



2010 CENSUS OF POPULATION AND HOUSING

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

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Alexander B. Chikwanda, MP Minister of Finance

March, 2014

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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 make 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-today monitoring and supervision of the entire census operation at the national, provincial and districts levels, respectively.

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

I would further like to thank the 2010 Census Secretariat, in particular the former Deputy Director in charge of Social Statistics, Mr. William C. Mayaka, Mr. Iven Sikanyiti (Current Deputy Director in charge of Social Statistics), the former Census Manager, Mr. Richard Banda and the Current Census Manager, Ms. Nchimunya Nkombo, Mr. Palver Sikanyiti (Deputy Census Manager), Mr. Modesto Banda (former Deputy Director - Agriculture and Environment Statistics), Mr. Peter Mukuka (former Deputy Director - Information, Research and Dissemination), Mr. Goodson Sinyenga (Deputy Director - Economic Statistics) and other members of the Secretariat for their dedication and hard work during the most challenging and difficult stages of the Census. Special recognition goes to the Census analysis team for the tireless work of putting this report together.

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

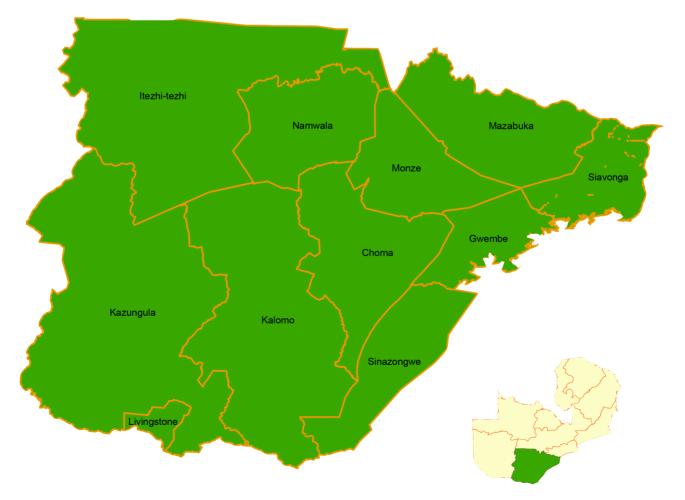
I hope all stakeholders and data users will make effective use of this Analytical Report.

John Kalumbi Director Census and Statistics

March, 2014

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Chapter 1 Provincial Profile: Southern Province



1.0 Introduction

Southern Province covers an area of 85,283 square kilometers, which is about 11.3 percent of the total area of Zambia. The province has the fifth largest land area and the fourth highest concentration of people in Zambia.

1.1 Administration

Southern Province is administratively divided into eleven districts, namely: Choma, Gwembe, Itezhi Tezhi, Kalomo, Kazungula, Livingstone, Mazabuka, Monze, Namwala, Siavonga and Sinazongwe. At the time of the 2010 census, Southern Province had 19 constituencies and 192 wards. Livingstone was the provincial capital and home to Zambia's premier tourist attraction, the Victoria Falls.

1.2 Natural Resources

The vegetation for Southern Province is mainly made up of savannah woodlands and grasslands. Southern Province lies in the low rainfall zone of the country with temperatures ranging from 14 degrees Celsius to 35 degrees Celsius. The soil type is mostly sandy loam which is plateau soil although Kalahari sands are found in the western parts of the province. Topographically, the Province is divided into four areas which are valley, plateau, escarpment and Kafue flats. There are four main rivers in the province, namely the Zambezi, Kafue, Kalomo and Ngwezi Rivers. There are also two man-made lakes namely Kariba and Itezhi Tezhi. Kariba Dam is the world's second largest manmade lake.

The Victoria Falls, one of the most spectacular waterfalls in the world and the highest in Africa, at almost 2 kilometers across and over 100 meters high is situated approximately 11 kilometers southwest of Livingstone.

Southern Province has some of Zambia's best wildlife and game reserves affording the country with abundant tourism potential. The Mosi-ao-Tunya National Park stretches from the Victoria Falls up the Zambezi River. The Park is divided into two sections; a game park along the riverbank and the staggering Victoria Falls, each with separate entrances. Wildlife here includes antelope, zebra, wildebeest, giraffe, warthog, elephant and the only white rhino in Zambia. The Kafue national park, shared with Central and North Western Provinces, has a huge flood plain and an important wildlife habitat principally for Lechwe, aquatic life and other birds. It has one of the most prolific animal populations in Africa. The park stretches from the untouched Busanga plains and wetlands in the north to the Itezhi Tezhi Dam in the south, traversed by the Kafue River which flows through the heart of the park.

1.3 Languages

English is the official language of communication and instruction in Zambia. The main local languages of communication in Southern Province are Tonga, Nyanja, Lozi, Toka-leya and Ila. Tonga is spoken by the majority in Southern Province. However, there are a number of other local languages spoken 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 strongly centralised health system in which the central structures provided support and national guidance to the peripheral structures to a more decentralized system.

In 2010, Southern Province's health system had a total of 254 health facilities. This was an increase from 211 health facilities in 2000. The health system comprises of 2 General hospitals, 14 District hospitals, 208 Urban and Rural Health Centres and 30 Health Posts (Ministry of Health, 2011).

Table 1.1: Number	uber of Health Facilities by Facility Type, Ownership and District, Southern Province 2010											
							rict					
Type of Facility	Total	Choma	Gwembe	ltezhi tezhi	Kalomo	Kazun- gula	Living- stone	Maza- buka	Monze	Namwala	Siavonga	Sinazon- gwe
Level 3 Hospital	0	0	0	0	0	0	0	0	0	0	0	0
Level 2 Hospital	2	0	0	0	0	0	1	0	1	0	0	0
Level 1 Hospital	14	2	1	1	2	0	1	3	0	1	2	1
(UHCs)	34	4	0	0	2	0	15	11	1	1	0	0
(RHCs)	173	26	9	11	27	12	0	29	21	11	14	13
Health Posts (HPs)	31	5	1	1	4	8	1	8	3	0	0	0
Total	254	37	11	13	35	20	18	51	26	13	16	14
Ownership												
GRZ	217	29	10	13	30	17	17	37	24	13	14	13
Mission	24	6	1	0	5	3	0	5	2	0	2	0
Private	13	2	0	0	0	0	1	9	0	0	0	1
Total	254	37	11	13	35	20	18	51	26	13	16	14
Source: Ministry of H	lealth											

Zambia, like many Sub-Saharan countries, has high morbidity and mortality. The 2007 Zambia Demographic and Health Survey estimated the HIV prevalence at 14.5 percent in Southern Province. Women had a higher prevalence than men at 15.8 and 13.2 percent, respectively.

Southern Province had the lowest infant mortality rate compared to other provinces in the country. The infant mortality rate was 53 deaths per 1000 live births.

1.6 Economy

Southern Province's economy is primarily driven by Agriculture, Tourism and Mining. In the agriculture sector, Southern province has abundant natural resources such as land, water and fertile soils which boost the agriculture sector. Major crops grown include; maize, cassava, sorghum, soya-beans, cotton and sugarcane. Sugar is one of the country's most valuable export commodities, and is processed for the domestic market as well as regional and international markets. Zambia Sugar Plc is based at the Nakambala Estate in the Mazabuka District of the Southern Province. It is the largest sugar manufacturer in Zambia and employs more people while over a thousand are employed by small-scale sugar cane growers. The company also manufactures a range of sugar based speciality products. There is also substantial dairy, game ranching and a number of agro-processing operations in Choma District. Medium scale ginneries were also established to support the cotton industry in Kalomo and Sinazongwe districts.

With regard to the mining sector, Oil, gas and uranium were the major mining products produced in Southern Province by the Zambian government and other private companies (Ministry of Mines and Minerals Development, 2010). Maamba Collieries Limited (MCL) is Zambia's largest coal supplier and currently mines two open cast mines in the Kanzize and Izuma basins in Southern Province. In 2008, operations at the coal mine were revamped in order to transform it into a viable business entity and improve coal supply for enhanced industrial production. In addition to emeralds, Zambia possesses a number of other precious stones, such as amethyst, of which the country boasts the largest deposits in Africa. The Kariba Amethyst Mine continues to deliver noteworthy production volumes of amethyst.

Tourism has been singled out by government as one of the priority sectors for investment because it is a labour-intensive industry and has numerous linkages to other sectors of the economy. The Victoria Falls situated in the tourism capital Livingstone serves as a growth point for development activities. The renowned Victoria Falls is one of the seven natural wonders of the world as well as a world heritage site. Sites with attractive natural settings are also readily available in national parks and game management areas, with the Kafue National Park the largest potential tourism resource.

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 sevenyear 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 Southern Province had 1,138 basic schools while 101 were recorded as secondary schools. The Province had recorded improvements in the education sector contributing to high enrolment levels of both girls and boys at primary, basic and high school levels (Source: Ministry of Finance and National Planning, Annual Economic Report, 2010). There are also a number of institutions offering tertiary education such as Livingstone Trades Training Institute, David Livingstone Teacher's training college, Choma Trades Training Institute and various nursing schools.

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

The 2006 and 2010 living conditions monitoring survey results shows that despite the decrease in the level of poverty in the Province, the majority of people in Southern Province have continued to live in poverty. The proportion of the population falling below the poverty line reduced from 73.1 percent in 2006 to 67.9 percent in 2010. The percent of extremely poor decreased from 50.9 percent in 2006 to 47.3 percent in 2010.

Table 1.2: Overall and Extreme Poverty by Rural/Urban, Southern Province 2006 and 2010									
Province/									
Rural-Urban	Rural-Urban Overall % Extreme % Overall % Extreme %								
Southern	73.1	50.9	67.9	47.3					
Rural 81.9 59.8 77.8 56.2									
Urban 40.8 18.5 33.9 16.9									
Source: CSO:	Living Condition	ns Monitoring St	atistics, 2006 ar	nd 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 The Main Objectives of the Census of Population and Housing

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

- To provide accurate and reliable information on the size, composition and distribution of the population of Zambia at the time of the census;
- To provide information on the demographic and socioeconomic characteristics of the population of Zambia at the lowest administrative level – the 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-censual 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 etc.

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 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 2-5 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

Southern Province's population in 2010 was 1,589,926. This was an increase from 1, 212,124 in 2000.

The population grew at an average annual rate of 2.8 percent during the 2000-2010 inter-censal period. This average annual rate was higher than 2.3 percent recorded in 1990-2000 inter-censal period.

In 2010, 75.3 percent of the population was residing in rural areas while 24.7 percent was residing in urban areas.

The province is sparsely populated with a population density of 18.6 persons per square kilometre. The most densely populated district in 2010 was Livingstone with 200.7 persons per square kilometre while Itezhi Tezhi was the most sparsely populated with 4.3 persons per square kilometre.



2.1 Introduction

This chapter presents an analysis of the population size, growth and distribution for Southern Province in 2010. 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.

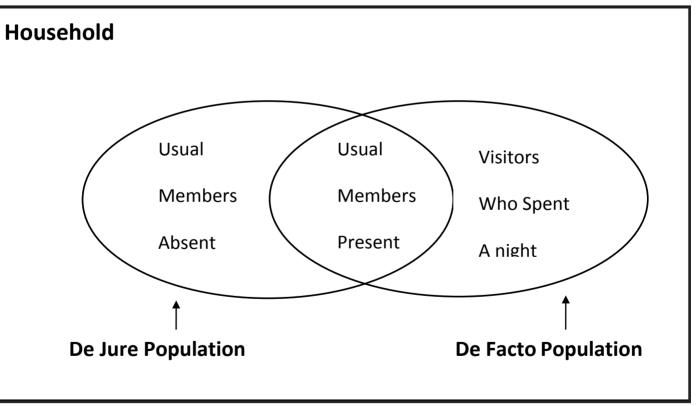
De jure Population

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 diagrammatic picture of the de facto and de jure populations.

De Jure and De facto Populations

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

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



Population Growth Rate

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

2.3 Population Size

This is the absolute number of people that was enumerated at the time of the census. Table 2.1 shows trends and percent change in population size for Southern Province by rural/urban from 1990 to 2010. The population of Southern Province increased from 965,591 in 1990 to 1,212,124 in 2000 and 1,589,926 in 2010. This represented a percentage change of 31.2 percent between 2000 and 2010.

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

Durrel /Urb en	1990-2000				2000-2010			
Rural/Urban	1990 2000		Percent change	2000 2010		Percent Change		
Southern Province	965,591	1,212,124	25.5	1,212,124	1,589,926	31.2		
Rural	745,006	955,628	28.3	955,628	1,197,751	25.3		
Urban	220,585 256,856 16.4 256,856 392,175 52.7							
Sources: 1990, 2000 an	Sources: 1990, 2000 and 2010 Censuses of Population and Housing.							

The rural population increased from 955,628 to 1,197,751, representing a percent change of 25.3 in the 2000-2010 period. The urban population increased by 52.7 percent between 2000 and 2010.

Table 2.2 shows the percent distribution of the population by sex and rural/urban for Southern Province. There were 779,659 males and 810,267 females in Southern Province. This represented 49.0 percent for males and 51.0 percent for females of the total population.

Demail (Units and	Total Population Male Population Female Population						
Rural/Urban	Number	Percent	Number	Percent	number	Percent	
Southern Province	1,589,926	100	779,659	49.0	810,267	51.0	
Rural	1,197,751	100	587,448	49.0	610,303	51.0	
Jrban	392,175	100	192,211	49.0	199,964	51.0	

Table 2.3 shows the distribution of the total population by sex, rural/urban and district in Southern Province. Kalomo District

had the largest population at 258,570 while the smallest population was recorded in Gwembe District at 53,117.

Table 2.3: Total Po	Table 2.3: Total Population (De Jure) by Sex, Rural/Urban and District, Southern Province 2010.								
District		Total			Rural			Urban	
DISILICI	Total	Male	Female	Total	Male	Female	Total	Male	Female
Southern Province	1,589,926	779,659	810,267	1,197,751	587,448	610,303	392,175	192,211	199,964
Choma	247,860	120,689	127,171	189,035	92,145	96,890	58,825	28,544	30,281
Gwembe	53,117	25,908	27,209	50,355	24,606	25,749	2,762	1,302	1,460
Itezhi Tezhi	68,599	34,017	34,582	54,741	27,257	27,484	13,858	6,760	7,098
Kalomo	258,570	125,767	132,803	240,791	117,177	123,614	17,779	8,590	9,189
Kazungula	104,731	51,994	52,737	101,638	50,490	51,148	3,093	1,504	1,589
Livingstone	139,509	68,763	70,746	5,160	2,679	2,481	134,349	66,084	68,265
Mazabuka	230,972	114,783	116,189	156,491	77,685	78,806	74,481	37,098	37,383
Monze	191,872	93,958	97,914	149,982	73,485	76,497	41,890	20,473	21,417
Namwala	102,866	50,127	52,739	97,467	47,566	49,901	5,399	2,561	2,838
Siavonga	90,213	44,444	45,769	64,796	32,042	32,754	25,417	12,402	13,015
Sinazongwe	101,617	49,209	52,408	87,295	42,316	44,979	14,322	6,893	7,429
Source: 2010 Census	of Population a	and Housing.							

Livingstone District had the largest urban population at 134,349 and Gwembe District had the smallest urban population at 2,762. Kalomo District had the largest rural population at 240,791 and Livingstone District had the smallest rural population with 5,160. Table 2.4 shows population distribution by district and sex. In 2000, Choma District had the largest population at 204,898 while Kalomo District had the largest population in 2010 (258,570).

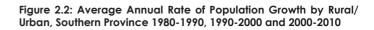
District		2000		2010			
District	Total	Male	Female	Total	Male	Female	
Southern Province	1,212,124	601,440	610,684	1,589,926	779,659	810,267	
Choma	204,898	100791	104,107	247,860	120,689	127,171	
Gwembe	34,133	16862	17,271	53,117	25,908	27,209	
Itezhi Tezhi	43,111	22170	20,941	68,599	34,017	34,582	
Kalomo	169,503	83175	86,328	258,570	125,767	132,803	
Kazungula	68,265	34178	34,087	104,731	51,994	52,737	
Livingstone	103,288	51828	31,460	139,509	68,763	70,746	
Mazabuka	203,219	102585	100,634	230,972	114,783	116,189	
Monze	163,578	80697	82881	191,872	93,958	97,914	
Namwala	82,810	40486	42324	102,866	50,127	52,739	
Siavonga	58,864	29171	29693	90,213	44,444	45,769	
Sinazongwe	80,455	39497	40958	101,617	49,209	52,408	

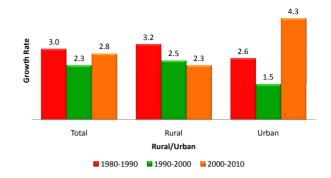
2.4 Population Growth

The population of Southern Province has continued to grow over the past three decades. Figure 2.2 shows the average annual population growth rate for Southern Province from1980-2010. The Province's population grew at an annual rate of 2.8 percent per annum during the 2000-2010 intercensal period. This was an increase from the rate of 2.3 percent recorded in the 1990-2000 period.

The urban population grew at a rate of 4.3 percent per annum from 2000-2010. This was an increase from 1.5 percent per annum recorded in 1990-2000 and 2.6 per annum in 1980-1990 inter-censal period. The rural population growth rate decreased from 3.2 in 1980-1990, 2.5 in 1990-2000 and to 2.3 percent in 2000-2010 period.

Table 2.5 shows the average annual rate of population growth for Southern Province by District.





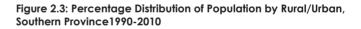
Source: 1980, 1990, 2000 and 2010 Censuses of Population and Housing.

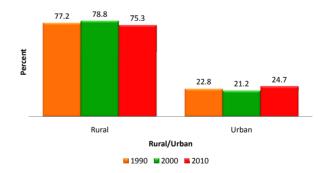
Rural/Urban	Population Size 2000	Population Size 2010	Annual Growth Rate (2000-2010)
Southern Province	1,212,124	1,589,926	2.8
Rural	955,628	1,197,751	2.3
Jrban	256,856	392,175	4.3
Choma	204,898	247,860	1.9
Gwembe	34,133	53,117	4.5
Itezhi Tezhi	43,111	68,599	4.8
Kalomo	169,503	258,570	4.4
Kazungula	68,265	104,731	4.3
Livingstone	103,288	139,509	3.1
Mazabuka	203,219	230,972	1.3
Monze	163,578	191,872	1.6
Namwala	82,810	102,866	2.2
Siavonga	58,864	90,213	4.4
Sinazongwe	80,455	101,617	2.4

Itezhi Tezhi District had the fastest growing population with an average annual population growth of 4.8 percent per annum in the 2000-2010 intercensal period. The District with the lowest growth rate was Mazabuka with an average annual population growth of 1.3 percent in the 2000-2010 inter censal period.

2.5 Population Distribution

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





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

Between 1990 and 2000, the rural population of Southern Province increased from 77.2 to 78.8 percent and reduced to 75.3 percent in 2010. The urban population made up 22.8 percent of the population in 1990, 21.2 percent in 2000 and 24.7 percent in 2010.

In 2010, Kalomo District had the highest percentage of the provincial population at 16.3 percent while Gwembe District had the lowest at 3.3 percent. Between 2000 and 2010, the contribution of Kalomo District towards the provincial population increased by 2.3 percentage points.

Table 2.6 shows the percentage distribution of the population by rural/urban and district from 2000-2010.

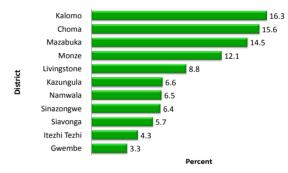
District and Rural/Urban	200	00	201	0	Percent Point
Disinci ana korai/orban	Population	Percent	Population	Percent	rercent roint
Southern Province	1,212,124	100	1,589,926	100	
Rural	955,628	78.8	1,197,751	75.3	-3.5
Urban	256,856	21.2	392,175	24.7	3.5
District					
Choma	204,898	16.9	247,860	15.6	-1.3
Gwembe	34,133	2.8	53,117	3.3	0.5
Itezhi Tezhi	43,111	3.6	68,599	4.3	0.7
Kalomo	169,503	14.0	258,570	16.3	2.3
Kazungula	68,265	5.6	104,731	6.6	1.0
Livingstone	103,288	8.5	139,509	8.8	0.3
Mazabuka	203,219	16.8	230,972	14.5	-2.2
Monze	163,578	13.5	191,872	12.1	-1.4
Namwala	82,810	6.8	102,866	6.5	-0.4
Siavonga	58,864	4.9	90,213	5.7	0.8
Sinazongwe	80,455	6.6	101,617	6.4	-0.2

Figure 2.4 shows the percent distribution of the population of Southern Province by district. Choma district had the largest population in the province at 204,898 in 2000 while Kalomo had the largest population in 2010 at 258,570.

2.6 Population Density

Population density is defined as the total number of persons per square kilometer. Table 2.7 shows Southern Province's area and population density by district in 2000 and 2010. Southern province has a total surface area of 85,283 square kilometers.

The province was sparsely populated with a population density of 18.6 persons per square kilometre. In 2010, Livingstone had the highest population density of 200.7 persons per square kilometre. Itezhi-Tezhi was the least densely populated district at 4.3 persons per square kilometre. Figure 2.4: Percentage Distribution of Population by Districts, Southern Province 2010.



Source: 2010 Census of Population and Housing.

District		Denvietien	Population Density (Population per Sq. Km)		
	Area (Sq.Km)	Population	2000	2010	
Southern Province	85,283	1,589,926	14.2	18.6	
Choma	7296	247,860	28.1	34.0	
Gwembe	3,879	53,117	8.8	13.7	
Itezhi Tezhi	16,064	68,599	2.7	4.3	
Kalomo	15,000	258,570	11.3	17.2	
Kazungula	16,835	104,731	4.1	6.0	
Livingstone	695	139,509	148.6	200.7	
Mazabuka	6,242	230,972	32.6	37.0	
Monze	4,854	191,872	33.7	39.5	
Namwala	5,687	102,866	14.6	18.1	
Siavonga	3,871	90,213	15.2	23.3	
Sinazongwe	4,860	101,617	16.6	20.9	

Source: 2000 and 2010 Censuses of Population and housing.

CHAPTER 3 POPULATION COMPOSITION AND DEMOGRAPHIC CHARACTERISTICS

3.0 Summary

Southern Province has a young population with 47.5 percent of persons aged below 15 years. The median age was 15.9 years. The median age was higher in urban areas at 18.8 years compared to 15.0 years in rural areas.

The Overall Dependency Ratio was 99.8 persons per 100 persons aged between15 and 64 years. Child and Aged Dependency Ratios were 94.8 and 5.0, respectively.

The overall sex ratio was 96.2 males per 100 females, while the sex ratio at birth was 102.5 males per 100 females.

Chapter 3 Population Composition and Demographic Characteristics



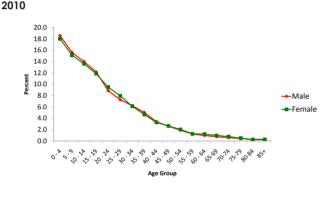
3.1 Population Composition

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 percent age distribution by sex for the province in 2010. The distribution shows high percentages in the younger ages. The percentage decreases with increase in age.

Figure 3.1: Percent Age Distribution by Sex, Southern Province



Source: 2010 Census of Population and Housing

A comparison between the sexes shows minimal differences in the percent age distribution, with an exception of the population aged 20-34 years. This age group had fewer males than females.

Figure 3.2 presents the age distribution by rural/urban. A comparison of the percent age distribution shows a higher percent of the population aged 0-14 years in rural areas. However, the proportion of the population aged 15-39 years in urban areas was higher than that of rural areas. This is also depicted in the population pyramid in Figure 3.2.1.

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

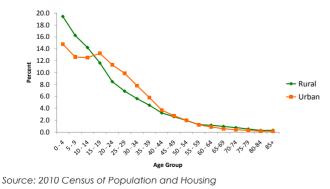
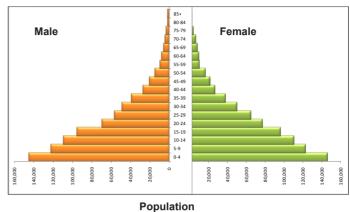


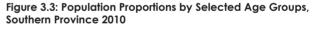
Figure 3.2.1: Population Age and Sex Structure, Southern Province 2010

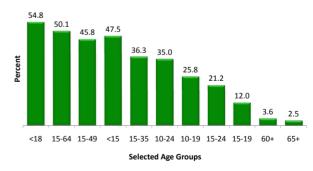


Source: 2010 Census of Population and Housing

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

Figure 3.3 shows the population proportions by selected age groups. The population aged below 18 years had the highest percent at 54.8. The elderly population aged 65 years and older had the lowest percent at 2.5. The population aged 15-24 and 15-35 had proportions of 21.2 and 36.3 percent, respectively.

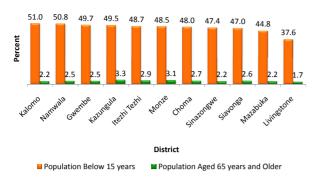




Source: 2010 Census of Population and Housing

Figure 3.4 shows the percent distribution of children aged below 15 years and the elderly (65 years and older) by District. Kalomo District had the highest percent of children below 15 years at 51.0 percent while Livingstone District had the lowest at 37.6 percent.

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



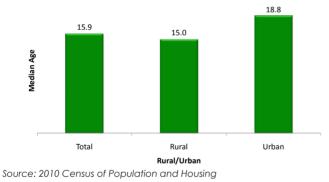
Source: 2010 Census of Population and Housing

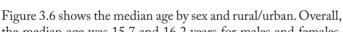
3.3 Median Age

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

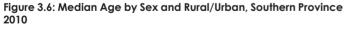
Figure 3.5 shows the median age for Southern province by rural/ urban. The median age was 15.9 years in 2010. In urban areas, the median age was 18.8 years while in rural areas it was 15.0 years.

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





the median age was 15.7 and 16.2 years for males and females, respectively. In urban areas, the median age for males was higher than that of females (19.1 and 18.5 years, respectively). In rural areas, the median age for females was higher than that of males at 15.4 and 14.6 years, respectively.



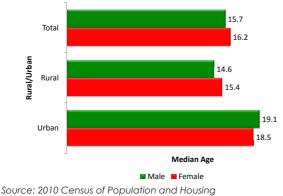
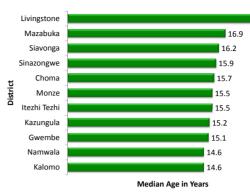


Figure 3.7 shows the median age by District. The median age ranged from 14.6 years in Kalomo District to 19.9 years in Livingstone District

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Source: 2010 Census of Population and Housing

3.4 Age Dependency Ratios

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

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

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

Table 3.1 shows age dependency ratio in 1990, 2000 and 2010. The Overall Dependency Ratio was 99.8 per 100 persons aged 15-64 years; while the Child and Aged Dependency Ratios stood at 94.8 and 5.0 persons for every 100 persons aged 15-64 years, respectively in 2010. The Overall and Child Dependency Ratios have increased from 2000 while the Aged Dependency Ratio has declined.

	2000 and 2010								
	Age Dependency Ratios	1990	2000	2010					
Southern	Overall Dependency Ratio	99.6	97.8	99.8					
Province	Child Dependency Ratio	94.9	88.6	94.8					
Aged Dependency Ratio 4.7 9.1 5.0									
Sources: 19	Sources: 1990, 2000 and 2010 Censuses of Population and Housing								

Table 3.2 shows the Overall, Child and Aged Dependency Ratios by District. Namwala District had the highest Overall Age Dependency Ratio while Livingstone District had the lowest, 114.1 and 64.8 persons, respectively.

Table 3.2: Overall, Child and Aged Dependency Ratios by Dis-trict, Southern Province 2010								
District	Age Dependency Ratios							
DISTICT	Overall	Child	Aged					
Choma	102.9	97.5	5.4					
Gwembe	109.0	103.8	5.2					
Itezhi Tezhi	106.5	100.5	6.0					
Kalomo	113.5	108.8	4.7					
Kazungula	111.9	104.8	7.0					
Livingstone	64.8	62.0	2.8					
Mazabuka	88.8	84.6	4.2					
Monze	106.6	100.3	6.3					
Namwala	114.1	108.8	5.3					
Siavonga	98.5	93.3	5.1					
Sinazongwe	98.6	94.2	4.4					
Cause at 0010 Car	aux of Dopulation o							

Source: 2010 Census of Population and Housing

3.5. Sex Composition

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

Another indicator analysed is sex ratio at birth, which is the ratio of males per 100 females at birth. The percent deficit male has been used to show the percent at which males are fewer than females. A negative value shows a deficit of males while a positive value shows an excess of males

3.5.1 Sex Ratio and Percent Deficit of Males

Table 3.3 shows sex ratio and percent deficit of males by rural/ urban and District. Southern Province had fewer males per 100 females, with a sex ratio of 96.2. This indicates that a deficit of males amounts to 1.9 percent of the total population.

Mazabuka District had the highest sex ratio at 98.8 males per 100 females, a 0.6 percent deficit of males. Sinazongwe District had the lowest sex ratio at 93.9 males per 100 females, translating into a 3.1 percent deficit of males.

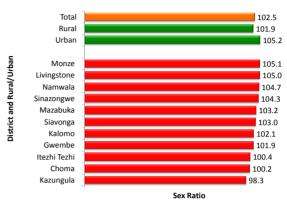
Table 3.3: Sex Ratio and Percent Deficit of Males by Rural/Urban and District, Southern Province, 2010			
Region/ District	Sex Ratio	Percent Male Deficit	
Southern Province	96.2	-1.9	
Rural	96.3	-1.9	
Urban	96.1	-2.0	
District			
Choma	94.9	-2.6	
Gwembe	95.2	-2.4	
Itezhi Tezhi	98.4	-0.8	
Kalomo	94.7	-2.7	
Kazungula	98.6	-0.7	
Livingstone	97.2	-1.4	
Mazabuka	98.8	-0.6	
Monze	96.0	-2.1	
Namwala	95.0	-2.5	
Siavonga	97.1	-1.5	
Sinazongwe	93.9	-3.1	
Source: 2010 Census of	Population and Housing		

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 Southern Province was 102.5 males per 100 females. In rural and urban areas, the sex ratio at birth was 101.9 and 105.2 males per 100 females, respectively.

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



Source: 2010 Census of Population and Housing

Monze District had the highest sex ratio at birth at 105.1 males per 100 females while Kazungula District had the lowest at 98.3 males per 100 females.

CHAPTER 4 SOCIAL CHARACTERISTICS

4.0 Summary

In the 2010 Southern Province had 785,215 persons aged 15 years and older. Of these 54.3 percent were married. Rural areas had a higher proportion of the population aged 15 years and older that were married (57.2 percent) compared to urban (47.0 percent).

For the population aged 15 years and older, the median age at first marriage was 20.7 years. The median age at first marriage was lower in rural areas at 20.4 years compared to urban areas at 22.4 years. Males had a higher median age at first marriage than females at 23.5 years and 19.1 years, respectively.

In 2010, Southern Province had 292,179 households. There were more households in rural than urban areas at 211,077 and 81,102, respectively. The average household size in 2010 was 5.4 persons. Male headed households had a larger average household size at 5.7 than female headed households with 4.6 persons.

In terms of Religious affiliation, Protestants and Catholics made up 86.2 percent and 11.0 percent of the population, respectively. Muslims and other religious affiliation made up 1.4 percent of the population.

The percentage of population aged below 18 years that had birth Certificates was 10.1 percent. Of the population aged 16 years and older, 82.1 percent had Green National Registration Cards.

More than half (64.1 percent) of the population aged 18 years and older had registered as voters at the time of the census.

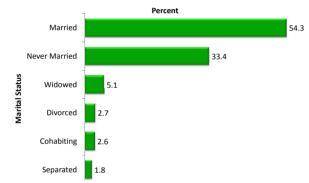
Chapter 4 Social Characteristics

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 aged 15 years and older in Southern Province was 785,215. Of these 374,339 were males and 410,876 were females

Figure 4.1 presents the percent distribution of population aged 15 years and older by marital status. The figure shows that 54.3 percent of the population aged 15 years and above were married and 33.4 percent had never been married. The widowed and divorced made up 5.1 percent and 2.7 percent, respectively.

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



Source: 2010 Census of Population and Housing

Figure 4.2 shows the percent distribution of the population aged 15 years and older by marital status and rural/urban. The percent of the married aged 15 years and older was higher in rural areas at 57.2 percent compared with urban areas at 47.0 percent. Urban areas had a higher percent of the population aged 15 years and older that had never married at 41.2 percent when compared to rural areas at 30.3 percent.

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

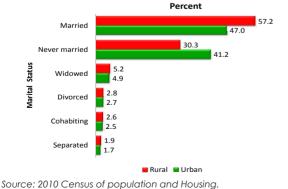
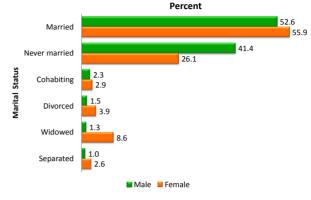


Figure 4.3 show the percent distribution of the population aged 15 years and older by marital status and sex. There were more males who had never been married at 41.4 percent compared to females at 26.1 percent. More females were widowed (8.6 percent) compared to males at 1.3 percent.

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



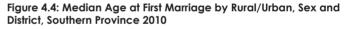
Source: 2010 Census of Population and Housing

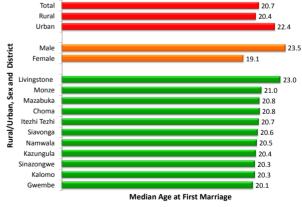
4.2 Median Age At First Marriage

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 sex, rural/ urban and district. The median age at first marriage for Southern Province was 20.7 years for the population aged 15 years and older. The median age at first marriage was 20.4 years in rural areas and 22.4 years in urban areas. The median age for males was 23.5 years while that of females was 19.1 years.

Livingstone District had the highest median age at first marriage (23.0 years), while Gwembe had the least with 20.1 years.





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.

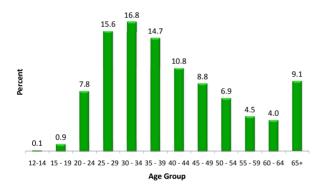
A Usual household member is a person who has been living in the household for at least 6 (six) months or has joined the household and intends to live with the household for six months or longer.

4.3.1 Household and Household Headship

In 2010, there were 292,179 households in Southern province. There were more households in the rural than urban areas at 211,077and 81,102 respectively. Household heads made up 18.4 percent of the Southern province population.

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 16.8 percent. Households headed by persons aged below 20 years made up a total of 1.0 percent.

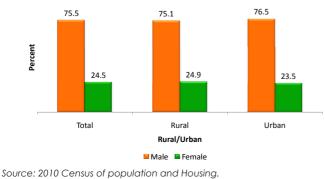
Figure 4.5 Percentage Distribution of Household Heads by Age Group, Southern Province 2010



Source: 2010 Census of population and Housing.

Figure 4.6 shows the percentage distribution of household heads by Sex and rural/urban. The table shows that 75.5 percent of household in Southern province were male headed while 24.5 were female headed. In both rural and urban areas, the percentages of male headed households were higher than that of female headed households.

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



4.3.2 Household Size

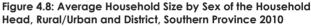
Figure 4.7 shows the average household size by rural/urban and district. The average household size in Southern Province was 5.4 persons. Rural areas had a higher average household size of 5.7 persons compared with 4.8 persons in the urban areas. At district level, the average household size was highest in Namwala at 6.2 persons and lowest in Livingstone at 4.6 persons.

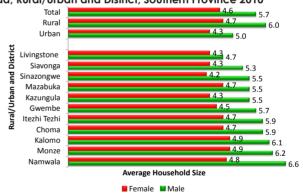
Figure 4.7: Average Household Size by Rural/Urban and District Southern Province 2010



Source: 2010 Census of population and Housing.

Figure 4.8 shows the average household size by sex of household head, rural/urban and district. Male headed households had a higher average household size of 5.7 than female headed households with 4.6 persons.

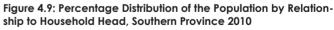


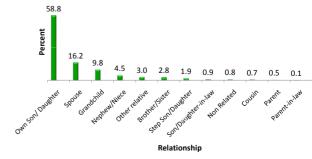


Source: 2010 Census of population and Housing.

4.3.3 Relationship To Head

Figure 4.9 shows that, in 2010, 58.8 percent of the persons enumerated in the households were biological children of the head of household, while 16.2 and 9.8 percent were spouses and grand children of the heads of households, respectively.



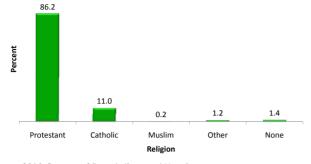


Source: 2010 Census of population and Housing

4.4 Religion

Figure 4.10 shows the percent distribution of the population by religious affiliation. In 2010, 86.2 percent of the total population in Southern province were Protestants while 11.0 percent were Catholics.

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



Source: 2010 Census of Population and Housing

4.5 Birth Certificates

Figure 4.11 shows the percent distribution of persons aged less than 18 years with or without birth certificates or who did not know whether they had birth certificates. In 2010, 10.1 percent of the population aged less than 18 years in Southern province had birth certificates. The percentage of those with birth certificates was higher in urban areas than in rural areas at 23.1 and 6.5 percent, respectively.

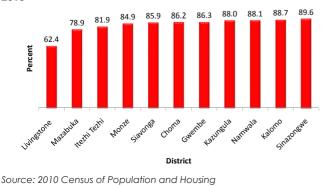
Figure 4.11: Percentage Distribution of the Population Aged Below 18 Years With or Without Birth Certificates by Rural/Urban, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 4.12 shows the distribution of persons aged below 18 years without Birth certificates by district. Sinazongwe District had the highest percentage of persons without birth certificates at 89.6 percent while Livingstone district had the lowest at 62.4 percent.

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

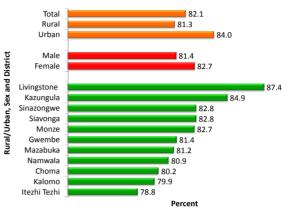


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4.6 Holders Of Green National Registration Cards

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 persons aged 16 years and older with green NRC by rural/urban, sex and district. In 2010, 743,872 citizens in Southern Province were aged 16 years and older. Of these, 82.1 percent had NRCs.

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



Source: 2010 Census of Population and Housing

Urban areas had a higher percentage with green NRCs at 84 percent compared to rural areas at 81.3 percent. Livingstone District had the highest percentage with green NRCs at 87.4 percent.

4.7 The Voting Population

There were a total of 675,974 eligible voters (18 years and older) of which 433,601 were registered.

Table 4.1 shows the percenage distribution of eligible and registered voters by rural/urban and sex. In rural and Urban areas, 73.1 and 26.9 percent were registered voters, respectively.

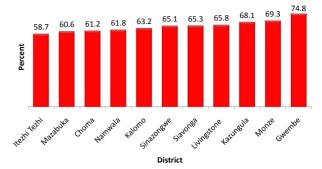
ers (Persons Aged 18 Years and Older) by Rural/Urban and Sex, Southern Province 2010			
Rural/Urban and Sex	Eligible Voters(18 years and older)	Registered voter	
Southern Province	675,974	433,601	
Rural	71.3	73.1	
Urban	28.7	26.9	
Sex			
Male	47.4	47.9	
Female	52.6	52.1	
Source: 2010 Census of	Population and Housina		

Table 4 1: Percentage Distribution of Eligible and Persistered Vet

Source: 2010 Census of Population and Housing

Figure 4.14 shows the percentage of registered voters among eligible voters by district. The proportion of registered voters was highest in Gwembe District at 74.8 percent and the lowest was in Itezhi Tezhi with 58.7 percent.

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



Source: 2010 Census of Population and Housing

CHAPTER 5 EDUCATION CHARACTERISTICS

5.0 Summary

The literacy rate at provincial level was 71.2 percent. Literacy rates for rural and urban areas were 66.5 and 84.5 percent, respectively. Males had a higher literacy rate (73.1 percent) than females (69.3 percent). Of the population aged 5 years and older, 36.6 percent were currently attending school. The provincial net primary and secondary school attendance rates were 77.6 percent and 44.7 percent, respectively. The net primary school attendance rate was 76.3 percent in rural areas and 82.1 percent in urban areas. At secondary level, net secondary school attendance rate was 37.4 percent in rural areas and 65.1 percent in urban areas.

The Gender Parity Index was 0.94 indicating that there are gender inequalities in school attendance for males and females. Rural and urban Gender Parity Index was 0.91 and 1.03, respectively.

Of the population aged 25 years and older that ever attended school, 53.9 percent had completed primary school, 34.1 percent had completed secondary school and 11.6 percent had completed tertiary education. In rural areas the completion rate was 66.4 percent, 27.7 percent and 5.4 percent for primary, secondary and tertiary education. In urban the highest completion rate was for secondary at 48.1 percent followed by primary at 26.5 percent. Urban areas recorded the highest completion rate for tertiary education at 25.1 percent.

Sex differentials shows that a high percent for females (61.6 percent) have completed primary education compared to 46.4 percent for males. At secondary and tertiary levels males had higher completion rates of 39.2 and 14.1 percent, respectively. Females had completion rates of 28.9 percent for secondary and 9.0 percent for tertiary.



5.1 Introduction

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

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

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

5.2: Concepts And Definitions

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 overage enrolment, the ratio can be over 100 percent. This indicator is mainly used to measure the absorption capacity of an education system at any designated level.

Net School Attendance

The net school attendance rate measures the percentage of the school-age population that is attending a designated level of education. This indicator is much more refined than the gross attendance 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 rates of person aged 5 years and older by sex and rural/urban in 2000 and 2010. At provincial level, the percentage of persons aged 5 years and older that were literate was 71.2 percent. This was an increase of 15.0 percent from 56.2 percent in 2000. The literacy rate for males was higher (73.1 percent) than that of females (69.3 percent). The literacy rates in rural and urban areas increased for both males and females between 2000 and 2010.

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

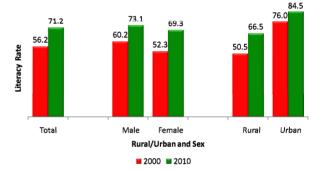




Figure 5.2 shows literacy rates of the population aged 5 years and older by district. The districts with the highest literacy rate in 2010 were Livingstone and Monze with 88.3 and 75.7 percent respectively. Gwembe District had the lowest literacy rate at 58.3 percent.

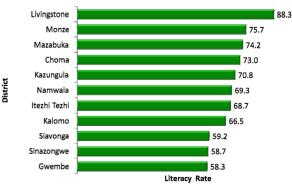


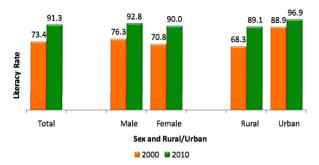
Figure 5.2: Literacy Rate of Population Aged 5 Years and Older by District, Southern Province 2010

Source: 2010 Census of Population and Housing

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

Youth literacy is one of the indicators used to assess the achievement of the universal primary education. Figure 5.3 shows literacy rates for the population aged 15 to 24 by sex and rural/urban. At provincial level youth literacy was 91.3 percent in 2010. This was an increase from 73.4 percent in 2000. Between 2000 and 2010, literacy rates for males and females increased by 16.5 percentage points for males and 19.2 percentage points for females. The literacy rates for both rural and urban areas increased between 2000 and 2010.

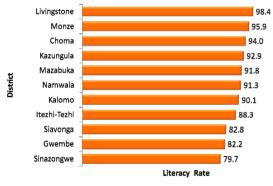
Figure 5.3: Literacy Rates for Youth Population (15 to 24 Years) by Sex and Rural/Urban, Southern Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.4 shows the literacy rates for the youth population aged 15 to 24 years by district. Livingstone District had the highest youth literacy rate (98.4 percent) while Sinazongwe District had the lowest (79.7 percent).

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

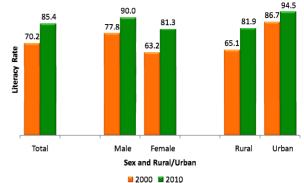


Source: 2010 Census of Population and Housing

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

Figure 5.5 shows Literacy rates for the Adult population (15 years and older) by sex and rural/urban. The Adult literacy rate at provincial level increased from 70.2 percent in 2000 to 85.4 percent in 2010. Adult literacy rates 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, Southern Province 2000 and 2010

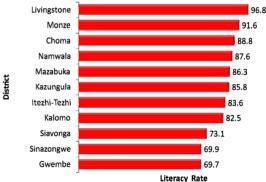


Source: 2000 and 2010 Censuses of Population and Housing

In 2010, the adult literacy rate for urban areas was higher (94.5 percent) than that of rural areas (81.9 percent). The percentage increase in the adult literacy rate between 2000 and 2010 was higher in rural (16.8) than urban areas (7.8).

Figure 5.6 shows literacy rate for Adult population (15 years and older) by district. Livingstone district had the highest adult literacy rate at 96.8 percent. It was followed by Monze District at 91.6 percent. Gwembe District had the lowest adult literacy rate at 69.7 percent.



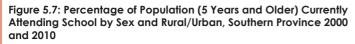


Source: 2010 Census of Population and Housing

5.4: School Attendance

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

Figure 5.7 shows the percent of the population aged 5 years and older that were currently attending school by sex and rural/ urban. At provincial level, 36.6 percent of the population was currently attending school in 2010. This was an increase from 28.8 percent in 2000.



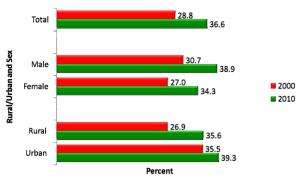
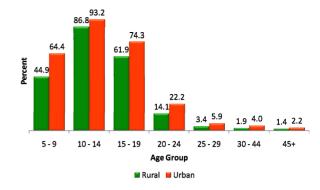


Figure 5.9: Percentage Distribution of the Population (5 Years and Older) Currently Attending School by Age Group and Rural/Urban, Southern Province 2010



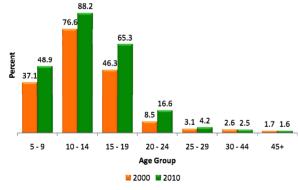
Source: 2000 and 2010 Censuses of Population and Housing

Source:2010 Census of Population and Housing

In rural and urban areas the percentage of the population aged 5 years and older that was currently attending school in 2010 was 35.6 and 39.3 percent, respectively. This shows an increase of 8.7 percent in rural areas compared to 3.8 percent in urban areas. The percentage of males currently attending school increased from 30.7 percent in 2000 to 38.9 percent in 2010 while current attendance for females increased from 27.0 percent in 2000 to 34.3 percent in 2010.

Figure 5.8 shows the percentage of the population aged 5years and older currently attending school by 5 year age groups. 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 had the highest population currently attending school at 88.2 percent in 2010. This shows an increase of 11.6 percentage points from 76.6 percent in 2000. The percentage of the population currently attending school for the age group 15-19 years increased from 46.3 percent in 2000 to 65.3 percent in 2010.

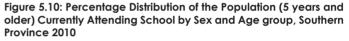
Figure 5.8: Percentage Distribution of the Population Currently Attending School by 5 Year Age Group, Southern Province 2000 and 2010

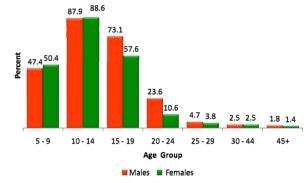


Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.9 shows the percent distribution of the population (5 years and older) currently attending school by age group and rural/urban. Across all age groups, the population currently attending school was higher in urban than in rural areas. The age group 10-14 had the highest proportion of the population currently attending school in both rural and urban areas at 86.8 and 93.2 percent, respectively.

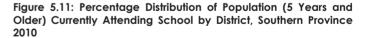
Figure 5.10 shows the percent distribution of the population currently attending school by sex and age group. There were more females currently attending school in younger age groups (5-9 and 10-14 years) than males. The age group 10-14 had the highest percentage of the population currently attending school for both males and females at 87.9 and 88.6 percent, respectively.

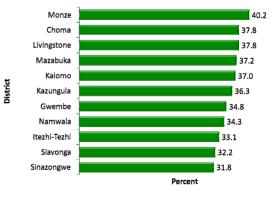




Source: 2010 Census of Population and Housing

Figure 5.11 shows percent of population aged 5 years and older that was currently attending school by district. Monze district had the highest proportion of the population that was currently attending school at 40.2 percent while Sinazongwe district had the lowest at 31.8 percent.



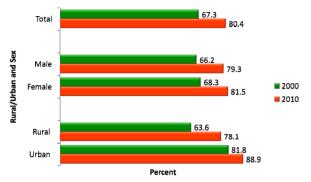


Source: 2010 Census of Population and Housing

5.4.1 Primary School Attendance

Figure 5.12 shows the percentage of the population aged 7 to 13 years that was currently attending school by sex and rural/urban. Primary school attendance rate increased from 67.3 percent in 2000 to 80.4 percent in 2010. In 2010, 78.1 percent of the population aged 7 to 13 years was currently attending in rural areas, compared to 88.9 percent in urban areas.

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

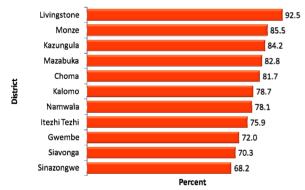


Source: 2000 and 2010 Censuses of Population and Housing

Primary school attendance rate for males increased from 66.2 percent in 2000 to 79.3 percent in 2010 while attendance rate for female increased from 68.3 percent in 2000 to 81.5 percent in 2010.

Current primary school attendance rates by district are shown in Figure 5.13. Livingstone District had the highest proportion of the population currently attending school (92.5 percent) while Sinazongwe District had the lowest (68.2 percent).

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

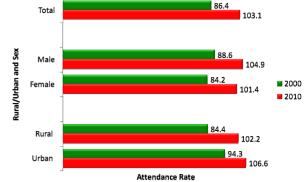


Source: 2010 Census of Population and Housing

5.4.2 Gross Primary School Attendance Rate

Figure 5.14 shows Gross Primary School Attendance Rate. At provincial level the gross primary school attendance rate increased from 86.4 in 2000 to 103.1 in 2010. The gross attendance rate was higher in urban areas (106.6 percent) than in rural areas (102.2 percent). Males recorded higher gross primary school attendance rate at 104.9 than the females at 101.4 percent.

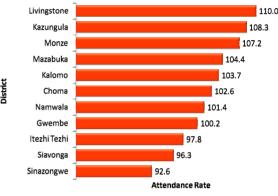
Figure 5.14: Gross Primary School Attendance Rate by Sex and Rural/Urban, Southern Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

Figure 5.15 shows the gross primary attendance rates by district. Livingstone district had the highest gross primary attendance rate at 110.0 percent followed Kazungula district 108.3. Sinazongwe district had the lowest gross primary attendance rate at 92.6 percent.





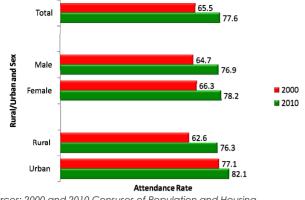
Source: 2010 Census of Population and Housing

5.4.3 Net Primary School Attendance Rate

Net primary school attendance rate shows the percentage of the primary school age population (7 to 13 years) currently attending primary grades (Grades 1 to 7). Figure 5.16 shows net primary attendance rates by sex and rural/urban. The net primary school attendance rates increased from 65.5 percent in 2000 to 77.6 percent in 2010. The increase in net primary school attendance rates means that the percentage of eligible primary school age children not in school declined from 34.5 percent in 2000 to 22.4 percent in 2010.

In rural areas the net primary school attendance rates increased from 62.6 percent in 2000 to 76.3 percent in 2010 while that of urban areas increased from 77.1 percent to 82.1 during the same period. Between 2000 and 2010, the net primary attendance rate for males increased from 64.7 percent to 76.9 percent and from 66.3 percent to 78.2 percent for females.





Sources: 2000 and 2010 Censuses of Population and Housing

Figure 5.17 shows net primary attendance rates by district. Livingstone District had the highest net primary attendance rate at 84.7 percent while Sinazongwe district had the lowest at 66.7 percent.



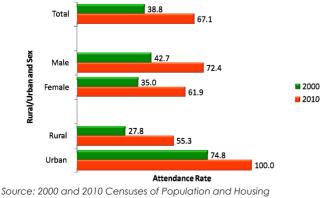


Source: 2010 Census of Population and Housing

5.4.4 Gross Secondary School Attendance Rate

In Zambia, the official secondary school age ranges from 14-18 years. Figure 5.18 shows Gross secondary attendance rates by sex and rural/urban. The national gross secondary school attendance for the population aged 14-18 years increased from 38.8 percent in 2000 to 67.1 percent in 2010. In rural areas secondary school attendance rates increased from 27.8 percent in 2000 to 55.3 percent in 2010 while in urban areas the increase was from 74.8 percent in 2000 to 100.0 percent. Gross attendance rates for males increased from 42.7 percent in 2000 to 72.4 percent in 2010 while that of females increased from 35.0 percent to 61.9 percent during the same period.

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



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Figure 5.19 shows gross secondary attendance rates by district. Livingstone District recorded the highest gross secondary school attendance rates at 101.5 percent while Namwala district had the lowest at 46.5 percent.

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

101.5



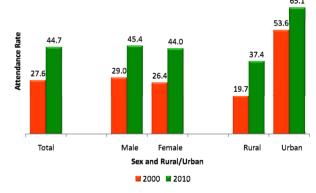
Source: 2010 Census of Population and Housing

5.4.5 Net Secondary School Attendance Rate

Net secondary school attendance rates show the percentage of the secondary school age population (14-18 years) currently attending secondary grades 8 to 12. Figure 5.20 shows net secondary attendance rates by sex and rural/urban. The net secondary school attendance rate increased from 27.6 percent in 2000 to 44.7 percent in 2010.

In 2000 the net secondary attendance rate for rural areas was 19.7 percent while that of urban areas was 53.6 percent. The net secondary school attendance in 2010 increased to 37.4 and 65.1 percent in rural and urban areas, respectively. More children in urban areas were attending secondary school than their rural counterparts.

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

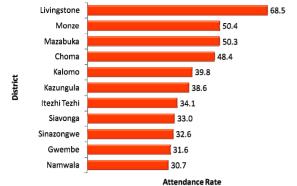


Sources: 2000 and 2010 Censuses of Population and Housing

In both 2000 and 2010 the net secondary school attendance for males was higher than females. The net secondary school attendance rate for males increased from 29.0 percent in 2000 to 45.4 percent in 2010 while that of females increased from 26.4 percent in 2000 to 44.0 percent in 2010.

Figure 5.21 shows net secondary school attendance rates by district. Livingstone District recorded the highest secondary school attendance rates at 68.5 percent while Namwala district had the lowest at 30.7 percent in 2010.

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

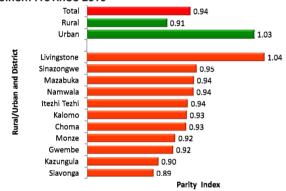


Source: 2010 Census of Population and Housing

5.5 Gender Parity Index

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

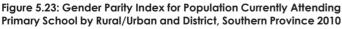
Figure 5.22: Gender Parity Index by District and Rural/Urban , Southern Province 2010



Source: 2010 Census of Population and Housing

The GPI for rural areas was 0.91 while that of urban areas was 1.03. Livingstone District had the highest GPI at 1.04 while Siavonga District had the lowest at 0.89.

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 0.97. The GPI for rural areas was 0.95 while that of urban areas was 1.07. Livingstone District had the highest GPI of 1.06 while Kazungula District had the lowest at 0.93.



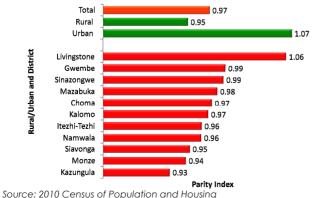
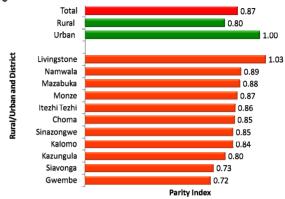


Figure 5.24 shows Gender Parity Index for the population currently attending secondary school by district and rural/urban. The GPI for those currently attending secondary school was 0.87. In rural areas the GPI was 0.80 while in urban areas GPI was 1.00 showing that there was more equality in access to secondary education in urban than rural areas. Livingstone District had the highest GPI at 1.03 and Gwembe District had the lowest at 0.72.

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



Source: 2010 Census of Population and Housing

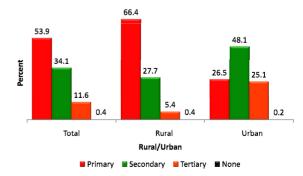
5.6 Highest Education Level Completed

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

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

Figure 5.25 shows the percentage distribution of highest education level completed among the population (25 years and older) by rural/urban. In 2010, 53.9 percent had completed primary level, 34.1 percent had completed secondary and 11.6 percent have completed tertiary.

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

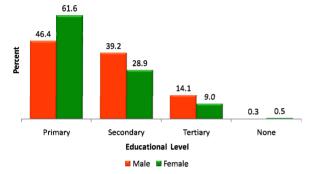


Source: 2010 Census of Population and Housing

In rural areas 66.4 percent of the population reported having primary as the highest level of education completed while 26.5 percent had completed the same level of education in urban areas. Secondary education was the highest level of education completed in urban areas at 48.1 percent. The percentage of the population that had completed tertiary education was higher in urban areas (25.1 percent) than rural areas (5.4 percent).

Figure 5.26 shows the percentage distribution of population (25 years and older) by highest education level completed and sex. There were more females than males who had primary education as the highest level completed at 61.6 percent and 46.4 percent, respectively. The percentage of males who had secondary and tertiary as their highest level of education completed was higher than that of females.

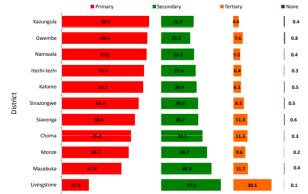
Figure 5.26: Percentage Distribution of Population (25 Years and Older) that Ever Attended School by Highest Level of Education Completed and Sex, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 5.27 shows the Percent Distribution of Population (25 Years and Older) by Highest Education Level Completed and district. Livingstone district had the highest percentage of the population with tertiary as their highest level of education completed at 30.5 percent. Kazungula District had the lowest completion of tertiary education at 4.4 percent.

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

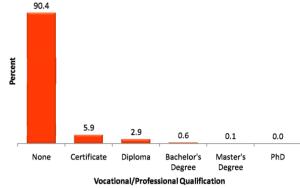


Source: 2010 Census of Population and Housing

5.7 Highest Professional/Vocational Qualification Completed

Figure 5.28 shows the percent distribution of population (25 years and older) by highest professional/vocational qualification completed. Certificate holders constituted (5.9 percent) followed by diploma holders at 2.9 percent. Less than one percent of the people had bachelor's degree or higher.

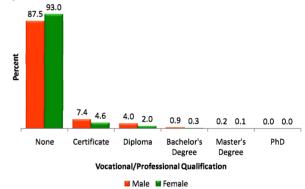




Source: 2010 Census of Population and Housing

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 7.4 percent compared to 4.6 percent for females.

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



Source: 2010 Census of Population and Housing

5.8 Field of Study

Table 5.1 shows the percent distribution of the population (25 years and older) by field of study by sex. Teacher training was the field of study reported by 2.9 percent of the total population. Other notable fields of study included nursing (0.6 percent), accountancy and business administration at 0.5 percent, respectively.

Field of Study	Population	Percent of	Percent		
Tield of Blody	ropolation	Population	Males	Females	
[otal	474,847		47.4	52.6	
Natural science (e.g. biological science programme chemistry programme geological programme etc).	257	0.1	76.3	23.7	
Civil engineering	337	0.1	96.1	3.9	
Electrical and electronics engineering	1,390	0.3	93.5	6.5	
Mechanical engineering	1,842	0.4	98.0	2.0	
Chemical engineering	68	0.0	97.1	2.9	
Vining engineering	79	0.0	93.7	6.3	
ndustrial engineering	110	0.0	80.9	19.1	
Metallurgical engineering	99	0.0	87.9	12.1	
Architectural and town planning engineering	85	0.0	84.7	15.3	
Other engineering	424	0.1	95.5	4.5	
Medicine and surgery	345	0.1	80.0	20.0	
Pharmacy	232	0.0	68.1	31.9	
Dentistry	99	0.0	65.7	34.3	
Nursing	2,645	0.6	30.4	69.6	
Medical technology	372	0.1	78.8	21.2	
X-Ray technology	43	0.0	76.7	23.3	
Veterinary	315	0.1	86.3	13.7	
Statistics	26	0.0	76.9	23.1	
Mathematics	86	0.0	69.8	30.2	
Computer science/Economics	1,009	0.2	58.9	41.1	
Accountancy	2,427	0.5	75.8	24.2	
Teacher training	13,638	2.9	50.2	49.8	
Law and jurisprudence (includes magistrates and judges)	603	0.1	83.4	16.6	
Journalism	160	0.0	56.9	43.1	
Fine arts	160	0.0	75.6	24.4	
Physical education	55	0.0	65.5	34.5	
Library science	85	0.0	64.7	35.3	
Social welfare	983	0.2	45.8	54.2	
Criminology	609	0.1	84.6	15.4	
Business administration and related programmes	2,240	0.5	67.2	32.8	
Secretarial training	1,042	0.2	7.2	92.8	
shorthand typing	253	0.1	28.5	71.5	
Clerical Typing	178	0.0	27.5	71.5	
Operating of office machines	73	0.0	67.1	32.9	
Service trade (e.g. cooking tourist trade etc.)	1,785	0.4	42.0	58.0	
Radio and television broadcasting	59	0.0	62.7	37.3	
Fire protection and fire fighting	95	0.0	94.7	5.3	
Agriculture forestry and fishery	2,074	0.0	83.1	16.9	
ood and drinks processing trades programmes	802	0.4	38.5	61.5	
Wood working	802	0.2	96.1	3.9	
Fextile trades	667	0.1	20.1	79.9	
Leather trades	52	0.0	38.5	61.5	
Other programmes	7,942	1.7	72.5	27.5	
None Source: 2010 Census of Population and Housing	428,178	90.2	45.9	54.1	

CHAPTER 6 ECONOMIC CHARACTERISTICS

6.0 Summary

The population aged 12 years and older was 903,297 in Southern Province in 2010. Out of these, 72.2 percent were in rural areas while 27.8 percent were in urban areas. Males comprised 47.9 percent of total population aged 12 years and older while females comprised 52.1 percent.

Of the population aged 12 years and older, 497,059 were in the labour force, out of which 74.9 percent were in rural areas and 25.1 percent were in urban areas.

The unemployment rate was 12.1 percent of the total labour force in Southern Province. Urban unemployment rate was 19.1 percent while rural unemployment rate was 9.8 percent. The unemployment rate for males was 13.4 percent compared to 10.5 percent for females.

The youth unemployment rate was 14.8 percent, with urban youth unemployment rate being higher (24.0 percent) than the rural unemployment rate (11.4 percent). In terms of sex, the unemployment rate among male youths was higher than among female youths.

Of the employed population, the highest proportion was self employed (43.2 percent) and the lowest was employers (0.5 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 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:

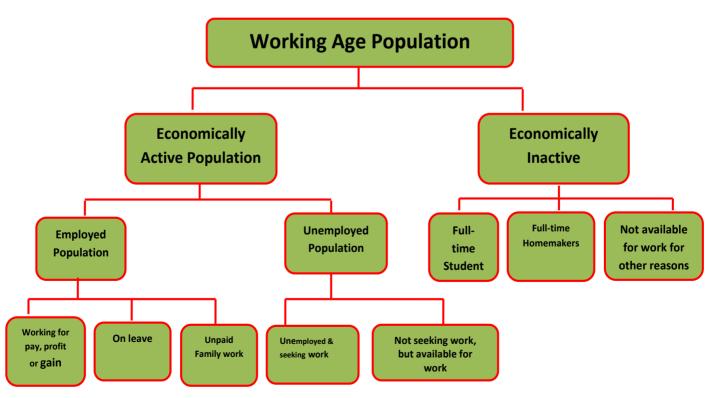
- 1. Labour force participation
- 2. Economic dependency
- 3. Employment and unemployment
- 4. Employment status
- 5. Occupation
- 6. Industry

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 was based.

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

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



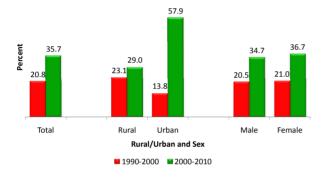
The question asked in the 2010 Census to determine the economic activity status was '*What did (NAME) do in the last 7 days and last 12 months*?' The reference period for the response categories was the last 7 days (Current activity status) and last 12 months (Usual activity status).

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

In 2010, the population aged 12 years and older represented 59.5 percent of the total population of Southern Province while in 2000, it represented 54.9 percent. The population 12 years and older (Working age population) increased from 665,566 in 2000 to 903,297 in 2010, representing 35.7 percent increase. Of the working age population in Southern Province, 72.2 percent were in rural areas while 27.8 percent were in urban areas. Males comprised 47.9 percent of the working age population while females were 52.1 percent.

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

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

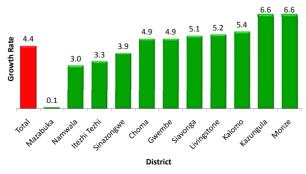


Source: 1990, 2000 and 2010 Censuses of Population and Housing

During 1990-2000 and 2000-2010 intercensal period, the working age population in urban areas increased from 13.8 percent to 57.9 percent while in rural areas, it increased from 23.1 percent to 29.0 percent respectively. The percentage increase by sex showed a higher increase in the female working age population (36.7 percent) compared to the increase among the male working age population (34.7 percent) during the 2000-2010 intercensal period.

Figure 6.3 shows the average annual growth rate of the labour force by district between 2000 and 2010 in Southern province. The labour force average annual growth rate was 4.4 percent. This growth was higher than the national labour force average annual growth rate which was recorded at 3.0 percent.

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



Sources: 2000 and 2010 Censuses of Population and Housing

Monze and Kazungula districts recorded the highest Labour Force average annual growth rate both at 6.6 percent while Mazabuka District had the lowest growth rate at 0.1 percent per annum.

6.4 Economic Activity Status

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

6.4.1 Economically Active

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

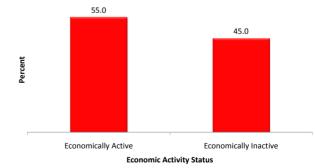
The analysis for the economic activity status was based on the current (in the 7 days prior to the census night) economic activity of the population. In 2010, the population of the labour force was 497,059 persons. Of these, 277,587 were male and 219,472 were female.

6.4.2 Economically Inactive

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

Figure 6.4 shows the percent share of the population 12 years and older by economic activity status. Of the population 12 years and older, 55.0 percent were economically active while 45.0 percent were economically inactive.

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



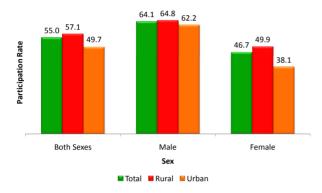
Source: 2010 Census of Population and Housing

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 (Activity status rate) was 55.0 percent in Southern province. Analysis by sex shows that the participation rate for males was higher at 64.1 percent compared to that of females at 46.7 percent.

Rural/urban analysis shows that labour force participation rate was higher in rural areas (57.1 percent) compared to that recorded in urban areas (49.7 percent). In addition, labour force participation rates for males were higher than that of females in both rural and urban areas.

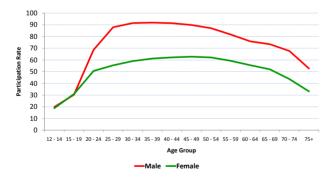
Figure 6.5: Labour Force Participation Rate for Population (12 Years and Older) by Sex and Rural/ Urban, Southern Province, 2010



Source: 2010 Census of Population and Housing

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

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

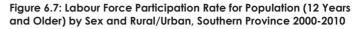


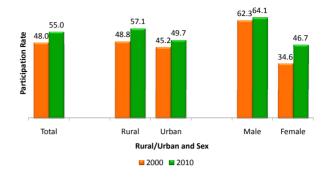
Source: 2010 Census of Population and Housing

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

The labour force participation rate for males increased from 62.3 percent in 2000 to 64.1 percent in 2010. For the females, the labour force participation rates increased from 34.6 percent in 2000 to 46.7 percent in 2010.



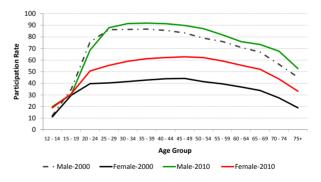


Sources: 2000 and 2010 Census of Population and Housing

The labour force participation rate was higher in rural (57.1 percent) than in urban areas (49.7 percent) in 2010. This pattern was also observed in 2000 where 48.8 percent labour force participation was recorded in rural areas compared to 45.2 percent in urban areas. Labour force participation rate increased in all categories between 2000 and 2010.

Figure 6.8 shows labour force participation rate for population 12 years and older by age group and sex in 2000 and 2010. The results showed that there was a reduction in the male participation rate in 2010 between ages 15-24 compared to 2000. The 2010 female participation rates were higher than the 2000 throughout all the age groups.

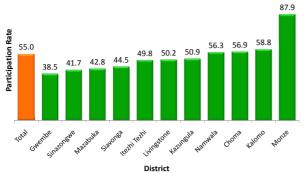
Figure 6.8: Labour Force Participation Rate for Population (12 Years and Older) by Age Group and Sex, Southern Province 2000 and 2010



Sources: 2000 and 2010 Census of Population and Housing

Figure 6.9 shows the labour force participation rates for the population 12 years and older by district. Monze district had the highest labour force participation rate (87.9 percent) while Gwembe district had the lowest (38.5 percent).

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



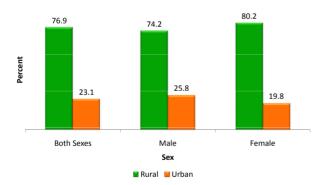
Source: 2010 Census of Population and Housing

6.6 Employed Population

Employment in Zambia is measured as a percent of the Labour force. In the 2010 census, it made up those who reported to be working or on leave during the reference period (seven days prior to the census night). Out of 497,059 persons in the labour force, 436,773 persons were employed, representing 87.9 percent of the labour force. Out of the employed population, 55.0 percent were male and 45.0 percent were female

Figure 6.10 shows the percentage share of employed population by sex and rural/urban. The results show that there were more employed persons in rural areas (76.9 percent) than in urban areas (23.1 percent). In rural areas, female employment accounted for 80.2 percent while male employment was at 74.2 percent. In urban areas, there was higher male employment (25.8 percent) than the female employment (19.8 percent).

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



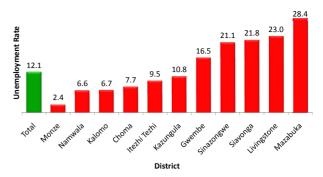
Source: 2010 Census of Population and Housing

6.7 Unemployment

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

Figure 6.11 shows unemployment rates of Southern province for the population 12 years and older by district. Of the 497,059 persons in the labour force 60,286 (12.1 percent) were unemployed. Mazabuka district had the highest unemployment rate at 28.4 percent and Monze district had the lowest unemployment rate at 2.4 percent.

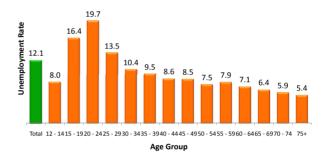
Figure 6.11: Unemployment Rate for the Population Aged 12 Years and Older by District, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 6.12 shows unemployment rate of the population (12 years and older) by age group. Unemployment rate was highest in the 20-24 years at 19.7 percent followed by the age group 15-19 years at 16.4 percent. The lowest unemployment rate was 5.4 percent in the age group 75+.

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



Source: 2010 Census of Population and Housing

Figure 6.13 shows unemployment rate of population (12 years and older) by sex and rural/urban. Overall, unemployment rate was 13.4 percent for males and 10.5 percent for females. Unemployment was higher in urban areas than in rural areas. In rural areas, males had a higher unemployment rate (11.7 percent) than females (7.4 percent). On the hand, females recorded higher unemployment rate (21.2 percent) than males (17.8 percent) in urban areas.

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



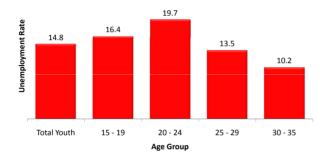
Source: 2010 Census of Population and Housing

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 299,130 representing 60.2 percent of the total labour force. Of these, 55.7 percent were male while 44.3 percent were female. In terms of rural-urban residence, 73.3 percent were in rural areas and 26.7 percent in urban areas.

The youth unemployment rate by age group is shown in Figure 6.14. Out of the 299,130 youths in the labour force, 14.8 percent were unemployed. The highest youth unemployment rate was in the age group 20-24 years at 19.7 percent while the lowest rate was in the age group 30-35 years at 10.2 percent.

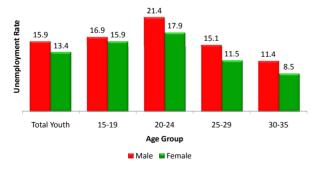
Figure 6.14: Youth Unemployment Rate by Age Group, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 6.15 shows the youth unemployment rate by age group and sex. Overall, unemployment rates for male youths were higher in all age groups. The total youth unemployment rate among males was 15.9 percent and 13.4 percent among females. The age group with the highest disparity between males and females was 25-29 years with 15.1 percent for males and 11.5 percent for females.

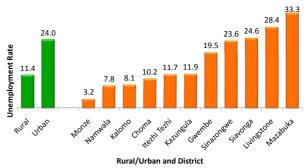
Figure 6.15: Youth Unemployment Rate by Age Group and Sex, Southern Province 2010



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 (24.0 percent) than in rural areas (11.4 percent). At district level, Mazabuka District reported the highest youth unemployment rate of 33.3 percent and Monze District recorded the lowest rate of 3.2 percent.

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

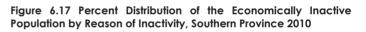


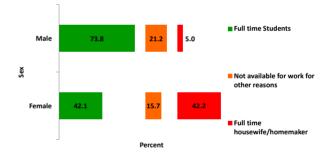
Source: 2010 Census of Population and Housing

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 was full time students (73.8 percent) while that of females was full time housewife/homemakers at 42.2 percent.





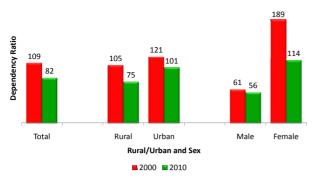
Source: 2010 Census of Population and Housing

6.9 Economic Dependency Ratio

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

Figure 6.18 shows the dependency ratios by sex and rural/urban. The economic dependency ratio decreased from 109 in 2000 to 82 in 2010 in Southern province. This means that the number of the inactive people that depended on the economically active people decreased. The economic dependence ratio decreased between 2000 and 2010 in both rural and urban areas as well as for both male and female.

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



Sources: 2000 and 2010 Censuses of Population and Housing

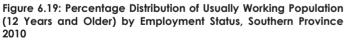
6.10 Employment Status, Occupation and Industrial Classification

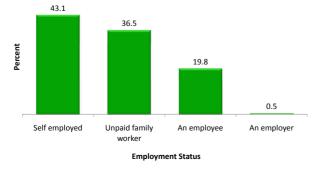
The employment status, occupational and industrial structure of a country's workforce reflects the level of its economic development and the efficiency with which it uses and allocates its resources. The analysis that follows was based on the usually working population, (i.e. those that were working 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).

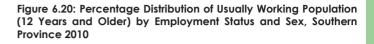
Figure 6.19 shows the percentage distribution of usually working population 12 years and older by employment status. The results show that the majority of the usually working population was self-employed at 43.1 percent, followed by unpaid family workers at 36.5 percent. The lowest proportion was for employers with 0.5 percent.

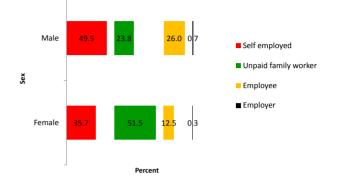




Source: 2010 Census of Population and Housing

The distribution of the usually working population by employment status and sex is shown in Figure 6.20. The figure shows that 51.5 percent of the females were reported to be unpaid family workers followed by those who reported to be self employed at 35.7 percent. For males 49.5 percent were self employed followed by those who reported to be employees at 26.0 percent





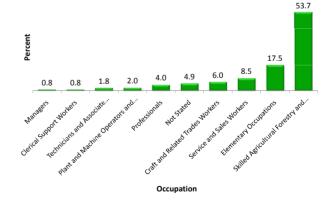
Source: 2010 Census of Population and Housing

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 53.7 percent, followed by the elementary occupations at 17.5 percent. Managers accounted for 0.8 percent of the total working age population.

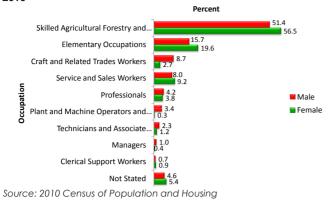




Source: 2010 Census of Population and Housing

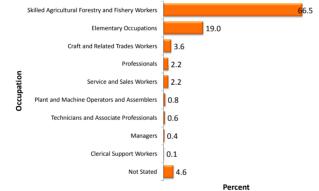
Figure 6.22 shows the percentage distribution of the usually working population (12 years and older) by occupation and sex. The largest percent share of the working population for both male and female was skilled agriculture, forestry and fishing, 51.4 and 56.5 percent, respectively.

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



Figures 6.23 and 6.24 show the percentage distribution of the usually working population (12 years and older) by occupation for rural and urban areas, respectively. The largest percent share of the usually working population in rural areas was in the skilled agriculture, forestry and fishing occupation (66.5 percent), followed by elementary occupations (19.0 percent).

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

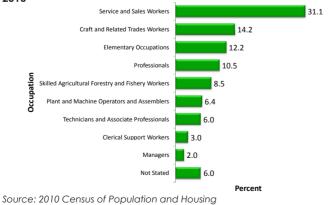


Source: 2010 Census of Population and Housing

2010 Census of Population and Housing - Southern Province Analytical Report

In urban areas the largest percent share of the usually working population was Services and Sales occupation (31.1 percent) followed by Craft and related workers (14.2 percent). The lowest percentage in urban areas was for managers at 2.0 percent.

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



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).

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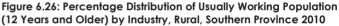
The percentage distribution of the usually working population by industry is shown in Figure 6.25. The agriculture industry accounted for 67.9 percent of the usually working population. Other industries with a fair share of the usually working population were community, social and personal services and wholesale and retail trade with 8.4 and 7.6 percent, respectively.

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



Source: 2010 Census of Population and Housing

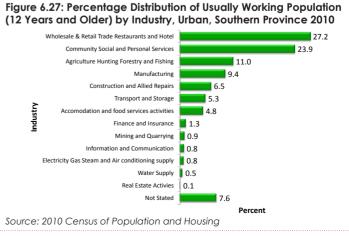
Figures 6.26 and 6.27 show the percentage distribution of the usually working population (12 years and older) by industry in rural and urban areas, respectively. The agriculture industry accounted for 84.0 percent of the usually working population in rural areas.





Source: 2010 Census of Population and Housing

In urban areas, Wholesale and retail trade accounted for 27.2 percent followed by Community social and personal services at 23.9 percent. Agriculture, hunting, forestry and fishing accounted for 11.0 percent while Manufacturing accounted for 9.4 percent.



CHAPTER 7: FERTILITY LEVELS, PATTERNS AND TRENDS

7.0 Summary

The Total Fertility Rate (TFR) for Southern Province was 6.1. The TFR in rural areas was 6.8 and 4.3 in urban areas. Kalomo District recorded the highest TFR at 7.3 and Livingstone had the lowest at 4.0.

Results also show that the Crude Birth Rate (CBR) in 2010 was 37 live births per 1000 population. Rural areas had a higher CBR of 40 compared to urban areas at 31 live births per 1000 population. The Child woman ratio (CWR) for Southern Province in 2010 was 807 children (0-4 years) per 1000 women. The CWR for rural areas was 912 compared with 533 in urban areas. The number of live births occurring in a year per 1000 women of child bearing age, also referred to as the General Fertility Rate was 160. Rural areas had a GFR of 180 and urban areas had 111. The completed family size was 6.5 children. In rural and urban areas, it was 6.7 and 5.9, respectively.

The average number of female births, also referred to as, the Gross Reproduction Rate (GRR), was 2.3. The GRR for rural and urban areas were 2.8 and 1.6 respectively. Results also show that 1.8 daughters or the Net Reproduction Rate (NRR) will survive to replace their mother's generation. The NRR for rural and urban areas were 2.3 and 1.3 respectively. The mean age at child bearing (MACB) for the year 2010 was 29.2 years.

Chapter 7: Fertility Characteristics



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 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: (P2)(P4/P3)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).

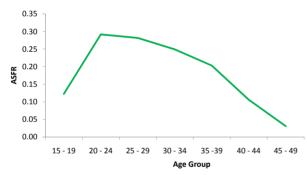
The 2010 Census therefore applied the P/F Ratio Technique, which uses children ever born data to adjust fertility data for under-reporting in number of births that occurred in the last 12 months prior to the census (Arriaga et al 2005). The P/F Ratio Technique is based on cumulating fertility (represented by letter 'F') up to ages 20, 25, ... 50 (49) which are later adjusted and compared with CEB, represented by letter 'P'. The general assumption of this technique is that the number of children ever born is more accurately reported than births in the last year. In the same way, the P/F Ratio Technique also assumes that the completeness of data is the same for all age groups of women; that the reporting of the average number of children ever born per woman is complete at least up to ages 30 or 35 years; that there is no age misreporting of women of childbearing age; and that the pattern and level of fertility have not changed in the 10-15 years prior to the census (Coale and Trussel, 1974).

7.5 Fertility Indicators

7.5.1 Adjusted Age Specific Fertility Rates

Figure 7.1 shows the Adjusted Age Specific Fertility Rates. The age group with the highest ASFR in 2010 was 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, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 7.2 shows the Adjusted Age Specific Fertility Rates by rural/urban. The peak for child bearing in rural areas was in the 20-24 age group, while in urban areas the peak was in the 25 - 29 age group.

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

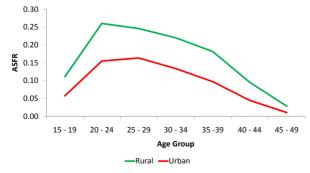
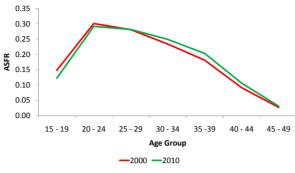




Figure 7.3 shows trends in the adjusted ASFR for Southern Province for the years 2000 and 2010. Results show that the peak of child bearing in both 2000 and 2010 was in the age group 20-24 years

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

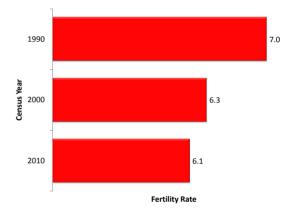


Source: 2000 and 2010 Censuses of Population and Housing

7.5.2. Total Fertility Rate

Figure 7.4 shows trends in Total Fertility Rate (TFR) in Southern Province for the years 1990, 2000 and 2010. The results show that the TFR declined from 7.0 in 1990 to 6.1 in 2010.

Figure 7.4: Trends in Total Fertility Rate, Southern Province 1990, 2000 and 2010

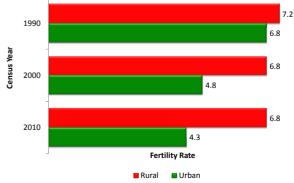


Source: 1990, 2000 and 2010 Censuses of Population and Housing

7.5.2.1 Total Fertility Rate by Rural/Urban

Figure 7.5 shows the trends in Total Fertility Rate by rural/ urban from 1990 to 2010. There were some variations in TFR at rural/urban level. Results show that, in 2010 the TFR for rural areas in Southern province was 6.8, which remained at the the same level since 2000. Further, the TFR in urban areas declined from 4.8 in 2000 to 4.3 in 2010. Generally, the rural total fertility rates declined between 1990 and 2000 but remained the same in 2010 whereas the urban total fertility rates have been declining. Fertility in urban areas declined from 6.8 in 1990 to 4.3 in 2010.

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

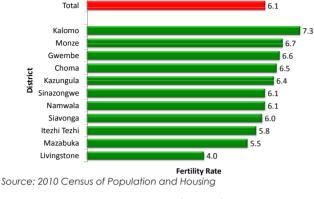


Source: 1990, 2000 and 2010 Censuses of Population and Housing

7.5.2.2 Total Fertility Rate by District

The Total Fertility Rate by district is shown in Figure 7.6. Livingstone District had the lowest TFR in 2010 at 4.0 and Kalomo District had the highest at 7.3. In Southern Province, all the districts recorded a TFR of 6.0 or higher apart from Livingstone, Itezhi-tezhi and Mazabuka districts at 4.0, 5.8 and 5.5, respectively.

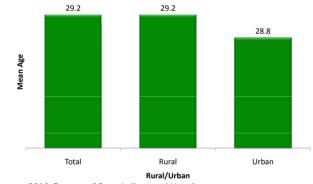
Figure 7.6: Total Fertility Rate by District, Southern Province 2010



7.5.3 Mean Age at Child Bearing (MACB)

Figure 7.7 shows the Mean Age at Child Bearing (MACB). In 2010, the MACB for Southern Province was 29.2 years. The rural and urban MACB was 29.2 and 28.8 respectively.

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

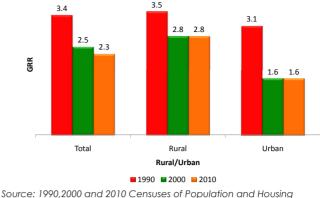


Source: 2010 Census of Population and Housing

7.5.4 Gross Reproduction Rate (GRR)

Figure 7.8 shows trends in the Gross Reproduction Rate by rural/urban in 1990, 2000 and 2010. The GRR declined from 3.4 in 1990 to 2.3 in 2010. The GRR was higher in rural areas at 2.8 compared to 1.6 in urban areas in 2010.

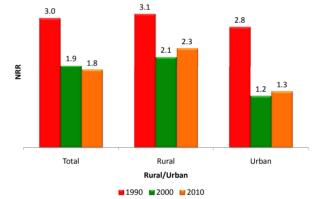




7.5.5 Net Reproduction Rate (NRR)

Figure 7.9 shows trends in the Net Reproduction Rate by rural/ urban in 1990, 2000 and 2010. The NRR declined from 3.0 in 1990 to 1.8 in 2010. The NRR was higher in rural areas at 2.3 compared with 1.3 in urban areas in 2010.

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



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

7.5.6 Other Fertility Indicators

Several other indices of fertility can also be measured from data on births and population (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 37 live births per 1000 mid-year population, while the CWR was at 807 births per 1000 women. Other indicators such as the GFR and CFS were at 160 and 6.5, respectively.

Table 7.1: Fertility Indicators By Rural/Urban and District Southern Province 2010 Census year Rural/ Total Fertility Rate Completed Fam- Crude Birth Rate Child Woman General Fertility Gross Reproduction							
			Crude Birth Rate	Child Woman	General Fertility	Gross Reproduc-	Net Reproduction
Urban and province	(TFR)	ily Size (CFS)	(CBR)	Ratio (CWR)	Rate (GFR)	tion Rate (GRR)	Rate (NRR)
Southern Province	6.1	6.5	37	807	160	2.3	1.8
Rural	6.8	6.7	40	912	180	2.8	2.3
Urban	4.3	5.9	31	533	111	1.6	1.3
Fertility indicators - D	istricts						
Choma	6.5	6.9	39	833	170	2.8	2.2
Gwembe	6.6	6.2	36	876	157	2.6	1.9
Itezhi Tezhi	5.8	5.6	35	881	157	2.5	1.9
Kalomo	7.3	6.8	44	951	198	3.2	2.6
Kazungula	6.4	6.4	35	916	165	2.6	2.1
Livingstone	4.0	5.9	30	518	105	1.5	1.2
Mazabuka	5.5	6.5	33	692	136	2.1	1.7
Monze	6.7	6.6	40	855	178	2.8	2.3
Namwala	6.1	5.8	38	951	172	2.6	2.1
Siavonga	6.0	7.1	37	798	157	2.4	1.9
Sinazongwe	6.1	6.6	36	758	150	2.3	1.9

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

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

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

Table 7.2 shows fertility levels by religious affiliation of women. Total Fertility Rate was higher among women with no religious affiliation at 6.6, followed by Protestant women at 6.2. Hindu women had the least total fertility rate at 2.1.

District	All Women	Religious Affiliation of Women (15-49 years)						
DISTRICT	All women	Catholics	Protestants	Muslims	Hindus	Other	None	
Southern Prov- ince	6.1	5.2	6.2	5.0	2.1	5.5	6.6	
Choma	6.5	5.1	6.7	6.1	-	5.7	5.0	
Gwembe	6.7	6.5	6.5			9.8	8.4	
Itezhi- tezhi	5.8	5.4	5.9	8.3		5.7	3.9	
Kalomo	7.3	5.7	7.4	5.1	-	6.6	7.7	
Kazungula	6.5	4.2	6.6	2.7		5.8	5.1	
Livingstone	4.0	3.5	4.1	3.9	1.7	3.1	5.1	
Mazabuka	5.5	5.1	5.5	6.4		4.9	4.6	
Monze	6.7	6.6	6.8	3.7	-	6.6	5.1	
Namwala	6.1	5.3	6.2	9.4		3.9	6	
Siavonga	6.0	4.9	6.1	4.0	-	5.5	6.8	
Sinazongwe	6.1	5.3	6.1			6.6	7.3	

Source: 2010 Census of Population and Housir

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

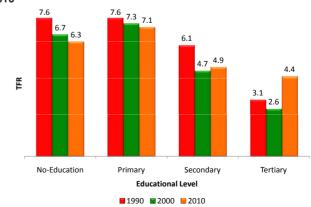
higher among women with primary education (7.3), followed by women with no education (6.7). Women with tertiary education had the lowest total fertility rate at 2.6.

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

Philip I		Education Level Attainment (15-49 years)					
District	All Women	No education	Primary	Secondary	Tertiary		
Southern	6.1	6.7	7.3	4.7	2.6		
Choma	6.5	6.9	7.9	5.1	2.9		
Gwembe	6.7	6.6	7.1	4.4	2.2		
Itezhi Tezhi	5.8	6.0	6.4	4.5	2.0		
Kalomo	7.3	7.6	8.3	5.5	3.0		
Kazungula	6.5	6.3	7.3	4.8	2.4		
Livingstone	4.0	5.0	5.9	3.8	2.3		
Mazabuka	5.5	5.9	6.5	4.5	3.4		
Monze	6.7	6.6	7.9	5.8	3.8		
Namwala	6.1	6.5	6.7	4.9	2.9		
Siavonga	6.0	6.7	6.5	4.3	2.7		
Sinazongwe	6.1	6.5	6.7	4.0	2.5		

Figure 7.10 shows trends in TFR by women's education attainment for the years 1990, 2000 and 2010 censuses. The results show that women with primary education had the highest total fertility rate in both 2000 and 2010 although in 1990 women with no education and women with primary education recorded the same TFR. The lowest total fertility rate was among women with Tertiary Education in the three Census years.

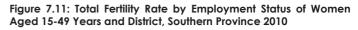
Figure 7.10: Trends in Total Fertility Rate by Education Attainment of Women Aged 15-49 Years, Southern Province 1990, 2000 and 2010

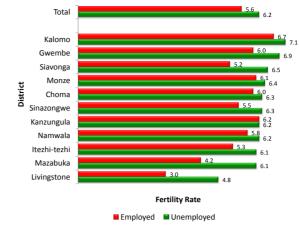


Source: 1990, 2000 and 2010 Censuses of Population and Housing

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

Figure 7.11 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 (6.2) compared to the employed women (5.6). The same pattern was observed for all the districts except for Kazungula District which recorded a same TFR for the employed and the unemployed women aged 15-49 years.





Source: 2010 Census of Population and Housing

CHAPTER 8 CHILDHOOD MORTALITY CHARACTERISTICS

8.0 Summary

The infant mortality rate (IMR) declined from 99.0 in 1990 to 95.0 in 2000 and declined further to 53.1 deaths per 1000 live births in 2010.

The child mortality rate (CMR) declined from 70.0 in 1990 to 66.0 in 2000 and declined further to 40.0 deaths per 1000 live births in 2010.

The under-5 mortality rate (U5MR) declined from 162.0 in 1990 to 155.0 deaths per 1000 live births in 2000 and declined further to 93.5 deaths per 1000 live births in 2010.



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 the eight millennium development goals (MDG4). Though it is a global goal, it is also a national goal set in Zambia's national health strategic plans over time. In the past decade, the government through the Ministry of Health (MOH) has scaled up child health interventions such as the child health week programme aimed at expanding access to immunization and other child health interventions like vitamin A supplementation to the hard to reach children in communities. Among the major causes of child mortality are infectious diseases like pneumonia, 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 in some provinces of Zambia.

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

8.4 Childhood Mortality data evaluation and estimation procedure

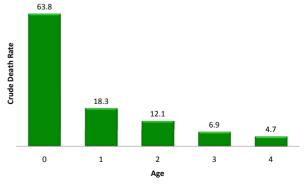
It is well known that the proportions of children ever born who have died are indicators of child mortality and can yeild robust estimates of childhood mortality (UN, 1983). However, it is equally well known that children ever born data sometimes suffers from under reporting of dead children, especially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

8.4.1 Crude Death Rate

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

The observed CDR presented in Figure 8.1 shows that childhood mortality was higher among infants with 63.8 deaths per 1000 population aged less than one year. The observed CDR declined with increasing age of the child, reaching the level of 4.7 deaths per 1000 population at age four.

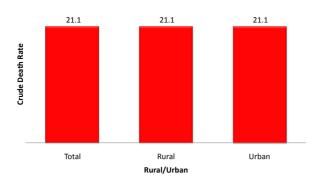
Figure 8.1: Observed Crude Death Rate per 1000 Population Aged 0-4 Years by Single Age, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 8.2 shows observed crude death rate by rural/urban. The observed crude death rate was 21.1 deaths per 1,000 population aged 0-4 years in both rural and urban areas.

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



Source: 2010 Census of Population and Housing

Table 8.1 shows crude death rate by rural/urban, sex and single age for the population aged 0-4 years. The analysis of the crude deaths rate presented in the Table 8.1 provide proxy indications of the expected levels of infant, child and under five mortality rates. The information in the table indicates an infant mortality rate of 64, a child mortality rate of 42 and an under five mortality rate of 106 at provincial level.

Similarly, the information in the table approximates the infant mortality rate of 63 for rural areas and 65 for urban areas, a child mortality rate of 42 for rural areas and 39 for urban areas and an under five mortality rate of 104 for urban and 105 for rural. These proxy estimates of child mortality based on the observed crude death rates would be plausible for Southern 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, Southern Province 2010

4	Southern Province				Rural			Urban		
Age	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females	
0	0.064	0.067	0.060	0.063	0.068	0.059	0.065	0.065	0.065	
1	0.018	0.019	0.018	0.018	0.019	0.017	0.018	0.018	0.019	
2	0.012	0.013	0.011	0.012	0.014	0.011	0.011	0.012	0.010	
3	0.007	0.006	0.007	0.007	0.007	0.008	0.006	0.005	0.006	
4	0.005	0.005	0.004	0.005	0.005	0.004	0.004	0.003	0.005	
Source: 2010	Census of Populo	ation and Housii	ng							

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

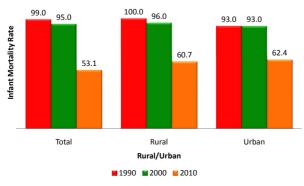
8.5 Infant Mortality Rate

Table 8.2 shows infant mortality rate (IMR) by sex and rural/ urban for Southern Province for the period 12 months prior to the census. In 2010, the IMR was 53.1 deaths per 1000 live births. In rural areas the IMR was 60.7 and 62.4 deaths per 1000 live births in urban areas. Estimated IMR was higher for male children than female children in both urban and rural areas.

Table 8.2: Infant Mortality Rate (IMR) by Sex and Rural/Urban, Southern Province 2010						
Rural/Urban Both Sexes Males Females						
Southern Province	53.1	64.4	57.8			
Rural	60.7	64.8	56.7			
Urban 62.4 62.5 62.3						
Source: 2010 Census of Population and Housing						

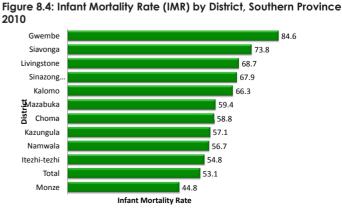
The infant mortality rate presented in Figure 8.3 show declining trends since 1990. The IMR declined from 99.0 in 1990 to 53.1 deaths per 1,000 live births in 2010. The decline in IMR occurred in both rural and urban areas since 1990.

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



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

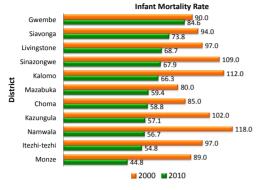
Infant mortality rate (IMRs) by district is presented in Figure 8.4. Monze District had infant mortality rate below the provincial average of 53.1 infant deaths per 1,000 live births in 2010. The highest Infant mortality rate was in Gwembe District at 84.6 infant deaths per 1000 live births while the lowest was in Monze District at 44.8 infant deaths per 1,000 live births.



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 Namwala District from 118.0 in 2000 to 56.7 deaths per 1,000 live births in 2010.

Figure 8.5: Infant Mortality Rate (IMR) by District, Southern Province 2000 and 2010



Source: 2000 and 2010 Censuses of Population and Housing

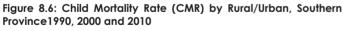
8.6 Child Mortality Rate

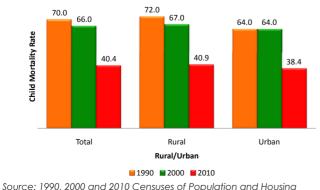
Table 8.3 shows Child Mortality Rates (CMR) by sex and rural/ urban in 2010. The CMR for Southern Province was 40.4 deaths per 1,000 live births. In rural areas, the CMR was 40.9 deaths per 1,000 live births and 38.4 deaths per 1000 live births in urban areas. The CMR was higher for male than female children in rural areas and lower in the urban areas.

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

Rural/Urban	Both Sexes	Males	Females		
Southern Province	40.4	41.7	39.1		
Rural	40.9	42.6	39.2		
Urban	38.4	37.9	38.8		
Source: 2010 Census of Population and Housing					

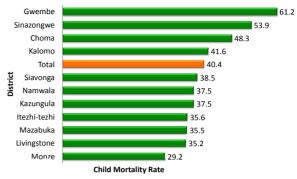
Figure 8.6 shows Child Mortality Rate (CMR) by rural/urban in 1990, 2000 and 2010. The figure suggests improvements in child survival in Southern Province as depicted by declining child mortality rate in both rural and urban areas during the two inter-censal periods. Child mortality rate declined in rural areas from 72 in 1990 to 67 in 2000 and 40.9 deaths per 1,000 live births in 2010. Similarly, child mortality rate declined in urban areas from 64 in 1990 to 38.4 deaths per 1,000 live births in 2010.





The child mortality rate (CMR) by district is presented in Figure 8.7. In 2010, the child mortality rate for Sinazongwe, Gwembe, Choma and Kalomo districts were above the provincial average of 40.4 deaths per 1000 live births. Gwembe District had the highest child mortality rate at 61.2 deaths per 1000 live births while Monze District had the lowest child mortality rate at 29.2 deaths per 1000 live births.

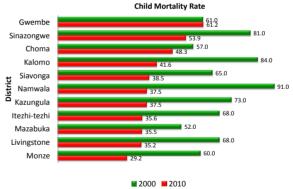
Figure 8.7: Child Mortality Rate (CMR) by District, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 8.8 shows child mortality rate by district in 2000 and 2010. Information presented shows a decline in child mortality in all districts except Gwembe District which has a slight increase. However, Namwala and Kalomo districts had the highest decline in child mortality rate during the inter-censal period. The rate for Namwala District reduced from 91.0 deaths per 1,000 live births in 2000 to 37.5 deaths per 1,000 live births in 2010. In Kalolmo District, the rate declined from 84.0 deaths per 1,000 live births in 2000 to 41.6 deaths per 1,000 live births in 2010.

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



Source: 2000 and 2010 Censuses of Population and Housing

8.7 Under-Five Mortality Rate (U5MR)

Table 8.4 shows Under-Five Mortality Rate (U5MR) by sex and rural/urban. The U5MR for Southern Province was 93.5 deaths per 1,000 live births. The U5MR in rural areas was 101.6 deaths per 1,000 live births and 100.8 deaths per 1,000 live births in urban areas.

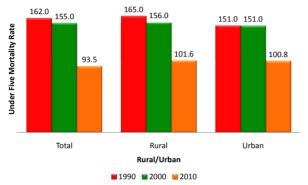
Table 8.4: Under-Five Mortality Rate (U5MR) by Sex and Rural/ Urban, Southern Province 2010					
Rural/Urban and Province Both Sexes Males Females					
Southern Province	93.5	106.0	96.9		
Rural	101.6	107.4	95.9		
Urban	100.8	100.4	101.1		
Source: 2010 Census	Source: 2010 Census of Population and Housing				

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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 162.0 in 1990 to 155.0 deaths per 1,000 live births in 2000. In 2010 the under-five mortality rate further declined to 93.5 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 165.0 deaths per 1,000 live births in 1990 to 101.6 deaths per 1,000 live births in 2010. A decline was also observed in urban areas from 151.0 deaths per 1000 live births in 1990 to 100.8 deaths per 1,000 live births in 2010.

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



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

Figure 8.10 shows Under five Mortality Rate by district. Itezhi tezhi and Monze districts had Under five Mortality Rate below the provincial average of 93.5 deaths per 1,000 live births while the other nine districts were above the provincial average. Under five Mortality Rate was lowest in Monze District at 74.0 deaths per 1,000 live births while Gwembe District had the highest at 145.9 deaths per 1,000 live births.

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



Source: 2010 Censuses of Population and Housing

Figure 8.11 shows Under Five Mortality Rate by district in 2000 and 2010. Namwala District had the highest decline for Under five Mortality Rate during the inter-censal period 2000-2010 from 199.0 in 2000 to 94.2 in deaths per 1,000 live births in 2010.

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



2000 2010

Sources: 2000 and 2010 Censuses of Population and Housing

CHAPTER 9 GENERAL MORTALITY

9.0 Summary

The Crude Death Rate (CDR) in 2010 was 10.0 deaths per 1,000 population; 11.0 deaths per 1,000 population for males and 9.1 deaths per 1,000 population for females. Rural areas had a CDR of 10.0 deaths, which was the same as urban areas.

The age groups with the highest percentage of reported adult deaths were the age groups 25-29 for females and 30-34 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 55.7 years, 55.8 years in rural areas and 53.5 years in urban areas. Females had a higher life expectancy at birth of 58.0 years compared to 52.5 years for males.

The most common cause of death was illness/disease accounting for 71.9 percent of all reported causes.



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. Censuses and surveys still form a major source of mortality information for Zambia. However, the costs and periodicity of census and surveys affect timeliness and accuracy.

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

9.2 Concepts and Definitions

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

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

9.3 Collection of Mortality Data in the 2010 Census

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

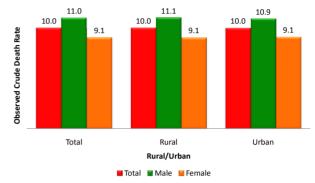
9.4 General Mortality

9.4.1 Crude Death Rate (CDR)

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

Figure 9.1 shows the observed crude death rate (CDR) for Southern Province by sex and rural/urban. The Crude Death Rate was 10.0 deaths per 1,000 population; 11.0 deaths per 1,000 males and 9.1 deaths per 1,000 females. Overall, males had higher mortality than females in both rural and urban areas. The CDR for both rural and urban areas was 10.0 deaths per 1,000 population, each.

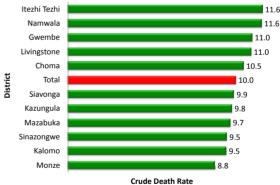
Figure 9.1: Observed Crude Death Rate (CDR) per 1,000 Population by Sex and Rural/Urban, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 9.2 shows Crude Death Rate by district. The figure shows that Itezhi-tezhi, Namwala, Gwembe, Livingstone and Choma districts had Crude Deaths Rates above the provincial average of 10.0 deaths per 1,000 population.

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



Source: 2010 Census of Population and Housing

The highest Crude Death Rate was in Itezhi-tezhi District at 11.6 deaths per 1,000 population and the lowest was in Monze District at 8.8 deaths per 1000 population.

Table 9.1: Observed Crude Death Rate by Sex and District, Southern Province 2010					
District	Male	Female			
Choma	11.5	9.6			
Gwembe	12.5	9.7			
Itezhi-tezhi	13.2	10.1			
Kalomo	10.3	8.6			
Kazungula	10.8	8.8			
Livingstone	11.7	10.3			
Mazabuka	10.7	8.7			
Monze	9.3	8.3			
Namwala	13.0	10.3			
Siavonga	11.4	8.6			
Sinazongwe	10.7	8.4			
Source: 2010 Census of Population and Housing					

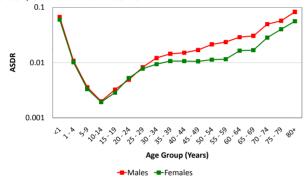
2010 Census of Population and Housing - Southern Province Analytical Report

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 Southern Province in 2010. The figure shows a u-shaped characteristic with high mortality at the very young and oldest ages. The high death rate in the age groups less than 1 and 1 to 4 years explains the high child mortality in Southern 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, Southern Province 2010



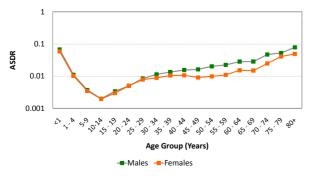
Source: 2010 Census of Population and Housing

Southern 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.

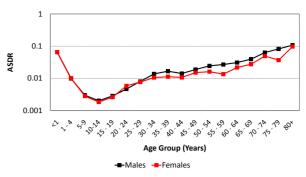
Generally, in both rural and urban areas, mortality was higher among males than females, especially over the age of 30 years.

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



Source: 2010 Census of Population and Housing

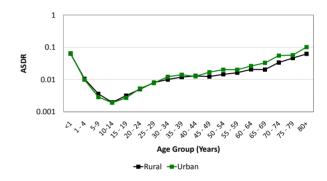
Figure 9.5: Observed Age-Sex Specific Death Rate by Age Group and Sex, Southern Province Urban 2010



Source: 2010 Census of Population and Housing

Figure 9.6 shows Observed Age-Specific Death Rate by rural/ urban for Southern Province. The figure shows that above the age of 25 years, mortality is higher in urban than in rural areas.

Figure 9.6: Observed Age Specific Death Rate by Age Group and Rural/Urban, Southern 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 Southern Province. The age groups with the highest percentage of reported adult deaths were 25-29 for females and 30-34 for males. The percentage of reported adult deaths was higher for females than males in the age groups 15-29, while the percentage of reported adult deaths were higher for males than females among those aged 30 years and older.

 $\begin{array}{c} 8.0\\ 7.0\\ 6.0\\ 5.0\\ 4.0\\ 3.0\\ 2.0\\ 1.0\\ 0.0\\ 15 - 19 \ 20 - 24 \ 25 - 29 \ 30 - 34 \ 35 - 39 \ 40 - 44 \ 45 - 49 \ 50 - 54 \ 55 - 59 \ 60 - 64 \\ \hline \textbf{Age Group (Years)} \\ \hline \textbf{Male} \quad \textbf{Female} \end{array}$

Source: 2010 Census of Population and Housing

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

9.5 Life Expectancy

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

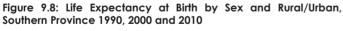
The most commonly used measure of life expectancy is the life expectancy at birth (e0), which refers to the average number of years expected to be lived by a birth cohort, based on prevailing age specific mortality rates.

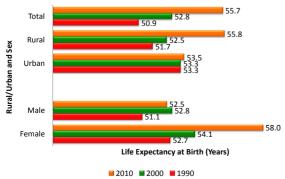
Unadjusted household deaths data were used to generate abridged life tables for Southern Province by sex and rural/urban. The 2000 life expectancy estimates were indirectly estimated based on the North Model, while the 2010 estimates are based on empirical data on household deaths collected during the 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 Southern Province in 2010.

Table 9.2: Life Expectancy at Birth by Sex and Rural/Urban, Southern Province 2010						
Southern Province Rural/Urban Both Sexes Males Females						
Southern Province	55.7	52.5	58.0			
Rural	55.8	54.2	59.7			
Urban 53.5 53.2 56.9						
Source: 2010 Censu	s of Population an	d Housina				

In 2010, the life expectancy at birth was 55.7 years. The life expectancy at birth for rural areas was higher (55.8 years) than in urban areas (53.5 years). A possible explanation lies in the high adult mortality in urban areas than in rural areas as shown earlier with the Age-Sex Specific Death Rate. In both rural and urban areas, females had higher life expectancy at birth than males.

Figure 9.8 shows life expectancy at birth by sex and rural/urban in 1990, 2000 and 2010. Life expectancy at birth increased from 50.9 years in 1990 to 55.7 years in 2010. In rural areas, life expectancy at birth increased from 51.7 years to 55.8 years between 1990 and 2010 while in urban areas it remained almost the same.

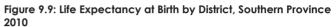


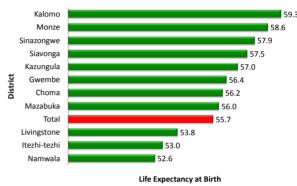


Source: 1990, 2000 and 2010 Censuses of Population and Housing

Life expectancy at birth for males increased from 51.1 years to 52.5 years in 1990 and 2010, respectively. The life expectancy at birth for females increased from 52.7 years in 1990 to 58.0 years in 2010.

For each district, life expectancy at birth was generated from abridged life tables based on reported household deaths 12 months prior to the census. Figure 9.9 shows life expectancy at birth by district. In 2010, Livingstone, Itezhi-tezhi and Namwala districts had life expectancy at birth below than the province average of 55.7 years. Kalomo District had the highest life expectancy at birth of 59.3 years and Namwala District with the lowest life expectancy at birth of 52.6 years.





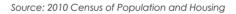


Figure 9.10 shows life expectancy at birth by district for 2000 and 2010. Caution should also be taken in comparing the estimates for 2000 and 2010 as they are based on different methodologies. The 2000 estimates were based on indirect estimation based on the North Model Life Table, while the 2010 estimates are based on empirical data on household deaths collected during the 2010 Census. Some districts had an increase while others such as Mazabuka District had a decline in life expectancy at birth between 2000 and 2010.

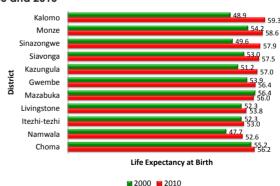
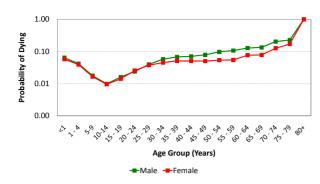


Figure 9.10: Life Expectancy at Birth by District, Southern Province 2000 and 2010

Source: 2000 and 2010 Censuses of Population and Housing

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

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



Source: 2010 Census of Population and Housing

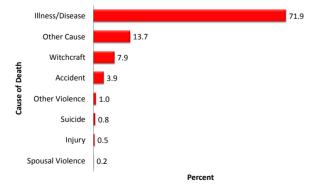
The probability of dying is higher for males than females almost in all ages except at age group 10 to 14 years. At age 10, there were improved survival prospects for both sexes. As mortality increases beyond age 25, the gap in the probability of dying between males and females increases and is even wider between the ages of 35 and 65. 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 71.9 percent of all reported household deaths. Accidents were cited as a cause of death in 3.9 percent of deaths reported, while other causes were cited in 13.7 percent of reported deaths.

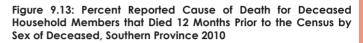
Figure 9.12: Percent Reported Cause of Death for Deceased Household Members that Died 12 Months Prior to the Census, Southern Province 2010

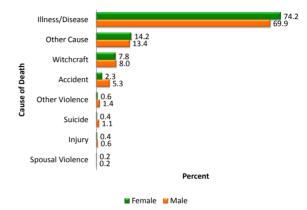


Source: 2010 Census of Population and Housing

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

Illness/Disease is the major cause of mortality among males and females in Southern Province. The percentage for females was higher (74.2 percent) than that for males (69.9 percent). However, the percentages of male deaths attributed to witchcraft, accident, violence, suicide, injury and other causes were higher than those of females.

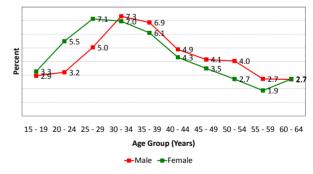


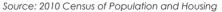


Source: 2010 Census of Population and Housing

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 is higher than that of males for the age groups 15-29, while the percentage of males dying from illness/disease was higher than females for ages over 30 years.







CHAPTER 10 LANGUAGE AND ETHNICITY

10.0 Summary

Tonga was the widely used language of communication, spoken by 74.7 percent of the population in Southern Province.

Tonga was spoken by a higher proportion of the population in Gwembe (95.8 percent), Kalomo (95.0 percent), Sinazongwe (93.0 percent) Monze (91.3 percent), Choma (89.4 percent), Mazabuka (80.1 percent), Siavonga (74.4 percent) and Namwala (63.1 percent), districts.

Ila was widely spoken in Itezhi tezhi District at 41.3 percent, while Toka leya was widely used in Kazungula District at 50.6 percent. In Livingstone District, the majority of the population spoke Nyanja at 32.2 percent.

Over the past three censuses, languages from the Tonga group had remained the most widely spoken from 80.3 percent in 1990 to 83.0 percent in 2010.

Tonga was the largest ethnic group with 74.4 percent of the population in Southern Province.

Chapter 10 Language And Ethnicity



10.1 Introduction

The Zambian society is endowed with many languages; there are officially 73 ethnic groups, from which, seven language clusters have been identified. There are seven languages or language clusters that are used in Zambia besides English for official purposes such as broadcasting (both on radio and television), literacy campaigns and the official dissemination of information. These are (in alphabetical order), Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga.

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

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

- By combining most spoken languages in a geographical location such 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 in his/her present home. Table 10.1 shows the 23 most spoken languages in Southern Province by rural and urban. The widely spoken language of communication in Southern Province in the year 2010 was Tonga (74.7 percent); this was followed by Nyanja at 7 percent. In rural areas, Tonga was the most spoken language (84.8 percent) followed by Toka Leya at 4.9 percent. In urban areas, Tonga was widely spoken by 45.1 percent of the population.

Table 10.1: Percentage Distribution of the Population by WidelySpoken Language of Communication and Rural/urban, SouthernProvince, 2010					
Widely Spoken Language of Communication	Total	Rural	Urban		
Bemba	2.8	1.0	8.3		
Swaka	0.1	0.1	0.1		
Lima	0.1	0.1	0.0		
Bwile	0.1	0.1	0.0		
Tonga	74.7	84.8	45.1		
Lenje	0.1	0.0	0.2		
lla	3.7	4.5	1.3		
Toka-Leya	4.0	4.9	1.5		
Gowa	0.4	0.4	0.4		
Luvale	0.4	0.2	1.2		
Lunda(N/Western)	0.1	0.0	0.2		
Mbunda	0.2	0.1	0.3		
Luchazi	0.1	0.0	0.1		
Kaonde	0.1	0.0	0.2		
Lozi	4.0	1.9	10.3		
Nkoya	0.1	0.0	0.1		
Chewa	0.2	0.1	0.7		
Nsenga	0.2	0.0	0.6		
Ngoni	0.2	0.1	0.6		
Nyanja	7.0	1.2	24.1		
Tumbuka	0.1	0.0	0.2		
Mambwe	0.1	0.0	0.2		
English	1.0	0.2	3.4		
Other Language	0.5	0.3	1.0		
Total Percent	100	100	100		
Total Population	1,338,649	999,837	338,812		

Source: 2010 Census of Population and Housing Note: Languages that had less than 0.1 percent of the total population in the province were lumped in the "Other Languages" category. "Not applicable", "Not stated" and "Major Racial Group" categories were excluded from the analysis of predominant language of communication

10.3.1: Language Groups

In this analysis, seven language groups had been identified according to the criteria described in 10.1.These are (in alphabetical order) Barotse, Bemba, Mambwe, North Western, Nyanja, Tonga and Tumbuka. Table 10.2 shows the percent distribution of language groups by rural/urban. Languages in the Tonga group were the most spoken by 83 percent. Of the rural and urban population, 94.7 and 48.6 percent respectively spoke a language from the Tonga group.

Table 10.2: Percentage Distributi	on of the Population by Major La	nguage Group and Rural/Urban, So	outhern Province 2010
Language Group	Total	Rural	Urban
Bemba	3.3	1.5	8.8
Tonga	83.0	94.7	48.6
North Western	0.8	0.4	2.0
Barotse	4.1	1.9	10.5
Mambwe	0.1	0.0	0.3
Nyanja	7.6	1.3	26.0
Tumbuka	0.1	0.0	0.3
English	1.0	0.2	3.4
Other Language	0.1	0.1	0.1
Total Percent	100.0	100.0	100.0
Total Population	1,338,649	999,837	338,812
Source: 2010 Census of Population a	nd Housing		·

10.3.2: Widely Used Language of Communication by Sex

Table 10.3 shows the percentage distribution of the population on widely used language of communication by sex and rural/ urban. The table shows that Tonga language was the most widely used language of communication for both males and females at 74.3 and 75.1 percent, respectively. A similar pattern was observed in both rural and urban areas where most males and females reported Tonga as their widely used language of Communication.

Widely Spoken Language		Total			Rural			Urban	
of Communication	Total	Male	Female	Total	Male	Female	Total	Male	Female
Bemba	2.8	2.9	2.8	1.0	1.0	0.9	8.3	8.4	8.2
Swaka	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
Lima	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Bwile	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
Tonga	74.7	74.3	75.1	84.8	84.4	85.1	45.1	44.5	45.7
Lenje	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.3
lla	3.7	3.7	3.7	4.5	4.5	4.5	1.3	1.2	1.3
Toka-Leya	4.0	4.1	4.0	4.9	5.0	4.9	1.5	1.5	1.6
Gowa	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4
Luvale	0.4	0.4	0.4	0.2	0.2	0.2	1.2	1.2	1.1
Lunda (North Western)	0.1	0.0	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Mbunda	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.3	0.3
Luchazi	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2
Kaonde	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Lozi	4.0	4.1	3.9	1.9	2.0	1.8	10.3	10.3	10.2
Nkoya	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.2	0.1
Chewa	0.2	0.2	0.2	0.1	0.1	0.1	0.7	0.7	0.6
Nsenga	0.2	0.2	0.2	0.0	0.0	0.0	0.6	0.6	0.6
Ngoni	0.2	0.2	0.2	0.1	0.1	0.1	0.6	0.6	0.5
Nyanja	7.0	7.1	6.8	1.2	1.2	1.1	24.1	24.6	23.6
Tumbuka	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Mambwe	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
English	1.0	1.0	1.0	0.2	0.2	0.1	3.4	3.4	3.4
Other Languages	0.5	0.5	0.4	0.3	0.3	0.3	1.0	1.0	0.9
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Population	1,338,649	649,967	688,682	999,837	485,957	513,880	338,812	164,010	174,802

10.3.3 Widely Used Language of Communication by District

Table 10.4 shows the percentage distribution of widely used language of communication by district. Tonga was widely spoken by a higher proportion of the population in eight districts of Southern Province, namely; Choma (89.4 percent), Gwembe (95.8 percent), Kalomo (95 percent), Monze (91.3 percent), Namwala (63.1 percent), Siavonga (74.4 percent), Sinanzongwe (74.4 percent) and Mazabuka (80.1 percent) districts. In Itezhi tezhi District, Ila was widely used by 41.3 percent while Toka leya was widely used in Kazungula District at 50.6 percent. Nyanja was widely used in Livingstone District at 32.2 percent.

Table 10.4	Percentag	e Distributi	on of the V	Videly Used	d Languag	e of Comn	nunicatior	n by District	, Southern	Province	2010	
Widely Used language of Communi-	Ĩ						Living-					Sinazon-
cation	Total	Choma	Gwembe	ltezhi Tezhi	Kalomo	Kazungula	stone	Mazabuka	Monze	Namwala	Siavonga	gwe
Bemba	2.8	1.8	2.0	2.6	0.4	0.5	10.1	4.1	1.9	1.6	3.7	3.3
Swaka	0.1	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.2	0.1	0.1	0.1
Lima	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1
Bwile	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.1	0.1	0.0	0.1	0.1
Tonga	74.7	89.4	95.8	30.5	95.0	34.1	19.8	80.1	91.3	63.1	74.4	93.0
Lenje	0.1	0.0	0.0	0.2	0.0	0.0	0.3	0.1	0.0	0.0	0.1	0.0
lla	3.7	0.2	0.0	41.3	0.1	0.1	0.4	0.2	0.1	30.2	0.0	0.0
Toka-Leya	4.0	0.1	0.0	0.1	1.5	50.6	4.6	0.1	0.0	0.1	0.0	0.1
Gowa	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.0	0.0
Luvale	0.4	0.2	0.0	2.8	0.1	0.3	1.5	0.3	0.1	0.4	0.1	0.1
Lunda N/												
Western	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.1	0.1	0.0	0.0
Mbunda	0.2	0.0	0.0	2.3	0.0	0.1	0.3	0.1	0.0	0.2	0.0	0.0
Luchazi	0.1	0.0	0.0	0.6	0.0	0.1	0.2	0.0	0.0	0.0	0.0	0.0
Kaonde	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.1	0.0
Lozi	4.0	0.7	0.4	6.2	0.6	12.2	20.3	3.7	1.0	1.6	0.7	1.0
Nkoya	0.1	0.0	0.0	0.6	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Chewa	0.2	0.2	0.1	0.2	0.1	0.1	0.8	0.4	0.2	0.0	0.3	0.1
Nsenga	0.2	0.1	0.0	0.0	0.1	0.0	0.9	0.3	0.1	0.0	0.1	0.1
Ngoni	0.2	0.2	0.0	0.0	0.1	0.0	0.5	0.4	0.2	0.1	0.1	0.1
Nyanja	7.0	5.7	0.7	10.9	1.2	1.0	32.2	7.9	3.1	1.4	12.0	1.5
Tumbuka	0.1	0.0	0.0	0.1	0.0	0.0	0.2	0.1	0.0	0.0	0.0	0.0
Mambwe	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.1	0.0
English	1.0	0.6	0.2	0.2	0.2	0.1	6.0	1.0	0.7	0.1	0.8	0.2
Other	0.5	0.3	0.2	1.0	0.2	0.2	1.1	0.5	0.4	0.8	0.3	0.2
Language Total	0.5	0.3	0.2	1.0	0.2	0.2	1.1	0.5	0.4	0.8	0.3	0.2
Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Population	1,338,649	210,113	43,934	55,357	213,839	88,658	120,980	198,569	161,946	82,249	75,690	87,314
Source: 2010	Census of I	Population c	and Housing									
											-	-

10.3.4 Major Language Groups, 1990, 2000 and 2010

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

the population speaking languages in the Tonga language group reduced from 80.3 percent in 1990 to 77.9 percent in 2000 and increased to 83.0 percent in 2010. North Western, Mambwe, Barotse and Tumbuka language groups reduced between 1990 and 2010.

		Perce	ntage of Total Population
Language Group	1990	2000	2010
Bemba	3.1	3.3	3.3
onga	80.3	77.9	83.0
North Western	1.8	1.2	0.8
Barotse	7.2	5.2	4.1
Nyanja	6	6.8	7.6
Mambwe	0.3	0.2	0.1
⁻ umbuka	0.4	0.2	0.1
English	0.7	0.8	1.0
Others	0.2	4.4	0.1
Total Percent	100	100	100.0
otal Population	858,902	1,051,663	1,338,649

10.4 Ethnicity

This section shows ethnic groups that had a population of at least 0.1 percent of the total population in Southern 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 Tonga ethnic group had the largest percentage of the provincial population at 74.4 percent followed by the Lozi ethnic group at 6.1 percent. In rural and urban areas, the largest percentage of the population was Tonga at 84.2 and 44.5 percent, respectively.

Table 10.6: Percentage Distribution	Total	Rural	Urban
Bemba	3.4	1.3	9.7
Lunda Luapula	0.1	0.0	0.3
Lala	0.1	0.0	0.3
Bisa	0.1	0.0	0.4
Ushi	0.1	0.0	0.2
Lamba	0.1	0.0	0.4
Swaka	0.1	0.1	0.1
Lima	0.1	0.1	0.0
Bwile	0.1	0.1	0.0
Tonga	74.4	84.2	44.5
Lenje	0.3	0.1	0.9
Soli	0.3	0.1	0.4
lla	3.1	3.5	1.8
Toka-Leya	2.9	3.1	2.5
Gowa	0.4	0.4	0.5
Luvale	1.1	0.4	3.0
Lunda N/Western	0.2	0.1	0.6
Mbunda	0.2	0.2	0.7
Luchazi	0.1	0.1	0.3
Chokwe	0.1	0.0	0.3
Kaonde	0.3	0.2	0.9
Lozi	6.1	3.1	15.1
Nkoya	0.3	0.2	0.5
Chewa	0.9	0.3	2.9
Nsenga	0.8	0.2	2.7
Ngoni	1.1	0.4	3.3
Nyanja	0.5	0.3	1.4
Kunda	0.1	0.0	0.4
Chikunda	0.1	0.0	0.1
Tumbuka	0.6	0.2	1.8
Senga	0.1	0.0	0.3
Mambwe	0.3	0.1	1.0
Namwanga	0.3	0.1	0.9
English	0.0	0.0	0.0
Ethnicity Not Stated	0.3	0.3	0.3
Major racial groups	0.3	0.2	0.7
Other Ethnic Groups	0.5	0.4	0.8
Total Percent	100.0	100.0	100.0
Total Population	1,517,088	1,141,540	375,548

Source: 2010 Census of Population and Housing

10.4.2. Ethnicity by Sex and Rural/Urban

Ethnicity was also analysed by sex and rural/urban as shown in Table 10.7. The Tonga ethnic group had the largest percentage of

males and females at about 74 and 75 percent, respectively. The table shows that there were no major differences by sex in the proportion of the population for all ethnic groups in both rural and urban areas.

The state :		Total			Rural			Urban	
Ethnicity	Total	Male	Female	Total	Male	Female	Total	Male	Female
emba	3.4	3.5	3.3	1.3	1.4	1.3	9.7	9.8	9.5
unda Luapula	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.3
ala	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.4	0.4
isa	0.1	0.1	0.1	0.0	0.0	0.0	0.2	0.2	0.2
Ishi	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
amba	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.4	0.4
waka	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1
ima	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1
wile	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0
onga	74.4	74.0	74.7	84.2	83.8	84.5	44.5	43.9	45.1
enje	0.3	0.3	0.3	0.1	0.1	0.1	0.9	0.9	0.8
oli	0.2	0.2	0.2	0.1	0.1	0.1	0.4	0.5	0.4
a	3.1	3.1	3.0	3.5	3.5	3.4	1.8	1.7	1.8
oka-Leya	2.9	2.9	2.9	3.1	3.1	3.1	2.5	2.4	2.6
Gowa	0.4	0.4	0.5	0.4	0.4	0.4	0.5	0.5	0.5
Jvale	1.1	1.1	1.1	0.5	0.5	0.5	3.0	3.1	2.9
unda N/Western	0.2	0.2	0.2	0.1	0.1	0.1	0.6	0.7	0.6
Ibunda	0.3	0.4	0.3	0.2	0.2	0.2	0.7	0.8	0.7
Jchazi	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3
hokwe	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.3
aonde	0.3	0.3	0.3	0.2	0.2	0.2	0.9	0.9	0.9
ozi	6.1	6.2	6.0	3.1	3.3	3.0	15.1	15.1	15.1
koya	0.3	0.3	0.3	0.2	0.2	0.2	0.5	0.5	0.5
hewa	0.9	0.9	0.9	0.3	0.3	0.2	2.9	3.0	2.8
lsenga	0.8	0.8	0.8	0.2	0.2	0.2	2.7	2.7	2.7
Igoni	1.1	1.2	1.1	0.4	0.4	0.4	3.3	3.4	3.3
lyanja	0.5	0.6	0.5	0.3	0.3	0.3	1.4	1.4	1.3
unda	0.1	0.1	0.1	0.0	0.0	0.0	0.4	0.4	0.4
Chikunda	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.1	0.2
umbuka	0.6	0.6	0.6	0.2	0.2	0.2	1.8	1.9	1.8
enga	0.1	0.1	0.1	0.0	0.0	0.0	0.3	0.3	0.3
1ambwe	0.3	0.3	0.3	0.1	0.1	0.1	1.0	1.0	0.9
lamwanga	0.3	0.3	0.3	0.1	0.1	0.1	0.9	1.0	0.9
nglish	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0
thnicity Not Stated	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4	0.3
Najor racial groups	0.3	0.3	0.3	0.2	0.2	0.1	0.7	0.7	0.7
Other Ethnic Groups	0.5	0.6	0.5	0.4	0.5	0.4	0.8	0.9	0.8
otal Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
otal Population	1,517,088	738,996	778,092	1,141,540	556,592	584,948	375,548	182,404	193,144

CHAPTER 11 DISABILITY

11.0 SUMMARY

The proportion of the population with disability in Southern Province was 1.8 percent. The percentage in rural areas was higher than urban areas at 2.0 and 1.2 percent, respectively. Kazungula District had the highest percentage of the population with disability at 2.3 percent while Livingstone District had the lowest with 1.4 percent.

The median age for the population with disability was 33 years. Physical disability was the most common type of disability at 34.5 percent. The major cause of disability was disease at 33.7 percent.

The literacy rate for the population with disability in Southern Province was 57.6 percent. Livingstone District had the highest proportion of the population with disabilities who were literate at 78.0 percent and the lowest was Siavonga District with 42.0 percent.

The percentage of the population with disability that were attending school was 17.0 percent. Generally, the highest level of education attained by the majority of the population with disabilities, whether male or female was primary education.

The percentage of the population with disabilities who were employed was 90.9 percent and most of these people had agricultural related occupations at 84.7 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 Cates	gories used in Censuses, Za	mbia 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, 200	0 and 2010 Censuses of Popula	tion and Housing		

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

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

11.2 Concepts and Definitions

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

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

11.2.1 Type of Disability:

Blind: Complete loss of sight in both eyes.

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

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

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

Dumb: Complete lack of ability to speak.

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

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

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

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

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

Other: Any other disability not mentioned above.

11.3 Causes of Disability

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

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

11.4 Limitations of Disability Data

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

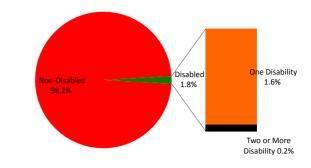
The 2010 census did not include detailed questions on disability to be able to bring out the variations in the intensity of the disabilities. In addition, this data did not include the population living with disabilities in institutions.

11.5 General Characteristics

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

11.5.1 Distribution of the Disabled and Non-Disabled Population

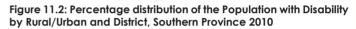
Figure 11.1 shows the percentage distribution of the population by disability status. The percentage of the population living with disabilities was 1.8 percent out of which 1.6 percent had one disability while 0.2 percent had more than one disability.

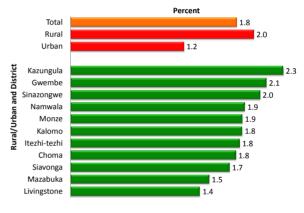


Source: 2010 Census of Population and Housing

11.5.2 Distribution of the Disabled

Figure 11.2 shows the percentage distribution of the population with disabilities by rural/urban and district. The percentage of the population living with disabilities was 1.8 percent. Rural areas had a higher percentage of persons living with disabilities compared with urban areas at 2.0 and 1.2 percent, respectively.





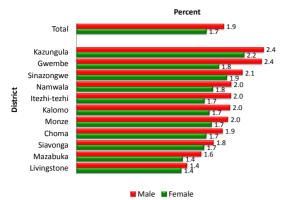
Source: 2010 Census of Population and Housing

Kazungula District had the highest percentage (2.3 percent) of persons with disabilities while Livingstone District had the lowest (1.4 percent)

11.5.3 Disability by Sex

Figure 11.3 shows the percentage distribution of the population living with disabilities by sex and district. In Southern Province there were more males than females who were living with disabilities. Kazungula and Gwembe districts had the highest percentage of males living with disabilities with 2.4 percent each. For Females, Kazungula District had the highest percentage of persons living with disabilities at 2.2 percent. Livingstone District had the lowest percentage of persons living with disabilities at 1.4 percent for both sexes.



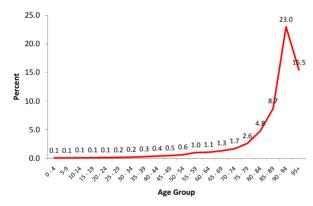


Source: 2010 Census of Population and Housing

11.5.4 Disability by Age

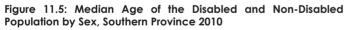
Figure 11.4 shows the percentage of the population with disability by age. The figure shows that disability increases with age, with the highest percentage in the age group 90-94 years at 23.0 percent. All the age groups below the age of 24 years had percentages of persons with disabilities of 0.1 percent.

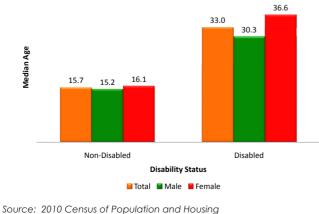
Figure 11.4: Percentage Distribution of Persons with Disability by Age Group, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 11.5 shows the median age for the disabled and nondisabled population in Southern Province. The median age for the population with disability was 33.0 years. Non-disabled population had a median age of 15.7 years.



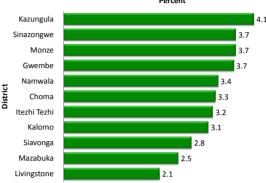


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11.5.5 Disability by Household Headship

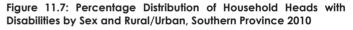
Figure 11.6 shows the percentage distribution of the population with disabilities who were heading households by District. Persons with disabilities made up 3.1 percent of the total population of household heads. Kazungula District had the highest percentage of household heads living with disabilities at 4.1 percent. Livingstone District had the least percentage at 2.1 percent.

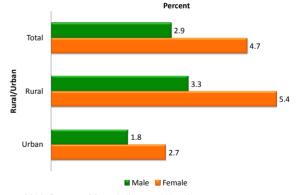
Figure 11.6: Percentage Distribution of Household Heads with Disabilities by Rural/Urban and District, Southern Province 2010 Percent



Source: 2010 Census of Population and Housing

Figure 11.7 shows the percentage of the population with disabilities who were heading households by sex and rural/ urban. In Southern Province, there was a higher percentage of female household heads living with disabilities at 4.7 percent, compared with 2.9 percent for males. The percentages of females with disabilities that were heading households were higher in both rural and urban areas.



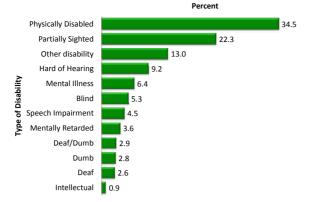


Source: 2010 Census of Population and Housing

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 (34.5 percent) in Southern Province followed by partially sighted at 22.3 percent. The least common type of disability was intellectual at 0.9 percent.

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



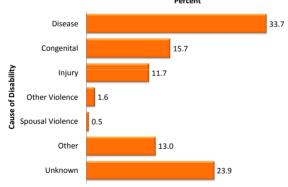
Source: 2010 Census of Population and Housing

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 percent distribution of persons with disabilities by cause. The figure shows that 33.7 percent of the persons with disabilities reported disease as the cause of disability. This was followed by congenital with 15.7 percent. The least common cause of disability was spousal violence with 0.5 percent.

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



Source: 2010 Census of Population and Housing

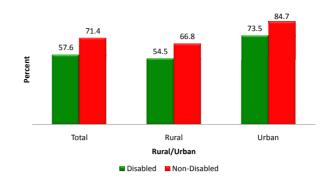
11.6 Characteristics of the Population with Disability

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

11.6.1 Literacy Levels among the Disabled and Non-Disabled

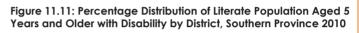
Figure 11.10 shows the percentage distribution of literate population aged 5 years and older by disability status and rural/ urban. Literacy among persons with disability in Southern Province was 57.6 percent compared to 71.4 percent for persons without disability. The literacy levels for the persons with disability were higher in urban areas at 73.5 percent compared to 54.5 percent in rural areas.

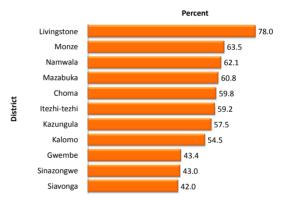
Figure 11.10: Percentage Distribution of Literate Population (5 Years and Older) by Disability Status and Rural/Urban, Southern Province 2010



Source: 2010 Census of Population and Housing

Figure 11.11 shows the percentage distribution of literate population with disability aged 5 years and older by district. Livingstone District had the highest percentage of the literate population with disability at 78.0 percent. Siavonga District had the least percentage at 42.0 percent.





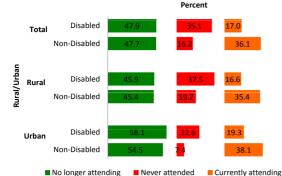
Source: 2010 Census of Population and Housing

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 the percentage of persons who were currently attending school was higher among the non disabled population with 36.1 percent compared with 17.0 percent among the disabled. The percentage of persons who were no longer attending school was almost the same for both disabled and non disabled people.

In rural areas the percentage of persons with disabilities who were currently attending school was 16.6 compared with 35.4 percent for the non-disabled. Similarly, the percentage of persons with disabilities in urban areas who were currently attending school was 19.3 compared with 38.1 percent among the non disabled. Figure 11.12: Percentage Distribution of Disabled and Non-Disabled Population (5 Years and Older) by School Attendance and Rural/Urban, Southern Province 2010

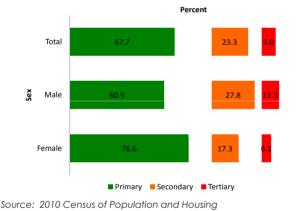


■ No longer attending ■ Never attended ■ Currently attending Source: 2010 Census of Population and Housing

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 Southern Province, 67.7 percent, of the population with disabilities had attained primary education, 23.3 percent attained Secondary level education and 9.0 percent had attained tertiary education. A higher percentage of Males had completed tertiary education at 11.3 percent compared to 6.1 percent for females.

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

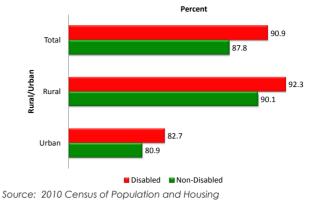


11.7 Economic Activity

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 the percentage of employed persons was 90.9 percent compared to 87.8 percent of persons without disabilities. In both rural and urban areas, the percentage of the disabled who were employed was higher than that of the non disabled.

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

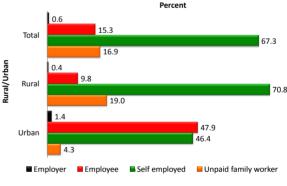


11.7.1 Employment Status

Figure 11.15 shows employment status of persons with disability by rural/urban. In Southern Province, Self-employed was the most common employment status at 67.3 percent followed by 16.9 percent unpaid family workers. Employer was the least with 0.6 percent.

In Rural areas, the majority of the employed population living with disabilities were self employed (70.8 percent) followed by 19.0 percent who worked as unpaid family workers. The majority of the employed persons living with disabilities in urban areas worked as Employees, 47.9 percent followed by those that were self employed, 46.4 percent.





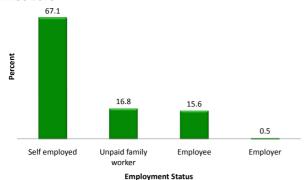
Source: 2010 Census of Population and Housing

11.7.2 Employment Status of Disabled Household Heads

Figure 11.16 shows the percentage distribution of household heads with disabilities by employment status. The figure shows that the majority of household heads living with disabilities were self employed (67.1 percent) and the least was Employers (0.5 percent).



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

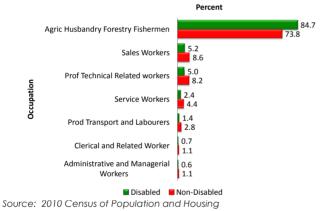


Source: 2010 Census of Population and Housing

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 the population 12 years and older by occupation and disability status. Agricultural occupations were the most common occupations for both the disabled and the non disabled people in Southern Province. The least common occupations for both the disabled and the non disabled persons were Administrative and managerial workers and clerical and related work.

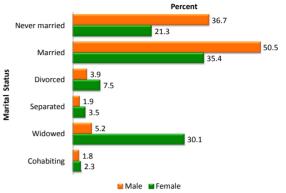
Figure 11.17: Percentage Distribution of the Disabled Population by Occupation and Disability Status, Southern Province 2010



11.8 Marital Status of the Disabled by Sex

Figure 11.18 shows percent distribution of persons with disabilities (15 years and Older) by marital status and sex. The figure shows that a higher percentage of males with disabilities were married at 50.5 percent compared with 35.4 percent of the females. The figure also shows that 36.7 percent of the disabled male population had never been married compared with 21.3 percent of the females.

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



Source: 2010 Census of Population and Housing

CHAPTER 12 EVALUATION OF COVERAGE AND CONTENT ERRORS

12.0 Summary

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

The Myers' Index increased from 5.5 in 2000 to 6.1 in 2010.

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

The Age-Sex Accuracy Index for Southern Province reduced from 24.8 in 2000 to 24.1 in 2010.



12.1 Introduction

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

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

12.2 Concepts and Definitions

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

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

Age Ratio: The ratio of the population in a given age group to one-third of the sum of the populations in the age group itself, the preceding and the following age groups, times 100 (Shryock et al, 1976).

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

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

Child-Woman Ratio: Number of children aged 0-4 years in a population to every 1,000 women aged 15-49 years in the same population.

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

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

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

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

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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).

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

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

12.4 Methods of Evaluation

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

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

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

12.5 Coverage Error

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

12.6 Age Composition

Examining age composition over time can help assess the coverage error in census data. The percentage for each group should not vary much from one census to another except where there had been major changes to the population. Fertility and mortality effects would normally result into marginal changes to the percentage of the broad age groups. Table 12.1 shows population composition of Southern Province by broad age groups for 1990, 2000 and 2010. The percentage of children aged 0-14 years increased from 47.6 percent in 1990 to 48.8 percent in 2000 and later it reduced to 48.2 percent in 2010. The percentage of the elderly (aged 65 years and older) increased from 2.4 in 1990 to 2.5 in 2010. Generally, the results show consistency of coverage in all the three censuses.

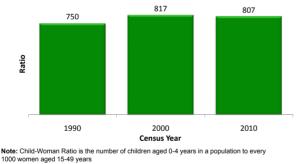
Are Crown	Population								
Age Group	1990	Percent	2000	Percent	2010	Percent			
0-4	158,307	17.5	211,701	18.7	285,543	18.8			
5-9	143,945	15.9	186,534	16.5	236,602	15.6			
10-14	129,076	14.2	154,434	13.6	209,728	13.8			
*0-14	*431,328	*47.6	*552,669	*48.8	*731,873	*48.2			
15-64	454,427	50.1	551,416	48.7	747,104	49.2			
65+	21,395	2.4	28,725	2.5	38,111	2.5			
Total	907,150	100	1,132,810	100	1,517,088	100			

* Not included in the total

12.7 Child-Woman Ratio

Figure 12.1 shows child woman ratio for census years 1990, 2000 and 2010. Between 1990 and 2000, there was an increase in the percentage of children aged 0-4 years and an increase in the child woman ratio. The child-woman ratio increased from 750 in 1990 to 817 children aged 0-4 years per 1000 women aged 15-49 years in 2000. In 2010, the child woman ratio reduced to 807 children aged 0-4 years per 1000 women age 15-49 years in 2010.

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

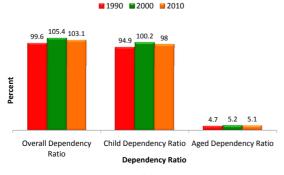


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

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, Southern 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 ratios for the population of Southern Province for 1990, 2000 and 2010 censuses were 99.6, 105.4 and 103.1, respectively. This means that in 2010 for every 100 persons in the age group 15-64 years, there were 103.1 dependants in the age groups 0-14 and 65 years and older. Child dependency ratio increased from 94.9 persons in 1990 to 100.2 persons in 2000 and later reduced to 98.0 persons in 2010. Aged dependency ratio followed a similar pattern.

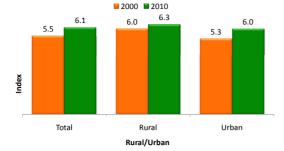
12.9 Content Error

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

12.9.1 Digit Preference

Digit preference is mostly pronounced among population subgroups having a low educational status. The causes and patterns of digit preference vary from one culture to another. Age misreporting, net under enumeration and non-reporting or misclassifications of age contribute to heaping (Shryock, et.al. 1976).

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



Note: A high Myers' Index implies poor age reporting whereas a low Myers' Index indicates good age reporting. The maximum value of Myers' Index is 90 while the minimum value is 0

Sources: 2000 and 2010 Censuses of Population and Housing

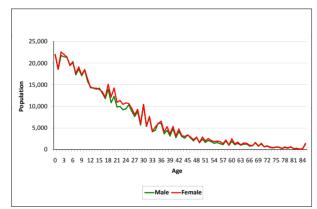
The Myers' index for Southern Province increased from 5.5 in 2000 to 6.1 in 2010. The index for both rural and urban areas increased between 2000 and 2010. In rural areas, the Myers' index increased from 6.0 in 2000 to 6.3 in 2010. In urban areas, it increased from 5.3 to 6.0 between 2000 and 2010. The increase in Myers' index implies deterioration in the quality of age data reporting in 2010 compared to 2000.

Digit preference can also be explored by looking at age heaping. Table 12.2 shows the most preferred digits by sex and rural/ urban for 2000 and 2010. The most preferred digits are presented in decreasing order of preference. Both sexes preferred digits 0 and 2 in 2000 and 0, 8 and 5 in 2010, respectively, at provincial level and by rural/urban.

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

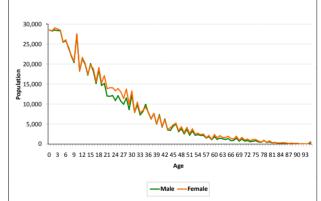
Errors in age data reporting are also presented in Figures 12.4 and 12.5. The figures show population distribution in single years for 2000 and 2010. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under reported ages.

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



Source: 2000 Census of Population and Housing

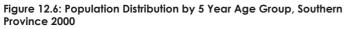


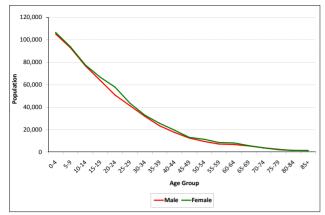


Source: 2010 Census of Population and Housing

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.

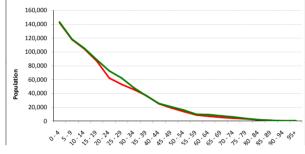
When single year age data is grouped into five year age groups, irregularities in age data arising from age misreporting tend to disappear. Figure 12.6 and 12.7 show population distribution in 5 year age groups for 2000 and 2010. The figures show smoothened curves after the single age data was grouped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





Source: 2000 Census of Population and Housing

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

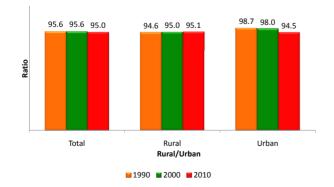


Source: 2010 Census of Population and Housing

12.9.2. Sex Ratios

The presence of omission errors, age misreporting and out migration may be detected by looking at the pattern of sex ratios. A sex ratio of more than 100 shows an excess of males over females while a sex ratio of less than 100 shows an excess of females over males. A sex ratio of 100 indicates an equal number of males and females. In the absence of big fluctuations in births, deaths and migration, the sex ratios are expected to be high at infant ages. After early childhood, the ratios are expected to decline continuously to reach very low levels at the highest ages when female mortality is much lower than the male mortality. Figure 12.8 shows sex ratios by rural/urban for 1990, 2000 and 2010.

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

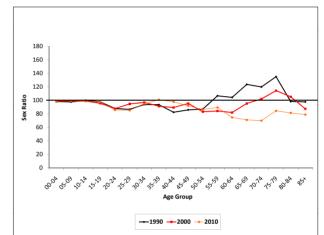


Sources: 1990, 2000 and 2010 Censuses of Population and Housing

Sex ratio for Southern Province reduced slightly from 95.6 in 1990 to 95.0 males per 100 females in 2010. In rural areas, sex ratio has been increasing since 1990. It increased from 94.6 in 1990 to 95.1 males per 100 females in 2010. In urban areas, sex ratio reduced from 98.7 in 1990 to 98.0 male per 100 females in 2000. It reduced to 94.5 males per 100 females in 2010.

Figure 12.9 shows sex ratio by five year age groups for 1990, 2000 and 2010. An analysis for 1990 age-specific sex ratios shows more females than males in age groups 0-9, 15-54 and above 80 years. In 2000, an analysis for age-specific sex ratios shows more females than males in the age group 0-69. An analysis for 2010 shows more females than males in age groups 0-34 and above 40 years.

Figure 12.9: Sex Ratio by 5 Year Age Group, Southern 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 10-14 and above 55 years. Sex ratios over 100 were observed in age groups above 70-84 years in 2000. In 2010, sex ratios above 100 were observed in age group 35-39 years.

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

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

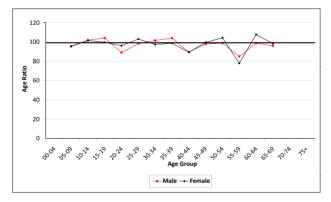
		1990			2000			2010	
Age Group	Total	Rural	Urban	Total	Rural	Urban	Total	Rural	Urban
0-4	98.3	98.7	97.2	98.7	98.7	98.9	99.2	99.3	98.9
5-9	97.7	98.7	94.3	99.1	99.7	96.4	99.5	100.6	95.5
10-14	100.2	103.7	89.8	99.0	101.7	89.2	99.1	102.6	87.8
15-19	97.7	100.4	89.7	95.7	98.7	87.0	97.8	101.4	88.8
20-24	88.0	87.9	88.1	87.9	87.2	89.9	85.8	87.2	82.6
25-29	86.8	85.0	91.6	94.8	92.6	101.5	85.3	84.5	87.0
30-34	93.9	88.7	107.8	97.0	91.9	113.4	95.0	90.8	105.0
35-39	93.6	84.1	118.3	91.4	86.3	108.1	101.1	95.1	117.1
40-44	82.5	69.1	131.7	89.5	83.1	112.5	97.9	91.7	116.9
45-49	86.0	75.0	134.8	95.5	88.0	123.5	92.1	87.8	105.8
50-54	87.2	77.0	145.5	83.2	73.4	137.5	86.5	81.9	102.0
55-59	106.8	100.2	146.0	84.4	79.5	117.3	89.6	85.8	102.0
60-64	104.5	100.2	132.2	82.1	77.9	116.8	74.9	69.6	99.3
65-69	123.7	119.9	152.5	95.5	95.5	95.0	71.2	69.2	82.0
70-74	119.9	117.1	144.7	102.2	103.0	96.3	70.1	68.8	77.4
75-79	135.1	130.2	186.8	114.5	114.6	114.1	84.6	85.1	82.0
80-84	98.4	96.8	115.3	105.4	102.6	134.1	81.5	81.0	84.0
85+	97.8	99.2	84.8	87.5	85.9	104.9	79.0	78.7	81.1

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.

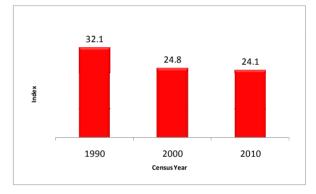
Figure 12.10: Age Ratios by Sex, Southern Province 2010



Source: 2010 Census of Population and Housing

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

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



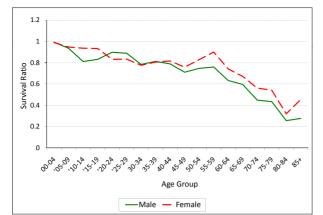
Source: 2010 Census of Population and Housing

The Age-Sex Accuracy Index for Southern Province declined from 32.1 in 1990 to 24.8 in 2000 and later to 24.1 in 2010. Using the UN interpretation of the age-sex accuracy index, despite improvements in the 2010 census data, age data reporting still falls in the 'inaccurate' category.

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 and sex for 2000-2010.

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



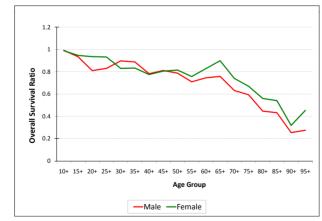
Sources: 2000 and 2010 Censuses of Population and Housing

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

Female ratios are generally expected to be higher than the male ratios because females normally have lower mortality compared to males. Figure 12.12 shows more female survival ratios except for age groups 0-4 and 20-39 years.

Figure 12.13 shows overall survival ratios by age and sex for 2000-2010. The overall survival ratios show a continued decline with increase in age. Females had higher survival ratios across all age groups except for the age groups 10-14 years and 30-49 years where males had higher survival ratios.

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

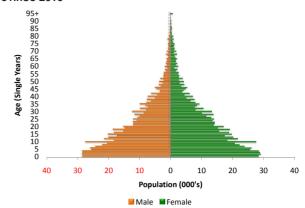


Sources: 2000 and 2010 Censuses of Population and Housing

12.9.5 Population Pyramids

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

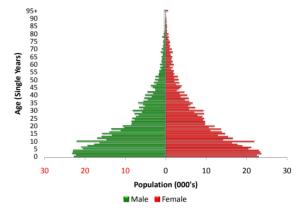
Figure 12.14: Population Distribution in Single Years, Southern Province 2010



Source: 2010 Census of Population and Housing

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

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



Source: 2010 Census of Population and Housing

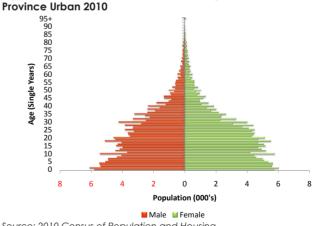
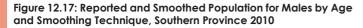


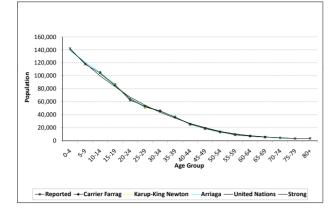
Figure 12.16: Population Distribution in Single Years, Southern

Source: 2010 Census of Population and Housing

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

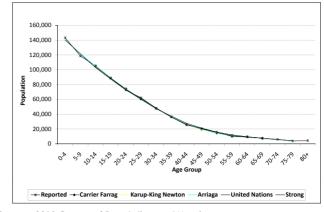
Smoothing age data using selected techniques for light smoothing of the population, show that the irregularities in the structure were not severe to consider smoothing.





Source: 2010 Census of Population and Housing

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



Source: 2010 Census of Population and Housing

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

ANNEX TABLES AND REFERENCES

Annex A: Population Composition and Demographic Characteristics

		Total			Rural			Urban	
Age Group	Total	Male	Female	Total	Male	Female	Total	Male	Female
0 - 4	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3	18.3
5 - 9	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4	15.4
10 - 14	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8	13.8
15 - 19	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
20 - 24	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.2	9.1
25 - 29	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.0
30 - 34	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.2	6.
35 - 39	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8	4.8
40 - 44	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.
45 - 49	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.0
50 - 54	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.
55 - 59	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.:
60 - 64	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.
65 - 69	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.
70 - 74	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.1
75 - 79	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.
80 - 84	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1
85+	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.
tal Population	1,589,926	779,659	810,267	1,197,751	587,448	610,303	392,175	192,211	199,964

Source: 2010 Census of Population and Housing

A2: Percent Distribution of the Populati	on by Selected Age Groups o	and Rural/Urban, Southern Province	e 2010
Are Crown		2010 Census	
Age Group	Total	Rural	Urban
10-19 (Adolescents ,WHO)	25.8	25.8	25.8
10-24 (Young People, UN)	35.0	34.3	37.1
<15 (Children)	47.5	49.9	39.9
<18 (Children)	54.8	33.8	47.6
15-19 (Middle and later Adolescence)	12.0	11.6	13.2
15-24 (Youths, UN)	21.2	20.1	24.5
15-49 (Reproductive Age Group)	45.8	42.9	54.5
15-35 (Youths, Zambia)	36.3	57.1	43.8
15-64 (Labour force Age group)	50.1	47.3	58.5
60+ (Elderly)	3.6	3.9	2.4
65+ (Elderly)	2.5	2.8	1.5
Total Population	1,589,926	1,197,751	392,175
Source: 2010 Census of Population and Hou	using		

Annex B: Social Characteristics

B1: Percent Distributio	n of Heads by Age Gro	oup and Sex, Southern I	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	292,179	220,606	100	71,573	100
12-14	160	80	*	80	0.1
15 - 19	2,631	1,675	0.8	956	1.3
20 - 24	22,729	18,594	8.4	4,135	5.8
25 - 29	45,667	38,337	17.4	7,330	10.2
30 - 34	49,212	40,608	18.4	8,604	12
35 - 39	42,820	34,457	15.6	8,363	11.7
40 - 44	31,651	24,031	10.9	7,620	10.6
45 - 49	25,729	18,522	8.4	7,207	10.1
50 - 54	20,147	13,572	6.2	6,575	9.2
55 - 59	13,267	8,732	4	4,535	6.3
60 - 64	11,662	6,859	3.1	4,803	6.7
65+	26,504	15,139	6.9	11,365	15.9
Source: 2010 Census of P	opulation and Housina		·	·	

Source: 2010 Census of Population and Housing

Relationship to head	Total	Percent	Rural	Percent	Urban	Percent
Total	1,589,926	100	1,197,751	100	392,175	100
Head	292,179	18.4	211,077	17.6	81,102	20.7
Spouse	210,071	13.2	158,147	13.2	51,924	13.2
Own Son/ Daughter	763,604	48	599,272	50	164,332	41.9
Step Son/Daughter	24,967	1.6	19,020	1.6	5,947	1.5
Parent	6,660	0.4	5,294	0.4	1,366	0.3
Brother/Sister	36,131	2.3	20,369	1.7	15,762	4
Nephew/Niece	58,769	3.7	36,310	3	22,459	5.7
Son/Daughter-in-law	11,848	0.7	9,325	0.8	2,523	0.6
Grandchild	126,938	8	102,170	8.5	24,768	6.3
Parent-in-law	1,427	0.1	1,062	0.1	365	0.1
Cousin	9,090	0.6	5,203	0.4	3,887	1
Other relative	38,410	2.4	25,449	2.1	12,961	3.3
Non Related	9,832	0.6	5,053	0.4	4,779	1.2

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Annex C: Education

C 1: Population 5 Years and Older by Age (Single and 5 Year Groups), Sex and Literacy Status, and Rural/Urban, Southern Province 2010 Age (Single and 5 Year Groups) Total Rural Urban **Both Sexes** Male Female **Both Sexes** Male Female **Both Sexes** Male Female Total 73.1 69.3 68.8 64.4 85.6 83.5 71.2 66.5 84.5 15 43 48 2.8 27 2.9 11.2 10.6 11.8

5	4.5	4.3	4.8	2.8	2./	2.9	11.2	10.6	11.8
6	7.0	6.7	7.4	4.5	4.2	4.7	17.7	17.1	18.3
7	13.8	13.4	14.3	9.9	9.6	10.2	28.7	27.9	29.6
8	24.2	22.7	25.7	18.8	17.4	20.1	45.4	44.0	46.8
9	41.2	39.2	43.1	34.7	33.1	36.3	65.7	63.7	67.5
5 - 9	17.0	16.2	17.9	13.1	12.4	13.8	32.3	31.1	33.5
10	57.7	55.2	60.2	52.4	49.6	55.2	78.1	77.3	78.8
11	76.7	74.6	78.8	73.0	70.8	75.2	90.0	89.3	90.7
12	86.1	84.6	87.7	83.7	82.0	85.5	94.4	94.3	94.5
13	89.8	89.0	90.7	87.9	87.1	88.9	96.3	96.3	96.2
14	92.6	92.0	93.2	91.0	90.3	91.6	97.5	97.5	97.4
10 - 14	78.8	77.2	80.4	75.4	73.7	77.1	90.7	90.2	91.1
15	93.0	92.9	93.2	91.7	91.6	91.8	97.1	97.3	96.9
16	93.7	93.8	93.6	92.3	92.7	92.0	97.7	97.6	97.7
17	93.6	94.1	93.2	91.9	92.6	91.1	98.0	98.2	97.9
18	92.7	93.6	91.7	90.8	92.0	89.6	97.4	97.8	97.0
19	91.8	93.0	90.5	89.3	91.0	87.7	97.2	97.6	96.8
15 - 19	93.0	93.5	92.5	91.3	92.0	90.6	97.5	97.7	97.3
20 - 24	89.2	91.8	86.9	86.1	89.5	83.1	96.2	97.2	95.3
25 - 29	86.1	89.6	83.0	81.7	86.3	77.8	95.2	96.5	94.1
30 - 34	85.9	89.5	82.6	81.7	85.9	77.8	95.3	96.8	93.8
35 - 39	85.2	89.4	80.9	81.2	86.1	76.5	94.7	96.6	92.5
40 - 44	84.5	89.7	79.3	80.8	87.0	75.2	94.2	96.2	91.8
45 - 49	83.3	89.5	77.6	79.7	86.8	73.5	93.5	96.6	90.3
50 - 54	80.9	89.7	73.3	77.2	87.1	69.1	92.0	96.5	87.3
55 - 59	79.1	89.0	70.2	75.6	86.6	66.2	89.6	95.7	83.5
60 - 64	67.9	83.8	55.9	64.0	81.0	52.2	82.8	92.7	72.9
65 +	52.8	72.8	37.8	50.6	71.0	35.5	64.5	81.6	50.6
Source: 2010 C	Census of Popul	ation and Housi	na						

Source: 2010 Census of Population and Housing

Age (Single		Total			Rural			Urban	
and 5 Year Groups)	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total	36.6	38.9	34.3	35.6	38.5	32.9	39.3	40.2	38.6
5	15.5	14.8	16.1	11.1	10.4	11.8	32.3	32.4	32.3
6	27.6	26.0	29.2	22.7	21.1	24.3	47.9	46.6	49.1
7	54.9	52.4	57.4	50.3	47.7	53.1	72.1	70.6	73.6
8	73.9	72.4	75.3	70.7	69.0	72.5	86.1	86.2	86.0
9	83.5	82.4	84.5	81.4	80.3	82.5	91.3	90.7	91.9
5 - 9	48.9	47.4	50.4	44.9	43.4	46.5	64.4	63.7	65.1
10	85.7	84.7	86.7	84.1	83.0	85.3	91.9	91.5	92.3
11	88.8	88.4	89.2	87.4	87.0	87.8	93.9	93.8	94.1
12	90.3	89.8	90.8	89.1	88.6	89.6	94.4	94.3	94.4
13	89.5	89.4	89.6	88.3	88.1	88.4	93.7	94.5	93.0
14	87.6	88.1	87.2	86.0	86.6	85.4	92.3	92.8	92.0
10 - 14	88.2	87.9	88.6	86.8	86.4	87.2	93.2	93.3	93.1
15	83.1	85.2	80.9	81.2	83.7	78.5	89.1	90.7	87.7
16	76.8	81.5	72.2	73.6	79.3	67.9	86.1	88.8	83.8
17	66.5	75.0	58.1	61.4	71.5	51.2	79.0	84.6	74.2
18	53.7	65.6	42.2	48.7	62.1	35.5	66.4	74.9	58.5
19	40.5	53.4	28.1	35.7	49.5	22.2	51.3	62.0	41.2
15 - 19	65.3	73.1	57.6	61.9	70.7	52.9	74.3	79.9	69.3
20 - 24	16.6	23.6	10.6	14.1	20.9	8.1	22.2	29.8	16.0
25 - 29	4.2	4.7	3.8	3.4	3.9	3.0	5.9	6.2	5.6
30 - 34	2.9	2.8	2.9	2.2	2.3	2.1	4.4	4.1	4.8
35 - 39	2.4	2.3	2.4	1.8	1.8	1.8	3.7	3.4	4.0
40 - 44	2.1	2.2	1.9	1.6	1.7	1.5	3.4	3.3	3.4
45 - 49	1.8	2.0	1.6	1.5	1.7	1.3	2.6	2.6	2.6
50 - 54	1.6	1.7	1.5	1.4	1.5	1.4	2.2	2.2	2.1
55 - 59	1.6	1.7	1.4	1.4	1.5	1.3	2.0	2.3	1.7
60 - 64	1.2	1.4	1.0	1.0	1.2	0.8	2.0	2.1	1.9
65 +	1.5	1.8	1.2	1.4	1.7	1.1	2.0	2.3	1.8

Annex D: Economic Characteristics

5	opulation	12 year	s and Olde	r) By Disi	trict, Rura	I/Urban	and Sex	Souther	n Provinc	se 2010.													
- Rural/Urban, Sex and Fronomic Activity	Total	Per-	Chomo Par	Percent	Gwem- F	Per- II	Itezhi F tezhi c	Per-	Kalomo C	Per- Kaz	Kazun- Per-	r- Living-	ng- Per-	- Maza-	za- Per-	r- Monze	Per-	Nam-	Per-	Sia-	Per-	Singzon-	Per-
Toto	80	2			8	<i>m</i>	2				9		9		0					18,411	4.3	19,978	
Rural	336,076	100	63,514	18.9	9,300	2.8	14,882		79,587	23.7 26	26,871 8		1,363 0	0.4 28,	28,469 8	8.5 55,843	43 16.6	5 27,122	2 8.1	11,467	3.4	17,658	
	94,782	100	14,305	1.5	406	0.0	2,760						34,173 3	3.6 15,	15,551 1	1.6 12,999	99 1.4	1,051		6,944		2,320	0.2
Male	232,877		39,271	16.9	5,639	2.4	10,162		40,468			6.4 22,			-					10,913		12,890	0 5.5
	197,981	100		19.5	4,067	2.1	7,480	3.8	43,047		12,370 6	6.2 13,	13,332 6	6.7 14,	14,892 7	7.5 36,224	24 18.3	3 13,435	5 6.8	7,498	3.8	7,088	3.6
-	lation (12)	vears an		/ Employ	By Employment Status	atus																	
	2,284	0.5	13 017	0.4	1010	0.3	1 400	0.5	235	0.3	2 070 7	0.2 7 4 21	471 1.3		564 1.3		7 205 10 7	3 65 7 1 500	0.2	158	30.0	140	0.7
Self emploved	185,864		31.657	40.7	3,723	38.4			869							(°)		1		7.585		10.250	
	157,360		32,853	42.2	4,939	50.9								00		26				4,981		5,388	
	lation (12)	rears an	d Older) By	r Occup	ation														-				-
Managers	3,252	0.8	311	0.4	49	0.5	414	2.3	58	0.1				9			270 0.4			216		118	
Professionals	17,437	4.0	2,914	3.7	460	4.7	481	2.7	526	0.6	526 1	1.9 3,	,823 10.	8	793	6.3 2,4	482 3.6	569	9 2.0	929	5.0	789	9 3.9
Technicians and Associ- ate Professionals	7,837	1.8	1,016	1.3	52	0.5	172	1.0	222	0.3	222 C	0.8 2,	2,420 6	6.8 1,	1,242	2.8	689 1.0	213		670	5.3	263	1.3
Clerical Support Workers	3,348	0.8	449	0.6	53	0.5	78	0.4	25	0.0		-	,377 3.		624 1		278 0.4	1 59	9 0.2	176		89	
Service and Sales Workers	36,753	8.5	6,683	8.6	178	1.8	452	2.6	622	0.7	622	2.3 12,	12,545 35.3	.3 4,7	756 10.8	4	,919 7.1	754	4 2.7	2,477	13.5	916	5 4.6
Skilled Agricultural Forestry and Fishery Workers	231,497	53.7	28,315	36.4	5,796	59.7	11,673	66.2	16,774	20.1 16,	6,774 61	6.	,323 3.	7 13,	,572 30.8	.8 50,775	75 73.8	19,553	3 69.4	7,820	42.5	9,335	5 46.7
Craft and Related Trades Workers	25,648	6.0	3,721	4.8	850	8.8	1,077	6.1	957		957 3	3.5 5,	5,049 14.	з З	673	8.3 3,0	032 4.4	1,156	5 4.1	1,562	8.5	2,71,	4 13.6
Plant and Machine Op- erators and Assemblers	8,545	2.0	1,322	1.7	59	0.6	98	0.6	182	0.2	182 C	0.7 2,	2,528 7	7.1 2,	2,101 4	4.8	757 1.1	98	3 0.3	486	2.6	330	0 1.7
Elementary Occupa- tions	75,235	17.5	30, 630	39.4	1,301	13.4	1,530	8.7	6,134	7.3 6	6,134 22	22.5 3,	3,458 9	9.7 11,	11,890 27.	0	504 5.1	3,641		2,578	-	4,247	7 21.3
Not Stated	21,306		2,458	3.2	908	9.4	1,667	9.4	1,716							3			4 7.3	1,197		1,177	
The Usually Working Population (12 years and Older) By Industry	lation (12)	rears an	d Older) By	r Industr	٨																		
Agriculture Hunting Forestry and Fishing	292,643	67.9	57,819	74.3	6,886				71,443			80.6	470 4	4.1 21,	21,925 49.	8 51	795 75.2	23,233	0	9,132	Р	13,658	8 68.4
Mining and Quarrying	2,928	0.7	218	0.3	49	0.5		0.3	300	0.4					575					149		1,125	
Manufacturing	13,410	3.1	1,400		86	0.9	168	0.	635	0.8	391 1	1.4 2,	2,050 5	5.8 6,	092 1	3.8	916 1.3	3 259	9.0	850	4.6	563	2.8
Electricity Gas Steam and Air conditioning supply	1,084	0.3	120	0.2			50	0.3	22	0.0		0.0	253 0	0.7	388	0.9	55 0.1			165	0.9	20	0.1
Water Supply	567	0.1	104	0.1	4	0.0	5	0.0	52	0.1	5 C			0.4					7 0.0	49			
Construction and Allied Repairs	10,126	2.4	1,972	2.5	112	1.2	226	1.3	913	1.1	235 C	0.9 2,	673 7.	5	1,171 2	2.7 1,2	289 1.9	267	7 0.9	755	4.1	513	3 2.6
Wholesale & Retail Trade Restaurants and Hotel	32,776	7.6	6,149	7.9	778	8.0	661	3.7	2,082	2.5	319 1	1.2 9,	9,119 25.7	က်	470	7.9 6,2	6,265 9.1	862	3.1	2,203	12.0	868	4.3
Transport and Storage	6,092	1.4	929	1.2	40	0.4	61	0.3	376	0.5	116 C	0.4 2,	,547 7	.2	743 1	1.7 6	666 1.0	51	0.2	421	2.3	142	2 0.7
Accomodation and food services activities	5,132	1.2	443	0.6	5	0.1	42	0.2	145	0.2	86	0.3 3,	3,199 9.	0.	295 0	0.7 3	365 0.5	55	0.2	439	2.4	58	3 0.3
Information and Com- munication	2,378	0.6	182	0.2	70	0.7	482	2.7	255	0.3	273 1	1.0	394	l.1	162 0	0.4	200 0.3	57		90		213	1.1
Finance and Insurance	1,268	0.3	156	0.2	4	0.0	12	0.1	40	0.0	40 C	0.1	490 1	1.4	162 0	0.4	70 0.1	10	0.0	273	1.5	-	1 0.1
Real Estate Activies	126	0.0	-	0.0	1	'	1	1	4	0.0	1	1	72 0	0.2	39 0	0.1	8 0.0		1	2	0.0		
Community Social and Personal Services	36,251	8.4	5,554	7.1	587	6.0	880	5.0	3,502	4.2		_	10,357 29.1		-	4	480 6.5		9 3.2	2,414	_	1,405	
Not Stated	26,077	6.1	2,772	3.6	1,085	11.2	1,665	9.4	3,746		2,412 8	8.9 2,	2,442 6	6.9 4,	4,053 9	9.2 2,5	575 3.7	2,464		1,469	8.0	1,394	4 7.0
Source: 2010 Census of Population and Housing	<u>pulation c</u>	and Hou.	sing																				

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82 - Annex Tables and References

Annex E: Fertility Levels, Patterns and Trends

E1: Adjus	ted ASFRs o	and TFRs by	y District, S	outhern Pro	ovince 201	0						
Age Group	Southern	Choma	Gwembe	ltezhi tezhi	Kalomo	Kazungula	Livingstone	Mazabuka	Monze	Namwala	Siavonga	Sinazon- gwe
15 - 19	0.1387	0.1365	0.1387	0.1532	0.1536	0.1531	0.0823	0.1361	0.1478	0.1727	0.1308	0.1409
20 - 24	0.2829	0.2961	0.2863	0.2569	0.3418	0.3034	0.1918	0.2644	0.2912	0.2964	0.2883	0.2942
25 - 29	0.2663	0.2850	0.2894	0.2375	0.3242	0.2729	0.1993	0.2453	0.2840	0.2527	0.2591	0.2757
30 - 34	0.2335	0.2555	0.2627	0.2100	0.2843	0.2356	0.1570	0.2136	0.2734	0.2072	0.2117	0.2216
35 - 39	0.1867	0.2079	0.1885	0.1872	0.2289	0.1949	0.1055	0.1483	0.2207	0.1737	0.2037	0.1742
40 - 44	0.0916	0.1038	0.1262	0.0939	0.1044	0.1025	0.0498	0.0733	0.1007	0.0970	0.0823	0.0872
45 - 49	0.0228	0.0204	0.0391	0.0269	0.0308	0.0220	0.0105	0.0159	0.0297	0.0225	0.0231	0.0194
TFR	6.1	6.5	6.6	5.8	7.3	6.4	4	5.5	6.7	6.1	6	6.1
					7.3	0.4	4	5.5	0./	0.1	0	0.

Source: 2010 Census of Population and Housing

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

			0*		10
Observed	Adjusted	Observed	Adjusted	Observed	Adjusted
ASFR	ASFR	ASFR	ASFR	ASFR	ASFR
0.0879	0.094	0.0928	0.1407	0.0958	0.1387
0.2501	0.2674	0.2118	0.2768	0.2281	0.2829
0.2746	0.2936	0.2116	0.2692	0.2204	0.2663
0.2543	0.2719	0.1846	0.2317	0.1950	0.2335
0.2112	0.2258	0.042	0.1748	0.1588	0.1867
0.1203	0.1286	0.071	0.0833	0.0830	0.0916
0.0549	0.0587	0.029	0.0301	0.0242	0.0228
6.3		4.7		5.0	
	6.7		6.0		6.1
				29.3	
	0.0879 0.2501 0.2746 0.2543 0.2112 0.1203 0.0549 6.3	0.0879 0.094 0.2501 0.2674 0.2746 0.2936 0.2543 0.2719 0.2112 0.2258 0.1203 0.1286 0.0549 0.0587 6.3	0.0879 0.094 0.0928 0.2501 0.2674 0.2118 0.2746 0.2936 0.2116 0.2543 0.2719 0.1846 0.2112 0.2258 0.042 0.1203 0.1286 0.071 0.0549 0.0587 0.029 6.3 4.7	0.0879 0.094 0.0928 0.1407 0.2501 0.2674 0.2118 0.2768 0.2746 0.2936 0.2116 0.2692 0.2543 0.2719 0.1846 0.2317 0.2112 0.2258 0.042 0.1748 0.1203 0.1286 0.071 0.0833 0.0549 0.0587 0.029 0.0301 6.3 4.7 6.0	0.0879 0.094 0.0928 0.1407 0.0958 0.2501 0.2674 0.2118 0.2768 0.2281 0.2746 0.2936 0.2116 0.2692 0.2204 0.2543 0.2719 0.1846 0.2317 0.1950 0.2112 0.2258 0.042 0.1748 0.1588 0.1203 0.1286 0.071 0.0833 0.0830 0.0549 0.0587 0.029 0.0301 0.0242 6.3 4.7 5.0 5.0 6.7 6.0 29.3 29.3

Trends in Adjusted Total Fertilit	v Pate by District and	Rural/Urban Southern Provin	ce 1990, 2000 and 2010
I I I I I A I I I A I I I I I I I I I I	y Rule by Disilici ulio		2e, 1770, 2000 ana 2010

consus		Total							Districts					
census year	Total	Rural	Urban	Choma	Gwembe	ltezhi tezhi	Kalomo	kazun- gula	Living- stone	Maza- buka	Monze	Nam- wala	Siavonga	Sinazon- gwe
1990	7.0	7.2	6.8											
2000	6.3	6.8	4.8	6.3	6.9	6.4	7.1	6.5	4.4	6.1	6.4	6.9	6.2	7.2
2010	6.1	6.8	4.3	6.5	6.6	5.8	7.3	6.4	4	5.5	6.7	6.1	6	6.1
Courseul	000 2000	and 2010 C	0.000.000.00	f Do pulatio	nandllau	din a								-

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

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

		Total			Rural			Urban	
Age Group	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	0.0462	4.3538	0.2025	0.0535	0.2315	0.2321	0.0273	0.2299	0.1186
20 - 24	0.1120	4.2470	0.4814	0.1284	0.2371	0.5464	0.0743	0.2357	0.3168
25 - 29	0.1090	4.0928	0.4536	0.1216	0.2464	0.5008	0.0807	0.2447	0.3333
30 - 34	0.0974	3.9118	0.3867	0.1104	0.2586	0.4321	0.0653	0.2591	0.2582
35 - 39	0.0793	3.7148	0.2970	0.0900	0.2738	0.3297	0.0497	0.2773	0.1868
40 - 44	0.0419	3.5257	0.1473	0.0485	0.2916	0.1651	0.0210	0.2950	0.0750
45 - 49	0.0126	3.3482	0.0415	0.0146	0.3099	0.0458	0.0062	0.3195	0.0209
GRR 2010	2.3			2.8			1.6		
GRR 2000	2.5			2.8			1.6		
GRR 1990	3.4			3.5			3.1		
NRR 2010			1.8			2.3			1.3
NRR 2000			1.9			2.1			1.2
NRR 1990			3.0			3.1			2.8

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

Annex F: Mortality

F1: Prop	ortion Dis	tribution	of Report	ed Death	s by Age	Group, D	istrict and	d Rural/U	rban, Sou	thern Pro	vince 20	10		
Age Group	Total	Rural	Urban	Choma	Gwembe	ltezhi- tezhi	Kalomo	Kazun- gula	Living- stone	Maza- buka	Monze	Nam- wala	Siavonga	Sinazon- gwe
0 - 4	0.397	0.421	0.322	0.406	0.538	0.314	0.518	0.385	0.286	0.336	0.337	0.360	0.444	0.476
5-9	0.054	0.059	0.037	0.069	0.105	0.030	0.065	0.055	0.027	0.046	0.049	0.032	0.047	0.072
10-14	0.027	0.028	0.024	0.027	0.034	0.031	0.030	0.018	0.020	0.021	0.034	0.026	0.038	0.025
15 - 19	0.035	0.035	0.035	0.036	0.020	0.035	0.036	0.029	0.027	0.035	0.035	0.037	0.039	0.050
20 - 24	0.045	0.041	0.058	0.039	0.029	0.059	0.028	0.035	0.064	0.053	0.051	0.056	0.055	0.031
25 - 29	0.061	0.055	0.077	0.060	0.054	0.061	0.042	0.071	0.086	0.069	0.061	0.066	0.062	0.035
30 - 34	0.066	0.057	0.095	0.059	0.043	0.087	0.044	0.072	0.107	0.076	0.072	0.057	0.066	0.044
35 - 39	0.060	0.053	0.081	0.058	0.036	0.080	0.042	0.049	0.080	0.084	0.058	0.070	0.042	0.046
40 - 44	0.043	0.042	0.046	0.034	0.013	0.065	0.032	0.049	0.046	0.059	0.051	0.045	0.036	0.031
45 - 49	0.035	0.032	0.046	0.035	0.025	0.025	0.020	0.038	0.051	0.042	0.046	0.037	0.033	0.026
50 - 54	0.031	0.028	0.040	0.030	0.013	0.042	0.019	0.039	0.042	0.035	0.035	0.026	0.029	0.033
55 - 59	0.021	0.020	0.025	0.016	0.022	0.020	0.015	0.020	0.025	0.026	0.021	0.036	0.019	0.021
60 - 64	0.024	0.024	0.024	0.022	0.022	0.022	0.024	0.025	0.029	0.025	0.024	0.024	0.014	0.023
65 - 69	0.019	0.019	0.019	0.021	0.009	0.019	0.017	0.021	0.022	0.013	0.025	0.031	0.012	0.018
70 - 74	0.025	0.026	0.023	0.026	0.013	0.037	0.019	0.027	0.027	0.020	0.028	0.035	0.018	0.031
75+	0.057	0.060	0.048	0.062	0.024	0.071	0.049	0.066	0.061	0.058	0.072	0.063	0.046	0.038
Source: 2	010 Censu	is of Populo	ation and	Housing										

Annex H: Disability

Sex and District		Disabled Population			Percent Disabled	
Sex and District	Total	Rural	Urban	Total	Rural	Urban
Total	27,133	22,536	4,597	2	2	1
Male	14,072	11,665	2,407	2	2	1
Female	13,061	10,871	2,190	2	2	1
District						
Choma	4,243	3,549	694	2	2	1
Gwembe	1,057	1,020	37	2	2	1
Itezhi-tezhi	1,148	949	199	2	2	2
Kalomo	4,547	4,354	193	2	2	1
Kazungula	2,311	2,268	43	2	2	2
Livingstone	1,864	58	1,806	1	1	1
Mazabuka	3,311	2,645	666	1	2	1
Monze	3,401	2,897	504	2	2	1
Namwala	1,779	1,716	63	2	2	1
Siavonga	1,468	1,234	234	2	2	1
Sinazongwe	2,004	1,846	158	2	2	1

Source: 2010 Census of Population and Housing

		Disabled Population			Percent Disabled			
Age Group	Total	Male	Female	Total	Male	Female		
Total	27,133	14,072	13,061	1.8	1.9	1.7		
0 - 4	1,710	963	747	0.6	0.7	0.5		
5-9	2,391	1,378	1,013	1.0	1.2	0.9		
10-14	2,889	1,519	1,370	1.4	1.5	1.3		
15 - 19	2,419	1,388	1,031	1.4	1.6	1.2		
20 - 24	1,718	935	783	1.3	1.5	1.1		
25 - 29	1,430	788	642	1.2	1.5	1.0		
30 - 34	1,586	880	706	1.7	1.9	1.5		
35 - 39	1,480	830	650	2.0	2.3	1.8		
40 - 44	1,430	783	647	2.8	3.1	2.5		
45 - 49	1,391	703	688	3.5	3.7	3.3		
50 - 54	1,354	666	688	4.6	4.8	4.3		
55 - 59	1,020	498	522	5.4	5.6	5.3		
60 - 64	1,165	521	644	7.1	7.4	6.8		
65 - 69	1,135	461	674	8.7	8.5	8.9		
70 - 74	1,322	509	813	12.9	12.1	13.5		
75 - 79	1,092	522	570	15.5	16.1	14.9		
80 - 84	716	323	393	18.9	18.9	18.8		
85 - 89	451	221	230	20.5	21.0	20.1		
90 - 94	177	87	90	22.1	23.8	20.7		
95+	257	97	160	25.9	28.2	24.7		

Annex I: Evaluation Of Coverage And Content Errors

1: Population	by Age Group	, Sex, Age Ratio	and Sex Ratio,	Southern Prov	nce 1990				
Age Group	Рори	ulation	Age	Ratio	Deviation	n from 100	Sex Ratio	Difference	
Age Gloup	Male	Female	Male	Female	Male	Female	Sex Kallo	Dillerence	
0-4	78,490	79,817	-	-	-	-	98.3	-	
5-9	71,124	72,821	99.4	100.9	-0.6	0.9	97.7	-0.7	
10-14	64,599	64,477	101.0	98.5	1.0	-1.5	100.2	2.5	
15-19	56,754	58,089	107.6	104.7	7.6	4.7	97.7	-2.5	
20-24	40,884	46,472	94.4	100.5	-5.6	0.5	88.0	-9.7	
25-29	29,857	34,397	90.8	94.3	-9.2	-5.7	86.8	-1.2	
30-34	24,872	26,478	110.5	104.6	10.5	4.6	93.9	7.1	
35-39	15,166	16,206	79.5	76.1	-20.5	-23.9	93.6	-0.4	
40-44	13,304	16,128	100.4	109.7	0.4	9.7	82.5	-11.1	
45-49	11,343	13,197	96.0	94.3	-4.0	-5.7	86.0	3.5	
50-54	10,336	11,859	104.6	112.5	4.6	12.5	87.2	1.2	
55-59	8,417	7,881	99.8	87.0	-0.2	-13.0	106.8	19.6	
60-64	6,533	6,252	100.4	107.9	0.4	7.9	104.5	-2.3	
65-69	4,592	3,712	92.7	81.9	-7.3	-18.1	123.7	19.2	
70-74	3,375	2,814	-	-	0.0	0.0	119.9	-3.8	
75+	3,667	3,236	-	-	-	-	113.3	-	
Total	443,315	463,835	-	-					
Mean	-	-	-	-	5.5	8.4	-	6.1	

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 x 6.1 + 5.5 + 8.4

= 32.1

12: Population by Age Group, Sex, Age Ratio and Sex Ratio, Southern Province 2000

Are Crown	Pop	ulation	Age	Ratio	Deviation	n from 100	Say Datio	Difference
Age Group	Male	Female	Male	Female	Male	Female	Sex Ratio	Difference
0-4	105,181	106,520	-	-	-	-	98.7	-
5-9	92,843	93,691	102.0	101.8	2.0	1.8	99.1	0.4
10-14	76,848	77,586	98.1	96.8	-1.9	-3.2	99.0	0.0
15-19	63,847	66,688	100.0	98.5	0.0	-1.5	95.7	-3.3
20-24	50,784	57,791	96.6	104.8	-3.4	4.8	87.9	-7.9
25-29	41,326	43,570	100.0	96.1	0.0	-3.9	94.8	7.0
30-34	31,890	32,880	98.6	95.1	-1.4	-4.9	97.0	2.1
35-39	23,375	25,576	94.7	97.6	-5.3	-2.4	91.4	-5.6
40-44	17,458	19,508	97.4	101.0	-2.6	1.0	89.5	-1.9
45-49	12,461	13,043	92.6	84.5	-7.4	-15.5	95.5	6.0
50-54	9,450	11,365	96.5	105.8	-3.5	5.8	83.2	-12.4
55-59	7,134	8,448	88.4	86.6	-11.6	-13.4	84.4	1.3
60-64	6,684	8,138	106.2	115.0	6.2	15.0	82.1	-2.3
65-69	5,449	5,707	103.8	96.2	3.8	-3.8	95.5	13.3
70-74	3,812	3,731	-	-	0.0	0.0	102.2	6.7
75+	5,115	4,911	-	-	-	-	104.2	-
Total	553,657	579,153	-	-				
Mean	-	-	-	-	3.8	5.9	-	5.0
ource: 2000 Ce	ensus of Populati	on and Housing						

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

3 x 5.0 + 3.8 + 5.9

= 24.8

13: Population by Age Group, Sex, Age Ratio and Sex Ratio, Southern Province 2010

	Pop	ulation	Age	Ratio	Deviatio	n from 100	Cour Darlin	Differences
Age Group	Male	Female	Male	Female	Male	Female	Sex Ratio	Difference
0-4	142,222	143,321	-	-	-	-	99.2	-
5-9	118,028	118,574	95.7	95.4	-4.3	-4.6	99.5	0.3
10-14	104,407	105,321	102.0	101.6	2.0	1.6	99.1	-0.4
15-19	86,767	88,705	104.1	99.7	4.1	-0.3	97.8	-1.3
20-24	62,288	72,608	89.1	96.2	-10.9	-3.8	85.8	-12.0
25-29	53,055	62,186	98.4	103.1	-1.6	3.1	85.3	-0.5
30-34	45,586	47,991	101.6	97.4	1.6	-2.6	95.0	9.7
35-39	36,713	36,314	104.1	98.8	4.1	-1.2	101.1	6.1
40-44	24,962	25,485	89.6	89.5	-10.4	-10.5	97.9	-3.2
45-49	18,975	20,612	98.0	99.6	-2.0	-0.4	92.1	-5.9
50-54	13,756	15,910	98.9	104.4	-1.1	4.4	86.5	-5.6
55-59	8,846	9,878	85.0	78.0	-15.0	-22.0	89.6	3.1
60-64	7,051	9,416	98.9	107.8	-1.1	7.8	74.9	-14.7
65-69	5,412	7,597	96.0	98.4	-4.0	-1.6	71.2	-3.6
70-74	4,224	6,027	-	-	0.0	0.0	70.1	-1.2
75+	6,704	8,147	-	-	-	-	82.3	-
Total	738,996	778,092	-	-			-	
Mean	-	-	-	-	4.8	4.9	-	4.8

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 x 4.8 + 4.8 + 4.9 = 24.1

Life Tables

Table 1: Ab	ridged Life T	able for Both	Sexes, Sout	hern Province	e 2010					
Age	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0651	0.3	0.0623	100,000	6,228	95,641	0.9240	5,691,741	56.9
1	4	0.0101	0.4	0.0388	93,772	3,642	366,348	0.9687	5,596,101	59.7
5	5	0.0028	0.5	0.0138	90,130	1,246	447,537	0.9885	5,229,753	58.0
10	5	0.0018	0.5	0.0091	88,885	809	442,401	0.9890	4,782,216	53.8
15	5	0.0026	0.5	0.0128	88,076	1,130	437,555	0.9795	4,339,815	49.3
20	5	0.0058	0.5	0.0283	86,946	2,465	428,568	0.9674	3,902,260	44.9
25	5	0.0077	0.5	0.0370	84,481	3,128	414,585	0.9564	3,473,691	41.1
30	5	0.0105	0.5	0.0504	81,353	4,097	396,522	0.9482	3,059,106	37.6
35	5	0.0112	0.5	0.0534	77,256	4,122	375,975	0.9477	2,662,584	34.5
40	5	0.0107	0.5	0.0511	73,134	3,737	356,328	0.9395	2,286,609	31.3
45	5	0.0150	0.5	0.0704	69,397	4,887	334,769	0.9273	1,930,281	27.8
50	5	0.0161	0.5	0.0751	64,510	4,844	310,442	0.9305	1,595,512	24.7
55	5	0.0134	0.5	0.0634	59,666	3,782	288,877	0.9192	1,285,070	21.5
60	5	0.0218	0.5	0.0993	55,884	5,551	265,545	0.8900	996,193	17.8
65	5	0.0274	0.5	0.1218	50,334	6,131	236,339	0.8410	730,648	14.5
70	5	0.0492	0.5	0.2013	44,202	8,897	198,768	0.8179	494,309	11.2
75	5	0.0369	0.5	0.1580	35,305	5,580	162,576	0.4499	295,541	8.4
80	+	0.0970		1.0000	29,725	29,725	132,965		132,965	4.5
ource: 2010	Census of Pop	oulation and H	ousing							

Table 2: Abridged Life Table for Males, Southern Province 2010 Width, nMx ndx nLx 5Px Age nax nqx lx Тx ex 0.0674 0.3 0.0643 100,000 6,435 95,496 0.9114 5,250,816 52.5 0 0.0108 0.0417 3,898 1 4 0.4 93,565 360,229 0.9682 5,155,320 55.1 5 5 0.0036 0.5 0.0176 89,667 1,581 441,221 0.9893 4,795,092 53.5 10 0.5 870 436,517 5 0.0020 0.0099 88,086 0.9846 4,353,871 49.4 5 0.0033 0.5 0.0160 87.216 1,397 0.9769 3,917,354 44.9 15 429,796 20 5 0.0049 0.5 0.0240 85,820 2,056 419,847 0.9618 3,487,557 40.6 25 5 0.0083 0.5 0.0398 83,764 3,334 403,817 0.9441 3,067,711 36.6 0.0122 30 5 0.5 0.0577 80,430 4,642 381,262 0.9333 2,663,894 33.1 35 5 5,137 0.0144 0.5 0.0678 75,788 355,825 0.9296 2,282,632 30.1 40 5 0.0151 0.5 0.0707 70,651 4,996 330,776 0.9220 1,926,807 27.3 5,176 45 50 0.0170 0.0788 24.3 5 0.5 65.656 304,989 0 9045 1.596.030 5 0.0214 0.5 0.0975 60,480 5,896 275,869 0.8942 1,291,042 21.3 55 5 0.0236 0.5 0.1068 54,584 5,828 246,693 0.8744 1,015,173 18.6 60 65 5 0.0289 0.5 0.1280 48,756 6,241 215,696 0.8666 15.8 768,480 5 0.0305 0.5 0.1340 5,699 0.8047 13.0 42,515 186,930 552,784 70 5 0.0497 0.5 0.2031 36,816 7,479 150,427 0.7757 365,855 9.9 75 0.0571 0.5 0.2272 29,337 0.4583 7.3 5 6,667 116,687 215,428 80 0.5 1.0000 22,671 22,671 98,741 98,741 4.4 + 0.0834 Source: 2010 Census of Population and Housing

Table 3: Ab	oridged Life 1	able for Ferr	ales, Southe	ern Province	2010					
Age	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0602	0.3	0.0578	100,000	5,779	95,955	0.9191	5,796,064	58.0
1	4	0.0101	0.4	0.0391	94,221	3,687	363,609	0.9704	5,700,109	60.5
5	5	0.0033	0.5	0.0164	90,533	1,486	445,982	0.9897	5,336,500	58.9
10	5	0.0019	0.5	0.0096	89,048	851	441,411	0.9863	4,890,518	54.9
15	5	0.0029	0.5	0.0141	88,197	1,247	435,375	0.9755	4,449,108	50.4
20	5	0.0053	0.5	0.0257	86,950	2,234	424,697	0.9637	4,013,732	46.2
25	5	0.0078	0.5	0.0375	84,716	3,179	409,275	0.9558	3,589,035	42.4
30	5	0.0094	0.5	0.0450	81,537	3,668	391,180	0.9497	3,179,760	39.0
35	5	0.0107	0.5	0.0510	77,869	3,969	371,484	0.9491	2,788,581	35.8
40	5	0.0107	0.5	0.0509	73,900	3,763	352,567	0.9497	2,417,096	32.7
45	5	0.0105	0.5	0.0503	70,137	3,525	334,823	0.9465	2,064,530	29.4
50	5	0.0113	0.5	0.0538	66,612	3,586	316,925	0.9453	1,729,707	26.0
55	5	0.0115	0.5	0.0549	63,027	3,457	299,575	0.9257	1,412,781	22.4
60	5	0.0165	0.5	0.0766	59,569	4,565	277,304	0.9219	1,113,207	18.7
65	5	0.0168	0.5	0.0783	55,004	4,307	255,639	0.8793	835,903	15.2
70	5	0.0284	0.5	0.1258	50,697	6,378	224,786	0.8346	580,263	11.4
75	5	0.0403	0.5	0.1704	44,319	7,552	187,615	0.4722	355,477	8.0
80	+	0.0562	0.5	1.0000	36,768	36,768	167,862		167,862	4.6
Source: 2010	Census of Pop	oulation and H	ousing		-					

Age	Width,	nMx	nax	nqx	lx	ndx	nLx	5Px	Tx	ex
0	1	0.0634	0.3	0.0607	100,000	6,074	95,748	0.9152	5,574,998	55.7
1	4	0.0106	0.4	0.0409	93,926	3,841	361,875	0.9686	5,479,250	58.3
5	5	0.0036	0.5	0.0177	90,085	1,597	443,234	0.9894	5,117,375	56.8
10	5	0.0020	0.5	0.0098	88,487	865	438,541	0.9849	4,674,141	52.8
15	5	0.0032	0.5	0.0157	87,622	1,375	431,919	0.9764	4,235,600	48.3
20	5	0.0050	0.5	0.0245	86,246	2,112	421,728	0.9625	3,803,681	44.1
25	5	0.0081	0.5	0.0390	84,134	3,278	405,923	0.9527	3,381,953	40.2
30	5	0.0101	0.5	0.0482	80,857	3,900	386,735	0.9443	2,976,031	36.8
35	5	0.0119	0.5	0.0565	76,957	4,350	365,209	0.9392	2,589,296	33.6
40	5	0.0130	0.5	0.0613	72,607	4,454	342,991	0.9408	2,224,087	30.6
45	5	0.0124	0.5	0.0589	68,153	4,016	322,693	0.9327	1,881,096	27.6
50	5	0.0145	0.5	0.0683	64,137	4,378	300,982	0.9250	1,558,404	24.3
55	5	0.0163	0.5	0.0758	59,759	4,530	278,407	0.9076	1,257,421	21.0
60	5	0.0206	0.5	0.0944	55,228	5,212	252,687	0.9063	979,015	17.7
65	5	0.0204	0.5	0.0936	50,016	4,681	229,018	0.8590	726,327	14.5
70	5	0.0338	0.5	0.1468	45,336	6,656	196,726	0.8135	497,309	11.0
75	5	0.0463	0.5	0.1917	38,680	7,413	160,039	0.4676	300,584	7.8
80	+	0.0624	0.5	1.0000	31,266	31,266	140,545		140,545	4.5

Table 5: Abridged Life Table for Both Sexes, Southern Province Urban 2010 Width nMx ndx nLx 5Px Тx Age nax lx nqx ex 5,352,380 0.0652 0.0624 100,000 6,239 95,633 0.9154 0.3 53.5 1 3,599 1 4 0.0099 0.4 0.0384 93,761 362,090 0.9723 5,256,747 56.1 5 5 0.0029 0.5 0.0142 90,163 1,283 445,039 0.9900 4,894,657 54.3 5 50.1 10 0.0019 0.5 0.0095 88,879 842 440,607 0.9870 4,449,618 15 5 0.0027 0.5 0.0134 88,037 1.179 434,882 0.9754 4,009,012 45.5 20 5 0.0053 0.5 0.0258 86,859 2,242 424,205 0.9635 3,574,130 41.1 25 30 5 0.0078 0.5 0.0378 84,617 3,195 408,705 0.9443 3,149,924 37.2 33.7 5 0.5 4,700 2.741.220 0.0122 0.0577 81.421 385.957 0.9345 35 5 0.0141 0.5 0.0664 76,721 5,098 360,667 0.9399 2,355,263 30.7 5 0.0594 4,252 40 0.0125 0.5 71,624 338,983 0.9232 1,994,595 27.8 5,309 24.6 45 5 0.0170 0.5 0.0788 67.371 312.966 0.9086 1,655,612 50 5 0.0203 0.5 0.0930 62,062 5,769 284,349 0.9073 1,342,646 21.6 5 55 0.0202 0.5 0.0926 56,293 5,214 258,000 0.8849 1,058,297 18.8 15.7 60 5 0.5 0.1178 51.079 6,017 0.0264 228.315 0.8599 800.297 65 5 0.0328 0.5 0.1429 45,061 6,437 196,339 0.7876 571,982 12.7 70 75 0.0553 0.5 0.2214 38,624 8,553 154,632 0.7733 9.7 5 375,643 0.0572 0.5 0.2274 30,071 6,839 119,579 0.4589 221,011 7.3 5 80 + 0.1018 0.5 1.0000 23,232 23,232 101,432 101,432 4.4

Source: 2010 Census of Population and Housing

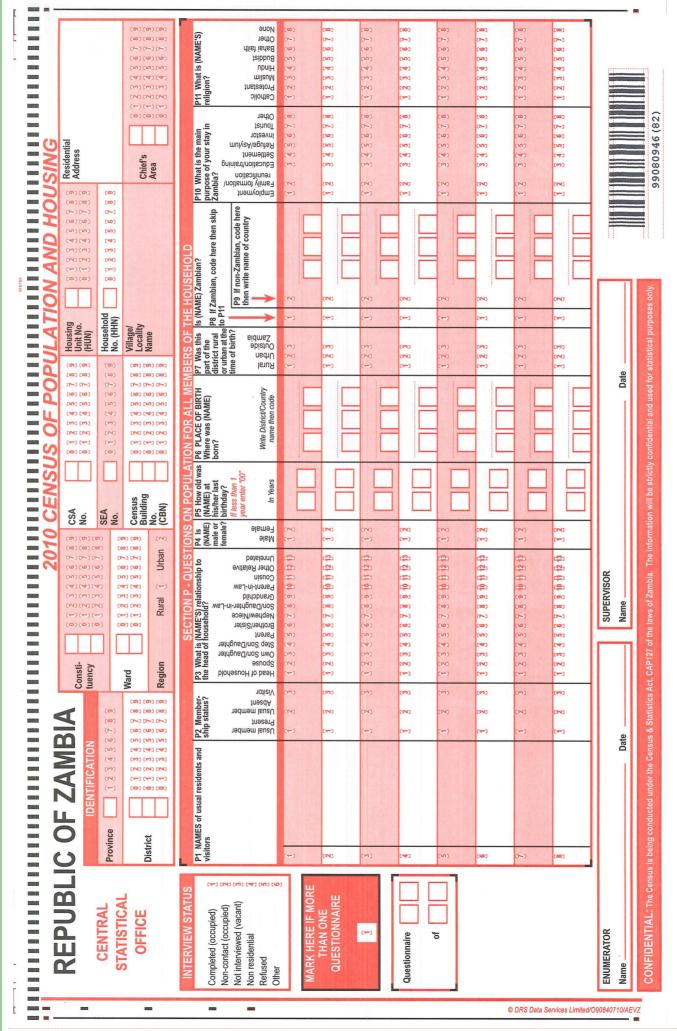
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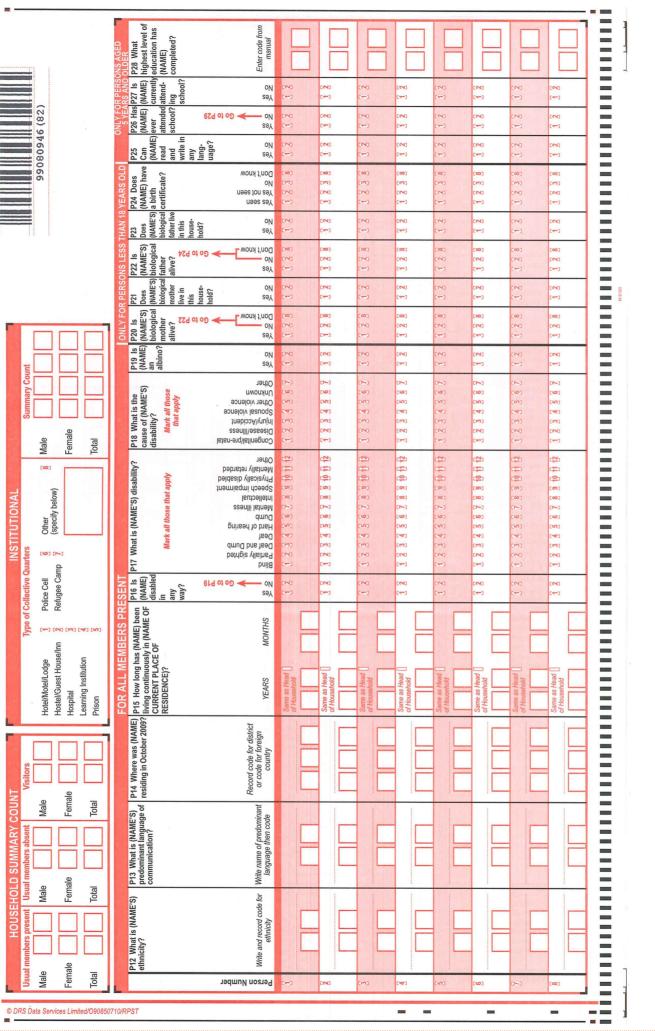
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2010 CENSUS OF POPULATION AND HOUSING QUESTIONNAIRE

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M7 Did the death occur during the 6 weeks period following the end of pregnancy, irrespective of the way the pregnancy ended? A3 On your holding, which of the following livestock/poultry have you raised since 1st October 2009? ٩ End Yes No Yes Yes No Yes No Yes No Yes No Yes No Yes No No . Yes A4 Has your agriculture holding included fish farming since 1st October 2009? A5 Has your agriculture holding included game ranching since 1st October 2009? M6 Did the death 0 occur during 0 childbirth? V End End -End End End End Other Livestock ٩N ERNAL DEATHS Other Poultry 4 1 1 Chickens -Donkeys Pigs Sheep Cattle Goats Yes SECTION A – AGRICULTUR Yes No Yes Yes Yes No /es No Yes No No No M5 Did the death A occur while o p pregnant? c End - End End Find Find End ٩ M1 A2 On your holding, which of the following crops did you grow since 1st October 2009? (es Yes Yes Yes Yes No No Yes No No No Yes 1-1 Yes No Virginia tobacco M1 Is there any member of the household who died since October 2009? Cashew Nuts Bambara nuts Other (4) (6) (6) (6) (6) (6) (7) (0) Velvet beans M4 What was the cause of death? Soya beans Sugar cane Vegetables Sunflower Paprika Pineapple Other crop 7 3 3 4 5 6 7 A1 Has your household engaged directly in any of the following agricultural activities, that its: crop growing, livestock and poultry raising, fish faming and game ranching since 1st October 2009? ERAL AND MICUCISI -Orchard Coffee [10] aspa sickness/Dis 1 2 3 4 5 6 [10 OTHER VIOLENCE [4] Spousal Violence 1234 [4] ٩ apioina Kunlu Yes Accident Sweet potatoes Burley tobacco M3 What was the age of the deceased? Irish potatoes Age in completed years. (Record 00 if less than 1 year) Mixed beans Groundnuts Cassava Cow peas Sorghum Maize Wheat Cotton Millet Rice HH10 Is this housing unit rented from the employer of any member of this household? 2 HH12 -1 (9) HH12 Is this housing unit M2 What was It the sex of the c deceased? The Central Government? All skip to A1 The Central Government? HH11 Is this employer The Local Government? -1 19 The Local Government? A private Organisation? A private Organisation? Female Female Female Female Female Male Male Female Male Male Male Male No An individual? rented from ... An individual? Parastatal? Parastatal? Death Number Yes LHH A A1 -) (N) (M) (4) (M) (0) (HH11 -10 HH9 Is this housing unit provided free by the employer, friend or relative of any member of this household? HH4 What is the main type of toilet used by members of this household? 6HH AI HH3 How is the household refuse Inside Outside Yes HH8 How was this housing unit acquired? -HH7 Is this housing unit owned by any Yes member of this Flush Private connected to water sewer system Iush Private connected to stand alone soak away HH5 Is this toilet inside or outside this housing No Yes, By friend or relative HH6 Is this toilet exclusively used by members of this household? Regularly collected Ventilated Improved Pit Latrine (VIP) Irregularly collected Roadside dumping Flush Communal Other dumping No toilet facility Yes, Employer household? Burying/pit Purchased disposed? Pit Latrine Mortgage Inherited Self built Bucket Freely Burnt Other Other Other unit? ECTION H – HOUSING CHARACTERISTIC °N H9 How many persons usually sleep in the housing unit(s)? Heat-ing (-) (N) (M) (H) (M) (M) (N) (M) (M) (M) (M) HH1 What is the main source 2 NJ (NJ (NJ (NJ (NJ (NJ [N] [N] [N] [N] [N] [N] [N] household Yes No Cook-ing Yes of energy used for... Light- (A Computer/Laptop H10 Does this housing unit have a kitchen? Refrigerator/freezer An Internet facility HH2 Does your A Motor vehicle A Mobile Phone A Wheelbarrow A Motorcycle A Boat/Canoe A Scotch Cart A Telephone A Television A Donkey A Plough Electricity A Bicycle Charcoal Cowdung A Radio Paraffin Candle Bio fuel Diesel Wood Solar None Other ave? Oxen Coal Gas (~) (N) (M) (4) (N) (D) (N) (D) (8) 1H7 End Drinking H4 What is the floor of this housing unit mainly made of? What is the main source of water supply for... (m) (m) (m) (m) (E) (E) (E) (B) (0) (2) 1 1 use **(**--) One household in several housing units Piped water inside the housing unit LIVING Piped water outside housing unit within stand/plot H6 (If shared) what is the number of households? H5 Type of Occupancy? Wood (not wooden tiles) rooms and bedrooms does this housing unit have? _B Unprotected borehole How many living Mineral/bottled water Protected borehole River/Dam/Stream Single household Unprotected well Rain Water Tank Communal tap Non-residential Protected well Water Vendor Non-contact Water Kiosk Other tap Terrazzo Concrete Cement Shared Marble Vacant Other Brick Other Tiles Mud Ŧ 8 (0) (2) (8 (2) (2) (2) (2) -) [N] [M] [4] [N] [0] කා (නා (<u>ආ</u> (සා (ශ H2 What is the main type of material used for the roof? H3 What are the walls of this housing unit mainly made of? Collective/Institutional quarters Part of commercial building Compressed cement bricks H1 Type of housing unit Ceramic Tiles/Harvey Tiles Asbestos/hardboard/wood mprovised/Makeshift Concrete blocks/slab Pole and dagga/mud mproved traditional Conventional house Thatch/Palm Leaf Compressed mud Metal/Iron Sheets Conventional flat Roofing Shingles Cement blocks Palm/Bamboo Wood Planks Unintended Rustic Mat Cardboard Burnt bricks **Fraditional** Mud bricks Iron sheets Asbestos Mud Tiles Cement Wood Mobile Mixed Other Other Stone Grass Other © DRS Data Services Limited/O90870710/FNBF -----

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