

ZAMBIA

2010 CENSUS OF POPULATION AND HOUSING

CENTRAL PROVINCE ANALYTICAL REPORT

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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 Central province based on data from the 2010 Population and Housing Census. The report presents detailed analysis on the population of Central Province including the 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 Central Province and all the residents of Central 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 Central province.



Alexander B. Chikwanda, MP
Minister of Finance

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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.

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

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

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

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

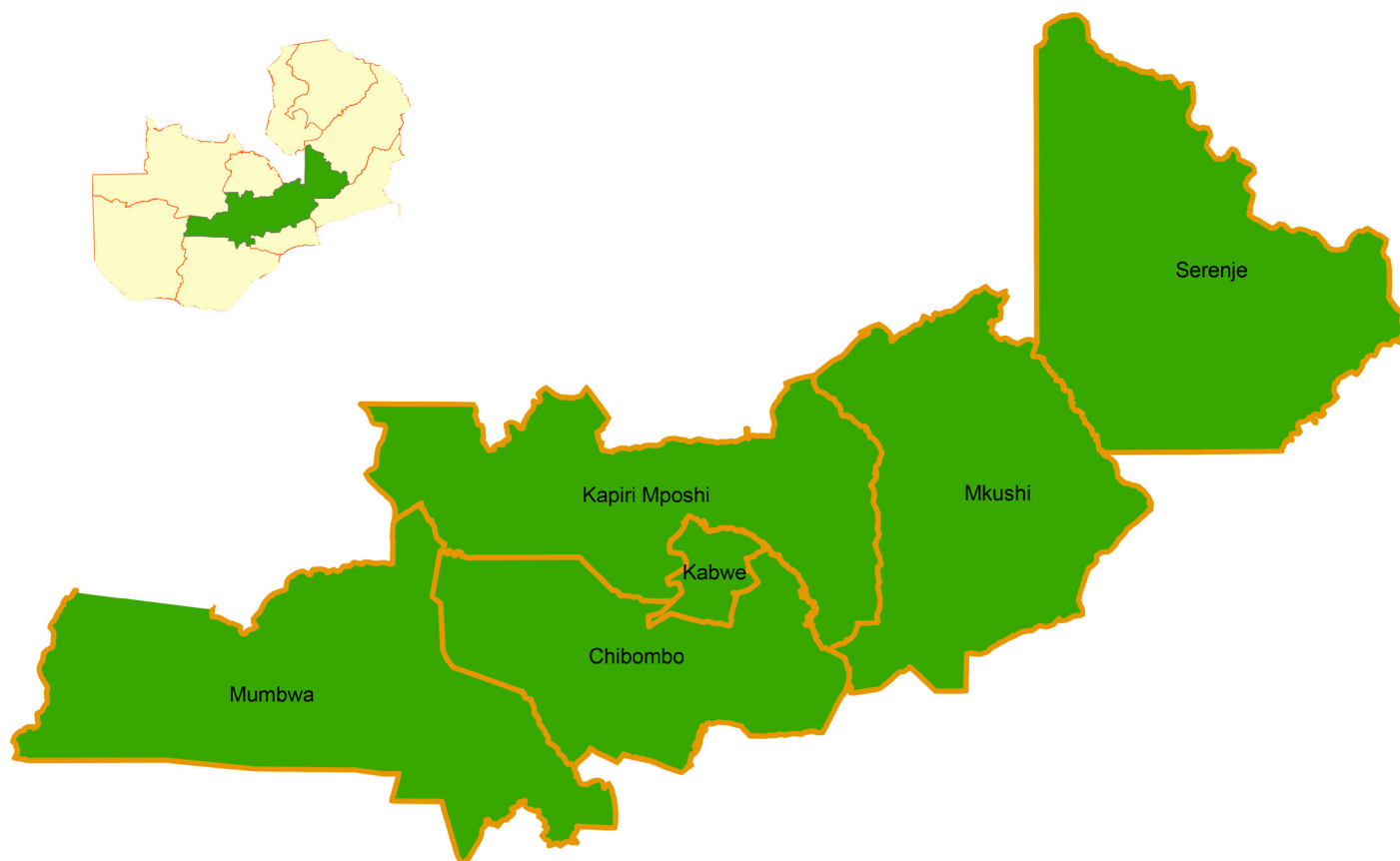
I hope all stakeholders and data users will make effective use of this Analytical Report.



John Kalumbi
Director
Census and Statistics

March, 2014

Chapter 1: Provincial Profile; Central Province



Chapter 1

Provincial Profile: Central Province



1.0 Introduction

Lying in the hub of Zambia, Central Province has an area of 94,394 square kilometres, approximately 12.5 percent of the total area of Zambia. Central Province has the fifth largest population in Zambia with a population share of 10.0 percent.

1.1 Administration

Central Province is divided into six districts, namely; Chibombo, Kabwe, Kapiri Mposhi, Mkushi, Mumbwa and Serenje. At the time of the 2010 Census, Central Province had 14 constituencies and 124 wards. The provincial administration offices are situated in Kabwe.

1.2 Natural Resources

The province has the Kafue National Park, the country's largest, shared with Southern and North Western provinces. The eastern end of the province reaches South Luangwa National Park although the access is in Eastern Province. Other areas with wildlife include Blue Lagoon National Park, Lukanga Swamps and the Lunga-Luswishi Game Management Area. Other natural resources in the province are Muchinga Escarpment, Lunsemfwa, Lukusashi River valleys and the Big Tree Monument.

1.3 Languages

English is the official language of communication and instruction in Central Province. The main local languages of communication are Bemba, Lala, Lenje, Tonga and Nyanja. Bemba is the most spoken language in the province.

1.4 Religion

Zambia was declared a Christian nation in the 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 strong centralised health system in which the central structures provided support and national guidance to the peripheral structures to a more decentralized system.

In 2010, the health system in the province had 188 health facilities. This was an increase from 113 health facilities in 2000. The health system comprises of 2 General hospitals, 6 District hospitals, 32 Urban Health Posts and 113 Rural Health Posts.

Table 1.1: Health Facilities by District and Ownership, Central Province

Type of Facility	Central Province	District					
		Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenje
Level 3 Hospital	0	0	0	0	0	0	0
Level 2 Hospital	2	0	2	0	0	0	0
Level 1 Hospital	6	1	0	1	1	2	2
Urban Health Centres (UHCs)	32	0	26	5	0	1	0
Rural Health Centres (RHCs)	113	26	1	23	20	25	18
Health Posts (HPs)	35	5	6	2	7	6	9
Total	188	32	35	31	28	34	29
Ownership							
GRZ health facilities	164	29	28	28	22	29	28
Mission health facilities	10	3	0	2	2	3	0
Private health facilities	14	0	7	1	4	2	1
Total	188	32	35	31	28	34	29

Source: Ministry of Health

Zambia, like many Sub-Saharan countries, has high morbidity and mortality. According to the 2007 Zambia Demographic and Health Survey (ZDHS), HIV prevalence in adults aged 15-49 years was 17.5 percent in Central Province. The infant mortality rate was 71 deaths per 1,000 live births while the under-five mortality rate was 127.7 deaths per 1000 live births.

1.6 Economy

Central Province has comparative advantage in maize, soya beans, sweet potatoes and wheat production. The province has huge potential for maize, sweet potatoes, wheat production due to its fertile soils and good climatic conditions. Apart from agriculture, the Province has potential as a transport hub not only for the country but for the SADC region, and has mineral deposits. However, the Province is faced with several challenges that include poor infrastructure and low agriculture production by peasant farmers. (Sixth National Development Plan).

Nampundwe Copper mine is the only operational mine in the province. Competition in imported products and the increasing cost of production have caused the closure of several important industries, which include the Kapiri Glass Factory and Mulungushi Textiles. However, a number of factories still exist, including Kabwe industrial fabrics company (KIFC) and Mumbwa Cotton Ginnyery.

Its provincial capital, Kabwe, is the headquarters to one of the main railway systems in Zambia, Zambia Railways.

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, Central Province had 1,061 schools from 614 Schools in 2000. Of the 1,061 Schools in 2010, 539 were run by the government, 440 were community schools, 50 were privately owned and 32 were grant aided schools. Out of these schools, 999 were basic Schools offering grade 1-9 and 62 were secondary schools.

The government has put in place some measures to improve the quality of education offered. One of these is 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 Ratios at all levels of education in the province. In 2010 the province had 9,098 teachers. Of these 4,379 were male and 4,719 were female. In basic schools, teachers were 7,354 and 1,744 were in secondary schools. (Source: Ministry of Education, Educational Statistical Bulletin, 2010).

1.8 Gender Issues

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

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

1.9 Poverty

According to the Living Conditions Monitoring Survey (LCMS) 2006-2010, the majority of people in Central Province have continued to live in poverty. The levels of poverty show a decline from 70.7 percent in 2006 to 60.9 percent in 2010. The percent of extreme poverty declined from 48.8 percent in 2006 to 46.7 percent in 2010.

Poverty in Central Province has continued to be more of a rural than urban phenomenon. In 2010, rural extreme poverty was estimated at 43.1 percent compared to urban levels at 15.4 percent.

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

Rural/Urban	2006		2010	
	Overall Percent	Extreme Percent	Overall Percent	Extreme Percent
Central Province	70.7	48.8	60.8	36.6
Rural	79.2	56.5	69.2	43.1
Urban	40.8	21.7	33.5	15.4

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

1.10 Census of Population and Housing Undertaking

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

The 2010 Census of Population and Housing was carried out from 16th October to 15th November, 2010. Field staff included school leavers who worked as census enumerators and census supervisors who were mostly teachers and other civil servants. 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 included:

- To provide accurate and reliable information on the size, composition and distribution of the population of Zambia at the time of the census;
- To provide information on the demographic and socio-

economic characteristics of the population of Zambia at the lowest administrative level - the Constituency and Ward;

- To provide indicators for measuring progress towards national and international development goals in a timely and user friendly manner;
- To provide information on the number and characteristics of households engaged in agriculture and other economic activities;
- To provide an accurate sampling frame 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.

1.10.3 Presentation of Results

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

CHAPTER 2

POPULATION SIZE, GROWTH AND DISTRIBUTION

2.0 Summary

Central Province's Population in 2010 was 1,307,111. This was an increase from 1,012,257 in 2000.

The population grew at an average annual rate of 2.6 percent during the 2000-2010 inter-censal period. This average annual rate was lower than 2.8 percent recorded in the 1990-2000 inter-censal period.

In 2010, 74.9 percent of the population was residing in rural areas while 25.1 percent was residing in urban areas.

Chibombo District had the largest population at 303, 519 while Mkushi District had the smallest population at 154,534.

The province is sparsely populated with a population density of 13.8 persons per square kilometre. The most densely populated district in 2010 was Kabwe with 128.7 persons per square kilometre while Serenje was the most sparsely populated with 7.1 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 Central 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. However, this excludes:

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

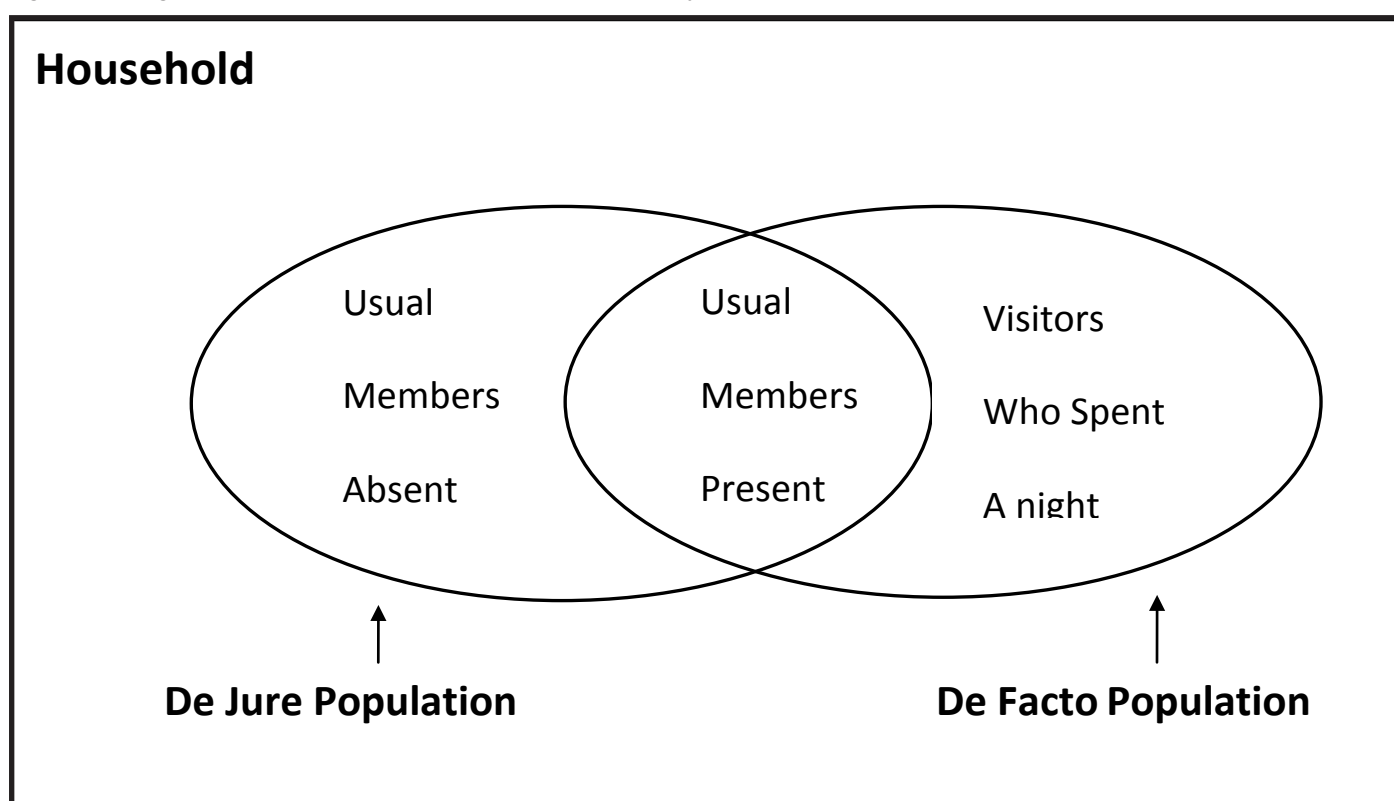
De jure Population

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

De Jure and De Facto Populations

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

Figure 2.1: Diagrammatic presentation of the de facto and the de jure populations



Population Growth Rate

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

2.3 Population Size

This is the absolute number of people that were enumerated at the time of the census. Table 2.1 shows the population size for Central Province by rural/urban from 1990 to 2010. The population in Central Province increased from 771,818 in 1990 to 1,012,257 in 2000 and to 1,307,111 in 2010. This represented a percentage increase of 31.2 percent in the 1990-2000 inter-censal period. This declined to 29.1 percent in the 2000- 2010 inter-censal period.

Table 2.1: Population Size by Rural/Urban, Central Province 1990-2010

Rural/Urban	1990-2000		percent change	2000-2010		
	1990 Population	2000 Population		2000 Population	2010 Population	Percent Change
Central Province	771,818	1,012,257	31.2	1,012,257	1,307,111	29.1
Rural	549,104	769,202	40.1	769,202	978,574	27.2
Urban	222,714	243,055	9.1	243,055	328,537	35.2

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

The population in rural areas increased from 769,202 in 2000 to 978,574 in 2010 while the urban population increased from 243,055 in 2000 to 328,537 in 2010. This represents an increase of 27.2 percent in rural and 35.2 percent in urban areas.

Table 2.2 shows the percent distribution of the population by sex and rural/urban for Central Province in 2010. Of the total population in 2010, there were 648,465 males and 658,646 females. Males constituted 49.6 percent and females 50.4 percent of the total population.

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

Rural/Urban	Total Population		Male Population		Female Population	
	Number	Percent	Number	Percent	Number	Percent
Central Province	1,307,111	100	648,465	49.6	658,646	50.4
Rural	978,574	100	487,713	49.8	490,861	50.2
Urban	328,537	100	160,752	48.9	167,785	51.1

Source: 2010 Census of Population and Housing

Table 2.3 shows the distribution of the population by sex, rural/urban and district for Central Province. Chibombo District had

the largest population at 303,519, followed by Kapiri Mposhi with 253,786. Mkushi District had the smallest population at 154,534.

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

District	Total			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Central Province	1,307,111	648,465	658,646	978,574	487,713	490,861	328,537	160,752	167,785
Chibombo	303,519	151,155	152,364	290,115	144,652	145,463	13,404	6,503	6,901
Kabwe	202,360	98,781	103,579	0	0	0	202,360	98,781	103,579
Kapiri Mposhi	253,786	126,154	127,632	209,003	104,349	104,654	44,783	21,805	22,978
Mkushi	154,534	77,536	76,998	135,338	68,053	67,285	19,196	9,483	9,713
Mumbwa	226,171	112,469	113,702	195,131	97,007	98,124	31,040	15,462	15,578
Serenje	166,741	82,370	84,371	148,987	73,652	75,335	17,754	8,718	9,036

Source: 2010 Census of Population and Housing

Kabwe was the most urbanised district with an urban population of 202,360 while Chibombo District had the smallest urban population of 13,404. Chibombo District recorded the largest rural population at 290,115 while Mkushi District had the smallest rural population at 135,338.

Table 2.4 shows population distribution by district and sex. In 2000 and 2010, Chibombo District had the largest population at 241,612 and 303,519, respectively. Mkushi District had the smallest population in both 2000 (107,438) and 2010(154,534)

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

District	2000			2010		
	Total	Male	Female	Total	Male	Female
Central Province	1,012,257	510,501	501,756	1,307,111	648,465	658,646
Chibombo	241,612	121,948	119,664	303,519	151,155	152,364
Kabwe	176,758	89,003	87,755	202,360	98,781	103,579
Kapiri Mposhi	194,752	98,558	96,194	253,786	126,154	127,632
Mkushi	107,438	54,628	52,810	154,534	77,536	76,998
Mumbwa	158,861	79,795	79,066	226,171	112,469	113,702
Serenje	132,836	66,569	66,267	166,741	82,370	84,371

Source: 2000 and 2010 Censuses of Population Housing

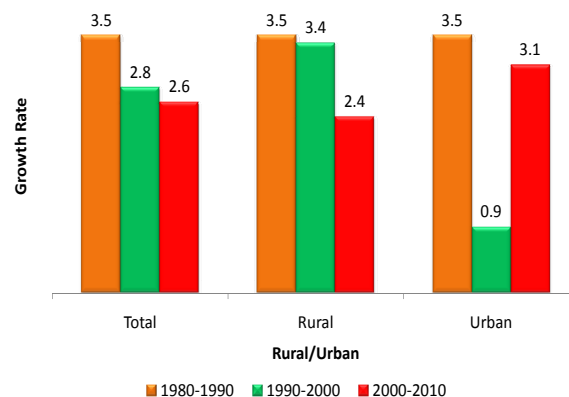
2.4 Population Growth

The population of Central Province has continued to grow over the past three decades. Figure 2.2 shows the average annual population growth rate for Central Province between 1980 and 2010. The population grew at an average rate of 2.6 percent per annum during the 2000-2010 inter-censal period. This was a decrease from the annual rate of population growth of 3.5 percent and 2.8 percent recorded during the 1980-1990 and 1990-2000 inter-censal periods, respectively.

The urban population grew at a rate of 3.1 percent per annum between 2000 and 2010. This was an increase of 2.2 percentage points from 0.9 percent recorded between 1990 and 2000. The rural population grew at the rate of 2.4 percent per annum during the 2000-2010 inter-censal period. This was a decline from 3.4 percent recorded during the 1990-2000 inter-censal period.

Table 2.5 shows the average annual rate of population growth for Central Province by district.

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



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

Table 2.5: Population Size and Average Annual Population Growth Rate by Rural/Urban and District, Central Province 2000-2010

Rural/Urban and District	Population Size 2000	Population Size 2010	Annual Growth Rate(2000-2010)
Central Province	1,012,257	1,307,111	2.6
Rural	769,202	978,574	2.4
Urban	243,055	328,537	3.1
Chibombo	241,612	303,519	2.3
Kabwe	176,758	202,360	1.4
Kapiri Mposhi	194,752	253,786	2.7
Mkushi	107,438	154,534	3.7
Mumbwa	158,861	226,171	3.6
Serenje	132,836	166,741	2.3

Source: 2000 and 2010 Censuses of Population and Housing

Mkushi District had the fastest growing population with an average annual population growth rate of 3.7 percent in the 2000-2010 inter-censal period while Kabwe District had the slowest annual growth of 1.4 percent.

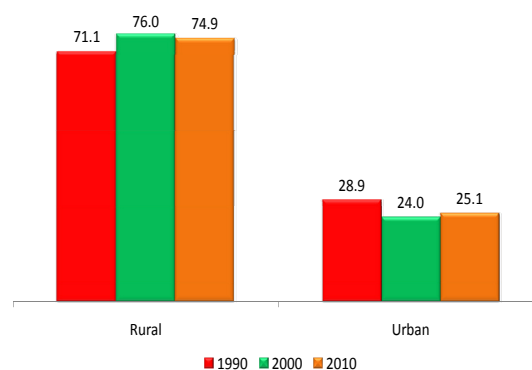
2.5 Population Distribution

The population of Central 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 2010, the rural population of Central Province increased from 71.1 percent to 76.0 percent in 2000 and reduced to 74.9 percent in 2010. The urban population decreased from 28.9 percent in 1990 to 24.0 percent in 2000 and increased to 25.1 percent in 2010.

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 Mumbwa, Mkushi and Kapiri

Figure 2.3: Percent Distribution of Population by Rural/Urban, Central Province 1990-2010



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

Mposhi to the provincial population increased by 1.6, 1.2 and 0.2 percentage points, respectively. The contribution towards the total population for the rest of the districts reduced.

Table 2.6: Population Distribution (De jure) by Rural/Urban and District, Central Province 2000 and 2010

District and Rural/Urban	2000		2010		Percentage Point 2000-2010
	Population	Percent	Population	Percent	
Central Province	1,012,257	100	1,307,111	100	
Rural	769,202	76.0	978,574	74.9	-1.1
Urban	243,055	24.0	328,537	25.1	1.1
District					
Chibombo	241,612	23.9	303,519	23.2	-0.7
Kabwe	176,758	17.5	202,360	15.5	-2.0
Kapiri Mposhi	194,752	19.2	253,786	19.4	0.2
Mkushi	107,438	10.6	154,534	11.8	1.2
Mumbwa	158,861	15.7	226,171	17.3	1.6
Serenje	132,836	13.1	166,741	12.8	-0.3

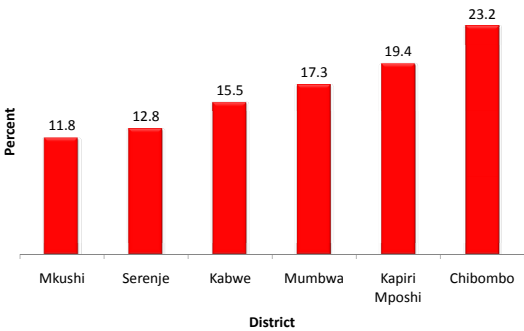
Source: 2000 and 2010 Censuses of Population and Housing

Figure 2.4 shows the percent distribution of the population by district. In 2010, Chibombo District had the largest proportion of the population at 23.2 percent while Mkushi had the least at 11.8 percent.

2.6 Population Density

Population density is defined as the total number of persons per square kilometre. Table 2.7 shows Central Province’s area and population density by district from 2000 to 2010. Central Province has a total surface area of 94,394 square kilometres. The province is sparsely populated with a population density of 13.8 persons per square kilometre representing an increase of 3.1 persons per square kilometre from 2000.

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



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

District	Area (Sq. Km)	Population	Census Year/Population Density (Population per Sq. Km)	
			2000	2010
Central Province	94,394	1,307,111	10.7	13.8
Chibombo	13,423	303,519	18	22.6
Kabwe	1,572	202,360	112.4	128.7
Kapiri Mposhi	17,219	253,786	11.3	14.7
Mkushi	17,726	154,534	6.1	8.7
Mumbwa	21,103	226,171	7.5	10.7
Serenje	23,351	166,741	5.7	7.1

Source: 2000 and 2010 Censuses of Population and Housing

Kabwe District had the highest population density of 128.7 persons per square kilometre. Chibombo District was second with a population density of 22.6 persons per square kilometre.

Serenje District was the least densely populated district at 7.1 persons per square kilometre.

CHAPTER 3

POPULATION COMPOSITION AND DEMOGRAPHIC CHARACTERISTICS

3.0 Summary

Central Province has a young population with 46.6 percent of persons aged below 15 years. The median age was 16.3 years.

The median age was higher in urban areas at 18.3 years compared to 15.6 years in rural areas.

The Overall Dependency Ratio was 97.5 persons per 100 persons aged between 15 and 64 years. Child and Aged Dependency Ratios were 92.0 and 5.5, respectively.

The overall sex ratio was 98.5 males per 100 females, while the sex ratio at birth was 102.5 males per 100 females.

Chapter 3

Population Composition and Demographic Characteristics



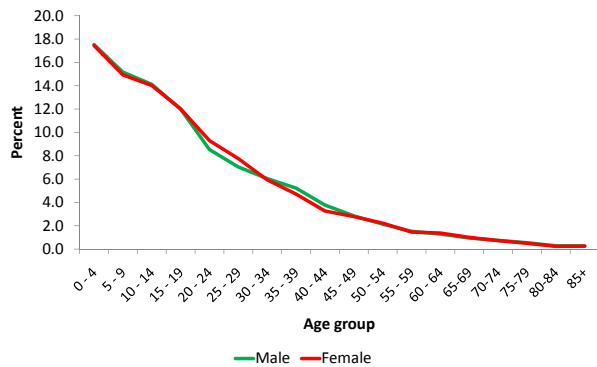
3.1 Population Composition

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 percentage 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: Percent Age Distribution by Sex, Central Province 2010

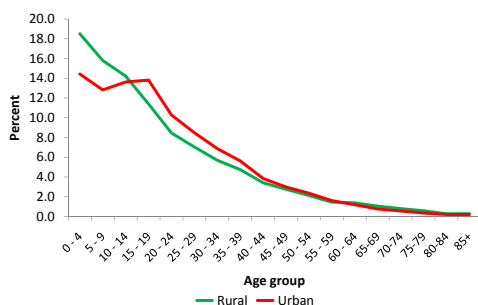


Source: 2010 Census of Population and Housing

The graph shows minimal differences in the percentage distribution between the sexes with an exception of the population aged 20-29 years and 35-44 years. The age group 20-29 years had fewer males than females while the age group 35-44 years had fewer females than males.

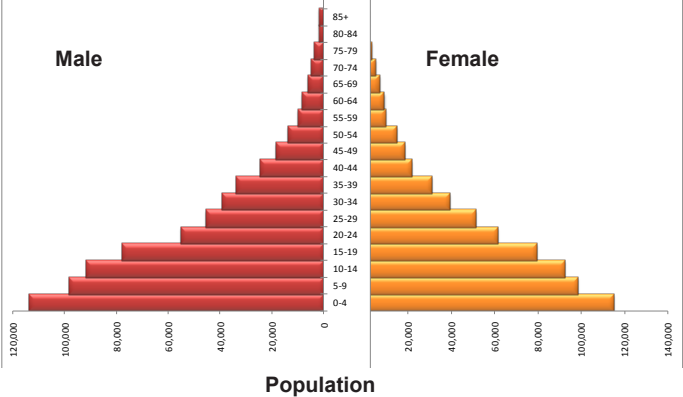
Figure 3.2 presents the age distribution by rural/urban. The figure shows a higher percent of the population aged 0-14 years and 60 years and older in rural areas. However, the proportion of the population aged 15-44 years in urban areas was higher than that of rural areas.

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



Source: 2010 Census of Population and Housing

Figure 3.2.1: Population Age and Sex Structure, Central Province 2010

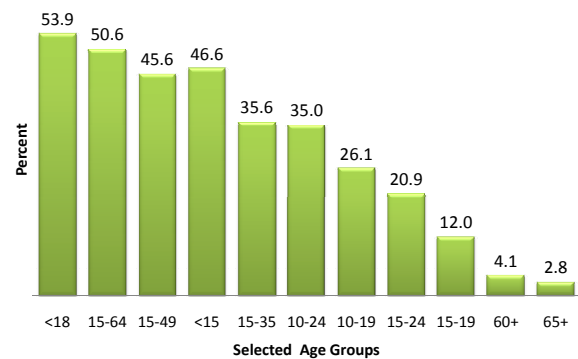


Source: 2010 Census of Population and Housing

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 comprised 53.9 percent of the total population. The elderly population aged 65 years and older made up 2.8 percent of the total population. The population aged 15-24 and 15-35 had proportions of 20.9 and 35.6 percent, respectively.

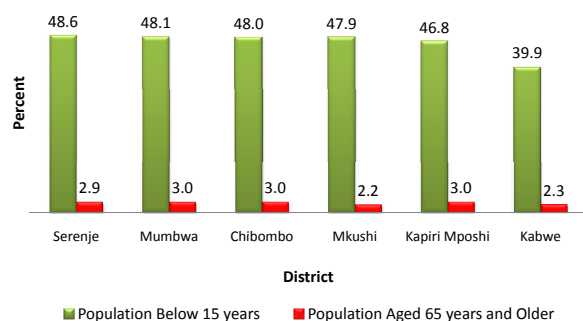
Figure 3.3: Population Proportions by Selected Age Groups, Central Province 2010



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. The proportion of children below 15 years was highest in Serenje District at 48.6 percent while Kabwe District had the lowest at 39.9 percent. There were minimal differences in the proportions of the population aged 65 years and older.

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



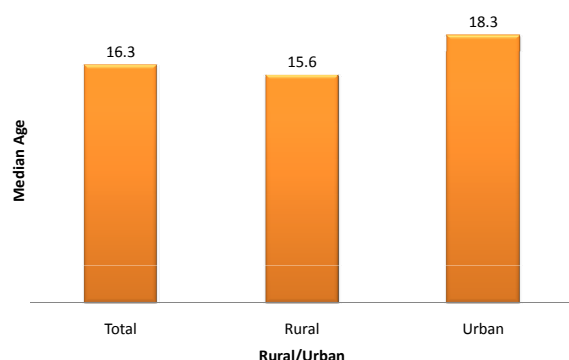
Source: 2010 Census of Population and Housing

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 which is 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 in Central Province was recorded at 16.3. It was higher in urban areas at 18.3 years than in rural areas at 15.6.

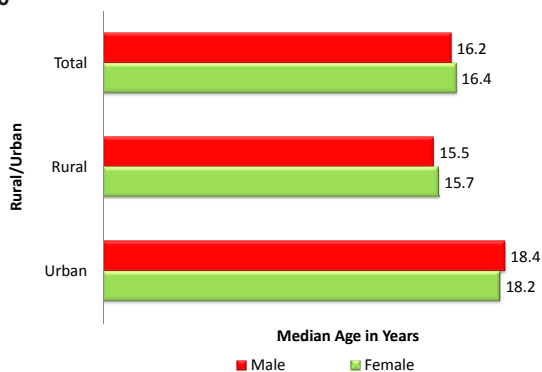
Figure 3.5: Median Age by Rural/Urban, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 3.6 shows the median age by sex and rural/urban. Overall, the median age was 16.2 years and 16.4 years for males and females, respectively. In urban areas, the median age for males (18.4 years) was higher than that of females (18.2 years). The median age in rural areas was higher for females at 15.7 years than males at 15.5 years.

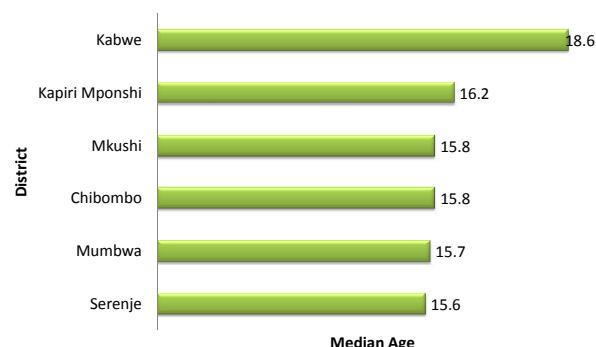
Figure 3.6: Median Age by Sex and Rural/Urban, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 3.7 shows the median age by district. Kabwe District had the highest median age at 18.6 years while Serenje District had the lowest at 15.6 years.

Figure 3.7: Median Age by District, Central 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 the Age Dependency Ratio from 1990 to 2010. In 2010, the Overall Dependency Ratio was 97.5 per 100 persons aged 15-64 years. The Child and Aged Dependency Ratios were at 92.0 and 5.5 persons for every 100 persons aged 15-64 years, respectively.

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

Central Province	Age Dependency Ratios			
	1990	2000	2010	
	Overall Dependency Ratio	91.2	101.1	97.5
	Child Dependency Ratio	86.5	95.6	92.0
	Aged Dependency Ratio	4.7	7.1	5.5

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

Table 3.2 shows the Overall, Child and Aged Dependency Ratio by district. Serenje District had the highest Overall Age Dependency Ratio at 106.2 persons per 100 persons aged 15-64 years.

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

District	Age Dependency Ratios		
	Overall	Child	Aged
Chibombo	104.0	97.9	6.1
Kabwe	72.8	68.9	3.9
Kapiri Mposhi	99.3	93.3	6.0
Mkushi	100.4	96.0	4.4
Mumbwa	104.4	98.4	6.0
Serenje	106.2	100.2	6.0

Source: 2010 Census of Population and Housing

3.5. Sex Composition

This section analyses the composition of males and females in the population using sex ratio. The 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 the sex ratio and percent deficit of males by rural/urban and district. Central Province had fewer males per 100 females, with a sex ratio of 98.5. This indicates that a deficit of males amounted to 0.8 percent of the total population.

Mkushi District had the highest sex ratio at 100.7 males per 100 females and was the only district with more males than females, with a 0.3 percent excess of males. Kabwe District had the lowest sex ratio at 95.4 males per 100 females, translating into a 2.4 percent deficit of males.

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

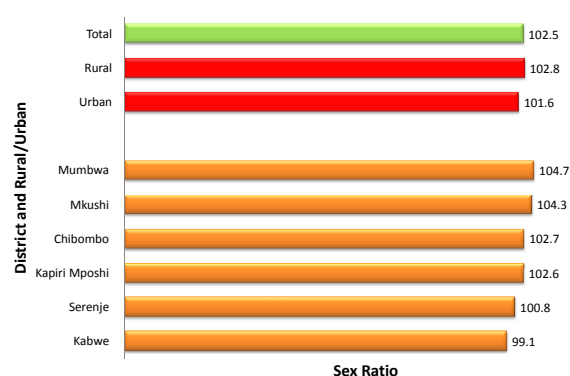
Rural/Urban and District	Sex Ratio	Percent Deficit of Males
Central Province	98.5	-0.8
Rural	99.4	-0.3
Urban	95.8	-2.1
District		
Chibombo	99.2	-0.4
Kabwe	95.4	-2.4
Kapiri Mposhi	98.8	-0.6
Mkushi	100.7	0.3
Mumbwa	98.9	-0.5
Serenje	97.6	-1.2

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 Central Province was 102.5 males per 100 females. In rural and urban areas, the Sex Ratio at birth was 102.8 and 101.6 males per 100 females, respectively.

Mumbwa District had the highest Sex Ratio at birth of 104.7 males per 100 females while Kabwe District had the lowest at 99.1 males per 100 females.

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

Source: 2010 Census of Population and Housing

CHAPTER 4

SOCIAL CHARACTERISTICS

4.0 Summary

In the 2010 Census, Central Province recorded 654,719 persons aged 15 years and older. Of these 53.3 percent were married. Rural areas had a higher proportion of the population aged 15 years and older who were married (56.4 percent) compared to urban areas (45.5 percent).

The median age at first marriage for the population aged 15 years and above was 20.6 years. Urban areas had a higher median age (21.6 years) than rural areas (20.4 years). Males had a higher median age at first marriage (24.0 years) than females (18.7 years).

In 2010, Central Province had 235,560 households. There were more households in rural areas at 170,714 than urban areas at 64,846. The average household size in 2010 was 5.5 persons. Male headed households had a larger average household size at 5.8 than female headed households with 4.8 persons.

In terms of Religious affiliation, Protestants and Catholics made up 81.6 and 14.0 percent of the population, respectively. Muslims and other religious affiliation made up 3.1 percent of the population.

More than three quarters (78.4 percent) of individuals aged below 18 years did not have birth certificates. Of the population aged 16 years and older, 80.6 percent had Green National Registration Cards.

More than half (54.3 percent) of the population aged 18 years and older were registered voters at the time of the census.

Chapter 4 Social Characteristics

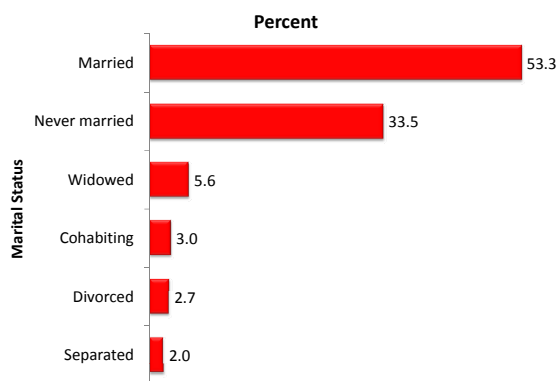


4.1 Marital Status

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 Central Province was 654,719. Of these, 319,102 were males and 335,617 were females.

Figure 4.1 shows the percentage distribution of the population 15 years and older by marital status. The figure shows that 53.3 percent of the population aged 15 years and older were married and 33.5 percent were never married. The widowed and divorced made up 5.6 and 2.7 percent, respectively.

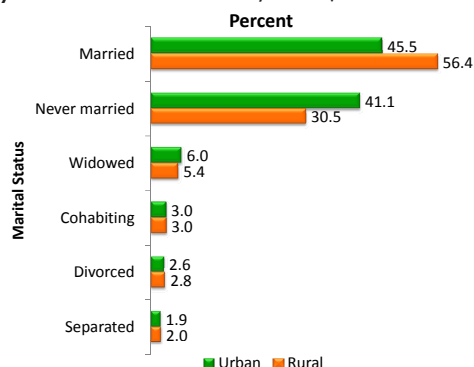
Figure 4.1: Percentage Distribution of the Population Aged 15 years and Older by Marital Status, Central Province 2010



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 (56.4 percent) compared to urban areas (45.5 percent). Urban areas had a higher percentage of the population aged 15 years and older that had never been married at 41.1 percent compared to rural areas at 30.5 percent.

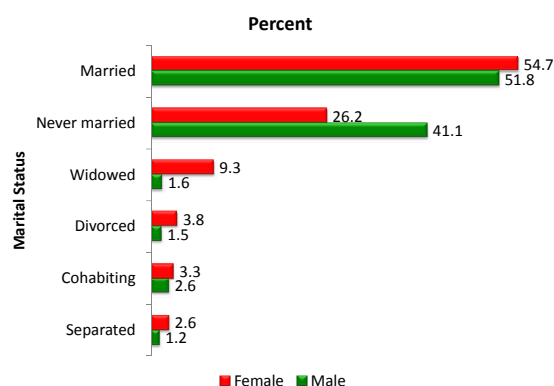
Figure 4.2: Percentage Distribution of the Population 15 years and Older by Marital Status and Rural/Urban, Central Province 2010



Source: 2010 Census of population and Housing.

Figure 4.3 shows percentage distribution of the population 15 years and older by marital status and sex. There were more males who had never been married at 41.1 percent compared to females at 26.2 percent. More females were widowed (9.3 percent) compared to males (1.6 percent).

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



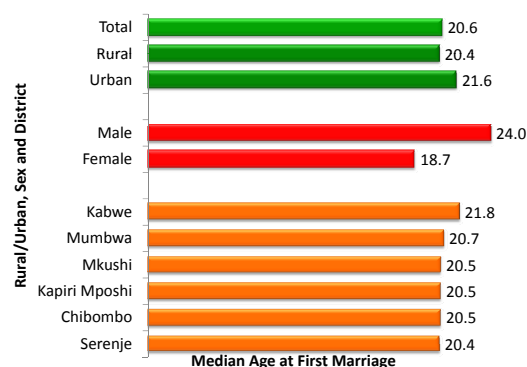
Source: 2010 Census of Population and Housing

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 Central Province was 20.6 years for the population aged 15 years and older. The median age at first marriage was 20.4 years in rural areas and 21.6 years in urban areas. The median age for males was 24.0 years while that of females was 18.7 years. Kabwe District had the highest median age at first marriage at 21.8 years while Serenje District had the lowest at 20.4 years.

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



Source: 2010 Census of population and Housing.

4.3 Household Composition

Household composition is the description of the household according to some aspects of its members such as age, sex, relationship to head and size. It is determined by the people living together and their relationships to one another.

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.

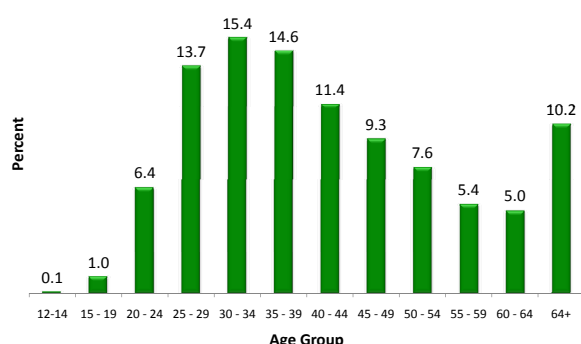
A Household head is a person all members of the household regard as the head. He or she makes day to day decisions governing the running of the household. In cases of one member households, the member is taken as the household head.

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 and Household Headship.

In 2010, there were 235,560 households in Central Province. There were more households in rural areas (170,714) than urban areas (64,846). Household heads made up 18.0 percent of the population of Central Province. Figure 4.5 shows the distribution of household heads by age. The age group 30-34 years had the highest percentage of household heads at 15.4 percent. Households headed by persons aged below 20 years made up a total of 1.1 percent.

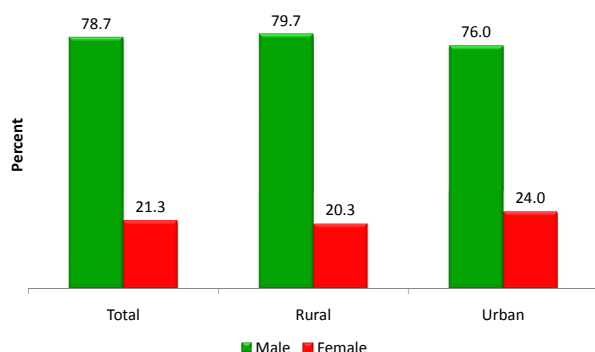
Figure 4.5: Percentage Distribution of Household Heads by Age, Central Province 2010



Source: 2010 Census of population and Housing.

Figure 4.6 shows the percentage distribution of household heads by sex and rural/urban. In Central Province, there were more male headed households at 78.7 percent compared to 21.3 percent for females. There were more male headed households than females in both rural and urban areas.

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

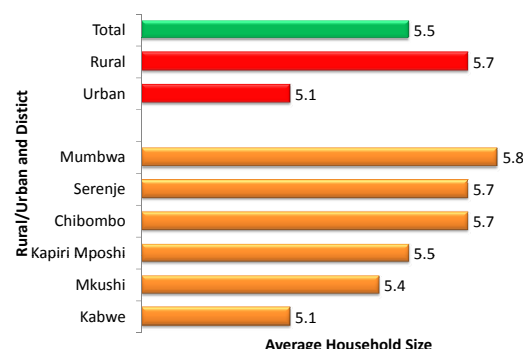


Source: 2010 Census of population and Housing.

4.3.2 Household Size

Figure 4.7 shows the average household size by rural/urban and district. The average household size in Central Province was 5.5 persons. Rural areas had a higher average household size at 5.7 persons compared with 5.1 persons in urban areas. The highest average household size was recorded in Mumbwa District at 5.8 persons and the lowest in Kabwe District at 5.1 persons.

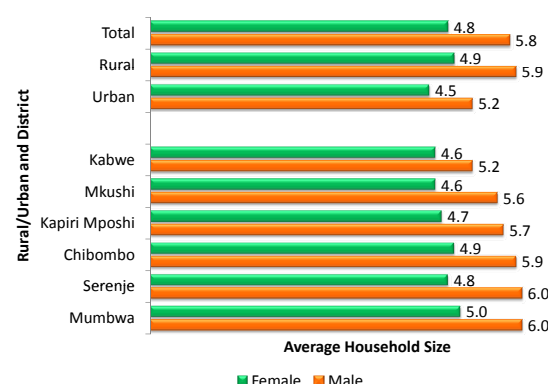
Figure 4.7: Average Household Size by District and Rural/Urban, Central Province 2010



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 than female headed households at 5.8 and 4.8 persons, respectively.

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

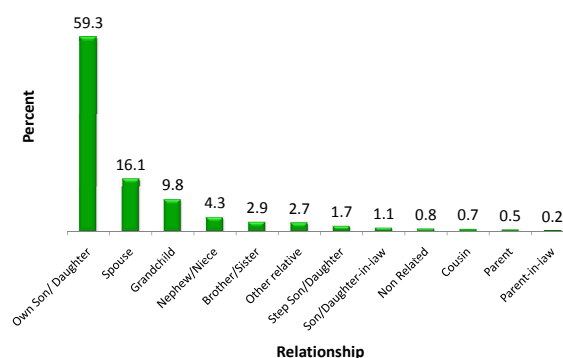


Source: 2010 Census of population and Housing.

4.3.3 Relationship To Head

Figure 4.9 shows the percentage distribution of the population by relationship to the household head. In 2010, 59.3 percent of the population in households were biological children to the household heads. Spouses constituted 16.1 percent while 9.8 percent were grand children to the household head.

Figure 4.9: Percent Distribution of the Population by Relationship to Household Head, Central Province 2010

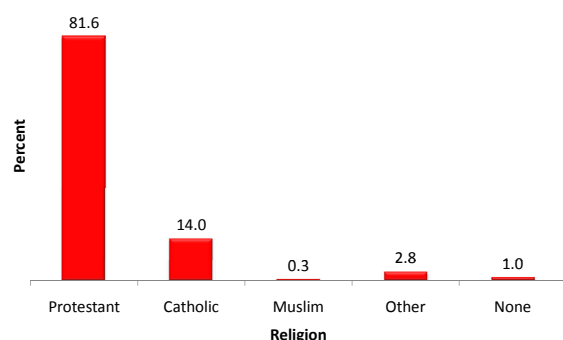


Source: 2010 Census of population and Housing.

4.4 Religion

Figure 4.10 shows the percentage distribution of the population by religious affiliation. In 2010, 81.6 percent of the total population in Central Province was protestant while 14.0 percent was Catholic.

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

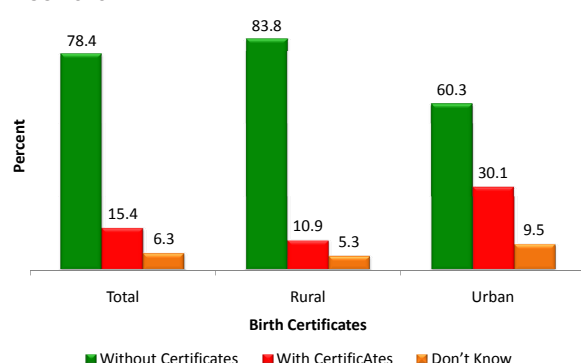


Source: 2010 Census of Population and Housing

4.5 Birth Certificate

Figure 4.11 shows the percentage distribution of the population aged below 18 years with or without birth certificates or who did not know whether they had birth certificates at all. In 2010, 15.4 percent of those aged less than 18 years in Central Province had birth certificates. The proportion of those with birth certificates was higher in urban than rural areas at 30.1 and 10.9 percent, respectively.

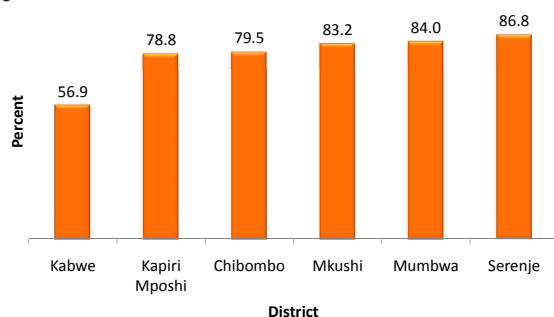
Figure 4.11 Percentage Distribution of Population Aged Below 18 Years with and Without Birth Certificates by Rural/Urban, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 4.12 shows the percentage distribution of the population aged below 18 years without Birth certificates by district. Serenje District had the highest proportion of persons without birth certificates at 86.8 percent, while Kabwe District had the lowest at 56.9 percent.

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

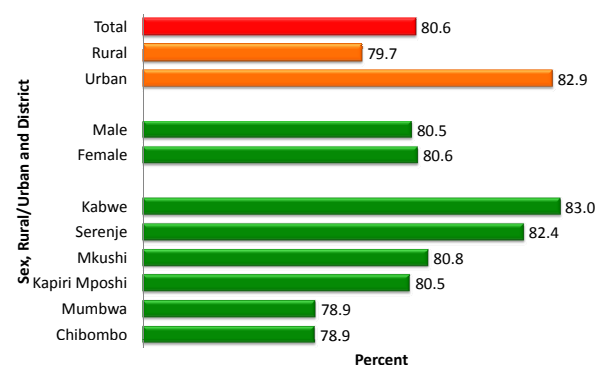


Source: 2010 Census of Population and Housing

4.6 Holders Of Green National Registration Cards

In Zambia, the age at which one is required to obtain a Green National Registration Card (NRCs) is 16 years. Figure 4.13 shows the percent distribution of population aged 16 years and older with green NRCs by rural/urban, sex and district. In 2010, 620,462 citizens in Central Province were aged 16 years and older. Of these, 80.6 percent had NRCs.

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



Source: 2010 Census of Population and Housing

Urban areas had a higher proportion of persons with Green NRC holders at 82.9 percent compared with rural areas at 79.7 percent. The district with the highest proportion of persons with green NRCs was Kabwe District at 83.0 percent. Mumbwa and Chibombo districts had the lowest at 78.9 percent each.

4.7 The Voting Population

The 2010 Census collected information on the number of registered voters at the time of the Census. This included people who were registered during the previous registration exercise as well as those registered during the 2010 registration exercise. There were a total of 563,460 eligible voters (18 years and older) of which 305,901 (54.3 percent) were registered voters. Table 4.1 shows the population of eligible voters and registered voters by sex and rural/urban. In rural and urban areas, 70.1 and 29.9 percent were registered voters, respectively. Males made up 50.3 percent while females made up 49.7 percent of the registered voters.

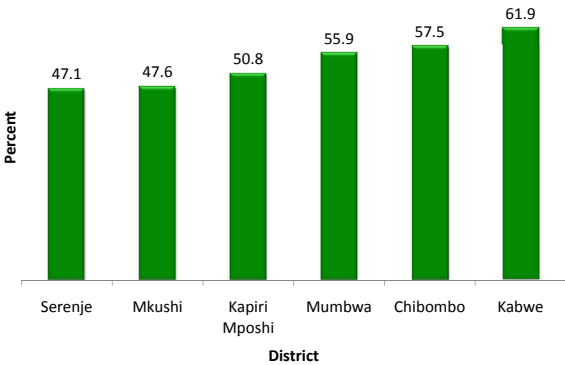
Table 4.1 Percentage Distribution of Eligible and Registered Voters (18 Years and Older) by Rural/Urban and Sex, Central Province 2010

Rural/Urban and Sex	Eligible Voters	Registered Voters
Central Province	563,460	305,901
Rural	71.8	70.1
Urban	28.2	29.9
Sex		
Male	48.6	50.3
Female	51.4	49.7

Source: 2010 Census of Population and Housing

Figure 4.14 shows the percentage of registered voters among eligible voters by district. Kabwe District had the highest proportion of registered voters at 61.9 percent and the lowest was in Serenje at 47.1 percent.

Figure 4.14: Percentage of Registered Voters among Eligible Voters by District, Central Province 2010



CHAPTER 5

EDUCATION CHARACTERISTICS

5.0 CHAPTER SUMMARY

The literacy rate for Central Province was 70.9 percent. Literacy rates for rural and urban areas were 66.6 and 82.8 percent, respectively. Males had a higher literacy rate (73.2 percent) than females (68.6 percent).

Of the population aged 5 years and older, 35.2 percent were currently attending school. The provincial net primary and secondary school attendance rates were 73.0 percent and 44.8 percent, respectively.

The net primary school attendance rate was 71.2 percent in rural areas and 78.8 percent in urban areas. At secondary level, net secondary school attendance rate was 37.4 percent in rural areas and 63.1 percent in urban areas.

The Gender Parity Index was 0.94 indicating that there were gender inequalities in school attendance for males and females. The rural and urban Gender Parity Index was 0.91 and 1.02, respectively.

Of the population aged 25 years and older that ever attended school, 54.7 percent had completed primary school, 34.4 percent had completed secondary school and 10.5 percent had completed tertiary education. In rural areas the completion rate was 64.6 percent, 29.0 percent and 5.8 percent for primary, secondary and tertiary education, respectively. In urban areas, the highest completion rate was for secondary at 47.0 percent followed by primary at 31.5 percent and tertiary education at 21.3 percent.

Sex differentials shows that a high percentage of females (63.3 percent) had completed primary education compared to males, (46.9 percent). At secondary and tertiary levels males had higher completion rates of 39.9 and 12.8 percent, respectively. Females had completion rates of 28.3 percent for secondary and 7.8 percent for tertiary.

Chapter 5 Education Characteristics



5.1 Introduction

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

The current Education Policy supports free primary education for all. This is in line with the second Millennium Development Goals (MDG) 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).

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 Rate

The net school attendance rate measures the percentage of the school-age population that is attending a designated level of education. This indicator is much more refined than the gross attendance rates 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.

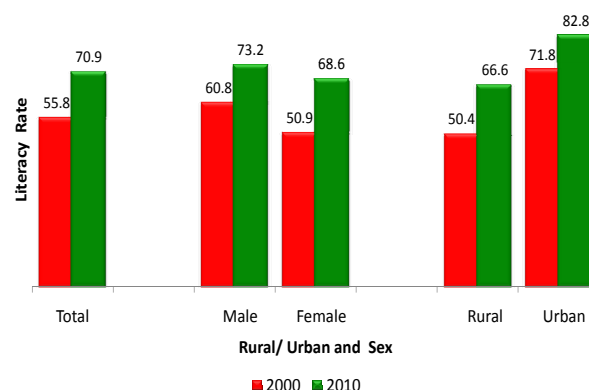
Gender Parity Index

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 persons aged 5 years and older by sex and rural/urban in 2000 and 2010. In Central Province, the percentage of persons aged 5 years and older that were literate was 70.9 percent. This was an increase of 15.1 percentage points from 55.8 percent in 2000. In 2010, the literacy rate for males was higher (73.2 percent) than that of females (68.6 percent). The literacy rate in both rural and urban areas increased between 2000 and 2010.

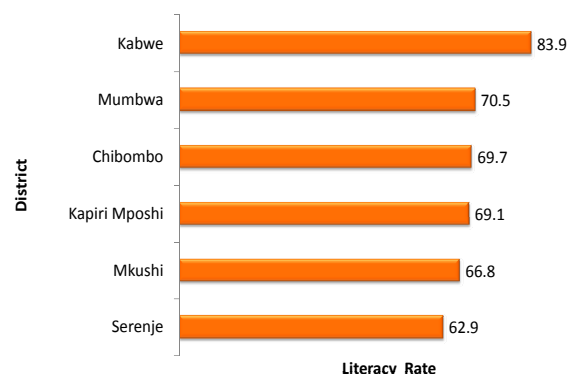
Figure 5.1: Literacy Rate for Population Aged 5 years and Older by Sex and Rural/Urban, Central Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.2 shows literacy rate for the population aged 5 years and older by district. In 2010, Kabwe and Mumbwa districts had the highest literacy rate at 83.9 and 70.5 percent, respectively. Serenje District had the lowest literacy rate at 62.9 percent.

Figure 5.2: Literacy Rate for Persons Aged 5 years and Older by District, Central Province 2010

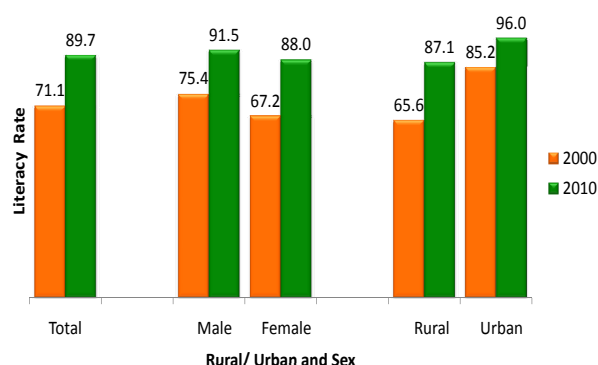


Source: 2010 Census of Population and Housing

5.3.1: Literacy Rate for 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 rate for the population aged 15 to 24 years by sex and rural/urban. The youth literacy rate was 89.7 percent in 2010. This was an increase from 71.1 percent in 2000. Between 2000 and 2010, the male literacy rate increased by 16.1 percentage points while the female literacy rate increased by 20.8 percentage points. The literacy rate for both rural and urban areas increased between 2000 and 2010.

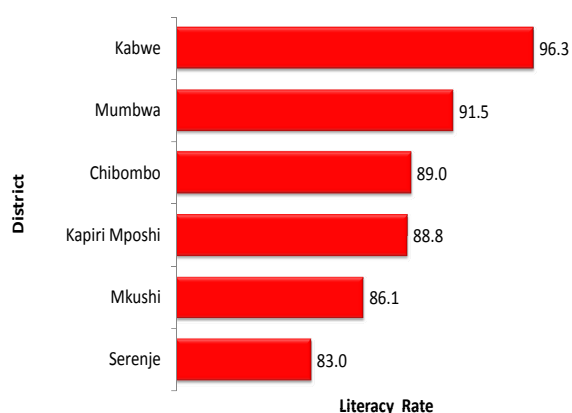
Figure 5.3: Literacy Rates for Youth Population (15 to 24 Years) by Sex and Rural/Urban, Central Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.4 shows levels in literacy rate for the population aged 15 to 24 years by district. Kabwe District had the highest youth literacy rate (96.3 percent) while Serenje District had the lowest (83.0 percent).

Figure 5.4: Literacy Rate for Youth Population (15 to 24 Years) by District, Central Province 2010

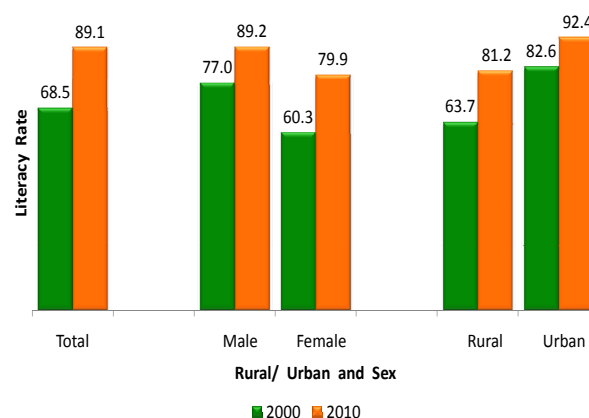


Source: 2010 Census of Population and Housing

5.3.2: Literacy Rate for Adult population (15 years and Older)

Figure 5.5 shows the literacy rate for Adult population (15 years and older) by sex and rural/urban. The Adult literacy rate for Central Province increased from 68.5 percent in 2000 to 89.1 percent in 2010. The adult literacy rate for both males and females improved between 2000 and 2010.

Figure 5.5: Literacy Rate for Adult Population (15 Years and Older) by Sex and Rural/Urban, Central Province 2000 and 2010

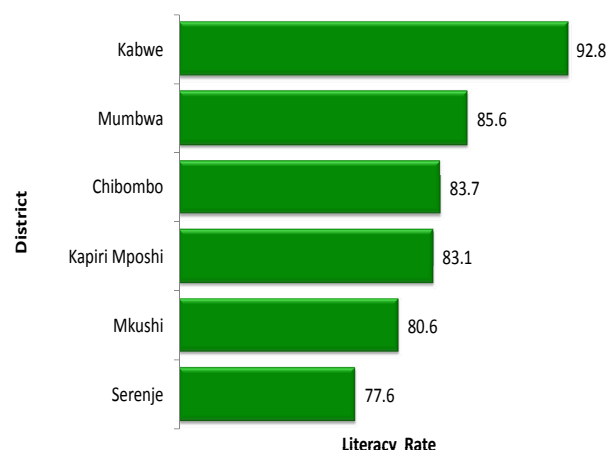


Source: 2000 and 2010 Censuses of Population and Housing

In 2010 the adult literacy rate for urban areas was higher (92.4 percent) than that of rural areas (81.2 percent). The percentage point increase in the adult literacy rate between 2000 and 2010 was higher in rural (17.5 percentage points) than urban areas (9.8 percentage points).

Figure 5.6 shows the literacy rate for adult population (15 years and older) by district. Kabwe District had the highest adult literacy rate at 92.8 percent, followed by Mumbwa District at 85.6 percent. Serenje District had the lowest adult literacy rate at 77.6 percent.

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

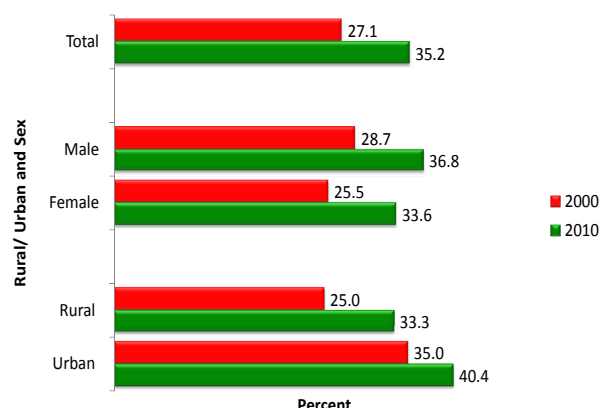


Source: 2010 Census of Population and Housing

5.4: School Attendance

The official primary school entry age in Zambia is seven years. Grades 1 to 7 correspond to pupils aged 7 to 13 years while grades 8 to 9 correspond to pupils aged 14 to 15 years. Grades 10 to 12 correspond to pupils aged 16 to 18 years. The population above 18 years is 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, 35.2 percent of the population aged 5 years and older was currently attending school. This was an increase from 27.1 percent in 2000.

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

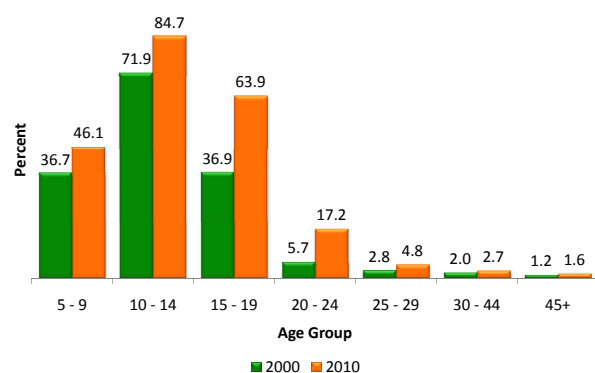


Source: 2000 and 2010 Censuses of Population and Housing

In rural and urban areas, the percentage of the population aged 5 years and older that were currently attending school in 2010 was 33.3 and 40.4 percent, respectively. The percentage of males that were currently attending school increased from 28.7 percent in 2000 to 36.8 percent in 2010 while that of females increased from 25.5 percent in 2000 to 33.6 percent in 2010. This shows an increase of 8.3 percentage points in rural areas and 5.4 percentage points in urban areas.

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, there was an increase in the proportion of the population that was currently attending school. The age group 10-14 years had the highest proportion of the population currently attending school at 84.7 percent in 2010. This shows an increase of 12.8 percentage points from 71.9 percent in 2000. The percentage of the population currently attending school for the age group 15-19 years increased from 36.9 percent in 2000 to 63.9 percent in 2010.

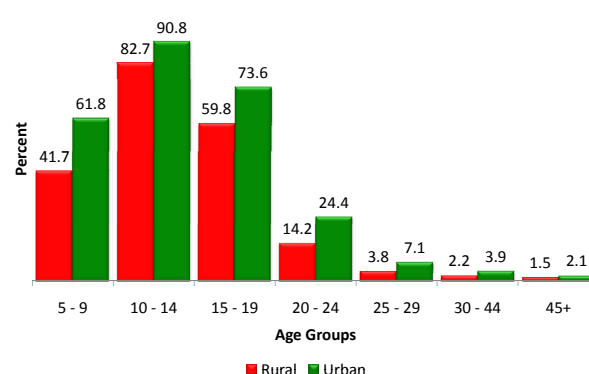
Figure 5.8: Percent Distribution of the Population (5 Years and older) Currently Attending School by Age Group, Central Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.9 shows the percent distribution of the population (aged 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 82.7 and 90.8 percent, respectively.

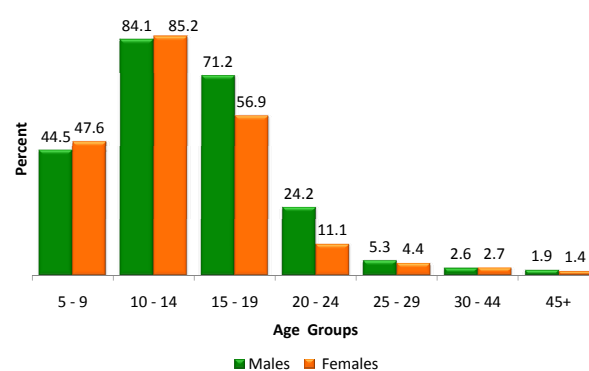
Figure 5.9: Percent Distribution of the Population (5 Years and Older) Currently Attending School by Age Group and Rural/Urban, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 5.10 shows the percent distribution of the population (5 years and older) currently attending school by sex and age group. There were more females currently attending school in younger age groups (5 – 14 years) than males. The age group 10-14 had the highest percentage of the population currently attending school for both males and females at 84.1 and 85.2 percent, respectively.

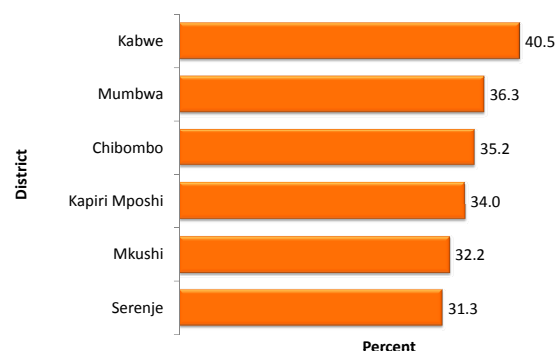
Figure 5.10: Percent Distribution of the Population (5 years and older) Currently Attending School by Sex and Age group, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 5.11 shows the percentage distribution of the population (5 years and older) that was currently attending school by district. Kabwe District had the highest proportion of the population that was currently attending school at 40.5 percent while Serenje District had the lowest at 31.3 percent.

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



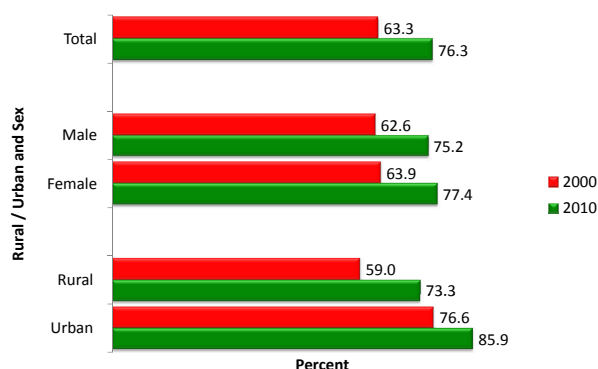
Source: 2010 Census of Population and Housing

5.4.1 Primary School Attendance Rate

Figure 5.12 shows the percentage of the population aged 7 to 13 years that was currently attending school by sex and rural/urban. Primary school attendance rate increased from 63.3 percent in 2000 to 76.3 percent in 2010. Male primary school attendance rate increased from 62.6 percent in 2000 to 75.2 percent in 2010 while female attendance rate increased from 63.9 percent in 2000 to 77.4 percent in 2010.

In rural and urban areas, the percentage of the population aged 7 to 13 years that were currently attending school in 2010 was 73.3 and 85.9 percent, respectively. This shows an increase of 14.3 percentage points in rural areas and 9.3 percentage points in urban areas.

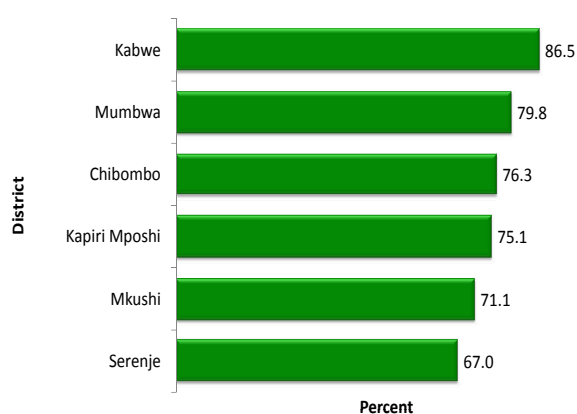
Figure 5.12: Percentage of the Population Aged 7 to 13 Years Currently Attending School by Sex and Rural/Urban, Central Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Current primary school attendance rate by district are shown in Figure 5.13. Kabwe District had the highest proportion of the population currently attending school (86.5 percent) while Serenje District had the lowest (67.0 percent).

Figure 5.13: Percentage of the Population (7 to 13 years Old) Currently Attending Primary School by District, Central Province 2010

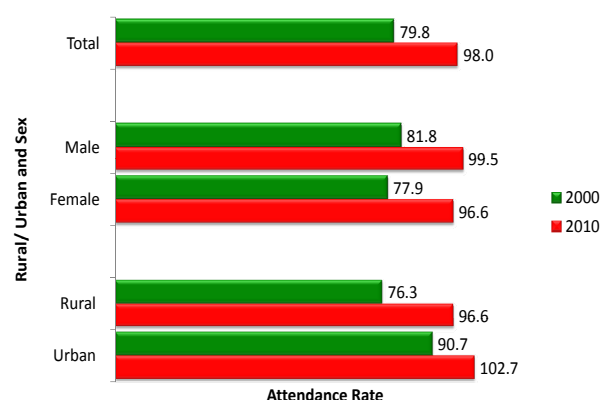


Source: 2010 Census of Population and Housing

5.4.2 Gross Primary School Attendance Rates

Figure 5.14 shows Gross Primary School Attendance Rate by sex and rural/urban. The gross primary school attendance rate increased from 79.8 percent in 2000 to 98.0 percent in 2010. Males recorded higher gross primary school attendance rate at 99.5 percent compared to females at 96.6 percent. The gross attendance rate was higher in urban areas (102.7 percent) than in rural areas (96.6 percent).

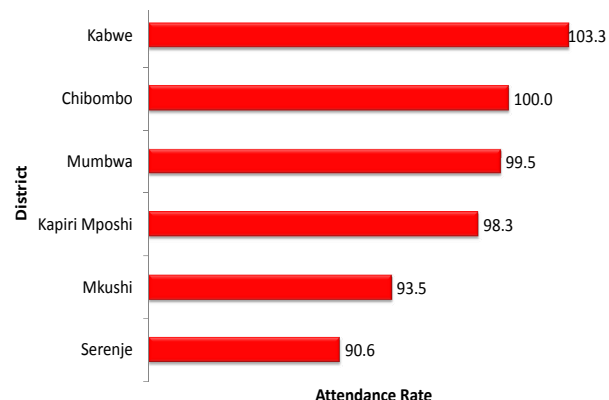
Figure 5.14: Gross Primary Attendance Rate by Sex and Rural/Urban, Central Province, 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.15 shows the gross primary school attendance rate by district. Kabwe District had the highest gross primary school attendance rate at 103.3 percent followed by Chibombo District with 100 percent. Serenje District had the lowest gross primary school attendance rate at 90.6 percent.

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

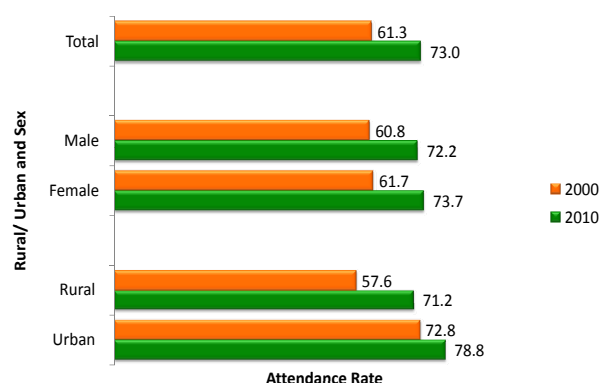


Source: 2010 Census of Population and Housing

5.4.3 Net Primary School Attendance Rates

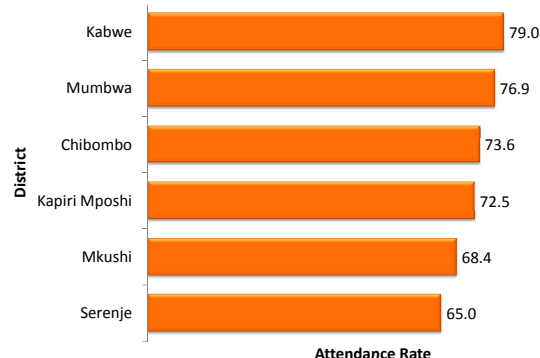
Net primary school attendance rate show the percentage of the primary school age population (7 to 13 years) currently attending primary grades (Grades 1 to 7). Figure 5.16 shows net primary school attendance rate by sex and rural/urban. The net primary school attendance rate increased from 61.3 percent in 2000 to 73.0 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 38.7 percent in 2000 to 27.0 percent in 2010.

In rural areas, the net primary school attendance rate increased from 57.6 percent in 2000 to 71.2 percent in 2010 while that of urban areas increased from 72.8 percent to 78.8 during the same period. Between 2000 and 2010, the net primary school attendance rate for males increased from 60.8 percent to 72.2 percent and from 61.7 percent to 73.7 percent for females.

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

Sources: 2000 and 2010 Censuses of Population and Housing

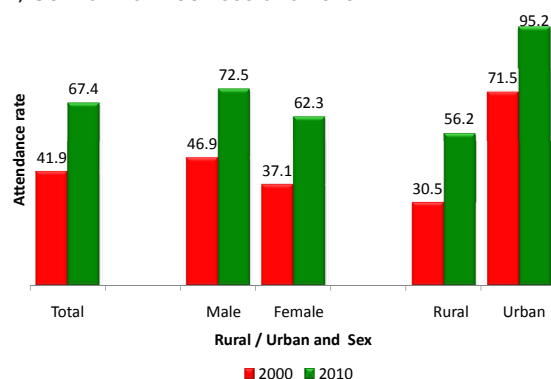
Figure 5.17 shows net primary school attendance rate by district. Kabwe District had the highest net primary school attendance rate at 79.0 percent while Serenje District had the lowest at 65.0 percent.

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

Source: 2010 Census of Population and Housing

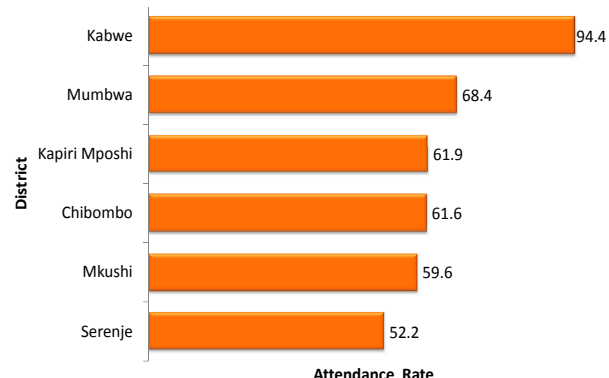
5.4.4 Gross Secondary School Attendance Rate

In Zambia, the official secondary school age ranges from 14-18 years. Figure 5.18 shows the Gross secondary school attendance rate by sex and rural/urban. The overall gross secondary school attendance rate increased from 41.9 percent in 2000 to 67.4 percent in 2010. In rural areas, secondary school attendance rate increased from 30.5 percent in 2000 to 56.2 percent in 2010 while in urban areas the increase was from 71.5 percent in 2000 to 95.2 percent. In 2010, the male gross attendance rate increased from 46.9 percent in 2000 to 72.5 percent while that of females increased from 37.1 percent to 62.3 percent during the same period.

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

Sources: 2000 and 2010 Censuses of Population and Housing

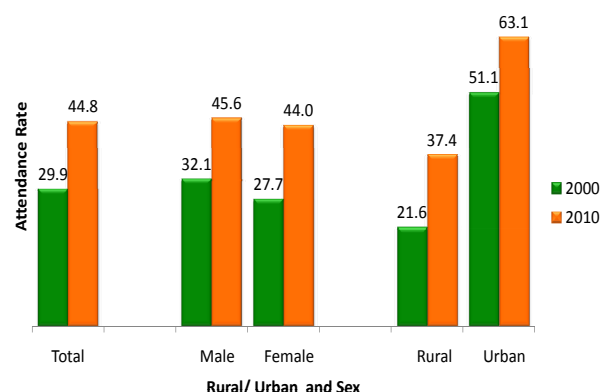
Figure 5.19 shows gross secondary school attendance rate by district. Kabwe District had the highest gross secondary school attendance rate at 94.4 percent while Serenje District had the lowest at 52.2 percent.

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

Source: 2010 Census of Population and Housing

5.4.5 Net Secondary School Attendance Rate

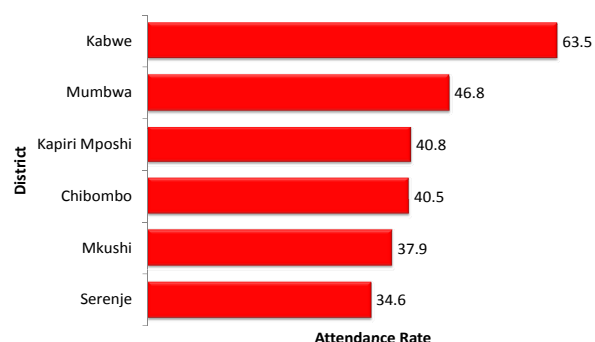
Net secondary school attendance rate shows the percentage of the secondary school age population (14-18 years) currently attending secondary school grades 8 to 12. Figure 5.20 shows net secondary school attendance rate by sex and rural/urban. The net secondary school attendance rate increased from 29.9 percent in 2000 to 44.8 percent in 2010. In 2000, the net secondary school attendance rate for rural areas was 21.6 percent while that of urban areas was 51.1 percent. The net secondary school attendance rate in 2010 increased to 37.4 and 63.1 percent in rural and urban areas, respectively.

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

Sources: 2000 and 2010 Censuses of Population and Housing

In both 2000 and 2010, the net secondary school attendance for males was higher than that of females. The net secondary school attendance rate for males increased from 32.1 percent in 2000 to 45.6 percent in 2010 while that of females increased from 27.7 percent in 2000 to 44.0 percent in 2010.

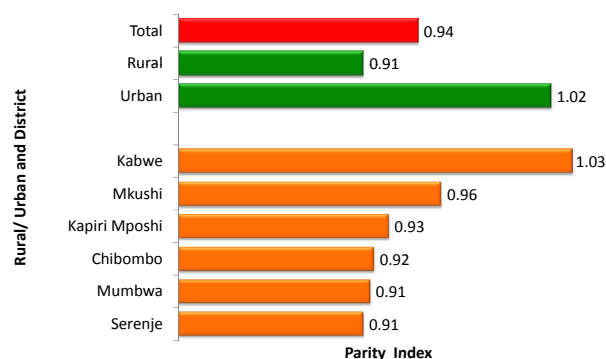
Figure 5.21 shows net secondary school attendance rate by district. Kabwe District recorded the highest net secondary school attendance rate at 63.5 percent while Serenje District had the lowest at 34.6 percent in 2010.

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

Source: 2010 Census of Population and Housing

5.5 Gender Parity Index

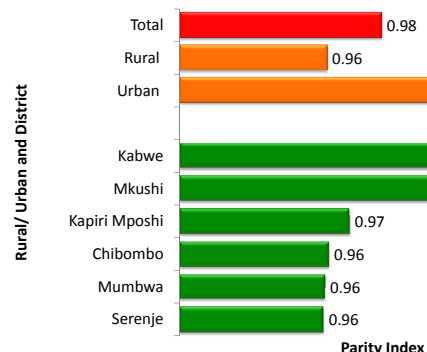
Gender parity index shows the disparities in access to education between males and females. The index helps in addressing unequal access to education among females. Figure 5.22 shows gender parity index by district and rural/urban. Overall, the gender parity index for those currently attending school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

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

Source: 2010 Census of Population and Housing

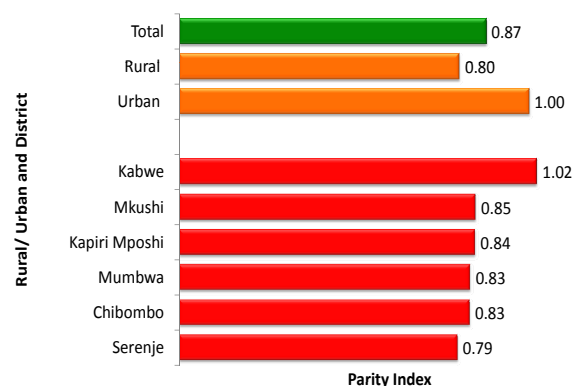
The GPI for rural areas was 0.91 while that of urban areas was 1.02. Kabwe District had the highest GPI at 1.03 while Mumbwa and Serenje districts had the lowest at 0.91 each.

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. Kabwe District had the highest GPI of 1.05 while Chibombo, Mumbwa and Serenje Districts had the lowest at 0.96 each.

Figure 5.23: Gender Parity Index for Population Currently Attending Primary School by Rural/Urban and District, Central 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 0.87. In rural areas, the GPI was 0.80 while that of urban areas was 1.00 showing that there was equal access to secondary education in urban than rural areas. Kabwe District had the highest GPI at 1.02 and Serenje District had the lowest at 0.79.

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

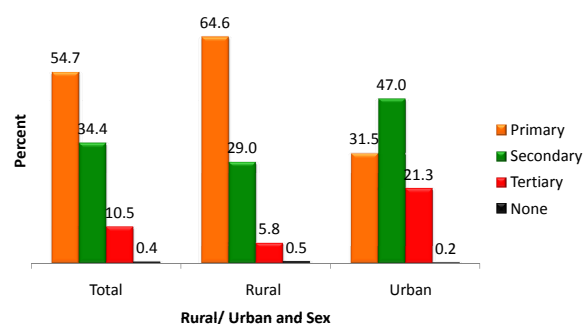
Source: 2010 Census of Population and Housing

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, UN, 1998). The UN 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 percentage distribution of population (25 years and older) that ever attended school by highest education level completed. In 2010, 54.7 percent had completed primary level, 34.4 percent had completed secondary and 10.5 percent had completed tertiary.

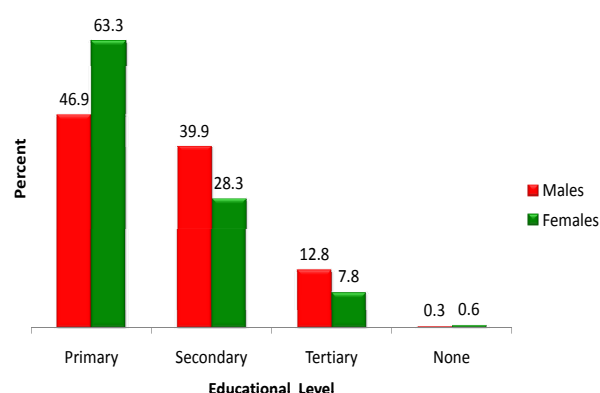
Figure 5.25: Percent Distribution of Population (25 Years and Older) that Ever Attended School by Highest Education Level Completed and Rural/Urban, Central Province 2010

Source: 2010 Census of Population and Housing

In rural areas, 64.6 percent of the population reported having completed primary education while 29.0 percent had completed secondary school. Secondary education was the highest level of education completed in urban areas at 47.0 percent followed by 31.5 percent who had completed Primary level. The percentage of population that had completed tertiary education was highest in urban areas (21.3 percent).

Figure 5.26 shows the percentage distribution of population (25 years and older) that ever attended school by highest education level completed and sex. There were more females than males who had primary education as the highest level completed at 63.3 percent and 46.9 percent, respectively. The percentage of males who had secondary and tertiary as their highest level of education completed was higher than that of females.

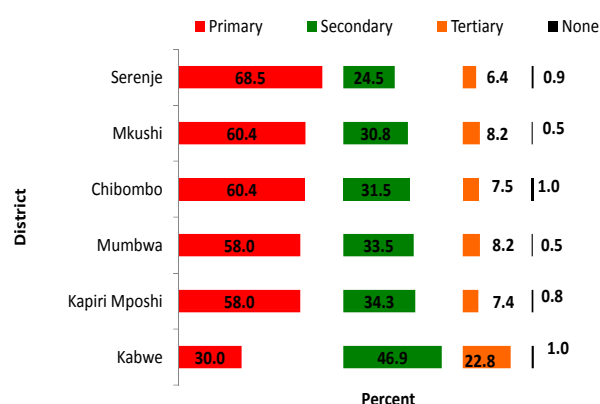
Figure 5.26: Percent Distribution of Population (25 Years and Older) that Ever Attended School by Highest Education Level Completed and Sex, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 5.27 shows the percent distribution of population (25 years and older) that ever attended school by highest education level completed and district. Kabwe District had the highest percentage of the population with Tertiary as their highest level of education completed at 22.8 percent. Serenje District had the lowest completion of tertiary education at 6.4 percent.

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

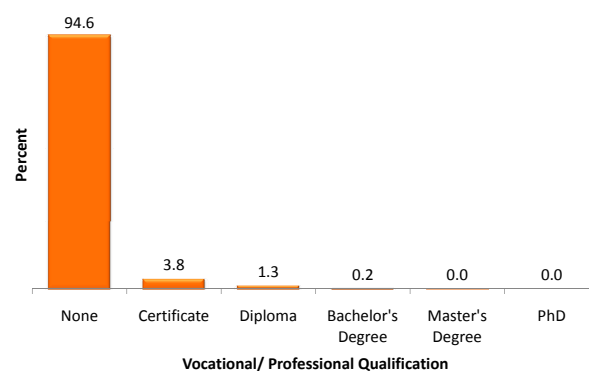


Source: 2010 Census of Population and Housing

5.7 Highest Profession/Vocational Qualification Completed

Figure 5.28 shows the percentage distribution of population (25 Years and Older) by highest profession/vocational qualification completed. Certificate holders constituted 3.8 percent followed by diploma holders at 1.3 percent. Less than one percent (0.0) of the people had doctorate degrees (PhD).

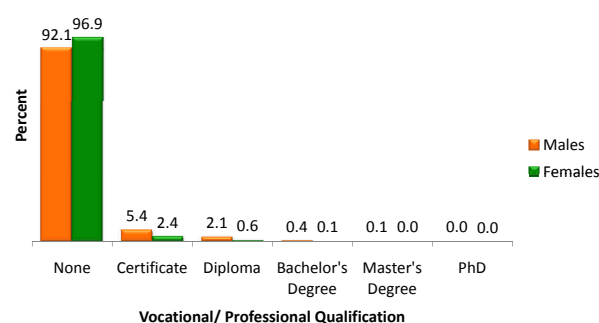
Figure 5.28: Percentage Distribution of Population (25 Years and Older) by Highest Profession/Vocational Qualification Completed, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 5.29 shows the percent distribution of highest profession/vocational qualification completed by sex. In all professional and vocational qualification categories males had higher percentages compared to females. The highest percentage difference was recorded in the Certificate category where males accounted for 5.4 percent compared to 2.4 percent for females.

Figure 5.29: Percent Distribution of Highest Profession/Vocational Qualification Completed by Sex, Central Province 2010



Source: 2010 Census of Population and Housing

5.8 Field of Study

Table 5.1 shows the percentage distribution of population (25 years and older) by field of study and sex. Teacher training was the field of study reported by 2.8 percent of the total population. Other notable fields of study included accountancy, nursing and agriculture, all at 0.5 percent each.

Table 5.1: Percent Distribution of the Population (25 Years and Older) by Field of Study and Sex, Central Province 2010

Field of Study	Population	Percent of Total	Percent Males	Percent Females
Total	401,676	100	49.2	50.8
Natural science (e.g. biological science programme chemistry programme geological programme etc).	235	0.1	80.4	19.6
Civil engineering	367	0.1	92.4	7.6
Electrical and electronics engineering	1,190	0.3	93.6	6.4
Mechanical engineering	1,553	0.4	97.3	2.7
Chemical engineering	46	0.0	100.0	0.0
Mining engineering	168	0.0	97.6	2.4
Industrial engineering	96	0.0	92.7	7.3
Metallurgical engineering	46	0.0	95.7	4.3
Architectural and town planning engineering	114	0.0	88.6	11.4
Other engineering	324	0.1	95.4	4.6
Medicine and surgery	224	0.1	78.6	21.4
Pharmacy	234	0.1	67.5	32.5
Dentistry	146	0.0	69.2	30.8
Nursing	1,907	0.5	37.4	62.6
Medical technology	249	0.1	77.5	22.5
X-Ray technology	45	0.0	71.1	28.9
Veterinary	168	0.0	87.5	12.5
Statistics	43	0.0	90.7	9.3
Mathematics	86	0.0	87.2	12.8
Computer science/Economics	740	0.2	63.8	36.2
Accountancy	1,811	0.5	77.9	22.1
Teacher training	11,273	2.8	52.0	48.0
Law and jurisprudence (includes magistrates and judges)	426	0.1	81.0	19.0
Journalism	97	0.0	60.8	39.2
Fine arts	139	0.0	71.9	28.1
Physical education	99	0.0	65.7	34.3
Library science	59	0.0	52.5	47.5
Social welfare	632	0.2	49.1	50.9
Criminology	340	0.1	87.4	12.6
Business administration and related programmes	1,594	0.4	69.1	30.9
Secretarial training	823	0.2	9.7	90.3
shorthand typing	278	0.1	23.0	77.0
Clerical Typing	227	0.1	48.5	51.5
Operating of office machines	79	0.0	82.3	17.7
Service trade (e.g. cooking tourist trade etc.)	537	0.1	45.6	54.4
Radio and television broadcasting	38	0.0	76.3	23.7
Fire protection and fire fighting	73	0.0	80.8	19.2
Agriculture forestry and fishery	1,839	0.5	82.6	17.4
Food and drinks processing trades programmes	335	0.1	43.3	56.7
Wood working	764	0.2	93.2	6.8
Textile trades	564	0.1	26.1	73.9
Leather trades	52	0.0	57.7	42.3
Other programmes	5,814	1.4	76.2	23.8
None	365,802	91.1	47.6	52.4

Source: 2010 Census of Population and Housing

CHAPTER 6

ECONOMIC CHARACTERISTICS

6.0 Chapter Summary

The population aged 12 years and older was 754,850 in 2010. Out of these, 72.1 percent were in rural areas while 27.9 percent were in urban areas. Males comprised 48.9 percent of total population aged 12 years and older while females comprised 51.1 percent.

Of the population aged 12 years and older, 394,281 were in the labour force, of which 55.8 percent were in rural areas and 42.9 percent were in urban areas.

The unemployment rate was 12.7 percent of the total labour force. Urban unemployment rate was 23.7 percent while rural unemployment rate was 9.4 percent. The unemployment rate for males was 13.4 percent compared to 11.8 percent for females.

The youth unemployment rate was 16.2 percent, of which urban youth unemployment rate was higher (31.3 percent) than the rural youth unemployment rate (11.5 percent). The unemployment rate for male youths was higher (16.9 percent) than that of female youths (15.2 percent).

Of the employed population, the highest proportion was self employed (46.6 percent) and the lowest were employers (0.7 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:

Labour force Participation Rate:

This is the ratio of the economically active population to the working age population expressed as a percent.

Unemployment rate:

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

Youth Unemployment Rate:

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

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

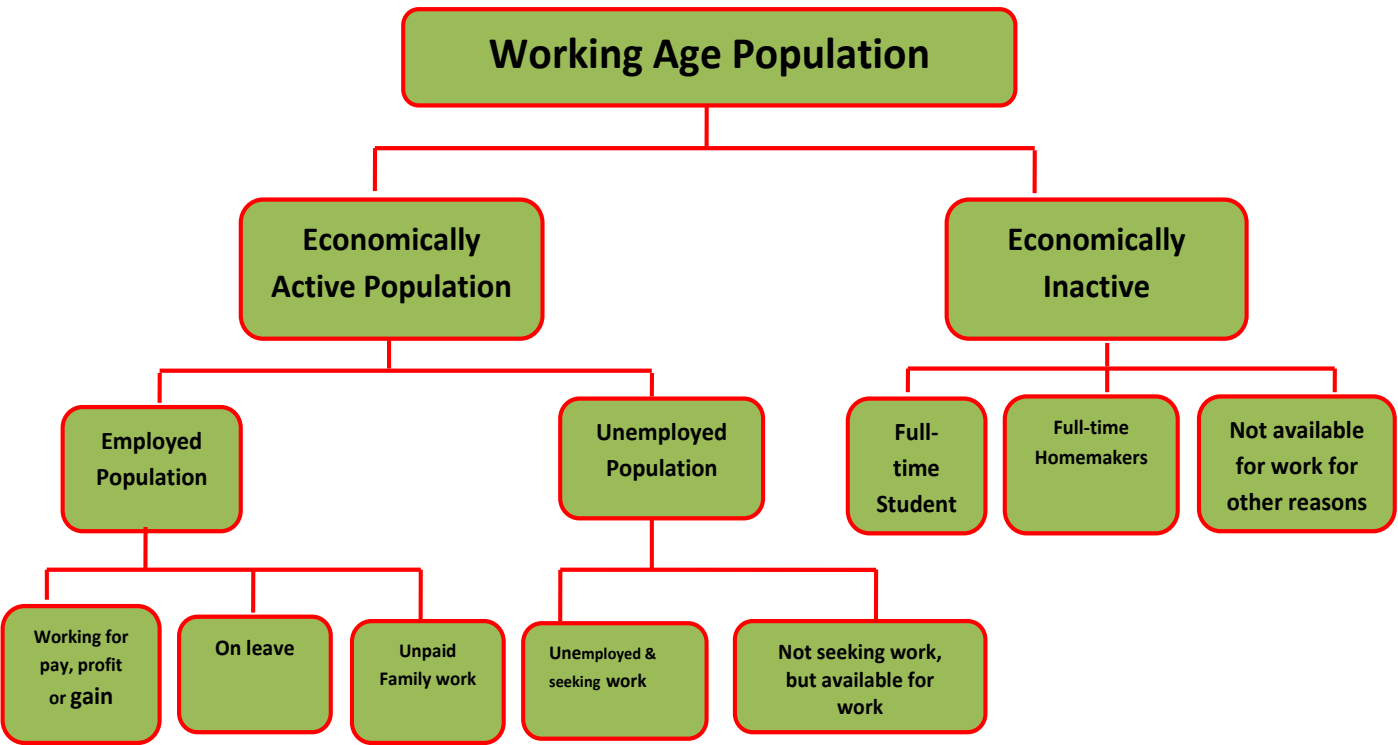
- i) Labour force participation
- ii) Economic dependency
- iii) Employment and unemployment
- iv) Employment status
- v) Occupation
- vi) Industry

6.3 Working Age Population

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

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

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



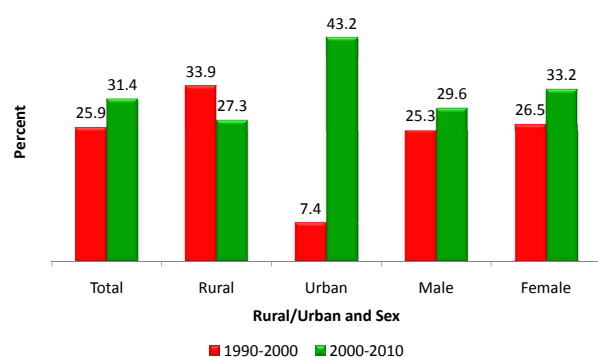
The question asked in the 2010 Census to determine the economic active status was 'What did (NAME) do in the last 7 days and last 12 months?' The reference period for the response categories was the last 7 days (Current activity status) and last 12 months (Usual activity status).

6.3.1 Percentage Change in the Population 12 Years and Older between 2000 and 2010, Central Province

In 2010, the population aged 12 years and older represented 60.6 percent of the total population of Central province while in 2000, it represented 56.8 percent. The working age population increased from 574,506 in 2000 to 754,850 in 2010, representing a 31.4 percent increase.

Figure 6.2 shows the percentage change in the population 12 years and older (Working Age Population) of Central province by rural/urban and sex. During 1990-2000 and 2000-2010 intercensal periods, the working age population in urban areas increased from 7.4 percent to 43.2 percent while in rural areas, it decreased from 33.9 to 27.3 percent, respectively. The percentage increase by sex was higher in the female working age population (33.2 percent) compared to the male working age population (29.6 percent) during the 2000-2010 intercensal period.

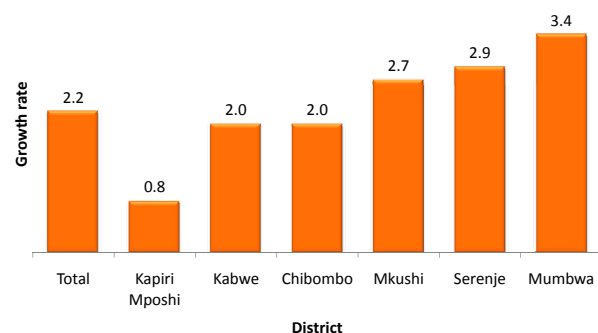
Figure 6.2: Percentage Change in Population Aged 12 Years and Older (Working Age Population) by Rural/Urban and Sex, Central Province 1990-2000 and 2000 - 2010



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

Figure 6.3 shows the average annual growth rate of the labour force by district in 2010. The average annual growth rate of the labour force was 2.2 percent.

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



Sources: 2000 and 2010 Censuses of Population and Housing

Mumbwa District recorded the highest Labour Force average annual growth rate of 3.4 percent while Kapiri Mposhi District had the lowest growth rate at 0.8 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).

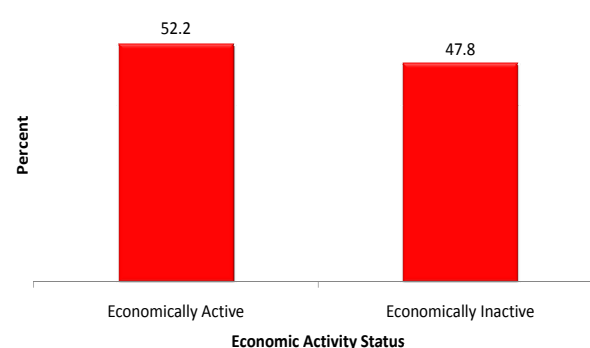
The analysis for the economic activity status is based on the current (in the 7 days prior to the census night) economic activity of the population. In 2010, the economically active population in Central Province was 394,281 persons. Of these, 231,367 were male and 162,914 were female.

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 (i.e. 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, 52.2 percent were economically active while 47.8 percent were economically inactive.

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



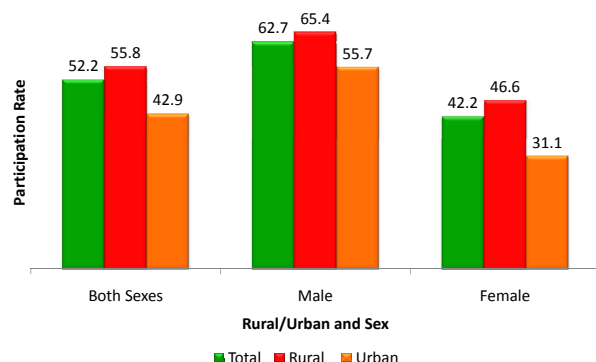
Source: 2010 Census of Population and Housing

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 52.2 percent in Central Province. Analysis by sex shows that the participation rate for males was higher at 62.7 percent compared to that of females at 42.2 percent.

The labour force participation rate was higher in rural areas (55.8 percent) compared to urban areas (42.9 percent). The results also show that the labour force participation rates were higher for males than females in both rural and urban areas.

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

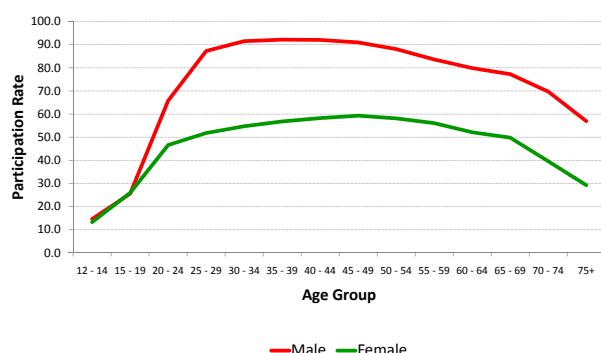


Source: 2000 and 2010 Census of Population and Housing

Overall, the participation rates for both males and females were higher in rural than in urban areas.

Figure 6.6 shows labour force participation rate for the population 12 years and older by age and sex. The figure shows that 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, Central Province 2010



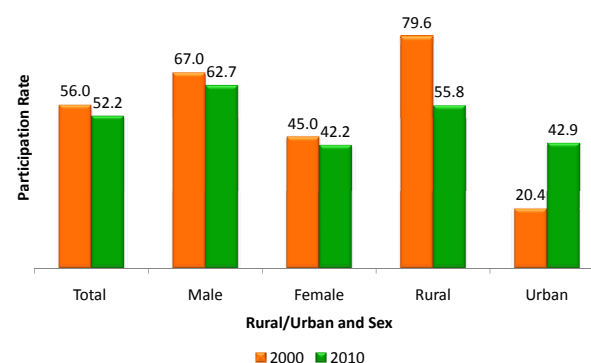
Source: 2010 Census of Population and Housing

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

Figure 6.7 shows labour force participation rate for population aged 12 years and older by sex and rural/urban. The labour force participation rate was 56.0 and 52.2 percent in 2000 and 2010, respectively.

The Labour force participation rate for males decreased from 67.0 percent in 2000 to 62.7 percent in 2010. Female labour force participation rate decreased by 2.8 percentage points from 45.0 percent in 2000 to 42.2 percent in 2010.

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

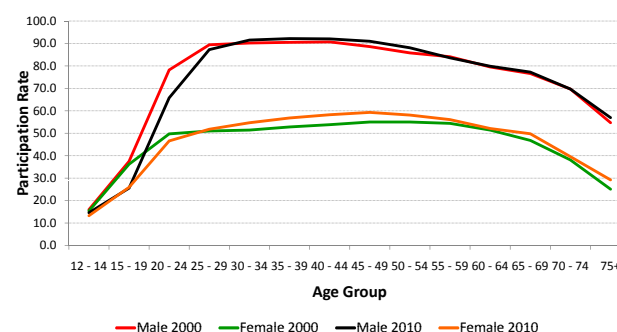


Sources: 2000 and 2010 Censuses of Population and Housing

The labour force participation rate was higher in rural (55.8 percent) than in urban areas (42.9 percent) in 2010. This pattern was also observed in 2000 where 79.6 percent labour force participation was recorded in rural areas compared to 20.4 percent in urban areas.

Figure 6.8 shows the 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 increased with progression in age for both males and females between 2000 and 2010.

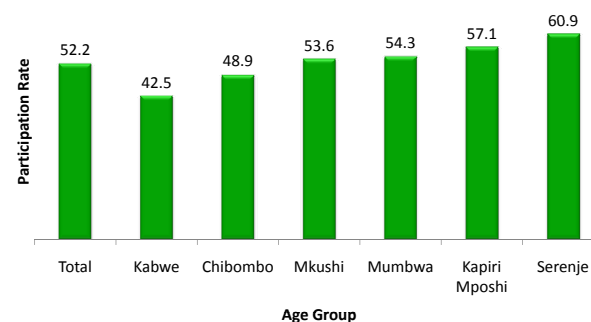
Figure 6.8: Labour Force Participation Rate for Population (12 Years and Older) by Age Group and Sex, Central Province 2000 and 2010



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 6.9 shows the labour force participation rates for the population 12 years and older by district. Serenje District had the highest labour force participation rate (60.9 percent) while Kabwe District had the lowest (42.5 percent).

Figure 6.9: Labour Force Participation Rates for the Population 12 Years and Older by District, Central Province 2010



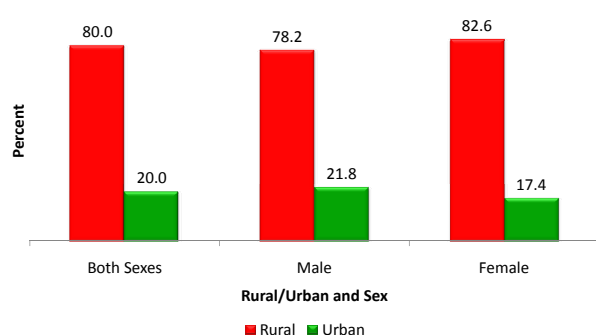
Source: 2010 Census of Population and Housing

6.6 Employed Population

Employment in Zambia is measured as a percent of the Labour force. It included persons who reported to be working and those who were on leave during the reference period (seven days prior to the census night). Out of 394,281 persons in the labour force, 344,129 persons were employed, representing 87.3 percent of the labour force. Of the employed, 58.2 percent were male and 41.8 percent were female.

Figure 6.10 shows the percentage of employed population by sex and rural/urban. The results show that there were more employed persons in rural areas (80.0 percent) than in urban areas (20.0 percent). Female employment accounted for 82.6 percent in rural areas compared to 17.4 percent in urban areas. Male employment in rural areas was at 78.2 percent compared to 21.8 percent in urban areas.

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



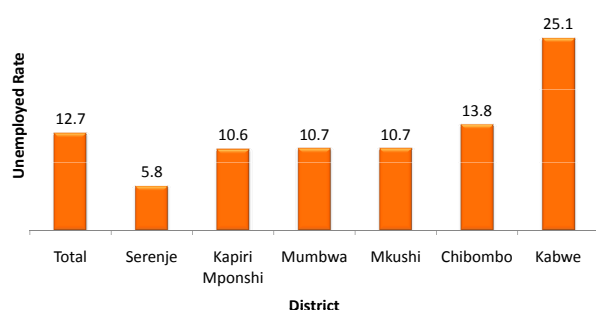
Source: 2010 Census of Population and Housing

6.6 Unemployment

The unemployed population consists of all persons 12 years and older who were actively seeking work or were available for work during the reference 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 rate for the population 12 years and older by district. Of the 394,281 persons in the labour force, 50,152 (12.7 percent) were unemployed. Kabwe District had the highest unemployment rate at 25.1 percent while Serenje District had the lowest unemployment rate at 5.8 percent.

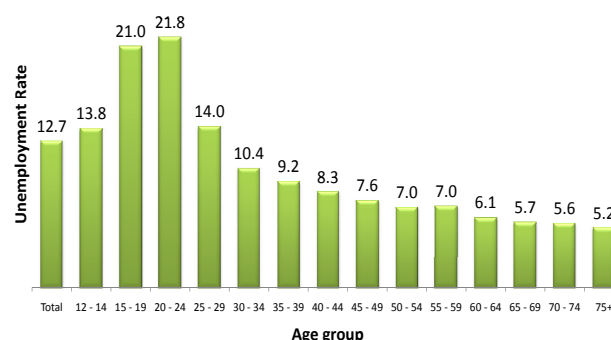
Figure 6.11: Unemployment Rates for the Population 12 Years and Older by District, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 6.12 shows unemployment rate for the population (12 years and older) by age group. The highest unemployment rate was in the age group 20-24 years at 21.8 percent, followed by the age group 15-19 years at 21.0 percent. The lowest unemployment rate was in the age group 75 years and older at 5.2 percent.

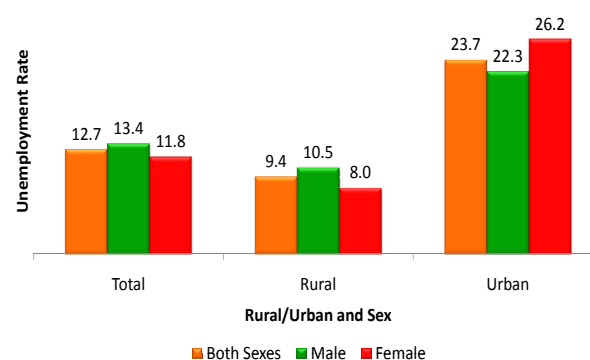
Figure 6.12: Unemployment Rate for the Population (12 Years and Older) by Age Group, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 6.13 shows unemployment rate for the population (12 years and older) by sex and rural/urban. Unemployment rate in Central Province was 13.4 percent for males and 11.8 percent for females. Unemployment was higher in urban areas (23.7 percent) than in rural areas (9.4 percent). In rural areas, males recorded a higher unemployment rate (10.5 percent) than females (8.0 percent). Males recorded lower unemployment rate (22.3 percent) than females (26.2 percent) in urban areas.

Figure 6.13: Unemployment Rate for the Population (12 Years and Older) by Sex and Rural/Urban, Central Province 2010

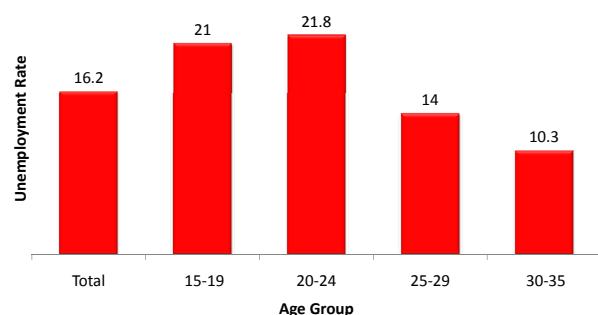


Source: 2010 Census of Population and Housing

6.7.1 Youth Unemployment

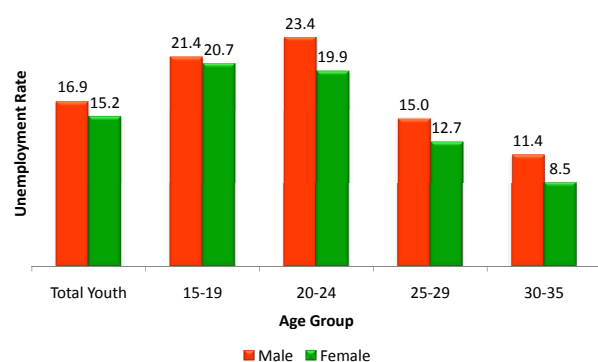
The national youth policy defines a youth as any person aged 15-35 years. In this chapter, this age group has been used to analyse youth unemployment. The youth population in the labour force was 225,683 representing 57.2 percent of the total labour force. Of these, 57.3 percent were male and 42.7 percent were female. Rural areas constituted 76.3 percent of youth population in the labour force while urban areas constituted 23.7 percent.

The youth unemployment rate by age group is shown in Figure 6.14. Out of the 225,683 youths in the labour force, 16.2 percent were unemployed. The highest youth unemployment rate was in the age group 20-24 years at 21.8 percent while the lowest was in age group 30-35 years at 10.3 percent.

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

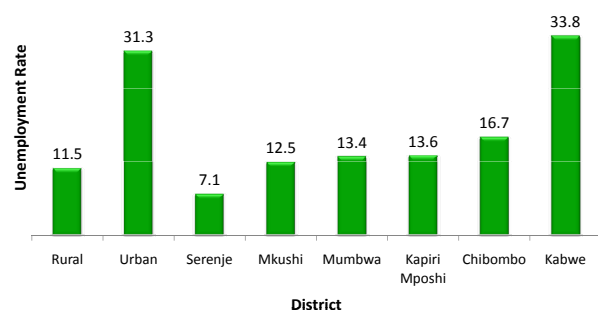
Source: 2010 Census of Population and Housing

Figure 6.15 shows the youth unemployment rate by age group and sex. Overall, unemployment rate for male youths was higher in all age groups. The total youth unemployment rate was 16.9 and 15.2 percent for males and females, respectively. The age group with the highest disparity between males and females was 20-24 years with 23.4 percent for males and 19.9 percent for females.

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

Source: 2010 Census of Population and Housing

Figure 6.16 shows the youth unemployment rate by rural/urban and district. The unemployment rate was higher in urban areas (31.3 percent) than rural areas (11.5 percent). Kabwe District had the highest unemployment rate at 33.8 percent and Serenje District recorded the lowest at 7.1 percent.

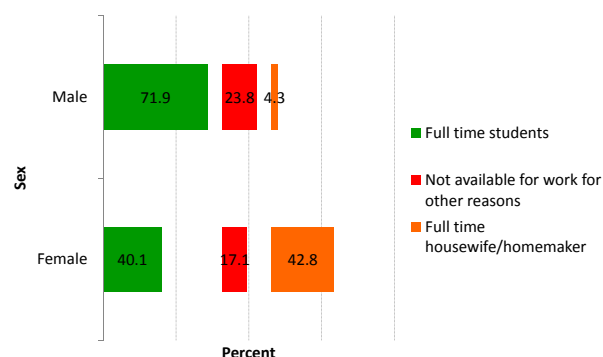
Figure 6.16: Youth Unemployment Rate by Rural/Urban and District, Central Province 2010

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 (i.e 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 male population were full time students (71.9 percent) while that of females was full time housewives/homemakers at 42.8 percent.

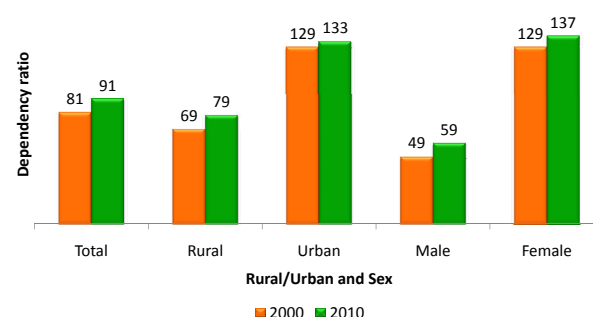
Figure 6.17: Percent Distribution of the Economically Inactive Population by Reason of Inactivity, Central Province 2010

Source: 2010 Census of Population and Housing

6.9 Economic Dependency Ratios

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 81 persons in 2000 to 91 persons per 100 economically active persons aged 12 years and older. Overall, the economic dependency ratio increased between 2000 and 2010.

Figure 6.18: Economic Dependency Ratio by Sex and Rural/Urban, Central Province 2000 - 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 46.6 percent, followed by unpaid family workers at 34.3 percent. The lowest proportion was for employers with 0.7 percent.

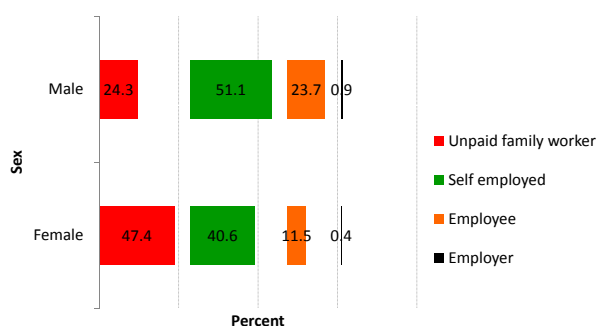
Figure 6.19: Percentage Distribution of Usually Working Population (12 Years and Older) by Employment Status, Central Province 2010



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 47.4 percent of the females were unpaid family workers followed by self employed at 40.6 percent. For males, 51.1 percent were self employed followed by unpaid family workers at 24.3 percent.

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



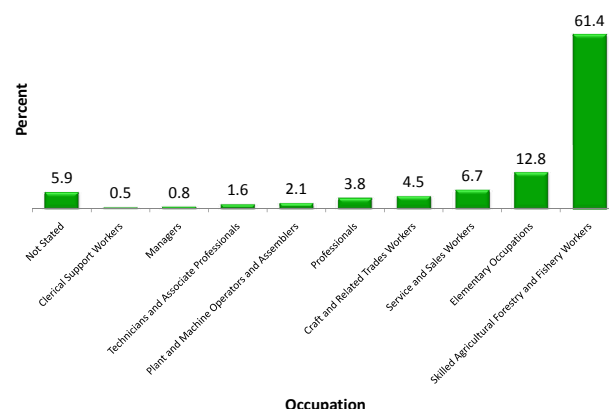
Source: 2010 Census of Population and Housing

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 61.4 percent, followed by the elementary occupations at 12.8 percent. Managers accounted for 0.8 percent of the total working age population.

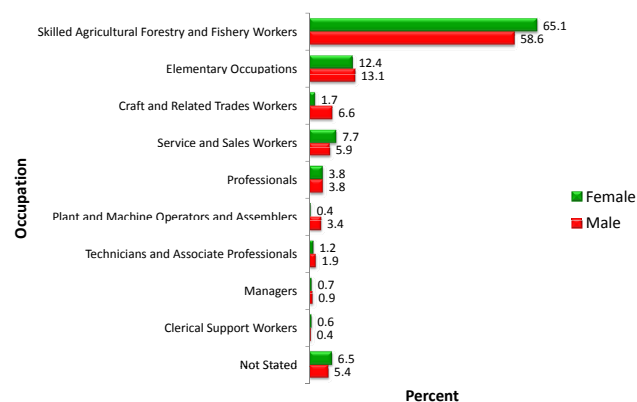
Figure 6.21: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation, Central Province 2010



Source: 2010 Census of Population and Housing

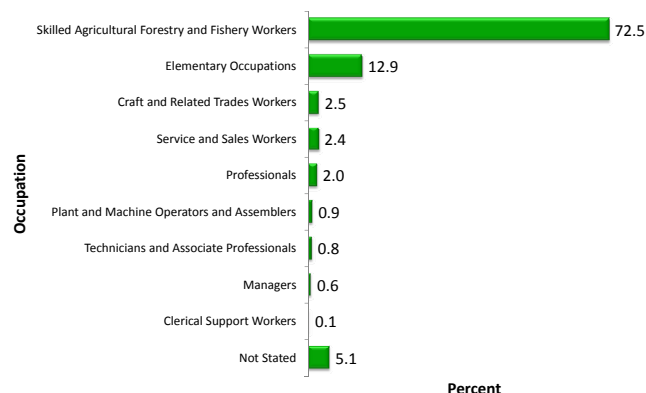
Figure 6.22 shows the percentage distribution of the usually working population (12 years and older) by occupation and sex. The largest percentage of the working population for both males and females was skilled agriculture, forestry and fishing at 58.6 and 65.1 percent, respectively.

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



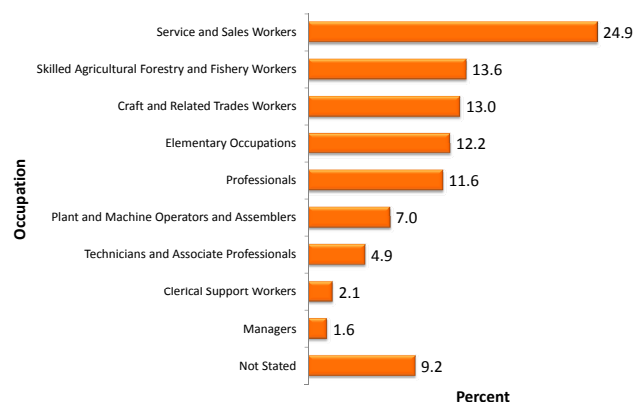
Source: 2010 Census of Population and Housing

Figures 6.23 and 6.24 show the percentage distribution of the usually working population (12 years and older) by occupation for rural and urban areas, respectively. The largest percentage of the usually working population in rural areas was in the skilled agriculture, forestry and fishing occupation (72.5 percent), followed by elementary occupations (12.9 percent).

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

Source: 2010 Census of Population and Housing

In urban areas, the largest percent share of the usually working population was in the services and sales occupation (24.9 percent), followed by skilled agriculture forestry and fishery workers (13.6 percent). The lowest percentage in urban areas was for managers at 1.6 percent.

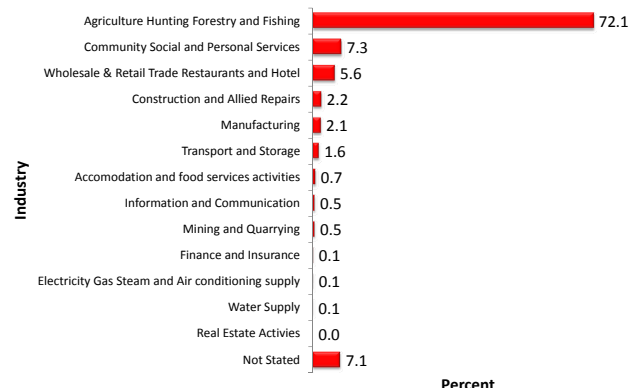
Figure 6.24: Percentage Distribution of Usually Working Population (12 Years and Older) by Occupation, Central Province Urban 2010

Source: 2010 Census of Population and Housing

6.10.3 Working Population by Industry

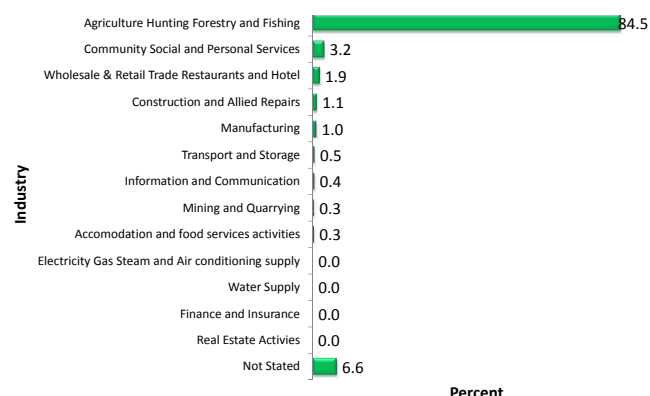
Industry is defined as the type of activity carried out by an enterprise where a person works. Industry categorisation used the International Standard Industrial Classification of All Economic Activity Revision IV (ISIC Rev. 4).

The percentage distribution of the usually working population by industry is shown in Figure 6.25. The agriculture industry accounted for 72.1 percent of the usually working population. Other industries with notable proportions of the usually working population were community, social and personal services; and wholesale and retail trade with 7.3 percent and 5.6 percent, respectively.

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

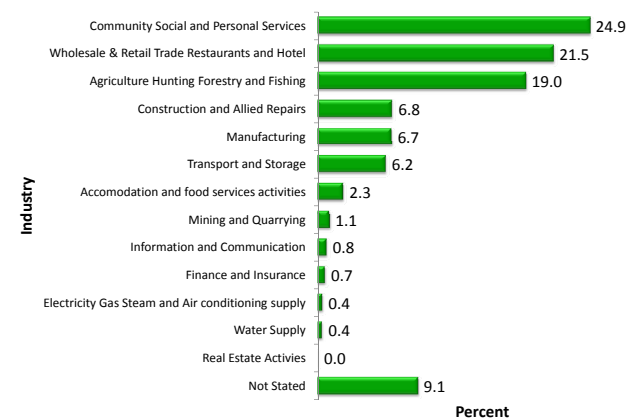
Source: 2010 Census of Population and Housing

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 84.5 percent of the usually working population in rural areas. Community, social and personal services; wholesale and retail trade; manufacturing; and construction collectively accounted for 3.2 percent.

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

Source: 2010 Census of Population and Housing

In urban areas, community, social and personal services accounted for 24.9 percent of the usually working population followed by wholesale and retail trade industry at 21.5 percent. Agriculture accounted for 19.0 percent while Construction and Allied Repairs was 6.8 percent.

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

Source: 2010 Census of Population and Housing

CHAPTER 7: FERTILITY CHARACTERISTICS

7.0 Summary

The Total Fertility Rate (TFR) for Central Province was 6.3. The TFR in rural areas was 6.9 and 4.8 in urban areas. Serenje District recorded the highest TFR at 7.6 and Kabwe had the lowest at 4.5.

The Crude Birth Rate (CBR) in 2010 was 36 live births per 1000 population. Rural areas had a higher CBR of 38 compared to urban areas at 29 live births per 1000 population.

The Child Woman Ratio (CWR) for Central Province in 2010 was 785 children (0-4 years) per thousand women. The CWR for rural areas was 877 compared with 562 in urban areas.

The General Fertility Rate was 156. Rural areas had a GFR of 175 and urban areas had 110.

The completed family size was 6.4 children, 6.4 and 6.1 for rural and urban areas, respectively.

The Gross Reproduction Rate (GRR) was 2.5. The GRR for rural and urban areas were 2.8 and 1.7 respectively.

The Net Reproduction Rate (NRR) was 1.8. The NRR for rural and urban areas were 2.1 and 1.2 respectively. The mean age at child bearing (MACB) for the year 2010 was 29.4 years.

Chapter 7: Fertility Characteristics



7.1 Introduction

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

7.2 Concepts and Definitions

Age Specific Fertility Rates (ASFR): Is the annual number of births to women in a particular age group per 1000 women in that age group.

Child Woman Ratio (CWR):

The ratio of all children aged 0-4 years to women aged 15-49 years in the population.

Completed Family Size (Mean Parity):

Is the number of children ever born to women who have completed their reproduction i.e. those aged 50 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).

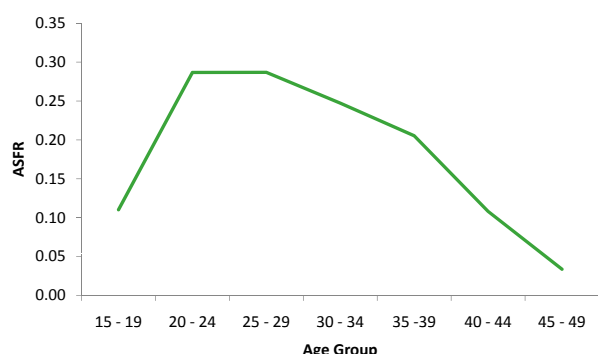
The 2010 Census therefore applied the P/F Ratio Technique, which uses children ever born data to adjust fertility data for underreporting in number of births that occurred in the last 12 months prior to the census (Arriaga et al 2005). The P/F Ratio Technique is based on cumulating fertility (represented 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 (ASFR)

Figure 7.1 shows the Adjusted Age Specific Fertility Rates for Central Province. The age group with the highest ASFR in 2010 was 20-24 years. This was followed by the age group 25-29 years. (See details in appendix Table E1)

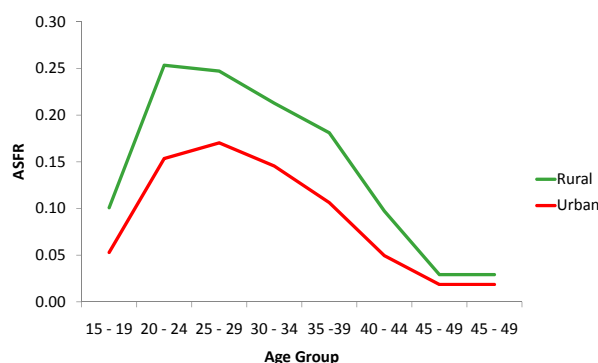
Figure 7.1: Adjusted Age Specific Fertility Rate by Age Group, Central Province 2010



Source: 2010 Census of Population and Housing

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

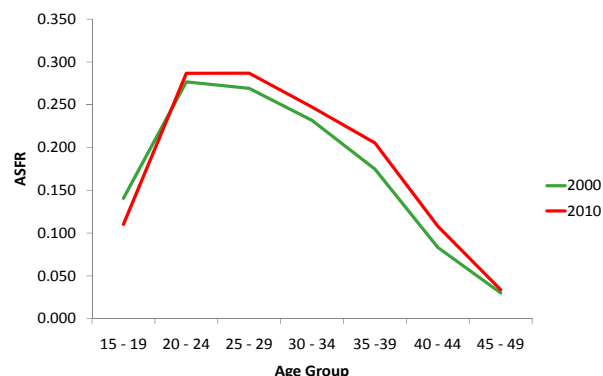
Figure 7.2: Adjusted Age Specific Fertility Rates by Age Group and Rural/Urban, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 7.3 shows trends in the adjusted ASFR for Central Province for the years 2000 and 2010. Results show that the peak of child bearing in 2000 was in the age group 20-24 while the peak in 2010 was in the age group 25-29 years.

Figure 7.3: Adjusted Age Specific Fertility Rates by Age Group, Central Province 2000 - 2010

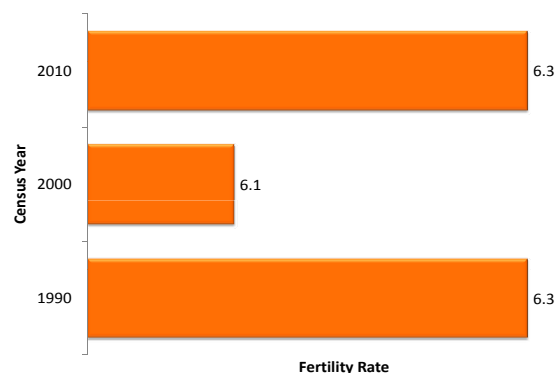


Source: 2000 and 2010 Censuses of Population and Housing

7.5.2 Total Fertility Rate (TFR)

Figure 7.4 shows trends in Total Fertility Rate (TFR) from 1990 to 2010. The results show that, between 1990 and 2000, the TFR decreased from 6.3 to 6.1 and increased to 6.3 in 2010.

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

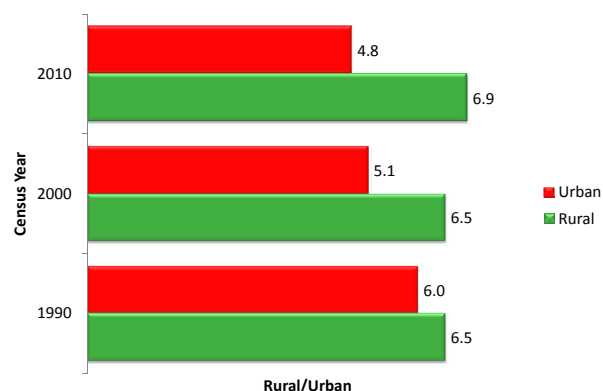


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

7.5.2.1 Total Fertility Rate by Rural/Urban

Figure 7.5 shows the trends in Total Fertility Rate by rural/urban from 1990 to 2010. Results show that, in 2010 the TFR for rural areas in Central Province was 6.9, an increase from 6.5 in 2000. Further, the TFR in urban areas declined from 5.1 in 2000 to 4.8 in 2010. It is observed that the TFR was high for rural areas in 1990, 2000 and 2010.

Figure 7.5: Total Fertility Rate by Rural/Urban, Central Province 1990, 2000 and 2010

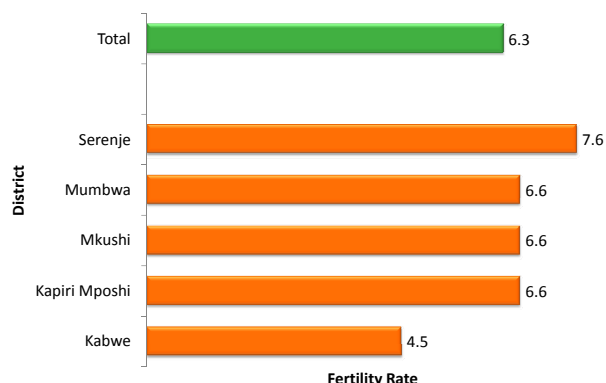


Source: 1990, 2000 and 2010 Censuses of Population and Housing

7.5.2.2 Total Fertility Rate by District

Figure 7.6 shows total fertility rate by district. In 2010, Kabwe District had the lowest TFR at 4.5 while Serenje District had the highest at 7.6. All the districts recorded a TFR of 6.6 or higher apart from Kabwe District at 4.5.

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

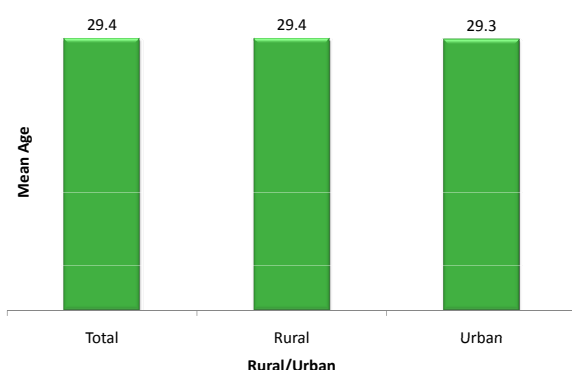


Source: 2010 Census of Population and Housing

7.5.3 Mean Age at Child Bearing (MACB)

Figure 7.7 shows the Mean Age at Child Bearing (MACB) by rural/urban. In 2010, the MACB for Central Province was 29.4 years. There was minimal difference in the MACB between rural (29.4) and urban areas (29.3).

Figure 7.7 Mean Age at Child Bearing, Central Province 2010

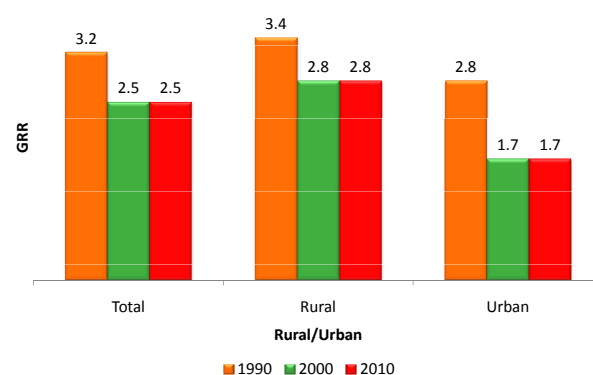


Source: 2010 Census of Population and Housing

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 3.2 in 1990 to 2.5 in 2000 and remained at 2.5 in 2010. The GRR was higher in rural areas at 2.8 compared to 1.7 in urban areas in 2010.

Figure 7.8: Trends in Gross Reproduction Rates by Rural/Urban, Central Province 1990, 2000 and 2010

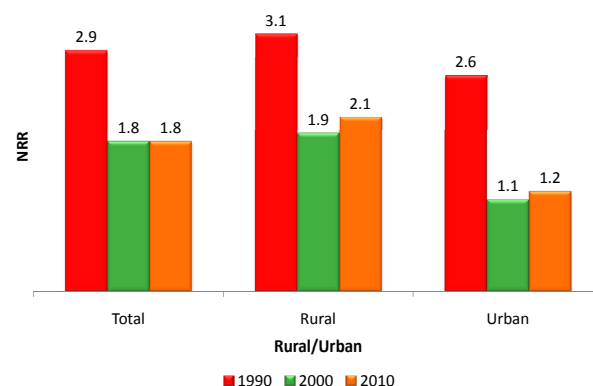


Source: 1990, 2000 and 2010 Censuses of Population and Housing

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 declined from 2.9 in 1990 to 1.8 in 2000 and remained at 1.8 in 2010. The NRR was higher in rural areas at 2.1 compared with 1.2 in urban areas in 2010.

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



7.5.6 Other Fertility Indicators

Several other indices of fertility can also be measured from data on births and population (Arriaga et al., 2005). These include the Crude Birth Rate (CBR), Child-Woman Ratio (CWR), Completed Family Size (CFS) and General Fertility Rate (GFR). Table 7.1 shows a summary of fertility indicators by rural/urban and district. In 2010, the CBR was at 36 per 1000 mid-year population, while the CWR was at 785 per 1000 women aged 15-49 years. Other indicators such as the GFR and CFS were at 156 and 6.4, respectively.

Table 7.1: Fertility Indicators by District and Rural/Urban, Central Province 2010

District and Rural/Urban	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)
Central	6.3	6.4	36	785	156	2.5	1.8
Rural	6.9	6.4	38	877	175	2.8	2.1
Urban	4.8	6.1	29	562	110	1.7	1.2
District							
Chibombo	6.4	6.3	38	845	172	2.7	2.2
Kabwe	4.5	6.0	27	533	102	1.7	1.2
Kapiri Mposhi	6.6	6.5	37	804	163	2.6	1.8
Mkushi	6.6	6.2	36	851	162	2.5	1.9
Mumbwa	6.6	6.6	38	848	170	2.6	2.0
Serenje	7.6	6.5	38	872	174	2.9	2.1

Source: 2010 Census of Population and Housing

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

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

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

Table 7.2 shows fertility levels by religious affiliation of women. Total Fertility Rate was highest among women with no religious affiliation as well as those that belonged to the category of other at 6.7 each. The Protestant women had a TFR of 6.4 and the Muslim women had the least total fertility rate at 4.9.

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

District	All Women	Religious Affiliation of Women (15-49 years)					
		Catholics	Protestants	Muslims	Hindus	Other	None
Central Province	6.3	5.6	6.4	4.9	-	6.7	6.7
Chibombo	6.5	6	6.5	6.1	-	6.9	7.2
Kabwe	4.6	4.3	4.6	5.1	-	4.6	5.5
Kapiri Mposhi	6.6	5.9	6.7	5.1	-	6.8	5.8
Mukushi	6.6	6.4	6.6	6.4	-	7	6.2
Mumbwa	6.6	5.6	6.6	3.7	-	7.5	7
Serenje	7.6	7.7	7.5	4.0	-	7.8	7.6

Source: 2010 Census of Population and Housing

7.6.2 Total Fertility Rate by Education attainment of Women 15-49 years

Table 7.3 shows the total fertility rate for women by their education attainment and district. The table shows that fertility was higher among women with primary education (7.4),

followed by women with no education (6.7). Women with tertiary education had the lowest total fertility rate at 2.6.

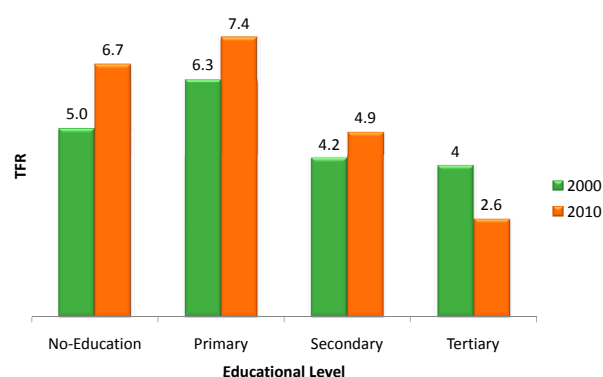
Table 7.3: Total Fertility Rate by Education Attainment of Women Aged 15-49 Years and District, Central Province 2010

District	All Women	Education Level Attained			
		No-Education	Primary	Secondary	Tertiary
Central Province	6.3	6.7	7.4	4.9	2.6
Chibombo	6.5	6.4	7.3	5.4	2.9
Kabwe	4.6	5.3	6.2	4	2.6
Kapiri Mposhi	6.6	6.8	7.4	5.3	2.5
Mkushi	6.6	6.6	7.4	4.9	2.6
Mumbwa	6.6	6.8	7.6	5.2	2.2
Serenje	7.6	7.7	8.2	5.5	2.9

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. The results show that women with primary education had the highest Total Fertility Rate in both 2000 and 2010 at 6.3 and 7.4, respectively. The lowest Total Fertility Rate was among women with Tertiary Education in both census years at 4.0 in 2000 and 2.6 in 2010.

Figure 7.10: Trends in Total Fertility Rate by Education Attainment of Women Aged 15-49 years, Central Province 2000-2010

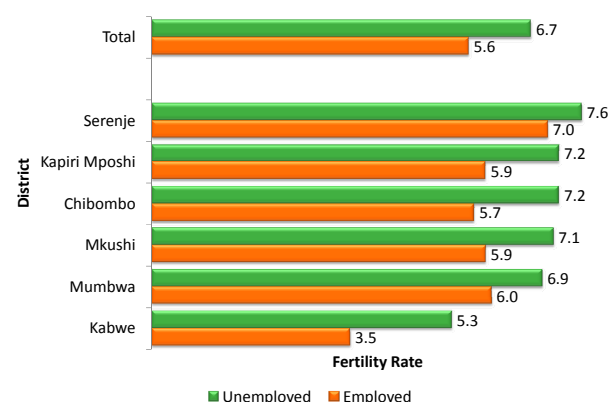


Sources: 2000 and 2010 Censuses of Population and Housing

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 (6.7) than that of the employed women (5.6). The same pattern was observed for all the districts. TFR for unemployed women was high in all the districts.

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



Source: 2010 Census of Population and Housing

CHAPTER 8

CHILDHOOD MORTALITY CHARACTERISTICS

8.0 Summary

The infant mortality rate (IMR) declined from 102.0 deaths per 1000 live births in 2000 to 71.3 deaths per 1,000 live births in 2010.

The child mortality rate (CMR) declined from 73.0 deaths per 1000 live births in 2000 to 56.4 deaths per 1000 live birth in 2010.

The under-5 mortality rate (U5MR) declined from 167.0 deaths per 1000 live births in 2000 to 127.7 deaths per 1000 live births in 2010.

Childhood mortality has declined in both rural and urban areas and in all the districts.

Chapter 8

Childhood Mortality Characteristics



8.1 Introduction

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

8.2 Concepts and definitions

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 children that 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 by sex. This information was also collected from all women aged 12-49 years for the 12 months period prior to the census.

8.4 Childhood Mortality Data Evaluation and Estimation Procedure

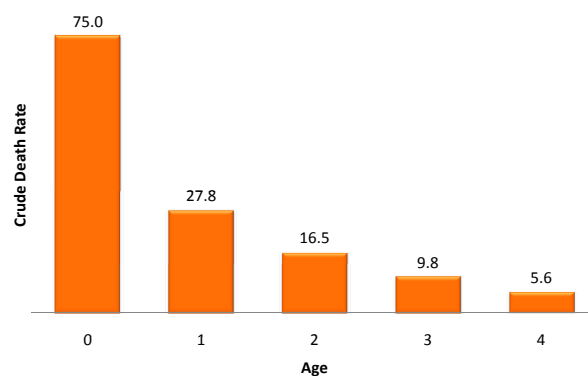
It is well known that the proportions of children ever born who have died are indicators of child mortality and can yield robust estimates of childhood mortality (UN, 1983). However, it is equally well known that children ever born data sometimes suffers from under reporting of dead children, especially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

8.4.1 Crude Death Rate

Child mortality data collected using the question on household deaths in the last twelve months was evaluated using demographic methods. Crude mortality rates were computed using observed unadjusted data. Evaluation was made of the observed crude measures. The observed crude death rate 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 75.0 deaths per 1000 population aged less than one year. The observed CDR declined with increasing age of the child, reaching the level of 5.6 deaths per 1000 population at age four.

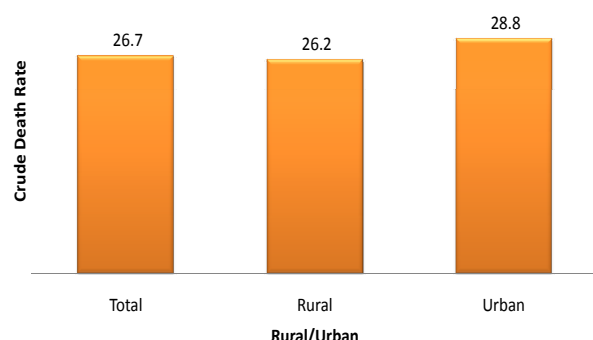
Figure 8.1: Observed Crude Death Rate per 1000 Population Aged 0-4 Years by Single Age, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 8.2 shows observed Crude Death Rate by rural/urban. The observed Crude Death Rate for Central Province was 26.7. It was higher in urban areas, 28.8 deaths per 1,000 population aged 0-4 years compared to 26.2 deaths per 1,000 population in rural areas.

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



Source: 2010 Census of Population and Housing

Table 8.1 shows Crude Death Rate by rural/urban, sex and single year 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 75, a child mortality rate of 60 and an under five mortality rate of 135.

Similarly, the information in the table approximates the infant mortality rate of 73 for rural areas and 82 for urban areas, a child mortality rate of 58 for rural areas and 65 for urban areas and an under five mortality rate of 147 for urban and 131 for rural. These proxy estimates of child mortality based on the observed crude death rates would be plausible for Central Province at the time of the 2010 census.

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

Age	Central Province			Rural			Urban		
	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females
0	0.075	0.081	0.069	0.073	0.081	0.066	0.082	0.085	0.079
1	0.028	0.030	0.026	0.027	0.029	0.025	0.030	0.034	0.026
2	0.016	0.018	0.015	0.016	0.018	0.014	0.018	0.020	0.015
3	0.010	0.011	0.009	0.010	0.010	0.009	0.010	0.012	0.008
4	0.006	0.006	0.005	0.005	0.006	0.005	0.007	0.008	0.006

Source: 2010 Census of Population and Housing

Direct estimation procedures were used to generate childhood mortality indicators. These indicators were extracted from the empirical life 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 Central Province for the period 12 months prior to the census. In 2010, the IMR was 71.3 deaths per 1000 live births. In rural areas, the IMR was 69.7 deaths per 1000 live births and 77.2 deaths per 1000 live births in urban areas. Estimated IMR was higher for male children than female children in both rural and urban areas.

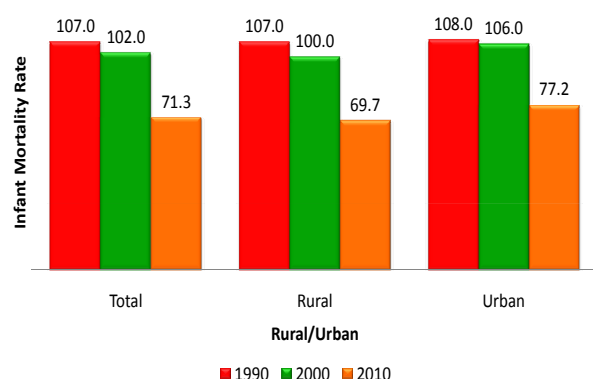
Table 8.2: Infant Mortality Rate (IMR) by Sex and Rural/Urban, Central Province 2010

Rural/Urban	Both Sexes	Males	Females
Central Province	71.3	77.0	65.5
Rural	69.7	76.2	63.0
Urban	77.2	79.9	74.7

Source: 2010 Census of Population and Housing

Figure 8.3 shows the Infant Mortality Rate by rural/urban from 1990 to 2010. The IMR declined from 107.0 deaths per 1,000 live births in 1990 to 71.3 deaths per 1,000 live births in 2010. The decline in IMR occurred in both rural and urban areas since 1990.

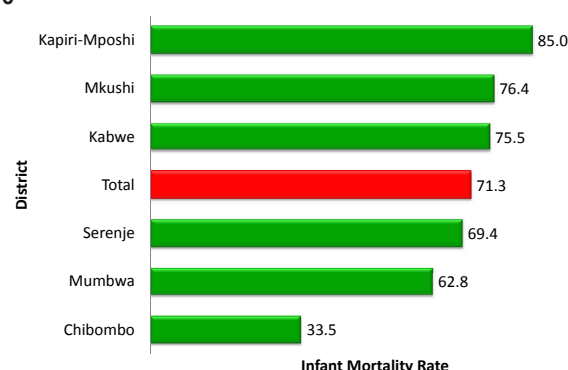
Figure 8.3: Infant Mortality Rate (IMR) by Rural/Urban, Central Province 1990, 2000 and 2010



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

Infant mortality rate (IMRs) by district is presented in figure 8.4. Kapiri Mposhi, Mkushi and Kabwe Districts had an infant mortality rate above the provincial average of 71.3 infant deaths per 1,000 live births in 2010. The highest infant mortality rate was in Kapiri Mposhi District at 85 infant deaths per 1000 live births while the lowest was in Chibombo District at 33.5 infant deaths per 1,000 live births.

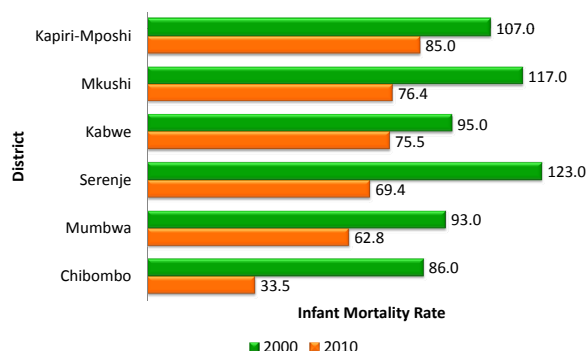
Figure 8.4: Infant Mortality Rate (IMR) by District, Central Province 2010



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 Serenje District from 123 deaths per 1,000 live births in 2000 to 69.4 deaths per 1,000 live births in 2010.

Figure 8.5: Infant Mortality Rate (IMR) By District, Central Province



Source: 2000 and 2010 Censuses of Population and Housing
NOTE: 2000 figures revised using QFive

8.6 Child Mortality Rate

Table 8.3 shows Child Mortality Rates (CMR) by sex and rural/urban in 2010. The CMR for Central Province was 56.4 deaths per 1,000 live births. In rural areas, the CMR was 55.2 deaths per 1,000 live births and 60.7 deaths per 1,000 live births in urban areas. The CMR was higher for male than female children in both rural and urban areas.

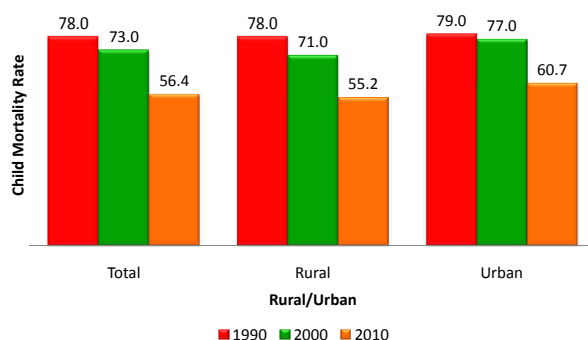
Table 8.3: Child Mortality Rate by Sex and Rural/Urban, Central Province 2010

Rural/Urban and Province	Both Sexes	Males	Females
Central Province	56.4	61.6	51.2
Rural	55.2	59.6	50.9
Urban	60.7	68.7	52.6

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 shows improvements in child survival in Central Province as depicted by declining child mortality rate in both rural and urban areas during the two inter-censal periods. Child mortality rate declined in rural areas from 78 deaths per 1,000 live births in 1990 to 71 deaths per 1,000 live births in 2000 and 55.2 deaths per 1,000 live births in 2010. Similarly, child mortality rate declined in urban areas from 79 deaths per 1,000 live births in 1990 to 77 deaths per 1,000 live births in 2000 and 60.7 deaths per 1,000 live births in 2010.

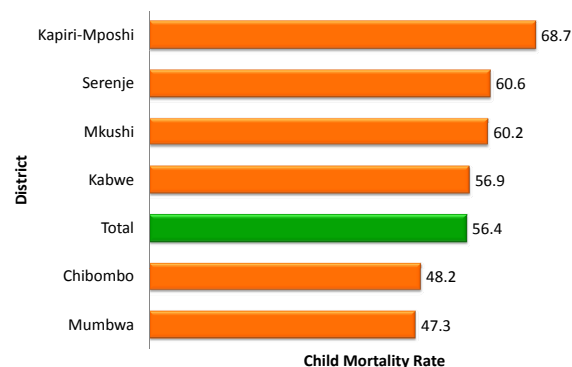
Figure 8.6: Child Mortality Rates (CMR) by Rural/Urban, Central Province 1990, 2000 and 2010



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

The child mortality rate (CMR) by district is presented in Figure 8.7. In 2010, the child mortality rate for Kapiri Mposhi, Serenje, Mkushi and Kabwe districts were above the provincial average of 56.4 deaths per 1,000 live births. Kapiri Mposhi District had the highest child mortality rate at 68.7 deaths per 1,000 live births while Mumbwa District had the lowest child mortality rate at 47.3 deaths per 1,000 live births.

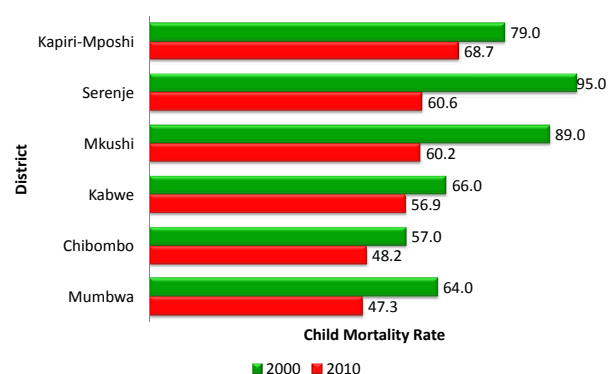
Figure 8.7: Child Mortality Rate (CMR) by District, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 8.8 shows child mortality rate by district in 2000 and 2010. Serenje and Mkushi districts had the highest decline in child mortality rate during the inter-censal period. Child mortality rate in Serenje District declined from 95.0 deaths per 1,000 live births in 2000 to 60.6 deaths per 1,000 live births in 2010 and child mortality rate in Mkushi District declined from 89.0 deaths per 1,000 live births in 2000 to 60.2 deaths per 1,000 live births in 2010. Chibombo District had the lowest decline from 57.0 deaths in 2000 to 48.2 deaths per 1,000 live births in 2010.

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



Sources: 2000 and 2010 Censuses of Population and Housing

8.7 Under-Five Mortality Rate (U5MR)

Table 8.4 shows under-five mortality rate (U5MR) by sex and rural/urban. In Central Province, the U5MR was 127.7 deaths per 1,000 live births. The U5MR in rural areas was 124.9 deaths per 1,000 live births and 138.0 deaths per 1,000 live births in urban areas.

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

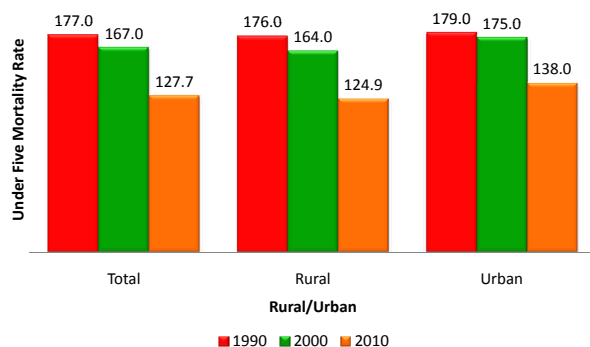
Rural/Urban and Province	Both Sexes	Males	Females
Central Province	127.7	138.5	116.7
Rural	124.9	135.8	113.9
Urban	138.0	148.6	127.3

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 177.0 deaths per 1,000 live births in 1990 to 167.0 deaths per 1,000 live births in 2000. In 2010, the under-five mortality rate further declined to 127.7 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 176.0 deaths per 1,000 live births in 1990 to 124.9 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 138.0 deaths per 1,000 live births in 2010.

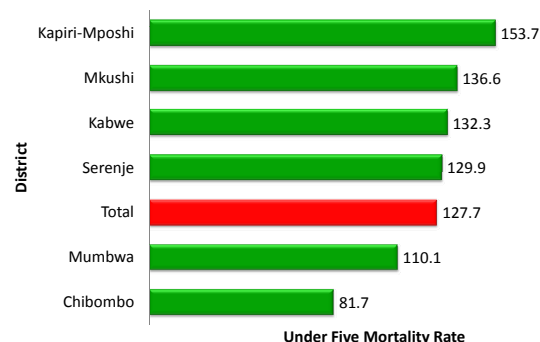
Figure 8.9: Under five Mortality Rates (U5MRs) by Rural/Urban, Central Province 1990, 2000 and 2010



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. Kapiri Mposhi, Mkushi, Kabwe and Serenje districts had under five mortality rate above the provincial average of 127.7 deaths per 1,000 live births while the other two districts were below the provincial average. Under five mortality rate was lowest in Chibombo District at 81.7 deaths per 1,000 live births while Kapiri Mposhi District had the highest at 153.7 deaths per 1,000 live births.

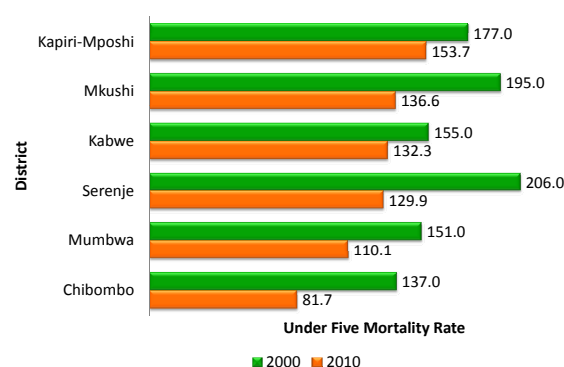
Figure 8.10: Under Five Mortality Rate (U5MR) by District, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 8.11 shows under five mortality rate by district in 2000 and 2010. Serenje District had the highest decline under five mortality rate during the inter-censal period 2000-2010 from 206.0 deaths per 1,000 live births to 129.9 deaths per 1,000 live births, respectively.

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



Sources: 2000 and 2010 Censuses of Population and Housing

CHAPTER 9

GENERAL AND MATERNAL MORTALITY CHARACTERISTICS

9.0 Summary

The Crude Death Rate (CDR) in 2010 was 13.1 deaths per 1,000 population; 14.2 deaths per 1,000 population for males and 12.0 deaths per 1,000 population for females. Urban areas had a higher CDR at 14.7 deaths per 1,000 population compared to 12.6 deaths for rural areas.

The age groups with the highest percentage of reported adult deaths were the age groups 30-34 for females and 30-39 for males. For ages below 30 years, the percentages of the reported adult deaths were higher among females than males.

The life expectancy at birth was 49.6 years, 52.0 years in rural areas and 46.9 years in urban areas. Females had a higher life expectancy at birth of 51.6 years compared to 47.8 years for males.

The most common cause of death was sickness/disease accounting for 75.2 percent of all reported causes.

Chapter 9

General Mortality Characteristics



9.1 Introduction

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

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

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

9.2 Concepts and definitions

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

Death (Mortality):

The complete disappearance of any signs of life at any time after a live birth has occurred.

Crude Death Rate (CDR):

The ratio of the number of deaths occurring in a year to the mid-year population expressed per 1,000 population.

Age Specific Death Rates (ASDR):

Mortality rates from deaths occurring to a specified population age group or sex per 1,000 population in that age group or sex during a given time period

Life Expectancy at Birth (e0):

Average number of years expected to be lived by a birth cohort, based on prevailing age specific mortality rates

9.3 Collection of Mortality Data in the 2010 Census

Information on children ever born, children surviving, 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.

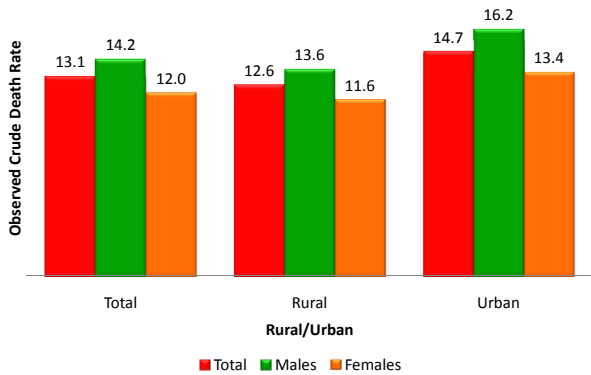
9.4 General Mortality

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 Central Province by sex and rural/urban. The Crude Death Rate was 13.1 deaths per 1,000 population; 14.2 deaths per 1,000 males and 12.0 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, 14.7 deaths per 1,000 population than 12.6 deaths per 1,000 population in rural areas.

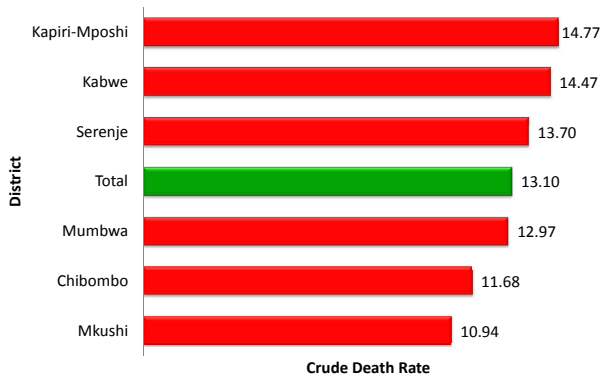
Figure 9.1: Observed Crude Death Rate (CDR) per 1,000 Population by Sex and Rural/Urban, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 9.2 shows Crude Death Rate by district. The figure shows that Kapiri Mposhi, Kabwe and Serenje districts had Crude Deaths Rates above the provincial average of 13.1 deaths per 1,000 population.

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



Source: 2010 Census of Population and Housing

The highest Crude Death Rate was in Kapiri Mposhi District at 14.8 deaths per 1,000 population and the lowest was in Mkushi District at 10.9 deaths per 1000 population.

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

Table 9.1: Observed Crude Death Rate by Sex and District, Central Province 2010

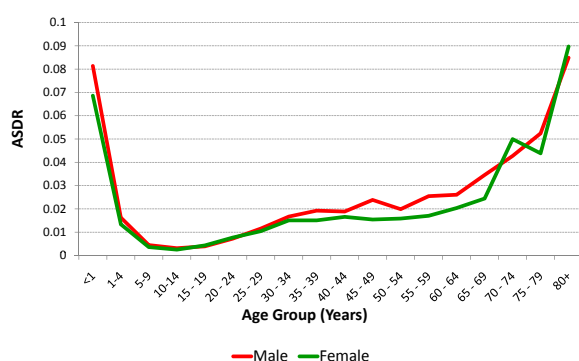
District	Male	Female
Chibombo	12.5	10.9
Kabwe	16.0	13.1
Kapiri Mposhi	16.2	13.4
Mkushi	11.5	10.4
Mumbwa	13.9	12.1
Serenje	15.4	12.1

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 Central 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 year and 1 to 4 years explains the high child mortality in Central 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.

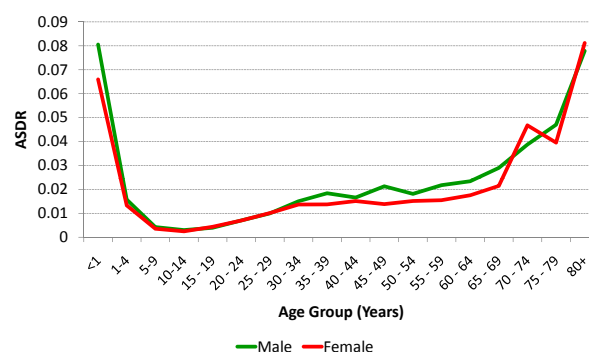
Figure 9.3: Observed Age-Sex Specific Death Rate by Age Group and Sex, Central Province 2010

Source: 2010 Census of Population and Housing

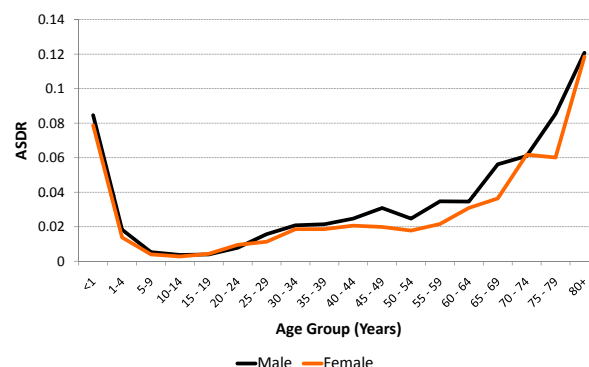
Central Province follows the typical u-shaped age specific death rates pattern, starting off high in early childhood, declining to the lowest at the age group 10-14 years and increasing with age. There is a “bump” set off by rising mortality after age 15. The figure also shows higher mortality among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

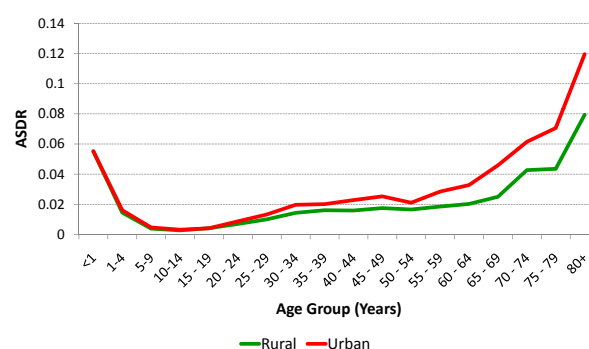
Figure 9.4: Observed Age-Sex Specific Death Rate by Age Group and Sex, Central Province Rural

Source: 2010 Census of Population and Housing

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

Source: 2010 Census of Population and Housing

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

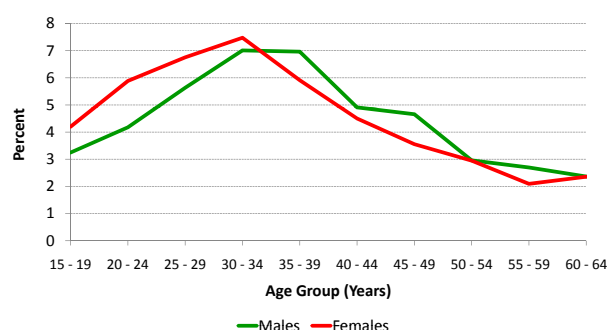
Figure 9.6: Observed Age Specific Death Rate by Age Group and Rural/Urban, Central Province 2010

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 Central Province. The age groups with the highest percentage of reported adult deaths were the age groups 30-34 for females and 30-39 for males. The percentage of reported adult deaths was higher for females than males in the age groups 15-30, while the percentage of reported adult deaths were higher for males than females among those aged 35 years and older.

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



Source: 2010 Census of Population and Housing

9.5 Life Expectancy

Life expectancy refers to the average number of years one is expected to live 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 Central 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 Central Province in 2010.

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

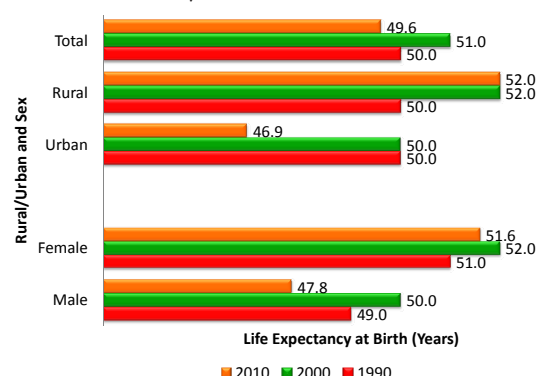
Rural/Urban	Both Sexes	Males	Females
Central Province	49.6	47.8	51.6
Rural	52.0	50.7	54.2
Urban	46.9	45.3	49.4

Source: 2010 Census of Population and Housing

In 2010, the life expectancy at birth was 49.6 years. The life expectancy at birth for rural areas was higher (52.0 years) than in urban areas (46.9 years). In both rural and urban areas, females had higher life expectancy at birth than males.

Figure 9.8 shows life expectancy at birth by sex and rural/urban in 1990, 2000 and 2010. Life expectancy at birth decreased from 50.0 years in 1990 to 49.6 years in 2010. In rural areas, life expectancy at birth increased from 50.0 years to 52.0 years between 1990 and 2010 while in urban areas it reduced from 50.0 years in 1990 to 46.9 years in 2010.

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

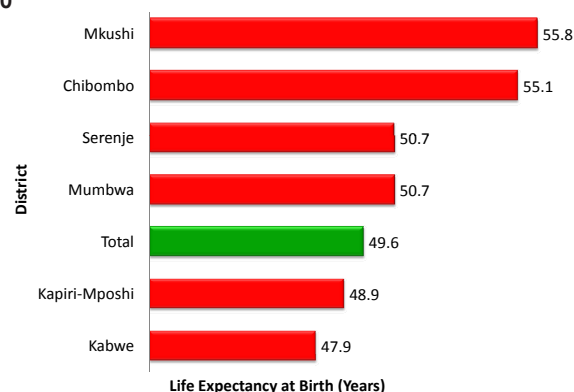


Source: 1990, 2000 and 2010 Censuses of Population and Housing

For males, life expectancy at birth reduced from 49 years in 1990 to 48 years in 2010. The life expectancy at birth for females increased from 51 years in 1990 to 52 years in 2010.

Figure 9.9 shows life expectancy at birth by district. In 2010, Mkushi, Chibombo, Serenje and Mumbwa Districts had life expectancy at birth higher than the provincial average of 49.6 years. Mkushi District had the highest life expectancy at birth of 55.8 years while Kabwe District had the lowest life expectancy at birth of 47.9 years.

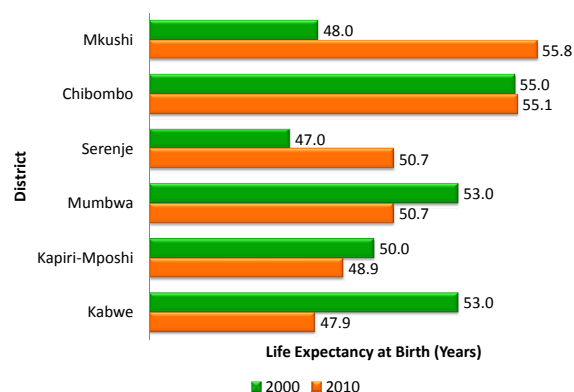
Figure 9.9: Life Expectancy at Birth by District, Central Province 2010



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 are based on empirical data from 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.

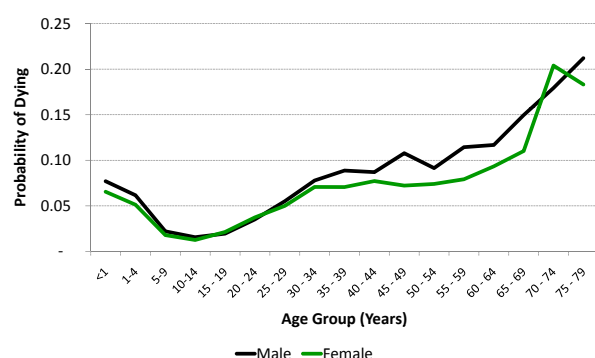
Figure 9.10: Life Expectancy at Birth by District, Central Province 2000 and 2010



Sources: 2000 and 2010 Censuses of Population and Housing

Figure 9.11 shows the 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, Central Province 2010



Source: 2010 Census of Population and Housing

The probability of dying is higher for males than females almost in all age groups except at age groups 15 to 19 and 20 to 24 years. At age 10, there is improved survival prospects for both sexes. As mortality increases beyond age 25, the gap in the probability of dying between males and females increases and is even wider between the ages of 35 and 65 years. This contributes to the lower life expectancy among males than females.

9.6 Cause of Death

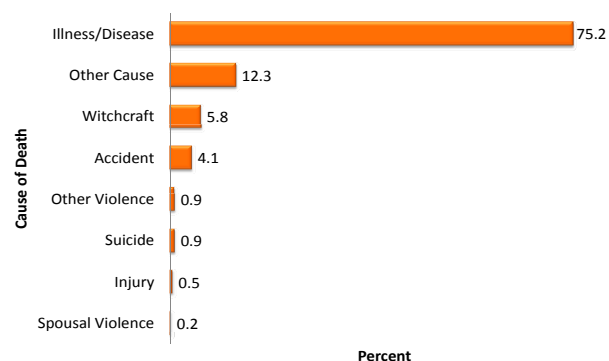
Information on the cause of death is important in focusing interventions to prevent and reduce mortality. For all deaths reported during the 2010 Census, cause of death information was collected. However, the broad categories were pre-specified due to limited space on the questionnaire.

Figure 9.12 shows the percentage of reported cause of death for deceased household members as reported by households. The major cause of mortality was illness/disease accounting for 75.2 percent of all reported household deaths. Accidents were cited as a cause of death in 4.1 percent of deaths reported, while other causes were cited in 12.3 percent of reported deaths. Other violence, suicide and injury accounted for less than one percent each.

Some causes of death are selective due to selective nature of exposure to risk. Hence it is important to look at cause of death by sex so as to assess any variation in cause of death by sex.

Figure 9.13 presents information on cause of death by sex of deceased persons reported in the census.

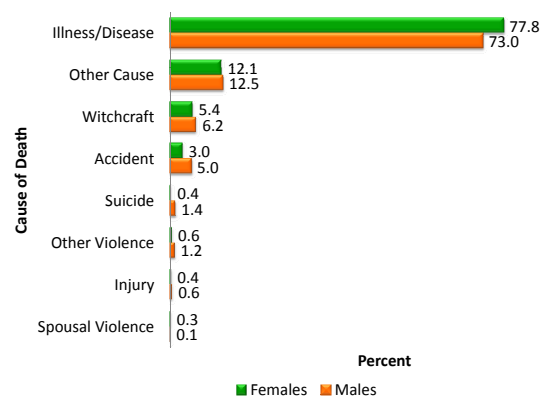
Figure 9.12: Percent Reported Cause of Death for Deceased Household Members that Died 12 Months Prior to the Census, Central Province 2010



Source: 2010 Census of Population and Housing

Illness/disease was the major cause of mortality among males and females in Central Province. The percentage for females was higher (77.8 percent) than that for males (73.0 percent). However, the percentages of male deaths attributed to witchcraft, accident, violence, suicide, injury and other causes were higher than those of females.

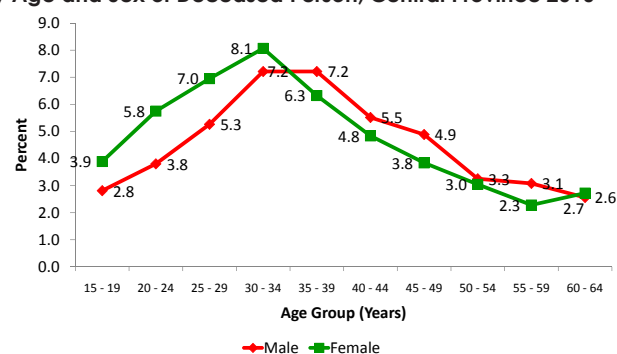
Figure 9.13: Percent Reported Cause of Death for Deceased Household Members that Died 12 Months Prior to the Census by Sex of Deceased, Central Province 2010



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 the age groups 15-34, while the percentage of males dying from illness/disease was higher than females for ages over 35 years.

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



Source: 2010 Census of Population and Housing

CHAPTER 10

LANGUAGE AND ETHNICITY

10.0 SUMMARY

Bemba was the widely used language of communication, spoken by 31.8 percent of the population in Central Province. This was followed by Lala at 17.3 percent.

Bemba was spoken by a higher proportion of the population in Kabwe District (79.6 percent) and Kapiri Mposhi District (49.9 percent). Lenje was widely spoken in Chibombo District at 31.9 percent. Lala was widely spoken in Serenje and Mkushi Districts at 79.7 and 52.4 percent, respectively. Tonga was the predominantly spoken language in Mumbwa District at 30.3 percent.

Over the past three censuses, languages from the Bemba group have remained the most predominantly spoken from 50.0 percent in 1990 to 54.6 percent in 2010.

Lala was the largest ethnic group with 20.3 percent of the population in Central Province, followed by the Tonga ethnic group at 18.9 percent.

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 broad language/ethnic groups and single language/ethnic groups. Broad language/ethnic groups are formed using different criteria:

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

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

It is important to note that during data collection, children under the age of three years, whose speech was still developing and persons with speech impairment did not report any language of communication. Therefore, the total population reported to have been speaking 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 Definitions

Ethnicity

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

Widely Used Language of Communication

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

10.3 Widely Used Language of Communication

Table 10.1 shows the percent distribution of the population by widely spoken language of communication and rural/urban. In 2010, Bemba (31.8 percent) was the widely spoken language of communication in Central Province. In rural areas, Lala was the most spoken language (22.4 percent) followed by Tonga at 19.8 percent. In urban areas, Bemba was widely spoken by 71.4 percent of the population.

Table 10.1: Percent Distribution of the Population by Widely Spoken Language of Communication and Rural/urban, Central Province, 2010

Widely Spoken Language of Communication	Total	Rural	Urban
Bemba	31.8	17.8	71.4
Lunda Luapula	0.1	0.0	0.1
Lala	17.3	22.4	2.8
Lamba	2.3	2.9	0.4
Swaka	2.9	3.8	0.2
Unga	0.1	0.1	0.0
Luano	0.1	0.2	0.0
Tonga	15.5	19.8	3.6
Lenje	10.4	13.7	1.2
Soli	0.1	0.1	0.1
Ila	2.7	3.6	0.5
Sala	2.0	2.5	0.4
Luvale	0.2	0.2	0.3
Lunda N/Western	0.1	0.1	0.1
Mbunda	0.1	0.1	0.0
Kaonde	0.9	1.1	0.4
Lozi	1.0	0.9	1.4
Nkoya	0.1	0.1	0.0
Chewa	0.4	0.4	0.5
Nsenga	0.4	0.3	0.7
Ngoni	0.3	0.2	0.4
Nyanja	8.9	8.0	11.6
Tumbuka	0.2	0.1	0.3
Senga	0.1	0.0	0.1
Mambwe	0.2	0.2	0.4
Namwanga	0.2	0.2	0.5
English	0.7	0.2	2.1
Other Language	1.0	1.1	0.6
Total percent	100	100	100
Total Population	1,098,142	811,331	286,811

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

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 the population by major language group and rural/urban. Languages in the Bemba group were spoken by 54.6

percent of the population. Of the rural and urban population, 47.4 and 75.1 percent spoke a language from the Bemba group, respectively. Languages from the Tonga group were the second most widely spoken in rural areas (39.7 percent) while languages from the Nyanja group were the second most widely spoken in urban areas (13.3 percent).

Table 10.2: Percentage Distribution of the Population by Major Language Groups and Rural/Urban, Central Province 2010

Language Group	Total	Rural	Urban
Bemba	54.6	47.4	75.1
Tonga	30.8	39.7	5.8
North Western	1.4	1.6	0.9
Barotse	1.1	1.0	1.5
Mambwe	0.5	0.0	0.1
Nyanja	10.1	9.0	13.3
Tumbuka	0.2	0.2	0.4
English	0.7	0.0	0.0
Other	0.5	0.3	0.9
Total Percent	100.0	100.0	100.0
Total Population	1,098,142	811,331	286,811

Source: 2010 Census of Population and Housing

10.3.2: Widely Used Languages of Communication by Sex

Table 10.3 shows the percentage distribution of the widely used languages of communication by sex and rural/urban. The table shows that Bemba was the most widely used language of communication for both males and females at 31.6 and 31.9 percent, respectively. A similar pattern was observed in urban

areas where most males and females reported Bemba as their widely used language of communication at 71.1 and 71.6 percent, respectively. In rural areas, Lala was the widely used language of communication for both males and females at 22.3 and 22.4 percent, respectively.

Table 10.3: Percentage Distribution of Widely Used Languages of Communication by Sex and Rural/Urban, Central Province 2010

Predominant Language of Communication	Central Province			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Bemba	31.8	31.6	31.9	17.8	17.9	17.6	71.4	71.1	71.6
Lunda (Luapula)	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Lala	17.3	17.3	17.2	22.4	22.3	22.4	2.8	2.9	2.8
Lamba	2.3	2.2	2.3	2.9	2.9	3.0	0.4	0.4	0.4
Swaka	2.9	2.9	2.9	3.8	3.8	3.8	0.2	0.2	0.3
Unga	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Luano	0.1	0.1	0.1	0.2	0.2	0.2	0.0	0.0	0.0
Tonga	15.5	15.5	15.5	19.8	19.7	19.9	3.6	3.6	3.6
Lenje	10.4	10.5	10.4	13.7	13.7	13.7	1.2	1.3	1.2
Soli	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Ila	2.7	2.7	2.8	3.6	3.5	3.6	0.5	0.4	0.5
Sala	2.0	1.9	2.0	2.5	2.5	2.6	0.4	0.4	0.4
Luvale	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Lunda (North Western)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Mbunda	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Kaonde	0.9	0.9	1.0	1.1	1.1	1.2	0.4	0.4	0.4
Lozi	1.0	1.0	1.0	0.9	0.9	0.9	1.4	1.4	1.4
Nkoya	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Chewa	0.4	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Nsenga	0.4	0.4	0.4	0.3	0.3	0.3	0.7	0.7	0.8
Ngoni	0.3	0.3	0.3	0.2	0.2	0.2	0.4	0.4	0.4
Nyanja	8.9	9.1	8.7	8.0	8.2	7.8	11.6	11.8	11.3
Tumbuka	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.3
Senga	0.1	0.0	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Mambwe	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	0.4
Namwanga	0.2	0.2	0.2	0.2	0.2	0.2	0.5	0.5	0.5
English	0.7	0.7	0.7	0.2	0.2	0.1	2.1	2.1	2.1
Other Languages	1.0	1.0	1.0	1.1	1.1	1.1	0.6	0.5	0.6
Total Percent	100	100	100	100	100	100	100	100	100
Total Population	1,098,142	540,331	557,811	811,331	401,714	409,617	286,811	138,617	148,194

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 the widely used languages of communication by district. Bemba was widely

spoken in Kabwe District (79.6 percent) and Kapiri Mposhi District (49.9 percent). In Chibombo District, Lenje was widely spoken by 31.9 percent of the population.

Table 10.4: Percentage Distribution of Widely Used Languages of Communication by District, Central Province 2010

Widely Used Language of Communication	Total	DISTRICTS					
		Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenje
Bemba	31.8	12.0	79.6	49.9	28.5	4.2	18.1
Lunda Luapula	0.1	0.0	0.1	0.1	0.0	0.0	0.1
Lala	17.3	0.3	0.8	3.5	52.4	0.0	79.7
Lamba	2.3	0.4	0.4	8.8	0.4	2.0	0.1
Swaka	2.9	0.7	0.2	8.6	8.6	0.1	0.0
Unga	0.1	-	-	0.0	-	0.0	0.4
Luano	0.1	0.0	0.0	0.0	1.0	0.0	0.0
Tonga	15.5	29.2	3.8	12.5	5.4	30.3	0.4
Lenje	10.4	31.9	0.9	11.3	0.1	4.5	0.0
Soli	0.1	0.2	0.1	0.0	0.0	0.2	0.0
Ila	2.7	0.3	0.1	0.1	0.0	15.8	0.0
Sala	2.0	0.3	0.0	0.0	0.0	11.2	0.0
Luvale	0.2	0.2	0.2	0.2	0.0	0.6	0.0
Lunda N/Western	0.1	0.2	0.2	0.0	0.0	0.1	0.0
Mbunda	0.1	0.0	0.0	0.0	0.0	0.4	0.0
Kaonde	0.9	0.2	0.3	0.1	0.0	4.9	0.0
Lozi	1.0	0.9	1.2	0.3	0.2	3.3	0.1
Nkoya	0.1	0.0	0.0	0.0	-	0.2	0.0
Chewa	0.4	1.0	0.6	0.2	0.1	0.3	0.0
Nsenga	0.4	0.7	1.0	0.2	0.2	0.2	0.0
Ngoni	0.3	0.4	0.5	0.3	0.1	0.2	0.0
Nyanja	8.9	19.0	5.7	1.6	1.0	18.9	0.4
Tumbuka	0.2	0.2	0.3	0.2	0.1	0.0	0.0
Senga	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Mambwe	0.2	0.1	0.3	0.4	0.5	0.0	0.1
Namwanga	0.2	0.1	0.4	0.5	0.4	0.0	0.1
English	0.7	0.4	2.6	0.2	0.4	0.4	0.1

Source: 2010 Census of Population and Housing

Lala was widely used in Mkushi and Serenje Districts at 52.4 and 79.7 percent, respectively. Tonga was widely used in Mumbwa District (30.3 percent).

10.3.4 Major Language Groups

Table 10.5 shows the percentage distribution of the population by major language groups from in 1990, 2000 and 2010. Between 1990 and 2010, the proportion of the population speaking languages in the Bemba and Tonga language groups increased.

Table 10.5 Percentage Distribution of the Population by Major Language Groups, Central Province 1990, 2000 and 2010

Language Group	Percentage of Total Population		
	1990	2000	2010
Bemba	50.0	51.4	54.6
Tonga	28.8	28.9	30.8
North Western	3.2	1.5	1.4
Barotse	2.5	1.2	1.1
Nyanja	9.6	10.6	10.1
Mambwe	1.4	0.6	0.5
Tumbuka	1.0	0.4	0.2
English	0.9	0.9	0.7
Others	2.6	4.5	0.5
Total Percent	100	100	100.0
Total Population	687,721	890,370	1,098,142

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 Central Province as captured in the 2010 Census. The rest of the ethnic groups were 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 Lala ethnic group had the largest percentage of the provincial population at 20.3 percent followed by the Tonga ethnic group at 18.9 percent. In rural areas, the largest percentage of the population was Lala (23.8 percent) while Bemba (28.9 percent) had the largest percentage of the population in urban areas.

Table 10.6: Percentage Distribution of the Population by Ethnic Group and Rural/Urban, Central Province, 2010

Ethnicity	Total	Rural	Urban
Bemba	13.6	8.4	28.9
Lunda Luapula	0.3	0.2	0.6
Lala	20.3	23.8	9.9
Bisa	0.6	0.4	1.3
Ushi	0.4	0.3	0.7
Ngumbo	0.1	0.0	0.1
Lamba	2.2	2.4	1.8
Swaka	2.6	3.1	1.0
Lima	0.1	0.1	0.0
Unga	0.1	0.1	0.0
Luano	0.1	0.1	0.0
Tonga	18.9	22.4	8.6
Lenje	9.5	11.5	3.5
Soli	0.8	0.8	0.9
Ila	2.3	2.7	1.1
Toka-Leya	0.1	0.1	0.1
Sala	0.9	1.2	0.2
Gowa	0.1	0.1	0.0
Luvale	1.0	0.8	1.5
Lunda N/Western	0.5	0.3	0.9
Mbunda	0.3	0.3	0.3
Luchazi	0.1	0.1	0.1
Chokwe	0.1	0.1	0.1
Kaonde	2.6	2.5	2.7
Lozi	3.5	3.0	5.0
Nkoya	0.4	0.4	0.3
Chewa	2.5	1.9	4.2
Nsenga	2.7	1.8	5.5
Ngoni	2.6	1.9	4.6
Nyanja	0.9	0.9	0.9
Kunda	0.2	0.1	0.5
Chikunda	0.2	0.1	0.3
Tumbuka	1.9	1.2	3.8
Senga	0.3	0.2	0.6
Lungu	0.1	0.1	0.3
Mambwe	1.4	0.8	3.1
Namwanga	2.0	1.3	4.1
English	0.0	0.0	0.0
Other Tribes	3.4	3.9	1.8
Not Stated	0.6	0.6	0.4
Total Percent	100.0	100.0	100.0
Total Population	1,245,089	929,042	316,047

Source: 2010 Census of Population and Housing

10.4.2. Ethnicity by Rural/Urban and Sex

Ethnicity was analysed by sex and rural/urban as shown in Table 10.7. The table shows that there were no major differences by sex

in the proportion of the population in all ethnic groups for both rural and urban areas.

Table 10.7: Percent Distribution of the Population by Ethnic Group, Rural/Urban and Sex, Central Province, 2010

Ethnicity	Central Province			Rural			Urban		
	Total	Male	Female	Total	Male	Female	Total	Male	Female
Bemba	13.6	13.5	13.7	8.4	8.5	8.3	28.9	28.7	29.1
Lunda Luapula	0.3	0.3	0.2	0.2	0.2	0.1	0.6	0.6	0.6
Lala	20.3	20.1	20.5	23.8	23.5	24.1	9.9	9.8	10.1
Bisa	0.6	0.6	0.7	0.4	0.4	0.4	1.3	1.3	1.4
Ushi	0.4	0.4	0.4	0.3	0.3	0.3	0.7	0.7	0.6
Ngumbo	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.1
Lamba	2.2	2.2	2.2	2.4	2.3	2.4	1.8	1.8	1.8
Swaka	2.6	2.5	2.6	3.1	3.1	3.2	1.0	0.9	1.0
Lima	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Unga	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Luano	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Tonga	18.9	19.0	18.8	22.4	22.5	22.3	8.6	8.6	8.6
Lenje	9.5	9.4	9.5	11.5	11.4	11.6	3.5	3.5	3.6
Soli	0.8	0.8	0.8	0.8	0.7	0.8	0.9	0.8	0.9
Ila	2.3	2.3	2.3	2.7	2.7	2.7	1.1	1.1	1.1
Toka-Leya	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Sala	0.9	0.9	0.9	1.2	1.2	1.2	0.2	0.2	0.2
Gowa	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Luvale	1.0	1.0	1.0	0.8	0.8	0.8	1.5	1.6	1.5
Lunda N/Western	0.5	0.5	0.5	0.3	0.4	0.3	0.9	0.9	0.9
Mbunda	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Luchazi	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Chokwe	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Kaonde	2.6	2.5	2.6	2.5	2.5	2.6	2.7	2.6	2.7
Lozi	3.5	3.6	3.4	3.0	3.0	2.9	5.0	5.3	4.8
Nkoya	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.3
Chewa	2.5	2.6	2.5	1.9	2.0	1.9	4.2	4.2	4.1
Nsenga	2.7	2.7	2.8	1.8	1.8	1.8	5.5	5.3	5.6
Ngoni	2.6	2.6	2.5	1.9	1.9	1.8	4.6	4.7	4.6
Nyanja	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9
Kunda	0.2	0.2	0.2	0.1	0.1	0.1	0.5	0.5	0.5
Chikunda	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.3
Tumbuka	1.9	1.9	1.9	1.2	1.3	1.2	3.8	3.8	3.8
Senga	0.3	0.3	0.3	0.2	0.2	0.2	0.6	0.6	0.6
Lungu	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3
Mambwe	1.4	1.4	1.4	0.8	0.8	0.8	3.1	3.1	3.1
Namwanga	2.0	2.0	2.0	1.3	1.3	1.2	4.1	4.2	4.1
English	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Ethnicity Not Stated	0.6	0.6	0.6	0.6	0.7	0.6	0.4	0.5	0.4
Major racial groups	1.7	1.7	1.7	2.2	2.2	2.2	0.5	0.5	0.5
Other Ethnic Groups	1.7	1.7	1.6	1.8	1.8	1.7	1.4	1.4	1.3
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Population	1,245,089	613,372	631,717	929,042	460,146	468,896	316,047	153,226	162,821

Source: 2010 Census of Population and Housing

CHAPTER 11

DISABILITY

11.0 Summary

The proportion of the population with disability in Central Province was 2.1 percent. The proportion in rural areas was higher at 2.2 percent than in urban areas at 1.7 percent. Serenje District had the highest proportion of the population with disability at 2.8 percent while Kabwe District had the lowest with 1.7 percent.

The median age for the population with disability was 37 years.

Physical disability was the most common type of disability at 32.1 percent.

The major cause of disability was disease at 32.5 percent.

The literacy rate for the population with disability in Central Province was 62.0 percent. Kabwe District had the highest proportion of the population with disabilities who were literate at 72.4 percent while Serenje District had the lowest proportion of the population with disabilities who were literate at 57.7 percent.

The proportion of the population with disability that was not attending school was 51.9 percent. Generally, the highest level of education attained by the majority of the population with disabilities, whether male or female was primary education.

Of the population with disabilities 90.5 percent were employed. Most of the population with disabilities had agricultural related occupations at 85.2 percent.

Chapter 11

Disability



11.1 Introduction

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

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

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

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

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

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

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

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

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

11.2 Concepts and Definitions

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

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

11.2.1 Type of Disability:

Blind: Complete loss of sight in both eyes.

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

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

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

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

Dumb: Complete lack of ability to speak.

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

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

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

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

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

Other: Any other disability not mentioned above.

11.3 Causes of Disability

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

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

11.4 Limitations of Disability Data

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

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

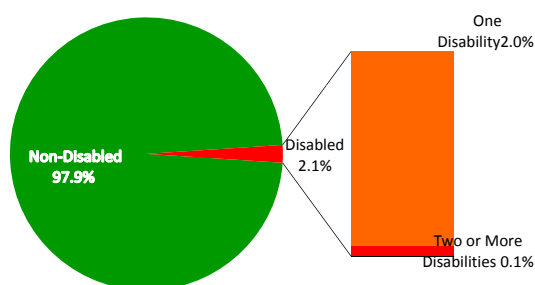
11.5 General Characteristics

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

11.5.1 Distribution of the Disabled and Non-Disabled Population

Figure 11.1 shows the percentage distribution of the population by disability status. The percentage of the population living with disabilities was 2.1 percent of which 2.0 percent had one disability while 0.1 percent had more than one disability.

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

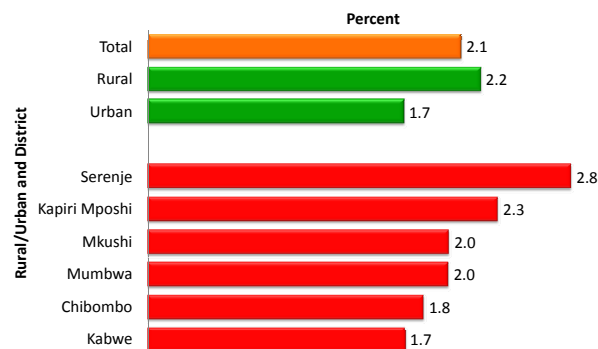


Source: 2010 Census of Population and Housing

11.5.2 Disability by Rural/Urban and District

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 2.1 percent. Rural areas had more persons living with disabilities than urban areas at 2.2 and 1.7 percent, respectively.

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



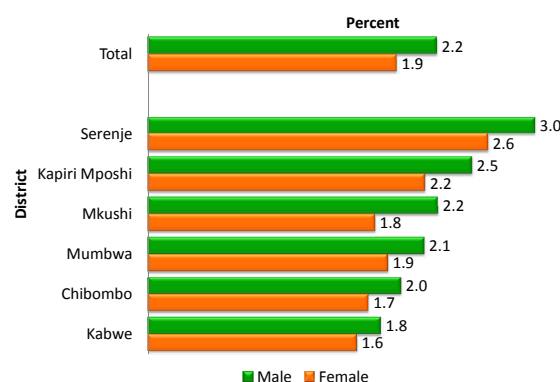
Source: 2010 Census of Population and Housing

Serenje District had the highest percentage (2.8 percent) of persons with disabilities while Kabwe District had the lowest (1.7 percent).

11.5.3 Disability by Sex

Figure 11.3 shows the percentage distribution of persons living with disabilities by sex and district. In Central Province, there were more males than females who were living with disabilities at 2.2 and 1.9 percent, respectively. Serenje District had the highest percentage of persons who were disabled at 3.0 and 2.6 percent, for males and females, respectively. Kabwe District had the lowest percentage of persons living with disabilities at 1.8 percent for males and 1.6 percent for females.

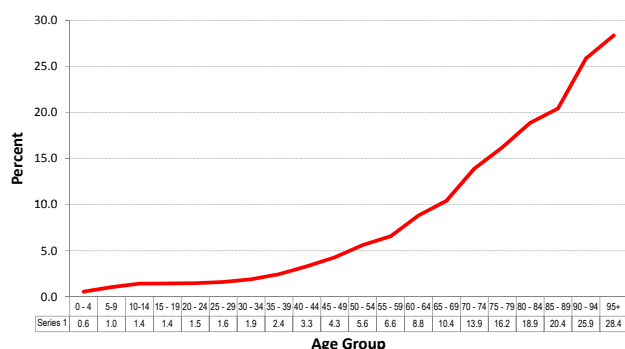
Figure 11.3: Percentage Distribution of the Population with Disability by Sex and District, Central Province 2010



Source: 2010 Census of Population and Housing

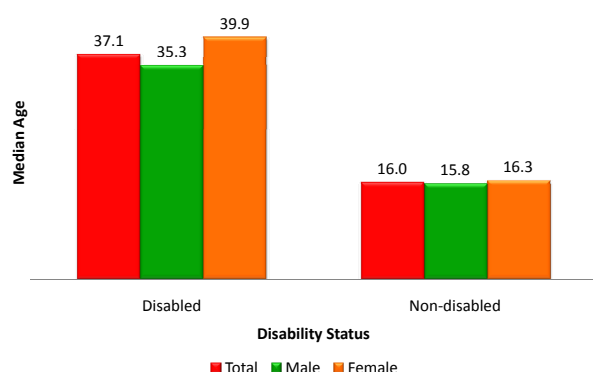
11.5.4 Disability by Age

Figure 11.4 shows the percentage distribution of the population with disability by age. The figure shows that the proportion of the population with disability increases with age. The highest percentage was in the age group 95 years and older at 28.4 percent followed by the age group 90-94 years at 25.9 percent. The age group with the lowest percentage of persons living with disabilities was 0-4 years at 0.6 percent.

Figure 11.4: Percentage Distribution of Persons with Disability by Age, Central Province 2010

Source: 2010 Census of Population and Housing

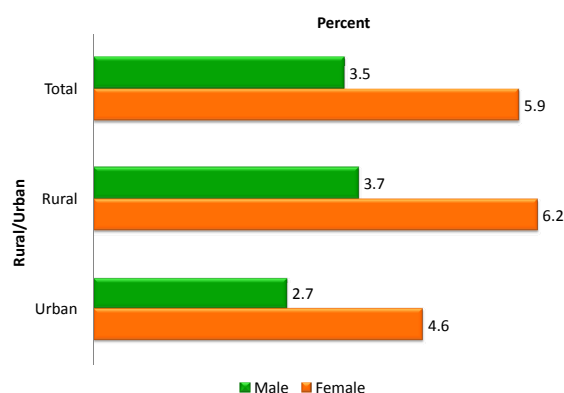
Figure 11.5 shows the median age for the disabled and non-disabled population in Central Province. The median age for the population with disability was 37.1 years while the median age for the population without disability was 16 years.

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

Source: 2010 Census of Population and Housing

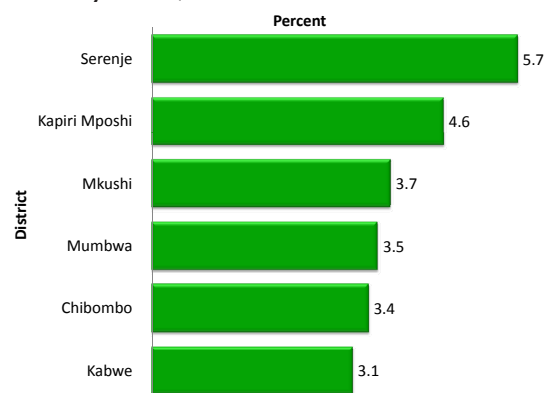
11.5.5 Disability by Household Headship

Figure 11.6 shows the percentage of the population with disabilities who were household heads by sex and rural/urban. In Central Province, there was a higher proportion of female household heads living with disabilities (5.7 percent) than that of males (3.5 percent). The proportion of female household heads with disabilities was also higher than that of males in both rural and urban areas.

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

Source: 2010 Census of Population and Housing

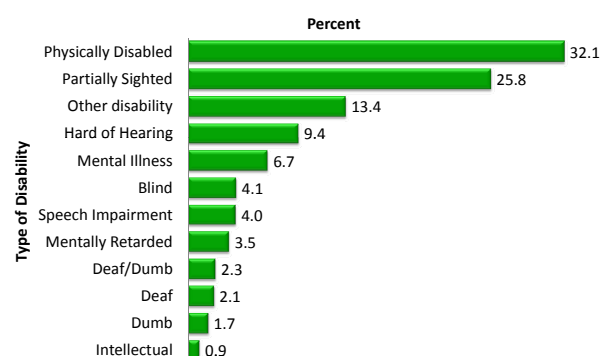
Figure 11.7 shows the percentage distribution of household heads with disabilities by district. Serenje District had the highest proportion of household heads living with disabilities at 5.7 percent while Kabwe District had the least proportion at 3.1 percent.

Figure 11.7: Percentage Distribution of Household Heads with Disabilities by District, Central 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 (32.1 percent) followed by partially sighted (25.8 percent). The least common type was intellectual disability at 0.9 percent.

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

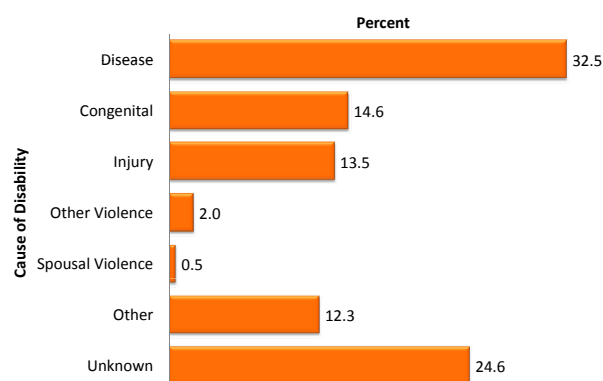
Source: 2010 Census of Population and Housing

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 Disabled Population by cause of disability. The figure shows that 32.5 percent of the persons with disabilities reported disease as the cause of disability. This was followed by those who reported congenital as a cause of disability at 14.6 percent. The least common cause of disability was spousal violence at 0.5 percent.

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



Source: 2010 Census of Population and Housing

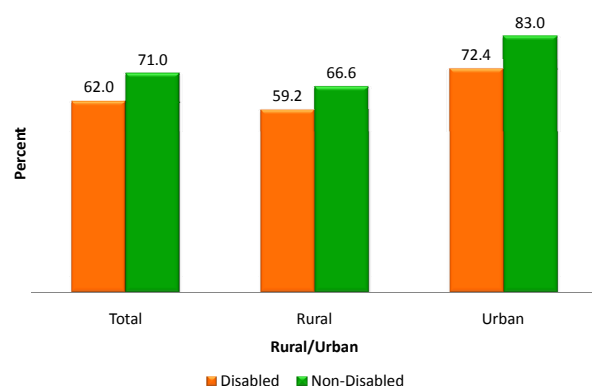
11.6 Characteristics of the Population with Disability

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

11.6.1 Literacy Levels among the 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 62.0 percent compared to 71.0 percent for persons without disability. The literacy levels for the persons with disability were higher in urban areas at 72.4 percent compared to 59.2 percent in rural areas.

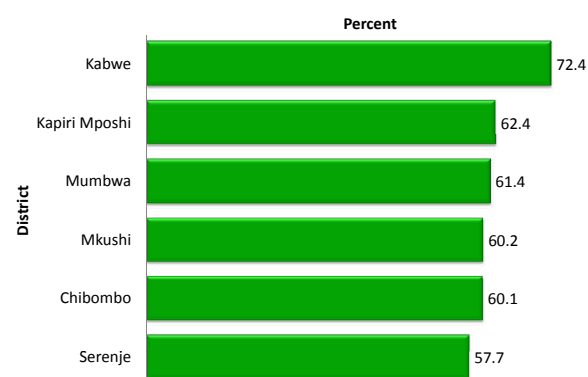
Figure 11.10: Percentage Distribution of Literate Population (5 Years and Older) by Disability Status and Rural/Urban, Central Province 2010



Source: 2010 Census of Population and Housing

Figure 11.11 shows the percentage distribution of the literate population with disability aged 5 years and older by district. Kabwe District had the highest proportion of the literate population with disability at 72.4 percent while Serenje District had the least proportion at 57.7 percent.

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



Source: 2010 Census of Population and Housing

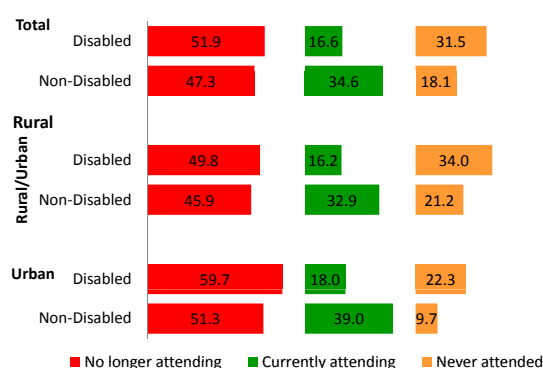
11.6.2 School Attendance

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 without disability who were currently attending school (34.6 percent) compared to 16.6 percent for persons with disability. For those that never attended school, the percentage of the disabled was higher than that of the non-disabled, 31.5 and 18.1 percent, respectively.

In rural areas, the proportion of persons with disabilities who were currently attending school was 16.2 percent and the non-disabled was 32.9 percent while in urban areas the disabled currently attending school was 18.0 percent and the non-disabled was 39.0 percent. Similarly, there were more persons with disability who had never attended school than the non-disabled.

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

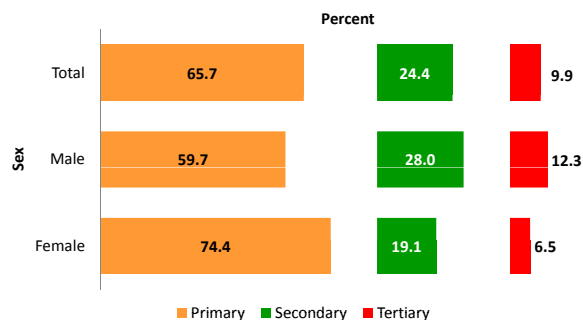


Source: 2010 Census of Population and Housing

11.6.3. Education Level among the Disabled

Figure 11.13 shows the percentage distribution of persons with disability, 25 years and older, by highest level of education completed and sex. In Central Province 65.7 percent of the population with disabilities had attained primary education and 9.9 percent had attained tertiary education. A higher percentage of Males had completed tertiary education at 12.3 percent compared to 6.5 percent for females.

Figure 11.13: Percentage Distribution of Persons with Disabilities Aged 25 Years and Older by Highest Level of Education Completed and Sex, Central Province 2010



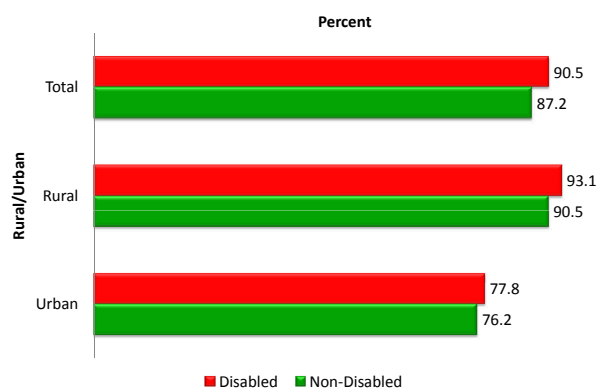
Source: 2010 Census of Population and Housing

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 90.5 percent of persons with disabilities were employed compared to 87.2 percent of persons without disabilities. The percentage of the disabled persons 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 the Employed Population (12 Years and Older) by Disability Status and Rural/Urban, Central Province 2010

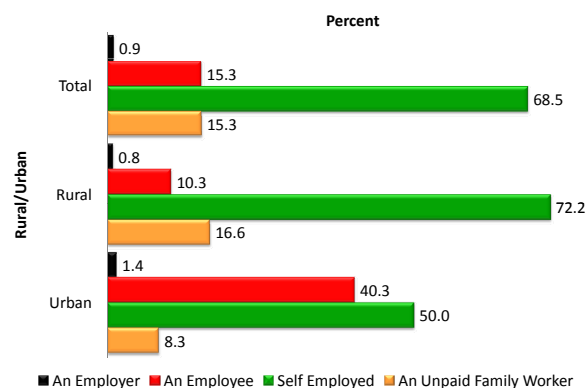


Source: 2010 Census of Population and Housing

11.7.1 Employment Status

Figure 11.15 shows employment status of persons with disability by rural/urban. In both rural and urban areas, self-employed was the most common employment status at 72.2 percent and 50.0 percent, respectively while employer was the least with 0.8 percent in rural areas and 1.4 percent in urban areas. There were more persons with disabilities working on a family business, without pay or profit, in rural areas (16.6 percent) than urban areas (8.3 percent). The figure also shows that the proportion of persons with disabilities who were employees was higher in urban areas than in rural areas, 40.3 and 10.3 percent, respectively.

Figure 11.15: Percent Distribution of Persons with Disability Aged 12 Years and Older by Employment Status and Rural/Urban, Central Province 2010

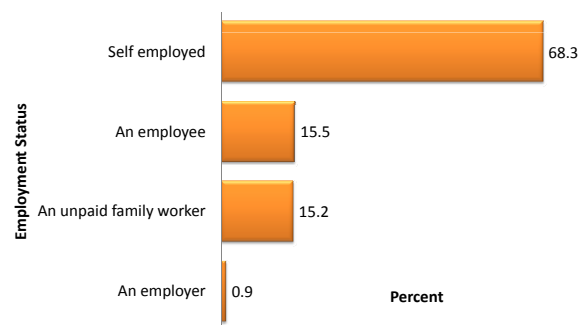


Source: 2010 Census of Population and Housing

11.7.2 Employment Status of Household Heads with Disabilities

Figure 11.16 shows the percent distribution of the household heads with disabilities (12 years and older) by employment status. The largest proportion of household heads with disabilities was self-employed at 68.3 percent while the least was that of employers at 0.9 percent.

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

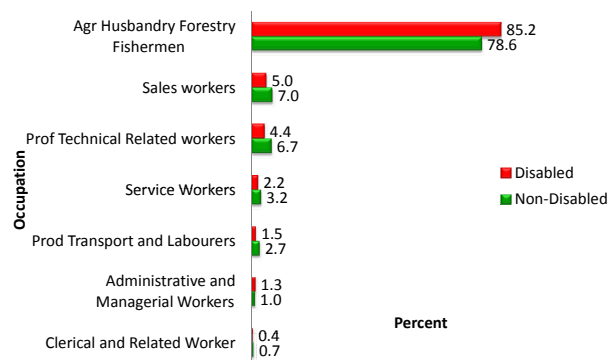


Source: 2010 Census of Population and Housing

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 while Clerical and related occupations were the least common at 85.2 and 0.4 percent, respectively. Persons without disabilities made up 78.6 and 0.7 percent, persons in agriculture and clerical occupations, respectively.

Figure 11.17: Percent Distribution of Occupation by Disability Status, Central Province 2010

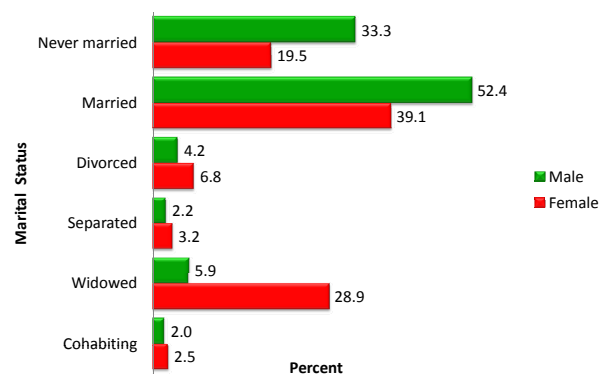


Source: 2010 Census of Population and Housing

11.8. Marital Status of the Disabled by Sex

Figure 11.18 shows percent distribution of the disabled population (15 years and older) by marital status and sex. There were more males than females living with disabilities that were married at 52.4 percent and 39.1 percent, respectively. Persons living with disabilities that were never married made up 33.3 percent for males and 19.5 percent for females. Widowed and divorced females with disabilities made up 28.9 percent and 6.8 percent of the disabled population, respectively.

Figure 11.18: Percent Distribution of the Disabled Population (15 years and Older) by Marital Status and Sex, Zambia 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 Central Province was in line with the observed fertility and mortality declines.

The Myers Index remained the same between 2000 and 2010 at 6.5.

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

The age-sex accuracy index for Central Province increased from 27.7 in 2000 to 29.0 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: Error made in the recorded information in the census questionnaire either because the respondent provided incorrect information or the interviewer recorded incorrect information

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

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

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

Digit Preference: Reporting of age by respondents often ending in certain preferred digits such as zero or five. This results in heaping of population in ages ending with certain digits.

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

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

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

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

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

12.4. Methods of Evaluation

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

The direct method involves the carrying out of the Post Enumeration Survey (PES). In a PES, a sample of households is revisited after the census and data are again collected but on a smaller scale (both in terms of scope and questionnaire content). These are later compared with the data collected during the actual census. The matching process of the two sets of data can then be used to evaluate the quality of the census data.

Indirect methods usually employ the comparison of data using both internal and external consistency checks. Internal consistency checks compare relationships of data within the same census data, for example, using the Myers index to check for accuracy of age reporting. External consistency checks compare census data with data generated from other sources. For instance, one can compare data on education obtained during a census with administrative data collected by the Ministry of Education.

12.5. Coverage Error

This type of error occurs when there is omission or duplication of individuals, households, or housing units resulting in under or over enumeration. Some factors which contribute to coverage errors are lack of accessibility or cooperation with respondents, difficulties in communication and lack of proper boundary descriptions on maps. Coverage errors can be measured by examining certain statistics such as growth rate, age composition, child woman ratio and dependency ratio.

12.6. Age Composition

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

Table 12.1 shows the population composition of Central Province by broad age groups for 1990, 2000 and 2010. The percentage of children aged 0-14 years increased from 45.2 percent in 1990 to 47.5 percent in 2000 and later reduced to 47.4 percent in 2010. Generally, the population distribution by broad age groups shows consistency of coverage in all the three censuses.

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

Age Group	Population					
	1990	Percent	2000	Percent	2010	Percent
0-4	114,938	15.9	172,165	18.0	224,289	18.0
5-9	108,021	15.0	154,297	16.1	190,254	15.3
10-14	103,022	14.3	128,608	13.4	175,827	14.1
0-14*	325,981*	45.2*	455,070*	47.5*	590,370*	47.4*
15-64	376,898	52.3	476,063	49.7	619,916	49.8
65+	17,748	2.5	26,155	2.7	34,803	2.8
Total	720,627	100	957,288	100	1,245,089	100

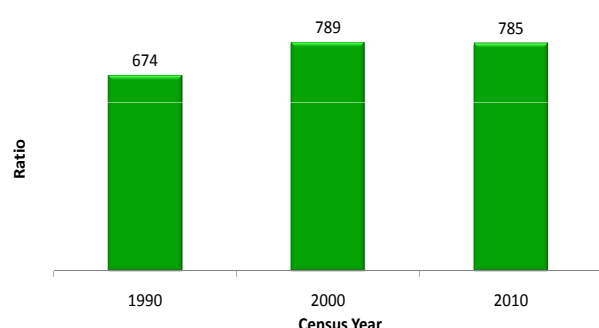
Sources: 1990, 2000 and 2010 Censuses of Population and Housing

* Not included in the 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 between 1990 and 2000. The child woman ratio increased from 674 in 1990 to 789 children aged 0-4 years per 1,000 women aged 15-49 years in 2000. In 2010, the child woman ratio reduced to 785 children aged 0-4 years per 1,000 women aged 15-49 years. The results show that the changes in child woman ratios 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, Central Province 1990, 2000 and 2010



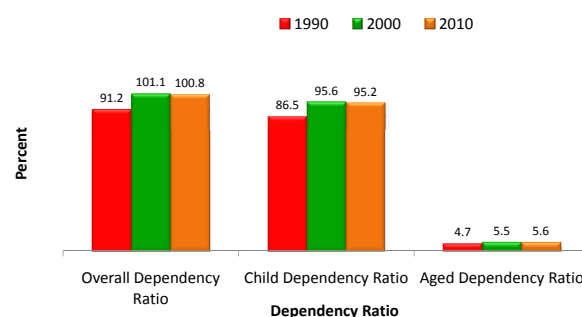
Note: Child-Woman Ratio is the number of children aged 0-4 years in a

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, Central 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 Central Province for 1990, 2000 and 2010 were 91.2, 101.1 and 100.8 persons, respectively. This means that, in 2010, for every 100 persons in the age range 15-64 years, there were 100.8 dependants in the age groups 0-14 years and 65 years and older. Child dependency ratio followed a similar pattern. However, Aged dependency ratio increased slightly from 5.5 persons in 2000 to 5.6 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.

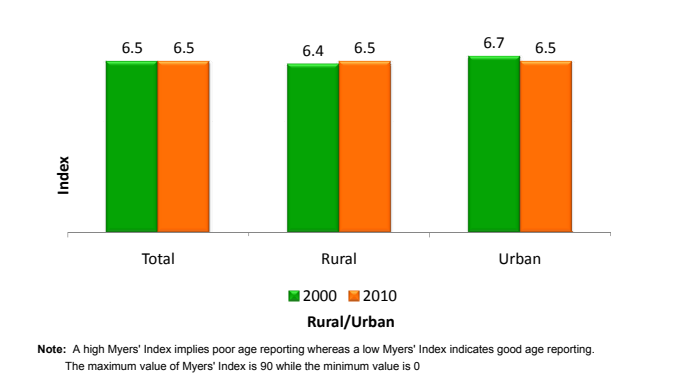
12.9.1. Digit Preference

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.

The Myers' index for Central Province remained the same between 2000 and 2010 at 6.5. In rural areas, the Myer's index increased from 6.4 in 2000 to 6.5 in 2010. In urban areas, it reduced from 6.7 to 6.5 between 2000 and 2010. This implies that between the two censuses, quality of age data reporting in urban areas improved compared to rural areas.

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



Sources: 2000 and 2010 Censuses of Population and Housing

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, 5, and 8 in 2000 and 0, 8, and 5 in 2010.

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

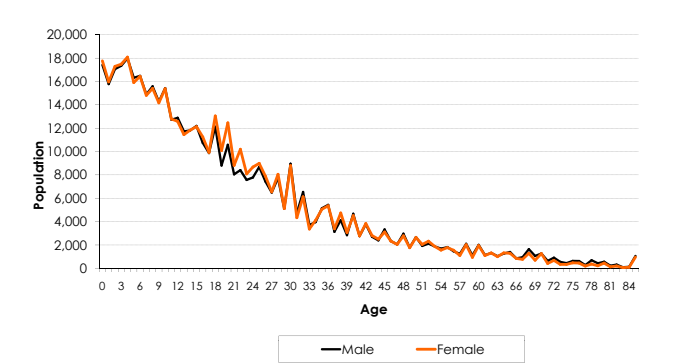
Rural/Urban	Most Preferred Digits and Census Year		
	Sex	2000	2010
Central Province	Both Sexes	0, 5, 8	0, 8, 5
	Male	0, 5, 8	0, 8, 5
	Female	0, 8	0, 8, 5
Rural	Both Sexes	0, 5, 8	0, 8, 5
	Male	0, 5, 8	0, 8, 5
	Female	0, 8	0, 8, 5
Urban	Both Sexes	0, 8	0, 8, 5
	Male	0, 5, 8	0, 8, 5
	Female	0, 8	0, 8,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

Sources: 2000 and 2010 Censuses of Population and Housing

In rural areas, the most preferred digits were 0, 5 and 8 in 2000 while 0,8 and 5 were preferred in 2010. In urban areas, both sexes preferred 0 and 8 in 2000 while 0, 8 and 5 were preferred in 2010.

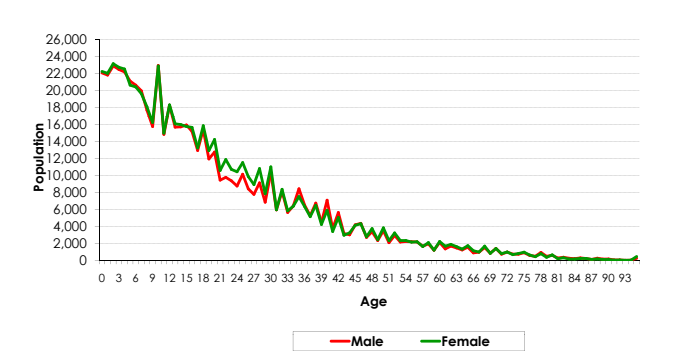
Errors in age data reporting are also presented in Figures 12.4 and 12.5. The figures show population distribution in single years for 2000 and 2010. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under reported ages.

Figure 12.4: Population Distribution in Single Years, Central Province 2000



Source: 2000 Census of Population and Housing

Figure 12.5: Population Distribution in Single Years, Central Province 2010

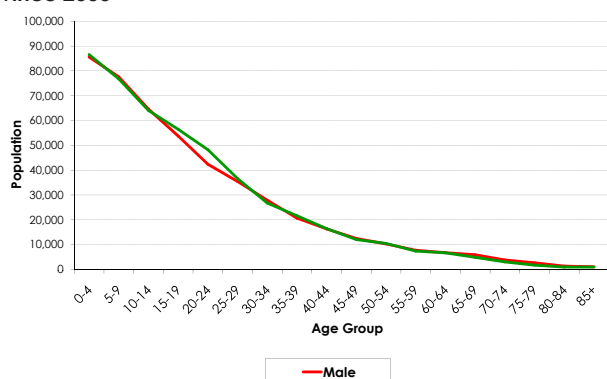


Source: 2010 Census of Population and Housing

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.

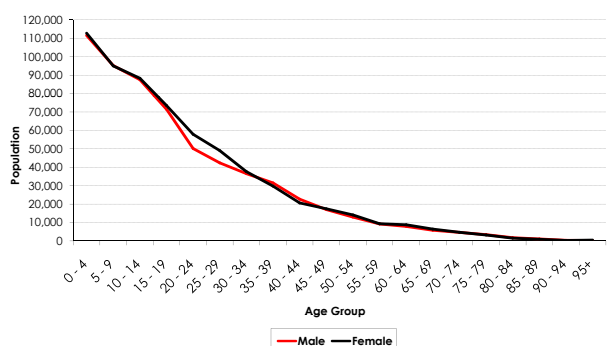
When single year age data is grouped into five year age groups, irregularities in age data arising from age misreporting tend to disappear. Figure 12.6 and 12.7 show population distribution in 5 year age groups for 2000 and 2010. The figures show smoothened curves after the single age data was grouped,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

Figure 12.6: Population Distribution by 5 Year Age Groups, Central Province 2000



Source: 2000 Census of Population and Housing

Figure 12.7: Population Distribution by 5 Year Age Groups, Central Province 2010

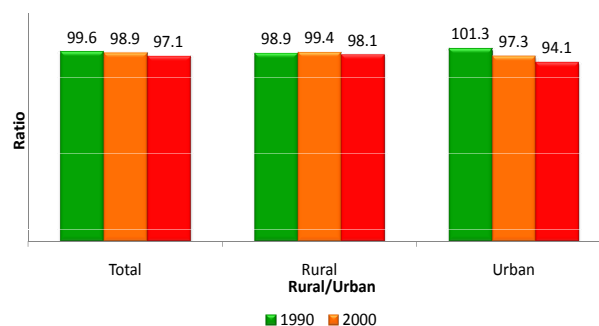


Source: 2010 Census of Population and Housing

12.9.2. Sex Ratios

The presence of omission errors, age misreporting and out migration may be detected by analysing 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 Ratio by Rural/Urban, Central Province 1990, 2000 and 2010

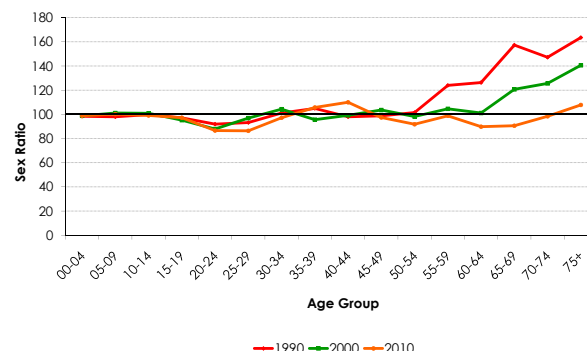


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

The sex ratio for Central Province has been declining with succeeding censuses since 1990. Sex ratio declined from 99.6 males per 100 females in 1990 to 97.1 in 2010. This shows that there were more females than males from 1990 to 2010 in the province. Between 2000 and 2010, the sex ratio for both rural and urban areas declined.

Figure 12.9 shows sex ratio by five year age groups for 1990, 2000 and 2010. An analysis of age-specific sex ratios for 1990 and 2000 show a similar pattern with slightly more females than males in age groups below 44 years. An analysis for 2010 shows slightly more females than males in age groups 0-4, 10-34 and 45-74 years.

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



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

Table 12.3 shows sex ratio by age and rural/urban for 1990, 2000 and 2010. In 1990, Sex ratios over 100 were observed in age groups 30-39 years and above 50 years. In 2000, sex ratios above 100 were observed in the age groups 5-14, 30-34, 45-49 years and above 55 years in 2000. Sex ratios above 100 were observed in age groups 5-9, 35-44 years and 75 years and older 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, Central Province 1990, 2000 and 2010

Age Group	1990			2000			2010		
	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
0-4	98.4	98.6	97.9	98.8	99.3	97.0	98.9	98.8	99.4
5-9	98.0	99.2	95.3	101.1	101.4	99.8	100.2	101.2	96.5
10-14	99.8	102.2	94.4	100.9	103.7	92.4	99.1	101.9	91.1
15-19	97.1	98.7	93.4	95.2	95.9	93.5	97.2	100.4	90.1
20-24	91.9	91.4	93.1	87.9	87.3	89.5	86.6	86.5	87.0
25-29	93.2	93.2	93.1	96.9	98.2	93.3	86.4	88.7	81.1
30-34	101.1	99.2	102.7	104.3	105.7	100.5	97.2	97.5	96.3
35-39	104.9	95.2	125.9	95.6	95.3	96.4	105.7	103.2	112.3
40-44	98.0	83.5	140.8	99.2	96.1	108.3	110.0	108.3	114.8
45-49	98.8	86.3	145.4	103.6	97.5	123.6	97.4	97.6	96.9
50-54	101.5	90.9	151.8	98.2	91.1	126.8	91.8	92.7	89.5
55-59	124.0	117.4	159.9	104.6	100.6	125.4	98.8	95.0	110.0
60-64	126.3	124.8	134.3	101.1	101.5	99.1	89.8	86.6	101.6
65-69	157.3	160.8	137.9	120.7	122.7	109.2	90.6	90.2	92.3
70-74	147.2	146.1	154.5	125.6	128.5	108.2	98.4	102.5	83.3
75+	163.5	164.7	153.8	140.5	148.5	97.7	107.8	117.2	74.6

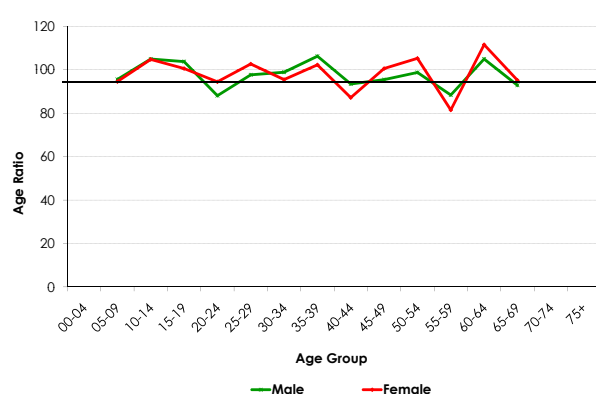
Sources: 1990, 2000 and 2010 Censuses of Population and Housing

12.9.3. Age Ratios

The quality of age data can also be evaluated by examining age ratios. When there are no major changes in fertility, mortality or migration, the age ratios do not deviate much from 100, hence, any substantial deviation is explained in terms of age misreporting. Calculations and comparison of age ratios have been done and the results disaggregated by sex are given in Figure 12.10.

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

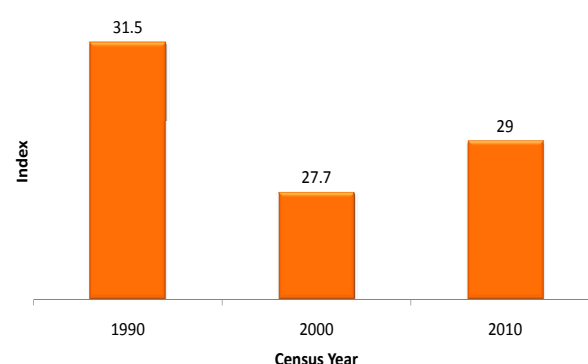
Figure 12.10: Age Ratios by Sex, Central Province 2010



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 Index for 1990, 2000 and 2010.

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



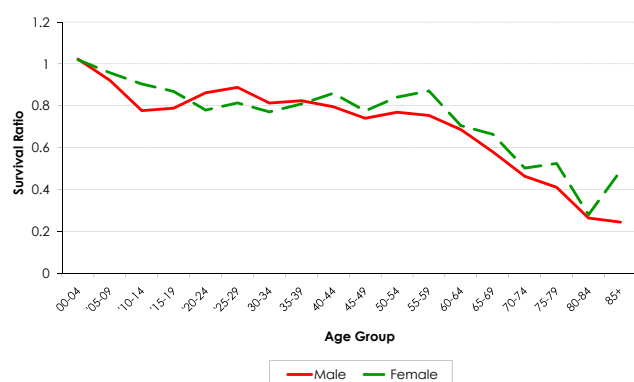
Source: 2010 Census of Population and Housing

In Central Province, it was observed that between 1990 and 2000, there was an improvement in the quality of data as depicted by the declining Age-Sex Accuracy Index. However, between 2000 and 2010 the Age-Sex Accuracy Index increased from 27.7 to 29.0, implying that the quality of age data reported in 2010 compared to 2000 deteriorated. Using the UN interpretation of the age-sex accuracy index, despite the increase 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 age 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 group and sex for between 2000 and 2010.

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



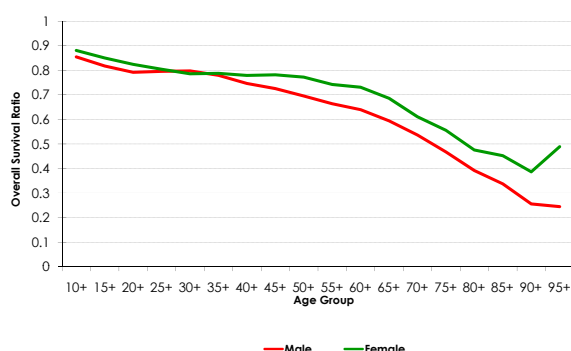
Sources: 2000 and 2010 Censuses of Population and Housing

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

Generally, female ratios are expected to be higher than the male ratios because females normally have lower mortality compared to males. Females had higher survival ratios except for age groups 0-4 years and 20-39 years.

Figure 12.13 shows overall survival ratios by age group and sex between 2000 and 2010. The overall survival ratio shows a continued decline with increase in age. Females had higher survival ratios across all age groups except for age group 30+ where males had higher survivor ratios.

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

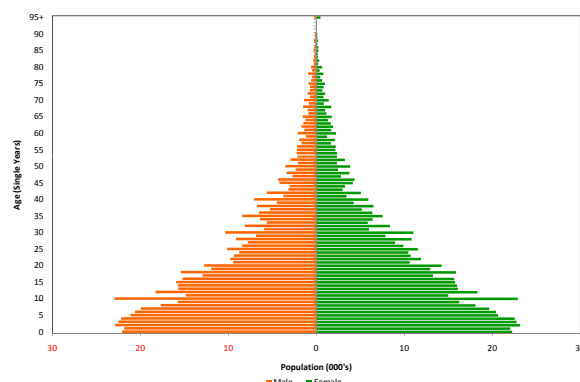


Sources: 2000 and 2010 Censuses of Population and Housing

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 figures 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 year age for Central Province in 2010.

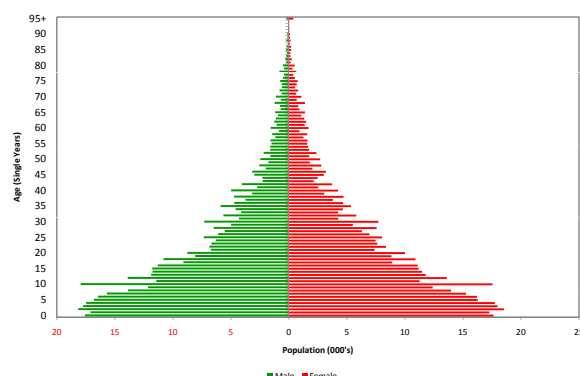
Figure 12.14: Population Distribution by Single Years, Central Province 2010



Source: 2010 Census of Population and Housing

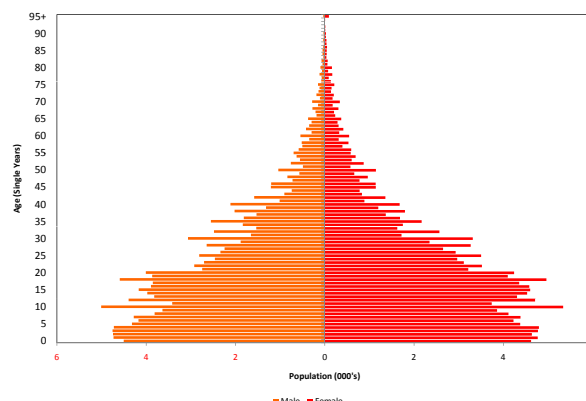
Figures 12.15 and 12.16 show the population distribution by single years for rural and urban in 2010.

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



Source: 2010 Census of Population and Housing

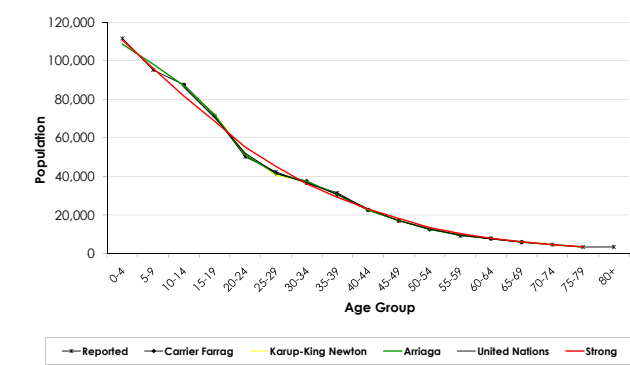
Figure 12.16: Population Distribution in Single Years, Central Province Urban 2010



Source: 2010 Census of Population and Housing

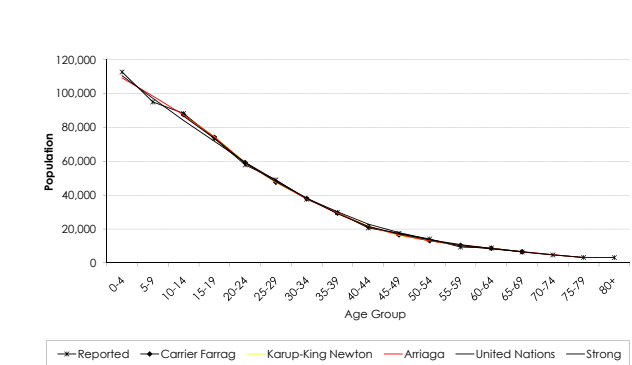
Figures 12.17 and 12.18 show the reported and smoothed population by age for males and females sex for 2010 in Central Province. Smoothing the age data using selected techniques for light smoothing of the population show that the irregularities in the structure were not severe to consider smoothing.

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



Source: 2010 Census of Population and Housing

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



Source: 2010 Census of Population and Housing

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

ANNEX TABLES AND REFERENCES

Annex A: Population Composition and Demographic Characteristics

A1: Percent Distribution of the Population (Dejure) by Age Group, Sex and Rural/Urban, Central Province 2010									
Age Group	Total	Male	Female	Total	Male	Female	Total	Male	Female
0 - 4	17.5	17.5	17.4	18.5	18.5	18.6	14.4	14.7	14.2
5 - 9	15.0	15.2	14.9	15.8	15.9	15.7	12.8	12.9	12.8
10 - 14	14.1	14.1	14.0	14.2	14.4	14.0	13.6	13.3	14.0
15 - 19	12.0	12.0	12.0	11.4	11.5	11.3	13.8	13.5	14.1
20 - 24	8.9	8.5	9.3	8.5	8.1	8.8	10.3	9.9	10.6
25 - 29	7.4	7.0	7.8	7.0	6.8	7.3	8.5	7.9	9.0
30 - 34	6.0	6.0	5.9	5.7	5.7	5.7	6.9	7.0	6.7
35 - 39	5.0	5.2	4.7	4.7	4.9	4.6	5.6	6.2	5.1
40 - 44	3.5	3.8	3.3	3.4	3.6	3.2	3.8	4.3	3.4
45 - 49	2.8	2.8	2.8	2.8	2.8	2.7	3.0	3.1	2.9
50 - 54	2.2	2.1	2.2	2.1	2.1	2.2	2.4	2.3	2.4
55 - 59	1.5	1.5	1.5	1.5	1.4	1.5	1.6	1.8	1.5
60 - 64	1.3	1.3	1.4	1.4	1.3	1.5	1.2	1.3	1.1
65 - 69	1.0	0.9	1.0	1.0	1.0	1.1	0.8	0.8	0.8
70 - 74	0.7	0.7	0.7	0.8	0.8	0.8	0.6	0.5	0.6
75 - 79	0.5	0.5	0.5	0.6	0.6	0.5	0.4	0.3	0.4
80 - 84	0.3	0.3	0.2	0.3	0.3	0.2	0.2	0.2	0.2
85+	0.3	0.3	0.3	0.3	0.3	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	1,307,111	648,465	658,646	978,574	487,713	490,861	328,537	160,752	167,785

Source: 2010 Census of Population and Housing

A2: Percent Distribution of the Population by Selected Age Groups and Rural/Urban, Central Province 2010			
Age Group	2010 Census		
	Total	Rural	Urban
10-19 (Adolescents ,WHO)	26.1	25.6	27.4
10-24 (Young People, UN)	35.0	34.1	37.7
<15 (Children)	46.6	48.5	40.9
<18 (Children)	53.9	55.5	49.0
15-19 (Middle and later Adolescence)	12.0	11.4	13.8
15-24 (Youths, UN)	20.9	19.9	24.1
15-49 (Reproductive Age Group)	45.6	43.5	51.9
15-35 (Youths, Zambia)	35.6	33.8	41.0
15-64 (Labour force Age group)	50.6	48.5	57.1
60+ (Elderly)	4.1	4.4	3.3
65+ (Elderly)	2.8	3.0	2.1
Total Population	1,307,111	978,574	328,537

Source: 2010 Census of Population and Housing

Annex B: Social Characteristics

B1: Percent Distribution of Heads by Age Group and Sex, Central Province 2010					
Age group of House- hold Head	Total Number of Household heads	Number of Male Headed Households	Percent of Male headed Households	Number of Female Headed Households	Percent of Female Headed Households
Total	235,560	185,348	100	50,212	100
12-14	214	105	0.1	109	0.2
15 - 19	2,278	1,433	0.8	845	1.7
20 - 24	14,979	12,569	6.8	2,410	4.8
25 - 29	32,357	27,935	15.1	4,422	8.8
30 - 34	36,343	30,940	16.7	5,403	10.8
35 - 39	34,341	28,763	15.5	5,578	11.1
40 - 44	26,750	21,561	11.6	5,189	10.3
45 - 49	21,904	16,644	9	5,260	10.5
50 - 54	17,930	12,753	6.9	5,177	10.3
55 - 59	12,771	9,051	4.9	3,720	7.4
60 - 64	11,667	7,641	4.1	4,026	8
65+	24,026	15,953	8.6	8,073	16.1

Source: 2010 Census of Population and Housing.

B 2: Relationship to Household Head by Rural/Urban, Central Province 2010.						
Relationship to head	Total	Percent	Rural	Percent	Urban	Percent
Total	1,307,111	100	978,574	100	328,537	100
Head	235,560	18	170,714	17.4	64,846	19.7
Spouse	171,998	13.2	129,761	13.3	42,237	12.9
Own Son/ Daughter	635,392	48.6	490,216	50.1	145,176	44.2
Step Son/Daughter	17,825	1.4	13,977	1.4	3,848	1.2
Parent	5,812	0.4	4,370	0.4	1,442	0.4
Brother/Sister	31,120	2.4	18,652	1.9	12,468	3.8
Nephew/Niece	46,344	3.5	28,676	2.9	17,668	5.4
Son/Daughter-in-law	11,976	0.9	9,636	1	2,340	0.7
Grandchild	104,507	8	81,612	8.3	22,895	7
Parent-in-law	2,065	0.2	1,542	0.2	523	0.2
Cousin	7,171	0.5	4,211	0.4	2,960	0.9
Other relative	29,095	2.2	19,886	2	9,209	2.8
Not Related	8,246	0.6	5,321	0.5	2,925	0.9

Source: 2010 Census of Population and Housing

Annex C: Education

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

Age (Single and 5 Year Groups)	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	70.9	73.2	68.6	66.6	69.3	63.9	82.8	84.4	81.4
5	5.1	4.9	5.4	3.6	3.6	3.7	10.8	9.9	11.8
6	7.7	7.3	8.1	5.3	5.1	5.4	17.2	15.9	18.5
7	14.9	14.4	15.4	10.8	10.4	11.3	29.4	29.2	29.6
8	25.7	24.2	27.1	20.0	18.9	21.2	45.5	43.5	47.4
9	43.2	41.2	45.2	36.6	34.6	38.5	64.9	63.0	66.8
5 - 9	18.0	17.0	19.0	14.0	13.2	14.8	32.6	31.1	34.0
10	57.8	55.7	59.9	52.0	50.1	54.0	77.3	75.5	79.1
11	75.6	73.5	77.7	71.3	68.9	73.6	89.4	88.9	90.0
12	83.1	81.8	84.4	80.0	78.7	81.4	92.4	91.6	93.1
13	88.4	87.4	89.4	86.1	85.0	87.3	95.1	94.8	95.4
14	90.9	90.0	91.7	88.9	88.0	89.9	96.3	96.0	96.5
10 - 14	77.6	76.0	79.2	73.7	72.1	75.3	89.6	88.7	90.4
15	91.5	91.1	91.8	89.6	89.3	89.9	96.4	96.3	96.6
16	92.3	92.5	92.2	90.5	90.7	90.2	97.2	97.5	96.9
17	92.0	92.6	91.5	89.6	90.4	88.7	97.4	97.7	97.2
18	91.1	92.5	89.8	88.7	90.5	86.9	96.6	97.3	96.1
19	90.6	92.6	88.8	87.9	90.4	85.7	96.2	97.1	95.4
15 - 19	91.5	92.2	90.9	89.3	90.2	88.4	96.8	97.2	96.4
20 - 24	87.2	90.6	84.3	84.0	88.1	80.5	94.9	96.4	93.5
25 - 29	85.0	88.7	81.9	81.5	86.0	77.4	93.6	95.5	92.2
30 - 34	85.4	88.9	82.1	82.2	86.2	78.3	93.3	95.3	91.3
35 - 39	85.3	89.6	80.7	82.1	87.1	77.0	93.2	95.7	90.3
40 - 44	84.3	89.5	78.5	81.2	87.1	74.8	92.4	95.6	88.7
45 - 49	83.0	89.4	76.8	80.1	87.2	73.1	91.1	95.3	87.0
50 - 54	80.6	89.1	72.8	77.5	86.9	68.7	89.1	95.1	83.7
55 - 59	78.1	88.6	67.7	74.9	86.3	64.0	86.7	94.5	78.2
60 - 64	68.0	84.8	52.9	65.3	82.7	50.1	77.4	91.5	63.1
65 +	56.4	75.7	37.2	54.9	74.2	34.9	62.6	83.1	45.5

Source: 2010 Census of Population and Housing

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

Age and Sex	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	35.2	36.8	33.6	33.3	35.2	31.4	40.4	41.4	39.4
5	15.1	14.6	15.6	11.2	11.0	11.4	29.9	28.5	31.3
6	27.6	25.9	29.3	23.0	21.6	24.4	45.6	42.9	48.2
7	51.9	49.9	54.1	47.1	44.8	49.5	69.1	68.4	69.8
8	68.0	67.0	69.1	64.1	63.0	65.2	81.8	81.3	82.3
9	78.4	77.0	79.7	75.6	74.1	77.2	87.3	86.6	88.0
5 - 9	46.1	44.5	47.6	41.7	40.2	43.2	61.8	60.3	63.2
10	81.2	79.8	82.5	78.9	77.6	80.2	89.1	87.8	90.3
11	85.4	84.8	85.9	83.6	83.0	84.2	90.9	90.7	91.2
12	86.1	85.5	86.7	84.3	83.6	85.1	91.5	91.5	91.5
13	86.9	87.0	86.9	85.3	85.2	85.3	91.8	92.6	91.1
14	85.2	85.3	85.0	83.1	83.5	82.7	90.8	90.7	90.9
10 - 14	84.7	84.1	85.2	82.7	82.2	83.2	90.8	90.5	91.0
15	80.5	81.9	79.1	77.8	79.6	76.0	87.5	88.3	86.7
16	75.3	79.7	70.9	71.7	77.0	66.4	84.5	87.6	81.9
17	65.9	73.4	58.6	60.1	69.0	51.1	78.5	83.7	73.9
18	53.1	64.1	42.3	47.3	59.8	34.9	66.2	74.3	58.7
19	40.3	52.8	28.7	35.4	48.9	23.1	50.7	61.0	40.9
15 - 19	63.9	71.2	56.9	59.8	68.1	51.6	73.6	79.0	68.8
20 - 24	17.2	24.2	11.1	14.2	21.1	8.3	24.4	31.7	18.0
25 - 29	4.8	5.3	4.4	3.8	4.6	3.2	7.1	7.2	7.0
30 - 34	3.0	2.9	3.2	2.5	2.5	2.4	4.4	3.7	5.1
35 - 39	2.5	2.5	2.6	2.1	2.2	2.0	3.6	3.3	4.0
40 - 44	2.2	2.3	2.1	1.7	1.9	1.6	3.4	3.3	3.5
45 - 49	1.9	2.1	1.7	1.6	1.8	1.4	2.7	2.9	2.6
50 - 54	1.6	1.8	1.4	1.5	1.8	1.3	1.8	1.9	1.8
55 - 59	1.6	1.7	1.5	1.4	1.6	1.3	2.1	1.9	2.2
60 - 64	1.4	1.7	1.2	1.3	1.6	1.1	1.6	1.9	1.4
65 +	1.6	1.8	1.3	1.5	1.9	1.1	1.7	1.5	1.8

Source: 2010 Census of Population and Housing

Annex D: Economic Characteristics

The Usually Working Population (12 years and Older) By District, Central Province 2010.														
	Total	Percent	Chibombo	Percent	Kabwe	Percent	Kapiri Mposhi	Percent	Mkushi	Percent	Mumbwa	Percent	Serenje	Percent
Total	362,862	100	76,991	21.2	42,278	11.7	78,503	21.6	43,278	11.9	64,460	17.8	57,352	15.8
Rural	294,140	100	74,382	25.3	-	-	68,600	23.3	39,820	13.5	57,912	19.7	53,426	18.2
Urban	68,722	100	2,609	3.8	42,278	61.5	9,903	14.4	3,458	5.0	6,548	9.5	3,926	5.7
Male	206,181	100	45,330	22.0	26,540	12.9	43,611	21.2	26,227	12.7	35,389	17.2	29,084	14.1
Female	156,681	100	31,661	20.2	15,738	10.0	34,892	22.3	17,051	10.9	29,071	18.6	28,268	18.0
The Usually Working Population (12 years and Older) By Employment Status														
Employer	2,510	0.7	674	0.9	801	1.9	354	0.5	330	0.8	154	0.2	197	0.3
Employee	66,901	18.4	13,725	17.8	22,328	52.8	8,897	11.3	10,993	25.4	7,436	11.5	3,522	6.1
Self employed	168,940	46.6	37,335	48.5	15,772	37.3	42,189	53.7	17,673	40.8	29,028	45.0	26,943	47.0
Unpaid family worker	124,511	34.3	25,257	32.8	3,377	8.0	27,063	34.5	14,282	33.0	27,842	43.2	26,690	46.5
The Usually Working Population (12 years and Older) By Occupation														
Managers	2,928	0.8	459	0.6	758	1.8	266	0.3	226	0.5	1,155	1.8	64	0.1
Professionals	13,921	3.8	2,282	3.0	4,992	11.8	2,085	2.7	1,565	3.6	1,782	2.8	1,215	2.1
Technicians and Associate Professionals	5,751	1.6	1,257	1.6	2,120	5.0	879	1.1	480	1.1	745	1.2	270	0.5
Clerical Support Workers	1,872	0.5	218	0.3	978	2.3	211	0.3	186	0.4	181	0.3	98	0.2
Service and Sales Workers	24,235	6.7	3,003	3.9	10,095	23.9	4,430	5.6	2,058	4.8	2,969	4.6	1,680	2.9
Skilled Agricultural Forestry and Fishery Workers	222,663	61.4	45,294	58.8	5,089	12.0	54,718	69.7	23,229	53.7	45,429	70.5	48,904	85.3
Craft and Related Trades Workers	16,261	4.5	2,557	3.3	4,987	11.8	3,231	4.1	1,367	3.2	2,952	4.6	1,167	2.0
Plant and Machine Operators and Assemblers	7,526	2.1	1,075	1.4	2,964	7.0	1,425	1.8	816	1.9	825	1.3	421	0.7
Elementary Occupations	46,430	12.8	14,560	18.9	5,616	13.3	8,500	10.8	10,682	24.7	5,615	8.7	1,457	2.5
Not Stated	21,275	5.9	6,286	8.2	4,679	11.1	2,758	3.5	2,669	6.2	2,807	4.4	2,076	3.6
The Usually Working Population (12 years and Older) By Industry														
Agriculture Hunting Forestry and Fishing	261,536	72.1	57,509	74.7	7,658	18.1	61,888	78.8	33,221	76.8	51,680	80.2	49,580	86.4
Mining and Quarrying	1,730	0.5	360	0.5	497	1.2	208	0.3	193	0.4	362	0.6	110	0.2
Manufacturing	7,464	2.1	1,148	1.5	2,790	6.6	1,043	1.3	629	1.5	1,286	2.0	568	1.0
Electricity Gas Steam and Air conditioning supply	423	0.1	45	0.1	207	0.5	62	0.1	42	0.1	24	0.0	43	0.1
Water Supply	351	0.1	36	0.0	201	0.5	44	0.1	18	0.0	24	0.0	28	0.0
Construction and Allied Repairs	8,013	2.2	1,388	1.8	2,415	5.7	1,672	2.1	804	1.9	1,038	1.6	696	1.2
Wholesale & Retail Trade Restaurants and Hotel	20,440	5.6	2,140	2.8	8,530	20.2	4,273	5.4	1,481	3.4	2,449	3.8	1,567	2.7
Transport and Storage	5,743	1.6	740	1.0	2,735	6.5	1,228	1.6	407	0.9	408	0.6	225	0.4
Accommodation and food services activities	2,537	0.7	362	0.5	985	2.3	443	0.6	248	0.6	364	0.6	135	0.2
Information and Communication	1,855	0.5	601	0.8	398	0.9	148	0.2	357	0.8	178	0.3	173	0.3
Finance and Insurance	518	0.1	65	0.1	316	0.7	28	0.0	62	0.1	34	0.1	13	0.0
Real Estate Activities	84	0.0	1	0.0	15	0.0	7	0.0	58	0.1	3	0.0	-	0.0
Community Social and Personal Services	26,522	7.3	3,700	4.8	11,287	26.7	3,998	5.1	2,389	5.5	3,319	5.1	1,829	3.2
Not stated	25,646	7.1	8,896	11.6	4,244	10.0	3,461	4.4	3,369	7.8	3,291	5.1	2,385	4.2

Source: 2010 Census of Population and Housing

Source: 2010 Census of Population and Housing

Annex E: Fertility Levels, Patterns and Trends

E1: Adjusted ASFRs and TFRs by District, Central Province 2010

Age Group	Total	Chibombo	Kabwe	Kapiri	Mukushi	Mumbwa	Serenge
15-19	0.1306	0.1291	0.0668	0.1151	0.1253	0.1274	0.1010
20-24	0.2918	0.3196	0.1818	0.3079	0.2881	0.3192	0.3075
25-29	0.2823	0.3116	0.2080	0.2931	0.2865	0.3000	0.3345
30-34	0.2412	0.2641	0.1745	0.2566	0.2431	0.2693	0.2842
35-39	0.1969	0.2201	0.1274	0.2121	0.2149	0.2172	0.2507
40-44	0.0975	0.1213	0.0595	0.1149	0.1056	0.1103	0.1432
45-49	0.0266	0.0361	0.0255	0.0332	0.0283	0.0360	0.0460
TFR	6.3	6.4	4.5	6.6	6.6	6.6	7.6

Source: 2010 Census of Population and Housing

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

Age Group	Observed ASFR	Adjusted ASFR	Observed ASFR	Adjusted ASFR	Observed ASFR	Adjusted ASFR
15-19	0.0879	0.0940	0.0928	0.1407	0.0861	0.1306
20-24	0.2501	0.2674	0.2118	0.2768	0.2242	0.2918
25-29	0.2746	0.2936	0.2116	0.2692	0.2243	0.2823
30-34	0.2543	0.2719	0.1846	0.2317	0.1933	0.2412
35-39	0.2112	0.2258	0.0420	0.1748	0.1605	0.1969
40-44	0.1203	0.1286	0.0710	0.0833	0.0845	0.0975
45-49	0.0549	0.0587	0.0290	0.0301	0.0267	0.0266
Obs. TFR	6.3		4.7		5.0	
Adj. TFR		6.7		6.0		6.3
MACB					29.4	

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

Obs.=Observed Total Fertility Rate; Adj = Adjusted Total Fertility Rate

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

Census year	Total			Districts					
	Total	Rural	Urban	Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenge
1990	6.3	6.5	6.0	-	-	-	-	-	-
2000	6.1	6.5	5.1	6.4	4.9	6.2	6.7	6.2	7.0
2010	6.3	6.9	4.8	6.4	4.5	6.6	6.6	6.6	7.6

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

E4: GRR and NRR by Rural/Urban, Central 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	0.0441	4.2170	0.1837	0.0517	4.2325	0.2175	0.0269	4.1596	0.2293
20 - 24	0.1094	4.0665	0.4401	0.1241	4.0947	0.5073	0.0743	3.9805	0.5330
25 - 29	0.1100	3.8687	0.4193	0.1201	3.9029	0.4707	0.0862	3.7700	0.4993
30 - 34	0.0952	3.6035	0.3366	0.1051	3.6582	0.3878	0.0709	3.4593	0.3807
35 - 39	0.0790	3.3490	0.2555	0.0888	3.4217	0.3036	0.0533	3.1622	0.3052
40 - 44	0.0420	3.0928	0.1237	0.0486	3.1817	0.1534	0.0240	2.8670	0.1635
45 - 49	0.0131	2.8678	0.0351	0.0142	2.9726	0.0413	0.0094	2.6048	0.0449
GRR 2010	2.5			2.5			1.7		
GRR 2000	2.5			2.8			1.7		
GRR 1990	3.2			3.4			2.8		
NRR 2010			1.8			2.1			1.2
NRR 2000			1.8			1.9			1.1
NRR 1990			2.9			3.1			2.6

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, Central Province 2010

Age Group	Total	Rural	Urban	Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenje
0 - 4	0.368	0.398	0.291	0.370	0.273	0.396	0.499	0.331	0.387
5-9	0.047	0.050	0.041	0.046	0.032	0.056	0.055	0.042	0.057
10-14	0.031	0.031	0.029	0.026	0.023	0.039	0.031	0.035	0.028
15 - 19	0.037	0.036	0.038	0.035	0.033	0.041	0.034	0.039	0.036
20 - 24	0.050	0.046	0.060	0.049	0.062	0.046	0.037	0.052	0.047
25 - 29	0.062	0.056	0.076	0.057	0.083	0.056	0.046	0.066	0.056
30 - 34	0.072	0.065	0.091	0.075	0.094	0.059	0.057	0.076	0.067
35 - 39	0.065	0.060	0.075	0.072	0.081	0.057	0.039	0.062	0.068
40 - 44	0.047	0.043	0.058	0.045	0.063	0.039	0.034	0.053	0.045
45 - 49	0.041	0.038	0.050	0.042	0.051	0.038	0.030	0.046	0.038
50 - 54	0.030	0.028	0.033	0.030	0.035	0.027	0.025	0.034	0.025
55 - 59	0.024	0.021	0.031	0.020	0.032	0.024	0.015	0.027	0.024
60 - 64	0.024	0.022	0.027	0.026	0.030	0.022	0.023	0.022	0.017
65 - 69	0.022	0.021	0.025	0.024	0.025	0.022	0.014	0.022	0.020
70 - 74	0.027	0.027	0.024	0.026	0.025	0.025	0.028	0.030	0.027
75+	0.055	0.057	0.051	0.057	0.057	0.054	0.033	0.062	0.057

Source: 2010 Census of Population and Housing

Annex H: Disability

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

Sex and District	Disabled Population			Percent Disabled		
	Total	Rural	Urban	Total	Rural	Urban
Total	25,943	20,566	5,377	2.1	2.2	1.7
Male	13,750	10,992	2,758	2.2	2.4	1.8
Female	12,193	9,574	2,619	1.9	2.0	1.6
District						
Chibombo	5,330	5,139	191	1.8	1.9	1.5
Kabwe	3,350	-	3,350	1.7		1.7
Kapiri Mposhi	5,607	4,776	831	2.3	2.4	1.9
Mkushi	2,982	2,746	236	2.0	2.1	1.3
Mumbwa	4,215	3,724	491	2.0	2.1	1.7
Serenje	4,459	4,181	278	2.8	3.0	1.7

Source: 2010 Census of Population and Housing

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

Age	Disabled Population			Percent Disabled		
	Total	Male	Female	Total	Male	Female
Total	25,943	13,750	12,193	2.1	2.2	1.9
0 - 4	1,246	701	545	0.6	0.6	0.5
5 - 9	1,991	1,150	841	1.0	1.2	0.9
10 - 14	2,502	1,377	1,125	1.4	1.6	1.3
15 - 19	2,092	1,161	931	1.4	1.6	1.3
20 - 24	1,591	847	744	1.5	1.7	1.3
25 - 29	1,463	784	679	1.6	1.9	1.4
30 - 34	1,409	796	613	1.9	2.2	1.6
35 - 39	1,499	871	628	2.4	2.8	2.1
40 - 44	1,431	778	653	3.3	3.4	3.2
45 - 49	1,477	711	766	4.3	4.2	4.4
50 - 54	1,519	748	771	5.6	5.8	5.5
55 - 59	1,217	579	638	6.6	6.3	6.8
60 - 64	1,471	701	770	8.8	8.9	8.8
65 - 69	1,274	582	692	10.4	10.0	10.8
70 - 74	1,298	635	663	13.9	13.7	14.1
75 - 79	1,078	575	503	16.2	16.8	15.5
80 - 84	618	343	275	18.9	19.5	18.1
85 - 89	404	245	159	20.4	22.5	17.9
90 - 94	157	93	64	25.9	26.6	24.8
95+	206	73	133	28.4	28.3	28.4

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, Central Province 1990

Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	58,388	59,310	-	-	-	-	98.4	-
5-9	55,997	57,117	98.9	100.0	-1.1	0.0	98.0	-0.4
10-14	54,802	54,891	103.3	100.9	3.3	0.9	99.8	1.8
15-19	50,120	51,635	108.6	107.9	8.6	7.9	97.1	-2.8
20-24	37,486	40,793	95.9	99.8	-4.1	-0.2	91.9	-5.2
25-29	28,065	30,121	92.9	94.6	-7.1	-5.1	93.2	1.3
30-34	22,944	22,686	104.5	100.3	4.5	0.3	101.1	8.0
35-39	15,841	15,100	87.1	83.0	-12.9	-17.0	104.9	3.8
40-44	13,440	13,714	100.4	104.8	0.4	4.8	98.0	-6.9
45-49	10,933	11,069	95.2	95.9	-4.8	-4.1	98.8	0.8
50-54	9,517	9,379	98.5	105.2	-1.5	5.2	101.5	2.7
55-59	8,390	6,767	106.4	94.4	6.4	-5.6	124.0	22.5
60-64	6,261	4,959	96.7	102.6	-3.3	2.6	126.3	2.3
65-69	4,564	2,901	97.5	82.1	-2.5	-17.9	157.3	31.1
70-74	3,098	2,105	-	-	-	-	147.2	-10.2
75+	3,497	2,139					163.5	
Total	383,343	384,686	-	-				
Mean	-	-	-	-	4.6	5.5	-	7.1

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.

$$3 \times 7.1 + 4.6 + 5.5$$

$$= 31.5$$

I2: Population by Age Group, Sex, Age Ratio and Sex Ratio, Central Province 2000

Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	85,579	86,586	-	-	-	-	98.8	-
5-9	77,554	76,743	103.3	101.9	3.3	1.9	101.1	2.2
10-14	64,577	64,031	98.4	96.2	-1.6	-3.8	100.9	-0.2
15-19	53,732	56,441	100.5	100.6	0.5	0.6	95.2	-5.7
20-24	42,382	48,231	95.1	103.7	-4.9	3.7	87.9	-7.3
25-29	35,439	36,580	100.9	97.6	0.9	-2.4	96.9	9.0
30-34	27,889	26,737	99.4	91.9	-0.6	-8.1	104.3	7.4
35-39	20,651	21,599	93.5	100.1	-6.5	-0.1	95.6	-8.7
40-44	16,291	16,421	98.4	97.7	-1.6	-2.3	99.2	3.6
45-49	12,452	12,024	93.8	89.5	-6.2	-10.5	103.6	4.4
50-54	10,257	10,440	101.7	107.7	1.7	7.7	98.2	-5.3
55-59	7,713	7,372	90.7	86.2	-9.3	-13.8	104.6	6.4
60-64	6,743	6,669	99.2	108.9	-0.8	8.9	101.1	-3.5
65-69	5,884	4,873	111.7	100.6	11.7	0.6	120.7	19.6
70-74	3,789	3,017	-	-	0.0	0.0	125.6	4.8
75+	5,020	3,572					140.5	
Total	475,952	481,336	-	-				
Mean	-	-	-	-	3.8	4.9	-	6.3

Source: 2000 Census of Population and Housing

Age-Sex Accuracy Index = 3 times mean difference in sex ratio plus mean deviations of males and females age ratios.

 $3 \times 6.3 + 3.8 + 4.9$ $= 27.7$ **I3: Population by Age Group, Sex, Age Ratio and Sex Ratio, Central Province 2010**

Age Group	Population		Age Ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	111,530	112,759					98.9	
5-9	95,203	95,051	95.6	94.6	-4.4	-5.4	100.2	1.2
10-14	87,537	88,290	105.0	104.8	5.0	4.8	99.1	-1.0
15-19	71,467	73,509	103.8	100.6	3.8	0.6	97.2	-1.9
20-24	50,168	57,899	88.1	94.5	-11.9	-5.5	86.6	-10.6
25-29	42,376	49,022	97.7	102.7	-2.3	2.7	86.4	-0.2
30-34	36,537	37,606	98.9	95.5	-1.1	-4.5	97.2	10.7
35-39	31,474	29,774	106.3	102.3	6.3	2.3	105.7	8.6
40-44	22,676	20,611	93.5	87.2	-6.5	-12.8	110.0	4.3
45-49	17,022	17,476	95.5	100.6	-4.5	0.6	97.4	-12.6
50-54	12,960	14,118	98.8	105.3	-1.2	5.3	91.8	-5.6
55-59	9,219	9,327	88.4	81.5	-11.6	-18.5	98.8	7.0
60-64	7,891	8,784	105.0	111.6	5.0	11.6	89.8	-9.0
65-69	5,815	6,419	92.9	95.2	-7.1	-4.8	90.6	0.8
70-74	4,630	4,704	-	-	0.0	0.0	98.4	7.8
75+	6,867	6,368	-	-	-	-	107.8	-
Total	613,372	631,717	-	-			-	
Mean	-	-	-	-	5.4	6.1	-	5.8

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.

 $3 \times 5.8 + 5.4 + 6.1$ $= 29.0$

Life Tables

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0788	0.3	0.0747	100,000	7,465	94,774	0.9065	4,939,984	49.4
1	4	0.0138	0.4	0.0526	92,535	4,868	358,456	0.9577	4,845,210	52.4
5	5	0.0040	0.5	0.0195	87,667	1,705	434,072	0.9835	4,486,753	51.2
10	5	0.0027	0.5	0.0135	85,962	1,163	426,900	0.9827	4,052,681	47.1
15	5	0.0043	0.5	0.0211	84,798	1,785	419,529	0.9668	3,625,781	42.8
20	5	0.0095	0.5	0.0455	83,013	3,781	405,613	0.9505	3,206,252	38.6
25	5	0.0113	0.5	0.0537	79,232	4,258	385,515	0.9307	2,800,639	35.3
30	5	0.0186	0.5	0.0858	74,974	6,430	358,794	0.9142	2,415,123	32.2
35	5	0.0186	0.5	0.0859	68,544	5,889	327,997	0.9101	2,056,329	30.0
40	5	0.0206	0.5	0.0942	62,655	5,905	298,513	0.9072	1,728,332	27.6
45	5	0.0199	0.5	0.0911	56,750	5,171	270,824	0.9131	1,429,819	25.2
50	5	0.0178	0.5	0.0822	51,579	4,240	247,296	0.9101	1,158,996	22.5
55	5	0.0216	0.5	0.0983	47,339	4,655	225,057	0.8840	911,700	19.3
60	5	0.0309	0.5	0.1356	42,684	5,787	198,952	0.8548	686,643	16.1
65	5	0.0364	0.5	0.1563	36,897	5,767	170,067	0.8047	487,691	13.2
70	5	0.0618	0.5	0.2416	31,130	7,522	136,845	0.7606	317,625	10.2
75	5	0.0601	0.5	0.2366	23,608	5,585	104,078	0.4243	180,780	7.7
80	+	0.1185		1.0000	18,023	18,023	76,702		76,702	4.3

Source: 2010 Census of Population and Housing

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0814	0.3	0.0770	100,000	7,698	94,611	0.8867	4,777,128	47.8
1	4	0.0163	0.4	0.0615	92,302	5,681	348,756	0.9575	4,682,516	50.7
5	5	0.0045	0.5	0.0220	86,621	1,904	424,536	0.9838	4,333,760	50.0
10	5	0.0032	0.5	0.0155	84,717	1,317	417,659	0.9809	3,909,224	46.1
15	5	0.0040	0.5	0.0195	83,400	1,622	409,699	0.9665	3,491,565	41.9
20	5	0.0073	0.5	0.0351	81,778	2,873	395,960	0.9470	3,081,866	37.7
25	5	0.0116	0.5	0.0551	78,905	4,345	374,972	0.9246	2,685,905	34.0
30	5	0.0167	0.5	0.0778	74,560	5,798	346,709	0.9125	2,310,933	31.0
35	5	0.0193	0.5	0.0887	68,762	6,101	316,355	0.9128	1,964,224	28.6
40	5	0.0189	0.5	0.0870	62,661	5,451	288,777	0.8945	1,647,869	26.3
45	5	0.0239	0.5	0.1077	57,210	6,161	258,325	0.9068	1,359,091	23.8
50	5	0.0199	0.5	0.0914	51,049	4,663	234,259	0.8882	1,100,766	21.6
55	5	0.0255	0.5	0.1143	46,385	5,304	208,061	0.8835	866,507	18.7
60	5	0.0261	0.5	0.1168	41,082	4,799	183,815	0.8541	658,446	16.0
65	5	0.0346	0.5	0.1496	36,283	5,427	156,996	0.8241	474,631	13.1
70	5	0.0428	0.5	0.1793	30,856	5,533	129,384	0.7918	317,635	10.3
75	5	0.0524	0.5	0.2121	25,323	5,370	102,452	0.4558	188,252	7.4
80	+	0.0849	0.5	1.0000	19,953	19,953	85,800		85,800	4.3

Source: 2010 Census of Population and Housing

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0686	0.3	0.0655	100,000	6,546	95,418	0.9040	5,158,062	51.6
1	4	0.0134	0.4	0.0512	93,454	4,787	356,581	0.9650	5,062,645	54.2
5	5	0.0036	0.5	0.0179	88,666	1,588	436,187	0.9869	4,706,064	53.1
10	5	0.0025	0.5	0.0125	87,079	1,092	430,479	0.9796	4,269,876	49.0
15	5	0.0043	0.5	0.0213	85,987	1,830	421,698	0.9643	3,839,398	44.7
20	5	0.0077	0.5	0.0373	84,157	3,140	406,655	0.9513	3,417,700	40.6
25	5	0.0105	0.5	0.0500	81,017	4,048	386,867	0.9315	3,011,045	37.2
30	5	0.0151	0.5	0.0707	76,969	5,443	360,351	0.9294	2,624,178	34.1
35	5	0.0151	0.5	0.0706	71,526	5,050	334,902	0.9235	2,263,827	31.7
40	5	0.0166	0.5	0.0772	66,475	5,132	309,283	0.9272	1,928,925	29.0
45	5	0.0154	0.5	0.0722	61,343	4,431	286,779	0.9261	1,619,642	26.4
50	5	0.0159	0.5	0.0740	56,913	4,214	265,601	0.9214	1,332,862	23.4
55	5	0.0170	0.5	0.0792	52,699	4,172	244,720	0.9082	1,067,262	20.3
60	5	0.0204	0.5	0.0933	48,527	4,529	222,254	0.8917	822,541	17.0
65	5	0.0245	0.5	0.1102	43,998	4,847	198,177	0.8065	600,288	13.6
70	5	0.0500	0.5	0.2039	39,151	7,984	159,824	0.8142	402,111	10.3
75	5	0.0439	0.5	0.1832	31,166	5,710	130,134	0.4629	242,287	7.8
80	+	0.0897	0.5	1.0000	25,456	25,456	112,153		112,153	4.4

Source: 2010 Census of Population and Housing

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0732	0.3	0.0697	100,000	6,966	95,124	0.8975	5,113,469	51.1
1	4	0.0145	0.4	0.0552	93,034	5,137	353,643	0.9624	5,018,344	53.9
5	5	0.0039	0.5	0.0192	87,897	1,689	431,885	0.9859	4,664,701	53.1
10	5	0.0027	0.5	0.0135	86,208	1,166	425,794	0.9803	4,232,817	49.1
15	5	0.0042	0.5	0.0204	85,042	1,739	417,386	0.9675	3,807,023	44.8
20	5	0.0070	0.5	0.0339	83,303	2,826	403,801	0.9534	3,389,637	40.7
25	5	0.0100	0.5	0.0481	80,478	3,869	384,978	0.9346	2,985,837	37.1
30	5	0.0144	0.5	0.0674	76,609	5,165	359,802	0.9258	2,600,859	33.9
35	5	0.0161	0.5	0.0750	71,444	5,361	333,094	0.9257	2,241,057	31.4
40	5	0.0159	0.5	0.0742	66,083	4,900	308,362	0.9195	1,907,962	28.9
45	5	0.0175	0.5	0.0812	61,182	4,970	283,548	0.9224	1,599,600	26.1
50	5	0.0166	0.5	0.0772	56,213	4,338	261,541	0.9153	1,316,053	23.4
55	5	0.0185	0.5	0.0856	51,874	4,438	239,400	0.9080	1,054,512	20.3
60	5	0.0202	0.5	0.0928	47,436	4,402	217,372	0.8897	815,112	17.2
65	5	0.0250	0.5	0.1125	43,034	4,840	193,391	0.8283	597,740	13.9
70	5	0.0427	0.5	0.1791	38,194	6,840	160,190	0.8183	404,349	10.6
75	5	0.0435	0.5	0.1820	31,354	5,708	131,085	0.4631	244,160	7.8
80	+	0.0794	0.5	1.0000	25,646	25,646	113,075		113,075	4.4

Source: 2010 Census of Population and Housing

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

Age,	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0817	0.3	0.0772	100,000	7,724	94,593	0.8871	4,574,033	45.7
1	4	0.0161	0.4	0.0607	92,276	5,602	348,937	0.9572	4,479,440	48.5
5	5	0.0046	0.5	0.0226	86,674	1,959	424,555	0.9837	4,130,503	47.7
10	5	0.0032	0.5	0.0156	84,715	1,323	417,622	0.9802	3,705,948	43.7
15	5	0.0041	0.5	0.0202	83,392	1,686	409,372	0.9603	3,288,327	39.4
20	5	0.0087	0.5	0.0419	81,706	3,426	393,112	0.9396	2,878,955	35.2
25	5	0.0133	0.5	0.0626	78,280	4,898	369,359	0.9126	2,485,842	31.8
30	5	0.0197	0.5	0.0904	73,382	6,633	337,060	0.9080	2,116,484	28.8
35	5	0.0201	0.5	0.0922	66,749	6,157	306,036	0.8978	1,779,424	26.7
40	5	0.0228	0.5	0.1034	60,591	6,264	274,768	0.8877	1,473,388	24.3
45	5	0.0253	0.5	0.1134	54,327	6,162	243,908	0.9019	1,198,620	22.1
50	5	0.0210	0.5	0.0961	48,165	4,630	219,990	0.8772	954,711	19.8
55	5	0.0285	0.5	0.1261	43,535	5,490	192,968	0.8591	734,721	16.9
60	5	0.0328	0.5	0.1427	38,045	5,430	165,788	0.8153	541,753	14.2
65	5	0.0459	0.5	0.1901	32,615	6,201	135,169	0.7655	375,965	11.5
70	5	0.0614	0.5	0.2406	26,414	6,355	103,473	0.7357	240,796	9.1
75	5	0.0706	0.5	0.2678	20,059	5,372	76,122	0.4457	137,324	6.8
80	+	0.1195	0.5	1.0000	14,687	14,687	61,201		61,201	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

M 4205

IDENTIFICATION		Province		District		Constituency		CSA No.		Housing Unit No. (HUN)		Residential Address	
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0	
Ward		Region		Rural		Urban		SEA No.		Household No. (HHN)		Village/Locality Name	
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0	
Census Building No. (CBN)		Chief's Area											
1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0		1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0											

INTERVIEW STATUS

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

MARK HERE IF MORE
 THAN ONE
 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) at 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? Write District/Country name then code	P7 Was this part of the district rural or urban at the time of birth?	P8 If Zambian, code here then skip to P11	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	In Years	Write District/Country name then code	Rural	1		Employment	Catholic
2	Usual member Absent	Spouse	Female			Urban	2		Investor	Protestant
3	Usual member Usual member	Own Son/Daughter	Male				3		Refugee/Asylum	Buddhist
4	Usual member Usual member	Step Son/Daughter	Female				4		Education/Training	Hindu
5	Usual member Usual member	Parent	Male				5		Settlement	Muslim
6	Usual member Usual member	Brother/Sister	Female				6		Family formation/reunification	Other
7	Usual member Usual member	Nephew/Niece	Male				7		Tourist	
8	Usual member Usual member	Grandchild	Female				8		Other	

ENUMERATOR

Name

Date

SUPERVISOR

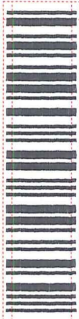
Name

Date



99080946 (82)

CONFIDENTIAL: The Census is being conducted under the Census & Statistics Act, CAP 127 of the laws of Zambia. The information will be strictly confidential and used for statistical purposes only.



99080946 (82)

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

Person Number	FOR ALL MEMBERS PRESENT				ONLY FOR PERSONS LESS THAN 18 YEARS OLD				ONLY FOR PERSONS AGED 5 YEARS AND OLDER												
	P12 What is (NAME'S) ethnicity?	P13 What is (NAME'S) predominant language of communication?	P14 Where was (NAME) residing in October 2009?	P15 How long has (NAME) been living continuously in (NAME OF CURRENT PLACE OF RESIDENCE)?	P16 Is (NAME) disabled in any way?	P17 What is (NAME'S) disability?	P18 What is the cause of (NAME'S) disability?	P19 Is (NAME) an albino?	P20 Is (NAME'S) biological mother alive?	P21 Does (NAME'S) biological 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 the highest level of education completed?				
[1]				Same as Head of Household	Yes	Blind	Partially sighted	Deaf and Dumb	Deaf	Hard of hearing	Dumb	Intellectual	Speech impaired	Physically disabled	Mentally retarded	Other	Yes	Go to P22	Go to P24	Go to P26	Enter code from manual
[2]				Same as Head of Household	No	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
[3]				Same as Head of Household	Yes	Partially sighted	Deaf and Dumb	Deaf	Hard of hearing	Dumb	Intellectual	Speech impaired	Physically disabled	Mentally retarded	Other	Yes	Go to P22	Go to P24	Go to P26	Enter code from manual	
[4]				Same as Head of Household	No	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
[5]				Same as Head of Household	Yes	Blind	Partially sighted	Deaf and Dumb	Deaf	Hard of hearing	Dumb	Intellectual	Speech impaired	Physically disabled	Mentally retarded	Other	Yes	Go to P22	Go to P24	Go to P26	Enter code from manual
[6]				Same as Head of Household	No	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
[7]				Same as Head of Household	Yes	Blind	Partially sighted	Deaf and Dumb	Deaf	Hard of hearing	Dumb	Intellectual	Speech impaired	Physically disabled	Mentally retarded	Other	Yes	Go to P22	Go to P24	Go to P26	Enter code from manual
[8]				Same as Head of Household	No	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
[9]				Same as Head of Household	Yes	Blind	Partially sighted	Deaf and Dumb	Deaf	Hard of hearing	Dumb	Intellectual	Speech impaired	Physically disabled	Mentally retarded	Other	Yes	Go to P22	Go to P24	Go to P26	Enter code from manual
[10]				Same as Head of Household	No	None	None	None	None	None	None	None	None	None	None	None	None	None	None	None	

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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 A - AGRICULTURE

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