The percentage of the population living with disabilities was 2.8 percent of which 2.6 percent had one disability while 0.2 percent had more than one disability.

**Figure 11.1: Percentage Distribution of the Population by Disabled and Non-Disabled, Western Province 2010**

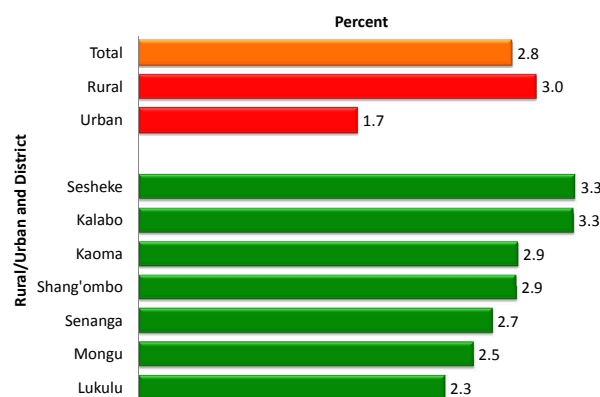


Source: 2010 Census of Population and Housing

#### 11.5.2 Distribution of the Disabled

Figure 11.2 shows the percentage distribution of persons with disabilities by rural/urban and district. The percentage of the population living with disabilities was 2.8 percent. Rural areas had more persons living with disabilities (3.0 percent) than urban areas (1.7 percent).

**Figure 11.2: Percentage distribution of the Population with Disability by Rural/Urban and District, Western Province 2010**

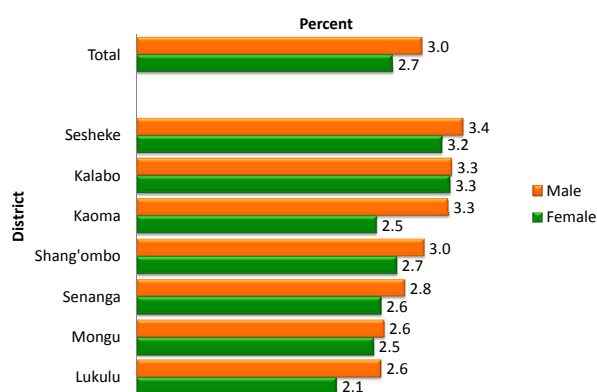


Source: 2010 Census of Population and Housing

Sesheke District had the highest percentage (3.3 percent) of persons with disabilities while Lukulu District had the lowest (2.3 percent).

#### 11.5.3 Disability by Sex

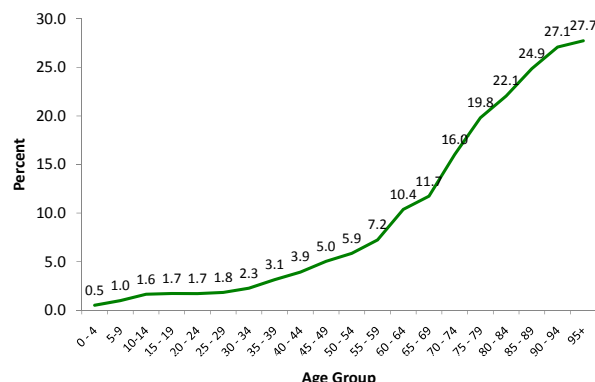
Figure 11.3 shows the percentage distribution of persons living with disabilities by sex and district. In Western Province, there were more males (3.0 percent) than females (2.7 percent) who were living with disabilities. Sesheke District had the highest percentage of males who were disabled at 3.4 percent. Lukulu District had the lowest percentage of persons living with disabilities at 2.6 and 2.1 percent for males and females, respectively.

**Figure 11.3: Percentage Distribution of the Population with Disability by Sex and District, Western Province 2010**

Source: 2010 Census of Population and Housing

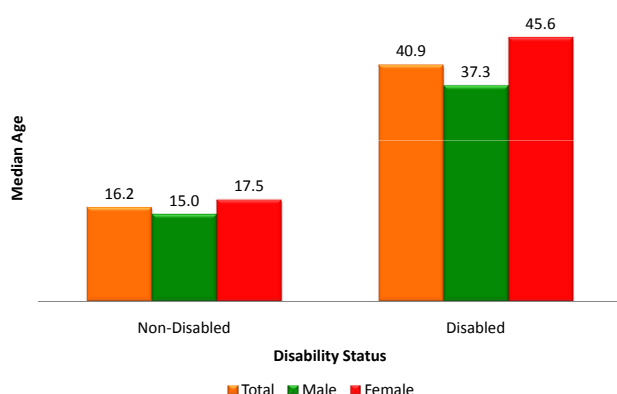
#### 11.5.4 Disability by Age

Figure 11.4 shows the percentage distribution of the population with disability by age group. The figure shows that the proportion of the population with disability increases with age. The highest percentage of the population with disabilities was in the age group 95 years and older at 27.7 percent, followed by the age group 90-94 years at 27.1 percent. The age group with the lowest percentage was 0-4 years at 0.5 percent.

**Figure 11.4: Percentage Distribution of Persons with Disability by Age Group, Western Province 2010**

Source: 2010 Census of Population and Housing

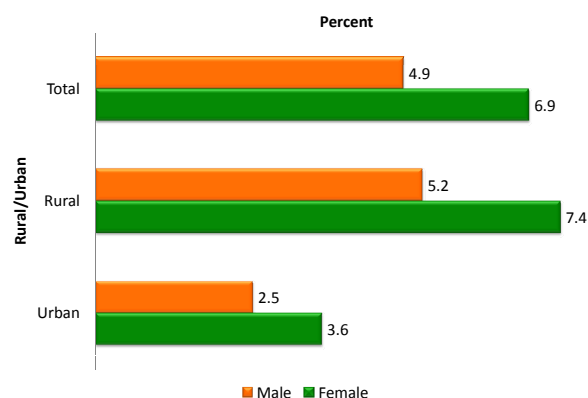
Figure 11.5 shows the median age for the disabled and non-disabled population in Western Province. The median age for the population with disability was 40.9 years while Non-disabled population had a median age of 16.2 years.

**Figure 11.5: Median Age of the Disabled and Non-Disabled Population by Sex, Western Province 2010**

Source: 2010 Census of Population and Housing

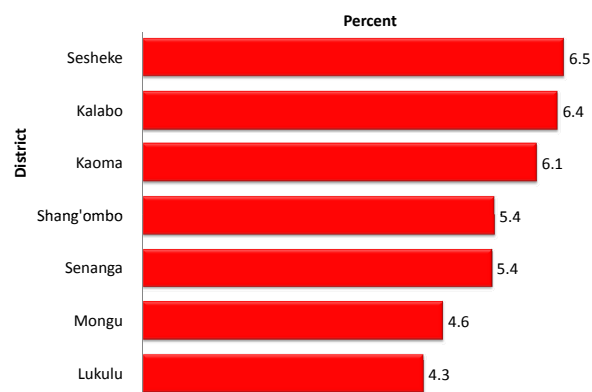
#### 11.5.5 Disability by Household Headship

Figure 11.6 shows the percentage distribution of household heads with disabilities by sex and rural/urban. In Western Province, there were more females (6.9 percent) than males (4.9 percent) household heads living with disabilities. The proportion of female household heads with disabilities in both rural and urban areas was higher than that of males.

**Figure 11.6: Percentage Distribution of Household Heads with Disabilities by Sex and Rural/Urban, Western Province 2010**

Source: 2010 Census of Population and Housing

Figure 11.7 shows the percentage distribution of household heads with disabilities by district. Sesheke District had the highest proportion of household heads living with disabilities at 6.5 percent. Lukulu District had the least proportion at 4.3 percent.

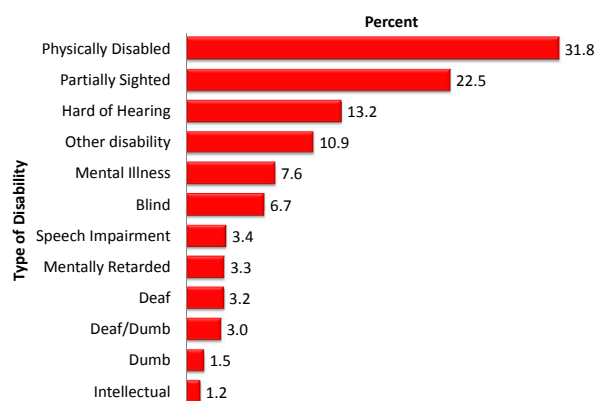
**Figure 11.7: Percentage Distribution of Household Heads with Disabilities by District, Western Province 2010**

Source: 2010 Census of Population and Housing

#### 11.5.6 Type of Disability

Figure 11.8 shows the percentage distribution of persons with disabilities by type of disability. Physical disability was the most prevalent type of disability (31.8 percent), followed by partially sighted at 22.5 percent. The least common type of disability was intellectual at 1.2 percent.

**Figure 11.8: Percentage Distribution of Persons with Disabilities by Type of Disability, Western Province 2010**



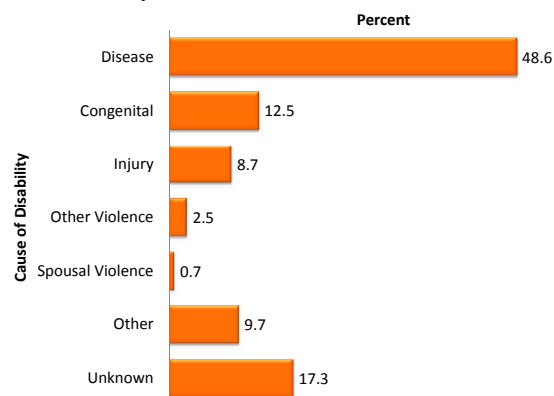
Source: 2010 Census of Population and Housing

### 11.5.7 Cause of Disability

This section discusses the most common causes of disability. However, the data did not allow for exploring the association between causes and specific types of disability. The various causes of disability were categorized as congenital, disease, injury, spousal violence, other and unknown. Respondents were asked to state if they had more than one cause of disability.

Figure 11.9 shows the percentage distribution of cause of disability. The figure shows that 48.6 percent of the persons with disabilities reported disease as the cause of disability. This was followed by those who reported congenital as a cause of disability at 12.5 percent. The least common cause of disability was spousal violence with 0.7 percent.

**Figure 11.9: Percentage Distribution of Disabled Population by Cause of Disability, Western Province 2010**



Source: 2010 Census of Population and Housing

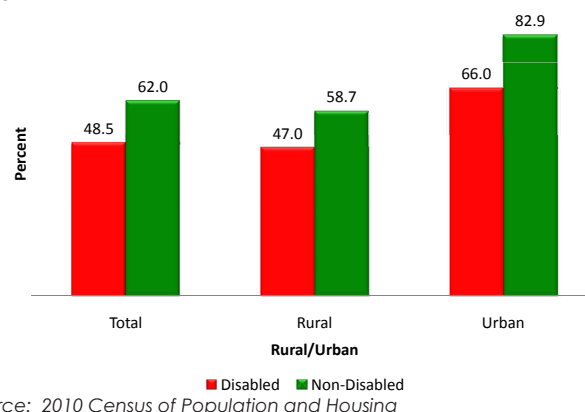
## 11.6 Characteristics of the Population with Disability

This section presents the characteristics of the population with disability using education, economic activity and marital status indicators.

### 11.6.1 Literacy Levels among the Disabled and Non-Disabled

Figure 11.10 shows the percentage distribution of literate population aged 5 years and older by disability status and rural/urban. Literacy among persons with disability was 48.5 percent compared to 62.0 percent for persons without disability. The literacy levels for the persons with disability were higher in urban areas at 66.0 percent compared to 47.0 percent in rural areas.

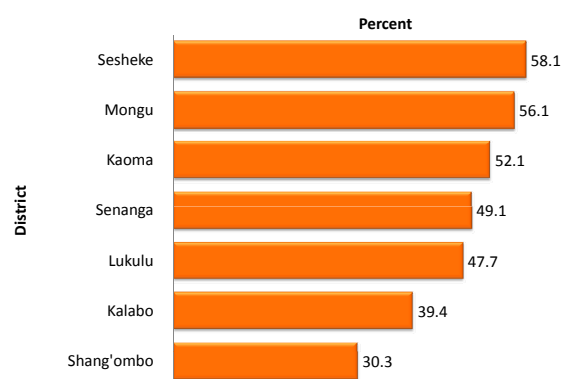
**Figure 11.10: Percentage Distribution of Literate Population (5 Years and Older) by Disability Status and Rural/Urban, Western Province 2010**



Source: 2010 Census of Population and Housing

Figure 11.11 shows the percentage distribution of literate population with disability aged 5 years and older by district. Sesheke District had the highest proportion of the literate population with disability at 58.1 percent. Shang'ombo District had the least proportion at 30.3 percent.

**Figure 11.11: Percentage Distribution of Literate Population with Disability Aged 5 Years and Older by District, Western Province 2010**



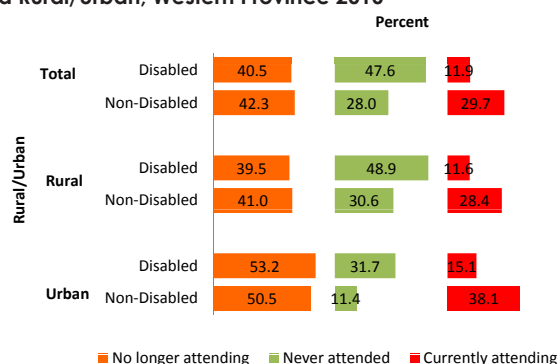
Source: 2010 Census of Population and Housing

### 11.6.2 School Attendance

The percentage distribution of the population aged 5 years and older by disability status, school attendance and rural/urban is shown in Figure 11.12. The figure shows that the percentage of persons with disability who were currently attending school was 11.9 percent compared to 29.7 percent for persons without disability. For those who had never attended school, the percentage of the disabled was higher (47.6 percent) than that of the non-disabled (28.0 percent).

In rural areas the proportion of persons with disabilities who had never attended school was 48.9 percent and the non-disabled was 30.6 percent. In urban areas the proportion of persons with disabilities who had never attended school was 31.7 percent and the non disabled was 11.4 percent. Similarly, there were more persons with disability who were no longer attending school at 53.2 percent than the non-disabled at 50.5 percent in urban areas. The picture was different for rural areas.

**Figure 11.12: Percentage Distribution of Disabled and Non-Disabled Population (5 Years and Older) by School Attendance and Rural/Urban, Western Province 2010**

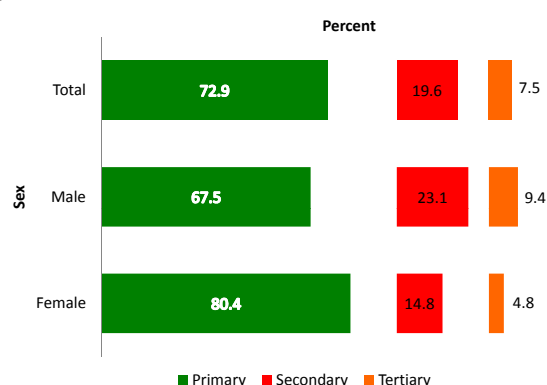


Source: 2010 Census of Population and Housing

### 11.6.3 Education Level among the Disabled

Figure 11.13 shows the percentage distribution of persons with disability (25 years and older) by highest level of education completed and sex. In Western Province, 72.9 percent of the population with disabilities had attained primary education and 7.5 percent had attained tertiary education. A higher percentage of Males had completed tertiary education at 9.4 percent compared to 4.8 percent for females.

**Figure 11.13: Percentage Distribution of Persons with Disability (25 Years and Older) by Highest Level of Education Completed and Sex, Western Province 2010**



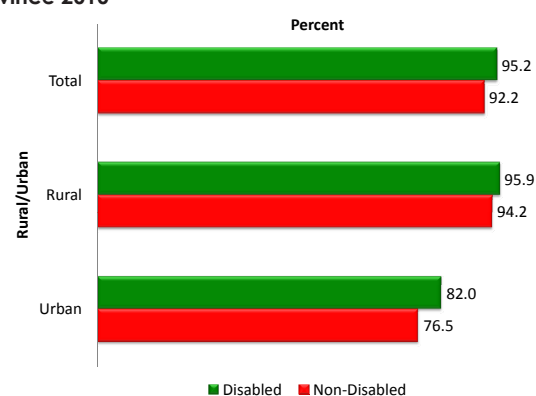
Source: 2010 Census of Population and Housing

## 11.7 Economic Activity

Persons living with disabilities are disadvantaged with regards to engagement in economic activities. Literature suggests that, in developed as well as developing countries, persons living with disabilities face much lower employment rates and higher unemployment rates than persons without disabilities (WHO, 2011).

Figure 11.14 shows the percentage distribution of employed persons aged 12 years and older by disability status and rural/urban. The figure shows that 95.2 percent of persons with disabilities were employed compared to 92.2 percent of persons without disabilities. In both rural and urban areas, the percentage of the disabled who were employed was higher than the corresponding percentage for the non disabled.

**Figure 11.14: Percentage Distribution of Employed Population (12 Years and Older) by Disability Status and Rural/Urban, Western Province 2010**

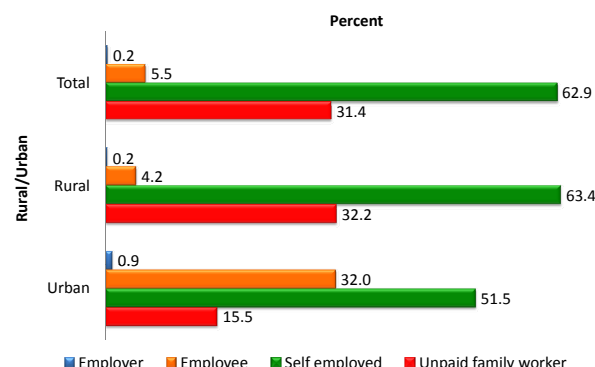


Source: 2010 Census of Population and Housing

### 11.7.1 Employment Status

Figure 11.15 shows employment status of persons with disability by rural/urban. Self-employed was the most common employment status at 62.9 percent while employer was the least with 0.2 percent. There were more persons with disabilities working as unpaid family workers in rural areas (32.2 percent) than urban areas (15.5 percent). The figure also shows that the proportion of persons with disabilities who were employees was higher in urban areas at 32.0 percent than in rural areas at 4.2 percent.

**Figure 11.15: Percentage Distribution of Persons with Disability (12 Years and Older) by Employment Status and Rural/Urban, Western Province 2010**



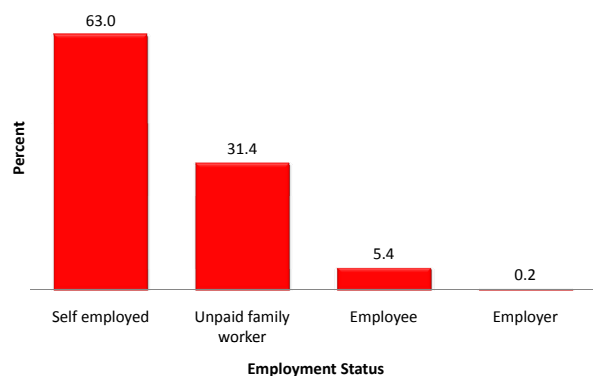
Source: 2010 Census of Population and Housing

### 11.7.2 Employment Status of Disabled Household Heads

Figure 11.16 shows the percentage distribution of household heads with disabilities aged 12 years and older by employment status. The highest proportion of household heads living with disabilities was self-employed (63.0 percent) while the least was that of employers (0.2 percent).



**Figure 11.16: Percentage Distribution of Household Heads with Disabilities (12 Years and Older) by Employment Status, Western Province 2010**

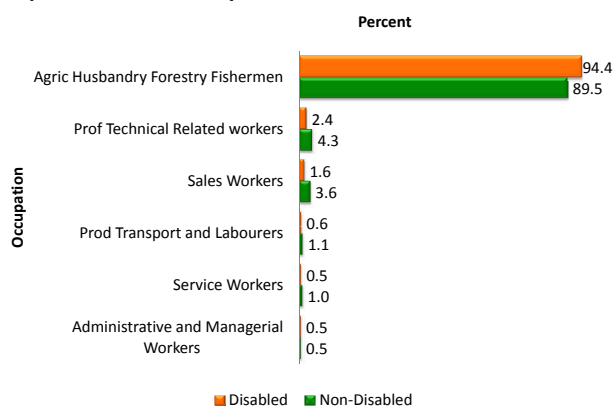


Source: 2010 Census of Population and Housing

### 11.7.3 Occupation Status

Occupation is described as the kind of work a person performs in his/her job or business. Figure 11.17 shows the percentage distribution of the population by occupation and disability status. Among persons with disabilities, agricultural occupations were the most common at 94.4 percent while administrative and managerial occupations were the least common at 0.5 percent. Persons without disabilities made up 89.5 percent of Agriculture occupations while 0.5 percent made up managerial occupations.

**Figure 11.17: Percentage Distribution of the Population by Occupation and Disability Status, Western Province 2010**

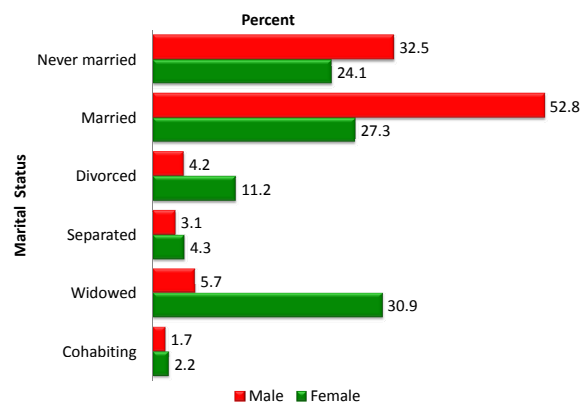


Source: 2010 Census of Population and Housing

## 11.8 Marital Status of the Disabled by Sex

Figure 11.18 shows percentage distribution of marital status of the disabled population (15 years and older) by sex. There were more males with disabilities who were married at 52.8 percent than females at 27.3 percent. Among the population of persons living with disabilities who had never married, 32.5 percent were males while 24.1 percent were female. The proportion of widowed females with disabilities was higher at 30.9 percent compared to males at 5.7 percent.

**Figure 11.18: Percentage Distribution of Persons with Disabilities (15 years and older) by Marital Status and Sex, Western Province 2010**



Source: 2010 Census of Population and Housing



## **CHAPTER 12**

### **EVALUATION OF COVERAGE AND CONTENT ERRORS**

#### **12.0 Summary**

In 2010 the pattern of age composition, child woman ratio and dependency ratio in Western Province was in line with the observed fertility and mortality declines.

The Myers Index reduced from 6.8 in 2000 to 6.3 in 2010.

The most preferred digits for age data reporting were 0, 8 and 5.

The age-sex accuracy index for Western Province reduced from 33.5 in 2000 to 28.7 in 2010.



# Chapter 12

## Evaluation of Coverage and Content Errors

### 12.1. Introduction

Data evaluation is the assessment of the quality of the data. It provides reliable standards for adjusting data if needed. The adjustment is done based on responses to the questions which were asked during the census on:

- Sex
- Age (in completed years)
- Rural/Urban status of household
- Number of children still living, and
- Number of children dead

### 12.2. Concepts and Definitions

The following concepts and definitions have been used in this chapter.

**The Age-Sex Accuracy Index:** Mean difference in sex ratios plus the mean deviations of male and female age ratios multiplied by three gives an indication of the quality of age data.

**Age Ratio:** 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).

**Census Night:** The night prior to the actual census count. In Zambia a rolling (varying) census night is used because enumeration is usually done over a period of about two-three weeks.

**Census of Population:** Total process of collecting, compiling, evaluating, analysing and publishing or otherwise dissemination of demographic, economic and social data pertaining, at a specified time, to all persons in a country or in a well-delimited part of a country, (UN, 2008).

**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.

**Cohort Survival Ratio:** The survival ratio of the population in a given age group to the next age.

**Content Error:** Error made in the recorded information in the census questionnaire either because the respondent provided incorrect information or the interviewer recorded incorrect information

**Coverage Error:** Under or over-enumeration in a population census due to either omission or duplication of an individual, household, or housing unit.

**Data Smoothing:** This is the use of an approximating function to capture important patterns in the data and removing the noise or outliers. For example, smoothing is done to help reduce the negative consequences of digit preference.

**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 such as zero or five. This results in heaping of population in ages ending with certain digits.

**Population Pyramid:** A graphical illustration that shows the distribution of various age groups in a population

**Sex Ratio:** Number of males per 100 females in a population (Masculinity ratio).

**Overall Survival Ratio:** The ratio of the population of age, say, 10 years and older that will survive to 15 years and older.

### 12.3. Type of Population used in Evaluating the Coverage and Content Errors

In the analysis of the coverage and content errors, the de facto population was used.

### 12.4. Methods of Evaluation

There are numerous checks and controls directed at minimising errors in the census, during enumeration. Despite instituting data control measures, some errors can occur in the census data. For instance, some people may be omitted, others may be enumerated more than once, or some characteristics of an individual such as age, sex, fertility and economic activity may be incorrectly reported or recorded. In general, two approaches are used to evaluate the quality of data: direct and indirect methods.

The direct method involves the carrying out of the 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 (both in terms of scope and questionnaire content). These are later compared with the data 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.

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, for example, using the Myers index to check for accuracy of age reporting. 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 collected by the Ministry of Education.

### 12.5. Coverage Error

This type of error occurs when there is omission or duplication of individuals, households, or housing units resulting in under or over enumeration. Some factors which contribute to coverage errors are lack of accessibility or cooperation with respondents, difficulties in communication and lack of proper boundary descriptions on maps. Coverage errors can be measured by

examining certain statistics such as growth rate, age composition, child woman ratio and dependency ratio.

## 12.6. Age Composition

Examining age composition over time can help assess the coverage error in census data. The percentage for each group should not vary much from one census to another except where there had been major changes to the population. Fertility and mortality effects would normally result into marginal changes to

the percentage of the broad age groups.

Table 12.1 shows population composition of Western Province by broad age groups for 1990, 2000 and 2010. The percentage of children aged 0-14 years increased from 43.6 percent in 1990 to 44.9 percent in 2000 and further increased to 47.2 percent in 2010. The percentage of adults (15-64 years) and the elderly (65 years and older) had been reducing since 1990, respectively. Generally, the population distribution by broad age group shows consistency of coverage in all the three censuses.

**Table 12.1: Population Distribution by Broad Age Groups, Western Province 1990, 2000 and 2010**

Age Group	Population					
	1990	Percent	2000	Percent	2010	Percent
0-4	92,133	15.2	120,416	17.0	157,980	18.9
5-9	90,137	14.9	105,192	14.9	127,396	15.2
10-14	81,878	13.5	91,732	13.0	109,852	13.1
0-14*	264,148	43.6	317,340	44.9	395,228	47.2
15-64	312,794	51.5	358,056	50.6	407,822	48.7
65+	29871	4.9	32,737	4.6	33,895	4.0
<b>Total</b>	<b>606,813</b>	<b>100</b>	<b>708,133</b>	<b>100</b>	<b>836,945</b>	<b>100</b>

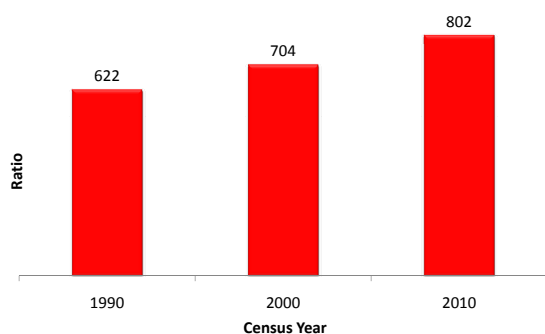
Sources: 1990, 2000 and 2010 Censuses of Population and Housing

\* Not part of total

## 12.7. Child-Woman Ratio

Figure 12.1 shows child woman ratio for census years 1990, 2000 and 2010. There was an increase in the percentage of children aged 0-4 years and an increase in the child-woman ratio. The child-woman ratio increased from 622 in 1990 to 704 children aged 0-4 years per 1000 women aged 15-49 years in 2000. In 2010, the child woman ratio further increased to 802 children aged 0-4 years per 1000 women aged 15-49 years. The results show that the changes in the child woman ratio were in line with the changes in the percentage of the population in the age group 0-4 years.

**Figure 12.1: Child Woman Ratio, Western Province 1990, 2000 and 2010**



Note: Child-Woman Ratio is the number of children aged 0-4 years in a population to every 1000 women aged 15-49 years

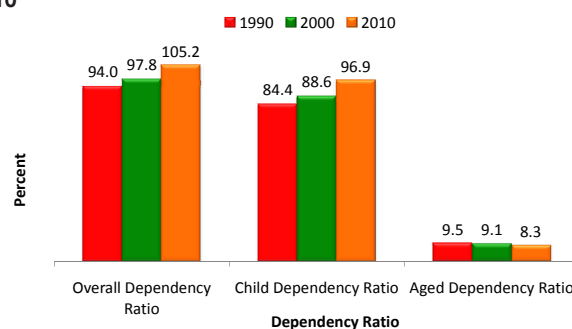
Sources: 1990, 2000 and 2010 Censuses of Population and Housing

## 12.8. Dependency Ratio

The consistency in the coverage for the three censuses can be further explored through dependency ratios. Figure 12.2 shows dependency ratio for census years 1990, 2000 and 2010.

The overall dependency ratio for the population of Western Province for 1990, 2000 and 2010 Censuses were 94.0, 97.8 and 105.2 persons, respectively. This means that in 2010 for every 100 persons in the age group 15-64 years, there were 105.2 dependants in the age groups 0-14 years and 65 years and older. Child dependency ratio increased from 84.4 persons in 1990 to 96.9 persons in 2010. However, the Aged dependency ratio declined from 9.5 persons in 1990 to 8.3 persons in 2010.

**Figure 12.2: Dependency Ratio, Western Province 1990, 2000 and 2010**



Note: Overall Dependency Ratio - Number of children aged 0-14 and the elderly aged 65 years and older, per 100 persons in the age-group 15-64 years

Sources: 1990, 2000 and 2010 Censuses of Population and Housing

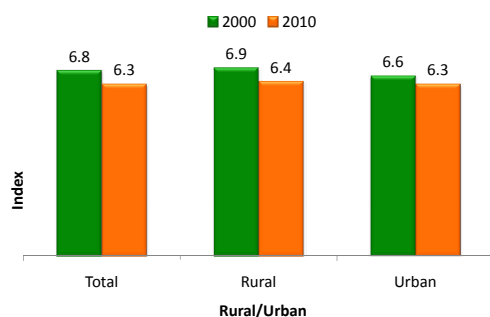
## 12.9. Content Error

Content errors refer to instances where characteristics such as age, sex, marital status, economic activity, etc. 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 an enumerator recording an incorrect response. For instance, a question about age in a census can be solicited by asking either "date of birth" or "completed number of years". These two questions may yield different ages. During the 2010 Census, age was recorded in completed years. Some content errors can be estimated by the use of the Myers' Index, Sex Ratios, Age Ratios, and Survival Ratios.

### 12.9.1. Digit Preference

Digit preference is mostly 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 misclassifications of age contribute to heaping (Shryock, et.al. 1976).

In this analysis, the Myers' Index was used to investigate age heaping. Figure 12.3 shows the Myers' Index by rural/urban for 2000 and 2010. The maximum value of Myers' Index is 90 and the minimum value is 0. A high Myers' Index implies poor age reporting whereas a low Myers' Index indicates good age reporting.

**Figure 12.3: Myers' Index by Rural/Urban, Western Province 2000 and 2010**

**Note:** 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 while the minimum value is 0

Sources: 2000 and 2010 Censuses of Population and Housing

The Myers' index for Western Province reduced from 6.8 in 2000 to 6.3 in 2010. In rural areas, the Myers' index reduced from 6.9 in 2000 to 6.4 in 2010. In urban areas, it reduced from 6.6 to 6.3 between 2000 and 2010. This implied that the quality of age data reporting improved in 2010 compared to 2000.

Digit preference can also be explored by looking at age heaping. Table 12.2 shows the most preferred digits by sex and rural/urban for 2000 and 2010.

The most preferred digits are presented in decreasing order of preference. Both sexes preferred digits 0 and 8 in 2000 and 0, 8 and 5 in 2010.

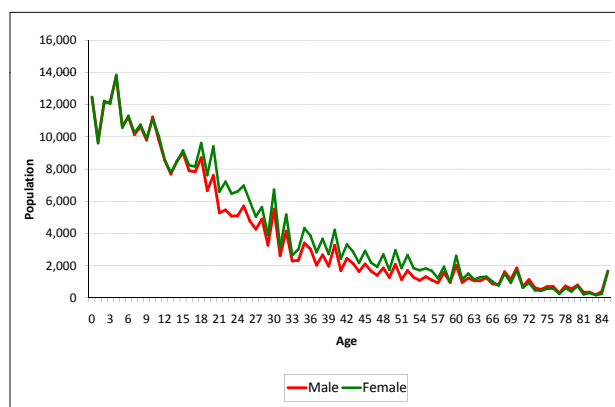
**Table 12.2: Most Preferred Digits by Sex and Rural/Urban, Western Province 2000 and 2010**

Rural/Urban	Most Preferred Digits and Census Year		
	Sex	2000	2010
Western Province	Both Sexes	0, 8	0, 8, 5
	Male	0, 8	0, 8, 5
	Female	0, 8	0, 8, 2
Rural	Both Sexes	0, 5, 8	0, 8, 5
	Male	0, 5, 8	0, 8, 5
	Female	0, 8	0, 8, 2
Urban	Both Sexes	0, 8	0, 8, 5
	Male	0, 8	0, 8, 5
	Female	0, 8	0, 8, 5

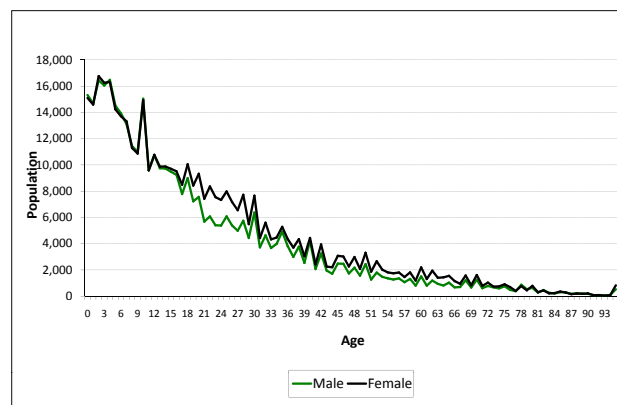
Sources: 2000 and 2010 Censuses of Population and Housing

In rural areas, both sexes preferred digits 0, 5 and 8 in 2000 and 0, 8 and 5 in 2010. In urban areas, digit preference by both sexes followed a similar pattern at provincial level.

Errors in age data reporting are also presented in Figures 12.4 and 12.5. The figures show population distribution in single years for 2000 and 2010. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under reported ages.

**Figure 12.4: Population Distribution in Single Years, Western Province 2000**

Source: 2000 Census of Population and Housing

**Figure 12.5: Population Distribution in Single Years, Western Province 2010**

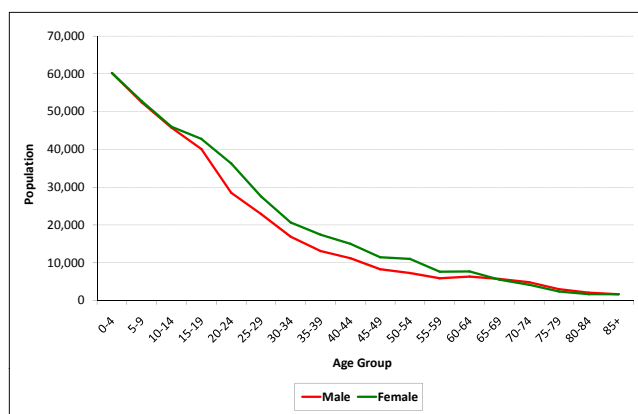
Source: 2010 Census of Population and Housing

A comparison of Figures 12.4 and 12.5 shows that the peaks and troughs were more pronounced for ages reported below 55 years in both censuses. The differences in the peaks and troughs for ages reported after 55 years were not that pronounced. This may suggest that both males and females tend to misreport their ages before age 55.

When single year age data is grouped into five year age groups, irregularities in age data arising from age misreporting tend to disappear. Figure 12.6 and 12.7 show population distribution in 5 year age groups for 2000 and 2010. The figures show smoothened curves after the single age data was grouped for both censuses.

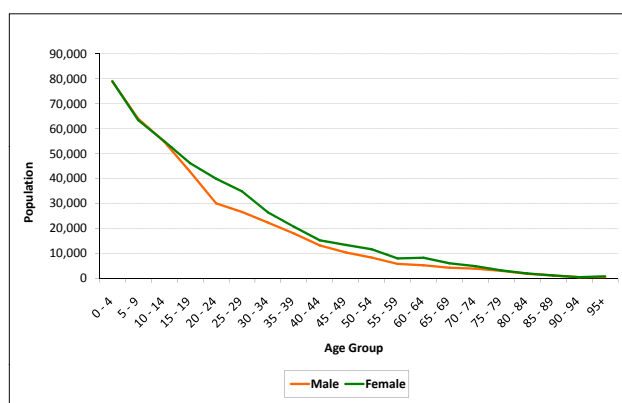


**Figure 12.6: Population Distribution by 5 Year Age Group, Western Province 2000**



Source: 2000 Census of Population and Housing

**Figure 12.7: Population Distribution by 5 Year Age Group, Western Province 2010**

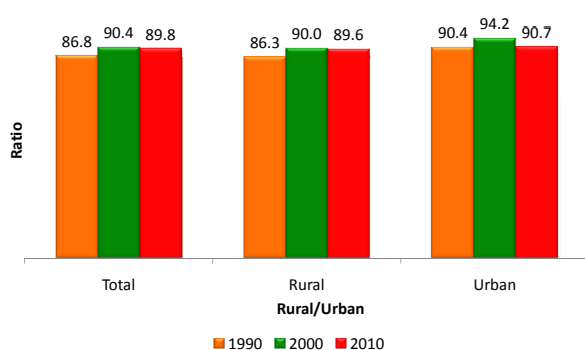


Source: 2010 Census of Population and Housing

### 12.9.2. Sex Ratios

The presence of omission errors, age misreporting and out migration may be detected by looking at the pattern of sex ratios. A sex ratio of more than 100 shows an excess of males over females while a sex ratio of less than 100 shows an excess of females over males. 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. 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 male mortality. Figure 12.8 shows sex ratios by rural/urban for 1990, 2000 and 2010.

**Figure 12.8: Sex Ratios by Rural/Urban, Western Province 1990, 2000 and 2010**

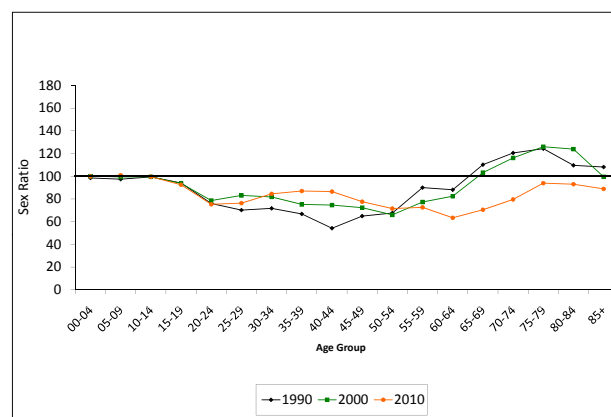


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

Sex ratio for Western Province increased from 86.8 in 1990 to 90.4 males per 100 females in 2000. It reduced to 89.8 males per 100 females in 2010. In both rural and urban areas, the pattern of sex ratios followed a similar pattern at provincial level. Sex ratio results for Western Province show that there were more females than males in all the census years.

Figure 12.9 shows sex ratio by five year age groups for 1990, 2000 and 2010. An analysis of age-specific sex ratios for 1990 and 2000 shows more females than males in age group 5-64 years. An analysis for 2010 shows more females than males in age groups 0-4 and above 10 years.

**Figure 12.9: Sex Ratio by 5 Year Age Group, Western Province 1990, 2000 and 2010**



Sources: 1990, 2000 and 2010 Censuses of Population and Housing

Table 12.3 shows sex ratio by age and rural/urban for 1990, 2000 and 2010. In 1990 and 2000, sex ratios over 100 were observed in age groups above 65 years. In 2010, sex ratios above 100 were observed in age group 5-9 years.

The pattern of sex ratio for all the three censuses suggest under enumeration of children since sex ratio is supposed to be high at age groups 0-4 and 5-9 years.

**Table 12.3: Sex Ratio by Age and Rural/Urban, Western Province 1990, 2000 and 2010**

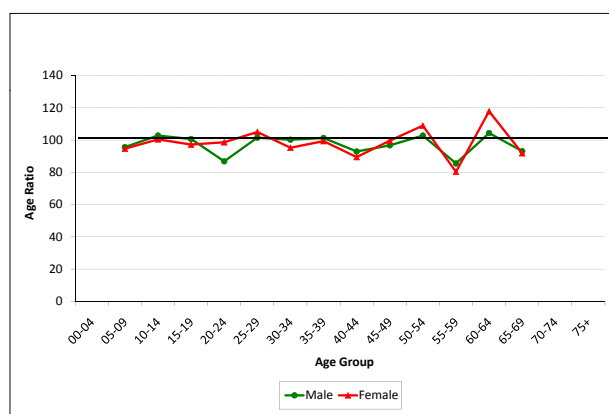
Age Group	1990			2000			2010		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
00-04	98.5	98.0	102.5	100.1	99.9	101.8	99.9	99.9	100.3
05-09	97.4	97.5	96.6	99.4	99.4	99.3	100.9	101.0	99.8
10-14	99.4	100.9	90.6	99.5	100.4	93.2	99.6	100.8	92.6
15-19	94.0	95.0	88.3	93.7	93.6	94.4	92.5	93.0	90.3
20-24	76.0	76.2	74.7	78.6	77.1	88.5	75.3	74.3	80.1
25-29	70.2	69.4	74.6	83.1	82.0	91.5	76.3	76.0	77.7
30-34	71.7	70.9	76.0	81.8	80.8	89.8	84.5	83.3	91.2
35-39	66.8	63.5	86.1	75.2	73.8	87.5	87.0	84.6	101.8
40-44	54.2	49.4	98.8	74.6	73.3	86.4	86.5	84.1	103.0
45-49	64.9	60.0	117.0	72.3	70.2	92.2	77.6	75.6	92.7
50-54	67.6	64.1	111.2	66.0	63.1	108.6	71.5	70.5	79.0
55-59	90.0	87.5	121.5	77.3	75.5	107.3	72.6	71.3	82.6
60-64	88.1	87.9	90.5	82.4	81.7	93.8	63.4	62.1	76.2
65-69	110.2	110.8	100.6	103.2	104.1	88.5	70.5	70.6	69.0
70-74	120.5	122.5	90.6	116.1	117.5	94.7	79.6	80.6	69.1
75-79	124.3	128.5	71.6	126.0	129.4	74.8	93.9	98.3	60.1
80-84	109.6	113.3	71.1	123.9	128.1	67.0	93.0	96.2	66.2
85+	108.1	112.2	64.9	99.5	102.5	59.1	88.9	91.2	68.9

Sources: 1990, 2000 and 2010 Censuses of Population and Housing

### 12.9.3. Age Ratios

The quality of age data can also be evaluated by examining age ratios. 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. Calculations and comparison of age ratios have been done and the results disaggregated by sex are given in Figure 12.10.

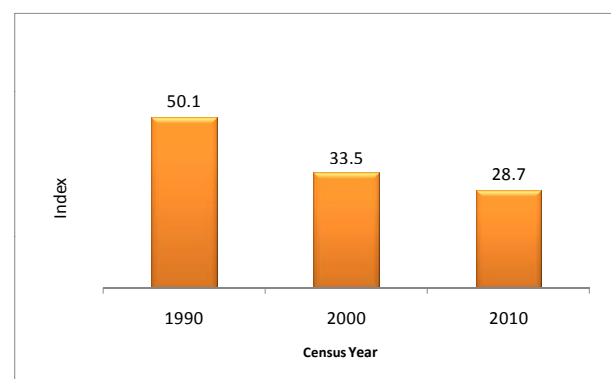
The irregular patterns of the age ratios show that data could be affected by errors from age misreporting, digit preference, omission, migration or fluctuations in births and deaths.

**Figure 12.10: Age Ratios by Sex, Western Province 2010**

Source: 2010 Census of Population and Housing

The Age-Sex Accuracy Index describes the quality of age data. The United Nations defines age data as “accurate, inaccurate and highly inaccurate” if the Age-Sex Accuracy Index lies below 20, between 20-40, and 40 and above, respectively. Figure 12.11 shows the Age Sex Accuracy Indices for 1990, 2000 and 2010.

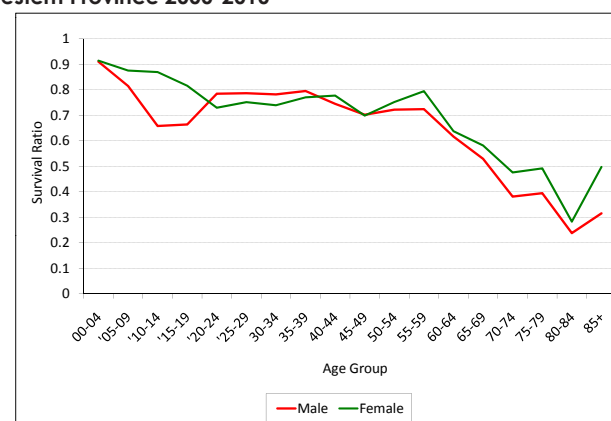
In Western Province, there was an improvement in the quality of age data reporting as depicted by the declining Age-Sex Accuracy Index. The Age-Sex Accuracy Index declined from 50.1 in 1990 to 33.5 in 2000 and later to 28.7 in 2010. Using the UN interpretation of the age-sex accuracy index, despite the decline in the Age-Sex Accuracy Index between 2000 and 2010, the age data reporting would still be defined as “inaccurate”.

**Figure 12.11: Age-Sex Accuracy Index, Western Province 1990, 2000 and 2010**

Source: 2010 Census of Population and Housing

### 12.9.4. Survival Ratios

Survival ratio is the probability that individuals of the same birth cohort or group of cohorts will still be living 10 years later. Survival ratios have been used to evaluate the quality of age data and sex data from two censuses. This assumes that the population is closed to migration and influence of abnormal mortality due to wars, disasters and diseases over a 10 year period. Figure 12.12 shows cohort survival ratio by age and sex for 2000-2010.

**Figure 12.12: Cohort Survival Ratio by Age Group and Sex, Western Province 2000-2010**

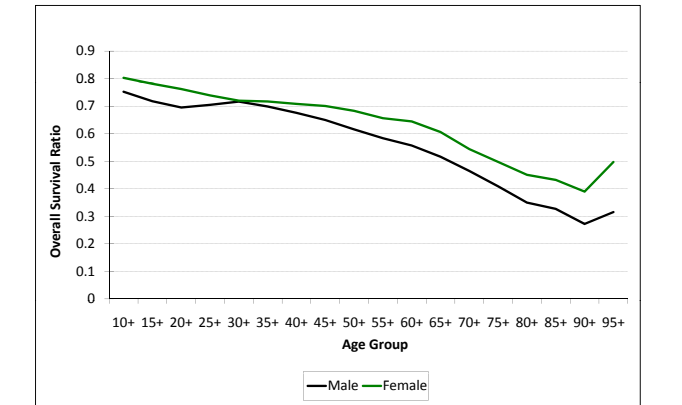
Sources: 2000 and 2010 Censuses of Population and Housing

The figure shows fluctuations in the cohort survival ratios rather than the expected systematic continuous decline with the increase in age. These distortions in data could either be due to age misreporting, under enumeration or over enumeration at some age groups.

Female ratios are generally expected to be higher than the male ratios because females normally have lower mortality compared to males. However, figure 12.12 shows higher survival ratios for males than females in age groups 20-39.

Figure 12.13 shows overall survival ratios by age and sex for 2000-2010. The overall survival ratios show a continued decline with increase in age. Females had higher survival ratios across all age groups. This suggested that the quality of age data reporting improved.

**Figure 12.13: Overall Survival Ratio by Age Group and Sex, Western Province 2000-2010**

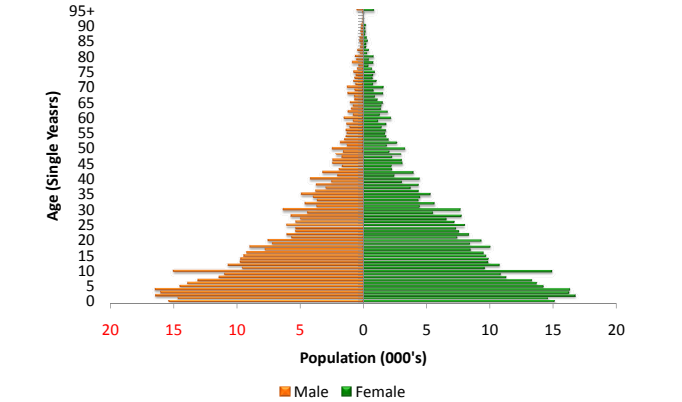


Sources: 2000 and 2010 Censuses of Population and Housing

### 12.9.5. Population Pyramids

Irregularities in the reported age data was analysed using population pyramids. Inaccuracies in census age data are easily spotted when data is distributed in single year than in five year age groups. The population pyramids for the 2010 Census data given in figure 12.14, 12.15 and 12.16, show age misreporting with preference for ages ending with 0 and 5. Figure 12.14 shows the population distribution by single age for 2010.

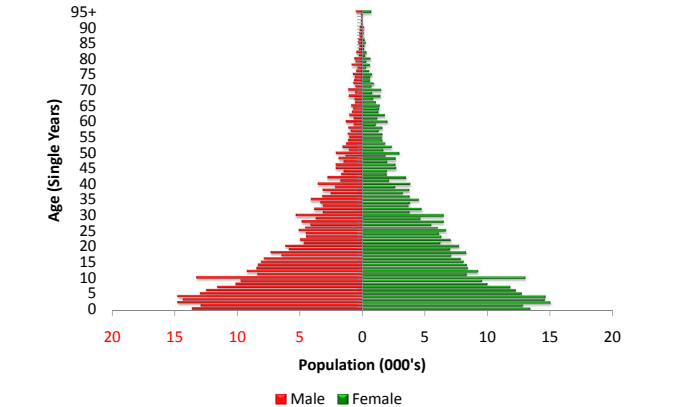
**Figure 12.14: Population Distribution by Single Years, Western Province 2010**



Source: 2010 Census of Population and Housing

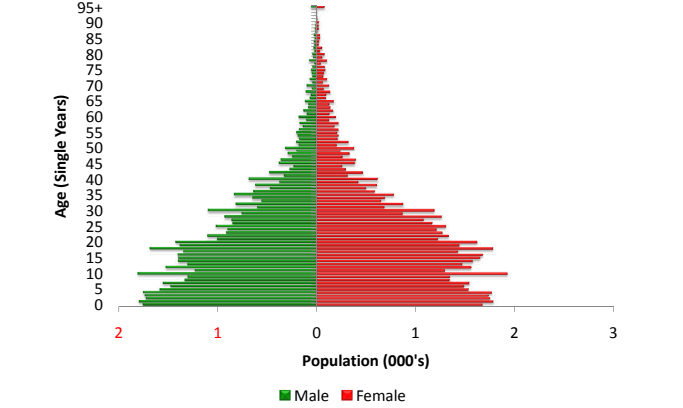
Figures 12.15 and 12.16, shows the population distribution by age and rural/urban for 2010.

**Figure 12.15: Population Distribution in Single Years, Western Province Rural 2010**



Source: 2010 Census of Population and Housing

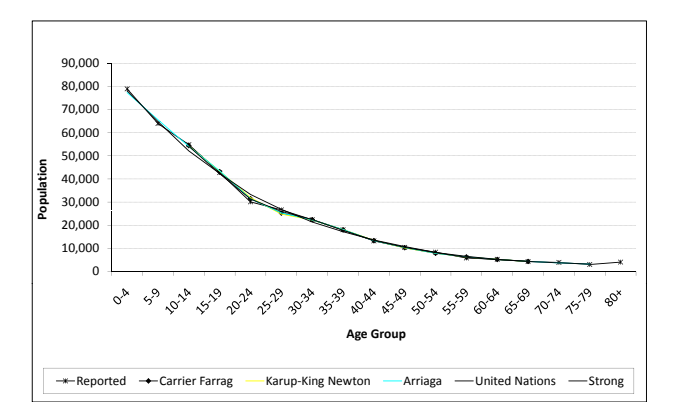
**Figure 12.16: Population Distribution in Single Years, Western Province Urban 2010**



Source: 2010 Census of Population and Housing

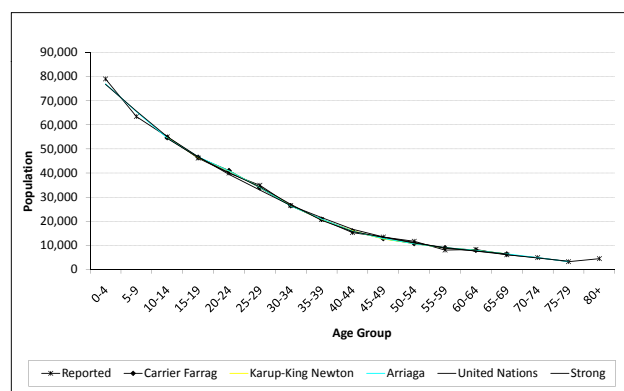
Figures 12.17 and 12.18, shows the reported and smoothed population by age and sex for Western Province 2010. Smoothing the age data using selected techniques for light smoothing of the population, shows that the irregularities in the structure were not severe to consider smoothing.

**Figure 12.17: Reported and Smoothed Population for Males by Age and Smoothing Technique, Western Province 2010**



Source: 2010 Census of Population and Housing

**Figure 12.18: Reported and Smoothed Population for Females by Age and Smoothing Technique, Western Province 2010**



Source: 2010 Census of Population and Housing

Given that the irregularities were not severe, the age sex data used for analysis in the 2010 Census was not smoothed.

## **ANNEX TABLES AND REFERENCES**

## Annex A: Population Composition and Demographic Characteristics

**Table A1: Percent Age Distribution by Sex and Rural/Urban, De jure Population, Western Province 2010**

Age Group	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
0 - 4	18.2	19.0	17.5	18.7	19.5	18.0	14.9	15.5	14.3
5 - 9	15.1	15.8	14.5	15.5	16.2	14.8	12.5	13.0	12.1
10 - 14	13.2	13.8	12.7	13.2	13.9	12.6	13.1	13.1	13.1
15 - 19	11.0	11.2	10.8	10.6	10.8	10.4	13.6	13.5	13.6
20 - 24	8.6	8.0	9.2	8.3	7.7	8.9	10.8	10.2	11.3
25 - 29	7.5	7.0	7.9	7.2	6.8	7.6	9.0	8.4	9.6
30 - 34	5.9	5.8	5.9	5.7	5.6	5.8	7.0	7.1	6.9
35 - 39	4.7	4.7	4.7	4.6	4.5	4.6	5.3	5.7	5.0
40 - 44	3.4	3.4	3.4	3.4	3.3	3.4	3.6	3.9	3.3
45 - 49	2.9	2.7	3.0	2.9	2.7	3.1	2.8	2.8	2.7
50 - 54	2.4	2.1	2.6	2.4	2.2	2.7	2.2	2.0	2.3
55 - 59	1.7	1.5	1.8	1.7	1.5	1.8	1.6	1.6	1.6
60 - 64	1.6	1.3	1.8	1.7	1.4	1.9	1.2	1.1	1.2
65 - 69	1.2	1.1	1.3	1.3	1.1	1.4	0.8	0.7	0.9
70 - 74	1.0	1.0	1.1	1.1	1.0	1.1	0.6	0.5	0.7
75 - 79	0.7	0.7	0.7	0.8	0.8	0.7	0.5	0.4	0.6
80 - 84	0.4	0.4	0.4	0.5	0.5	0.5	0.3	0.3	0.3
85+	0.5	0.5	0.5	0.6	0.6	0.6	0.4	0.3	0.4
<b>Total Percent</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Total Population</b>	<b>902,974</b>	<b>433,505</b>	<b>469,469</b>	<b>783,123</b>	<b>375,753</b>	<b>407,370</b>	<b>119,851</b>	<b>57,752</b>	<b>62,099</b>

Source: 2010 Census of Population and Housing

**A2: Percent Distribution of the Population by Selected Age Groups and Rural/Urban, Western Province 2010**

Age Group	2010 Census		
	Total	Rural	Urban
10-19 (Adolescents ,WHO)	24.2	23.9	26.7
10-24 (Young People, UN)	32.9	32.2	37.4
<15 (Children)	46.5	47.5	40.5
<18 (Children)	53.2	54.0	48.4
15-19 (Middle and later Adolescence)	11.0	10.6	13.6
15-24 (Youths, UN)	19.6	18.9	24.3
15-49 (Reproductive Age Group)	43.9	42.6	52.0
15-35 (Youths, Zambia)	34.2	33.0	41.8
15-64 (Labour force Age group)	49.5	48.4	56.9
60+ (Elderly)	5.5	5.8	3.8
65+ (Elderly)	3.9	4.2	2.6
<b>Total Population</b>	<b>902,974</b>	<b>783,123</b>	<b>119,851</b>

Source: 2010 Census of Population and Housing

## Annex B: Social Characteristics

**B1: Percent Distribution of Heads by Age Group and Sex, Western Province 2010**

Age group of House- hold Head	Total Number of Household heads	Number of Male Headed Households	Percent of Male headed Households	Number of Female Headed Households	Percent of Female Headed Households
<b>Total</b>	<b>180,179</b>	<b>120,726</b>	<b>100</b>	<b>59,453</b>	<b>100</b>
12-14	106	51	*	55	0.1
15 - 19	1,898	747	0.6	1,151	1.9
20 - 24	12,131	7,836	6.5	4,295	7.2
25 - 29	24,353	17,961	14.9	6,392	10.8
30 - 34	26,024	19,450	16.1	6,574	11.1
35 - 39	23,057	16,921	14	6,136	10.3
40 - 44	18,525	12,992	10.8	5,533	9.3
45 - 49	15,790	10,470	8.7	5,320	8.9
50 - 54	13,809	8,583	7.1	5,226	8.8
55 - 59	10,130	5,985	5	4,145	7
60 - 64	9,768	5,279	4.4	4,489	7.6
65+	24,588	14,451	12	10,137	17.1

Source: 2010 Census of Population and Housing

**B 2: Relationship to Household Head by Rural/Urban, Western Province 2010.**

Relationship to head	Total	Percent	Rural	Percent	Urban	Percent
<b>Total</b>	<b>902,974</b>	<b>100</b>	<b>783,123</b>	<b>100</b>	<b>119,851</b>	<b>100</b>
Head	180,179	20	156,026	19.9	24,153	20.2
Spouse	109,184	12.1	95,916	12.2	13,268	11.1
Own Son/ Daughter	420,626	46.6	372,199	47.5	48,427	40.4
Step Son/Daughter	18,718	2.1	16,644	2.1	2,074	1.7
Parent	5,900	0.7	5,113	0.7	787	0.7
Brother/Sister	24,277	2.7	18,005	2.3	6,272	5.2
Nephew/Niece	25,566	2.8	18,410	2.4	7,156	6
Son/Daughter-in-law	5,152	0.6	4,336	0.6	816	0.7
Grandchild	84,870	9.4	74,416	9.5	10,454	8.7
Parent-in-law	1,140	0.1	938	0.1	202	0.2
Cousin	3,621	0.4	2,527	0.3	1,094	0.9
Other relative	19,547	2.2	15,660	2	3,887	3.2
Non Related	4,194	0.5	2,933	0.4	1,261	1.1

Source: 2010 Census of Population and Housing



## Annex C: Education

**C 1: Population 5 Years and Older by Age (Single and 5 Year Groups), Sex and Literacy Status, and Rural/Urban, Western Province 2010**

Age (Single and 5 Year Groups)	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
<b>Total</b>	<b>61.6</b>	<b>64.9</b>	<b>58.8</b>	<b>58.3</b>	<b>61.9</b>	<b>55.1</b>	<b>82.2</b>	<b>83.3</b>	<b>81.3</b>
5	3.1	3.0	3.3	2.5	2.2	2.7	8.8	9.0	8.6
6	6.2	5.9	6.5	5.0	4.7	5.3	16.3	16.1	16.5
7	14.0	13.3	14.7	11.6	11.1	12.1	32.2	30.2	34.2
8	24.5	23.6	25.3	20.9	20.2	21.5	51.4	49.5	53.3
9	38.6	37.2	40.1	34.6	33.1	36.0	68.3	67.4	69.1
5 - 9	16.0	15.3	16.6	13.6	13.0	14.2	34.1	32.9	35.2
10	51.3	49.5	53.1	47.1	45.5	48.8	80.7	79.2	82.2
11	68.3	66.7	70.0	64.9	63.2	66.6	91.1	90.4	91.8
12	77.3	75.5	79.2	74.5	72.5	76.6	94.1	93.5	94.8
13	81.9	80.5	83.3	79.7	78.1	81.3	95.4	95.9	94.8
14	85.1	84.7	85.5	83.1	82.8	83.5	96.1	95.6	96.6
10 - 14	70.9	69.3	72.4	67.7	66.2	69.2	90.9	90.3	91.6
15	85.8	85.8	85.8	83.9	83.9	83.9	95.9	96.8	95.2
16	86.5	86.8	86.2	84.5	85.0	84.0	96.7	97.0	96.4
17	85.8	87.6	84.1	83.5	85.7	81.6	96.8	96.9	96.7
18	84.1	87.2	81.3	81.5	85.2	78.2	95.8	96.0	95.5
19	83.5	87.9	79.7	80.8	85.9	76.6	95.6	96.3	94.9
15 - 19	85.2	87.0	83.5	82.9	85.1	80.9	96.1	96.6	95.7
20 - 24	78.0	84.0	73.5	74.6	81.5	69.5	94.2	95.5	93.1
25 - 29	72.7	78.7	68.1	68.8	75.7	63.5	92.5	94.0	91.4
30 - 34	73.2	78.9	68.5	69.8	76.0	64.5	91.5	93.1	90.1
35 - 39	72.7	79.6	66.6	69.3	76.8	63.0	91.5	94.0	88.9
40 - 44	71.5	79.3	64.8	68.5	76.8	61.5	90.7	93.4	87.9
45 - 49	70.3	78.9	63.6	67.4	76.7	60.5	89.3	92.2	86.6
50 - 54	67.6	78.5	59.8	64.9	76.6	56.7	87.2	91.8	83.4
55 - 59	64.8	76.8	56.1	62.0	74.5	53.1	84.3	91.6	78.2
60 - 64	53.4	71.3	42.0	50.9	69.3	39.6	75.6	87.7	66.4
65 +	42.8	60.1	28.6	41.4	58.9	26.8	56.8	73.6	45.6

Source: 2010 Census of Population and Housing

**C2: Population 5 Years and Older by Age, Sex, and School Attendance and Rural/Urban, Western Province 2010**

Age (Single and 5 Year Groups)	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
<b>Total</b>	<b>29.6</b>	<b>32.6</b>	<b>26.9</b>	<b>28.0</b>	<b>31.2</b>	<b>25.3</b>	<b>39.0</b>	<b>41.3</b>	<b>36.9</b>
5	6.4	5.9	6.8	5.3	4.8	5.7	15.4	15.0	15.7
6	16.4	14.8	18.0	14.4	12.7	16.1	32.9	32.3	33.4
7	42.8	40.5	45.1	39.7	37.3	42.1	66.3	64.5	68.1
8	60.3	58.5	62.2	57.2	55.4	59.1	83.5	82.1	84.9
9	71.0	69.5	72.5	68.5	67.0	69.9	89.7	88.5	90.9
5 - 9	36.8	35.3	38.4	34.4	32.8	36.0	56.0	54.7	57.3
10	74.1	73.0	75.4	71.9	70.7	73.1	90.0	89.3	90.7
11	80.0	79.7	80.4	78.1	77.8	78.5	92.6	92.6	92.7
12	81.6	81.0	82.1	79.8	79.1	80.5	92.2	92.7	91.7
13	81.8	80.8	82.7	80.1	79.0	81.2	91.9	92.3	91.5
14	79.5	80.2	78.8	77.5	78.3	76.6	90.6	91.2	90.0
10 - 14	78.9	78.4	79.5	77.0	76.4	77.6	91.3	91.5	91.2
15	74.9	77.4	72.5	72.6	75.3	70.0	86.8	89.4	84.6
16	68.1	73.5	62.9	65.2	71.2	59.3	82.9	86.7	79.8
17	58.0	67.6	49.3	54.0	64.6	44.4	77.5	81.7	73.5
18	46.1	58.6	34.9	42.2	55.3	30.5	63.8	72.9	55.2
19	36.1	49.3	24.7	32.5	46.5	20.8	52.4	61.6	43.7
15 - 19	57.4	66.1	49.4	54.2	63.6	45.5	72.7	78.3	67.6
20 - 24	15.0	22.3	9.5	13.1	20.2	7.8	24.3	31.7	18.3
25 - 29	3.9	4.7	3.3	3.3	4.1	2.6	7.1	7.4	6.8
30 - 34	2.1	2.2	2.0	1.8	1.8	1.7	3.9	4.1	3.8
35 - 39	1.8	2.0	1.7	1.5	1.7	1.4	3.4	3.6	3.1
40 - 44	1.5	1.9	1.1	1.3	1.7	1.0	2.5	2.9	2.2
45 - 49	1.3	1.6	1.1	1.2	1.4	0.9	2.6	2.8	2.5
50 - 54	1.2	1.4	1.1	1.0	1.2	0.9	2.5	2.6	2.4
55 - 59	1.1	1.5	0.9	1.0	1.3	0.8	2.1	2.5	1.7
60 - 64	1.0	1.3	0.8	0.9	1.2	0.7	1.9	2.6	1.3
65 +	1.0	1.3	0.8	0.9	1.2	0.7	2.1	2.2	2.0

Source: 2010 Census of Population and Housing

## Annex D: Economic Characteristics

D1: The Usually Working Population (12 years and Older) By District, Rural/Urban and Sex Western Province 2010.																
Rural/Urban, Sex and Economic Activity	Total	Percent	Kalabo	Percent	Kaoma	Percent	Lukulu	Percent	Mongu	Percent	Senanga	Percent	Sesheke	Percent	Shan'gombo	Percent
Total	305,548	100	57,660	18.9	60,907	19.9	31,549	10.3	56,151	18.4	38,728	12.7	36,696	12.0	23,857	7.8
Rural	277,077	100	56,422	20.4	56,292	20.3	28,941	10.4	43,800	15.8	36,582	13.2	31,721	11.4	23,319	8.4
Urban	28,471	100	1,238	4.3	4,615	16.2	2,608	9.2	12,351	43.4	2,146	7.5	4,975	17.5	538	1.9
Male	141,791	100	23,674	16.7	29,023	20.5	14,615	10.3	26,594	18.8	18,160	12.8	17,780	12.5	11,945	8.4
Female	163,757	100	33,986	20.8	31,884	19.5	16,934	10.3	29,557	18.0	20,568	12.6	18,916	11.6	11,912	7.3
The Usually Working Population (12 years and Older) By Employment Status																
Employer	852	0.3	57	0.1	206	0.3	34	0.1	266	0.5	93	0.2	126	0.3	70	0.3
Employee	20,941	6.9	1,584	2.7	4,925	8.1	1,348	4.3	7,547	13.4	1,769	4.6	2,820	7.7	948	4.0
Self employed	137,303	44.9	22,343	38.7	25,720	42.2	14,456	45.8	26,185	46.6	20,909	54.0	16,945	46.2	10,745	45.0
Unpaid family worker	146,452	47.9	33,676	58.4	30,056	49.3	15,711	49.8	22,153	39.5	15,957	41.2	16,805	45.8	12,094	50.7
The Usually Working Population (12 years and Older) By Occupation																
Managers	1,239	0.4	53	0.1	112	0.2	29	0.1	293	0.5	327	0.8	87	0.2	338	1.4
Professionals	8,274	2.7	686	1.2	1,903	3.1	549	1.7	2,750	4.9	1,017	2.6	889	2.4	480	2.0
Technicians and Associate Professionals	2,699	0.9	238	0.4	342	0.6	190	0.6	784	1.4	612	1.6	335	0.9	198	0.8
Clerical Support Workers	671	0.2	30	0.1	121	0.2	37	0.1	313	0.6	65	0.2	85	0.2	20	0.1
Service and Sales Workers	10,607	3.5	973	1.7	1,625	2.7	617	2.0	4,848	8.6	698	1.8	1,605	4.4	241	1.0
Skilled Agricultural Forestry and Fishery Workers	231,644	75.8	53,217	92.3	46,199	75.9	26,054	82.6	35,177	62.6	25,326	65.4	27,763	75.7	17,908	75.1
Craft and Related Trades Workers	9,907	3.2	894	1.6	1,057	1.7	1,265	4.0	4,287	7.6	1,140	2.9	1,052	2.9	212	0.9
Plant and Machine Operators and Assemblers	2,715	0.9	339	0.6	328	0.5	277	0.9	971	1.7	309	0.8	432	1.2	59	0.2
Elementary Occupations	25,137	8.2	423	0.7	6,350	10.4	1,252	4.0	4,236	7.5	7,118	18.4	3,202	8.7	2,556	10.7
Not Stated	12,655	4.1	807	1.4	2,870	4.7	1,279	4.1	2,492	4.4	2,116	5.5	1,246	3.4	1,845	7.7
The Usually Working Population (12 years and Older) By Industry																
Agriculture Hunting Forestry and Fishing	256,235	83.9	53,222	92.3	52,406	86.0	27,463	87.0	39,337	70.1	32,909	85.0	30,510	83.1	20,388	85.5
Mining and Quarrying	526	0.2	20	0.0	230	0.4	15	0.0	73	0.1	37	0.1	46	0.1	105	0.4
Manufacturing	4,253	1.4	527	0.9	562	0.9	518	1.6	1,452	2.6	548	1.4	479	1.3	167	0.7
Electricity Gas Steam and Air conditioning supply	126	0.0	8	0.0	13	0.0	10	0.0	66	0.1	7	0.0	16	0.0	6	0.0
Water Supply	101	0.0	7	0.0	12	0.0	10	0.0	51	0.1	4	0.0	15	0.0	2	0.0
Construction and Allied Repairs	2,754	0.9	256	0.4	510	0.8	247	0.8	1,033	1.8	167	0.4	438	1.2	103	0.4
Wholesale & Retail Trade Restaurants and Hotel	11,266	3.7	1,308	2.3	1,404	2.3	820	2.6	5,176	9.2	871	2.2	1,518	4.1	169	0.7
Transport and Storage	1,454	0.5	59	0.1	211	0.3	55	0.2	748	1.3	98	0.3	250	0.7	33	0.1
Accommodation and food services activities	900	0.3	33	0.1	123	0.2	45	0.1	475	0.8	69	0.2	143	0.4	12	0.1
Information and Communication	817	0.3	45	0.1	166	0.3	35	0.1	241	0.4	122	0.3	59	0.2	149	0.6
Finance and Insurance	180	0.1	5	0.0	13	0.0	6	0.0	121	0.2	12	0.0	20	0.1	3	0.0
Real Estate Activities	13	0.0	-	-	2	0.0	-	-	10	0.0	1	0.0	-	-	-	-
Community Social and Personal Services	11,871	3.9	1,168	2.0	2,294	3.8	820	2.6	4,272	7.6	1,124	2.9	1,597	4.4	596	2.5
Not Stated	15,052	4.9	1,002	1.7	2,761	4.9	1,505	4.8	3,096	5.5	2,759	7.1	1,605	4.4	2,124	8.9

Source: 2010 Census of Population and Housing

## Annex E: Fertility Levels, Patterns and Trends

**E1: Adjusted ASFRs and TFRs by District, Western Province 2010**

Age Group	Western	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shan'gombo
15-19	0.1394	0.1366	0.1177	0.1351	0.1154	0.1223	0.1232	0.1205
20-24	0.2624	0.2823	0.2643	0.2745	0.2431	0.2727	0.2930	0.2546
25-29	0.2594	0.2977	0.2732	0.2790	0.2442	0.2653	0.2797	0.2649
30-34	0.2307	0.2605	0.2583	0.2526	0.2106	0.2463	0.2528	0.2257
35-39	0.1861	0.1965	0.2037	0.2114	0.1743	0.2076	0.2153	0.2079
40-44	0.0945	0.1077	0.1096	0.1128	0.0852	0.1043	0.1311	0.1207
45-49	0.0298	0.0383	0.0314	0.0407	0.0361	0.0405	0.0380	0.0526
TFR	6.0	6.1	6.1	6.2	5.4	6.1	6.3	6.3

Source: 2010 Census of Population and Housing

**E2: Observed and Adjusted ASFR, TFR and Mean Age at Childbearing (MACB), Western Province 1990 – 2010**

Age Group	1990*		2000*		2010	
	Observed	Adjusted	Observed	Adjusted	Observed	Adjusted
	ASFR	ASFR	ASFR	ASFR	ASFR	ASFR
15-19	0.088	0.094	0.093	0.141	0.096	0.1394
20-24	0.250	0.267	0.212	0.277	0.208	0.2624
25-29	0.275	0.294	0.212	0.269	0.211	0.2594
30-34	0.254	0.272	0.185	0.232	0.190	0.2307
35-39	0.211	0.226	0.042	0.175	0.156	0.1861
40-44	0.120	0.129	0.071	0.083	0.084	0.0945
45-49	0.055	0.059	0.029	0.030	0.030	0.0298
Obs. TFR	6.3		4.7		4.9	
Adj. TFR		6.7		6.0		6.0
MACB					28.7	

Source: 1990, 2000 and 2010 Censuses of Population and Housing

**E3: Adjusted Total Fertility Rate by Province and Rural/Urban, Western Province 1990 – 2010**

Year	Total			Districts						
	Total	Rural	Urban	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shan'gombo
1990	6.2	6.2	5.7	-	-	-	-	-	-	-
2000	5.9	6.1	4.7	5.8	5.8	6.7	5.8	5.9	5.8	6.3
2010	6.0	6.3	4.3	6.2	6.1	6.2	5.4	6.1	6.3	6.3

Source: 1990, 2000 and 2010 Censuses of Population and Housing

**E4: GRR and NRR by Rural/Urban, Western Province 1990 - 2010**

Age Group	Total			Rural			Urban		
	ASFR(f)	Survival Ratios	ASFR at Current Mortality Rates	ASFR(f)	Survival Ratios	ASFR at Current Mortality Rates	ASFR(f)	Survival Ratios	ASFR at Current Mortality Rates
15 - 19	0.0478	4.1484	0.1974	0.0511	4.1310	0.2102	0.0298	4.2792	0.1272
20 - 24	0.1016	3.9492	0.4026	0.1069	3.9313	0.4208	0.0738	4.0807	0.3040
25 - 29	0.1042	3.6705	0.3855	0.1105	3.6555	0.4063	0.0692	3.7839	0.2661
30 - 34	0.0905	3.3383	0.3046	0.0951	3.3321	0.3187	0.0630	3.4002	0.2184
35 - 39	0.0765	3.0600	0.2307	0.0801	3.0692	0.2412	0.0524	3.0261	0.1600
40 - 44	0.0419	2.7736	0.1126	0.0435	2.7944	0.1171	0.0292	2.6624	0.0777
45 - 49	0.0153	2.5627	0.0366	0.0161	2.5901	0.0389	0.0085	2.4041	0.0196
GRR 2010	2.4			2.5			1.6		
GRR 2000	2.3			2.4			1.7		
GRR 1990									
NRR 2010			1.7			1.8			1.2
NRR2000			1.5			1.5			1.3
NRR 1990									

Source: 1990, 2000 and 2010 Census of Population and Housing

## Annex F: Mortality

F1: Proportion Distribution of Reported Deaths by Age Group, District and Rural/Urban, Western Province 2010

Age Group	Total	Rural	Urban	Kalabo	Kaoma	Lukulu	Mongu	Senanga	Sesheke	Shang'ombo
0 - 4	0.318	0.333	0.225	0.342	0.340	0.386	0.245	0.295	0.308	0.447
5-9	0.044	0.046	0.033	0.053	0.049	0.073	0.030	0.035	0.043	0.054
10-14	0.028	0.029	0.022	0.030	0.027	0.027	0.025	0.024	0.029	0.046
15 - 19	0.039	0.040	0.037	0.042	0.040	0.032	0.034	0.051	0.030	0.042
20 - 24	0.058	0.056	0.069	0.067	0.044	0.055	0.061	0.068	0.062	0.049
25 - 29	0.075	0.071	0.101	0.066	0.063	0.067	0.087	0.085	0.082	0.060
30 - 34	0.079	0.075	0.104	0.076	0.076	0.079	0.091	0.080	0.082	0.052
35 - 39	0.064	0.061	0.086	0.040	0.068	0.048	0.077	0.080	0.060	0.048
40 - 44	0.050	0.048	0.062	0.047	0.052	0.049	0.059	0.050	0.044	0.034
45 - 49	0.041	0.039	0.050	0.033	0.041	0.028	0.048	0.038	0.046	0.038
50 - 54	0.033	0.032	0.036	0.035	0.035	0.036	0.036	0.027	0.027	0.027
55 - 59	0.023	0.023	0.027	0.030	0.024	0.010	0.025	0.020	0.027	0.016
60 - 64	0.028	0.028	0.028	0.021	0.028	0.021	0.033	0.032	0.033	0.018
65 - 69	0.021	0.020	0.032	0.019	0.024	0.019	0.028	0.017	0.021	0.011
70 - 74	0.032	0.033	0.025	0.031	0.031	0.010	0.039	0.030	0.044	0.018
75+	0.066	0.066	0.063	0.067	0.059	0.059	0.082	0.066	0.061	0.039

Source: 2010 Census of Population and Housing

## Annex H: Disability

H1: Disabled Population by Sex, Rural/Urban and District, Western Province 2010

Sex and District	Disabled Population			Percent Disabled		
	Total	Rural	Urban	Total	Rural	Urban
Total	23,817	21,925	1,892	2.8	3.0	1.7
Male	11,917	10,981	936	3.0	3.2	1.7
Female	11,900	10,944	956	2.7	2.9	1.6
District						
Kalabo	3,984	3,921	63	3.3	3.3	2.0
Kaoma	4,996	4,625	371	2.9	3.0	2.0
Lukulu	1,902	1,748	154	2.3	2.5	1.5
Mongu	4,299	3,507	792	2.5	2.9	1.6
Senanga	3,159	2,982	177	2.7	2.9	1.3
Sesheke	3,060	2,772	288	3.3	3.7	1.8
Shang'ombo	2,417	2,370	47	2.9	2.9	2.3

Source: 2010 Census of Population and Housing

H2: Disabled Population by Age and Sex, Western Province 2010

Age Group	Disabled Population			Percent Disabled		
	Total	Male	Female	Total	Male	Female
Total	23,817	11,917	11,900	2.8	3.0	2.7
0 - 4	956	558	398	0.6	0.7	0.5
5-9	1,508	885	623	1.2	1.4	1.0
10-14	2,026	1,123	903	1.8	2.0	1.6
15 - 19	1,761	969	792	2.0	2.3	1.7
20 - 24	1,376	696	680	2.0	2.3	1.7
25 - 29	1,327	691	636	2.2	2.6	1.8
30 - 34	1,300	702	598	2.7	3.1	2.3
35 - 39	1,330	679	651	3.4	3.8	3.1
40 - 44	1,297	699	598	4.6	5.3	3.9
45 - 49	1,308	633	675	5.5	6.1	5.0
50 - 54	1,283	600	683	6.4	7.2	5.9
55 - 59	1,010	431	579	7.3	7.4	7.2
60 - 64	1,390	530	860	10.3	10.1	10.4
65 - 69	1,239	528	711	12.0	12.4	11.7
70 - 74	1,392	605	787	15.8	15.5	16.0
75 - 79	1,159	522	637	18.6	17.3	19.8
80 - 84	860	422	438	22.4	22.8	22.1
85 - 89	632	340	292	26.8	28.7	24.9
90 - 94	280	151	129	28.8	30.4	27.1
95+	383	153	230	28.3	29.3	27.7

Source: 2010 Census of Population and Housing

## Annex I: Evaluation Of Coverage And Content Errors

11: Population by Age Group, Sex, Age Ratio and Sex Ratio, Western Province 1990								
Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	45,725	46,408	-	-	-	-	98.5	-
5-9	44,478	45,659	102.8	104.4	2.8	4.4	97.4	-1.1
10-14	40,820	41,058	102.2	98.6	2.2	-1.4	99.4	2.0
15-19	35,375	37,636	113.5	108.6	13.5	8.6	94.0	-5.4
20-24	21,492	28,282	84.0	94.0	-16.0	-6.0	76.0	-18.0
25-29	15,817	22,532	89.8	95.0	-10.2	-5.0	70.2	-5.8
30-34	13,734	19,158	110.9	106.6	10.9	6.6	71.7	1.5
35-39	8,961	13,413	81.4	77.9	-18.6	-22.1	66.8	-4.9
40-44	8,295	15,292	99.3	120.7	-0.7	20.7	54.2	-12.6
45-49	7,752	11,935	92.6	85.9	-7.4	-14.1	64.9	10.7
50-54	8,456	12,504	110.1	122.7	10.1	22.7	67.6	2.7
55-59	7,604	8,454	95.1	80.3	-4.9	-19.7	90.0	22.3
60-64	7,541	8,561	115.5	127.7	15.5	27.7	88.1	-1.9
65-69	5,454	4,951	83.2	75.1	-16.8	-24.9	110.2	22.1
70-74	5,568	4,619	-	-	0.0	0.0	120.5	10.4
75+	4,981	4,299	-	-	-	-	115.9	-
Total	282,053	324,760	-	-	-	-	-	-
Mean	-	-	-	-	10.0	14.1	-	8.7

Source: 1990 Census of Population and Housing  
Age-Sex Accuracy Index = 3 times mean difference in sex ratio plus mean deviations of males and females age ratios.  
 $3 \times 8.7 + 10.0 + 14.1$   
= 50.1

12: Population by Age Group, Sex, Age Ratio and Sex Ratio, Western Province 2000								
Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	60,232	60,184	-	-	-	-	100.1	-
5-9	52,442	52,750	99.0	99.4	-1.0	-0.6	99.4	-0.7
10-14	45,747	45,985	98.9	96.3	-1.1	-3.7	99.5	0.1
15-19	40,103	42,781	108.0	104.0	8.0	4.0	93.7	-5.7
20-24	28,519	36,287	90.5	103.2	-9.5	3.2	78.6	-15.1
25-29	22,917	27,562	100.9	96.8	0.9	-3.2	83.1	4.6
30-34	16,893	20,644	93.8	91.8	-6.2	-8.2	81.8	-1.3
35-39	13,102	17,419	93.3	97.7	-6.7	-2.3	75.2	-6.6
40-44	11,203	15,015	104.8	104.0	4.8	4.0	74.6	-0.6
45-49	8,286	11,462	89.7	88.0	-10.3	-12.0	72.3	-2.3
50-54	7,280	11,022	102.7	115.5	2.7	15.5	66.0	-6.2
55-59	5,894	7,624	86.5	81.4	-13.5	-18.6	77.3	11.3
60-64	6,342	7,701	109.4	117.1	9.4	17.1	82.4	5.0
65-69	5,705	5,527	102.0	93.1	2.0	-6.9	103.2	20.9
70-74	4,845	4,174	-	-	0.0	0.0	116.1	12.9
75+	6,750	5,736	-	-	-	-	117.7	-
Total	336,260	371,873	-	-	-	-	-	-
Mean	-	-	-	-	5.9	7.6	-	6.7

Source: 2000 Census of Population and Housing  
Age-Sex Accuracy Index = 3 times mean difference in sex ratio plus mean deviations of males and females age ratios.  
 $3 \times 6.7 + 5.9 + 7.6$   
= 33.5

13: Population by Age Group, Sex, Age Ratio and Sex Ratio, Western Province 2010								
Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	78,959	79,021	-	-	-	-	100.9	-
5-9	63,980	63,416	95.6	94.6	-4.4	-5.4	99.6	1.0
10-14	54,826	55,026	102.8	100.4	2.8	0.4	92.5	-1.3
15-19	42,730	46,179	100.6	97.2	0.6	-2.8	75.3	-7.1
20-24	30,101	39,986	86.8	98.6	-13.2	-1.4	76.3	-17.3
25-29	26,626	34,904	101.5	105.0	1.5	5.0	84.5	1.0
30-34	22,372	26,479	100.2	95.2	0.2	-4.8	87.0	8.2
35-39	18,025	20,718	101.3	99.3	1.3	-0.7	86.5	2.5
40-44	13,207	15,265	92.9	89.4	-7.1	-10.6	77.6	-0.5
45-49	10,419	13,419	96.7	99.6	-3.3	-0.4	71.5	-8.9
50-54	8,345	11,673	102.8	108.9	2.8	8.9	72.6	-6.2
55-59	5,817	8,011	85.5	80.3	-14.5	-19.7	63.4	1.1
60-64	5,257	8,289	104.3	117.8	4.3	17.8	70.5	-9.2
65-69	4,268	6,057	93.1	91.8	-6.9	-8.2	79.6	7.0
70-74	3,910	4,910	-	-	0.0	0.0	92.1	9.2
75+	7,071	7,679	-	-	-	-	100.9	-
Total	395,913	441,032	-	-	-	-	-	-
Mean	-	-	-	-	4.8	6.6	-	5.7

Source: 2010 Census of Population and Housing  
Age-Sex Accuracy Index = 3 times mean difference in sex ratio plus mean deviations of males and females age ratios.  
 $3 \times 5.7 + 4.8 + 6.6$   
= 28.7

Table 1: Abridged Life Table for Both Sexes, Western Province 2010

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0864	0.3	0.0815	100,000	8,145	94,298	0.8911	4,564,404	45.6
1	4	0.0128	0.4	0.0489	91,855	4,488	351,261	0.9603	4,470,105	48.7
5	5	0.0047	0.5	0.0228	87,366	1,992	427,870	0.9824	4,118,844	47.1
10	5	0.0035	0.5	0.0170	85,375	1,454	420,331	0.9722	3,690,974	43.2
15	5	0.0059	0.5	0.0290	83,921	2,432	408,662	0.9494	3,270,643	39.0
20	5	0.0111	0.5	0.0531	81,489	4,323	387,991	0.9264	2,861,981	35.1
25	5	0.0163	0.5	0.0760	77,166	5,865	359,437	0.9035	2,473,990	32.1
30	5	0.0217	0.5	0.0989	71,301	7,054	324,763	0.8990	2,114,553	29.7
35	5	0.0223	0.5	0.1012	64,247	6,504	291,970	0.8939	1,789,790	27.9
40	5	0.0236	0.5	0.1067	57,744	6,160	260,998	0.8963	1,497,820	25.9
45	5	0.0228	0.5	0.1033	51,584	5,329	233,938	0.9002	1,236,823	24.0
50	5	0.0218	0.5	0.0994	46,255	4,597	210,586	0.8977	1,002,885	21.7
55	5	0.0226	0.5	0.1027	41,658	4,279	189,033	0.8797	792,299	19.0
60	5	0.0275	0.5	0.1225	37,379	4,579	166,289	0.8769	603,266	16.1
65	5	0.0277	0.5	0.1231	32,800	4,039	145,823	0.8108	436,977	13.3
70	5	0.0481	0.5	0.1976	28,761	5,683	118,227	0.7984	291,154	10.1
75	5	0.0494	0.5	0.2021	23,077	4,664	94,395	0.4541	172,927	7.5
80	+	0.0670	0.5	1.0000	18,413	18,413	78,532		78,532	4.3

Source: 2010 Census of Population and Housing

Table 2: Abridged Life Table for Males, Western Province 2010

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0933	0.3	0.0876	100,000	8,755	93,871	0.8842	4,289,648	42.9
1	4	0.0134	0.4	0.0510	91,245	4,657	348,215	0.9570	4,195,776	46.0
5	5	0.0052	0.5	0.0254	86,588	2,195	423,061	0.9794	3,847,562	44.4
10	5	0.0041	0.5	0.0201	84,393	1,693	414,346	0.9713	3,424,500	40.6
15	5	0.0061	0.5	0.0297	82,700	2,458	402,438	0.9467	3,010,154	36.4
20	5	0.0118	0.5	0.0560	80,242	4,493	380,989	0.9228	2,607,717	32.5
25	5	0.0172	0.5	0.0797	75,748	6,035	351,587	0.8966	2,226,728	29.4
30	5	0.0235	0.5	0.1063	69,714	7,411	315,219	0.8796	1,875,141	26.9
35	5	0.0275	0.5	0.1222	62,303	7,614	277,251	0.8798	1,559,922	25.0
40	5	0.0269	0.5	0.1199	54,689	6,557	243,938	0.8632	1,282,670	23.5
45	5	0.0318	0.5	0.1390	48,132	6,689	210,558	0.8785	1,038,732	21.6
50	5	0.0267	0.5	0.1193	41,443	4,943	184,970	0.8744	828,174	20.0
55	5	0.0285	0.5	0.1264	36,500	4,615	161,730	0.8516	643,204	17.6
60	5	0.0350	0.5	0.1512	31,884	4,821	137,729	0.8593	481,474	15.1
65	5	0.0319	0.5	0.1393	27,064	3,771	118,349	0.7781	343,744	12.7
70	5	0.0588	0.5	0.2326	23,293	5,417	92,087	0.7991	225,396	9.7
75	5	0.0477	0.5	0.1963	17,876	3,510	73,585	0.4480	133,308	7.5
80	+	0.0686	0.5	1.0000	14,366	14,366	59,724		59,724	4.2

Source: 2010 Census of Population and Housing

Table 3: Abridged Life Table for Females, Western Province 2010

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0797	0.3	0.0755	100,000	7,550	94,715	0.8979	4,829,086	48.3
1	4	0.0122	0.4	0.0468	92,450	4,327	354,222	0.9636	4,734,371	51.2
5	5	0.0041	0.5	0.0202	88,123	1,780	432,602	0.9854	4,380,149	49.7
10	5	0.0028	0.5	0.0140	86,342	1,208	426,273	0.9732	3,947,548	45.7
15	5	0.0058	0.5	0.0283	85,134	2,407	414,835	0.9520	3,521,274	41.4
20	5	0.0105	0.5	0.0503	82,726	4,158	394,921	0.9294	3,106,439	37.6
25	5	0.0156	0.5	0.0729	78,568	5,731	367,051	0.9095	2,711,519	34.5
30	5	0.0202	0.5	0.0926	72,837	6,745	333,833	0.9166	2,344,468	32.2
35	5	0.0178	0.5	0.0822	66,092	5,435	306,002	0.9064	2,010,635	30.4
40	5	0.0208	0.5	0.0950	60,657	5,760	277,364	0.9239	1,704,633	28.1
45	5	0.0158	0.5	0.0737	54,897	4,049	256,266	0.9165	1,427,269	26.0
50	5	0.0183	0.5	0.0847	50,848	4,306	234,866	0.9153	1,171,003	23.0
55	5	0.0183	0.5	0.0848	46,543	3,945	214,962	0.8986	936,137	20.1
60	5	0.0228	0.5	0.1034	42,598	4,405	193,170	0.8889	721,175	16.9
65	5	0.0249	0.5	0.1121	38,193	4,281	171,705	0.8385	528,005	13.8
70	5	0.0395	0.5	0.1677	33,913	5,688	143,967	0.7981	356,301	10.5
75	5	0.0507	0.5	0.2065	28,225	5,827	114,900	0.4589	212,333	7.5
80	+	0.0656	0.5	1.0000	22,397	22,397	97,433		97,433	4.4



**Table 4: Abridged Life Table for Both Sexes, Western Province Rural 2010**

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0892	0.3	0.0840	100,000	8,398	94,121	0.8888	4,585,098	45.9
1	4	0.0128	0.4	0.0489	91,602	4,480	350,279	0.9598	4,490,977	49.0
5	5	0.0047	0.5	0.0232	87,122	2,018	426,529	0.9818	4,140,698	47.5
10	5	0.0036	0.5	0.0177	85,104	1,503	418,759	0.9708	3,714,169	43.6
15	5	0.0063	0.5	0.0305	83,602	2,548	406,541	0.9489	3,295,410	39.4
20	5	0.0112	0.5	0.0534	81,053	4,331	385,777	0.9278	2,888,869	35.6
25	5	0.0159	0.5	0.0744	76,722	5,705	357,939	0.9052	2,503,091	32.6
30	5	0.0213	0.5	0.0972	71,017	6,905	324,016	0.9020	2,145,152	30.2
35	5	0.0215	0.5	0.0981	64,113	6,287	292,274	0.8971	1,821,136	28.4
40	5	0.0228	0.5	0.1035	57,826	5,987	262,189	0.8999	1,528,863	26.4
45	5	0.0219	0.5	0.0996	51,839	5,165	235,952	0.9031	1,266,674	24.4
50	5	0.0212	0.5	0.0966	46,674	4,509	213,080	0.9009	1,030,722	22.1
55	5	0.0218	0.5	0.0994	42,165	4,193	191,957	0.8839	817,642	19.4
60	5	0.0264	0.5	0.1181	37,972	4,486	169,672	0.8885	625,685	16.5
65	5	0.0246	0.5	0.1107	33,486	3,706	150,751	0.8154	456,013	13.6
70	5	0.0470	0.5	0.1938	29,780	5,772	122,925	0.8072	305,262	10.3
75	5	0.0466	0.5	0.1926	24,008	4,624	99,231	0.4558	182,337	7.6
80	+	0.0649	0.5	1.0000	19,384	19,384	83,107		83,107	4.3

Source: 2010 Census of Population and Housing

**Table 5: Abridged Life Table for Both Sexes, Western Province Urban 2010**

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0654	0.3	0.0625	100,000	6,252	95,624	0.9081	4,449,703	44.5
1	4	0.0128	0.4	0.0490	93,748	4,596	358,447	0.9641	4,354,079	46.4
5	5	0.0041	0.5	0.0200	89,152	1,780	437,750	0.9862	3,995,633	44.8
10	5	0.0026	0.5	0.0131	87,372	1,144	431,712	0.9792	3,557,883	40.7
15	5	0.0044	0.5	0.0216	86,228	1,864	422,754	0.9535	3,126,171	36.3
20	5	0.0103	0.5	0.0493	84,364	4,161	403,097	0.9201	2,703,417	32.0
25	5	0.0181	0.5	0.0835	80,203	6,695	370,887	0.8948	2,300,320	28.7
30	5	0.0239	0.5	0.1078	73,508	7,924	331,881	0.8824	1,929,433	26.2
35	5	0.0266	0.5	0.1188	65,584	7,790	292,863	0.8750	1,597,552	24.4
40	5	0.0284	0.5	0.1258	57,793	7,270	256,254	0.8730	1,304,690	22.6
45	5	0.0287	0.5	0.1272	50,524	6,425	223,708	0.8796	1,048,436	20.8
50	5	0.0268	0.5	0.1195	44,099	5,270	196,783	0.8758	824,728	18.7
55	5	0.0281	0.5	0.1248	38,830	4,848	172,335	0.8433	627,944	16.2
60	5	0.0376	0.5	0.1608	33,982	5,463	145,326	0.7760	455,610	13.4
65	5	0.0588	0.5	0.2324	28,519	6,627	112,773	0.7629	310,284	10.9
70	5	0.0605	0.5	0.2378	21,892	5,207	86,029	0.7258	197,511	9.0
75	5	0.0747	0.5	0.2795	16,685	4,664	62,437	0.4399	111,482	6.7
80	+	0.0881	0.5	1.0000	12,021	12,021	49,045		49,045	4.1

Source: 2010 Census of Population and Housing

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**2010 CENSUS OF POPULATION AND HOUSING  
QUESTIONNAIRE**

**INTERVIEW STATUS**

Completed (occupied)  
Non-contact (occupied)  
Not interviewed (vacant)  
Non residential  
Refused  
Other

MARK HERE IF MORE  
THAN ONE  
QUESTIONNAIRE

Questionnaire  
of

ENUMERATOR \_\_\_\_\_

Name \_\_\_\_\_ Date \_\_\_\_\_

**SUPERVISOR**

Name \_\_\_\_\_ Date \_\_\_\_\_



99080946 (82)





HOUSEHOLD SUMMARY COUNT					INSTITUTIONAL				
Usual members present			Usual members absent		Type of Collective Quarters				
Male	<input type="text"/>	<input type="text"/>	Male	<input type="text"/>	Hotel/Motel/Lodge	Police Cell	Other	Summary Count	
Female	<input type="text"/>	<input type="text"/>	Female	<input type="text"/>	Hostel/Guest House/Inn	Refugee Camp	(specify below)	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>	<input type="text"/>	Total	<input type="text"/>	Hospital			Male	<input type="text"/>
					Learning Institution			Female	<input type="text"/>
					Prison			Total	<input type="text"/>

FOR ALL MEMBERS PRESENT										ONLY FOR PERSONS LESS THAN 18 YEARS OLD										ONLY FOR PERSONS AGED 15 YEARS AND OLDER									
P12 What is (NAME'S) ethnicity?	P13 What is (NAME'S) predominant language of communication?	P14 Where was (NAME) residing in October 2009?	P15 How long has (NAME) been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)?	P16 Is (NAME) disabled in any way?	P17 What is (NAME'S) disability?	P18 What is the cause of (NAME'S) disability?	P19 Is (NAME) an albino?	P20 Is (NAME'S) biological mother alive?	P21 Does (NAME'S) biological father live in this household?	P22 Is (NAME'S) biological father alive?	P23 Does (NAME'S) biological father live in this household?	P24 Does (NAME) have a birth certificate?	P25 Can (NAME) read and write in any language?	P26 Has (NAME) ever attended school?	P27 Is (NAME) currently attending school?	P28 What is the highest level of education completed?													
Write and record code for ethnicity	Write name of predominant language then code	Record code for district or code for foreign country	YEARS MONTHS	Yes No	Blind Partially sighted Deaf and Dumb Deaf Hard of hearing Dumb Mental illness Intellectual Speech impairment Physically disabled Mentally retarded Other	Congenital/pre-natal Disease/illness Injury/Accident Spousal violence Other violence Unknown Other	Yes No	Don't know Yes No	Yes No	Don't know Yes No	Yes No	Yes seen No Not seen Don't know	Yes No	Yes No	Yes No	Enter code from manual													
1			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												
2			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												
3			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												
4			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												
5			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												
6			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												
7			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												
8			Some as Head of Household	Yes No	1 2 3 4 5 6 7 8 9 10 11 12	1 2 3 4 5 6 7	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2 3 4	1 2	1 2	1 2	1 2	1 2												



ENUMERATOR: GO TO THE NEXT PAGE TO CONTINUE WITH THE LIST OF THE HOUSEHOLD'S MEMBERS. IF THE PERSON IS THE LAST MEMBER OF THE HOUSEHOLD, PROCEED TO SECTION D



## SECTION C - HOUSING CHARACTERISTICS

H9 How many persons usually sleep in the housing unit(s)?

1 2 3 4 5 6 7 8 9 10

H10 Does this housing unit have a kitchen?

Yes No

## SECTION HH - HOUSEHOLD CHARACTERISTICS

H11 What is the main source of energy used for...

Light Cook Heat- ing

Electricity 1 2 3 4 5 6 7 8 9 10

Gas 1 2 3 4 5 6 7 8 9 10

Wood 1 2 3 4 5 6 7 8 9 10

Candle 1 2 3 4 5 6 7 8 9 10

Paraffin 1 2 3 4 5 6 7 8 9 10

Cowdung 1 2 3 4 5 6 7 8 9 10

Charcoal 1 2 3 4 5 6 7 8 9 10

Coal 1 2 3 4 5 6 7 8 9 10

Solar 1 2 3 4 5 6 7 8 9 10

Bio fuel 1 2 3 4 5 6 7 8 9 10

Diesel 1 2 3 4 5 6 7 8 9 10

None 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

H4 What is the floor of this housing unit mainly made of?

Concrete 1 2 3 4 5 6 7 8 9 10

Cement 1 2 3 4 5 6 7 8 9 10

Brick 1 2 3 4 5 6 7 8 9 10

Trick 1 2 3 4 5 6 7 8 9 10

Mud 1 2 3 4 5 6 7 8 9 10

Wood (not wooden tiles) 1 2 3 4 5 6 7 8 9 10

Marble 1 2 3 4 5 6 7 8 9 10

Terrazzo 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

H5 Type of Occupancy?

Single household 1 2 3 4 5 6 7 8 9 10

One household in several housing units 1 2 3 4 5 6 7 8 9 10

Shared 1 2 3 4 5 6 7 8 9 10

Vacant 1 2 3 4 5 6 7 8 9 10

Non-contact 1 2 3 4 5 6 7 8 9 10

Non-residential 1 2 3 4 5 6 7 8 9 10

H6 (If shared) what is the number of households?

1 2 3 4 5 6 7 8 9 10

H7 What is the main source of water supply for...

Household use 1 2 3 4 5 6 7 8 9 10

Drinking 1 2 3 4 5 6 7 8 9 10

H8 How many living rooms and bedrooms does this housing unit have?

LIVING 1 2 3 4 5 6 7 8 9 10

BEDROOMS 1 2 3 4 5 6 7 8 9 10

H3 What are the walls of this housing unit mainly made of?

Burnt bricks 1 2 3 4 5 6 7 8 9 10

Mud bricks 1 2 3 4 5 6 7 8 9 10

Compressed mud 1 2 3 4 5 6 7 8 9 10

Concrete blocks/slab 1 2 3 4 5 6 7 8 9 10

Cement blocks 1 2 3 4 5 6 7 8 9 10

Stone 1 2 3 4 5 6 7 8 9 10

Iron sheets 1 2 3 4 5 6 7 8 9 10

Asbestos/hardboard/wood 1 2 3 4 5 6 7 8 9 10

Pole and daggas/mud 1 2 3 4 5 6 7 8 9 10

Grass 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

H1 Type of housing unit

Traditional 1 2 3 4 5 6 7 8 9 10

Improved traditional 1 2 3 4 5 6 7 8 9 10

Mixed 1 2 3 4 5 6 7 8 9 10

Conventional flat 1 2 3 4 5 6 7 8 9 10

Conventional house 1 2 3 4 5 6 7 8 9 10

Mobile 1 2 3 4 5 6 7 8 9 10

Part of commercial building 1 2 3 4 5 6 7 8 9 10

Improvised/Makeshift 1 2 3 4 5 6 7 8 9 10

Collective/institutional quarters 1 2 3 4 5 6 7 8 9 10

Unintended 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

H2 What is the main type of material used for the roof?

Thatch/Palm Leaf 1 2 3 4 5 6 7 8 9 10

Rustic Mat 1 2 3 4 5 6 7 8 9 10

Palm/Bamboo 1 2 3 4 5 6 7 8 9 10

Wood Planks 1 2 3 4 5 6 7 8 9 10

Cardboard 1 2 3 4 5 6 7 8 9 10

Metal/Iron Sheets 1 2 3 4 5 6 7 8 9 10

Wood 1 2 3 4 5 6 7 8 9 10

Asbestos 1 2 3 4 5 6 7 8 9 10

Ceramic Tiles/Harvey Tiles 1 2 3 4 5 6 7 8 9 10

Cement 1 2 3 4 5 6 7 8 9 10

Roofing Shingles 1 2 3 4 5 6 7 8 9 10

Mud Tiles 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

H13 How is the household refuse disposed?

Regularly collected 1 2 3 4 5 6 7 8 9 10

Irregularly collected 1 2 3 4 5 6 7 8 9 10

Burnt 1 2 3 4 5 6 7 8 9 10

Roadside dumping 1 2 3 4 5 6 7 8 9 10

Other dumping 1 2 3 4 5 6 7 8 9 10

Burying/ditch 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

H14 What is the main type of toilet used by members of this household?

Flush Private connected to water sewer system 1 2 3 4 5 6 7 8 9 10

Flush Private connected to stand alone soak away 1 2 3 4 5 6 7 8 9 10

Flush Communal 1 2 3 4 5 6 7 8 9 10

Pit Latrine 1 2 3 4 5 6 7 8 9 10

Ventilated Improved Pit Latrine (VIP) 1 2 3 4 5 6 7 8 9 10

Bucket 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

No toilet facility 1 2 3 4 5 6 7 8 9 10

H15 Is this toilet exclusively used by members of this household?

Yes No

H16 Is this toilet inside or outside this housing unit?

Inside 1 2 3 4 5 6 7 8 9 10

Outside 1 2 3 4 5 6 7 8 9 10

H17 How was this housing unit acquired?

Purchased 1 2 3 4 5 6 7 8 9 10

Mortgage 1 2 3 4 5 6 7 8 9 10

Freely 1 2 3 4 5 6 7 8 9 10

Inherited 1 2 3 4 5 6 7 8 9 10

Self built 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

H18 How many living rooms and bedrooms does this housing unit have?

LIVING 1 2 3 4 5 6 7 8 9 10

BEDROOMS 1 2 3 4 5 6 7 8 9 10

H19 Is this housing unit provided free by the employer, friend or relative of any member of this household?

Yes, Employer 1 2 3 4 5 6 7 8 9 10

Yes, By friend or relative 1 2 3 4 5 6 7 8 9 10

No 1 2 3 4 5 6 7 8 9 10

H10 Is this housing unit rented from the employer of any member of this household?

Yes No

H11 Is this employer ...

The Central Government? 1 2 3 4 5 6 7 8 9 10

The Local Government? 1 2 3 4 5 6 7 8 9 10

Parastatal? 1 2 3 4 5 6 7 8 9 10

A private Organisation? 1 2 3 4 5 6 7 8 9 10

An individual? 1 2 3 4 5 6 7 8 9 10

All skip to A1

H12 Is this housing unit rented from ...

The Central Government? 1 2 3 4 5 6 7 8 9 10

The Local Government? 1 2 3 4 5 6 7 8 9 10

Parastatal? 1 2 3 4 5 6 7 8 9 10

A private Organisation? 1 2 3 4 5 6 7 8 9 10

An individual? 1 2 3 4 5 6 7 8 9 10

A1 Has your household engaged directly in any of the following agricultural activities, that is: crop growing, livestock and poultry raising, fish farming and game ranching since 1st October 2009?

Yes No

A2 On your holding, which of the following crops did you grow since 1st October 2009?

Maize 1 2 3 4 5 6 7 8 9 10

Sorghum 1 2 3 4 5 6 7 8 9 10

Millet 1 2 3 4 5 6 7 8 9 10

Rice 1 2 3 4 5 6 7 8 9 10

Cassava 1 2 3 4 5 6 7 8 9 10

Sweet potatoes 1 2 3 4 5 6 7 8 9 10

Irish potatoes 1 2 3 4 5 6 7 8 9 10

Groundnuts 1 2 3 4 5 6 7 8 9 10

Mixed beans 1 2 3 4 5 6 7 8 9 10

Cow peas 1 2 3 4 5 6 7 8 9 10

Wheat 1 2 3 4 5 6 7 8 9 10

Cotton 1 2 3 4 5 6 7 8 9 10

Burley tobacco 1 2 3 4 5 6 7 8 9 10

Virginia tobacco 1 2 3 4 5 6 7 8 9 10

Sunflower 1 2 3 4 5 6 7 8 9 10

Soya beans 1 2 3 4 5 6 7 8 9 10

Paprika 1 2 3 4 5 6 7 8 9 10

Sugar cane 1 2 3 4 5 6 7 8 9 10

Cashew Nuts 1 2 3 4 5 6 7 8 9 10

Vegetables 1 2 3 4 5 6 7 8 9 10

Orchard 1 2 3 4 5 6 7 8 9 10

Coffee 1 2 3 4 5 6 7 8 9 10

Velvet beans 1 2 3 4 5 6 7 8 9 10

Bambara nuts 1 2 3 4 5 6 7 8 9 10

Pineapple 1 2 3 4 5 6 7 8 9 10

Other crop 1 2 3 4 5 6 7 8 9 10

A3 On your holding, which of the following livestock/poultry have you raised since 1st October 2009?

Cattle 1 2 3 4 5 6 7 8 9 10

Goats 1 2 3 4 5 6 7 8 9 10

Pigs 1 2 3 4 5 6 7 8 9 10

Sheep 1 2 3 4 5 6 7 8 9 10

Donkeys 1 2 3 4 5 6 7 8 9 10

Chickens 1 2 3 4 5 6 7 8 9 10

Other Poultry 1 2 3 4 5 6 7 8 9 10

Other Livestock 1 2 3 4 5 6 7 8 9 10

A4 Has your agriculture holding included fish farming since 1st October 2009?

Yes No

A5 Has your agriculture holding included game ranching since 1st October 2009?

Yes No

## SECTION A - AGRICULTURE

## SECTION M: GENERAL AND MATERNAL DEATHS

Please record information on the deaths that occurred in the household during the last 12 months. Do not forget the children.

M1 Is there any member of the household who died since October 2009?

Yes No

M2 What was the sex of the deceased?

Male 1 2 3 4 5 6 7 8 9 10

Female 1 2 3 4 5 6 7 8 9 10

M3 What was the age of the deceased?

Age in completed years. (Record 00 if less than 1 year)

0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

M4 What was the cause of death?

Accident 1 2 3 4 5 6 7 8 9 10

Injury 1 2 3 4 5 6 7 8 9 10

Suicide 1 2 3 4 5 6 7 8 9 10

Spousal Violence 1 2 3 4 5 6 7 8 9 10

Other Violence 1 2 3 4 5 6 7 8 9 10

Sickness/Disease 1 2 3 4 5 6 7 8 9 10

Whitcraft 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

M5 Did the death occur while pregnant?

Yes No

M6 Did the death occur during childbirth?

Yes No

M7 Did the death occur during the 6 weeks period following the end of pregnancy, irrespective of the way the pregnancy ended?

Yes No

M8 How was this housing unit acquired?

Purchased 1 2 3 4 5 6 7 8 9 10

Mortgage 1 2 3 4 5 6 7 8 9 10

Freely 1 2 3 4 5 6 7 8 9 10

Inherited 1 2 3 4 5 6 7 8 9 10

Self built 1 2 3 4 5 6 7 8 9 10

Other 1 2 3 4 5 6 7 8 9 10

M9 Is this housing unit provided free by the employer, friend or relative of any member of this household?

Yes, Employer 1 2 3 4 5 6 7 8 9 10

Yes, By friend or relative 1 2 3 4 5 6 7 8 9 10

No 1 2 3 4 5 6 7 8 9 10

# Key Persons Involved in the Production of the Report

## 1. Editorial Team

Mr. John Kalumbi - Director  
 Mr. Iven Sikanyiti - Deputy Director  
 Mr. Peter Mukuka - Deputy Director  
 Mr. Daniel Daka - Deputy Director  
 Mr. Goodson Sinyenga-Deputy Director  
 Ms. Nchimunya Nkombo - Census Manager  
 Mr. Palver Sikanyiti - Deputy Census Manager  
 Ms. Linda Chonya  
 Mr. Chibesa Musamba  
 Mr. Anthony M. Nkole  
 Ms. Chola Nakazwe Daka  
 Ms. Etambuyu Lukonga Imwiko

## 2. List of Analysts

Mr. Richard Banda - Former Census Manager  
 Ms. Nchimunya Nkombo  
 Ms. Linda N. Chonya  
 Mr. Palver Sikanyiti  
 Mr. Chibesa Musamba  
 Mr. Christopher Mapoma  
 Ms. Gloria Songolo  
 Mr. Leonard Kakungu  
 Mr. Gerson Banda  
 Mr. Vesper Chisumpa  
 Mr. Charles Mugala  
 Ms. Catherine Mwape  
 Mr. Joseph Mutemwa

## 4. Tabulation Programming

Mr. Frank Kakungu  
 Ms. Catherine Mwape  
 Mr. Costain Munsaka  
 Mr. Makoselo Bowa  
 Ms. Bertha Nachinga  
 Mr. Tabo Simutanyi  
 Ms. Chonde Namutowe  
 Mr. Victor Bwalya  
 Ms. Hilda Chileshe  
 Mr. Chibesa Ndawa

## 5. Desktop Publishing Team

Mr. Anthony M. Nkole  
 Mr. Makoselo Bowa

## 6. Assistant Analysts

Mr. Oliver Chitalu  
 Mr. Bruce Sianyeuka  
 Ms. Brenda Nakamba  
 Mr. Ben Mwale  
 Mr. Michelo Choongo  
 Mr. Ignatius Mwamba Mwango  
 Ms. Nasilele Amatende  
 Ms. Mundia Muyakwa  
 Ms. Harriet Namukoko  
 Mr. Mannix Chalwe

## 7. Drivers

Mr. Francis Mwenda - Transport Officer  
 Mr. Morris Munkondya  
 Mr. Leonard Phiri