

ZAMBIA

2010 CENSUS OF POPULATION AND HOUSING

NORTH WESTERN PROVINCE ANALYTICAL REPORT

Published by

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

www.zamstats.gov.zm
email: info@zamstats.gov.zm

March, 2014

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Foreword

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 North 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 and 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 North Western Province and all the residents of North 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 North Western province.



Alexander B. Chikwanda, MP
Minister of Finance and National Planning

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 Centralized 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. Barbra 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 goes 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, 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.

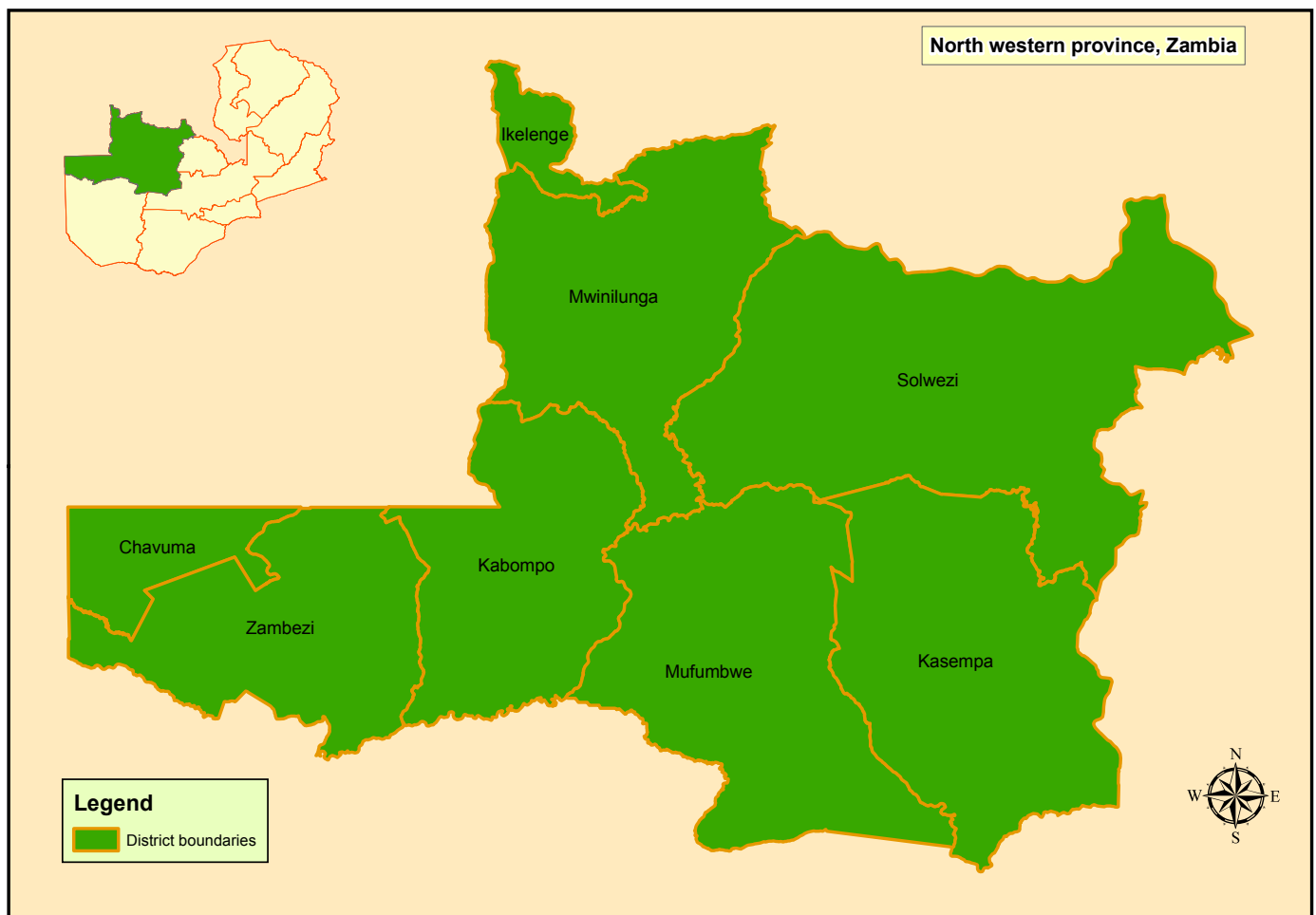
I hope all stakeholders and data users will make effective use of this Analytical Report.



John Kalumbi
Director - Census and Statistics

March, 2014

Chapter 1: Provincial Profile; North Western Province



Chapter 1

Profile: North Western Province



1.0 Introduction

North Western Province covers an area of 125,826 square kilometres, which is about 16.7 percent of the total area of Zambia. The province has the second largest land area and the lowest concentration of people in Zambia.

1.1 Administration

North Western Province is administratively divided into eight districts, namely; Chavuma, Kabompo, Ikelenge, Kasempa, Mufumbwe, Mwinilunga, Solwezi and Zambezi. At the time of the 2010 Census North Western Province had 12 Constituencies and 132 wards. The provincial administration offices are situated in Solwezi.

1.2 Natural Resources

The Province lies in the high rainfall zone of the country. Its rainy season usually stretches up to six months from November to April. The southern parts normally have medium rainfall of about 1000mm while the northern parts of Mwinilunga and Solwezi normally have high rainfall ranging from 1,300 to 1,400 mm per year. The province has two types of soils, the Barotse sands which are sandy and acidic found in the southern parts and the sand velds which are loamy found in the eastern and northern parts of the province. The province also has an extensive network of rivers and streams. Three of the major rivers in Zambia (Zambezi, Kafue and Kabompo) have their source in this province.

The province has a number of tourist attractions namely: the source of Zambezi, Lungwevungu, Kabompo and Lunga rivers, 13 traditional ceremonies, Lunga national park, Zambezi plains, Mutanda Chavuma falls, Chinyingi Foot Bridge, National Monument (Kafubwa schematic engravings) and the National monument in Kabompo.

1.3 Languages

English is the official language of communication and instruction in Zambia. The main local languages of communication in North Western Province are Lunda (North Western), Kaonde and Luvale. However, there are a number of other local languages spoken in other parts of the country that are spoken across the province.

1.4 Religion

Zambia was declared a Christian nation in 1996 constitution while upholding the right of every person to enjoy that person's freedom of conscience or religion.

1.5 Health

Health plays a critical role in the development of the country and no meaningful development can be attained without a sound health policy. Since 1991 the health sector has been making strides to improve the health delivery system in the country. Some of these efforts include a move from a strongly centralized health system in which the central structures provided support and national guidance to the peripheral structures to a more decentralized system.

At the time of the Census, North Western Province had 167 health facilities. These were two General hospitals, 10 Level 1 hospitals, 19 Urban health centres, 120 Rural Health Centres and 16 Health Posts. Out of the total 167 health facilities, 137 were run by Government while 30 were privately owned.

Zambia, like many Sub-Saharan countries, has high morbidity and mortality. The disease burden in the province has been compounded by the HIV/AIDS pandemic, which is a major concern in the province. According to the 2007 Zambia Demographic and Health Survey, HIV prevalence in adults aged 15-49 (females) and 15-59 (males) was 6.9 percent. The infant mortality rate was 65 deaths per 1,000 live births while the under-five mortality rate was 108 deaths per 1000 live births.

1.6 Economy

The province is endowed with minerals which include; Copper ore in Kalengwa, Kansanshi, Lumwana and Mwinilunga and Gold ore at Kansanshi. Manufacturing is significant. Intensive drilling programme for copper is also planned at the Kalumbila exploration products and includes the Kawako Nickel and kawanga Uranium prospects. Lumwana is the largest copper mine to have come on line since 2008 (Zambia Review 2010). There are however, grinding mills (on small scale) in almost all the districts and the honey factory in Kabompo and several other honey-processing facilities.

In the agriculture sector, about 96 percent of the population is engaged in small-scale subsistence farming. Maize has assumed an increasing role as a staple food in the province in all the eight districts. Owing to the acidic soils in most parts of the province, maize is not suitable for cultivation. Other major crops grown include rice, millet, groundnuts and mixed beans.

1.7 Education

Education is a powerful tool for economic development of an individual and nation. The Sixth National Development Plan (SNDP) identifies education, training, science and technology as prime movers of Zambia's development.

Zambia has a three-tier education system consisting of seven-year primary education, followed by five-year secondary education and post-secondary schooling. Government has in the past decade embarked on a number of initiatives to ensure universal access to education. In 2010, North Western Province had 748 schools of which 498 schools were Government funded, 43 were grant Aided, 14 were privately owned and 193 were community schools. Of these schools, 690 were classified as basic schools and 58 were classified as secondary schools. The province also has a number of colleges such as Solwezi Teacher Training College, Solwezi Trades Training Institute, and Mwinilunga Trades Training School.

The continuous teacher recruitment programme introduced by

the government resulted in additional teachers being recruited in 2010 leading to an improvement in the Pupil-Teacher Ratio at all levels of basic education in the province. At the time of the 2010 Census, North Western Province had a total number of 4,537 teachers working for the government (Ministry of Education, Educational Statistical Bulletin, 2010).

1.8 Gender Issues

Gender Issues are concerned with promoting equality between both 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 social-economic development process by 2030. In this view the government has put in place a Gender policy which ensures the advancement of gender mainstreaming policies and legislation.

1.9 Poverty

According to the Living Conditions Monitoring Survey (2006 and 2010), the majority of people in North Western Province have continued to live in poverty. The levels of poverty show a decline from 70.8 percent in 2006 to 67.0 percent in 2010. The proportion of the population falling below the poverty line reduced from 70.8 percent in 2006 to 67.0 percent in 2010. The percent of extremely poor increased from 44.6 percent in 2006 to 46.1 percent in 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 other civil servants. Some of the civil servants from various government departments and ministries worked as Master Trainers, Assistant Master Trainers and Provincial Census Officers.

1.10.1 Main Objectives

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

- *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 administration 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 and sample weights 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.

1.11 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

North Western Province's population in 2010 was 727,044. This was an increase from 583,350 in 2000.

The population grew at an average annual rate of 2.2 percent during the 2000-2010 inter-censal period. This average annual rate was lower than 2.9 percent recorded in the 1990-2000 inter-censal period.

In 2010, 77.4 percent of the population was residing in rural areas while 29.1 percent was residing in urban areas.

Solwezi District had the largest population at 254,470 while Ikelenge District had the smallest population at 32,919.

The province was sparsely populated with a population density of 5.8 persons per square kilometre. Ikelenge District was most densely populated with 14.0 persons per square kilometre while Mufumbwe District was the least densely populated with a density of 2.8 persons per square kilometre.

Chapter 2

Population Size, Growth and Distribution



2.1 Introduction

This chapter presents an analysis of the population size, growth and distribution of the 2010 Census for North 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 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. This, however, 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

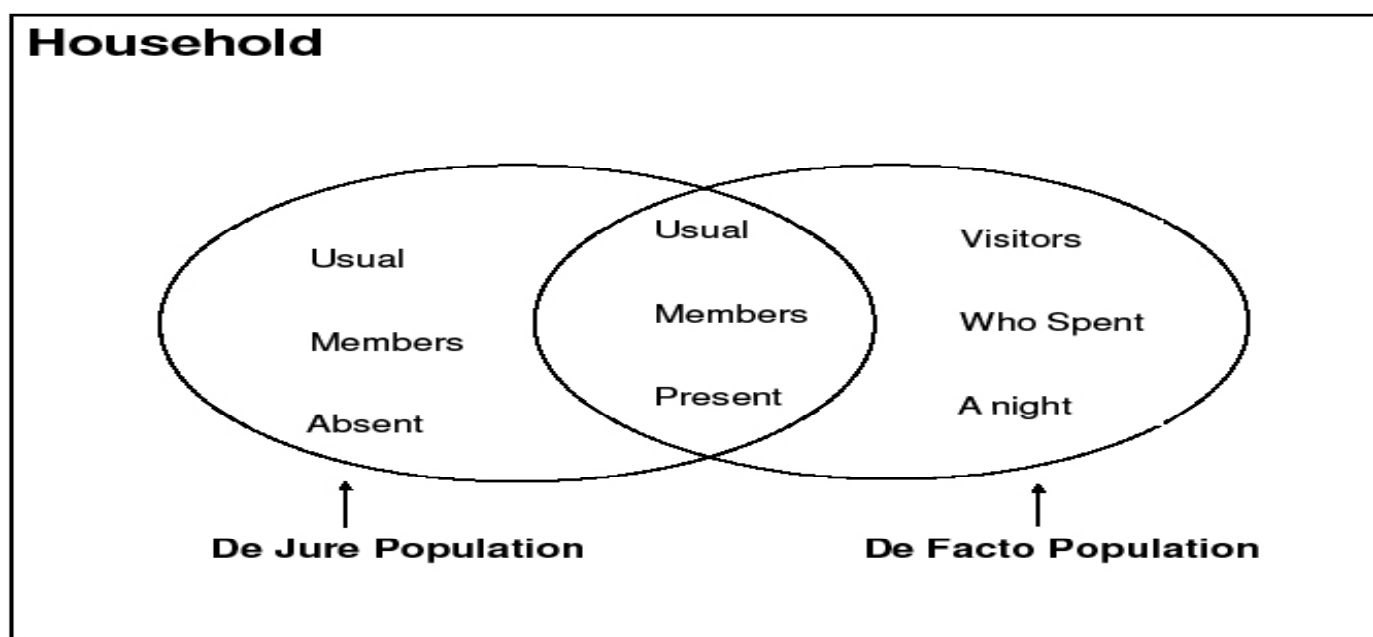
This refers to usual household members present and usual household members temporarily absent at the time of the census. In a de jure Census, institutional populations in places such as hospitals or health centres, prisons and academic institutions like universities, colleges and boarding schools are 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 age-sex distribution and is also used as a denominator in the calculation of vital indicators 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 North Western Province by rural/urban from 1990 to 2010. The population increased from 438,216 in 1990 to 583,350 in 2000 and to 727,044 in 2010. This represented a percentage change of 33.1 percent in the 1990 – 2000 intercensal period and 24.6 in the 2000 – 2010 intercensal period.

Table 2.1: Population Size by Rural/Urban, North Western Province 1990, 2000 and 2010

Rural/Urban	1990-2000			2000-2010		
	1990 Population	2000 population	Percent Change	2000 Population	2010 Population	Percent Change
Total	438,216	583,350	33.1	583,350	727,044	24.6
Rural	378,412	505,594	33.6	505,594	563,061	11.4
Urban	59,804	77,756	30.0	77,756	163,983	110.9

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

The population in rural areas increased from 505,594 in 2000 to 563,061 in 2010 while the urban population increased from 77,756 in 2000 to 163,983 in 2010. This represented a percentage change of 110.9 percent in urban areas and 11.4 percent in rural areas in the 2000 to 2010 period.

Table 2.2 shows the percent distribution of the population by sex and rural/urban for North Western Province in 2010. Of the total population in 2010, there were 358,141 males and 368,903 females. Males constituted 49.3 percent and females 50.7 percent of the total population.

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

Rural/Urban	Total Population		Male Population		Female Population	
	Number	Percent	Number	Percent	Number	Percent
Total	727,044	100	358,141	49.3	368,903	50.7
Rural	563,061	100	277,503	49.3	285,558	50.7
Urban	163,983	100	80,638	49.2	83,345	50.8

Source: 2010 Census of Population and Housing.

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

had the largest population at 254,470 while Ikelenge District had the smallest population at 32,919.

Table 2.3: Total Population (De jure) by Sex, Rural/Urban and District, North Western Province 2010

District	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Total	727,044	358,141	368,903	563,061	277,503	285,558	163,983	80,638	83,345
Chavuma	35,041	17,003	18,038	30,389	14,749	15,640	4,652	2,254	2,398
Ikelenge	32,919	16,151	16,768	32,919	16,151	16,768	-	-	-
Kabompo	92,321	45,224	47,097	69,696	34,246	35,450	22,625	10,978	11,647
Kasempa	69,608	34,357	35,251	65,206	32,233	32,973	4,402	2,124	2,278
Mufumbwe	58,062	28,612	29,450	48,486	23,945	24,541	9,576	4,667	4,909
Mwinilunga	104,317	51,267	53,050	88,613	43,712	44,901	15,704	7,555	8,149
Solwezi	254,470	126,249	128,221	157,745	78,161	79,584	96,725	48,088	48,637
Zambezi	80,306	39,278	41,028	70,007	34,306	35,701	10,299	4,972	5,327

Source: 2010 Census of Population and Housing

The most urbanized district was Solwezi with an urban population of 96,725, followed by Kabompo District with 22,625. Ikelenge District only had a rural population.

both 2000 and 2010, Solwezi District had the largest population at 203,797 and 254,470, respectively. In 2000, the smallest population was recorded in Mufumbwe at 44,002 while Ikelenge district recorded the smallest population in 2010 at 16,151.

Table 2.4 shows population distribution by district and sex. In

Table 2.4: Population (De Jure) by Sex and District, North Western Province, 2000 and 2010

District	2000			2010		
	Total	Male	Female	Total	Male	Female
Total	583,350	290,856	292,494	727,044	358,141	368,903
Chavuma	29,941	14,815	15,126	35,041	17,003	18,038
Ikelenge	31,487	15,648	15,839	32,919	16,151	16,768
Kabompo	71,238	35,286	35,952	92,321	45,224	47,097
Kasempa	51,904	25,810	26,094	69,608	34,357	35,251
Mufumbwe	44,002	21,875	22,127	58,062	28,612	29,450
Mwinilunga	86,018	42,895	43,123	104,317	51,267	53,050
Solwezi	203,797	102,241	101,556	254,470	126,249	128,221
Zambezi	64,963	32,286	32,677	80,306	39,278	41,028

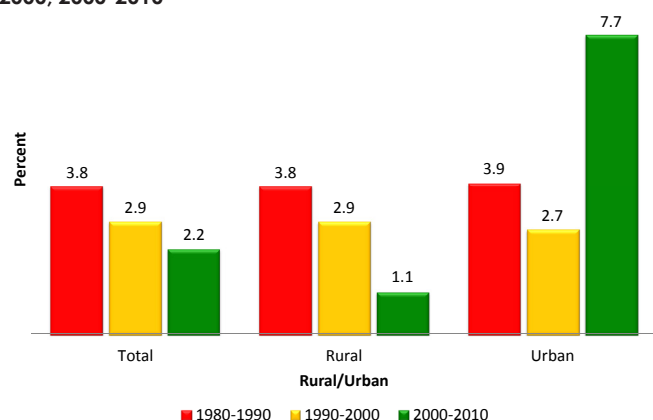
Source: 2000 and 2010 Censuses of Population and Housing.

2.4 Population Growth

The Population of North Western Province has continued to grow over the past three decades. Figure 2.2 shows the average annual population growth rate for North Western Province between 1980 and 2010. The Province's population grew at 2.2 percent per annum during the 2000 to 2010 intercensal period. This was a decrease from the annual rate of 2.9 percent recorded in 1990-2000 intercensal period. During the 1980-1990 intercensal period, the province had recorded a 3.8 percent growth rate.

The urban population grew at a rate of 7.7 percent per annum between 2000 and 2010. This was an increase from 2.7 percent recorded in the 1990-2000 period. The rural population grew at a rate of 1.1 percent in the 2000 - 2010 intercensal period. This was a decrease from 2.9 percent recorded in the 1990-2000 intercensal period.

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



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

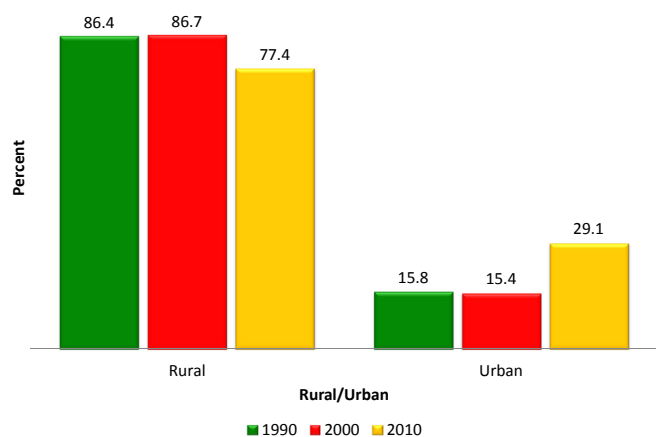
Table 2.5 shows the population size and average annual population growth rate for North Western Province by rural/urban and district during the 2000-2010 intercensal period.

Kasempa District had the highest average annual growth at 3.0 percent while Ikelenge District had the lowest growth rate at 0.4 percent.

Table 2.5: Population Size and Average Annual Population Growth Rate by Rural/Urban and District, North Western Province 2000-2010			
Rural/Urban and District	Population Size 2000	Population Size 2010	Annual Growth Rate (2000-2010)
Total	583,350	727,044	2.2
Rural	511,647	563,061	1.0
Urban	71,703	163,983	8.6
District			
Chavuma	29,941	35,041	1.6
Ikelenge	31,487	32,919	0.4
Kabompo	71,238	92,321	2.6
Kasempa	51,904	69,608	3.0
Mufumbwe	44,002	58,062	2.8
Mwinilunga	86,018	104,317	1.9
Solwezi	203,797	254,470	2.2
Zambezi	64,963	80,306	2.1

Source: 2000 and 2010 Censuses of Population and Housing

Figure 2.3: Percentage Distribution of Population by Rural/Urban, North Western Province 1990, 2000 and 2010



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

2.5 Population Distribution

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

Between 1990 and 2000, the rural population of North Western Province increased from 86.4 percent to 86.7 percent and then declined to 77.4 in 2010. The urban population in 2010 increased to 29.1 percent from 15.4 percent in 2000. Between 1990 and 2000, the urban population reduced from 15.8 percent to 15.4 percent.

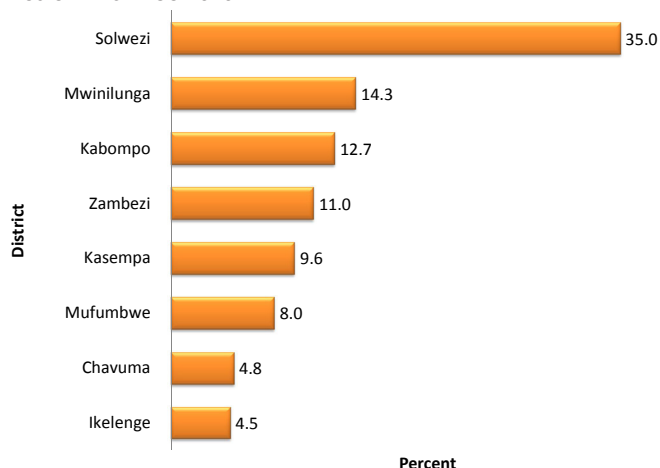
Table 2.6 shows the percentage distribution of population by rural/urban and district from 2000 to 2010. Between 2000 and 2010, the contribution of Chavuma, Ikelenge, Mwinilunga and Zambezi districts to the provincial population reduced while the contribution of the rest of the districts to the provincial population increased.

Table 2.6: Population Distribution by Rural/Urban and District, North Western Province 2000-2010.					
District and Rural/Urban	2000		2010		Percentage Change
	Number	Percent	Number	Percent	
Total	583,350	100	727,044	100	N/A
Rural	511,647	87.7	563,061	77.4	-10.3
Urban	71,703	12.3	163,983	22.6	10.3
District					
Chavuma	29,941	5.1	35,041	4.8	-0.3
Ikelenge	31,487	5.4	32,919	4.5	-0.9
Kabompo	71,238	12.2	92,321	12.7	0.5
Kasempa	51,904	8.9	69,608	9.6	0.7
Mufumbwe	44,002	7.5	58,062	8.0	0.5
Mwinilunga	86,018	14.7	104,317	14.3	-0.4
Solwezi	203,797	34.9	254,470	35.0	0.1
Zambezi	64,963	11.1	80,306	11.0	-0.1

Source: 2000 and 2010 Censuses of Population and Housing

Figure 2.4 shows the percent distribution of the population by district in 2010. Solwezi District had the largest population at 35.0 percent while Ikelenge District had the least at 4.5 percent.

Figure 2.4: Percentage Distribution of Population by District, North Western Province 2010



Source: 2010 Census of Population and Housing.

2.6 Population Density

Population density is defined as the total number of persons per square kilometre. Table 2.7 shows North Western Province's area and population density by district from 2000 to 2010. North Western Province has a total surface area of 125,826 square kilometres. The province was sparsely populated with a population density of 5.8 square kilometres.

Table 2.7: Area and Population Density (De Jure) by District, North Western Province 2000 and 2010

Districts	Area (Sq .Km)	Population	Population Density/Census Year (Population per sq.km)	
			2000	2010
Total	125,826	727,044	4.6	5.8
Chavuma	4,280	35,041	7.0	8.2
Ikelenge	2,353	32,919	13.4	14.0
Kabompo	14,532	92,321	3.6	6.4
Kasempa	20,821	69,608	2.1	3.3
Mufumbwe	20,756	58,062	3.4	2.8
Mwinilunga	18,763	104,317	4.6	5.6
Solwezi	30,261	254,470	6.7	8.4
Zambezi	14,060	80,306	4.7	5.7

Source: 2000 and 2010 Censuses of population and Housing

In 2010, Ikelenge District had the highest population density of 14.0 persons per square kilometre. The most sparsely populated District was Mufumbwe with 2.8 persons per square kilometre.

CHAPTER 3

POPULATION COMPOSITION AND DEMOGRAPHIC CHARACTERISTICS

3.0 Summary

In 2010, North Western Province had a young population with 48.8 percent of persons aged below 15 years.

The median age was 15.5 years. The median age was higher in urban areas at 17.3 years compared to 15.0 years in rural areas.

The Overall Dependency Ratio was recorded at 107.0 persons per 100 persons aged between 15 and 64 years. Child and Aged dependency ratios were 100.9 and 6.1, respectively.

The overall sex ratio was 97.1 males per 100 females, while the sex ratio at birth was 104.8 males per 100 females.

Chapter 3

Population Composition And Demographic Characteristics



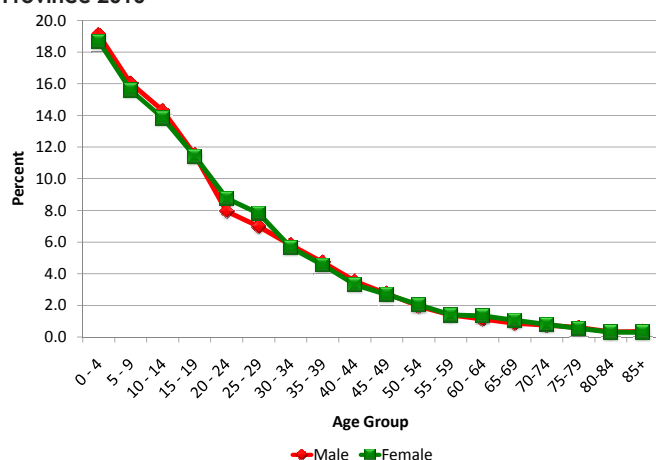
3.1 Population Composition

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 higher percentages of population in the younger ages. The percentage decreases with increase in age.

Figure 3.1: Percentage Age Distribution by Sex, North Western Province 2010

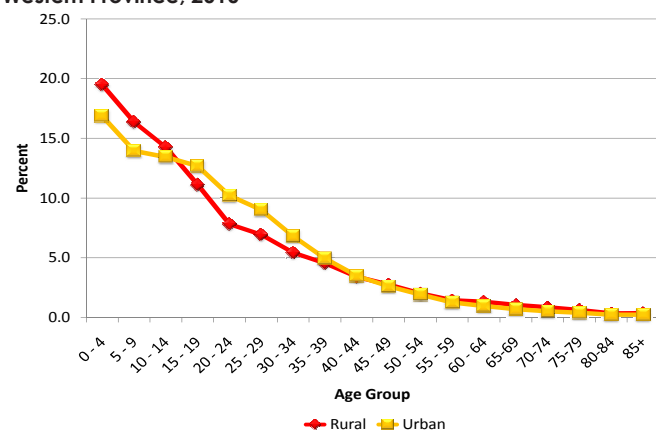


Source: 2010 Census of Population and Housing

A comparison between the sexes shows minimal differences in the percentage distribution with an exception of the population aged 20-34 years which had fewer males than females.

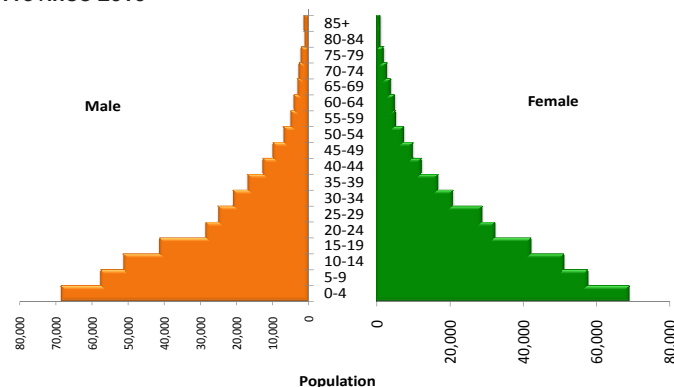
Figure 3.2 presents the age distribution by rural/urban. A comparison of the percentage distribution shows a higher percent of the population aged 0-14 years in rural areas. However, the proportion of the population aged 15-39 years in urban areas was higher than that of rural areas.

Figure 3.2: Percentage Age Distribution by Rural/Urban, North Western Province, 2010



Source: 2010 Census of Population and Housing

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

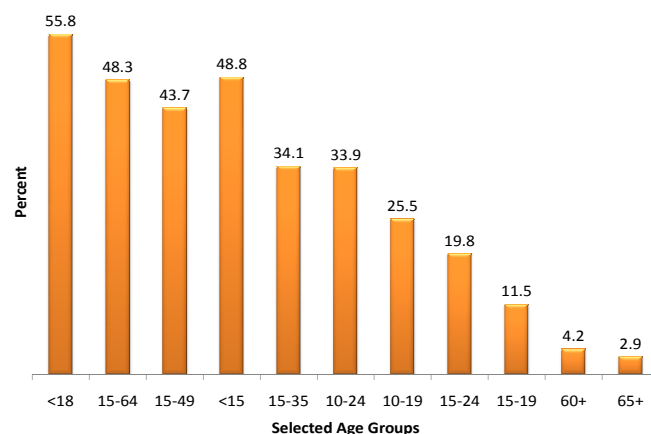


Source: 2010 Census of Population and Housing

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 55.8. The elderly population aged 65 years and older had the lowest percent at 2.9. The population aged 15-24 and 15-35 had proportions of 19.8 and 34.1 percent, respectively.

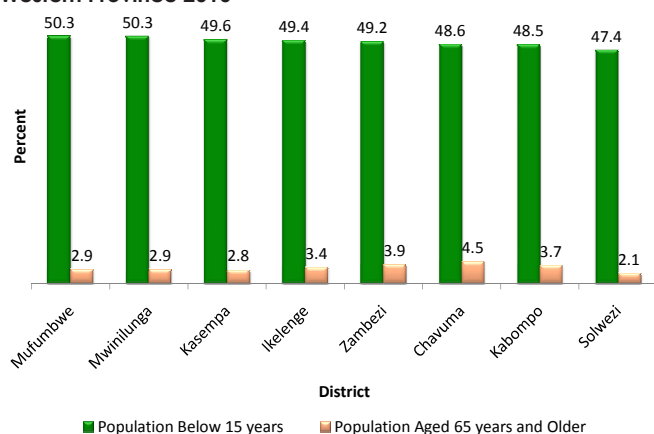
Figure 3.3: Population Proportions by Selected Age Groups, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 3.4 shows the percent distribution of children aged below 15 years and the elderly (65 years and older) by district. Mufumbwe and Mwinilunga districts had the highest percentage of children below 15 years at 50.3 percent while Solwezi District had the lowest at 47.4 percent. Chavuma District had the highest percentage of the elderly aged 65 years and older at 4.5 percent.

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



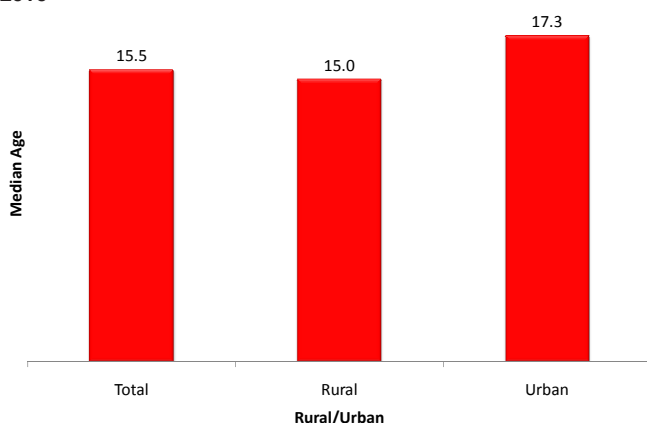
Source: 2010 Census of Population and Housing

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 in 2010. The median age for North Western Province was recorded at 15.5 years. It was higher in urban areas at 17.3 years compared to 15.0 years in rural areas.

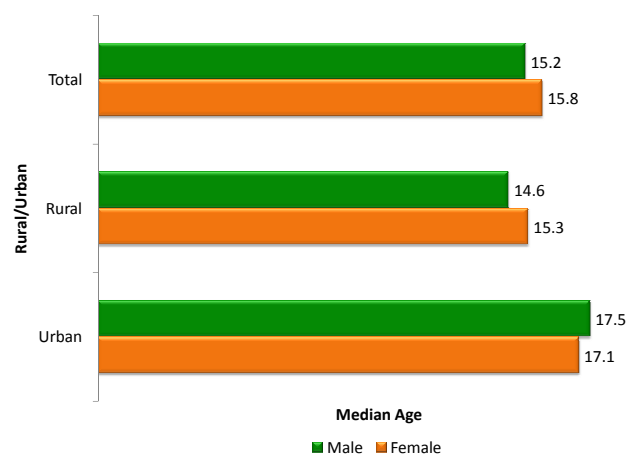
Figure 3.5: Median Age by Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 3.6 shows the median age by sex and rural/urban. The median age was 15.2 and 15.8 years for males and females, respectively. In urban areas, the median age for males was higher (17.5 years) than that of females (17.1 years). In rural areas, the median age for females was higher (15.3 years) than that of males (14.6 years).

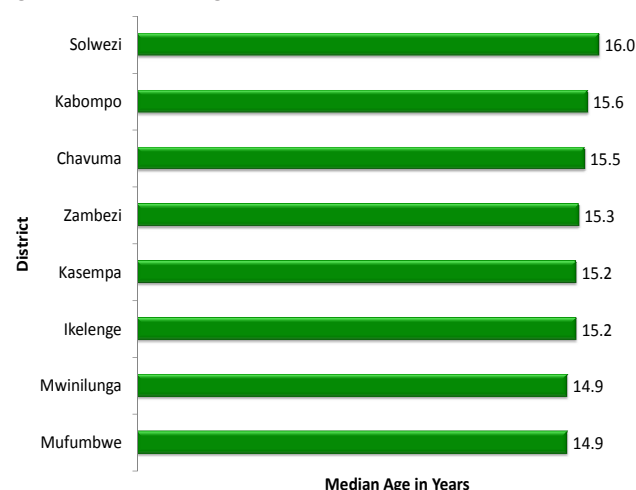
Figure 3.6: Median Age by Sex and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 3.7 shows the median age by District. The median age ranges from 14.9 years in Mufumbwe and Mwinilunga Districts to 16.0 years in Solwezi District.

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



Source: 2010 Census of Population and Housing

3.4 Age Dependency Ratios

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:

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

Table 3.1 shows Age Dependency Ratio in 1990, 2000 and 2010. The Overall and Child Dependency Ratios have been increasing over time, while the Aged Dependency Ratio has been declining. The overall Dependency Ratio increased from

104.9 per 100 persons aged 15-64 years in 2000 to 107.0 per 100 persons aged 15-64 years in 2010. The aged dependency ratio declined from 7.5 per 100 persons aged 15-64 years in 2000 to 6.1 per 100 persons aged 15-64 years in 2010.

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

Province	Age Dependency Ratios	1990	2000	2010
North Western Province	Overall Dependency Ratio	98.1	104.9	107.0
	Child Dependency Ratio	89.1	97.4	100.9
	Aged Dependency Ratio	9.0	7.5	6.1

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

Table 3.2 shows the Overall, Child and Aged Dependency Ratios by district. Mufumbwe District had the highest Overall

Age Dependency Ratio with 113.6 persons while Solwezi District had the lowest with 98.4 persons.

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

District	Age Dependency Ratios		
	Overall	Child	Aged
Chavuma	113.3	103.8	9.6
Ikelenge	111.7	104.6	7.1
Kabompo	109.6	101.8	7.8
Kasempa	109.8	104.0	5.8
Mufumbwe	113.6	107.4	6.2
Mwinilunga	113.3	107.2	6.1
Solwezi	98.4	94.1	4.2
Zambezi	113.2	104.9	8.4

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. 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. North Western Province had fewer males per 100 females, with a sex ratio of 97.1. This indicates that a deficit of males amounts to 1.5 percent of the total population.

Solwezi District had the highest sex ratio at 98.5 males per 100 females, a 0.8 percent deficit of males. Chavuma District had the lowest sex ratio at 94.3 males per 100 females, translating into a 3.0 percent deficit of males.

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

Rural/Urban and District	Sex Ratio	Percent Male Deficit
Total	97.1	-1.5
Rural	97.2	-1.4
Urban	96.8	-1.7
District		
Chavuma	94.3	-3.0
Ikelenge	96.3	-1.9
Kabompo	96.0	-2.0
Kasempa	97.5	-1.3
Mufumbwe	97.2	-1.4
Mwinilunga	96.6	-1.7
Solwezi	98.5	-0.8
Zambezi	95.7	-2.2

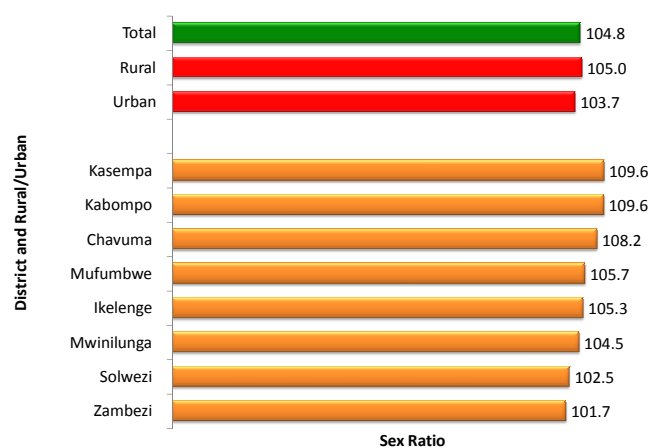
Source: 2010 Census of Population and Housing

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 North

Western Province was 104.8 males per 100 females. In rural and urban areas, the sex ratio at birth was 105.0 and 103.7 males per 100 females, respectively.

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



Source: 2010 Census of Population and Housing

Kasempa District had the highest sex ratio at birth of 109.6 males per 100 females while Zambezi District had the lowest at 101.7 males per 100 females.

CHAPTER 4

SOCIAL CHARACTERISTICS

4.0 Summary

In 2010, North Western Province recorded 343,961 persons aged 15 years and older. Of these, 53.0 percent were married. Rural areas had a higher proportion of the population aged 15 years and older that were married (54.9 percent) compared to urban areas (47.3 percent).

For the population aged 15 years and above, the median age at first marriage was 20.5 years. The median age at first marriage was lower in rural areas at 20.3 years compared to urban areas at 21.4 years. Males had a higher median age at first marriage than females at 23.4 years and 18.7 years, respectively.

In 2010, North Western Province had 130,802 households. There were more households in rural areas (100,566) than urban areas (30,237). The average household size in 2010 was 5.6 persons. Male headed households had a larger average household size at 5.9 than female headed households with 4.5 persons.

In terms of Religious affiliation, Protestants and Catholics made 81.9 percent and 11.7 percent of the population, respectively. Muslims and other religious affiliation made up 2.2 percent of the population.

More than three quarters (82.7 percent) of individuals aged below 18 years did not have birth certificates. Of the population aged 16 years and older, 82.9 percent had Green National Registration Cards.

Chapter 4

Social Characteristics

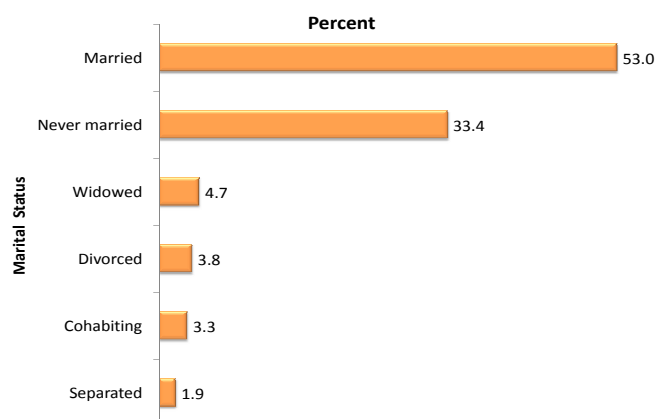


4.1 Marital Status

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 15 years and older in North Western Province was 343,961. Of these 163,714 were males and 180,247 were females.

Figure 4.1 presents the percent distribution of the population aged 15 years and older by marital status. The figure shows that 53.0 percent of the population aged 15 years and older were married and 33.4 percent were never married. The widowed and divorced made 4.7 percent and 3.8 percent of the population aged 15 years and older, respectively while 3.3 percent were cohabiting and 1.9 percent were separated.

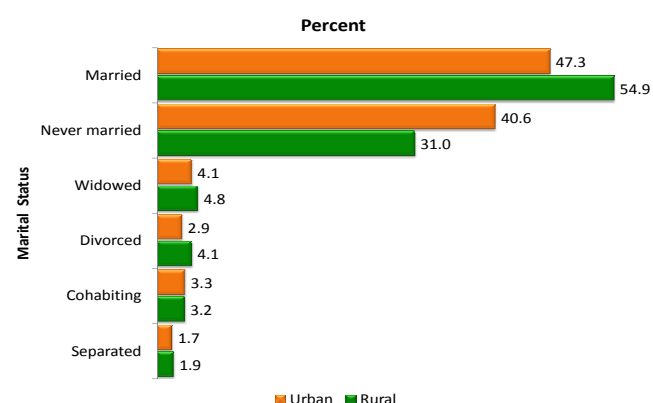
Figure 4.1: Percentage Distribution of the Population (15 Years and Older) by Marital Status, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 4.2 shows the percentage distribution of the population aged 15 years and older by marital status and rural/urban. The percentage of the married population was higher in rural areas at 54.9 percent compared to urban areas at 47.3 percent. Urban areas had a higher percent of the population aged 15 years and older that had never married at 40.6 percent compared to rural areas at 31.0 percent.

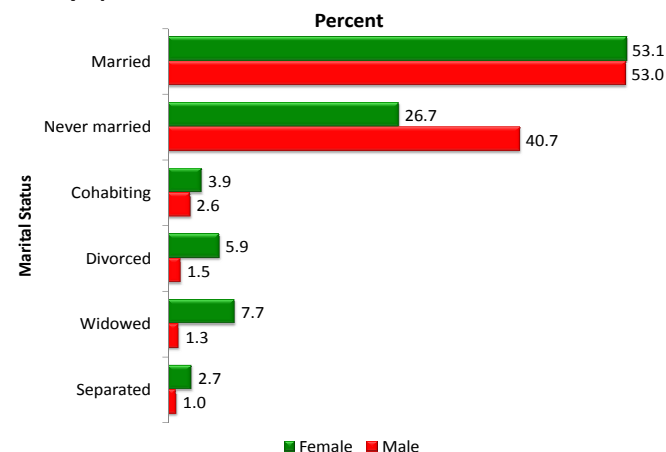
Figure 4.2: Percentage Distribution of the Population (15 Years and Older) by Marital Status and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 4.3 shows the percentage distribution of the population 15 years and older by marital status and sex. There were more males who had never been married at 40.7 percent compared to their female counterparts at 26.7 percent. More females were widowed (7.7 percent) compared to males (1.3 percent).

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



Source: 2010 Census of Population and Housing

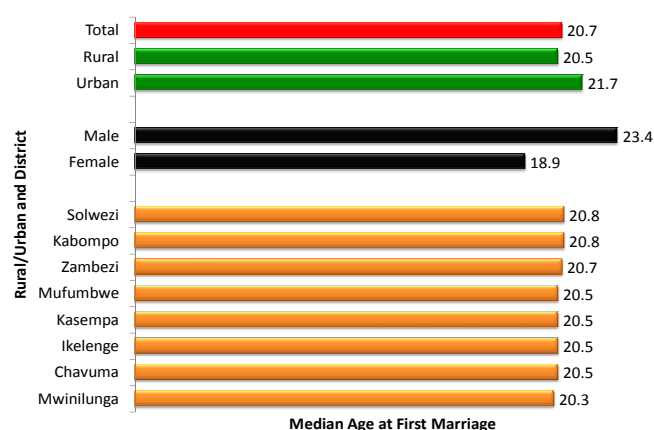
4.2 Median Age At First Marriage

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 North Western province was 20.7 years for the population aged 15 years and older. The median age at first marriage was 20.5 years in rural areas and 21.7 years in urban. The median age for males was 23.4 years while that of females was 18.9 years.

At district level, Kabompo and Solwezi had the highest median age at first marriage (20.8 years), while Mwinilunga had the lowest (20.3 years).

Figure 4.4: Median Age at First Marriage by sex, Rural/Urban and District, North 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.

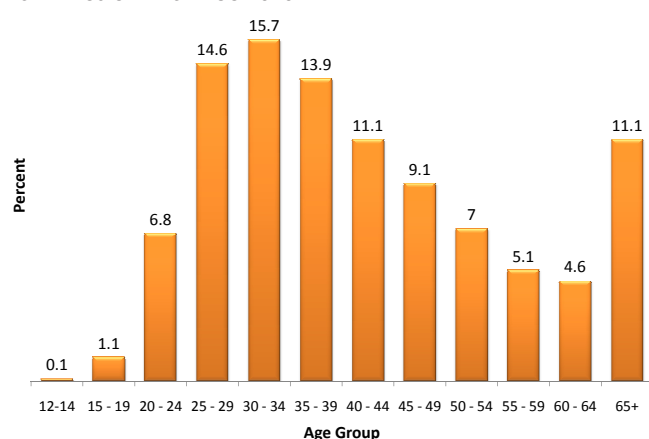
A Household head is a person all members of the household regard as the head. He or she makes day to day decisions governing the running of the household. In cases of one member households, the member is taken as the household head.

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 130,803 household heads in North Western Province. There were more households in rural areas (100,566) than urban areas (30,237). Household heads made up 18.0 percent of North Western Province population. Figure 4.5 shows the distribution of household heads by age. The majority of household heads (55.3 percent) were aged between 25-44 years. Households headed by persons aged below 20 years made up a total of 1.2 percent of the number of heads.

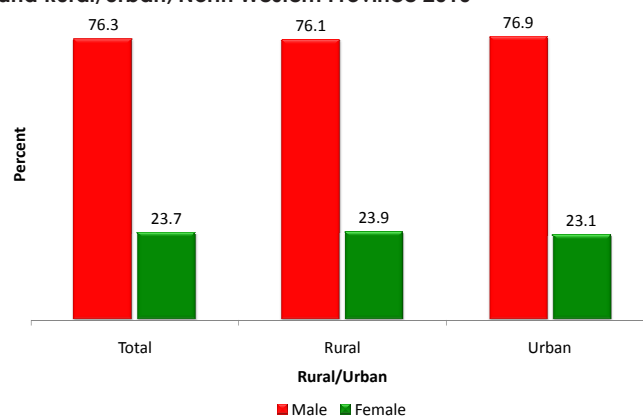
Figure 4.5: Percentage Distribution of Households Heads by Age, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 4.6 shows the percentage distribution of household heads by sex. There were more male headed households (76.3 percent) than female headed households (23.7 percent). The pattern was the same for both rural and urban areas.

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

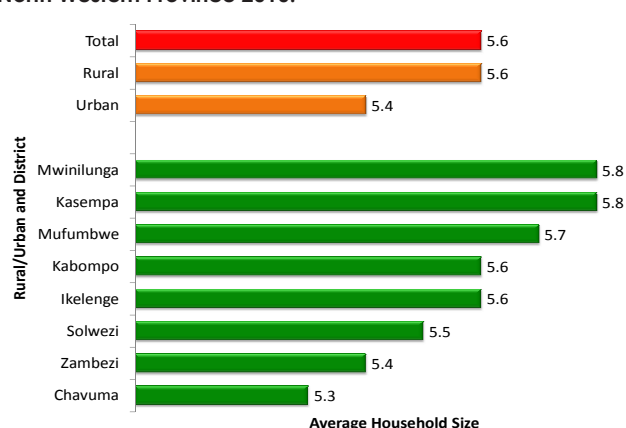


Source: 2010 Census of Population and Housing

4.3.2 Household Size

Figure 4.7 shows the average household size by rural/urban and district. The average household size in North Western Province in 2010 was 5.6 persons. Rural areas had a higher average household size of 5.6 persons compared to 5.4 persons in the urban areas. Mwinilunga and Kasempa districts had the highest average household size at 5.8 persons and Chavuma District had the lowest at 5.3 persons.

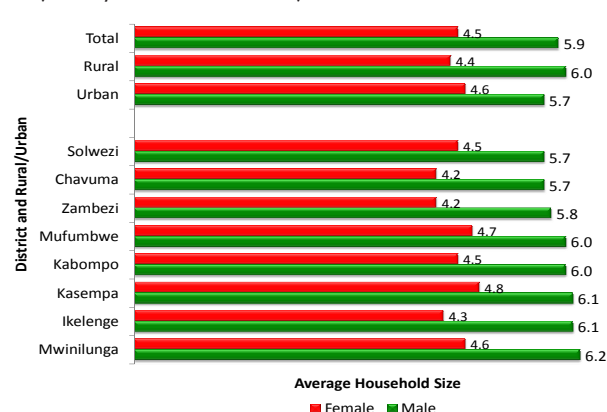
Figure 4.7: Average Household Size by Rural/Urban and District, North Western Province 2010.



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 5.9 than female headed households with 4.5 persons.

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

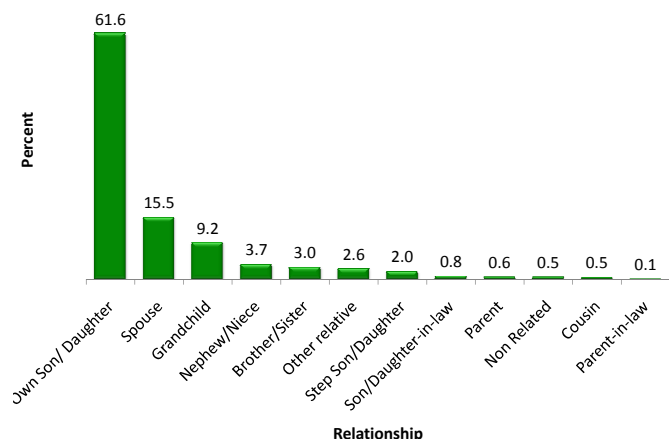


Source: 2010 Census of Population and Housing

4.3.3 Relationship to Head

Figure 4.9 shows the percentage distribution of the population by relationship to household head. In 2010, 61.6 percent of the persons enumerated in the households were biological children to the household heads, while 15.5 and 9.2 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, North Western Province 2010.

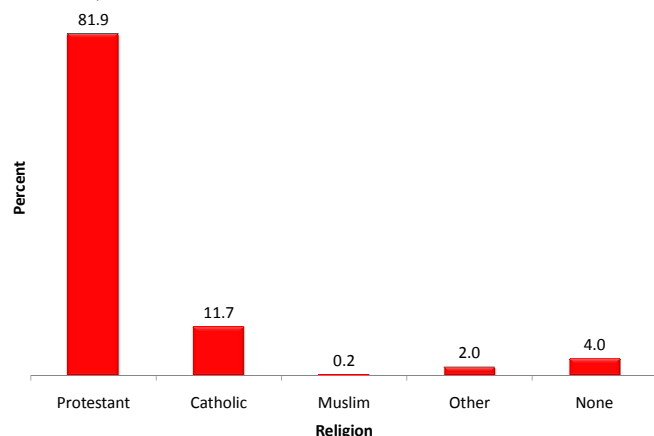


Source: 2010 Census of Population and Housing.

4.4 Religion

Figure 4.10 shows the percentage distribution of the population by religious affiliation. In 2010, over three quarters (81.9 percent) of the population of North Western Province were Protestants, while 11.7 percent were Catholics.

Figure 4.10 Percentage Distribution of the Population by Religious Affiliation, North Western Province 2010

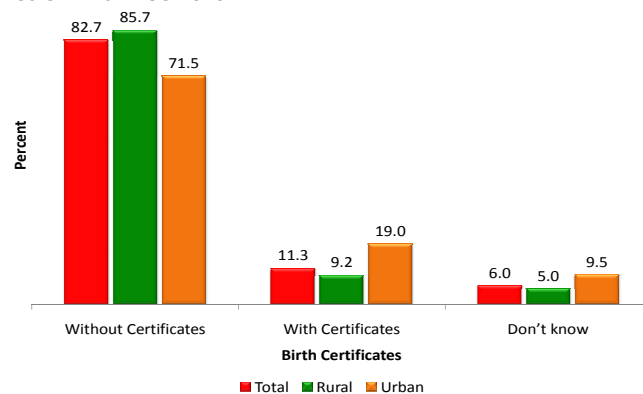


Source: 2010 Census of Population and Households

4.5 Birth Certificates

Figure 4.11 shows the percent distribution of population aged below 18 years with or without birth certificates. In 2010, 82.7 percent of those aged less than 18 years did not have birth certificates. The proportion of those without birth certificates was higher in rural areas at 85.7 percent than urban areas at 71.5 percent.

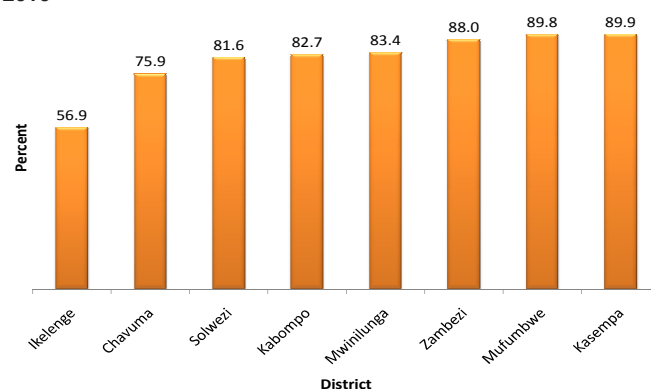
Figure 4.11 Percentage Distribution of Persons Aged Below 18 Years With or Without Birth Certificates by Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 4.12 shows the distribution of population aged below 18 years without Birth certificates by district. Kasempa District had the highest proportion of persons without birth certificates at 89.9 percent, while Ikelenge District had the lowest at 56.9 percent.

Figure 4.12: Percentage Distribution of Persons Aged Below 18 Years Without Birth Certificates by District, North Western Province 2010

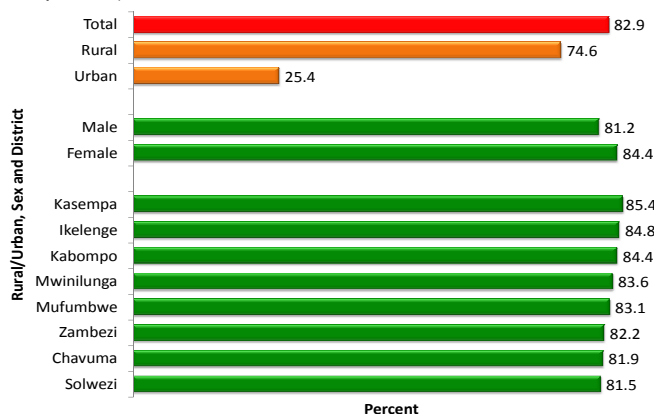


Source: 2010 Census of Population and Housing

4.6 Holders of Green National Registration Cards

In Zambia, the age at which one is required to obtain a Green National Registration Card (NRC) is 16 years. Figure 4.13 shows the percent distribution of people aged 16 years and older with green National Registration Cards by rural/urban, sex and district. In 2010, 323,125 citizens in North Western province were aged 16 years and older. Of these, 82.9 percent had NRCs.

Figure 4.13 Percentage Distribution of Population (16 Years and Older) with Green National Registration Cards by Sex, District and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Rural areas had a higher proportion of persons with Green National Registration Cards at 74.6 percent compared to Urban areas at 25.4 percent. The district with the highest proportion of persons with green NRCs was Kasempa (85.4 percent) while Solwezi had the lowest (81.5 percent).

4.7 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.

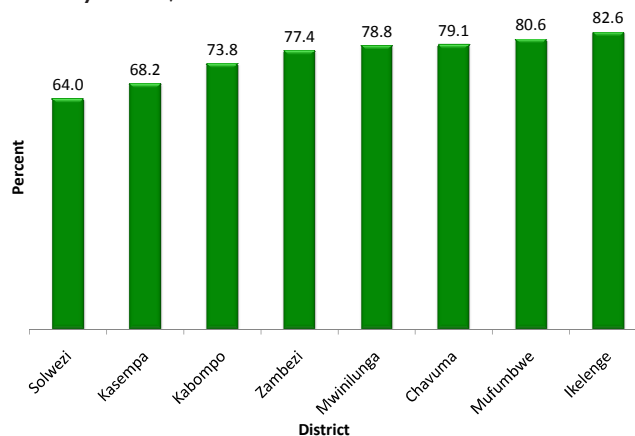
There were a total of 293,285 eligible voters (18 years and older) of which 211,765 (72.2 percent) were registered voters. Table 4.1 shows the population of eligible voters and registered voters by rural/urban and sex. In rural and urban areas, 76.3 and 23.7 percent were registered voters, respectively. Of the total registered voters, 47.6 percent were males while 52.4 percent were females.

Sex and Rural/Urban	Eligible Voters(18 years and older)	Registered voter
Total	293,285	211,765
Rural	74.7	76.3
Urban	25.3	23.7
Sex		
Male	47.2	47.6
Female	52.8	52.4

Source: 2010 Census of Population and Housing

Figure 4.14 shows the percentage of registered voters among eligible voters by district. Ikelenge District had the highest proportion of registered voters at 82.6 percent and Solwezi District had the lowest at 64.0 percent.

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



Source: 2010 Census of Population and Housing

CHAPTER 5

EDUCATION CHARACTERISTICS

5.0 Summary

In 2010, North Western Province had a literacy rate of 63.0 percent. Literacy rates for rural and urban areas were 58.3 and 78.3 percent, respectively. Males had a higher literacy rate (67.2 percent) than females (59.0 percent).

Of the population aged 5 years and older, 36.0 percent were currently attending school.

The net primary and secondary school attendance rates were 71.3 percent and 42.5 percent, respectively. The net primary school attendance rate was 69.3 percent in rural areas and 78.9 percent in urban areas. At secondary level, net secondary school attendance rate was 36.5 percent in rural areas and 60.5 percent in urban areas.

The Gender Parity Index was 0.92 indicating that there were gender inequalities in school attendance for males and females. The rural and urban Gender Parity Index was 0.89 and 0.99, respectively.

Of the population aged 25 years and older that ever attended school, 53.6 percent had completed primary school, 34.0 percent had completed secondary school and 11.8 percent had completed tertiary education. In rural areas, the completion rate was 63.6 percent, 29.0 percent and 6.8 percent for primary, secondary and tertiary education, respectively. In urban the highest completion rate was for secondary at 46.3 percent followed by primary at 29.4 percent. Urban areas recorded the highest completion rate for tertiary education at 24.0 percent.

A higher percentage of females (64.0 percent) had completed primary education compared to males (44.7 percent). At secondary and tertiary levels, males had higher completion rates of 39.5 and 15.4 percent, respectively. Females had completion rates of 27.5 percent for secondary and 7.6 percent for tertiary.

Chapter 5

Education Characteristics



5.1 Introduction

Education is a basic human right. It is also 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 censuses in general provide 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

The following concepts have been used in this chapter:

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

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.

Educational 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 educational 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.

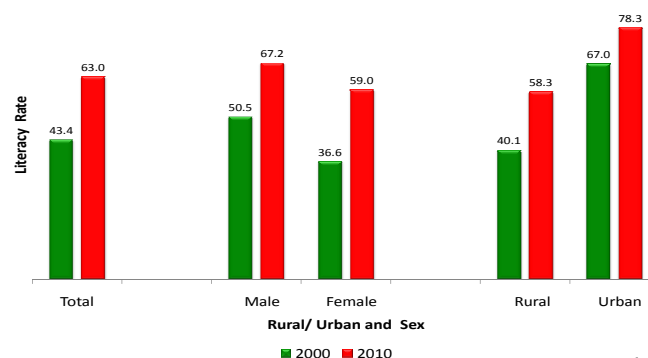
Gender Parity Index

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 63.0 percent in 2010. This was an increase of 19.6 percent from 43.4 percent in 2000. The literacy rate for males was higher (67.2 percent) than that of females (59.0 percent). The literacy rate in rural and urban areas increased between 2000 and 2010.

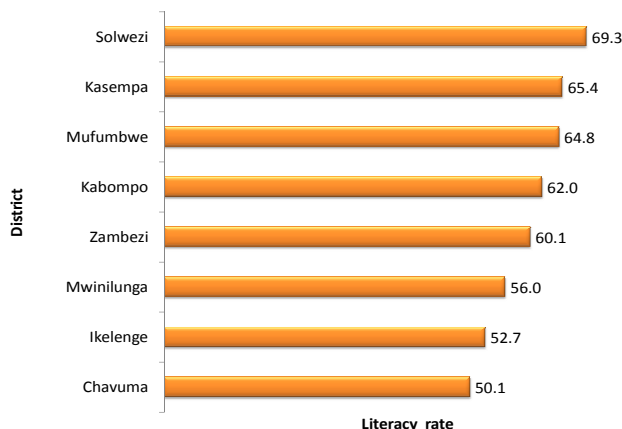
Figure 5.1: Literacy Rate for Population Aged 5 years and Older by Sex and Rural/Urban, North Western Province, 2000-2010.



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.2 shows literacy rate of the population aged 5 years and older by district. The district with the highest literacy rate in 2010 was Solwezi at 69.3 percent. Chavuma District had the lowest literacy rate at 50.1 percent.

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

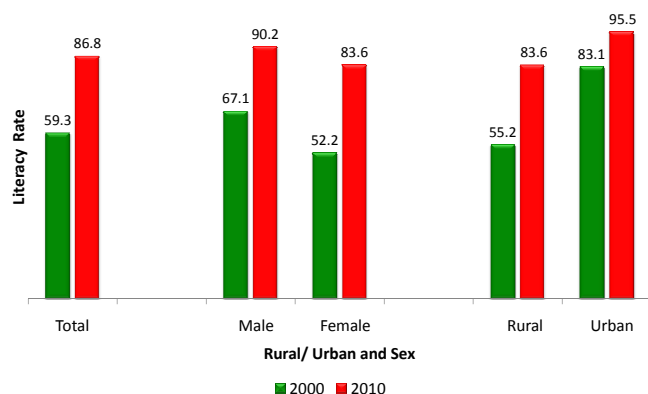


Source: 2010 Census of Population and Housing

5.3.1: Literacy Rates 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 rate for North Western Province was 86.8 percent in 2010. This was an increase from 59.3 percent in 2000. Between 2000 and 2010 male and female literacy rates increased by 23.1 percentage points for males and 31.4 percentage points for females. The literacy rates for both rural and urban areas increased between 2000 and 2010.

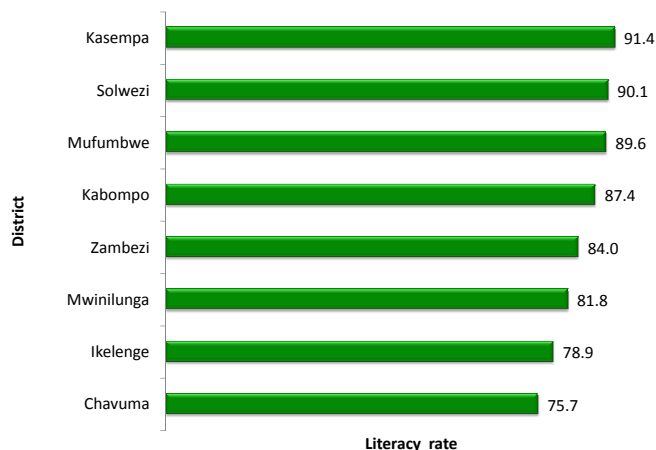
Figure 5.3: Literacy Rate of the Youth Population (15-24 years) by Sex and Rural/Urban, North Western Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.4 shows levels in literacy rates for the youth population by district. Kasempa District had the highest youth literacy rate (91.4 percent) while Chavuma District had the lowest (75.7 percent).

Figure 5.4: Literacy Rate of the Youth Population (15-24 years) by District, North Western Province, 2010

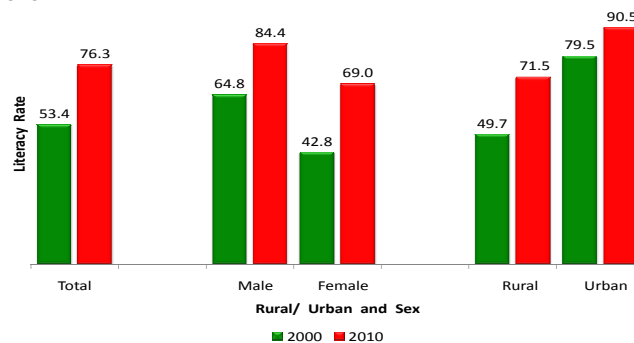


Source: 2010 Census of Population and Housing

5.3.2: Literacy Rates for the Adult Population (15 years and older)

Figure 5.5 shows literacy rates for the adult population (15 years and older) by sex and rural/urban. The adult literacy rate at provincial level increased from 53.4 percent in 2000 to 76.3 percent in 2010. Adult literacy rates for both males and females improved between 2000 and 2010.

Figure 5.5: Literacy Rate for the Adult Population (15 years and older) by Sex and Rural/Urban, North Western Province 2000 and 2010

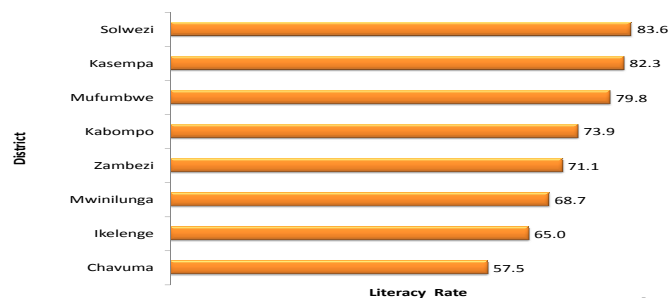


Source: 2000 and 2010 Censuses of Population and Housing

In 2010, the adult literacy rate for urban areas was higher (90.5 percent) than that of rural areas (71.5 percent). The percentage point increase in the adult literacy rate between 2000 and 2010 was higher in rural (21.8) than urban areas (11.0).

Figure 5.6 shows the literacy rate for the adult population (15 years and older) by district. Solwezi District had the highest adult literacy rate at 83.6 percent. It was followed by Kasempa District at 82.3 percent. Chavuma District had the lowest adult literacy rate at 57.5 percent.

Figure 5.6: Literacy Rate for Adult Population (15 years and older) by District, North Western Province 2010



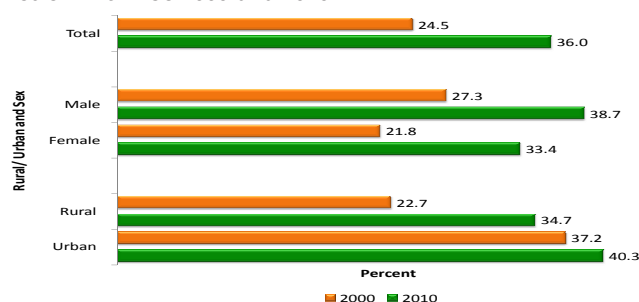
Source: 2010 Census of Population and Housing

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 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 18 years and older are expected to be in higher institutions of learning.

Figure 5.7 shows the percent of the population aged 5 years and older that were currently attending school by sex and rural/urban. In 2010, 36.0 percent of the population was currently attending school. This was an increase from 24.5 percent in 2000.

Figure 5.7: Percent of Population Aged 5 Years and Older Currently Attending School, by Sex and Rural/Urban, North Western Province 2000 and 2010

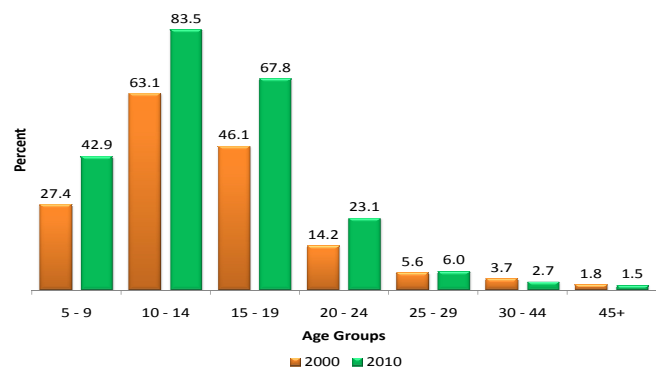


Source: 2000 and 2010 Censuses of Population and Housing

In rural and urban areas, the percentage of the population aged 5 years and older that were currently attending school in 2010 was 34.7 and 40.3 percent, respectively. This shows an increase of 12.0 percentage points in rural areas and 3.1 percentage points in urban areas. The percentage of males currently attending school increased from 27.3 percent in 2000 to 38.7 percent in 2010 while that of females increased from 21.8 percent in 2000 to 33.4 percent in 2010.

Figure 5.8 shows the percentage of the population aged 5 years and older currently attending school by 5 year age group. The figure shows that for all the age groups except for 30-44, there was an increase in the proportion of the population that was currently attending school. The age group 10-14 had the highest proportion of the population currently attending school at 83.5 percent in 2010. This shows an increase of 20.4 percentage points from 63.1 percent in 2000. The percentage of the population currently attending school for the age group 15-19 years increased from 46.1 percent in 2000 to 67.8 percent in 2010.

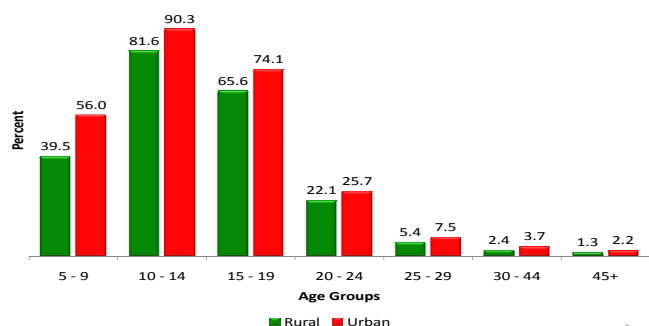
Figure 5.8: Percentage Distribution of the Population Currently Attending School by 5 year Age Group, North Western Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.9 shows the percent 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 had the highest proportion of the population currently attending school in both rural and urban areas at 81.6 and 90.3 percent, respectively.

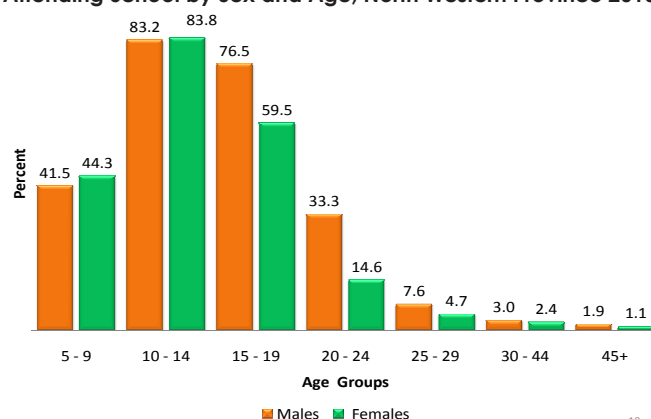
Figure 5.9: Percentage Distribution of the Population Currently Attending School by Age Group and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 5.10 shows the percent distribution of the population currently attending school by sex and age group. There were more females currently attending school in younger age groups (5-9 and 10-14 years) than males. The age group 10-14 had the highest percentage of the population currently attending school for both males and females at 83.2 and 83.8 percent, respectively.

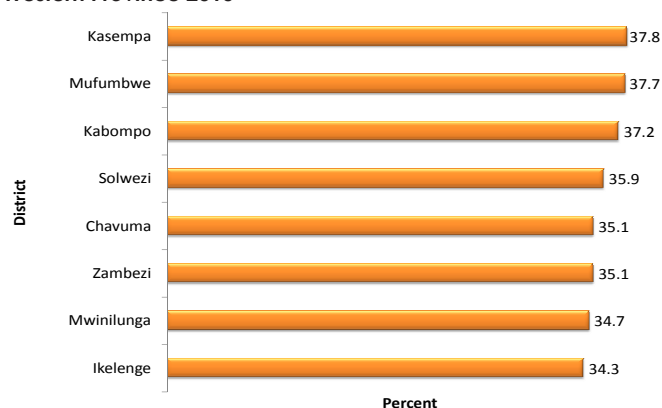
Figure 5.10: Percentage Distribution of the Population Currently Attending School by Sex and Age, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 5.11 shows percent distribution of the population aged 5 years and older that was currently attending school by district. Kasempa District had the highest proportion of the population that was currently attending school at 37.8 percent while Ikelenge District had the lowest at 34.3 percent.

Figure 5.11: Percentage Distribution of the Population aged 5 years and older Currently Attending School by District, North Western Province 2010

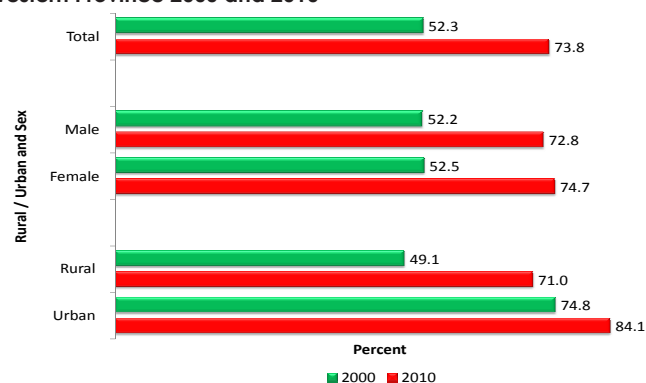


Source: 2010 Census of Population and Housing

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 52.3 percent in 2000 to 73.8 percent in 2010. In 2010, 71.0 percent of the population aged 7-13 years was currently attending school in rural areas, compared to 84.1 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, North Western Province 2000 and 2010

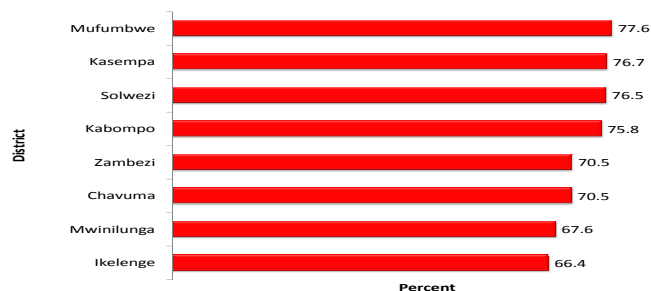


Source: 2000 and 2010 Censuses of Population and Housing

Male primary school attendance rate increased from 52.2 percent in 2000 to 72.8 percent in 2010 while female attendance rate increased from 52.5 percent to 74.7 percent during the same period.

Current primary school attendance rates by district are shown in Figure 5.13. Mufumbwe District had the highest proportion of the population currently attending school (77.6 percent) while Ikelenge District had the lowest (66.4 percent).

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

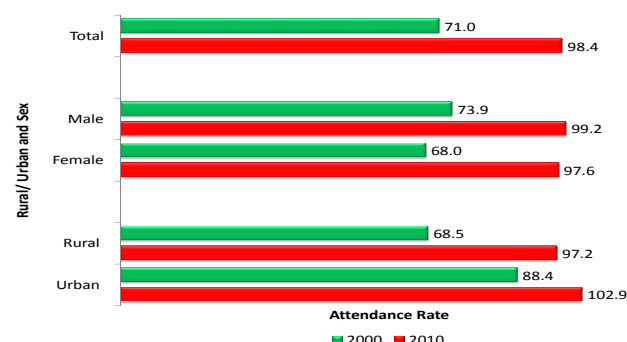


Source: 2010 Census of Population and Housing

5.4.2 Gross Primary School Attendance Rate

Figure 5.14 shows gross primary school attendance rate. The gross primary school attendance rate increased from 71.0 in 2000 to 98.4 in 2010. In 2010, the gross primary school attendance rate was higher in urban areas (102.9 percent) than in rural areas (97.2 percent). Males recorded higher gross primary school attendance rate at 99.2 percent compared to females at 97.6 percent.

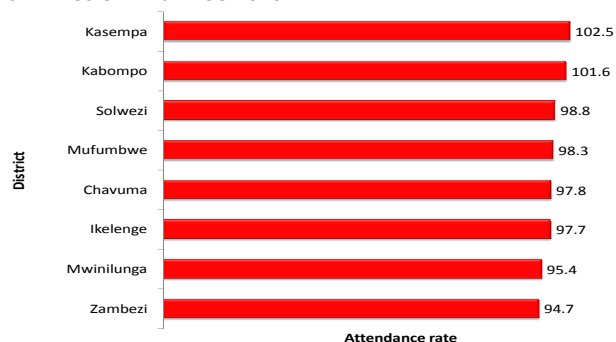
Figure 5.14: Gross Primary School Attendance Rate by Sex and Rural/Urban, North Western Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.15 shows the gross primary school attendance rate by district. Kasempa District had the highest gross primary school attendance rate at 102.5 percent followed by Kabompo District at 101.6 percent. Zambezi District had the lowest gross primary school attendance rate at 94.7 percent.

Figure 5.15: Gross Primary School Attendance Rate by District, North Western Province 2010



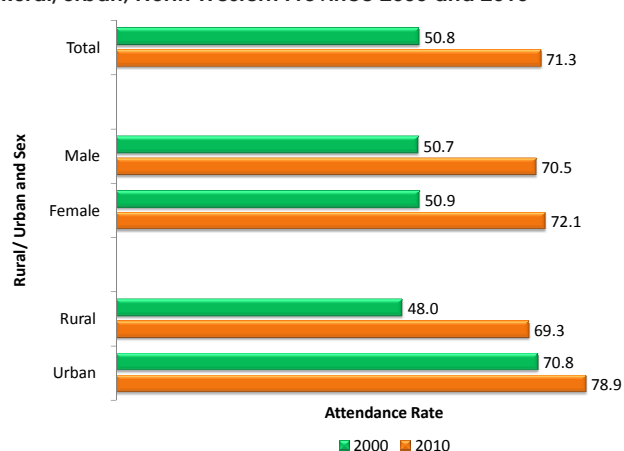
Source: 2010 Census of Population and Housing

5.4.3 Net Primary School Attendance Rate

Net primary school attendance rates show 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 rate by sex and rural/urban. The net primary school attendance rate increased from 50.8 percent in 2000 to 71.3 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 49.2 percent in 2000 to 28.7 percent in 2010.

In rural areas the net primary school attendance rate increased from 48.0 percent in 2000 to 69.3 percent in 2010 while that of urban areas increased from 70.8 percent to 78.9 during the same period. Between 2000 and 2010, the net primary school attendance rate for males increased from 50.7 percent to 70.5 percent and from 50.9 percent to 72.1 percent for females.

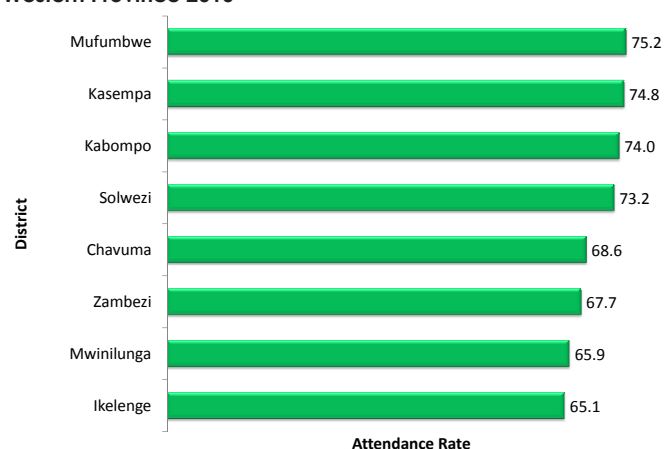
Figure 5.16: Net Primary School Attendance Rate by Sex and Rural/Urban, North Western Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.17 shows net primary school attendance rate by district. Mufumbwe District had the highest net primary school attendance rate at 75.2 percent while Ikelenge District had the lowest at 65.1 percent.

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



Source: 2010 Census of Population and Housing

5.4.4 Gross Secondary School Attendance Rate

In Zambia, the official secondary school age ranges from 14-18 years. Figure 5.18 shows gross secondary school attendance rate by sex and rural/urban. The overall gross secondary school attendance for the population aged 14-18 years increased from 41.3 percent in 2000 to 68.7 percent in 2010. In rural areas, the secondary school attendance rate increased from 35.1 percent in 2000 to 60.0 percent in 2010 while in urban areas it increased from 78.2 percent in 2000 to 94.8 percent in 2010. Male gross attendance rate increased from 49.2 percent in 2000 to 77.4 percent in 2010 while that of females increased from 33.7 percent to 60.1 percent during the same period.

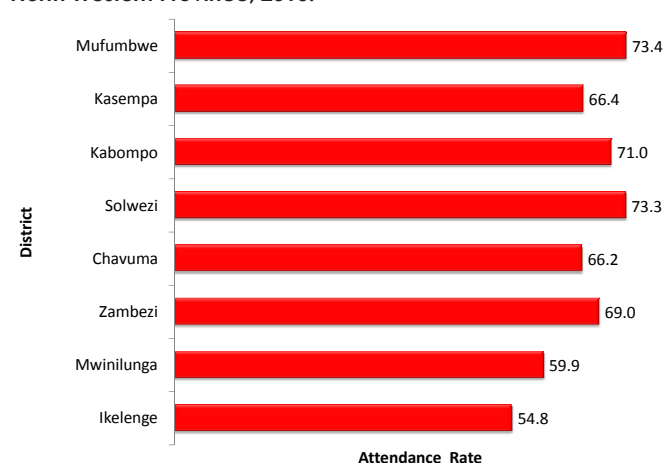
Figure 5.18: Gross Secondary School Attendance Rate by Sex and Rural/Urban, North Western Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.19 shows gross secondary school attendance rate by district. Mufumbwe District had the highest gross secondary school attendance rate at 73.4 percent while Ikelenge district had the lowest at 54.8 percent.

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



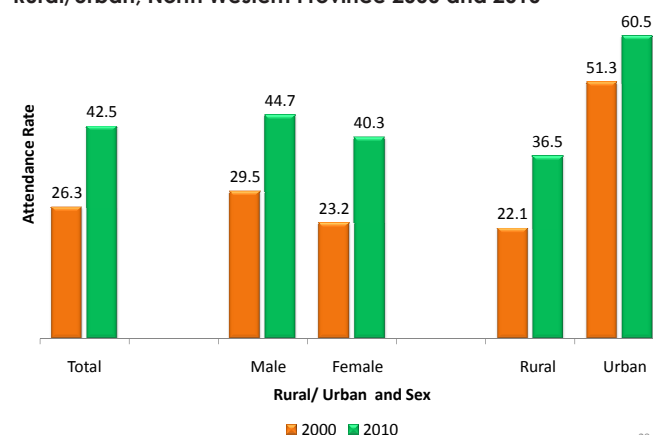
Source: 2010 Census of Population and Housing

5.4.5 Net Secondary School Attendance Rate

Net secondary school attendance rate shows 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 26.3 percent in 2000 to 42.5 percent in 2010. In 2000, the net secondary

school attendance rate for rural areas was 22.1 percent while that of urban areas was 51.3 percent. In rural and urban areas, the net secondary school attendance rate in 2010 increased to 36.5 and 60.5 percent, 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, North Western Province 2000 and 2010

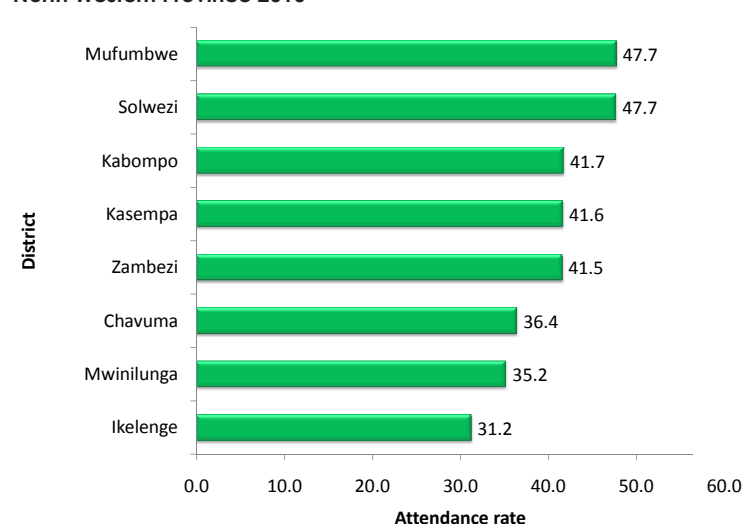


Source: 2000 and 2010 Censuses of Population and Housing

In both 2000 and 2010 the net secondary school attendance rate for males was higher than that of females. The net secondary school attendance rate for males increased from 29.5 percent in 2000 to 44.7 percent in 2010 while that of females increased from 23.2 percent in 2000 to 40.3 percent in 2010.

Figure 5.21 shows net secondary school attendance rates by district. Mufumbwe and Solwezi districts had the highest secondary school attendance rate at 47.7 percent while Ikelenge district had the lowest at 31.2 percent in 2010.

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

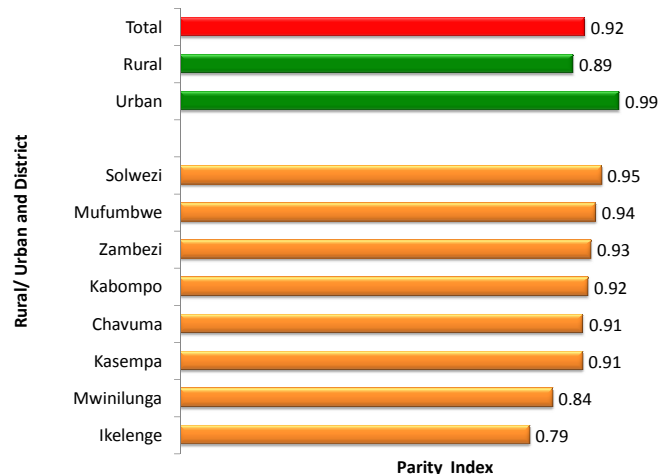


Source: 2010 Census of Population and Housing

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 0.92, implying that there were less females than males currently attending school.

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

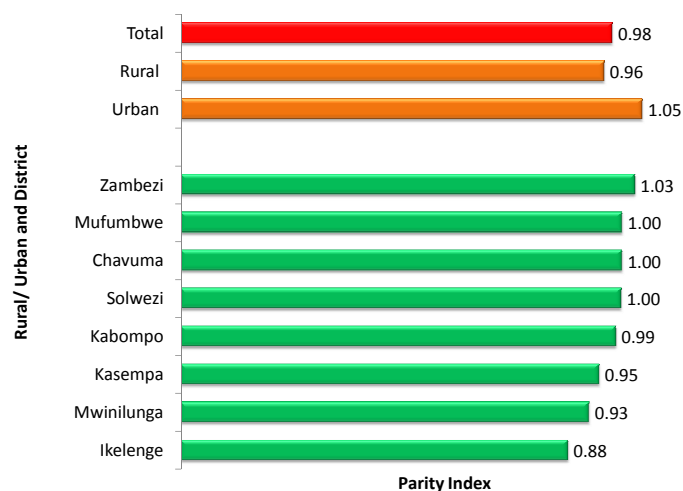


Source: 2010 Census of Population and Housing

The GPI for rural areas was 0.89 while that of urban areas was 0.99. Solwezi District had the highest GPI of 0.95 while Ikelenge District had the lowest at 0.79.

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 0.96 while that of urban areas was 1.05. Zambezi District had the highest GPI of 1.03 while Ikelenge District had the lowest at 0.88.

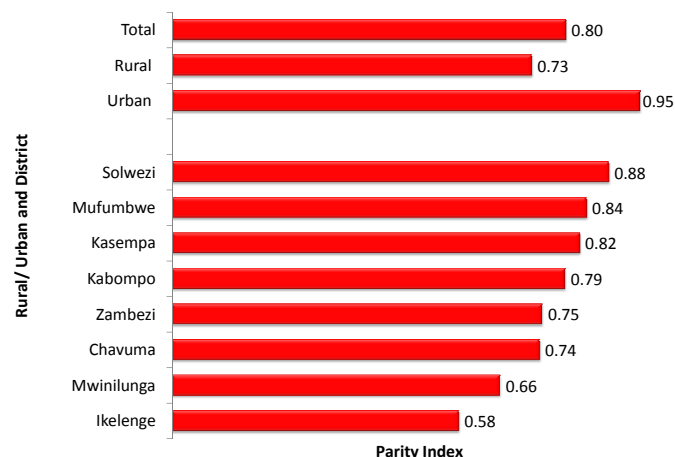
Figure 5.23: Gender Parity Index for Population Currently Attending Primary School by District and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 5.24 shows Gender Parity Index for the population currently attending secondary school by district and rural/urban. The GPI for those currently attending secondary school was 0.80. In rural areas the GPI was 0.73 while that of urban areas was 0.95 showing that there was more equality in access to secondary education in urban than rural areas. Solwezi District had the highest GPI at 0.88 and Ikelenge District had the lowest at 0.58.

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



Source: 2010 Census of Population and Housing

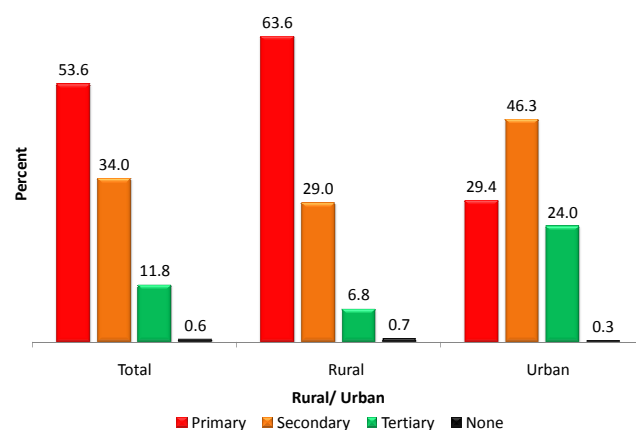
5.6 Highest Education Level Completed

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 under 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 percent distribution of the population (25 years and older) that ever attended school by highest education level and rural/urban. In 2010, 53.6 percent had completed primary level, 34.0 percent had completed secondary and 11.8 percent had completed tertiary.

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

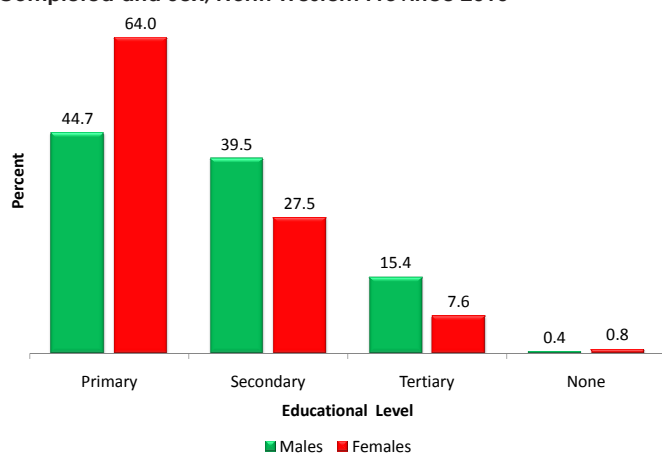


Source: 2010 Census of Population and Housing

In rural areas 63.6 percent of the population reported having completed primary while 29.4 percent had completed the same level of education in urban areas. Secondary education was the highest level of education completed in urban areas at 46.3 percent. The percentage of the population that had completed tertiary education was higher in urban areas (24.0 percent) than rural areas (6.8 percent).

Figure 5.26 shows the percent distribution of the population (25 years and older) by sex and highest education level completed. There were more females than males who had primary education as the highest level completed at 64.0 percent and 44.7 percent, respectively. The percentage of males who had secondary and tertiary as their highest level of education completed was higher than that of females.

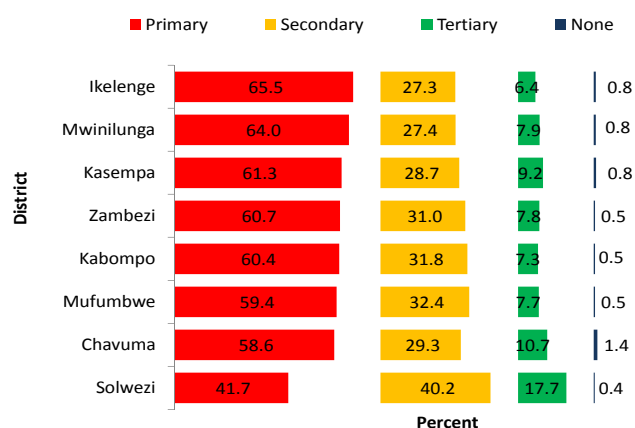
Figure 5.26: Percentage Distribution of Population (25 Years and Older) that Ever Attended School by Highest Level of Education Completed and Sex, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 5.27 shows the percent distribution of the population (25 years and older) by highest education level completed and district. Solwezi District had the highest percentage of the population with tertiary as their highest level of education completed at 17.7 percent. Ikelenge District had the lowest completion of tertiary at 6.4 percent.

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

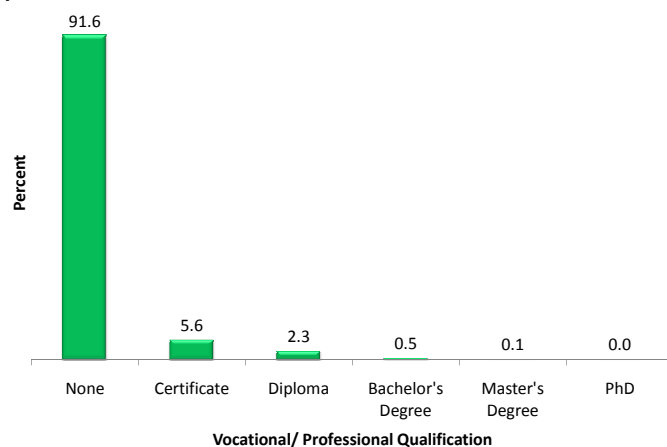


Source: 2010 Census of Population and Housing

5.7 Highest Professional/Vocational Qualification Completed

Figure 5.28 shows the percent distribution of the population (25 years and older) by highest professional/vocational qualification completed. Certificate holders constituted 5.6 percent followed by diploma holders at 2.3 percent. Less than one percent (0.0) of the people had doctorate degrees (PhD).

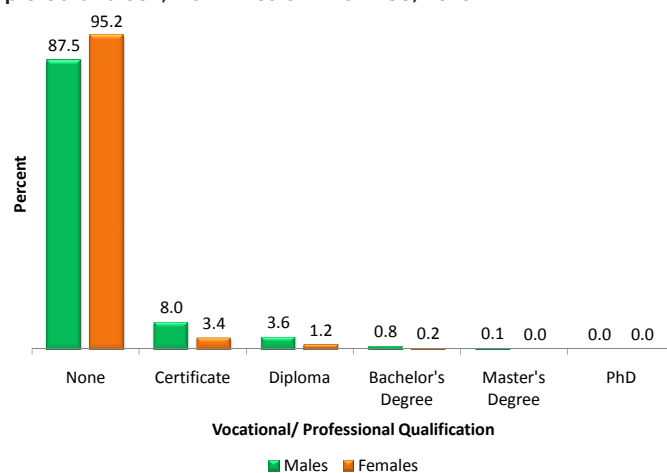
Figure 5.28: Percentage Distribution of population (25 Years and Older) by Highest Professional/Vocational Qualification Completed, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 5.29 shows the percent distribution of the 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 except in the none category. The highest percentage difference was recorded in the Certificate category where males accounted for 8.0 percent compared to 3.4 percent for females.

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



Source: 2010 Census of Population and Housing

5.8 Field of Study

Table 5.1 shows the percent distribution of the population (25 years and older) by field of study and sex. Teacher training was reported by 2.7 percent of the total population. Other notable fields of study included nursing (0.7 percent) and Mechanical engineering (0.5 percent).

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

Field of Study	Population	Percent of Total	Percent Males	Percent Females
Total	212,510		47.6	52.4
Natural science (e.g. biological science programme chemistry programme geological programme etc).	153	0.1	90.2	9.8
Civil engineering	176	0.1	97.2	2.8
Electrical and electronics engineering	676	0.3	91.9	8.1
Mechanical engineering	1,026	0.5	98.3	1.7
Chemical engineering	61	0.0	93.4	6.6
Mining engineering	278	0.1	92.4	7.6
Industrial engineering	78	0.0	93.6	6.4
Metallurgical engineering	103	0.0	98.1	1.9
Architectural and town planning engineering	47	0.0	93.6	6.4
Other engineering	242	0.1	95.5	4.5
Medicine and surgery	126	0.1	88.1	11.9
Pharmacy	108	0.1	71.3	28.7
Dentistry	43	0.0	72.1	27.9
Nursing	1,430	0.7	51.9	48.1
Medical technology	143	0.1	83.2	16.8
X-Ray technology	26	0.0	73.1	26.9
Veterinary	49	0.0	95.9	4.1
Statistics	17	0.0	88.2	11.8
Mathematics	72	0.0	88.9	11.1
Computer science/Economics	407	0.2	55.0	45.0
Accountancy	724	0.3	79.8	20.2
Teacher training	5,659	2.7	59.5	40.5
Law and jurisprudence (includes magistrates and judges)	204	0.1	90.7	9.3
Journalism	52	0.0	69.2	30.8
Fine arts	57	0.0	78.9	21.1
Physical education	60	0.0	66.7	33.3
Library science	34	0.0	64.7	35.3
Social welfare	254	0.1	59.4	40.6
Criminology	98	0.0	88.8	11.2
Business administration and related programmes	711	0.3	71.0	29.0
Secretarial training	256	0.1	12.9	87.1
shorthand typing	110	0.1	35.5	64.5
Clerical Typing	65	0.0	44.6	55.4
Operating of office machines	62	0.0	83.9	16.1
Service trade (e.g. cooking tourist trade etc.)	223	0.1	40.4	59.6
Radio and television broadcasting	14	0.0	85.7	14.3
Fire protection and fire fighting	28	0.0	89.3	10.7
Agriculture forestry and fishery	584	0.3	84.4	15.6
Food and drinks processing trades programmes	126	0.1	40.5	59.5
Wood working	347	0.2	98.0	2.0
Textile trades	179	0.1	23.5	76.5
Leather trades	13	0.0	76.9	23.1
Other programmes	3,307	1.6	78.1	21.9
None	194,082	91.3	45.4	54.6

Source: 2010 Census of Population and Housing

Comparing males and females, the percent of males in all fields of study was higher than that of females except for Secretarial

training, Short hand typing, Clerical typing services, Textile trades, Food and drinks processing trades and Service trade.

CHAPTER 6

ECONOMIC CHARACTERISTICS

6.0 Summary

The population aged 12 years and older was 396,298 in North Western Province in 2010. Out of these, 75.2 percent were in rural areas while 24.8 percent were in urban areas. Males comprised 47.9 percent of total population aged 12 years and older while females comprised 52.1 percent.

Of the population aged 12 years and older, 219,767 were in the labour force, out of which 79.0 percent were in rural areas and 21.0 percent were in urban areas.

The unemployment rate was 10.3 percent of the total labour force. Urban unemployment rate was 20.5 percent while rural unemployment rate was 7.6 percent. The unemployment rate for males was 12.0 percent compared to 8.4 percent for females.

The youth unemployment rate was 13.3 percent, of which urban youth unemployment rate was higher (26.3 percent) than the rural unemployment rate (9.4 percent). The unemployment rate for male youths (15.4 percent) was higher than that of female youths (11.0 percent).

Of the employed population, the highest proportion was Self employed (51.2 percent) and the lowest was employers (0.6 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 ratio of the economically active population to the working age population expressed as a percent.

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

Youth Unemployment Rate: This was defined as a proportion of the labourforce 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:

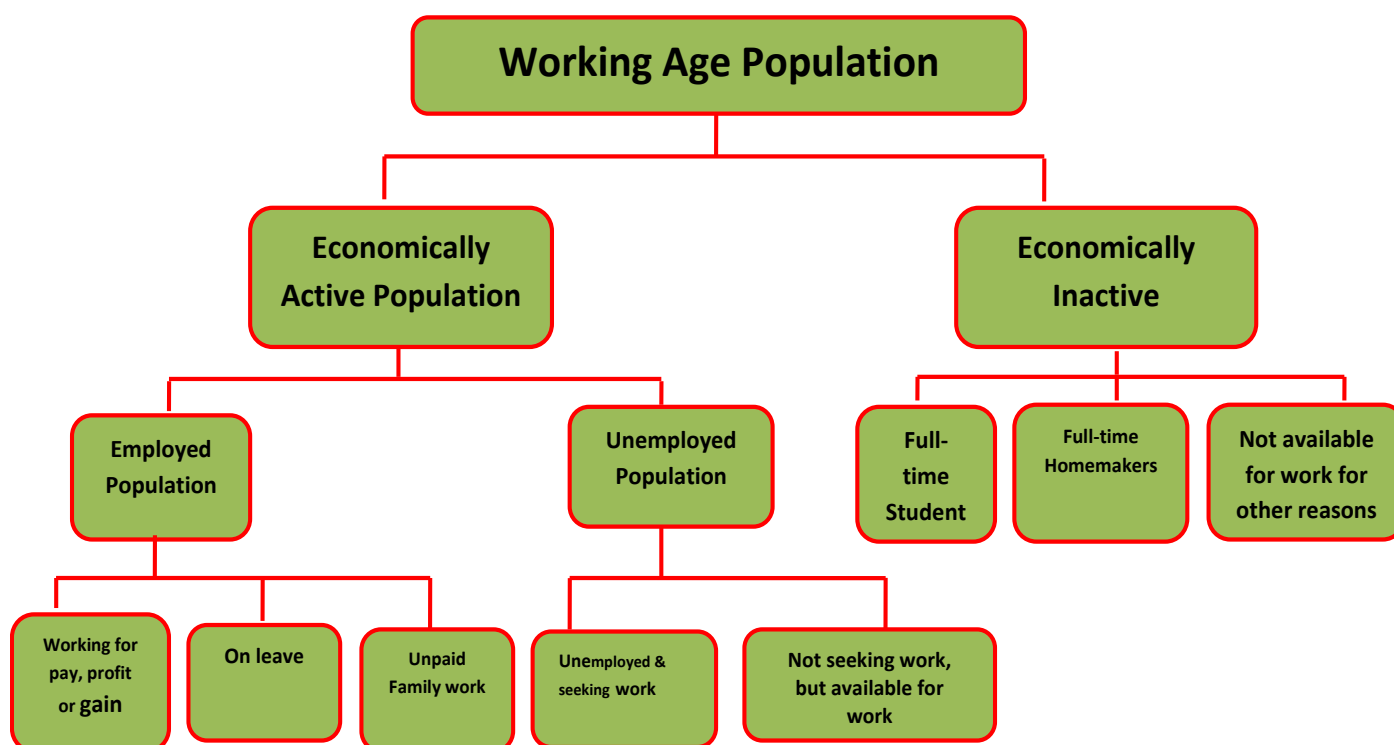
- i) Labour force participation
- ii) Economic dependency
- iii) Employment and unemployment
- iv) Employment status
- v) Occupation
- vi) Industry
- vii) Educational attainment

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 above



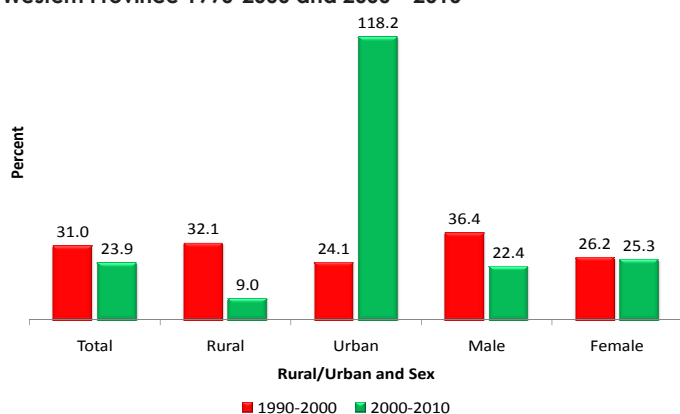
The question asked in the 2010 Census to determine the economic activity status was 'What did (NAME) do in the last 7 days and last 12 months?' The reference period for the response categories was the last 7 days (Current activity status) and last 12 months (Usual activity status).

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

In 2010, the population aged 12 years and older represented 58.1 percent of the total population of North Western Province while in 2000 it represented 54.8 percent. The population 12 years and older (Working age population) increased from 319,826 in 2000 to 396,298 in 2010, representing 19.3 percent increase.

Figure 6.2 shows the percentage change in the population 12 years and older (Working Age Population) of North Western Province by rural/urban and sex. During the 1990-2000 and 2000-2010 intercensal periods, the working age population in urban areas increased from 24.1 percent to 118.2 percent while in rural areas, it decreased from 32.1 to 9.0 percent. In the 2000-2010 intercensal period the percentage change of the working age population was 23.9 percent, a decline from 31.0 percent in the 1990-2000 intercensal period.

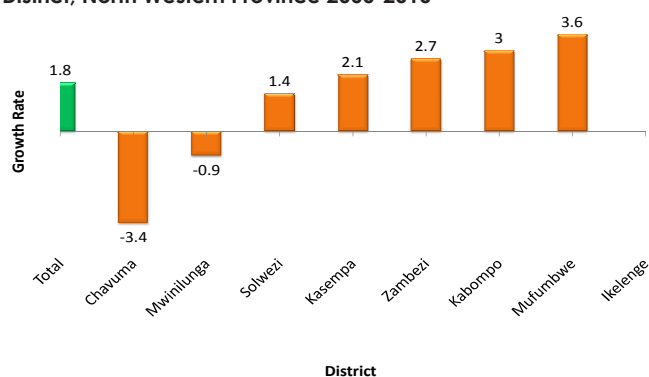
Figure 6.2 Percentage Change in Population Aged 12 Years and Older (Working Age Population) by Rural/Urban and Sex, North Western Province 1990-2000 and 2000 – 2010



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

Figure 6.3 shows the annual average growth rate of the labour force by district between 2000 and 2010 in North Western Province. The labour force average annual growth rate was 1.8 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, North Western Province 2000-2010



Source: 2000 and 2010 Censuses of Population and Housing

Note: Ikkelenge was not declared a district by the time of 2010 Census

Mufumbwe District recorded the highest Labour Force average annual growth rate of 3.6 percent while Chavuma District recorded a negative average annual growth rate of -3.4 percent per annum.

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).

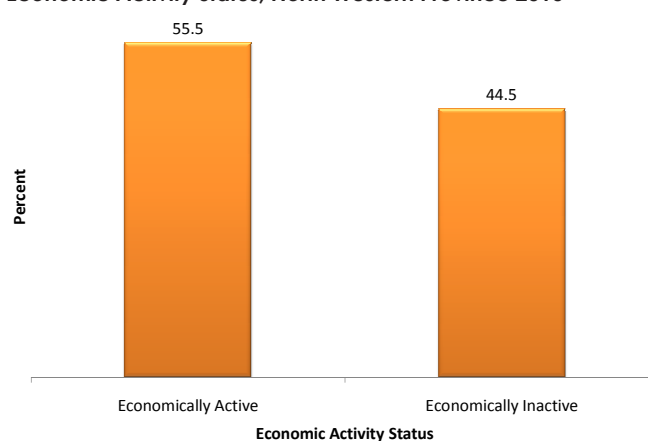
The analysis for the economic activity status was based on the current (in the 7 days prior to the census night) economic activity of the population. In 2010, the labour force was 219,767 in North Western Province. Of this, 115,639 were male and 104,128 were female.

6.4.2 Economically Inactive

The economically inactive population comprises people who, during the reference period, were outside the labour force. These included fulltime students, fulltime homemakers (e.g. fulltime housewives) and those not available for work for other reasons such as, not able to work due to sickness, old age, beggar's, 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, 55.5 percent were economically active while 44.5 percent were economically inactive.

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



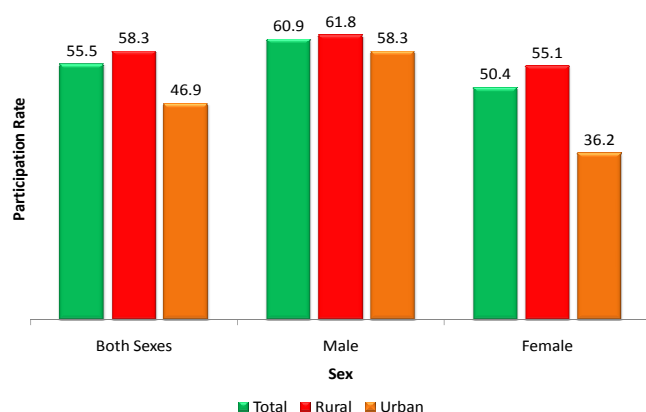
Source: 2010 Census of Population and Housing

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 rate for the population 12 years and older by sex and rural/urban. In 2010, labour force participation rate was 55.5 percent in North Western Province. Males had higher participation rate at 60.9 percent compared to females at 50.4 percent.

Rural/urban analysis shows that labour force participation rate was higher in rural areas (58.3 percent) compared to urban areas (46.9 percent). In addition, labour force participation rates for males were higher than that of females in both rural and urban areas.

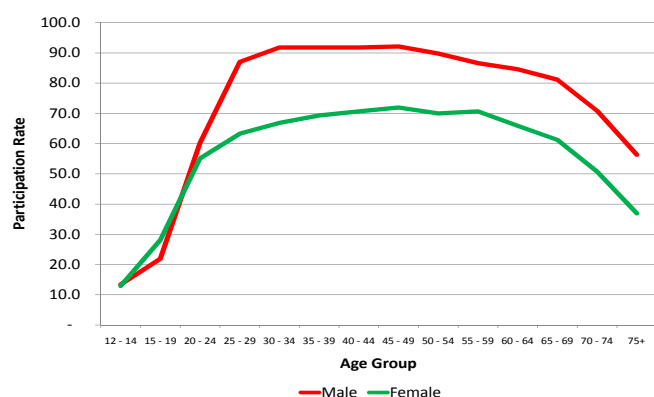
Figure 6.5: Labour Force Participation Rates for the Population 12 years and older by Sex and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 6.6 shows 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, North Western Province 2010

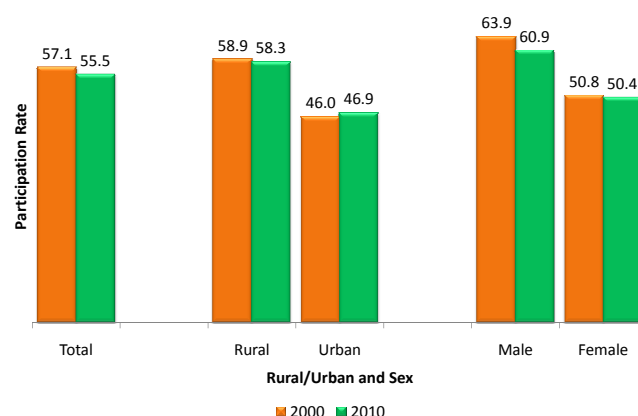


Source: 2010 Census of Population and Housing

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 57.1 percent and 55.5 percent in 2000 and 2010, respectively.

The labour force participation rate for males decreased from 63.9 percent in 2000 to 60.9 percent in 2010, representing a 3.0 percentage point decrease. The labour force participation rates for females decreased by 0.4 percentage points from 50.8 percent in 2000 to 50.4 percent in 2010.

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

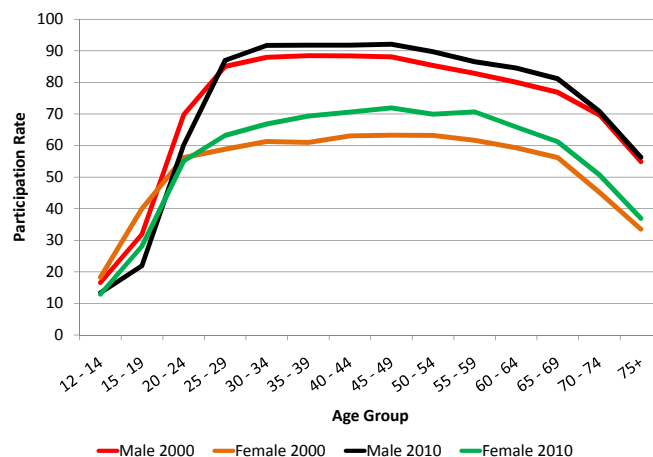


Source: 2000 and 2010 Censuses of Population and Housing

The labour force participation rate was higher in rural (58.3 percent) than in urban areas (46.9 percent) in 2010. This pattern was also observed in 2000 where 58.9 percent labour force participation was recorded in rural areas compared to 46.0 percent in urban areas. However, labour force participation rate in urban areas increased from 46.0 percent in 2010 to 46.9 percent in 2000.

Figure 6.8 shows labour force participation rate for the population 12 years and older by age group and sex in 2000 and 2010. The labour force participation rate reduced in the younger ages for both males and females between 2000 and 2010.

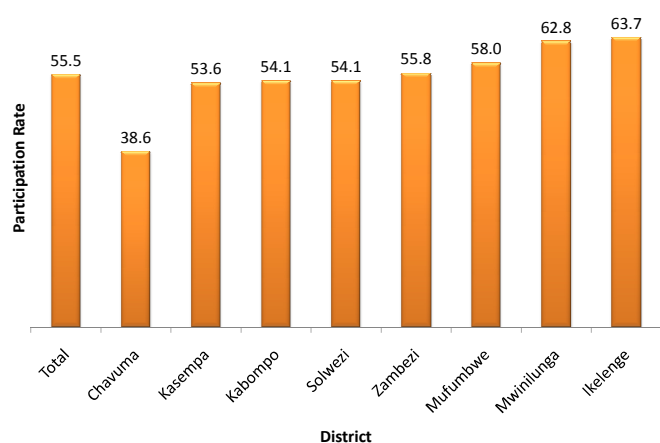
Figure 6.8: Labour Force Participation Rate for Population (12 Years and Older) by Age Group and Sex, North Western Province, 2000 and 2010



Source: 2000 and 2010 Census of Population and Housing

Figure 6.9 shows the labour force participation rates for the population 12 years and older by district. Ikelenge District had the highest labour force participation rate (63.7 percent) while Chavuma District had the lowest (38.6 percent).

Figure 6.9: Labour Force Participation Rates for the Population 12 years and older by District, North Western Province 2010



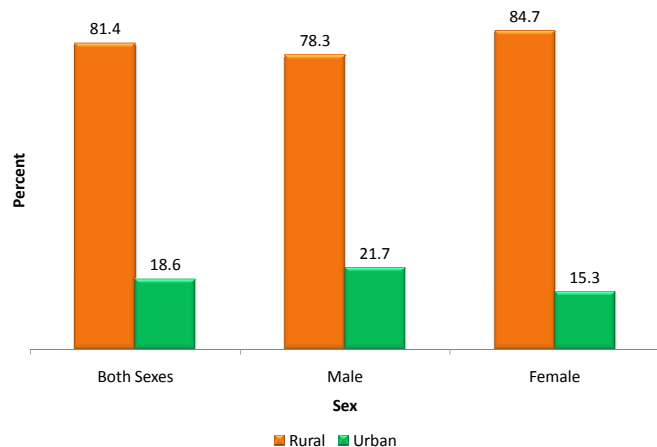
Source: 2010 Census of Population and Housing

6.6 Employed Population

Employment in Zambia is measured as a percent of the Labour force. In the 2010 census, it made up those who reported to be working or on leave during the reference period (seven days prior to the census night). Out of 219,767 persons in the labour force in North Western Province, 197,179 persons were employed, representing 89.7 percent of the labour force. Out of the employed population, 51.6 percent were male and 48.4 percent were female.

Figure 6.10 shows the percentage share of employed population by sex and rural/urban. The results show that there were more employed persons in rural areas (81.4 percent) than in urban areas (18.6 percent). In rural areas, female employment accounted for 84.7 percent while male employment was at 78.3 percent. In urban areas, there was higher male employment (21.7 percent) than female employment (15.3 percent).

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



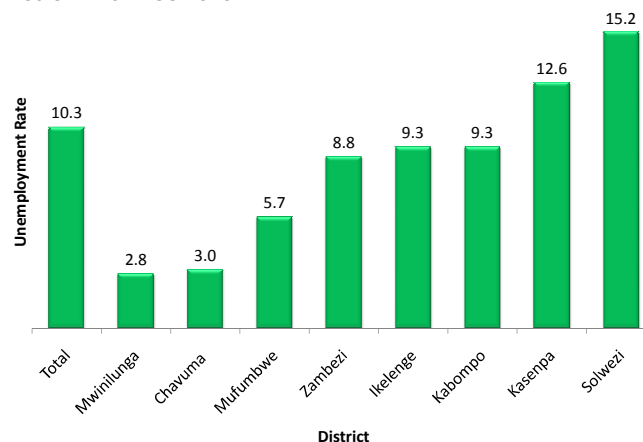
Source: 2010 Census of Population and Housing

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 North Western Province for the population 12 years and older by district. Of the 219,767 persons in the labour force, 22,588 (10.3 percent) were unemployed. Solwezi District had the highest unemployment rate at 15.2 percent and Mwinilunga District had the lowest unemployment rate at 2.8 percent.

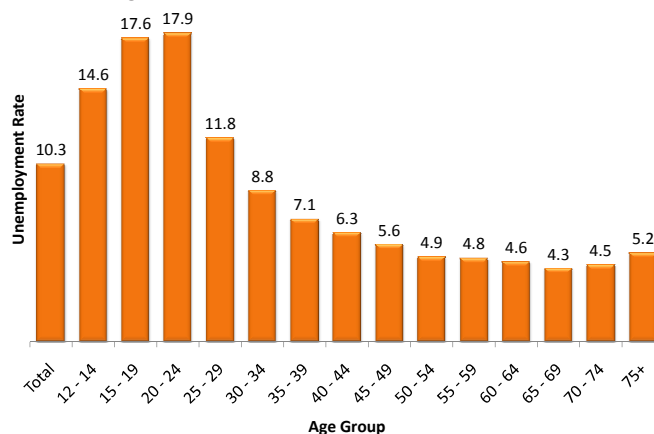
Figure 6.11: Unemployment Rate by Age Group and Sex, North Western Province 2010



Source: 2010 Census of Population and Housing

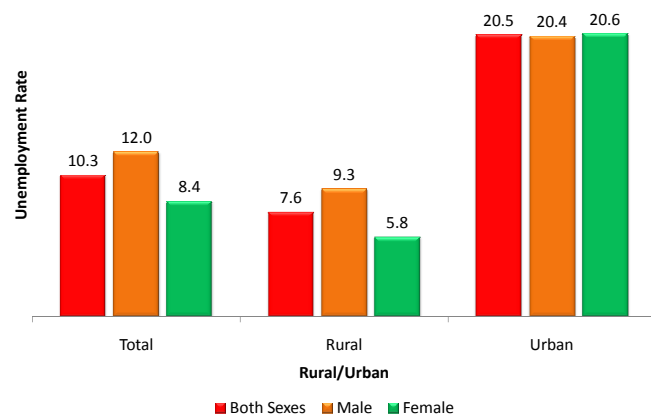
Figure 6.12 shows unemployment rate of the population (12 years and older) by age group. The highest unemployment rate was in the age group 20-24 years at 17.9 percent followed by the age group 15-19 years at 17.6 percent. The lowest unemployment rate was in the age group 65-69 years at 4.3 percent.

Figure 6.12: Unemployment Rate of Population (12 Years and Older) by Age Group, North 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. The unemployment rate for North Western Province was 12.0 percent for males and 8.4 percent for females. Unemployment was higher in urban areas (20.5 percent) than in rural areas (7.6 percent). In rural areas, males recorded a higher unemployment rate (9.3 percent) than females (5.8 percent). In urban areas, females recorded higher unemployment rate (20.6 percent) than males (20.4 percent).

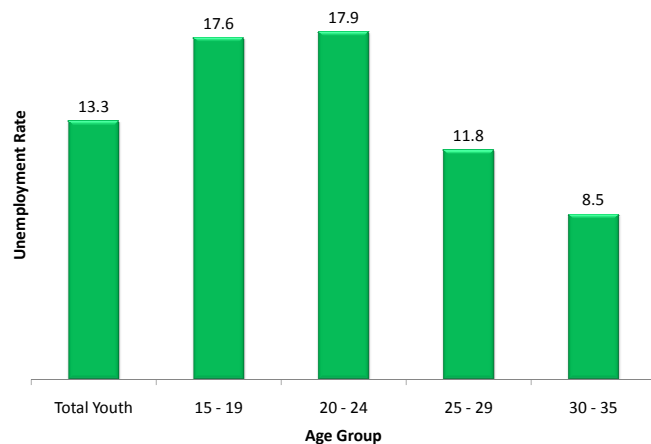
Figure 6.13: Unemployment rate of Population (12 Years and Older) by Sex and Rural/Urban, North Western Province 2010

Source: 2010 Census of Population and Housing

6.7.1 Youth Unemployment

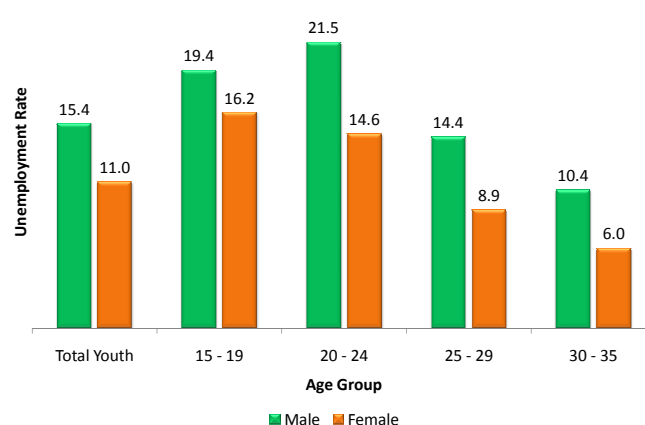
The national youth policy defines a youth as any person aged 15-35 years. In this chapter, this age group has been used to analyse youth unemployment. The youth population in the labour force was 124,922 representing 56.8 percent of the total labour force. Of these, 51.3 percent were male while 48.7 percent were female. Rural areas comprised 77.1 percent and 22.9 percent were in urban areas.

The youth unemployment rate by age group is shown in figure 6.14. Out of the 124,922 youths in the labour force, 13.3 percent were unemployed. The highest youth unemployment rate was in the age group 20-24 years at 17.9 percent while the lowest rate was for youth population in the age group 30-35 years at 8.5 percent.

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

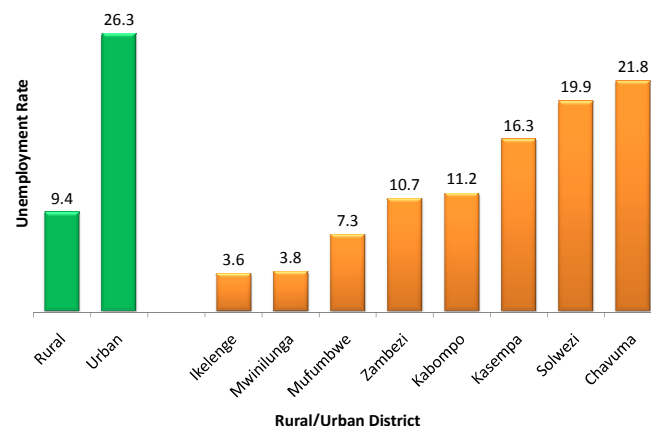
Source: 2010 Census of Population and Housing

Figure 6.15 shows the youth unemployment rate by age group and sex. Overall, unemployment rates for male youths were higher in all age groups. The total youth unemployment rate among males was 15.4 percent compared to that of females at 11.0 percent. The age group with the highest disparity between males and females was 20-24 years with 21.5 percent for males and 14.6 percent for females.

Figure 6.15: Youth Unemployment Rate by Age Group and Sex, North 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 (26.3 percent) than in rural areas (9.4 percent). Chavuma District had the highest youth unemployment rate of 21.8 percent and Ikelenge had the lowest rate at 3.6 percent.

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

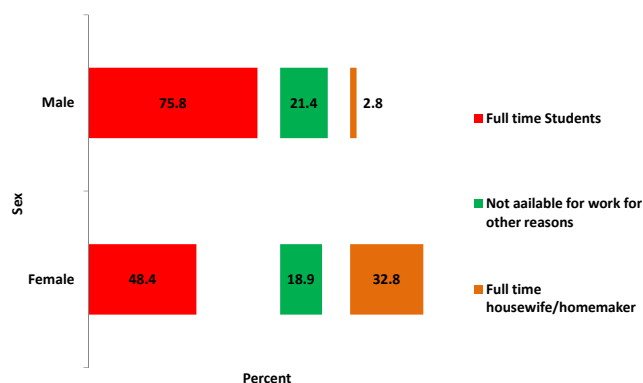
Source: 2010 Census of Population and Housing

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 was that of full time students at 75.8 and 48.4 percent, respectively. Among females, full time home maker/housewife constituted 32.8 percent of the economically inactive population.

Figure 6.17: Percentage Distribution of the Economically Inactive Population by Reason of Inactivity, North Western Province 2010



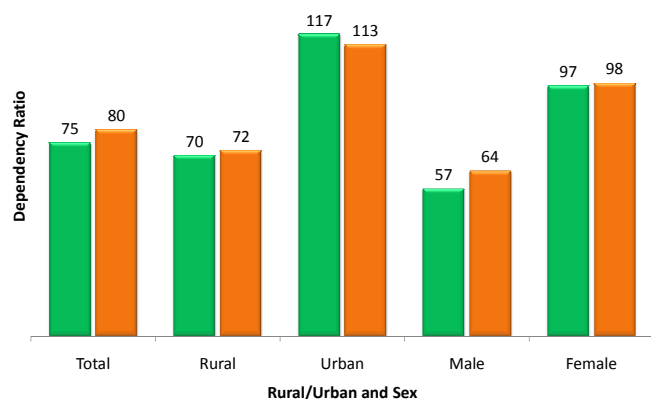
Source: 2010 Census of Population and Housing

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 75 persons in 2000 to 80 persons in 2010. This means that the number of the inactive people that depended on the economically active people increased by five (5). The economic dependency ratio for males increased from 57 persons in 2000 to 64 persons in 2010 while that of females increased from 97 persons in 2000 to 98 persons in 2010. The economic dependency ratio for urban areas decreased from 117 persons in 2000 to 113 persons in 2010 while in rural areas the economic dependency ratio increased from 70 persons in 2000 to 72 persons in 2010.

Figure 6.18: Economic Dependency Ratio by Sex and Rural/Urban, North Western Province 2010.



Source: 2010 Census of Population and Housing

6.10 Employment Status, Occupation and Industrial Classification

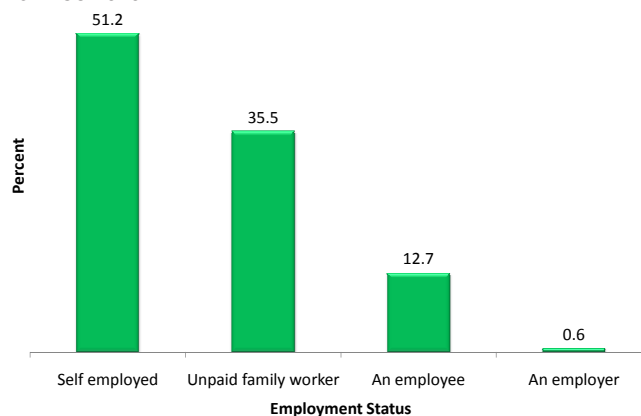
The employment status, occupational and industrial structure of a country's workforce reflects the level of its economic development and the efficiency with which it uses and allocates its resources. The analysis that follows is based on the usually working population, (i.e. those that were working in 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 majority of the usually working population was self-employed at 51.2 percent, followed by unpaid family workers at 35.5 percent. The lowest proportion was for employers with 0.6 percent.

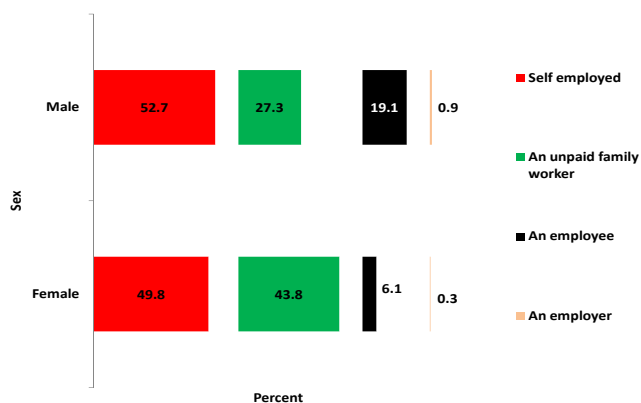
Figure 6.19: Percentage Distribution of Usually Working Population (12 Years and Older) by Employment Status, North Western Province 2010



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 52.7 percent of males were self-employed, followed by Unpaid family workers at 27.3 percent. The highest proportion for females was Self-employed at 49.8 percent followed by unpaid family workers at 43.8 percent.

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



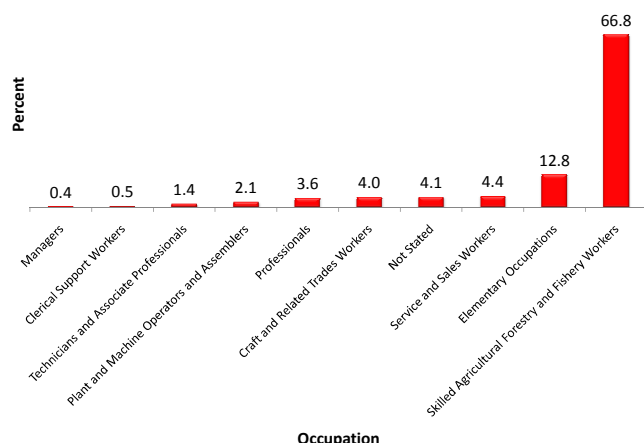
Source: 2010 Census of Population and Housing

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 66.8 percent, followed by the Elementary occupations at 12.8 percent. Managers accounted for the lowest proportion (0.4 percent) of the total working age population.

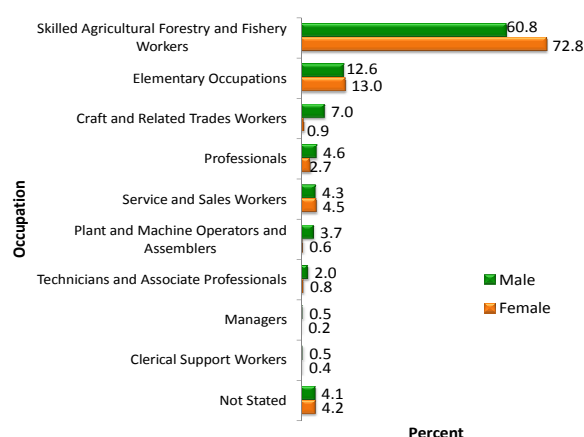
Figure 6.21: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation, North Western Province 2010



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 highest percentage of working population for both male and female was Skilled agriculture, forestry and fishing, 60.8 and 72.8 percent, respectively.

Figure 6.22: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation and Sex, North 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 highest proportion of the usually working population in rural areas was in the Skilled agriculture, forestry and fishing occupation (74.9 percent), followed by Elementary occupations (13.9 percent).

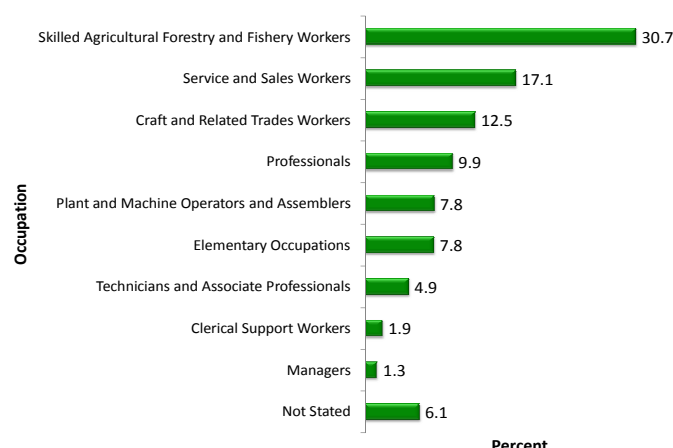
Figure 6.23: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation, Rural North Western Province 2010



Source: 2010 Census of Population and Housing

In urban areas the highest proportion of the usually working population was Skilled agriculture forestry and fishery workers (30.7 percent), followed by the Services and sales occupation (17.1 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, North Western Province 2010



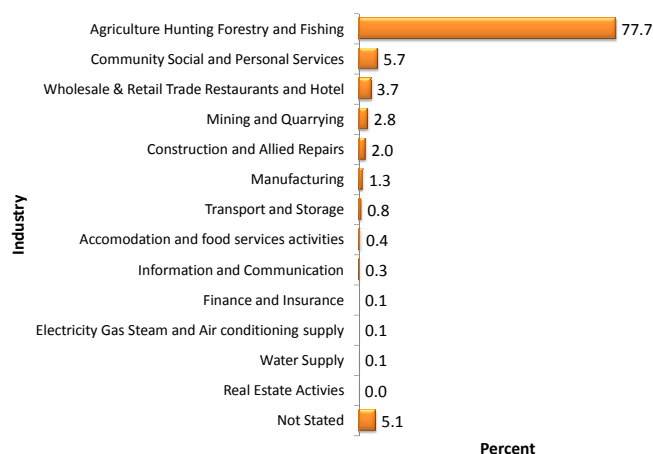
Source: 2010 Census of Population and Housing

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 77.7 percent of the usually working population. Other industries with a fair share of the usually working population were Community, social and personal services and Wholesale and retail trade with 5.7 and 3.7 percent, respectively.

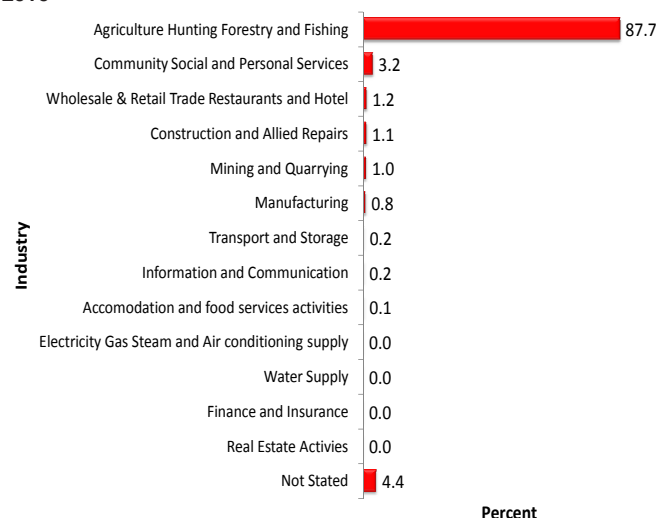
Figure 6.25: Percentage Distribution of Usually Working Population (12 Years and Older) by Industry, North Western Province 2010



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 87.7 percent of the usually working population in rural areas. Community, Social and personal services; Wholesale and retail trade; Mining and Quarrying, and Construction collectively accounted for 6.5 percent.

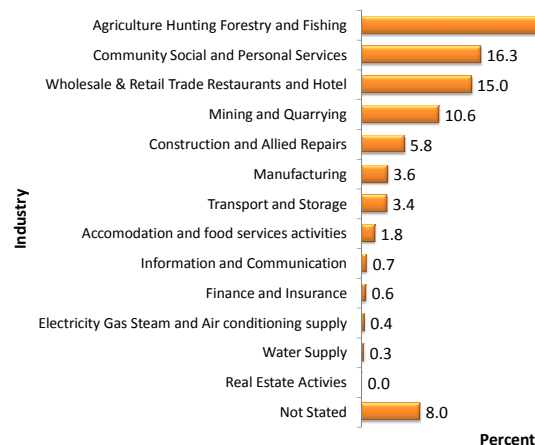
Figure 6.26: Percentage Distribution of Usually Working Population (12 Years and Older) by Industry, North Western Province Rural 2010



Source: 2010 Census of Population and Housing

In urban areas, Agriculture, hunting, forestry and fishing accounted for 33.4 percent of the usually working population followed by Community social and personal services at 16.3 percent. Wholesale and retail trade accounted for 15.0 percent and Mining and Quarrying accounted for 10.6 percent.

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



Source: 2010 Census of Population and Housing

CHAPTER 7: FERTILITY CHARACTERISTICS

7.0 Summary

The Total Fertility Rate (TFR) for North Western Province was 6.8. The TFR in rural areas was 7.4 and 5.0 in urban areas. Mwinilunga and Mufumbwe districts recorded the highest TFR at 7.6 each and Chavuma had the lowest at 5.9.

The Crude Birth Rate (CBR) in 2010 was 38 live births per 1000 mid-year population. Rural areas had a higher CBR of 40 compared to urban areas at 32 live births per 1000 mid-year population.

The Child Woman Ratio (CWR) for North Western Province in 2010 was 870 children (0-4 years) per 1000 women. The CWR for rural areas was 931 compared with 694 in urban areas.

The General Fertility Rate was recorded at 170. Rural areas had a GFR of 184 and urban areas had 127.

The completed family size was 6.0 children, 6.1 and 5.7 for rural and urban areas, respectively.

The Gross Reproduction Rate (GRR) was 2.4. The GRR for rural and urban areas were 2.9 and 2.0, respectively.

The Net Reproduction Rate (NRR) was recorded at 1.9. The NRR for rural and urban areas were 2.3 and 1.5 respectively.

The mean age at child bearing (MACB) for the year 2010 was 29.5 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 on the 2010 Census of Population and Housing. The interviewer 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

The following concepts have been used in the analysis of fertility in this chapter.

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 years 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 pp27).

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).

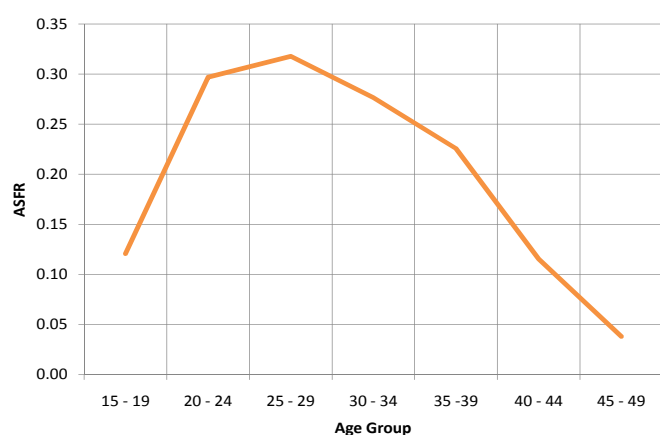
The 2010 Census therefore applied the P/F Ratio Technique, which uses children ever born data to adjust fertility data for underreporting in number of births that occurred in the last 12 months prior to the census (Arriaga et al 2005). The P/F Ratio Technique is based on cumulating fertility (represented 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 Rate by age group for North Western Province. The age group with the highest ASFR in 2010 was 25-29 years. This was followed by the age group 20-24 years (See details in appendix Table E1).

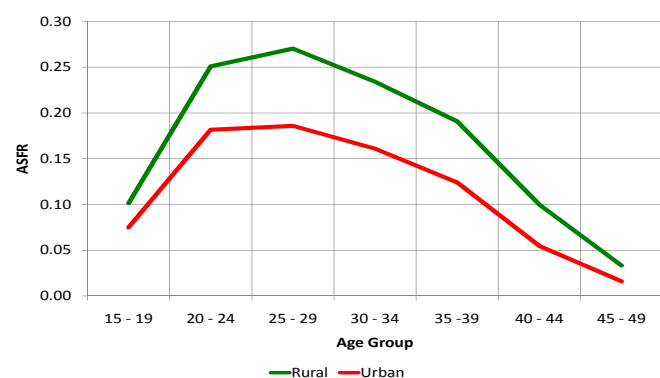
Figure 7.1: Adjusted Age Specific Fertility Rate by Age Group, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 7.2 shows the Adjusted Age Specific Fertility Rate by rural/urban. Results show that child bearing starts early in rural areas compared to urban areas. The peak for child bearing for both rural and urban areas was in the 25-29 age group.

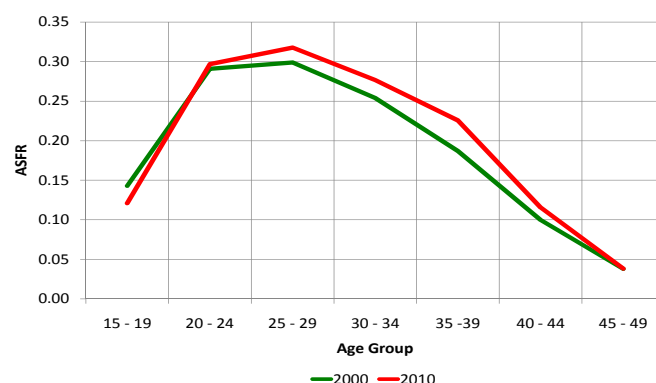
Figure 7.2: Adjusted Age Specific Fertility Rates by Age Group and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 7.3 shows trends in the adjusted ASFR for North 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: Trends in Adjusted Age Specific Fertility Rates by Age Group, North Western Province 2000 and 2010

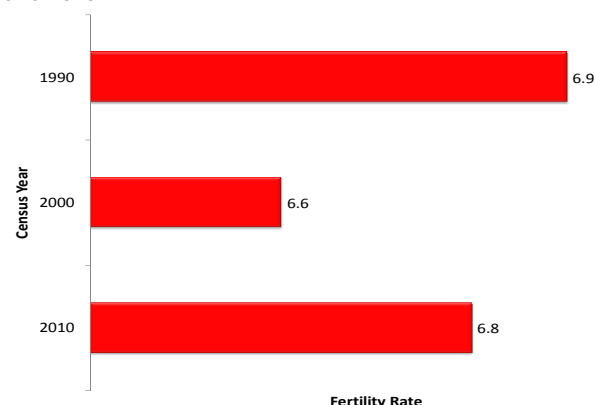


Source: 2000 and 2010 Censuses of Population and Housing

7.5.2. Total Fertility Rate (TFR)

Figure 7.4 shows trends in Total Fertility Rate (TFR) in North Western Province from 1990 to 2010. The results show that, between 1990 and 2000, the TFR declined from 6.9 to 6.6 and increased to 6.8 in 2010.

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

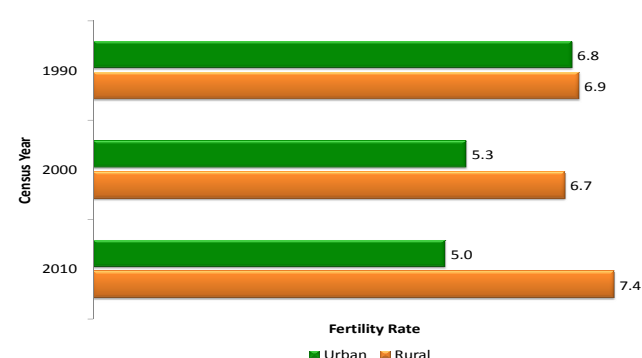


Source: 1990, 2000 and 2010 Censuses of Population and Housing

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, TFR for rural areas in North Western Province declined from 6.9 in 1990 to 6.7 in 2000 and increased to 7.4 in 2010. Further, the TFR in urban areas declined from 5.3 in 2000 to 5.0 in 2010.

Figure 7.5 Trends in Total Fertility Rate by Rural/Urban, North Western Province 1990, 2000 and 2010

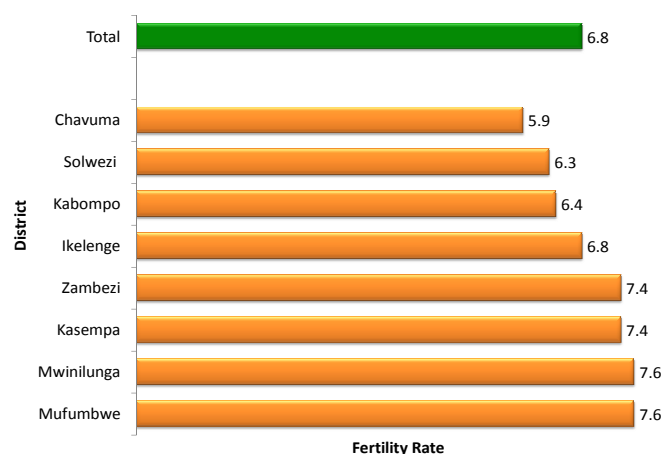


Source: 1990, 2000 and 2010 Censuses of Population and Housing

7.5.2.2 Total Fertility Rate by District

Figure 7.6 shows total fertility rate by district. Chavuma District had the lowest TFR in 2010 at 5.9 and Mufumbwe and Mwinilunga Districts had the highest at 7.6 each.

Figure 7.6: Total Fertility Rates by District, North Western Province 2010

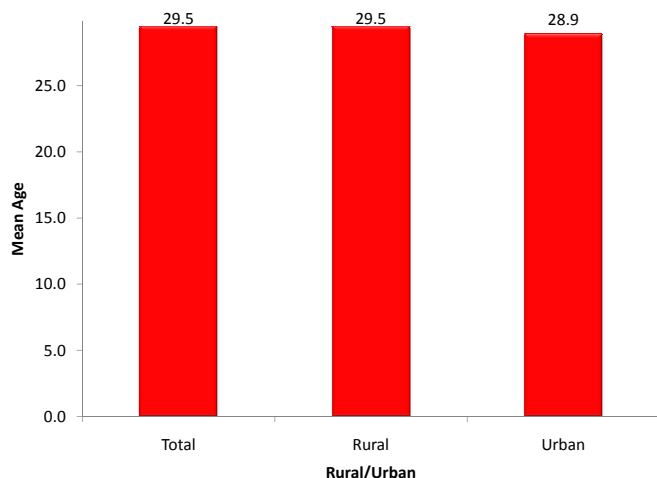


Source: 2010 Census of Population and Housing

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 North Western Province was 29.5 years. There was minimal difference in the MACB between rural (29.5) and urban areas (28.9).

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

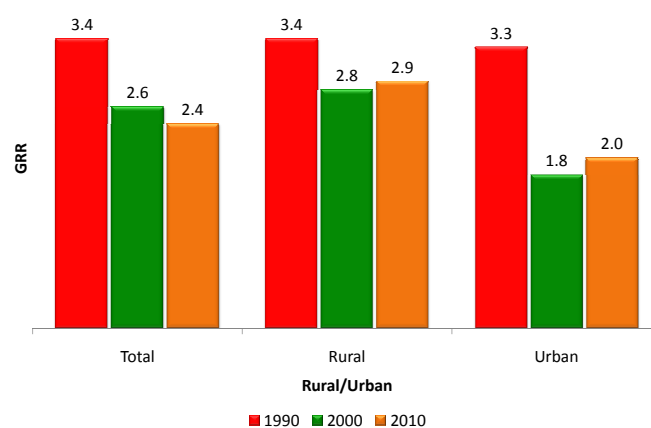


Source: 2010 Census of Population and Housing

7.5.4 Gross Reproduction Rate (GRR)

Figure 7.8 shows trends in the Gross Reproduction Rate by rural/urban in 1990, 2000 and 2010. The GRR declined from 3.4 in 1990 to 2.4 in 2010. The GRR was higher in rural areas at 2.9 compared to 2.0 in urban areas in 2010.

Figure 7.8: Trends in Gross Reproduction Rate by Rural/Urban, North Western Province 1990, 2000 and 2010

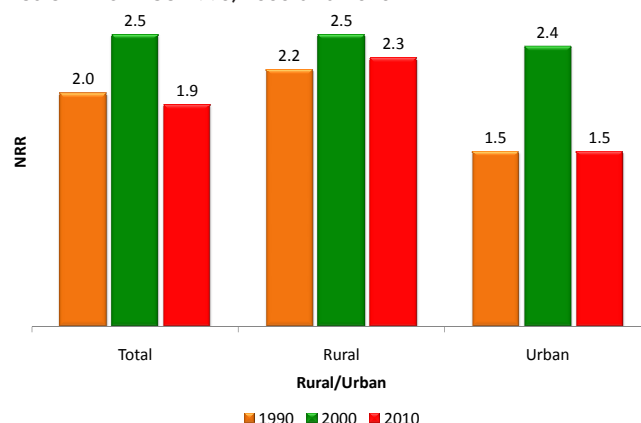


Source: 1990, 2000 and 2010 Censuses of Population and Housing

7.5.5 Net Reproduction Rates (NRR)

Figure 7.9 shows trends in the Net Reproduction Rate by rural/urban in 1990, 2000 and 2010. The NRR increased from 2.0 in 1990 to 2.5 in 2000 and declined to 1.9 in 2010. The NRR was higher in rural areas at 2.3 compared to 1.5 in urban areas in 2010.

Figure 7.9: Trends in Net Reproduction Rate by Rural/Urban, North Western Province 1990, 2000 and 2010



Source: 1990, 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. 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 38 live births per 1000 mid-year population, while the CWR was at 870 births per 1000 women. Other indicators such as the GFR and CFS were at 170 and 6.0, respectively.

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

Rural/Urban and District	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)
Total	6.8	6.0	38	870	170	2.4	1.9
Rural	7.4	6.1	40	931	184	2.9	2.3
Urban	5.0	5.7	32	694	127	2.0	1.5
District							
Chavuma	6.0	3.9	28	885	128	2.0	1.7
Ikelenge	6.9	5.5	35	872	161	2.5	2.2
Kabompo	6.4	5.3	33	842	148	2.3	1.9
Kasempa	7.4	7.0	40	915	181	2.8	2.3
Mufumbwe	7.6	6.7	42	938	192	3.0	2.5
Mwinilunga	7.6	6.4	40	926	185	3.0	2.4
Solwezi	6.3	6.2	38	827	163	2.5	1.8
Zambezi	7.4	5.8	43	878	195	3.1	2.5

Source: 2010 Census of Population and Housing

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

The section below presents results on the fertility levels by various background characteristics of women. These characteristics include religious affiliation, education level, 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 women with no religious affiliation at 7.6, followed by Protestant women at 6.8. Hindu women had the least Total Fertility Rate at 2.4.

Table 7.2: Total Fertility Rates by Religious Affiliation of Women Aged 15-49 years and District, North Western Province 2010

District	All Women	Religious Affiliation of Women (15-49 years)					
		Catholics	Protestants	Muslims	Hindus	Other	None
Total	6.8	6.7	6.8	6.4	2.4	6.5	7.6
Chavuma	6.0	6.0	6.0	0.9	2.0	4.7	5.9
Ikelenge	6.9	6.4	7.1			5.0	7.3
Kabompo	6.4	6.5	6.5	1.9		5.9	5.5
Kasempa	7.4	7.2	7.5		-	5.9	5.9
Mufumbwe	7.6	8.4	7.5	12.3		9.9	8.4
Mwinilunga	7.6	7.2	7.7	2.7	2.0	7.0	8.5
Solwezi	6.3	6.1	6.3	8.0	0.4	6.4	6.7
Zambezi	7.4	7.1	7.5	11.4	-	4.8	11.5

Source: 2010 Census of Population and Housing

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 (8.0), followed by women with no education (7.2). Women with tertiary education had the lowest total fertility rate at 3.0.

Table 7.3: Total Fertility Rate by Education Attainment of Women Aged 15-49 years and District, North Western Province 2010

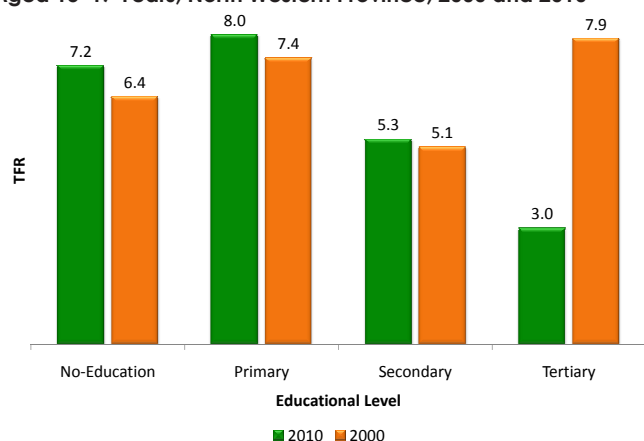
District	All women	Education Level Attainment (15-49 years)			
		No education	Primary	Secondary	Tertiary
Total	6.8	7.2	8.0	5.3	3.0
Chavuma	6.0	5.8	7.8	3.9	3.5
Ikelenge	6.9	6.6	7.5	5.4	2.3
Kabompo	6.4	6.4	7.3	5.0	2.8
Kasempa	7.4	7.1	8.6	5.4	4.4
Mufumbwe	7.6	7.6	8.5	6.4	3.7
Mwinilunga	7.6	7.8	8.2	5.7	2.9
Solwezi	6.3	7.1	7.8	5.1	2.9
Zambezi	7.4	8.1	8.0	5.9	3.4

Source: 2010 Census of Population and Housing

Figure 7.10 shows trends in TFR by women's education attainment for the years 2000 and 2010 censuses. The results show that women with tertiary education had the highest Total

Fertility Rate in 2000, while the highest total fertility rate was among women with primary education in 2010. Between 2000 and 2010, the TFR declined from 7.9 to 3.0.

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



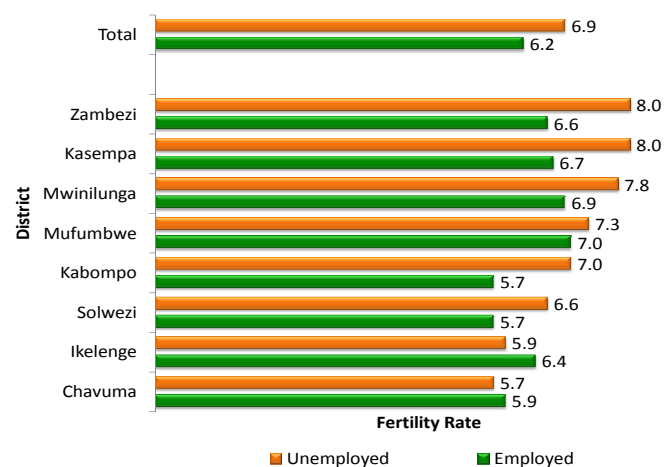
Source: 2000 and 2010 Censuses of Population and Housing

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

Figure 7.11 shows the Total Fertility Rate by employment status of women aged 15-49 years and district. The Total Fertility Rate was higher among the unemployed women (6.9) compared to

that of the employed women (6.2). A similar pattern is observed across most districts except for Ikelenge and Chavuma Districts where the TFR is higher among the employed women aged 15-49 years when compared to the unemployed women aged 15-49 years.

Figure 7.11: Total Fertility Rates by Employment Status of Women Aged 15-49 years and District, North 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 103.0 deaths per 1000 live births in 1990 to 83.0 deaths per 1,000 live births in 2000 and declined further to 57.9 deaths per 1000 live births in 2010.

The child mortality rate (CMR) declined from 75.0 deaths per 1000 live births in 1990 to 56.0 deaths per 1000 live births in 2000 and declined further to 41.1 deaths per 1000 live births in 2010.

The under-5 mortality rate (U5MR) declined from 164.0 deaths per 1000 live births in 1990 to 135.0 deaths per 1000 live births in 2000 and declined further to 99.0 deaths per 1000 live births in 2010.

Chapter 8

Childhood Mortality



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 in some provinces of Zambia. 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 in some provinces of Zambia.

8.2 Concepts and definitions

The following concepts and definitions have been used in this analysis:

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

Age Specific Death Rates (ASDR): refer 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) 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) 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 (UMR): usually denoted by the life table notation (5q0) refers to the number of deaths among children aged below the age of five per 1,000 live births occurring during a specified reference period, in this case taken to be one year prior to the census. UMR 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 month period prior to the census.

8.4 Childhood Mortality Data Evaluation and Estimation Procedure

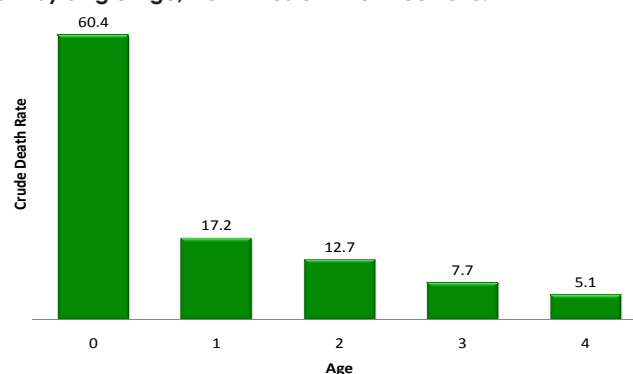
It is well known that the proportions of children ever born who have died are indicators of child mortality and can yield robust estimates of childhood mortality (UN, 1983). However, it is equally well known that children ever born data sometimes suffers from under reporting of dead children, especially 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 CDR presented in Figure 8.1 shows that childhood mortality was higher among infants with 60.4 deaths per 1000 population aged less than one year. The observed CDR declined with increasing age of the child, reaching the level of 5.1 deaths per 1000 population at age four.

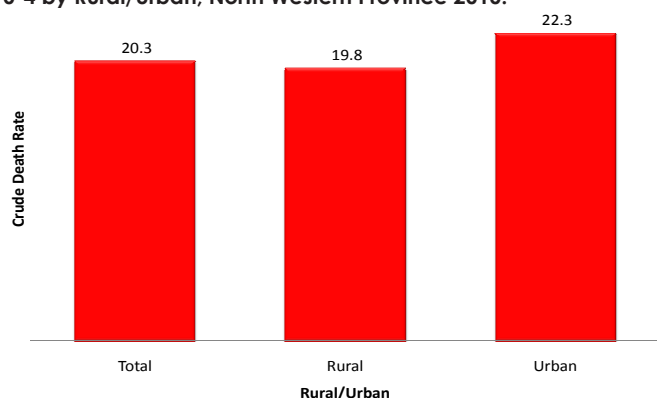
Figure 8.1: Observed Crude Death Rate per 1000 Population aged 0-4 by Single Age, North Western Province 2010.



Source: 2010 Census of Population and Housing

Figure 8.2 shows observed crude death rate for the population aged 0-4 years by rural/urban. The observed crude death rate was higher in urban areas at 22.3 deaths per 1,000 population aged 0-4 years compared to 19.8 deaths per 1,000 population aged 0-4 years in rural areas.

Figure 8.2: Observed Crude Death Rate per 1000 Population aged 0-4 by Rural/Urban, North 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 deaths rate presented in the 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 60, a child mortality rate of 43 and an under five mortality rate of 103 at provincial level.

Similarly, the information in the table approximates the infant mortality rate of 59 for rural areas and 66 for urban areas, a child mortality rate of 42 for rural areas and 45 for urban areas and an under five mortality rate of 111 for urban areas and 101 for rural areas.

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

Age	Total			Rural			Urban		
	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females
0	0.060	0.063	0.057	0.059	0.063	0.055	0.066	0.067	0.066
1	0.017	0.019	0.015	0.016	0.018	0.014	0.021	0.025	0.017
2	0.013	0.015	0.011	0.013	0.015	0.011	0.012	0.012	0.011
3	0.008	0.009	0.007	0.008	0.009	0.007	0.007	0.008	0.006
4	0.005	0.006	0.005	0.005	0.006	0.004	0.005	0.005	0.005

Source: 2010 Census of Population and Housing

Direct estimation procedures were used to generate child hood mortality indicators. These indicators were extracted from the empirical life tables 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 North Western Province for the period 12 months prior to the census. In 2010, the IMR was 57.9 deaths per 1000 live births. In rural areas the IMR was 56.4 deaths per 1000 live births and 63.5 deaths per 1000 live births in urban areas. Estimated IMR was higher for male children than female children in both urban and rural areas.

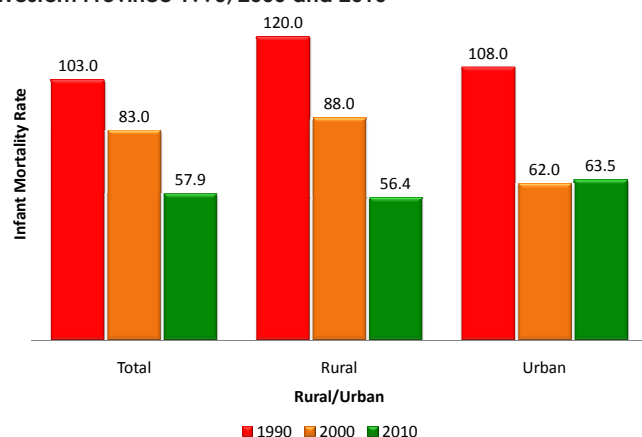
Table 8.2: Infant Mortality Rate (IMR) by Sex and Rural/Urban, North Western Province 2010

Rural/Urban	Both Sexes	Males	Females
Total	57.9	60.7	55.1
Rural	56.4	59.9	52.9
Urban	63.5	63.8	63.2

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 103.0 deaths per 1,000 live births in 1990 to 57.9 deaths per 1,000 live births in 2010.

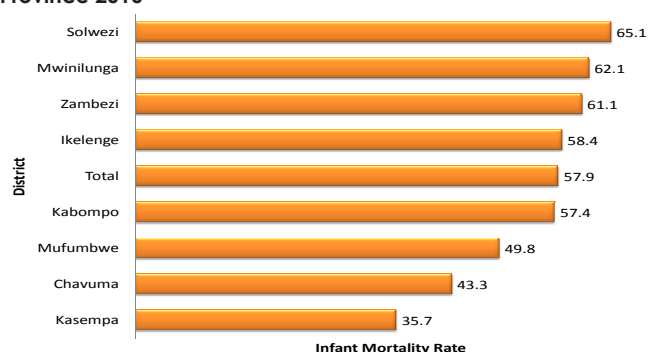
Figure 8.3: Infant Mortality Rate (IMR) by Rural/Urban, North Western Province 1990, 2000 and 2010



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

Infant mortality rate (IMRs) by district is presented in Figure 8.4. Solwezi, Mwinilunga, Zambezi and Ikelenge districts had infant mortality rates above the provincial average of 57.9 infant deaths per 1,000 live births in 2010. The highest Infant mortality rate was in Solwezi District at 65.1 infant deaths per 1000 live births while the lowest was in Kasempa District at 35.7 infant deaths per 1,000 live births.

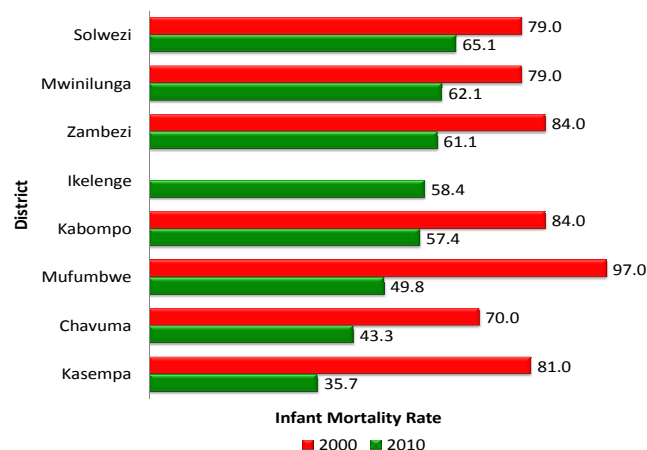
Figure 8.4: Infant Mortality Rate (IMR) by District, North Western Province 2010



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 Mufumbwe District from 97.0 deaths per 1,000 live births in 2000 to 49.8 deaths per 1,000 live births in 2010.

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



Source: 2000 and 2010 Censuses of Population and Housing
Note: Ikelenge was not declared a district at the time 2010 Census

8.6 Child Mortality Rate

Table 8.3 shows Child Mortality Rate (CMR) by sex and rural/urban in 2010. The CMR for North Western Province was 41.1 deaths per 1,000 live births. In rural areas, the CMR was 40.4 deaths per 1,000 live births and 43.8 deaths per 1,000 live births in urban areas. The CMR was higher for male than female children in both rural and urban areas.

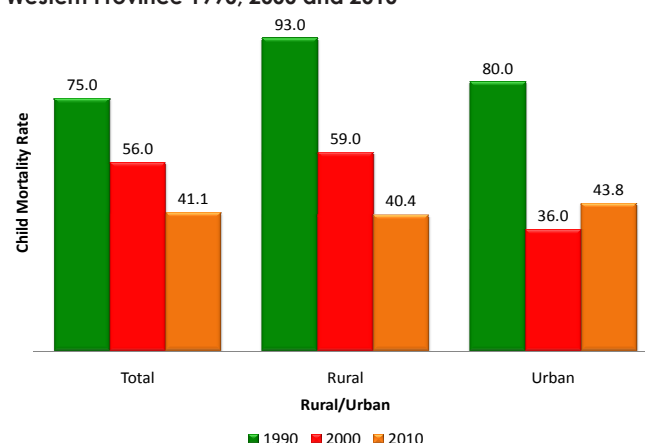
Table 8.3: Child Mortality Rate by Sex and Rural/Urban, North Western Province 2010

Rural/Urban	Both Sexes	Males	Females
Total	41.1	46.4	35.7
Rural	40.4	45.8	34.9
Urban	43.8	49.0	38.7

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 North Western Province as depicted by declining child mortality rate in rural and urban areas during the two inter-censal periods. Child mortality rate declined in rural areas from 93.0 deaths per 1,000 live births in 1990 to 40.4 deaths per 1,000 live births in 2010. Similarly, child mortality rate declined in urban areas from 80.0 deaths per 1,000 live births in 1990 to 43.8 deaths per 1,000 live births in 2010.

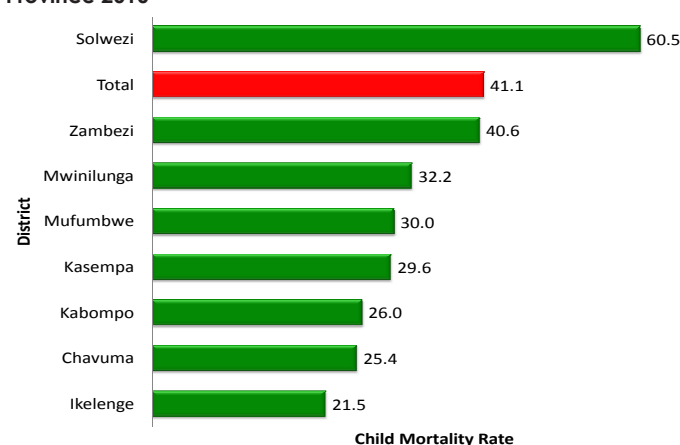
Figure 8.6: Child Mortality Rates (CMR) by Rural/Urban, North Western Province 1990, 2000 and 2010



Source: 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 Solwezi District was above the provincial average of 41.1 deaths per 1,000 live births. Solwezi District had the highest child mortality rate at 60.5 deaths per 1,000 live births while Ikelenge District had the lowest child mortality rate at 21.5 deaths per 1,000 live births.

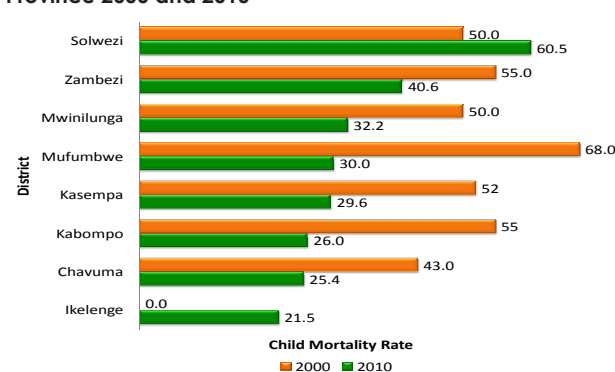
Figure 8.7: Child Mortality Rate (CMR) by District, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 8.8 shows child mortality rate by district in 2000 and 2010. Information presented in the figure shows that Child mortality declined in most districts except for Solwezi District which recorded an increase. However, Mufumbwe District had the highest decline in child mortality rate during the inter-censal period from 68.0 deaths per 1,000 live births in 2000 to 30.0 deaths per 1,000 live births in 2010.

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



Source: 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 North Western Province was 99.0 deaths per 1,000 live births. The U5MR in rural areas was 96.8 deaths per 1,000 live births and 107.3 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.

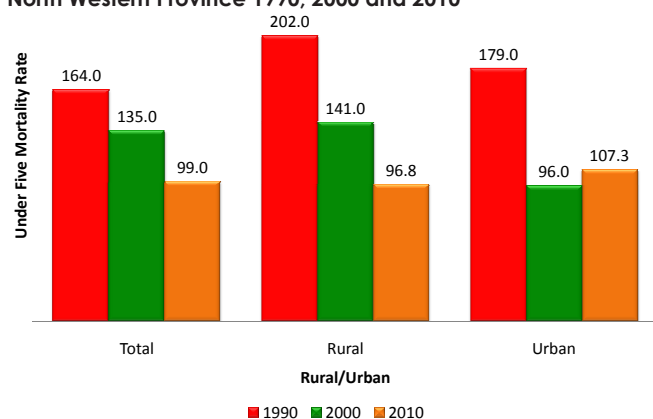
Rural/Urban	Both Sexes	Males	Females
Total	99.0	107.2	90.8
Rural	96.8	105.7	87.8
Urban	107.3	112.8	101.9

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 164.0 deaths per 1,000 live births in 1990 to 135.0 deaths per 1,000 live births in 2000. In 2010 the under-five mortality rate further declined to 99.0 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 202.0 deaths per 1,000 live births in 1990 to 96.8 deaths per 1,000 live births in 2010. A decline was also observed in urban areas from 179.0 deaths per 1,000 live births in 1990 to 107.3 deaths per 1,000 live births in 2010.

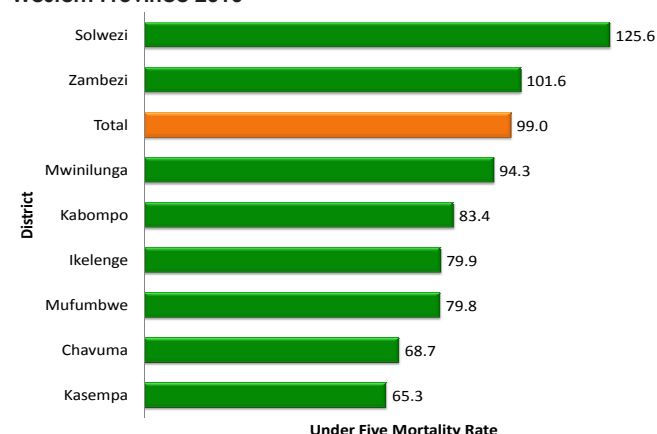
Figure 8.9: Levels in Under five Mortality Rate (U5MRs) by Region, North Western Province 1990, 2000 and 2010



Source: 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. Solwezi and Zambezi districts had Under five Mortality Rate above the provincial average of 99.0 deaths per 1,000 live births while the other six districts were below the provincial average. Under five Mortality Rate was lowest in Kasempa District at 65.3 deaths per 1,000 live births.

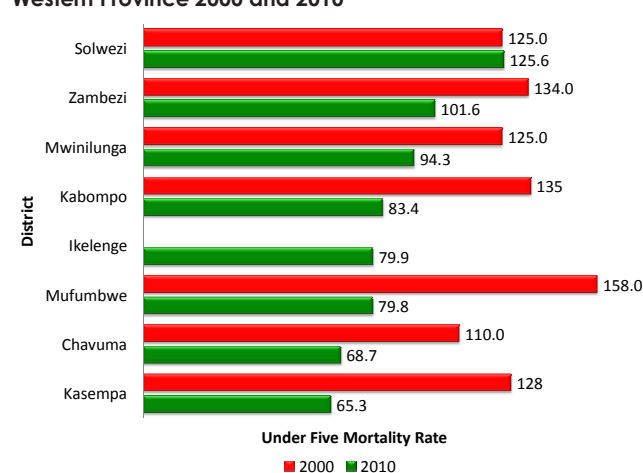
Figure 8.10: Under Five Mortality Rate (U5MR) by District, North Western Province 2010



Source: 2010 Censuses of Population and Housing

Figure 8.11 shows Under five mortality rate by district in 2000 and 2010. Mufumbwe District had the highest decline in Under Five Mortality Rate during the inter-censal period 2000-2010 from 158.0 deaths per 1,000 live births to 79.8 deaths per 1,000 live births, respectively.

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



Source: 2000 and 2010 Censuses of Population and Housing
Note: Ikkelenge was not declared a district at the time 2010 Census

CHAPTER 9

GENERAL AND MATERNAL MORTALITY CHARACTERISTICS

9.0 Summary

The Crude Death Rate (CDR) in 2010 was 9.1 deaths per 1,000 population; 11.6 deaths per 1,000 population for males and 10.3 deaths per 1,000 population for females. Rural areas had a lower CDR at 10.4 deaths compared to 12.6 deaths per 1,000 population for urban areas.

The age group with the highest percentage of reported adult deaths was the age groups 25-29 for both sexes. For ages below 39 years, the percentages of the reported adult deaths were higher among females than males.

The life expectancy at birth was 53.6 years, 55.2 years in rural areas and 48.9 years in urban areas. Females had a higher life expectancy at birth of 54.8 years compared to 52.4 years for males.

The most common cause of death was illness/disease accounting for 69.7 percent of all reported causes.

Chapter 9

General and Maternal 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 (e_0): 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.

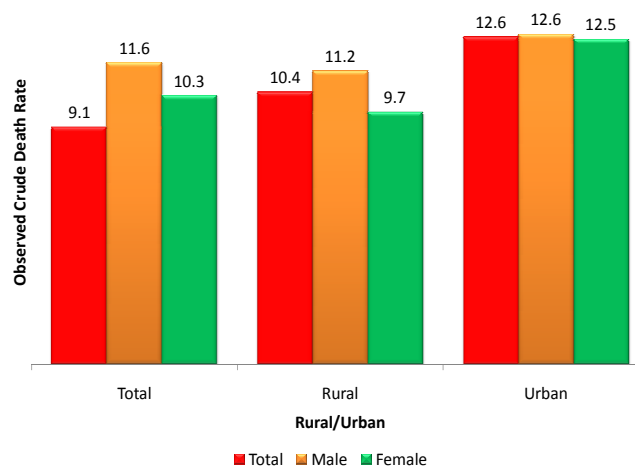
9.4 General Mortality

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 North Western Province by sex and rural/urban. The Crude Death Rate was 9.1 deaths per 1,000 population; 11.6 deaths per 1,000 males and 10.3 deaths per 1,000 females. Overall, males had higher mortality than females in both rural and urban areas. The CDR was higher in urban areas, 12.6 deaths per 1,000 population than 10.4 deaths per 1,000 population in rural areas.

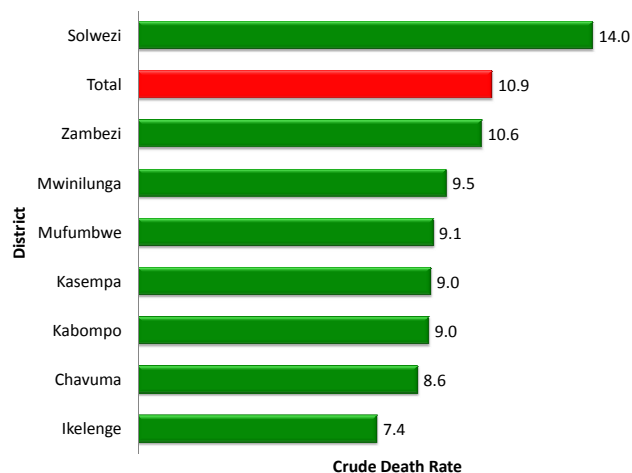
Figure 9.1: Observed Crude Death Rate (CDR) per 1,000 Population by Sex and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 9.2 shows Crude Death Rate by district. The figure shows Solwezi District had Crude Deaths Rate above the provincial average of 10.9 deaths per 1,000 population.

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



Source: 2010 Census of Population and Housing

The highest Crude Death Rate was in Solwezi District at 14.0 deaths per 1,000 population and the lowest was in Ikelenge District at 7.4 deaths per 1,000 population.

Table 9.1 shows the Observed Crude Death Rate by sex and district. In all the districts, the Observed Crude Death Rate was higher for males than females except for Mufumbwe District.

District	Male	Female
Chavuma	9.8	7.5
Ikelenge	7.8	7.0
Kabompo	9.9	8.1
Kasempa	10.0	8.1
Mufumbwe	8.5	9.7
Mwinilunga	10.3	8.8
Solwezi	14.5	13.6
Zambezi	11.5	9.8

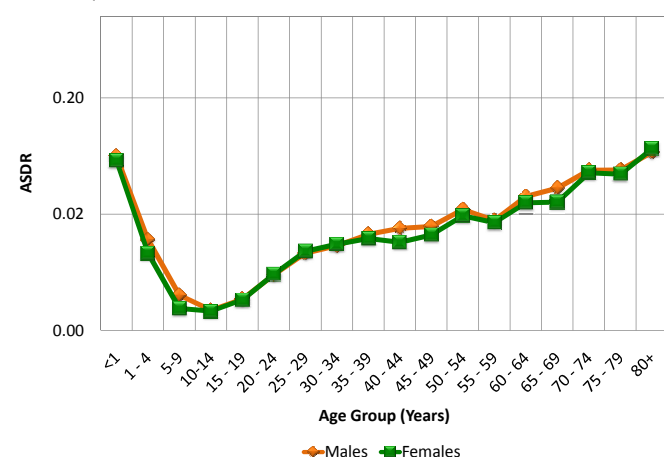
Source: 2010 Census of Population and Housing

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 rates refer to mortality rate 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.

Figure 9.3 shows the observed Age-Sex Specific Death Rates for North 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 North 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, North Western Province 2010



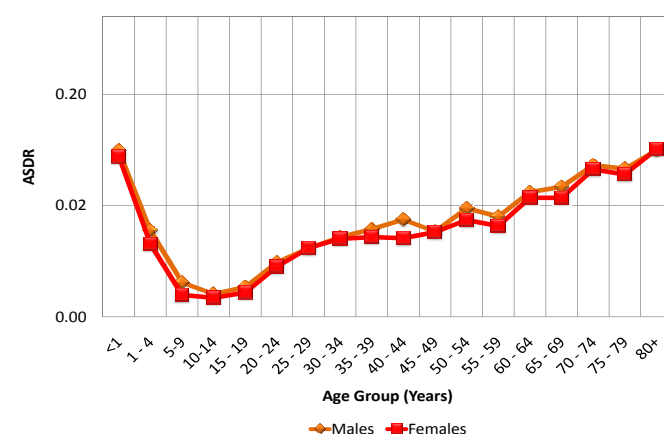
Source: 2010 Census of Population and Housing

North 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.

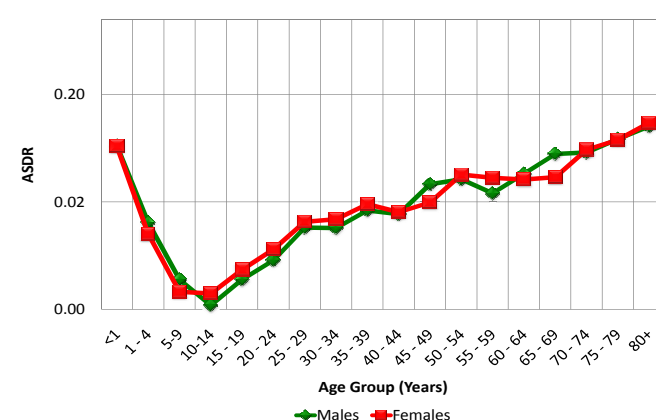
Generally, in both rural and urban areas, mortality was higher among males than females, especially over the age of 30 years.

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



Source: 2010 Census of Population and Housing

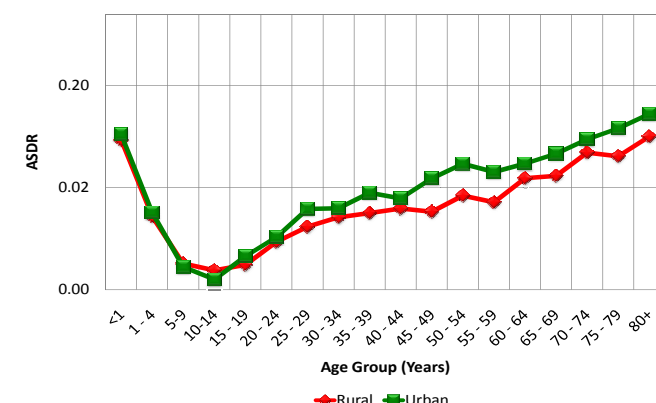
Figure 9.5: Observed Age-Sex Specific Death Rate by Age Group and Sex, North Western Province Urban, 2010



Source: 2010 Census of Population and Housing

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

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

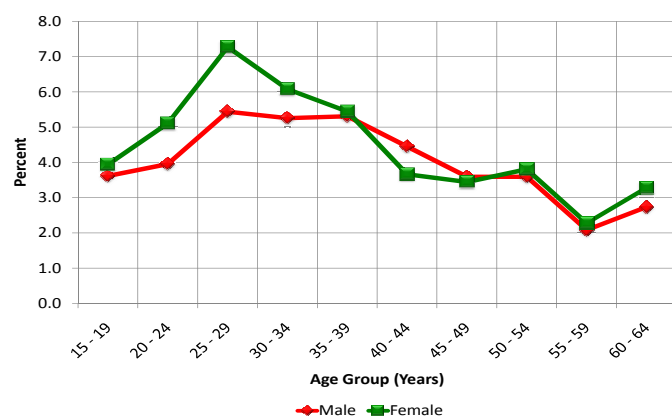


Source: 2010 Census of Population and Housing

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 North Western Province. The age groups with the highest percentage of reported adult deaths were the age groups 25-29 for both sexes. The percentage of reported adult deaths was higher for females than males in the age groups 15-39, 50-54 and 60-64 while the percentage of reported adult deaths were higher for males than females among those aged 40-44 years.

Figure 9.7: Percentage Reported Adult Deaths by Age Group and Sex, North Western Province, 2010



Source: 2010 Census of Population and Housing

9.5 Life Expectancy

Life expectancy refers to the average numbers 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. Hence, 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 household deaths data were used to generate abridged life tables for North 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 North Western Province in 2010.

Table 9.2: Life Expectancy at Birth by Sex and Rural/Urban, North Western Province 2010

Rural/Urban	Both Sexes	Males	Females
Total	53.6	52.4	54.8
Rural	55.2	54.9	57.9
Urban	48.9	50.4	50.4

Source: 2010 Census of Population and Housing

In 2010, the life expectancy at birth was 53.6 years. The life expectancy at birth for rural areas was higher (55.2) than in urban areas (48.9).

Figure 9.8 shows life expectancy at birth by sex and rural/urban in 1990, 2000 and 2010. Life expectancy at birth increased from 51.0 years in 1990 to 53.6 years in 2010. In rural areas, life expectancy at birth increased from 47.0 years to 55.2 years between 1990 and 2010 while in urban areas it reduced from 51.0 years in 1990 to 48.9 years in 2010.

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

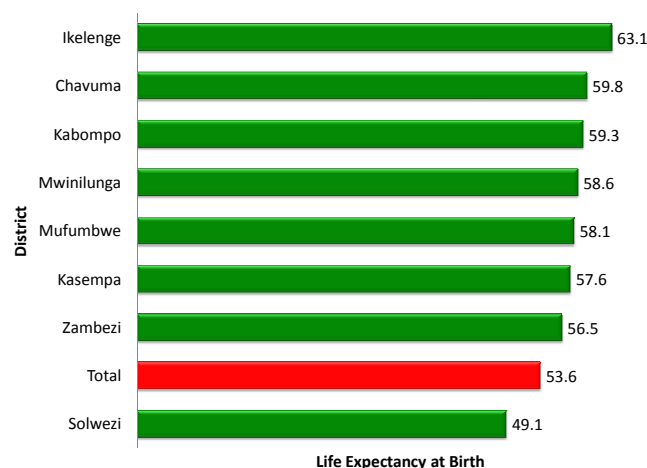


Source: 1990, 2000 and 2010 Censuses of Population and Housing

For males, life expectancy at birth increased from 45.0 years in 1990 to 52.4 years in 2010. The life expectancy at birth for females increased from 50.0 years in 1990 to 54.8 years in 2010.

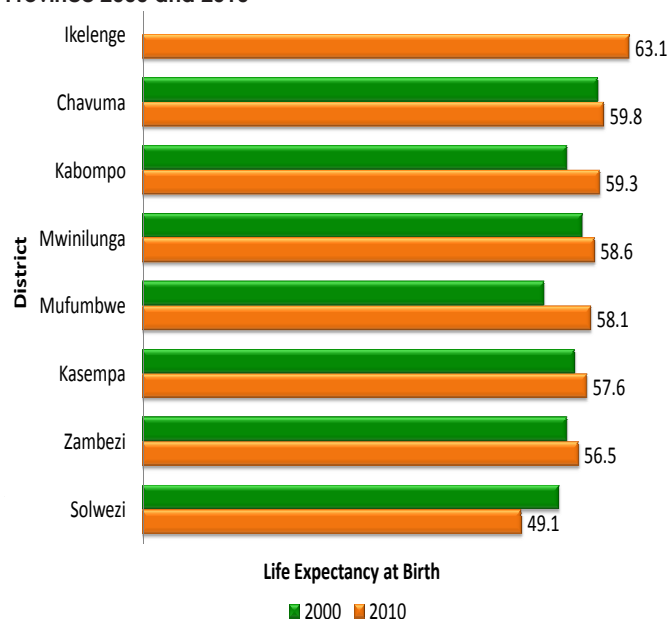
Figure 9.9 shows life expectancy at birth by district. In 2010, Solwezi District had life expectancy at birth lower than the provincial average of 53.6 years. Ikelenge District had the highest life expectancy at birth of 63.1 years and Solwezi District had the lowest life expectancy at birth of 49.1 years.

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



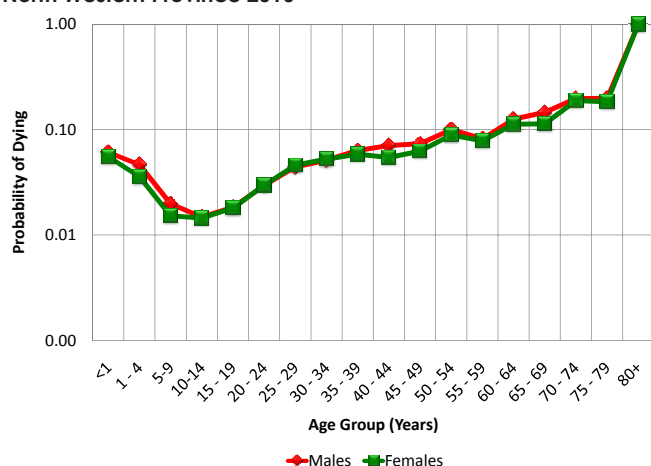
Source: 2010 Census of Population and Housing

Figure 9.10 shows life expectancy at birth by district for 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 were based on empirical data on household deaths collected during the 2010 Census. Some districts had an increase while others had a decline in life expectancy at birth between 2000 and 2010.

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

Source: 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, North Western Province 2010

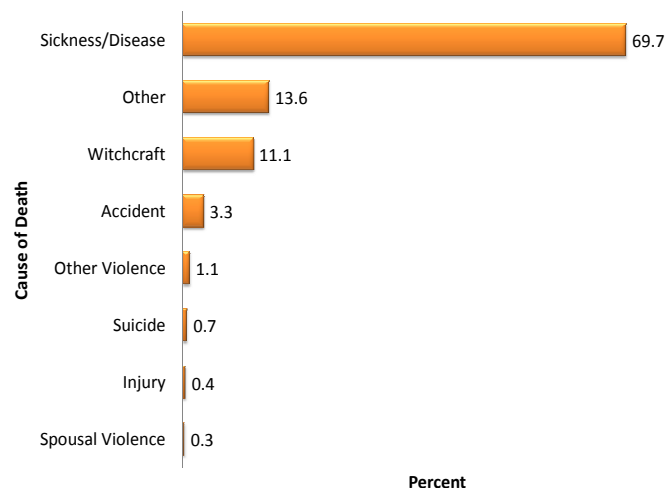
Source: 2010 Census of Population and Housing

The probability of dying is higher for males than females almost in all ages except in the age group groups 15 to 34 years. At age 10, there is improved survival prospects for both sexes. As mortality increases beyond age 35, the gap in the probability of dying between males and females increases and is even wider between the ages of 35 and 54. 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.

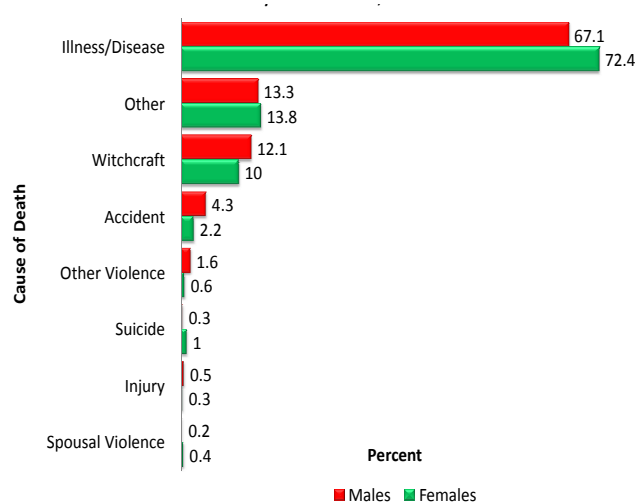
Figure 9.12 shows the percentage of reported cause of death for deceased household members as reported by households. The major cause of mortality was illness/disease accounting for 69.7 percent of all reported household deaths. Accidents were cited as a cause of death in 3.3 percent of deaths reported, while other causes were cited in 13.6 percent of reported deaths. Spousal violence, suicide and injury accounted for less than a percent each.

Figure 9.12: Percentage Reported Cause of Death for Deceased Household Members that Died 12 months Prior to the Census, North Western Province 2010

Source: 2010 Census of Population and Housing

Some causes of death are selective due to the 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.

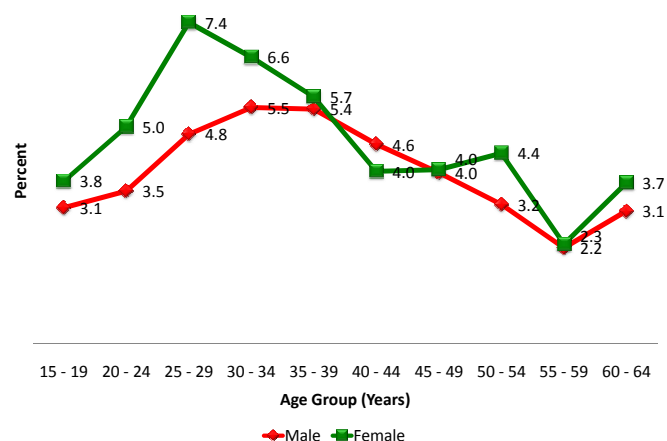
Illness/disease was the major cause of mortality among males and females in North Western Province. The percentage for females was higher (72.4 percent) than that for males (67.1 percent). However, the percentages of male deaths attributed to witchcraft, accident, other violence, suicide and injury were higher than those of females.

Figure 9.13: Percentage Reported Cause of Death for Deceased Household Members that Died 12 Months Prior to the Census by Sex of Deceased, North 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 and sex of the deceased person. The percentage of reported female deaths due to illness/disease was higher than that of males for all the age groups except for age group 40-44 years.

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



Source: 2010 Census of Population and Housing

CHAPTER 10

LANGUAGE AND ETHNICITY

10.0 Summary

Lunda (North Western) was the most widely used language of communication by 33.8 percent of the population in North Western Province.

Luvala was spoken by a higher proportion of the population in Chavuma (96.2 percent), Kabompo (45.5 percent) and Zambezi (53.1 percent) districts. Lunda was widely spoken in Ikelenge and Mwinilunga districts at 75.2 and 92.5 percent, respectively. Kaonde was widely spoken in Kasempa, Mufumbwe and Solwezi districts at 95.9, 44.3 and 48.9 percent, respectively.

Over the past three censuses, languages from the North Western group had remained the most widely used from 91.2 percent in 1990 to 89.8 percent in 2010.

Lunda (North Western) was the largest ethnic group with 34.5 percent of the population in North 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 predominant 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 province 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:

- i) *By combining most spoken languages in a geographical location such North-Western language groups*
- ii) *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.*
- iii) *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 a predominant language is less than the defacto population. On the other hand, the analysis on ethnicity included all persons in the defacto population.

10.2 Concepts and Definition

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 14 most spoken languages in North Western province by rural/urban. The widely spoken language of communication in North Western Province in the year 2010 was Lunda (North Western) (33.8 percent), followed by Kaonde at 29.6 percent. In rural areas, Lunda (North Western) was the most spoken language (36.4 percent) while in urban areas, Kaonde was widely spoken by 28.4 percent of the population.

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

Widely Spoken Language of Communication	Total	Rural	Urban
Bemba	4.9	1.4	16.3
Lamba	1.7	2.0	0.8
Tonga	0.3	0.1	0.7
Luvale	19.5	19.8	18.4
Lunda (North Western)	33.8	36.4	25.3
Mbunda	0.8	0.9	0.5
Luchazi	2.6	3.0	1.5
Ndembu	1.8	2.1	0.8
Chokwe	1.7	1.7	1.7
Kaonde	29.6	29.9	28.4
Lozi	0.7	0.6	0.8
Nkoya	0.4	0.4	0.1
Nyanja	0.6	0.2	1.8
English	0.6	0.2	2.1
Other Languages	1.1	1.2	1.0
Total Percent	100.0	100.0	100.0
Total Population	596,860	457,639	139,221

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 have 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 major language groups by rural/urban. Languages in the North Western group were spoken by 89.8 percent of the population. Of the rural and urban population, 93.8 and 76.5 percent spoke a language from the North Western group, respectively.

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

Language Group	Total	Rural	Urban
Bemba	6.7	3.5	17.3
Tonga	0.4	0.3	0.9
North Western	89.8	93.8	76.5
Barotse	1.1	1.1	0.9
Mambwe	0.0	0.0	0.1
Nyanja	0.7	0.3	2.1
Tumbuka	0.0	0.0	0.1
English	0.6	0.2	2.1
Others	0.6	0.8	0.1
Total Percent	100	100	100
Total Population	596,860	457,639	139,221

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 population on widely used language of communication by sex and rural/urban. The table shows that Lunda (North Western) was the most widely used language of communication for both males and females at 33.7 and 33.9 percent, respectively. A similar

pattern was observed in rural areas where most males and females reported Lunda (North Western) as their widely used language of communication at 36.3 percent and 36.5 percent, respectively. In urban areas, Kaonde was widely spoken by 27.9 percent males and 28.8 percent females.

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

Widely Spoken Language of Communication	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Bemba	4.9	5.1	4.7	1.4	1.4	1.3	16.3	16.9	15.7
Lamba	1.7	1.7	1.7	2.0	2.0	2.0	0.8	0.7	0.8
Tonga	0.3	0.3	0.3	0.1	0.1	0.1	0.7	0.7	0.7
Luvale	19.5	19.3	19.6	19.8	19.7	19.9	18.4	18.0	18.7
Lunda (North Western)	33.8	33.7	33.9	36.4	36.3	36.5	25.3	25.2	25.4
Mbunda	0.8	0.8	0.8	0.9	0.9	0.9	0.5	0.5	0.5
Luchazi	2.6	2.7	2.6	3.0	3.0	2.9	1.5	1.5	1.5
Ndembu	1.8	1.8	1.8	2.1	2.1	2.1	0.8	0.8	0.8
Chokwe	1.7	1.8	1.7	1.7	1.8	1.7	1.7	1.7	1.7
Kaonde	29.6	29.5	29.6	29.9	30.0	29.9	28.4	27.9	28.8
Lozi	0.7	0.6	0.7	0.6	0.6	0.6	0.8	0.7	0.8
Nkoya	0.4	0.4	0.4	0.4	0.4	0.4	0.1	0.1	0.1
Nyanja	0.6	0.6	0.6	0.2	0.2	0.2	1.8	2.0	1.7
English	0.6	0.7	0.6	0.2	0.2	0.2	2.1	2.3	1.8
Other Languages	1.1	1.2	1.1	1.2	1.2	1.1	1.0	1.0	1.0
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Population	596,860	289,906	306,954	457,639	222,378	235,261	139,221	67,528	71,693

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. Luvale was the widely spoken language in Chavuma (96.2 percent), Kabompo (45.5 percent) and Zambezi (53.1 percent) districts. In Ikelenge and

Mwinilunga districts, Lunda was widely used by 75.2 and 92.5 percent, respectively. Kaonde was widely used in Kasempa (95.9 percent), Mufumbwe (44.3 percent) and Solwezi (48.9 percent) districts.

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

Widely Used Language of Communication	Total	Chavuma	Ikelenge	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
Bemba	4.9	0.5	0.6	0.8	1.3	1.3	1.0	12.3	0.7
Lamba	1.7	0.0	-	0.0	0.1	0.1	0.0	4.9	0.0
Tonga	0.3	0.1	0.0	0.1	0.2	0.2	0.1	0.5	0.1
Luvale	19.5	96.2	0.7	45.5	0.4	14.1	0.3	4.8	53.1
Lunda (North Western)	33.8	1.8	75.2	27.7	0.7	17.3	92.5	20.4	42.4
Mbunda	0.8	0.1	0.0	3.0	0.0	1.5	0.0	0.7	0.3
Luchazi	2.6	0.1	0.0	16.7	0.0	2.7	0.0	0.4	1.2
Ndembu	1.8	-	22.6	0.1	0.0	0.0	4.6	0.0	0.1
Chokwe	1.7	0.1	0.0	2.4	0.0	11.5	0.0	1.3	0.4
Kaonde	29.6	0.3	0.2	0.5	95.9	44.3	0.7	48.9	0.2
Lozi	0.7	0.1	0.0	0.2	0.2	5.1	0.1	0.4	0.5
Nkoya	0.4	-	-	2.3	-	0.7	0.0	0.0	0.1
Nyanja	0.6	0.2	0.1	0.2	0.3	0.4	0.1	1.3	0.2
English	0.6	0.1	0.2	0.1	0.5	0.1	0.1	1.5	0.2
Other Languages	1.1	0.4	0.2	0.3	0.3	0.6	0.4	2.6	0.4
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Population	596,860	29,870	28,252	76,319	55,519	46,812	86,288	206,899	66,901

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 North Western

language group decreased from 91.2 percent in 1990 to 89.8 percent in 2010. Mambwe and Tonga language groups had remained constant from 1990 to 2010.

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

Language Group	Percentage of Total Population		
	1990	2000	2010
Bemba	5.5	4.2	6.7
Tonga	0.4	0.4	0.4
North Western	91.2	88.1	89.8
Barotse	1.3	1.2	1.1
Mambwe	0.0	0.0	0.0
Nyanja	0.6	0.5	0.7
Tumbuka	0.1	0.0	0.0
English	0.7	0.3	0.6
Others	0.3	5.2	0.6
Total Percent	100.0	100.0	100.0
Total Population	371,496	500,939	596,860

Source: 1990, 2000 and 2010 Censuses 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 North 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 Lunda (North Western) ethnic group had the highest percentage of the provincial population at 34.5 percent followed by the Kaonde ethnic group at 26.9 percent. In rural and urban areas, the same pattern prevailed with a population of Lunda (North Western) ethnicity at 36.4 in rural and 28.2 in urban areas.

Table 10.6: Percentage Distribution of the Population by Ethnicity and Rural/Urban, North Western Province 2010

Ethnicity	Total	Rural	Urban
Bemba	2.8	1.1	8.4
Lunda (Luapula)	0.1	0.0	0.2
Lala	0.2	0.1	0.5
Ushi	0.1	0.0	0.2
Lamba	2.4	2.3	2.4
Tonga	0.7	0.4	1.9
Lenje	0.1	0.1	0.3
Soli	0.1	0.1	0.2
Ila	0.1	0.0	0.1
Luvale	16.5	16.7	15.6
Lunda (North Western)	34.5	36.4	28.2
Mbunda	1.6	1.7	1.4
Luchazi	3.6	3.8	2.8
Ndembu	1.6	1.8	1.0
Chokwe	3.5	3.4	4.0
Kaonde	26.9	27.8	23.6
Lozi	1.1	0.8	2.1
Nkoya	0.6	0.6	0.3
Chewa	0.2	0.1	0.6
Nsenga	0.2	0.1	0.7
Ngoni	0.3	0.1	0.8
Nyanja	0.2	0.1	0.5
Tumbuka	0.3	0.1	0.9
Senga	0.1	0.0	0.2
Mambwe	0.1	0.0	0.5
Namwanga	0.2	0.1	0.8
English	0.0	0.0	0.1
Ethnicity Not Stated	0.3	0.3	0.4
Major racial groups	1.1	1.3	0.3
Other Ethnic Groups	0.7	0.6	1.0
Total Percent	100.0	100.0	100.0
Total Population	681,698	525,156	156,542

Source: 2010 Census of Population and Housing

10.4.2. Ethnicity by Sex and Rural/Urban

Ethnicity was also analysed by rural/urban and sex as shown in Table 10.7. The Lunda (North Western) ethnic group had the highest percentage of males and females at 34.5 percent each.

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.

Table 10.7: Percentage Distribution of the Population by Ethnicity, Sex and Rural/Urban, North Western Province 2010

Ethnicity	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Bemba	2.8	2.9	2.7	1.1	1.1	1.1	8.4	8.7	8.1
Lunda (Luapula)	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Lala	0.2	0.2	0.2	0.1	0.1	0.1	0.5	0.5	0.4
Ushi	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Lamba	2.4	2.3	2.4	2.3	2.3	2.4	2.4	2.5	2.4
Tonga	0.7	0.8	0.7	0.4	0.4	0.4	1.9	2.0	1.9
Lenje	0.1	0.1	0.2	0.1	0.1	0.1	0.3	0.3	0.4
Soli	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2
Ila	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Luvale	16.5	16.4	16.5	16.7	16.7	16.7	15.6	15.4	15.8
Lunda (N/Western)	34.5	34.5	34.5	36.4	36.3	36.4	28.2	28.3	28.1
Mbunda	1.6	1.7	1.6	1.7	1.7	1.7	1.4	1.4	1.4
Luchazi	3.6	3.6	3.5	3.8	3.9	3.8	2.8	2.8	2.8
Ndembu	1.6	1.6	1.6	1.8	1.8	1.8	1.0	1.0	1.1
Chokwe	3.5	3.6	3.5	3.4	3.4	3.3	4.0	4.0	4.0
Kaonde	26.9	26.6	27.1	27.8	27.6	28.0	23.6	23.0	24.2
Lozi	1.1	1.1	1.1	0.8	0.8	0.8	2.1	2.1	2.0
Nkoya	0.6	0.6	0.6	0.6	0.6	0.6	0.3	0.3	0.3
Chewa	0.2	0.2	0.2	0.1	0.1	0.1	0.6	0.6	0.6
Nsenga	0.2	0.2	0.2	0.1	0.1	0.1	0.7	0.7	0.7
Ngoni	0.3	0.3	0.3	0.1	0.1	0.1	0.8	0.8	0.8
Nyanja	0.2	0.2	0.2	0.1	0.1	0.1	0.5	0.6	0.5
Tumbuka	0.3	0.3	0.3	0.1	0.1	0.1	0.9	1.0	0.9
Senga	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.1
Mambwe	0.1	0.1	0.1	0.0	0.0	0.0	0.5	0.5	0.5
Namwanga	0.2	0.2	0.2	0.1	0.1	0.1	0.8	0.8	0.8
English	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1
Ethnicity Not Stated	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Major racial groups	1.1	1.1	1.0	1.3	1.4	1.2	0.3	0.3	0.3
Other Ethnic Groups	0.7	0.7	0.6	0.6	0.6	0.6	1.0	1.1	0.9
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Population	681,698	332,376	349,322	525,156	256,167	268,989	156,542	76,209	80,333

Source: 2010 Census of Population and Housing

CHAPTER 11

DISABILITY

11.0 Summary

The proportion of the population with disability in North Western Province was 2.7 percent. The proportion in rural areas was higher at 3.0 percent than urban areas at 1.8 percent. Chavuma District had the highest proportion of the population with disability at 4.0 percent while Solwezi District had the lowest at 1.9 percent.

The median age for the population with disability was 36 years. Physical disability was the most common type of disability at 36.0 percent. The major cause of disability was disease at 33.9 percent.

The literacy rate for the population with disability in North Western Province was 51.8 percent. Solwezi District had the highest proportion of the population with disabilities who were literate at 56.3 percent. Chavuma District had the highest proportion of the population with disabilities who could not read and write at 41.0 percent.

The proportion of the population with disability that had never attended school was 42.4 percent. Generally, the highest level of education attained by the majority of the population with disabilities, whether male or female was primary education.

The proportion of the population with disabilities who were employed was 92.9 percent. Most of the population with disabilities had agricultural related occupations at 92.6 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.

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

Source: 1969, 1980, 1990, 2000 and 2010 Censuses

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.

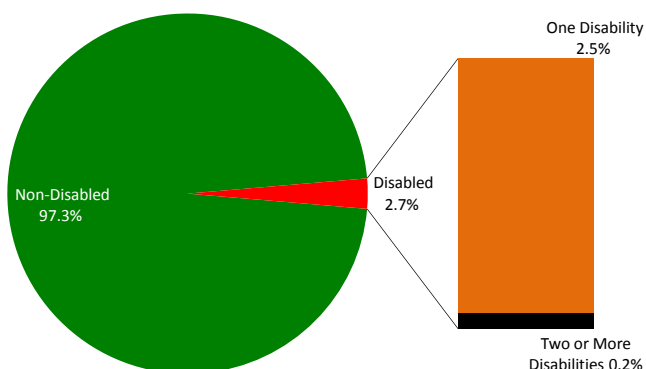
11.5 General Characteristics

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 percent distribution of the population by disability status. The percentage of the population living with disabilities was 2.7 percent out of which 2.5 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, North Western Province 2010

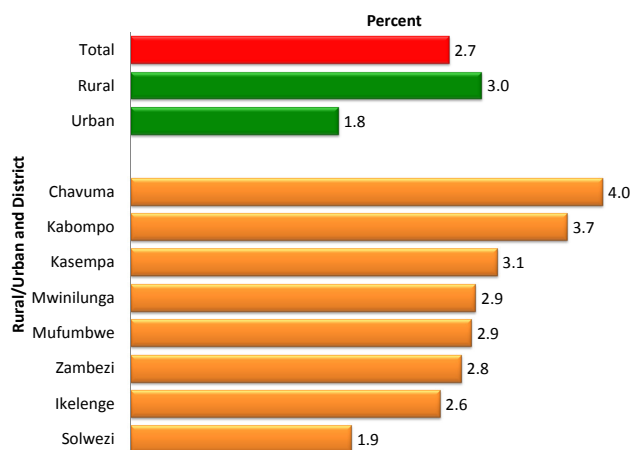


Source: 2010 Census of Population and Housing

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 2.7 percent. Rural areas had more persons living with disabilities than urban areas at 3.0 and 1.8 percent, respectively.

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



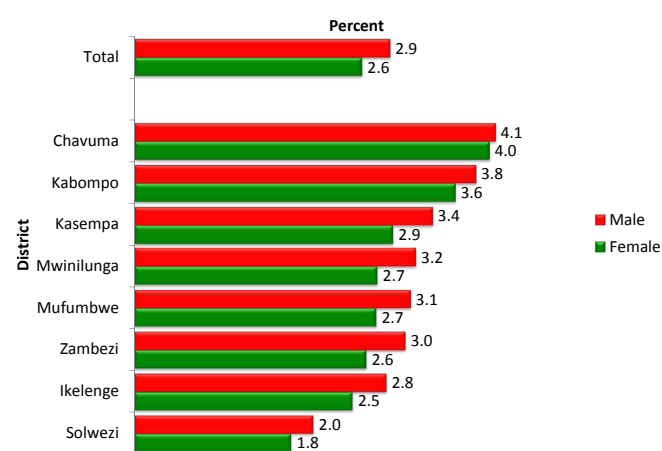
Source: 2010 Census of Population and Housing

Chavuma District had the highest percentage (4.0 percent) of persons with disabilities while Solwezi District had the lowest (1.9 percent).

11.5.3 Disability by Sex

Figure 11.3 shows the percentage distribution of persons living with disabilities by sex and district. In North Western Province there were more males than females who were living with disabilities. Chavuma District had the highest percentage of persons who were disabled at 4.1 and 4.0 percent for males and females, respectively. Solwezi District had the lowest percentage of persons living with disabilities at 2.0 and 1.8 percent for males and females, respectively.

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

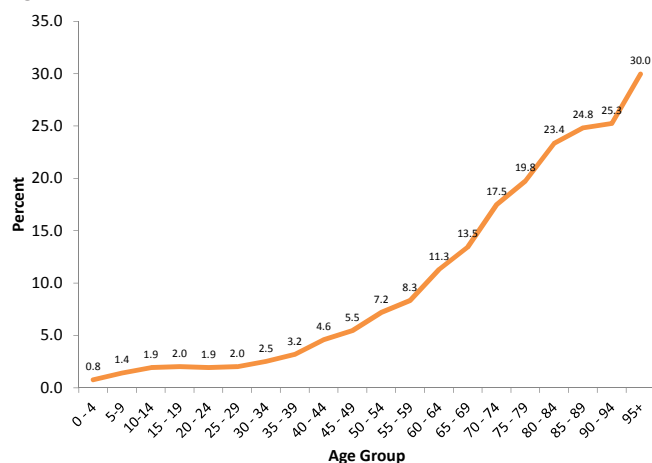


Source: 2010 Census of Population and Housing

11.5.4 Disability by Age

Figure 11.4 shows the percentage distribution of the population with disability by age. The figure shows that disability increases with age, with the highest percentage in the age group 95 and older at 30.0 percent followed by the age group 90-94 years at 25.3 percent. The age group with the lowest percentage was 0-4 years at 0.8 percent.

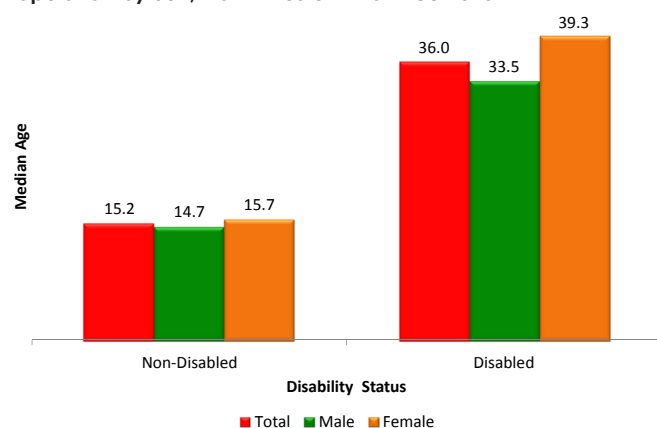
Figure 11.4: Percentage Distribution of Persons with Disabilities by Age, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 11.5 shows the median age for the disabled and non-disabled population in North Western Province. The median age for the population with disability was 36.0 years. Non-disabled population had a median age of 15.2 years.

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

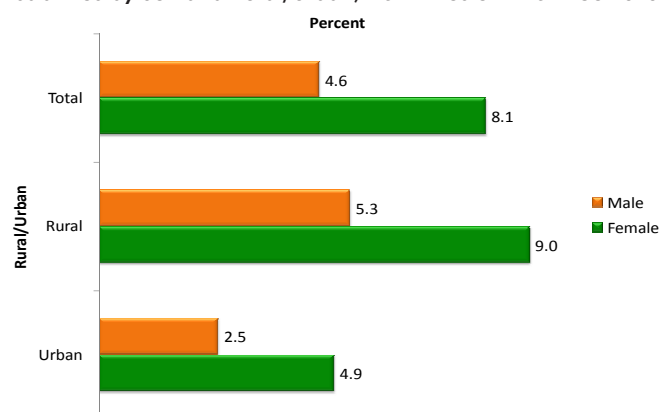


Source: 2010 Census of Population and Housing

11.5.5 Disability by Household Headship

Figure 11.6 shows the percentage distribution of disabled household heads by sex and rural/urban. In North Western Province, there was a higher proportion of female household heads living with disabilities (8.1 percent) than that of males (4.6 percent). The proportions of female household heads were also higher than those of males in both rural and urban areas.

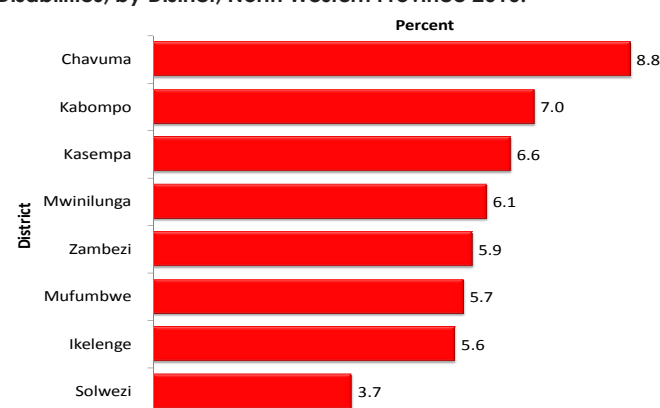
Figure 11.6: Percentage Distribution of Household Heads with Disabilities by Sex and Rural/Urban, North Western Province 2010



Source: 2010 Census of Population and Housing

Figure 11.7 shows the percentage distribution of the population with disabilities who were heading households by district. Chavuma District had the highest percent of household heads with disabilities at 8.8 percent while Solwezi District had the lowest at 3.7 percent of household heads living with disabilities.

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

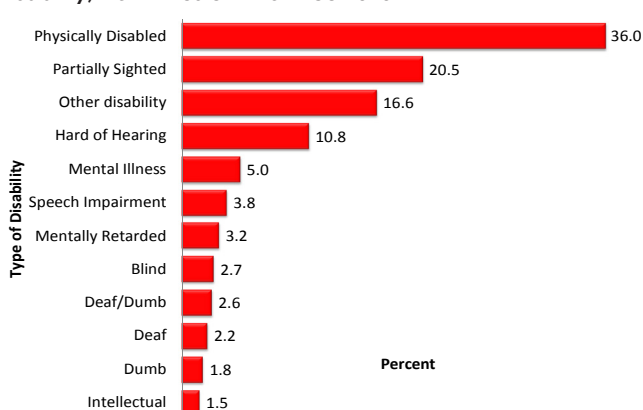


Source: 2010 Census of Population and Housing

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 (36.0 percent) followed by partially sighted at 20.5 percent. The least common type of disability was intellectual at 1.5 percent.

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



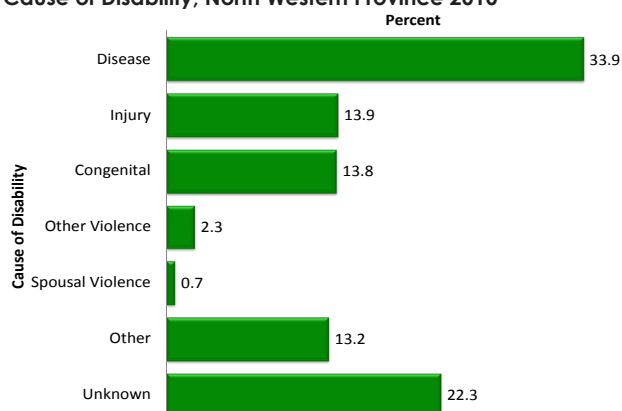
Source: 2010 Census of Population and Housing

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 the disabled population by cause of disability. The figure shows that 33.9 percent of the persons with disabilities reported disease as the cause of disability. This was followed by those who reported injury as a cause of disability at 13.9 percent. The least common cause of disability was spousal violence with 0.7 percent.

Figure 11.9: Percentage Distribution of Persons with Disabilities by Cause of Disability, North Western Province 2010



Source: 2010 Census of Population and Housing

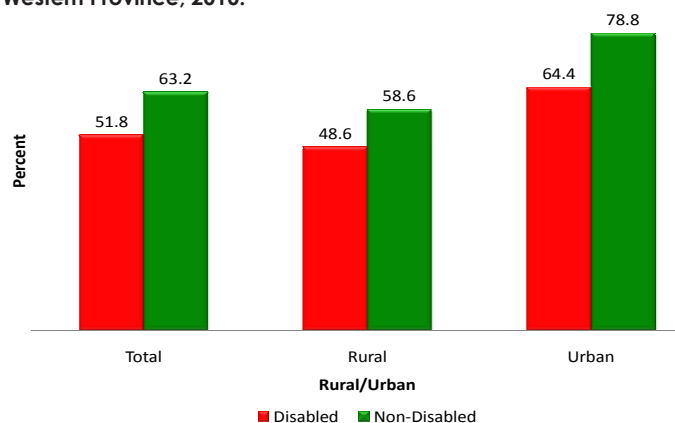
11.6 Characteristics of the Population with Disability

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 51.8 percent compared to 63.2 percent for persons without disability. The literacy levels for the persons with disability were higher in urban areas at 64.4 percent compared to 48.6 percent in rural areas.

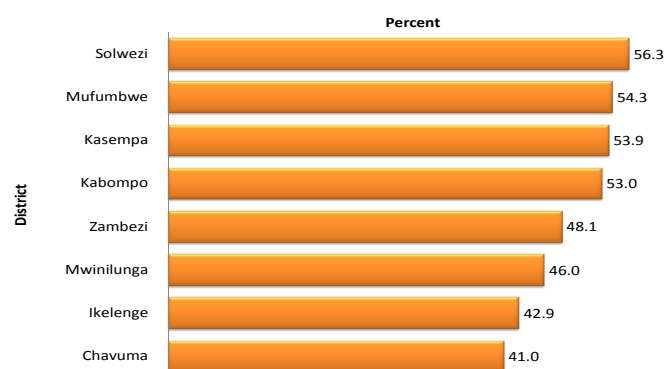
Figure 11.10: Percentage Distribution of Literate Population (5 Years and Older) by Disability Status and Rural/Urban, North Western Province, 2010.



Source: 2010 Census of Population and Housing

Figure 11.11 shows the percentage distribution of literate population aged 5 years and older with disability by district. Solwezi District had the highest proportion of the literate population with disability at 56.3 percent. Chavuma District had the least proportion at 41.0 percent.

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



Source: 2010 Census of Population and Housing

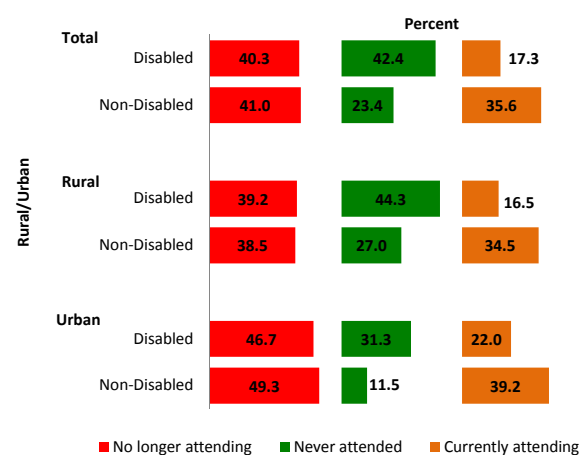
11.6.2 School Attendance

The percentage distribution of population aged 5 years and older by disability status, school attendance and rural/urban is shown in Figure 11.12.

The figure shows that there was a higher percentage of persons with disability who had never attended school (42.4 percent) compared to 23.4 percent for persons without disability. For those who were currently attending school, the percentage of the non-disabled was higher than that of the disabled, 35.6 and 17.3 percent, respectively.

In rural areas, the proportion of persons with disabilities who were no longer attending school was 39.2 percent and the non-disabled was 38.5 percent. In urban areas, the percentage of the disabled that were no longer attending school was 46.7 percent and 49.3 percent for the non-disabled. Similarly, there were more persons with disability who had never attended school than the non-disabled in both rural and urban areas.

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

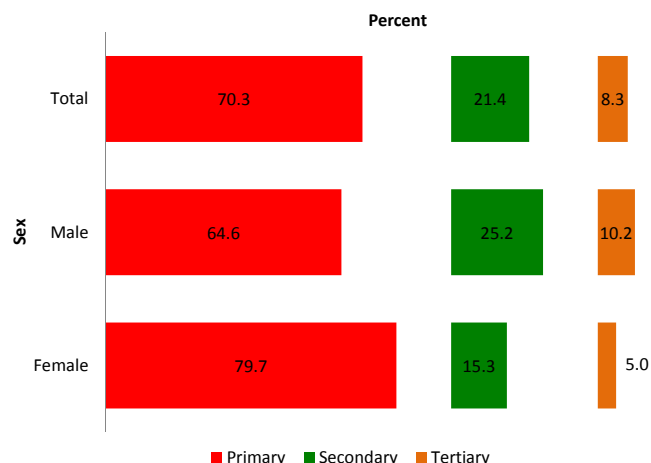


Source: 2010 Census of Population and Housing

11.6.3 Education Level among the Disabled

Figure 11.13 shows the percentage distribution of persons 25 years and older with disability by highest level of education completed and sex. In North Western Province, 70.3 percent of the population with disabilities had attained primary education and 8.3 percent had attained tertiary education. A higher percentage of Males had completed tertiary education at 10.2 percent compared to 5.0 percent for females.

Figure 11.13: Percentage Distribution of Persons with Disabilities (25 years and older) by Highest Level of Education Completed and Sex, North Western Province 2010



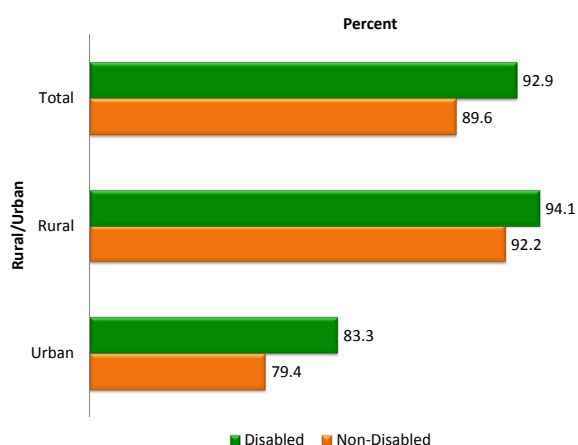
Source: 2010 Census of Population and Housing

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 92.9 percent of persons with disabilities were employed compared to 89.6 percent of persons without disabilities. The percentage of the disabled who were employed was higher than the corresponding percentage for the non disabled in both rural and urban areas.

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

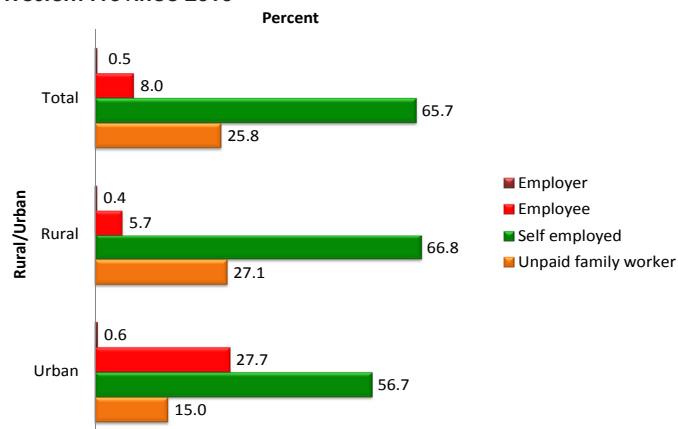


Source: 2010 Census of Population and Housing

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 65.7 percent while employer was the least with 0.5 percent. There were more persons with disabilities working on a family business, without pay or profit, in rural areas (27.1 percent) than urban areas (15.0 percent). The figure also shows that the proportion of persons with disabilities who were employees was higher in urban areas than in rural areas, 27.7 and 5.7 percent, respectively.

Figure 11.15: Percent Distribution of Persons with Disabilities (12 Years and Older) by Employment Status and Rural/Urban, North Western Province 2010

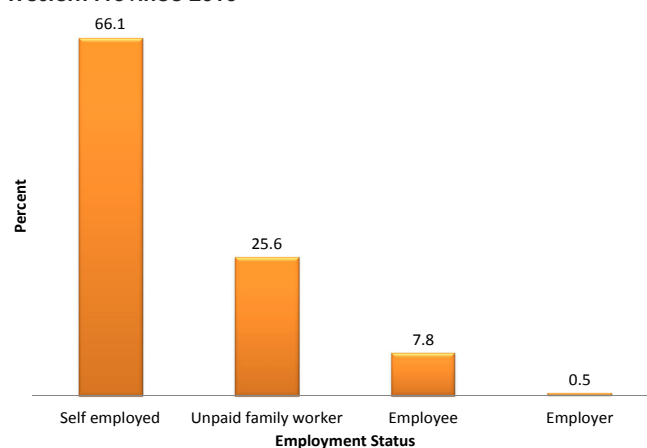


Source: 2010 Census of Population and Housing

11.7.2 Employment Status of Disabled Household Heads

Figure 11.16 shows the percentage distribution of household heads aged 12 years and older by employment status. The largest proportion of household heads living with disabilities was self-employed (66.1 percent) while the least were employers (0.5 percent).

Figure 11.16: Percentage Distribution of Household Heads with Disabilities (12 years and older) by Employment Status, North Western Province 2010

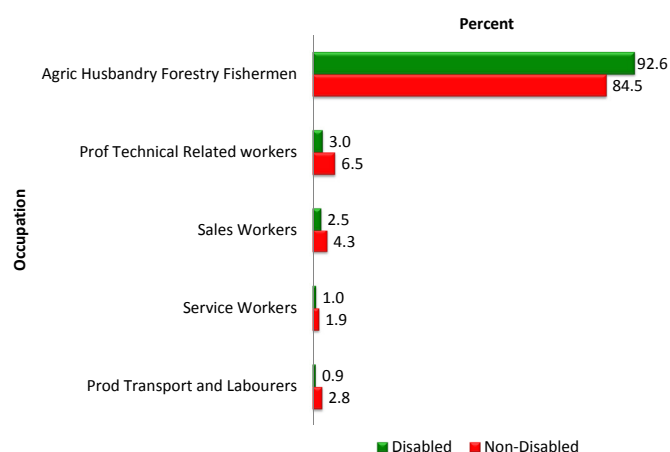


Source: 2010 Census of Population and Housing

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 percent distribution of occupation by disability status. Among persons with disabilities, agricultural occupations were the most common (92.6 percent) while occupations in production and transport were the least common at 0.9 percent. Persons without disabilities made up 84.5 percent in agriculture while 2.8 percent made up production and transport occupations.

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



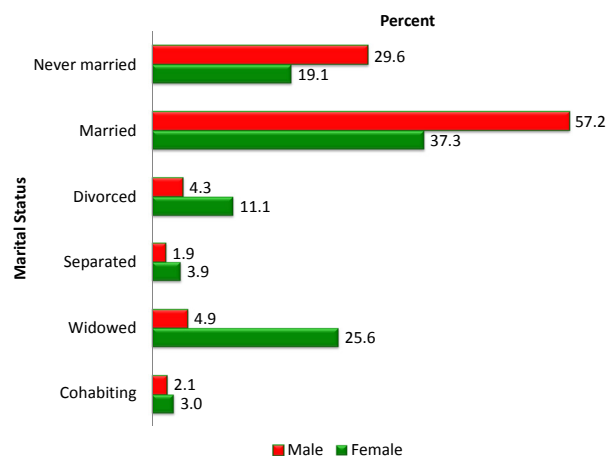
Source: 2010 Census of Population and Housing

11.8 Marital Status of the Disabled by Sex

Figure 11.18 shows percent distribution of marital status of the disabled (15 years and older) by sex. There were more males than females living with disabilities that were married at 57.2 and 37.3 percent, respectively. Persons living with disabilities

that were never married made up 29.6 percent of male and 19.1 percent female population. The proportion of widowed females with disabilities was higher than that of males at 25.6 percent and 4.9 percent, respectively.

Figure 11.18: Percent Distribution of the Disabled, 15 years and Older by Marital Status and Sex, North 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 North Western Province was in line with the observed fertility and mortality declines.

The Myers Index reduced from 8.2 in 2000 to 6.4 in 2010.

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

The age-sex accuracy index for North Western Province reduced from 27.9 in 2000 to 26.3 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 households
- 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: Errors 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 North Western Province by broad age groups for 1990, 2000 and 2010. The

percentage of children aged 0-14 years increased from 45.0 percent in 1990 to 47.6 percent in 2000. It later increased to 49.5 percent in 2010. The percentage of the adults aged 15-64 years declined from 50.5 percent in 1990 to 47.5 percent in 2010. The percentage of the population aged 65 years and older reduced from 4.6 in 1990 to 3.0 in 2010. The results by broad age groups show consistency of coverage in all the three censuses.

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

Age Group	Population					
	1990	Percent	2000	Percent	2010	Percent
0-4	63,005	16.3	103,468	19.2	132,975	19.5
5-9	58,628	15.1	85,941	15.9	109,165	16.0
*10-14	52,618	13.6	67,216	12.5	95,597	14.0
0-14	174,251	45.0	256,625	47.6	337,737	49.5
15-64	195,649	50.5	263,395	48.8	323,469	47.5
65+	17,652	4.6	19,802	3.7	20,492	3.0
Total	387,552	100	539,822	100	681,698	100

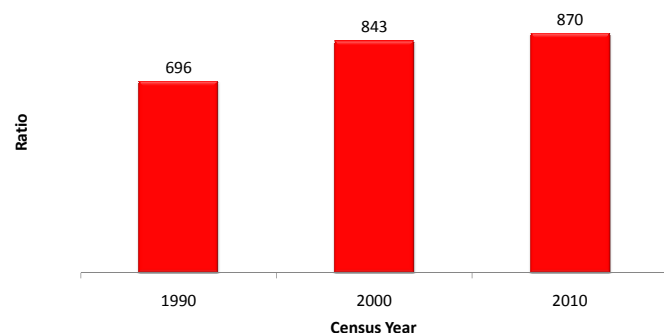
Sources: 1990, 2000 and 2010 Censuses of Population and Housing

*Note: 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 from 1990 to 2010. The child-woman ratio increased from 696 in 1990 to 843 children aged 0-4 years per 1000 women aged 15-49 years in 2000. In 2010, it increased to 870 children aged 0-4 years per 1000 women aged 15-49 years. The results show that the changes in 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, North Western Province 1990, 2000 and 2010



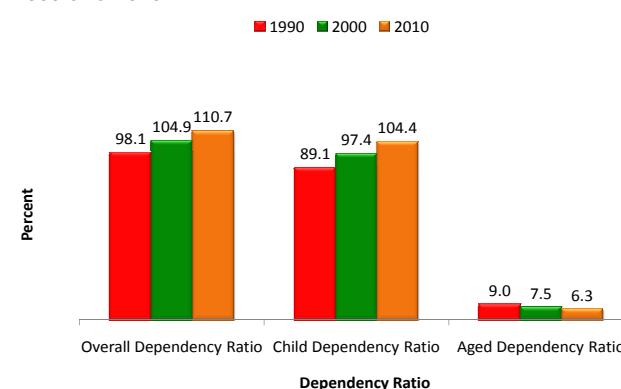
Note: Child-Woman Ratio is the number of children aged 0-4 years in a population to every 1000 women aged 15-49 years

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.

Figure 12.2: Dependency Ratio, North 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

The overall dependency ratio for the population of North Western Province for 1990, 2000 and 2010 Censuses were 98.1, 104.9 and 110.7 persons, respectively. This means that in 2010 for every 100 persons in the age group 15-64 years, there were 110.7 dependants in the age groups 0-14 and 65 years and older. Child dependency ratios increased from 89.1 persons in 1990 to 104.4 persons in 2010. However, Aged dependency ratio declined from 9.0 persons in 1990 to 6.3 persons in 2010.

12.9. Content Error

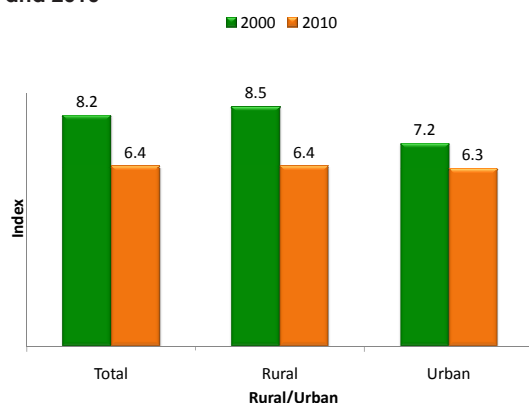
Content errors refer to instances where characteristics such as age, sex, marital status, economic activity, etc. of a person enumerated in a census or survey are incorrectly reported or tabulated. Content errors are caused by either a respondent giving a wrong response or by an enumerator recording 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, North 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 North Western Province reduced from 8.2 in 2000 to 6.4 in 2010. In rural areas, the Myers' index dropped from 8.5 in 2000 to 6.4 in 2010. In urban areas, the index reduced from 7.2 to 6.3 between 2000 and 2010. Figure 12.3 shows 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, 8 and 5 in both census years.

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

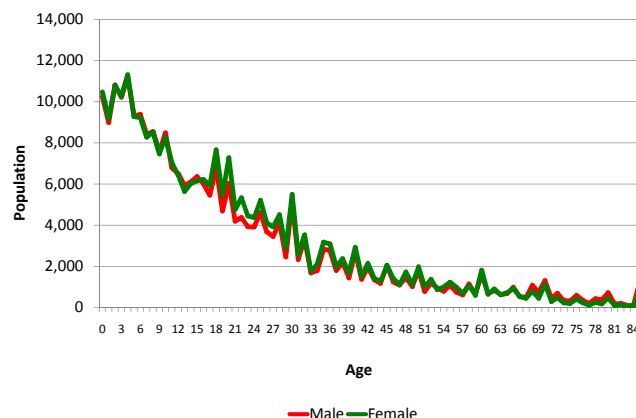
Rural/Urban	Most Preferred Digits and Census Year		
	Sex	2000	2010
Total	Both Sexes	0, 8, 5	0, 8, 5
	Male	0, 8, 5	0, 8, 5
	Female	0, 8, 5	0, 8, 5
Rural	Both Sexes	0, 8, 5	0, 8, 5
	Male	0, 8, 5	0, 8, 5
	Female	0, 8, 5	0, 8, 5
Urban	Both Sexes	0, 8	0, 8, 5
	Male	0, 8	0, 8, 5
	Female	0, 8, 2	0, 8, 5

Sources: 2000 and 2010 Censuses of Population and Housing

Digit preference in rural areas followed pattern similar to the provincial pattern. In urban areas, both sexes preferred 0 and 8 in 2000 and 0, 8 and 5 in 2010, respectively.

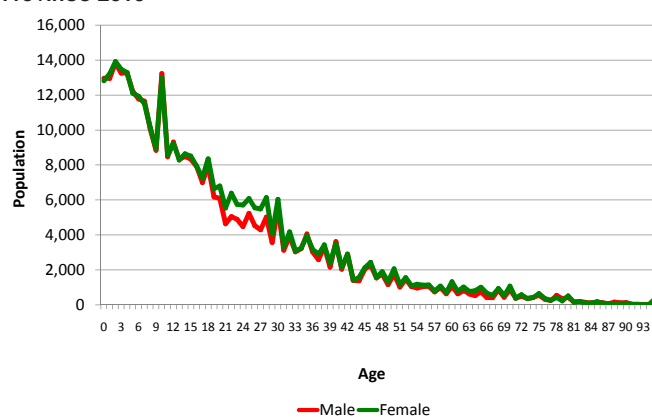
Errors in age data reporting are also presented in Figures 12.4 and 12.5. The figures show population distribution in single years for 2000 and 2010. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under reported ages.

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



Source: 2000 Census of Population and Housing

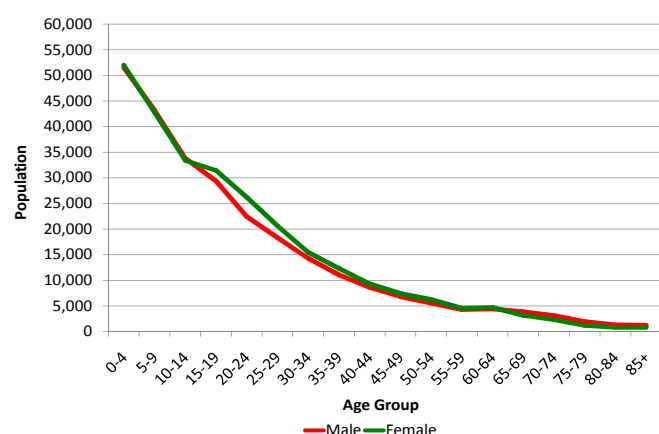
Figure 12.5: Population Distribution in Single Years, North Western Province 2010



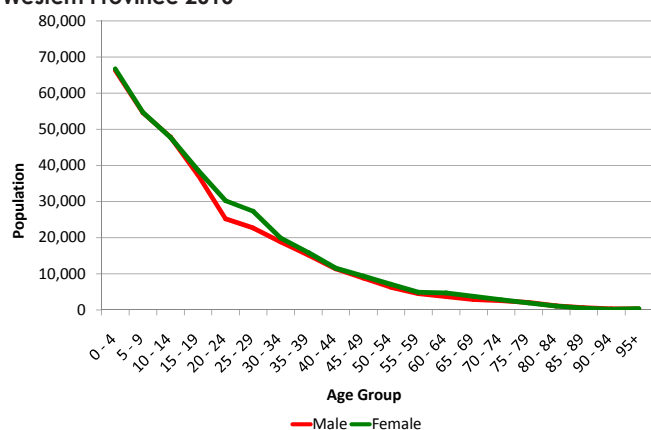
Source: 2010 Census of Population and Housing

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, North Western Province 2000

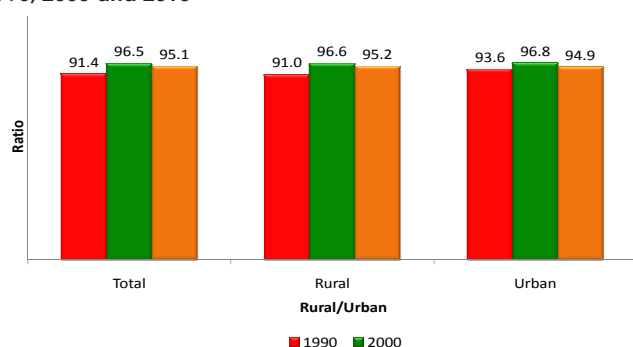
Source: 2000 Census of Population and Housing

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

Source: 2010 Census of Population and Housing

12.9.2. Sex Ratios

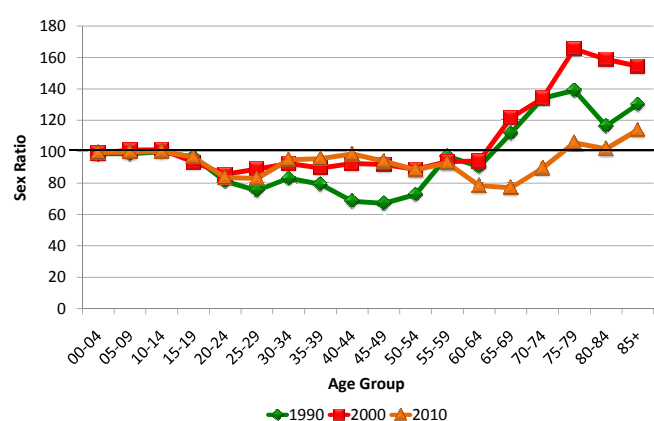
The presence of omission errors, age misreporting and out migration may be detected by looking at the pattern of sex ratios. A sex ratio of more than 100 shows an excess of males over females while a sex ratio of less than 100 shows an excess of females over males. A sex ratio of 100 indicates an equal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

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

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

Sex ratio for North Western Province increased from 91.4 in 1990 to 96.5 males per 100 females in 2000. It reduced to 95.1 males per 100 females in 2010. Sex ratios in both rural and urban areas followed a similar pattern.

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 shows more females than males in age group 0-64 years. In 2000, an analysis of age-specific sex ratio shows more females than males in age groups 0-4 and 15-64 years. An analysis for 2010 shows more females than males in age groups 0-9 and 15-74 years.

Figure 12.9: Sex Ratio by 5 Year Age Group, North 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. Sex ratios over 100 were observed in age groups above 65 years in 1990. In 2000, sex ratios over 100 were observed in age groups 5-14 and above 65 years. Sex ratios over 100 were observed in age group 10-14 and above 75 years in 2010.

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, North Western Province 1990, 2000 and 2010

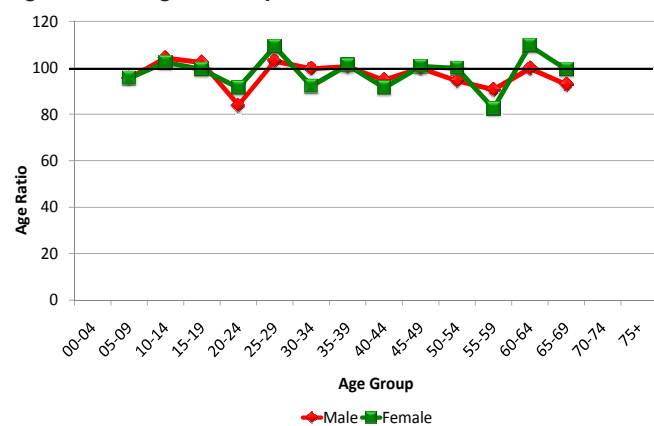
Age Group	1990			2000			2010		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
00-04	98.7	98.9	98.9	99.0	98.1	100.3	9.4	99.7	98.0
05-09	98.7	99.7	101.3	101.0	92.8	99.0	99.8	100.9	95.7
10-14	99.9	102.1	102.4	101.2	88.7	94.5	100.2	103.0	91.2
15-19	96.6	97.3	94.0	93.3	92.8	89.7	96.5	98.8	90.3
20-24	81.2	82.1	85.4	85.6	76.6	87.1	83.5	83.3	83.9
25-29	75.3	74.7	88.7	88.9	78.4	90.2	83.0	80.8	88.8
30-34	83.1	81.0	92.3	92.4	93.2	92.9	94.8	90.6	107.2
35-39	79.2	74.2	89.4	89.7	107.7	91.6	95.6	90.7	112.5
40-44	68.5	61.2	91.4	92.4	130.1	99.1	98.5	94.7	112.1
45-49	67.1	62.4	88.6	91.8	117.3	119.8	93.9	91.0	105.1
50-54	72.8	69.6	84.1	88.7	111.5	147.3	88.5	87.0	94.0
55-59	97.1	94.6	91.9	93.7	133.8	115.0	92.8	88.7	111.4
60-64	90.4	88.6	94.6	94.1	125.1	88.8	78.3	75.6	92.1
65-69	111.8	112.0	122.9	121.6	108.9	107.7	77.1	78.7	69.3
70-74	134.0	133.4	137.3	134.0	148.0	96.3	89.5	90.0	86.4
75-79	139.1	140.3	167.3	165.5	113.4	139.7	105.6	106.2	102.6
80-84	116.4	116.4	162.4	158.8	116.2	109.1	101.8	108.2	74.8
85+	130.1	132.2	160.5	154.4	87.8	93.2	113.8	121.1	81.4

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

12.9.3. Age Ratios

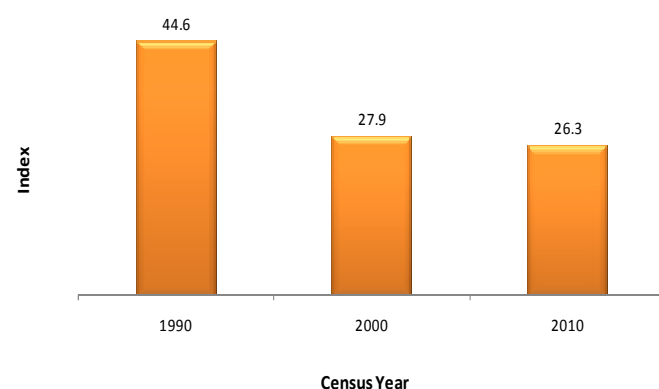
The quality of age data can also be evaluated by examining age ratios. When there are no major changes in fertility, mortality or migration, the age ratios do not deviate much from 100, hence, any substantial deviation is explained in terms of age misreporting. Calculations and comparison of age ratios 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 Ratio by Sex, North 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 above 40, respectively. Figure 12.11 shows the Age-Sex Accuracy Indexes for 1990, 2000 and 2010.

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

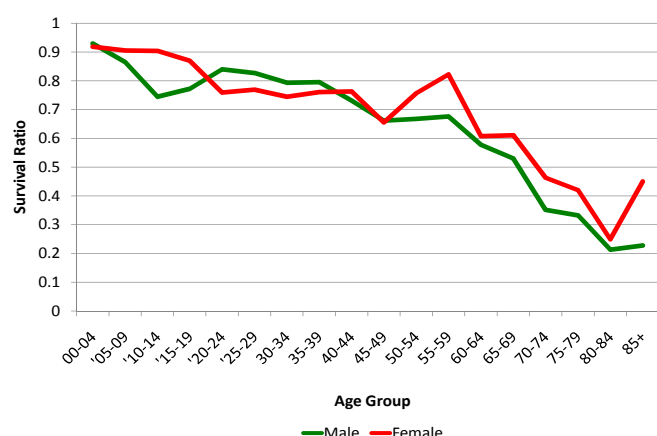
Source: 1990, 2000 and 2010 Census of Population and Housing

In North 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 44.6 in 1990 to 27.9 in 2000 and to 26.3 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”.

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 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 and Sex, North Western Province 2000-2010



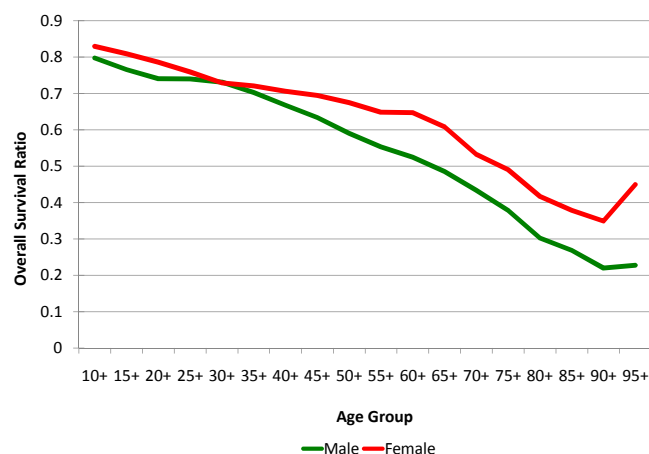
Sources: 2000 and 2010 Censuses of Population and Housing

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 indicate higher survival ratios for males than females in age groups 0-4, 20-39 and 45-49 years.

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 except for the age group 30+ where males had higher survival ratios.

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

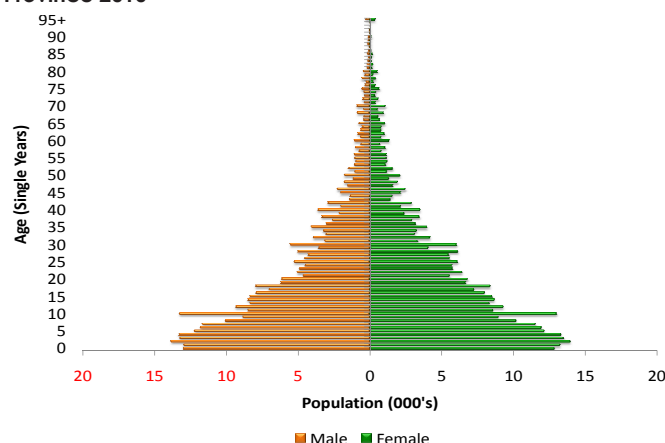


Sources: 2000 and 2010 Censuses of Population and Housing

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.

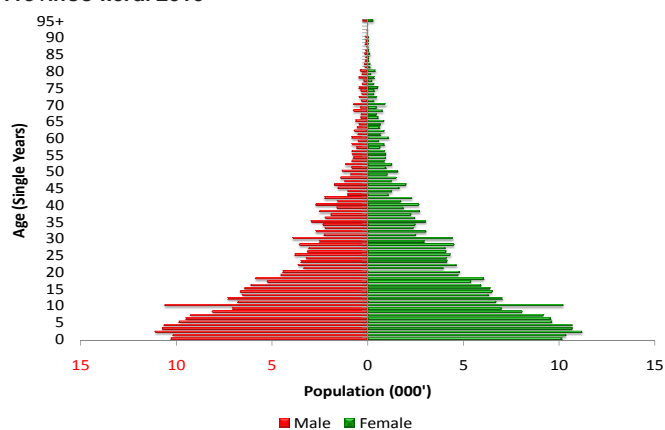
Figure 12.14: Population Distribution in Single Years, North Western Province 2010



Source: 2010 Census of Population and Housing

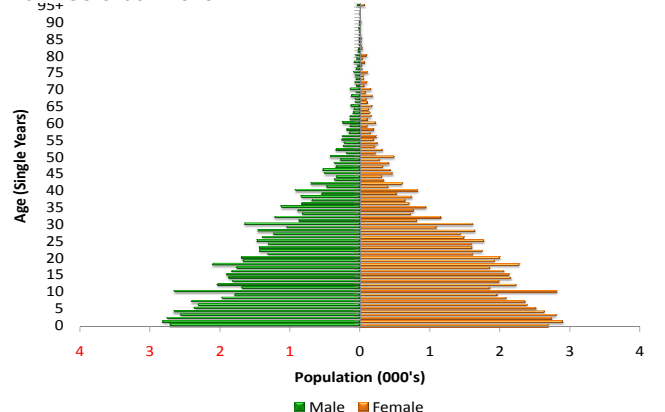
Figures 12.15 and 12.16, shows the population distribution by age in rural and urban areas, respectively.

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



Source: 2010 Census of Population and Housing

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

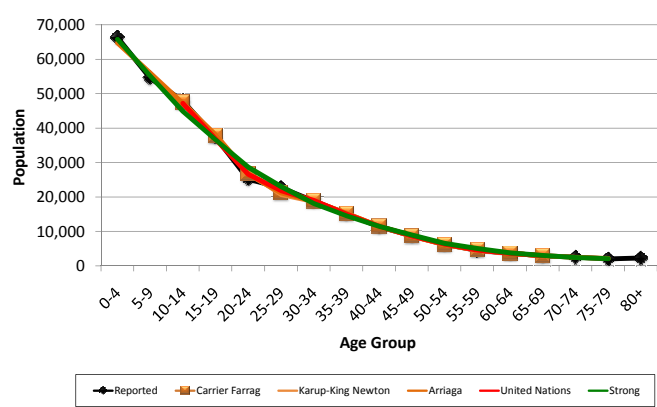


Source: 2010 Census of Population and Housing

Figures 12.17 and 12.18, show the reported and smoothed population by age and sex for 2010.

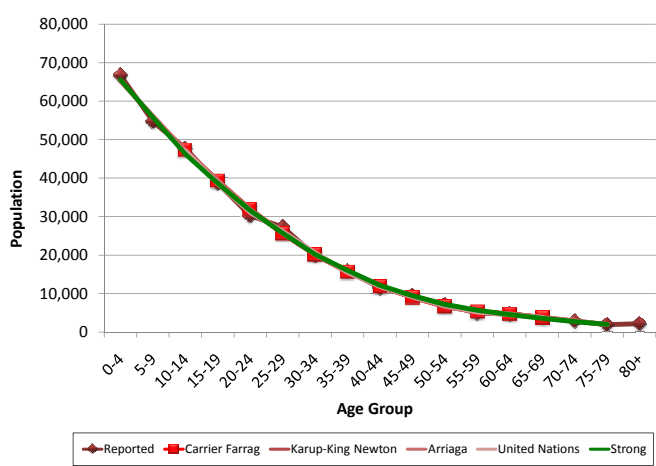
Smoothing the age data using selected techniques for light smoothing of the population show that the irregularities in the structure were not severe to consider smoothing.

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



Source: 2010 Census of Population and Housing

Figure 12.18: Reported and Smoothed Population for Females by Age and Smoothing Technique, North 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 smoothened.

ANNEX TABLES AND REFERENCES

Annex A: Population Composition and Demographic Characteristics

A1: Percent Distribution of the Population (De jure) by Age Group, Sex and Rural/Urban, North Western Province 2010									
Age Group	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
0 - 4	18.9	19.1	18.7	19.5	19.7	19.2	16.9	17.0	16.7
5 - 9	15.8	16.0	15.6	16.4	16.6	16.1	13.9	13.9	14.0
10 - 14	14.1	14.3	13.8	14.2	14.6	13.9	13.4	13.1	13.8
15 - 19	11.5	11.5	11.4	11.1	11.3	10.9	12.7	12.3	13.0
20 - 24	8.4	7.9	8.8	7.8	7.4	8.2	10.2	9.7	10.7
25 - 29	7.4	7.0	7.8	6.9	6.5	7.4	9.0	8.7	9.3
30 - 34	5.7	5.8	5.7	5.4	5.4	5.5	6.8	7.3	6.3
35 - 39	4.6	4.7	4.6	4.5	4.5	4.6	4.9	5.4	4.5
40 - 44	3.4	3.5	3.3	3.4	3.5	3.3	3.5	3.8	3.2
45 - 49	2.7	2.7	2.7	2.8	2.7	2.8	2.6	2.8	2.4
50 - 54	2.0	1.9	2.0	2.0	1.9	2.1	1.9	1.9	1.9
55 - 59	1.4	1.4	1.4	1.4	1.4	1.5	1.2	1.4	1.1
60 - 64	1.2	1.1	1.3	1.3	1.2	1.4	0.9	1.0	0.9
65 - 69	1.0	0.9	1.1	1.0	0.9	1.1	0.7	0.6	0.8
70 - 74	0.8	0.7	0.8	0.8	0.8	0.9	0.5	0.5	0.5
75 - 79	0.6	0.6	0.5	0.6	0.7	0.6	0.4	0.4	0.4
80 - 84	0.3	0.3	0.3	0.3	0.4	0.3	0.2	0.2	0.2
85+	0.3	0.4	0.3	0.4	0.4	0.3	0.2	0.2	0.2
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Population	727,044	358,141	368,903	563,061	277,503	285,558	163,983	80,638	83,345

Source: 2010 Census of Population and Housing

A2: Percent Age Distribution of the Population by Selected Age Groups and Rural/Urban, North Western Province 2010			
Age Group	2010 Census		
	Total	Rural	Urban
10-19 (Adolescents, WHO)	25.5	25.4	26.1
10-24 (Young People, UN)	33.9	33.2	36.3
<15 (Children)	48.8	50.1	44.2
<18 (Children)	55.8	57.0	51.7
15-19 (Middle and later Adolescence)	11.5	11.1	12.7
15-24 (Youths, UN)	19.8	18.9	22.9
15-49 (Reproductive Age Group)	43.7	42.0	49.6
15-35 (Youths, Zambia)	34.1	32.4	40.0
15-64 (Labour force Age group)	48.3	46.7	53.7
60+ (Elderly)	4.2	4.5	3.0
65+ (Elderly)	2.9	3.2	2.0
Total Population	727,044	563,061	163,983

Source: 2010 Census of Population and Housing

Annex B: Social Characteristics

B1: Percent Distribution of Household Heads by Age Group and Sex, North Western Province 2010					
Age group of Household 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
Total	130,803	99,754	100	31,049	100
12-14	105	50	0.1	55	0.2
15 - 19	1,406	795	0.8	611	2
20 - 24	8,886	6,881	6.9	2,005	6.5
25 - 29	19,148	15,875	15.9	3,273	10.5
30 - 34	20,497	17,153	17.2	3,344	10.8
35 - 39	18,133	14,686	14.7	3,447	11.1
40 - 44	14,512	11,397	11.4	3,115	10
45 - 49	11,939	9,047	9.1	2,892	9.3
50 - 54	9,111	6,517	6.5	2,594	8.4
55 - 59	6,609	4,617	4.6	1,992	6.4
60 - 64	5,992	3,732	3.7	2,260	7.3
65+	14,465	9,004	9	5,461	17.6

Source: 2010 Census of Population and Housing

B 2: Relationship to Household Head by Rural/Urban, North Western Province 2010						
Relationship to head	Total	Percent	Rural	Percent	Urban	Percent
Total Population	727,044	100	563,061	100	163,983	100
Head	130,803	18	100,566	17.9	30,237	18.4
Spouse	92,331	12.7	72,000	12.8	20,331	12.4
Own Son/ Daughter	367,252	50.5	292,137	51.9	75,115	45.8
Step Son/Daughter	11,716	1.6	9,608	1.7	2,108	1.3
Parent	3,373	0.5	2,513	0.4	860	0.5
Brother/Sister	17,699	2.4	10,643	1.9	7,056	4.3
Nephew/Niece	21,918	3	13,456	2.4	8,462	5.2
Son/Daughter-in-law	4,631	0.6	3,480	0.6	1,151	0.7
Grandchild	54,916	7.6	43,622	7.7	11,294	6.9
Parent-in-law	761	0.1	520	0.1	241	0.1
Cousin	2,839	0.4	1,578	0.3	1,261	0.8
Other relative	15,751	2.2	11,290	2	4,461	2.7
Not Related	3,054	0.4	1,648	0.3	1,406	0.9

Source: 2010 Census of Population and Housing

Annex C: Education

C1: Population 5 Years and Older by Age (Single and 5 Year Groups), Sex and Literacy Status, and Rural/Urban, North Western Province 2010									
Age (Single and 5 Year Groups)	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	63.0	67.2	59.0	58.3	63.1	53.7	78.3	80.7	76.1
5	3.8	3.8	3.9	3.1	3.0	3.2	6.9	7.3	6.6
6	6.2	6.2	6.2	4.9	4.8	4.9	11.9	12.3	11.5
7	12.1	11.8	12.3	9.9	9.7	10.1	20.6	20.2	21.0
8	20.1	19.3	21.0	16.8	16.2	17.4	33.4	32.1	34.6
9	35.2	33.7	36.7	30.4	29.4	31.4	53.2	50.5	55.6
5 - 9	14.2	13.8	14.7	11.9	11.5	12.2	23.6	22.9	24.3
10	49.0	47.4	50.7	43.7	42.5	44.8	69.5	66.9	71.9
11	67.2	65.4	69.1	62.6	60.8	64.3	85.1	84.0	86.1
12	77.7	76.2	79.1	73.7	72.4	75.1	91.0	89.9	92.0
13	83.8	83.4	84.1	80.8	80.4	81.1	93.8	94.2	93.6
14	87.7	87.7	87.6	85.3	85.5	85.1	95.4	95.7	95.1
10 - 14	70.8	69.6	72.0	66.6	65.6	67.5	85.8	84.7	86.8
15	89.2	89.7	88.8	87.1	87.9	86.4	95.9	96.0	95.7
16	90.4	91.2	89.6	88.4	89.4	87.3	96.7	97.4	96.1
17	90.1	92.1	88.1	87.9	90.4	85.5	96.3	96.9	95.7
18	88.6	91.3	86.0	86.0	89.5	82.6	95.8	96.3	95.3
19	87.9	90.7	85.2	84.9	88.2	81.8	95.4	97.7	93.5
15 - 19	89.3	91.0	87.6	86.9	89.1	84.9	96.0	96.8	95.3
20 - 24	83.3	89.1	78.5	78.7	86.2	72.5	94.9	96.4	93.7
25 - 29	77.3	85.0	70.9	71.2	80.5	63.7	93.0	95.9	90.3
30 - 34	76.8	84.0	70.1	71.0	79.3	63.5	92.5	95.5	89.3
35 - 39	76.0	83.9	68.3	71.0	79.9	62.9	91.3	95.1	87.1
40 - 44	73.3	83.3	63.5	68.3	79.4	57.8	89.8	95.1	83.8
45 - 49	71.0	82.4	60.3	66.5	78.9	55.1	87.4	93.9	80.5
50 - 54	67.0	82.4	53.4	62.4	79.1	47.9	83.4	93.7	73.7
55 - 59	62.7	80.4	46.3	58.6	76.6	42.6	79.0	93.7	62.6
60 - 64	49.8	72.6	32.0	46.3	69.4	28.9	66.0	86.1	47.5
65 +	37.3	57.4	18.8	35.3	55.2	16.6	47.8	70.2	29.7

Source: 2010 Census of Population and Housing

C2: Population 5 Years and Older by Age, Sex, and School Attendance and Rural/Urban, North Western Province 2010									
Age (Single and 5 Year Groups)	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	36.0	38.7	33.4	34.7	37.8	31.7	40.3	41.7	39.0
5	12.4	12.0	12.9	10.1	9.7	10.5	21.7	21.4	21.9
6	25.6	23.9	27.3	22.4	20.8	23.9	38.8	36.4	41.1
7	48.9	47.2	50.6	44.9	42.9	46.9	64.5	64.0	64.9
8	64.5	62.7	66.2	60.7	58.9	62.6	79.5	78.6	80.4
9	75.1	73.8	76.4	72.2	70.9	73.5	86.2	85.3	86.9
5 - 9	42.9	41.5	44.3	39.5	38.1	41.0	56.0	55.0	57.0
10	78.9	78.4	79.3	76.5	76.0	77.1	87.8	88.1	87.5
11	83.5	83.0	84.1	81.6	81.0	82.3	90.7	91.0	90.5
12	85.8	85.3	86.3	84.1	83.7	84.5	91.7	91.2	92.1
13	86.6	86.6	86.5	85.0	84.8	85.3	91.7	92.8	90.6
14	85.1	85.5	84.7	83.4	84.0	82.9	90.6	91.1	90.1
10 - 14	83.5	83.2	83.8	81.6	81.3	81.9	90.3	90.6	90.0
15	81.2	84.1	78.4	79.5	82.4	76.7	86.4	89.8	83.4
16	77.5	82.7	72.4	75.6	81.1	69.9	83.5	88.0	79.6
17	69.2	78.9	59.8	66.1	77.0	55.6	78.2	84.8	72.0
18	58.9	71.3	47.2	55.9	69.6	42.6	67.2	75.8	59.3
19	48.0	62.2	34.8	45.5	60.3	31.4	54.3	67.2	43.2
15 - 19	67.8	76.5	59.5	65.6	74.9	56.5	74.1	81.2	67.7
20 - 24	23.1	33.3	14.6	22.1	33.3	12.7	25.7	33.4	19.2
25 - 29	6.0	7.6	4.7	5.4	7.3	3.9	7.5	8.1	6.9
30 - 34	3.2	3.5	2.9	2.8	3.2	2.4	4.4	4.3	4.4
35 - 39	2.6	2.7	2.4	2.3	2.6	2.1	3.3	3.1	3.4
40 - 44	2.0	2.4	1.6	1.7	2.1	1.4	2.9	3.4	2.4
45 - 49	1.9	2.5	1.4	1.7	2.1	1.3	2.8	3.7	1.8
50 - 54	1.6	1.9	1.3	1.5	2.0	1.1	1.9	1.8	2.1
55 - 59	1.4	1.7	1.1	1.2	1.4	1.0	2.3	2.9	1.6
60 - 64	1.0	1.2	0.8	0.8	1.0	0.7	1.8	2.1	1.4
65 +	1.3	1.7	0.9	1.1	1.5	0.8	1.9	2.6	1.3

Source: 2010 Census of Population and Housing

Annex D: Economic Characteristics

D1: The Usually Working Population (12 years and Older) By District, North Western Province 2010.									
	Total	Chavuma	Ikelenge	Kabompo	Kasempa	Mufumbwe	Mwini-lunga	Solwezi	Zam-bezi
Total	208,269	6,218	12,145	26,879	18,321	18,866	36,049	66,385	23,406
Rural	169,982	5,844	12,145	21,420	17,509	15,877	31,400	44,540	21,247
Urban	38,287	374	-	5,459	812	2,989	4,649	21,845	2,159
Male	105,185	3,270	5,478	13,067	9,104	9,092	16,312	37,469	11,393
Female	103,084	2,948	6,667	13,812	9,217	9,774	19,737	28,916	12,013
The Usually Working Population (12 years and Older) By Employment Status									
Employer	1,276	41	7	119	139	68	121	628	153
Employee	26,404	652	539	1,840	1,804	1,479	2,154	16,272	1,664
Self employed	106,704	2,039	6,186	14,551	9,273	6,867	23,919	32,553	11,316
Unpaid family worker	73,885	3,486	5,413	10,369	7,105	10,452	9,855	16,932	10,273
The Usually Working Population (12 years and Older) By Occupation									
Managers	749	21	19	55	51	14	131	432	26
Professionals	7,586	332	251	714	655	478	786	3,631	739
Technicians and Associate Professionals	2,911	87	69	276	181	121	213	1,824	140
Clerical Support Workers	939	13	11	62	55	36	66	635	61
Service and Sales Workers	9,097	127	88	568	700	534	770	5,866	444
Skilled Agricultural Forestry and Fishery Workers	139,028	3,592	11,087	20,533	14,210	15,940	31,560	39,986	2,120
Craft and Related Trades Workers	8,291	275	145	645	458	389	566	4,998	815
Plant and Machine Operators and Assemblers	4,441	58	43	155	248	127	192	3,399	219
Elementary Occupations	26,641	1,163	62	2,362	1,158	638	668	2,545	18,045
Not Stated	8,586	550	370	1,509	605	589	1,097	3,069	797
The Usually Working Population (12 years and Older) By Industry									
Agriculture Hunting Forestry and Fishing	161,863	4,666	11,054	22,686	15,040	16,068.0	31,750	40,583	20,016
Mining and Quarrying	5,736	3	10	12	153	195.0	56	5,290	17
Manufacturing	2,692	78	92	261	255	131.0	236	1,284	355
Electricity Gas Steam and Air conditioning supply	198	7	1	6	9	6.0	8	151	10
Water Supply	151	3	1	8	15	13.0	17	90	4
Construction and Allied Repairs	4,159	119	78	267	224	460.0	376	2,321	314
Wholesale & Retail Trade Restaurants and Hotel	7,722	133	57	436	570	450.0	748	4,928	400
Transport and Storage	1,663	22	24	83	81	52.0	92	1,223	86
Accommodation and food services activities	911	8	9	38	90	12.0	90	600	64
Information and Communication	543	8	15	88	63	32.0	63	236	38
Finance and Insurance	250	4	1	4	10	4.0	12	196	19
Real Estate Activities	14	-	-	2	3	1.0	2	6	-
Community Social and Personal Services	11,775	421	376	1,137	1,121	731.0	1,259	5,718	1,012
Not Stated	10,592	746	427	1,851	687	711.0	1,340	3,759	1,071

Source: 2010 Census of Population and Housing

Annex E: Fertility Levels, Patterns and Trends

E1: Adjusted ASFRs and TFRs by District, North Western Province 2010									
Age Group	Total	Chavuma	Ikelenge	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
15-19	0.1408	0.0976	0.1157	0.1125	0.1316	0.1365	0.1227	0.1159	0.1365
20-24	0.3010	0.2068	0.2958	0.2562	0.3233	0.3337	0.3275	0.2897	0.3260
25-29	0.3111	0.2560	0.3223	0.2737	0.3594	0.3647	0.3529	0.2928	0.3666
30-34	0.2676	0.2193	0.2571	0.2507	0.2967	0.3160	0.3042	0.2546	0.3363
35-39	0.2144	0.1610	0.2145	0.1873	0.2340	0.2482	0.2507	0.2171	0.2807
40-44	0.1034	0.0691	0.0770	0.1062	0.1305	0.1408	0.1532	0.1037	0.1240
45-49	0.0296	0.0367	0.0507	0.0348	0.0272	0.0529	0.0410	0.0338	0.0443
TFR	6.8	5.9	6.8	6.4	7.4	7.6	7.6	6.3	7.4

Source: 2010 Census of Population and Housing

E2: Observed and Adjusted ASFR, TFR and Mean Age at Childbearing (MACB), North Western 1990 – 2010						
Age Group	1990*		2000*		2010	
	Observed ASFR	Adjusted ASFR	Observed ASFR	Adjusted ASFR	Observed ASFR	Adjusted ASFR
15-19	0.0879	0.0940	0.0928	0.1407	0.0945	0.1408
20-24	0.2501	0.2674	0.2118	0.2768	0.2322	0.3010
25-29	0.2746	0.2936	0.2116	0.2692	0.2484	0.3111
30-34	0.2543	0.2719	0.1846	0.2317	0.2164	0.2676
35-39	0.2112	0.2258	0.0420	0.1748	0.1767	0.2144
40-44	0.1203	0.1286	0.0710	0.0833	0.0904	0.1034
45-49	0.0549	0.0587	0.0290	0.0301	0.0298	0.0296
Obs. TFR	6.3		4.7		5.4	
Adj. TFR		6.7		6.0		6.8
MACB					32.1	

Source: 2010 Census of Population and Housing

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

census year	Total			Districts							
	Total	Rural	Urban	Chavuma	Ikelenge	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
1990	6.9	6.9	6.8	-	-	-	-	-	-	-	-
2000	6.6	6.7	5.3	6.1	-	6.7	6.5	7.5	7.5	7.1	6.3
2010	6.8	7.4	5.0	5.9	6.8	6.4	7.4	7.6	7.6	6.3	7.4

E4: GRR and NRR by Rural/Urban, North 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	0.0471	4.3497	0.2043	0.0507	4.3686	0.2199	0.0370	4.2858	0.1589
20 - 24	0.1134	4.2258	0.4797	0.1226	4.2534	0.5199	0.0889	4.1406	0.3715
25 - 29	0.1197	4.0386	0.4869	0.1296	4.0888	0.5305	0.0917	3.8965	0.3656
30 - 34	0.1064	3.8295	0.4115	0.1160	3.8956	0.4535	0.0768	3.6444	0.2872
35 - 39	0.0842	3.6079	0.3068	0.0904	3.7027	0.3350	0.0619	3.3334	0.2144
40 - 44	0.0447	3.4099	0.1526	0.0494	3.5221	0.1726	0.0265	3.0789	0.0841
45 - 49	0.0155	3.1998	0.0493	0.0170	3.3310	0.0558	0.0096	2.8047	0.0274
GRR 2010	2.4			2.9			2.0		
GRR 2000	2.6			2.8			1.8		
GRR 1990	3.4			3.4			3.3		
NRR 2010			1.9			2.3			1.5
NRR 2000			2.5			2.5			2.4
NRR 1990			2.0			2.2			1.5

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, North Western Province 2010**

Age Group	Total	Rural	Urban	Chavuma	Ikelenge	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
0 - 4	0.363	0.382	0.309	0.315	0.411	0.341	0.294	0.366	0.421	0.357	0.389
5-9	0.052	0.057	0.038	0.082	0.025	0.043	0.049	0.045	0.060	0.053	0.053
10-14	0.038	0.042	0.027	0.014	0.030	0.044	0.031	0.041	0.033	0.043	0.031
15 - 19	0.038	0.036	0.042	0.051	0.021	0.028	0.028	0.037	0.043	0.040	0.040
20 - 24	0.045	0.043	0.052	0.055	0.030	0.030	0.056	0.049	0.040	0.051	0.033
25 - 29	0.063	0.054	0.088	0.031	0.047	0.059	0.052	0.043	0.060	0.078	0.047
30 - 34	0.057	0.053	0.067	0.031	0.059	0.055	0.078	0.047	0.054	0.063	0.033
35 - 39	0.054	0.048	0.069	0.038	0.025	0.050	0.077	0.051	0.044	0.061	0.037
40 - 44	0.041	0.040	0.042	0.048	0.034	0.045	0.064	0.035	0.028	0.041	0.038
45 - 49	0.035	0.030	0.049	0.065	0.008	0.019	0.045	0.033	0.033	0.036	0.041
50 - 54	0.037	0.032	0.051	0.021	0.047	0.045	0.042	0.045	0.029	0.035	0.042
55 - 59	0.022	0.020	0.027	0.014	0.013	0.024	0.028	0.041	0.014	0.020	0.024
60 - 64	0.030	0.031	0.026	0.065	0.059	0.027	0.023	0.025	0.031	0.027	0.030
65 - 69	0.026	0.026	0.024	0.024	0.042	0.040	0.024	0.025	0.021	0.021	0.035
70 - 74	0.034	0.037	0.025	0.055	0.051	0.052	0.026	0.033	0.035	0.028	0.031
75+	0.067	0.068	0.063	0.092	0.097	0.097	0.082	0.086	0.055	0.046	0.097

Source: 2010 Census of Population and Housing

Annex H: Disability**H1: Disabled Population by Sex, Rural/Urban and District, North Western Province 2010**

Sex and District	Disabled population			Percent Disabled		
	Total	Rural	Urban	Total	Rural	Urban
Total	18495	15728	2767	2.7	3.0	1.8
Male	9549	8176	1373	2.9	3.2	1.8
Female	8946	7552	1394	2.6	2.8	1.7
District						
Chavuma	1363	1237	126	4.0	4.2	2.7
Ikelenge	844	844	0	2.6	2.6	
Kabompo	3221	2478	743	3.7	3.8	3.5
Kasempa	1985	1924	61	3.1	3.2	1.6
Mufumbwe	1561	1343	218	2.9	3.0	2.4
Mwinilunga	2907	2654	253	2.9	3.2	1.6
Solwezi	4467	3319	1148	1.9	2.3	1.2
Zambezi	2147	1929	218	2.8	2.9	2.2

Source: 2010 Census of Population and Housing

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

Age	Disabled Population			Percent Disabled		
	Total	Male	Female	Total	Male	Female
Total	18,495	9,549	8,946	3	3	3
0 - 4	1,033	550	483	1	1	1
5-9	1,552	864	688	1	2	1
10-14	1,839	1,039	800	2	2	2
15 - 19	1,538	843	695	2	2	2
20 - 24	1,065	585	480	2	2	2
25 - 29	1,006	524	482	2	2	2
30 - 34	981	522	459	3	3	2
35 - 39	995	550	445	3	4	3
40 - 44	1,052	564	488	5	5	4
45 - 49	996	473	523	5	5	6
50 - 54	965	469	496	7	7	7
55 - 59	783	353	430	8	8	9
60 - 64	952	409	543	11	11	11
65 - 69	896	350	546	13	12	15
70 - 74	945	440	505	18	17	18
75 - 79	784	421	363	20	21	19
80 - 84	510	255	255	23	23	24
85 - 89	285	165	120	25	25	24
90 - 94	122	80	42	25	29	20
95+	196	93	103	30	32	28

Source: 2010 Census of Population and Housing

Annex I: Evaluation of Coverage and Content Errors**I1: Population by Age Group, Sex, Age Ratio and Sex Ratio, North Western 1990**

Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	31,304	31,701	-	-	-	-	98.7	-
5-9	29,119	29,509	101.1	101.7	1.1	1.7	98.7	-0.1
10-14	26,298	26,320	100.1	97.9	0.1	-2.1	99.9	1.2
15-19	23,406	24,239	113.4	108.2	13.4	8.2	96.6	-3.4
20-24	14,997	18,472	87.5	95.5	-12.5	-4.5	81.2	-15.4
25-29	10,872	14,439	90.8	98.8	-9.2	-1.2	75.3	-5.9
30-34	8,947	10,766	105.4	97.2	5.4	-2.8	83.1	7.8
35-39	6,112	7,714	85.3	82.9	-14.7	-17.1	79.2	-3.9
40-44	5,379	7,856	98.9	106.0	-1.1	6.0	68.5	-10.8
45-49	4,767	7,102	91.9	96.5	-8.1	-3.5	67.1	-1.4
50-54	4,998	6,862	105.3	114.7	5.3	14.7	72.8	5.7
55-59	4,727	4,867	101.3	83.5	1.3	-16.5	97.1	24.3
60-64	4,332	4,795	110.0	124.8	10.0	24.8	90.4	-6.8
65-69	3,153	2,820	86.8	80.7	-13.2	-19.3	111.8	21.5
70-74	2,937	2,192	-	-	0.0	0.0	134.0	22.2
75+	3,690	2,861	-	-	-	-	129.0	-
Total	185,038	202,514	-	-	-	-	-	-
Mean	-	-	-	-	7.3	9.4	-	9.3

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.

 $3 \times 9.3 + 7.3 + 9.4$ $= 44.6$ **I2: Population by Age Group, Sex, Age Ratio and Sex Ratio, North Western 2000**

Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	51,479	51,989	-	-	-	-	99.0	-
5-9	43,186	42,755	101.3	100.1	1.3	0.1	101.0	2.0
10-14	33,815	33,401	93.3	90.0	-6.7	-10.0	101.2	0.2
15-19	29,326	31,429	104.3	105.5	4.3	5.5	93.3	-7.9
20-24	22,434	26,193	94.1	100.6	-5.9	0.6	85.6	-7.7
25-29	18,345	20,627	99.9	99.0	-0.1	-1.0	88.9	3.3
30-34	14,303	15,476	97.3	94.0	-2.7	-6.0	92.4	3.5
35-39	11,053	12,318	96.5	99.4	-3.5	-0.6	89.7	-2.7
40-44	8,597	9,304	96.2	94.2	-3.8	-5.8	92.4	2.7
45-49	6,826	7,433	96.6	95.6	-3.4	-4.4	91.8	-0.6
50-54	5,535	6,243	99.6	104.0	-0.4	4.0	88.7	-3.2
55-59	4,284	4,572	86.1	83.7	-13.9	-16.3	93.7	5.0
60-64	4,411	4,686	108.6	121.2	8.6	21.2	94.1	0.4
65-69	3,841	3,158	101.9	89.9	1.9	-10.1	121.6	27.5
70-74	3,131	2,336	-	-	0.0	0.0	134.0	12.4
75+	4,518	2,818	-	-	-	-	160.3	-
Total	265,084	274,738	-	-	-	-	-	-
Mean	-	-	-	-	4.3	6.6	-	5.6

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.

 $3 \times 5.6 + 4.3 + 6.6$ $= 27.9$

I3: Population by Age Group, Sex, Age Ratio and Sex Ratio, North Western 2010

Age Group	Population		Age ratio		Deviation from 100		Sex ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	66,280	66,695					99.4	
5-9	54,525	54,640	95.5	95.5	-4.5	-4.5	99.8	0.4
10-14	47,857	47,740	104.2	102.3	4.2	2.3	100.2	0.5
15-19	37,366	38,708	102.3	99.3	2.3	-0.7	96.5	-3.7
20-24	25,191	30,186	83.9	91.4	-16.1	-8.6	83.5	-13.1
25-29	22,669	27,316	102.9	109.1	2.9	9.1	83.0	-0.5
30-34	18,855	19,887	99.6	92.1	-0.4	-7.9	94.8	11.8
35-39	15,178	15,873	100.5	101.1	0.5	1.1	95.6	0.8
40-44	11,353	11,528	94.7	91.4	-5.3	-8.6	98.5	2.9
45-49	8,797	9,366	99.8	100.6	-0.2	0.6	93.9	-4.6
50-54	6,284	7,100	94.4	99.8	-5.6	-0.2	88.5	-5.4
55-59	4,520	4,869	90.6	82.4	-9.4	-17.6	92.8	4.3
60-64	3,698	4,725	99.7	109.5	-0.3	9.5	78.3	-14.6
65-69	2,898	3,759	92.8	99.3	-7.2	-0.7	77.1	-1.2
70-74	2,549	2,849	-	-	0.0	0.0	89.5	12.4
75+	4,356	4,081	-	-	-	-	106.7	-
Total	332,376	349,322	-	-			-	
Mean	-	-	-	-	4.5	5.5	-	5.4

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.

$$3 \times 5.4 + 4.5 + 5.5$$

$$= 26.3$$

Life Tables

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0604	0.3	0.0579	100,000	5,791	95,946	0.9177	5,358,266	53.6
1	4	0.0107	0.4	0.0411	94,209	3,870	362,905	0.9689	5,262,320	55.9
5	5	0.0036	0.5	0.0175	90,339	1,580	444,585	0.9851	4,899,416	54.2
10	5	0.0030	0.5	0.0146	88,759	1,297	437,961	0.9822	4,454,830	50.2
15	5	0.0037	0.5	0.0182	87,463	1,589	430,163	0.9716	4,016,869	45.9
20	5	0.0061	0.5	0.0295	85,874	2,536	417,956	0.9564	3,586,707	41.8
25	5	0.0094	0.5	0.0452	83,338	3,767	399,738	0.9489	3,168,750	38.0
30	5	0.0109	0.5	0.0518	79,571	4,122	379,307	0.9401	2,769,012	34.8
35	5	0.0129	0.5	0.0609	75,449	4,593	356,575	0.9377	2,389,705	31.7
40	5	0.0132	0.5	0.0625	70,856	4,428	334,354	0.9328	2,033,130	28.7
45	5	0.0144	0.5	0.0677	66,428	4,499	311,895	0.9088	1,698,776	25.6
50	5	0.0205	0.5	0.0940	61,929	5,824	283,438	0.9184	1,386,881	22.4
55	5	0.0173	0.5	0.0801	56,105	4,492	260,314	0.8858	1,103,443	19.7
60	5	0.0265	0.5	0.1183	51,614	6,105	230,596	0.8734	843,129	16.3
65	5	0.0288	0.5	0.1276	45,509	5,809	201,404	0.8145	612,533	13.5
70	5	0.0467	0.5	0.1929	39,700	7,658	164,038	0.8088	411,129	10.4
75	5	0.0461	0.5	0.1910	32,042	6,119	132,675	0.4631	247,091	7.7
80		0.0709	0.5	1.0000	25,923	25,923	114,416		114,416	4.4

Source: 2010 Census of Population and Housing

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0994	0.3	0.0929	100,000	9,293	93,495	0.8655	4,973,185	49.7
1	4	0.0193	0.4	0.0721	90,707	6,544	339,268	0.9499	4,879,691	53.8
5	5	0.0053	0.5	0.0257	84,163	2,161	411,089	0.9839	4,540,422	53.9
10	5	0.0030	0.5	0.0150	82,002	1,227	404,488	0.9808	4,129,334	50.4
15	5	0.0040	0.5	0.0196	80,775	1,586	396,739	0.9667	3,724,846	46.1
20	5	0.0072	0.5	0.0348	79,189	2,757	383,538	0.9584	3,328,107	42.0
25	5	0.0088	0.5	0.0424	76,432	3,239	367,583	0.9468	2,944,569	38.5
30	5	0.0114	0.5	0.0544	73,193	3,985	348,032	0.9425	2,576,987	35.2
35	5	0.0122	0.5	0.0579	69,208	4,005	328,019	0.9316	2,228,954	32.2
40	5	0.0148	0.5	0.0696	65,203	4,538	305,598	0.9262	1,900,935	29.2
45	5	0.0159	0.5	0.0743	60,666	4,506	283,052	0.9175	1,595,337	26.3
50	5	0.0181	0.5	0.0835	56,160	4,690	259,694	0.9145	1,312,285	23.4
55	5	0.0186	0.5	0.0857	51,470	4,411	237,499	0.8927	1,052,591	20.5
60	5	0.0244	0.5	0.1099	47,059	5,174	212,013	0.8954	815,092	17.3
65	5	0.0229	0.5	0.1040	41,885	4,355	189,828	0.8470	603,079	14.4
70	5	0.0371	0.5	0.1591	37,530	5,970	160,785	0.8405	413,251	11.0
75	5	0.0373	0.5	0.1596	31,560	5,037	135,136	0.4647	252,466	8.0
80	+	0.0622	0.5	1.0000	26,523	26,523	117,330		117,330	4.4

Source: 2010 Census of Population and Housing

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0792	0.3	0.0751	100,000	7,507	94,745	0.8897	5,629,210	56.3
1	4	0.0157	0.4	0.0596	92,493	5,514	350,121	0.9603	5,534,464	59.8
5	5	0.0040	0.5	0.0196	86,979	1,705	427,224	0.9838	5,184,343	59.6
10	5	0.0032	0.5	0.0158	85,274	1,345	420,320	0.9806	4,757,119	55.8
15	5	0.0040	0.5	0.0198	83,929	1,661	412,175	0.9752	4,336,799	51.7
20	5	0.0052	0.5	0.0254	82,269	2,091	401,936	0.9663	3,924,624	47.7
25	5	0.0072	0.5	0.0347	80,178	2,779	388,385	0.9553	3,522,688	43.9
30	5	0.0096	0.5	0.0458	77,399	3,547	371,033	0.9582	3,134,303	40.5
35	5	0.0086	0.5	0.0414	73,852	3,056	355,507	0.9548	2,763,271	37.4
40	5	0.0095	0.5	0.0456	70,796	3,230	339,443	0.9595	2,407,764	34.0
45	5	0.0083	0.5	0.0400	67,566	2,700	325,680	0.9519	2,068,320	30.6
50	5	0.0103	0.5	0.0490	64,866	3,180	310,018	0.9467	1,742,640	26.9
55	5	0.0113	0.5	0.0538	61,686	3,317	293,501	0.9528	1,432,622	23.2
60	5	0.0097	0.5	0.0464	58,369	2,709	279,650	0.9184	1,139,121	19.5
65	5	0.0186	0.5	0.0857	55,659	4,768	256,840	0.8819	859,470	15.4
70	5	0.0274	0.5	0.1221	50,891	6,212	226,504	0.8719	602,630	11.8
75	5	0.0292	0.5	0.1289	44,680	5,760	197,479	0.4750	376,127	8.4
80	+	0.0598	0.5	1.0000	38,920	38,920	178,648		178,648	4.6

Source: 2010 Census of Population and Housing

Table 4: Abridged Life Table North Western Province Rural - Both Sexes, 2010

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0587	0.3	0.0564	100,000	5,642	96,051	0.9195	5,515,269	55.2
1	4	0.0105	0.4	0.0404	94,358	3,810	363,717	0.9690	5,419,218	57.4
5	5	0.0036	0.5	0.0177	90,548	1,607	445,509	0.9845	5,055,501	55.8
10	5	0.0031	0.5	0.0152	88,941	1,354	438,613	0.9830	4,609,992	51.8
15	5	0.0035	0.5	0.0172	87,587	1,509	431,146	0.9725	4,171,379	47.6
20	5	0.0059	0.5	0.0286	86,078	2,463	419,308	0.9612	3,740,233	43.5
25	5	0.0083	0.5	0.0399	83,615	3,339	403,050	0.9520	3,320,925	39.7
30	5	0.0102	0.5	0.0489	80,276	3,926	383,713	0.9468	2,917,875	36.3
35	5	0.0113	0.5	0.0537	76,350	4,102	363,290	0.9414	2,534,162	33.2
40	5	0.0125	0.5	0.0592	72,248	4,275	342,002	0.9444	2,170,873	30.0
45	5	0.0116	0.5	0.0551	67,973	3,748	323,000	0.9246	1,828,871	26.9
50	5	0.0167	0.5	0.0778	64,225	4,996	298,643	0.9313	1,505,870	23.4
55	5	0.0144	0.5	0.0676	59,229	4,006	278,115	0.8932	1,207,228	20.4
60	5	0.0248	0.5	0.1115	55,222	6,157	248,408	0.8839	929,112	16.8
65	5	0.0261	0.5	0.1166	49,066	5,723	219,575	0.8233	680,705	13.9
70	5	0.0442	0.5	0.1842	43,343	7,984	180,786	0.8269	461,130	10.6
75	5	0.0406	0.5	0.1715	35,359	6,066	149,498	0.4667	280,344	7.9
80	+	0.0635	0.5	1.0000	29,293	29,293	130,846		130,846	4.5

Source: 2010 Census of Population and Housing

Table 5: Abridged Life Table North Western Province Urban - Both Sexes, 2010

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0665	0.3	0.0635	100,000	6,351	95,554	0.9108	4,892,844	48.9
1	4	0.0114	0.4	0.0438	93,649	4,102	359,828	0.9686	4,797,290	51.2
5	5	0.0033	0.5	0.0165	89,547	1,475	441,095	0.9872	4,437,462	49.6
10	5	0.0025	0.5	0.0124	88,072	1,094	435,433	0.9800	3,996,367	45.4
15	5	0.0043	0.5	0.0209	86,977	1,816	426,713	0.9693	3,560,934	40.9
20	5	0.0066	0.5	0.0318	85,161	2,712	413,602	0.9443	3,134,220	36.8
25	5	0.0123	0.5	0.0585	82,449	4,821	390,553	0.9406	2,720,618	33.0
30	5	0.0126	0.5	0.0595	77,629	4,619	367,355	0.9200	2,330,065	30.0
35	5	0.0178	0.5	0.0824	73,009	6,017	337,970	0.9256	1,962,710	26.9
40	5	0.0157	0.5	0.0734	66,992	4,918	312,832	0.8932	1,624,740	24.3
45	5	0.0246	0.5	0.1108	62,075	6,876	279,431	0.8560	1,311,908	21.1
50	5	0.0342	0.5	0.1482	55,199	8,180	239,183	0.8710	1,032,477	18.7
55	5	0.0285	0.5	0.1265	47,019	5,946	208,336	0.8536	793,294	16.9
60	5	0.0344	0.5	0.1489	41,073	6,116	177,841	0.8236	584,958	14.2
65	5	0.0430	0.5	0.1800	34,957	6,292	146,467	0.7719	407,117	11.6
70	5	0.0595	0.5	0.2346	28,664	6,724	113,065	0.7223	260,650	9.1
75	5	0.0763	0.5	0.2840	21,941	6,231	81,664	0.4467	147,585	6.7
80	+	0.1054	0.5	1.0000	15,710	15,710	65,921		65,921	4.2

Source: 2010 Census of Population and Housing

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**2010 CENSUS OF POPULATION AND HOUSING
QUESTIONNAIRE**

REPUBLIC OF ZAMBIA

CENTRAL
STATISTICAL
OFFICE

2010 CENSUS OF POPULATION AND HOUSING

IDENTIFICATION		Constituency		CSA No.		Housing Unit No. (HUN)		Residential Address	
Province									
District									
Ward		SEA No.		Household No. (HHN)		Village/Locality Name		Chief's Area	
Region		Census Building No. (CBN)							

INTERVIEW STATUS

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

MARK HERE IF MORE
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QUESTIONNAIRE

Questionnaire

of

SECTION P - QUESTIONS ON POPULATION FOR ALL MEMBERS OF THE HOUSEHOLD

P1 NAMES of usual residents and visitors	P2 Member-ship status?	P3 What is (NAME'S) relationship to the head of household?	P4 Is (NAME) male or female?	P5 How old was (NAME) at his/her last birthday? If less than 1 year enter "00"	P6 PLACE OF BIRTH Where was (NAME) born?	P7 Was this part of the district rural or urban at the time of birth?	P8 If (NAME) is (NAME) Zambian? P9 If non-Zambian, code here then write name of country	P10 What is the main purpose of your stay in Zambia?	P11 What is (NAME'S) religion?
1	Usual member Present	Head of Household	Male		Write District/Country name then code	Rural		Employment	Catholic
2	Usual member Absent	Spouse	Female			Urban		Investor	Protestant
3	Usual member Present	Own Son/Daughter						Refugee/Asylum	Muslim
4	Usual member Present	Step Son/Daughter						Settlement	Hindu
5	Usual member Present	Parent						Education/Training	Buddhist
6	Usual member Present	Brother/Sister						Other	Other
7	Usual member Present	Nephew/Niece							
8	Usual member Present	Grandchild							
9	Usual member Present	Parent-in-Law							
10	Usual member Present	Other Relative							
11	Usual member Present	Unrelated							
12	Usual member Present	Visitor							
13	Usual member Present	Head of Household							
14	Usual member Present	Spouse							
15	Usual member Present	Own Son/Daughter							
16	Usual member Present	Step Son/Daughter							
17	Usual member Present	Parent							
18	Usual member Present	Brother/Sister							
19	Usual member Present	Nephew/Niece							
20	Usual member Present	Grandchild							
21	Usual member Present	Parent-in-Law							
22	Usual member Present	Other Relative							
23	Usual member Present	Unrelated							
24	Usual member Present	Visitor							
25	Usual member Present	Head of Household							
26	Usual member Present	Spouse							
27	Usual member Present	Own Son/Daughter							
28	Usual member Present	Step Son/Daughter							
29	Usual member Present	Parent							
30	Usual member Present	Brother/Sister							
31	Usual member Present	Nephew/Niece							
32	Usual member Present	Grandchild							
33	Usual member Present	Parent-in-Law							
34	Usual member Present	Other Relative							
35	Usual member Present	Unrelated							
36	Usual member Present	Visitor							
37	Usual member Present	Head of Household							
38	Usual member Present	Spouse							
39	Usual member Present	Own Son/Daughter							
40	Usual member Present	Step Son/Daughter							
41	Usual member Present	Parent							
42	Usual member Present	Brother/Sister							
43	Usual member Present	Nephew/Niece							
44	Usual member Present	Grandchild							
45	Usual member Present	Parent-in-Law							
46	Usual member Present	Other Relative							
47	Usual member Present	Unrelated							
48	Usual member Present	Visitor							
49	Usual member Present	Head of Household							
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53	Usual member Present	Parent							
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55	Usual member Present	Nephew/Niece							
56	Usual member Present	Grandchild							
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58	Usual member Present	Other Relative							
59	Usual member Present	Unrelated							
60	Usual member Present	Visitor							
61	Usual member Present	Head of Household							
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65	Usual member Present	Parent							
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68	Usual member Present	Grandchild							
69	Usual member Present	Parent-in-Law							
70	Usual member Present	Other Relative							
71	Usual member Present	Unrelated							
72	Usual member Present	Visitor							
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77	Usual member Present	Parent							
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80	Usual member Present	Grandchild							
81	Usual member Present	Parent-in-Law							
82	Usual member Present	Other Relative							
83	Usual member Present	Unrelated							
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94	Usual member Present	Other Relative							
95	Usual member Present	Unrelated							
96	Usual member Present	Visitor							
97	Usual member Present	Head of Household							
98	Usual member Present	Spouse							
99	Usual member Present	Own Son/Daughter							
100	Usual member Present	Step Son/Daughter							

ENUMERATOR

Name

Date

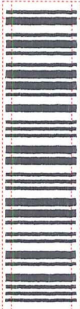
SUPERVISOR

Name

Date

CONFIDENTIAL: The Census is being conducted under the Census & Statistics Act, CAP127 of the laws of Zambia. The information will be strictly confidential and used for statistical purposes only.

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HOUSEHOLD SUMMARY COUNT					INSTITUTIONAL				
Usual members present			Usual members absent		Type of Collective Quarters			Summary Count	
Male			Male		Hotel/Motel/Lodge	Police Cell	Other (specify below)	Male	
Female			Female		Hostel/Guest House/Inn	Refugee Camp		Female	
Total			Total		Hospital			Total	
					Learning Institution				
					Prison				

FOR ALL MEMBERS PRESENT										ONLY FOR PERSONS LESS THAN 18 YEARS OLD										ONLY FOR PERSONS AGED 15 YEARS AND OLDER									
Person Number	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) albino?	P20 Is (NAME'S) biological mother alive?	P21 Does (NAME'S) biological mother 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 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	Mark all those that apply	Mark all those that apply	Go to P22	Go to P24	Go to P29	Enter code from manual																		
[]				Same as Head of Household	Yes No	Blind Partially sighted Deaf and Dumb Deaf Hard of hearing Dumb Intellectual Speech impairment Physically disabled Mentally retarded Other	Congenital/illness Spousal violence Other violence Unknown Other	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No													
[]				Same as Head of Household	Yes No	Blind Partially sighted Deaf and Dumb Deaf Hard of hearing Dumb Intellectual Speech impairment Physically disabled Mentally retarded Other	Congenital/illness Spousal violence Other violence Unknown Other	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No	Yes No												
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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 H - HOUSING CHARACTERISTICS

H1 Type of housing unit made of?	Traditional	Improved traditional	Mixed	Conventional flat	Conventional house	Mobile	Part of commercial building	Improvised/Makeshift	Collective/Institutional quarters	Unintended	Other						
H2 What is the main type of material used for the roof?	Thatch/Palm Leaf	Rustic Mat	Palm/Bamboo	Wood Planks	Cardboard	Metal/Iron Sheets	Wood	Asbestos	Ceramic Tiles/Harvey Tiles	Cement	Roofing Shingles	Mud Tiles	Other				
H3 What are the walls of this housing unit mainly made of?	Burnt bricks	Mud bricks	Compressed mud	Compressed cement bricks	Concrete blocks/slab	Cement blocks	Stone	Iron sheets	Asbestos/hardboard/wood	Pole and dagg/mud	Grass	Other					
H4 What is the floor of this housing unit mainly made of?	Concrete	Cement	Brick	Tiles	Mud	Wood (not wooden tiles)	Marble	Terrazzo	Other								
H5 Type of Occupancy?	Single household	One household in several housing units	Shared	Vacant	Non-contact	Non-residential											
H6 (If shared) what is the number of households?																	
H7 What is the main source of water supply for...?	Piped water inside the housing unit	Piped water outside housing unit within stand/pot	Communal tap	Protected well	Unprotected well	Unprotected borehole	River/Dam/Stream	Rain Water Tank	Other tap	Water Kiosk	Water Vendor	Mineral/bottled water	Other				
H8 How many living rooms and bedrooms does this housing unit have?	LIVING	BEDROOMS															
H9 How many persons usually sleep in the housing unit(s)?																	
H10 Does this housing unit have a kitchen?	Yes	No															
H11 What is the main source of energy used for...?	Light	Cook	Heat	Ing													
H12 Does your household have?	A Radio	A Television	Refrigerator/freezer	A Telephone	A Bicycle	A Motor vehicle	An Internet facility	A Computer/Laptop	A Motorcycle	A Plough	A Boat/Canoe	A Scooter	A Cart	A Donkey	A Mobile Phone	Oxen	A Wheelbarrow
H13 How is the household refuse disposed?	Regularly collected	Irregularly collected	Burnt	Roadside dumping	Other dumping	Burying/pit	Other										
H14 What is the main type of toilet used by members of this household?	Flush Private connected to water sewer system	Flush Private connected to stand alone soak away	Flush Communal	Pit Latrine	Ventilated Improved Pit Latrine (VIP)	Bucket	No toilet facility										
H15 Is this toilet exclusively used by members of this household?	Yes	No															
H16 Is this toilet shared by members of this household?	Yes	No															
H17 How was this housing unit acquired?	Purchased	Mortgage	Freely	Inherited	Self built	Other											
H18 Is this housing unit provided free by the employer, friend or relative of any member of this household?	Yes, Employer	Yes, By friend or relative	No														

SECTION A - AGRICULTURE

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	M1					
A2 On your holding, which of the following crops did you grow since 1st October 2009?	Maize	Virginia tobacco	Yes	No				
	Sorghum	Sunflower						
	Millet	Soya beans						
	Rice	Paprika						
	Cassava	Sugar cane						
	Sweet potatoes	Cashew Nuts						
	Irish potatoes	Vegetables						
	Groundnuts	Orchard						
	Mixed beans	Coffee						
	Cow peas	Velvet beans						
	Wheat	Bambara nuts						
	Cotton	Pineapple						
	Burley tobacco	Other crop						
A3 On your holding, which of the following livestock/poultry have you raised since 1st October 2009?	Cattle	Goats	Pigs	Sheep	Donkeys	Chickens	Other Poultry	Other Livestock
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 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	End					
M2 What was the sex of the deceased?	Male	Female						
M3 What was the age of the deceased?	Age in completed years. (Record 00 if less than 1 year)							
M4 What was the cause of death?	Accident	Injury	Suicide	Spousal Violence	Other Violence	Sickness/Disease	Whitcraft	Other
M5 Did the death occur while pregnant?	Yes	No	End					
M6 Did the death occur during childbirth?	Yes	No	End					
M7 Did the death occur during the 6 weeks period following the end of pregnancy, irrespective of the way the pregnancy ended?	Yes	No	End					

Key Persons Involved in the Production of the Report

1. Editorial Team

Mr. John Kalumbi - Director
Mr. Iven Sikanyiti - Deputy Director
Mr. Peter Mukuka - Former 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

3. 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

4. Desktop Publishing Team

Mr. Makoselo Bowa
Mr. Anthony M. Nkole

5. 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

6. Drivers

Mr. Mwenda - Transport Officer
Mr. Morris Munkondya
Mr. Leonard Phiri