2000 Census of Population and Housing

Central Province Analytical Report

Volume One

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Preface

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

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

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

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

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August, 2004

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Abbreviations/Acronyms

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

Executive Summary

Central province's population recorded as at 16th October 2000 (Census Night), is 1,012,257, comprising 510,501 males and 501,756 females. The majority of the population, 76 percent or 769,202 lives in rural areas, while the urban areas have the remaining 24 percent or 243,055.

Of the total population, 46.5 percent are below the age of 15, resulting in a median age of 17 years. Hence Central Province has continued to have a young population with an in-built potential to grow for many years to come.

Central Province's population grew at an average annual growth rate of 3.3 percent between 1969-1980, 3.5 percent between 1980-1990, and 2.8 percent during the period, 1990-2000. Thus the province's population has continued to grow, though at a declining rate. The province's average population density stands at 10.7 persons per square kilometer, with the highest population density occurring in Kabwe, with 112.4 persons per square kilometer.

Though Household-Headship is still dominated by males, the results from the census show that almost one in six households or 16.9 percent is female headed. Serenje has the highest percentage of female-headed households at 21 percent.

A total of 890,370 persons reported their predominant language of communication in the 2000 census, with Bemba being the most spoken language, spoken by 27.3 percent of the population as their predominant language of communication, followed by Lala spoken by 17.1 percent, Tonga is spoken by 12.0 percent, Lenje by 11.7 percent, Nyanja by 8.6 percent, Swaka by 3.9 percent and Ila by 2.9 percent of the population. English is used by only 0.9 percent of the population, as their predominant language of communication, despite it being the country's official language. Twenty percent of the population reported belonging to the Lala ethnic group, 16.6 percent to the Tonga ethnic group, 11.7 to the Bemba ethnic group, 10.8 to the Lenje ethnic group, and 4.2 to the Africans.

Census results show that 55.8 percent of the provincial population is literate i.e. is able to read and write in any language, with 60.8 of males and 50.9 percent of females able to read and write in any language.Literacy rates have decreased marginally from the 1990 rate of 56.2 percent. Fifty percent of the population in rural areas can read and write in any language compared to 72 percent of the population in urban areas. The proportion of youths who could read and write in any language declined from about 75 percent in 1990 to 71 percent by 2000. However adult literacy rate increased marginally from 66 percent to 68 percent between 1990 and 2000. The problem of adult illiteracy was markedly more among females than males.

The province's labour force population stands at 317,676. However, economic participation rates stand at 67 percent for males, and 44 percent for females. The labour force has increased by 41 percent between 1990 and 2000. About 79.6 percent of the labour force is in rural areas, while 20.4 percent is in urban areas. Fifty percent of the labour force is in the young age group of 12-29 years. Sixty-seven percent of province's workforce is comprised of unskilled labour.

The employed population increased by 42 percent between 1990 and 2000. The female employed population increased by 71.2 percent, while the male employed population increased by 27.3 percent. The increase in the female employed population could have been due both to the increased female participation in informal sector activities, as well as due to the improved coverage of informal sector activities in the 2000 Census compared to the 1990 Census.

The number of the unemployed increased by 33.9 percent between 1990 and 2000. The size of the male unemployed population increased by 42.5 percent, while that of females increased by 20.9 percent. There are more unemployed persons in the rural areas than in the urban areas for both males and females. In 2000, unemployment was a more serious problem among the young people aged 12-29 years than among the older population aged 30 years and over.

Economic activities are still organized around family labour as evidenced by the predominance (84.7 percent) of workers who are classified as either self-employed or unpaid family workers. In contrast, only 15.3 percent were classified as employees or employers. The transformation of the Zambian economy in the 1990's seems to have reduced employment opportunities in the formal sector, thereby forcing a large part of the labour force into the informal sector. There is a large concentration of workers (76 percent) in the Agricultural and related occupations.

Central province's fertility has continued to decline although at a slow pace. The drop in urban childbearing is the principle reason for the overall decline in fertility levels in the country. The Total Fertility Rate (TFR) for rural areas estimated at 6.5 is higher than the 5.1 estimated for urban areas. Central province's TFR at 6.1 is relatively high.

Infant mortality rate declined by about 5 percent in the period 1990-2000. However, the IMR is still high, with about one in every ten infants dying before reaching their first birthday. Similarly, Childhood mortality rate has also declined by 6 percent in the period 1990 and 2000, from 78 to 73 deaths per 1000 children. Under-five mortality also recorded a decline of 6 percent in the period 1990 to 2000, from 177 to 167 deaths per 1000 children. The decline in the IMR has led to a slight increase in the Life Expectancy at birth from 50 years in 1990 to 51 years in the year 2000.

Adult survivorship levels have significantly deteriorated between 1990-2000. Males have higher chances of surviving than females.

The disabled population forms 2.5 percent of total population of Central province. The proportion of the disabled is higher in rural than urban areas. Physical disability is the most common type of disability affecting about 38 percent of the disabled population, while ex-mental is the least common type of disability accounting for two percent of the disabled population. Disease is the most common cause of disability reported by about 36 percent of the disabled population. Prenatal causes were reported by 12 percent, injury by 16.6 percent, and other by 9.5 percent while 23 percent reported that they did not know the cause of their disability. Injury as a cause of disability is more commonly reported by males than females while disease is more common among females than males.

Chapter 1

BACKGROUND

1.1 Geography

Lying in the heart of Zambia, Central Province has a total landmass of 94,394 square kilometres. It shares borders with Lusaka Province in the South, Southern and Western provinces in the West, Eastern Province in the East, Copperbelt, North-Western, Northern and Luapula Provinces in the North. It is the fourth largest province in terms of land area after Northern, Western and North-Western.

Administratively Central province is divided into six districts, namely, Chibombo, Kabwe, Kapiri Mposhi, Mkushi, Mumbwa and Serenje. Kabwe is the provincial headquarters of the province.

1.2 Natural Resources

Three of the four main agro-ecological zones identified in Zambia are found in this province. The North High Rainfall Zone characterized by high rainfall ranging from 1000-1500 millimetres and poor leached veld soils, Central and Southern Plateau Zone characterized by the most fertile soils in the province suitable for cotton and maize cultivation and the Luangwa- Zambezi Rift Valley Zone characterized by low rainfall. The main soil types are red clays and red-brown loams, suitable for commercial farming.

Temperatures range from 24°C in October to 16°C in July. Annual rainfall varies from 1100 mm in the northeast to under 800mm in the southern areas of Luangwa Valley and Kafue Flats.

1.3 Population

Central Province has experienced an increase in total population from 358,655 in 1969, 511,905 in 1980 and 771,818 in 1990 to 1,012,257 in 2000. The population of Central Province grew at 2.8 percent between 1990-2000. This is a decline compared to the previous inter-censal periods whose annual growth rates were 3.3 percent in 1969-1980 and 3.5 percent in 1980-1990. The province's population has continued to grow at a slightly faster rate compared to the national average growth rate, which registered a growth rate of 3.1 percent in 1969-1980, 2.7 in 1980-1990 and 2.5 in 1990- 2000 intercensal periods.

In terms of population size, the province is the sixth largest after Copperbelt, Lusaka, Eastern, Northern and Southern. It has maintained its share of the national population at 10 percent since 1990. The average population density increased from 3.8 in 1969, 5.4 in 1980 and 8.2 in 1990 to 10.7 in 2000. However, this is less than the population density of the country as a whole, which stands at 13.1 persons per square kilometre.

Population by district ranges from 241.6 thousand persons in Chibombo district to 107.4 thousand persons in Mkushi district. High inter-censal population growth rates have been recorded for districts such as Kapiri Mposhi (5.6 percent), Chibombo (4.2 percent) and Mkushi (3.4 percent). Kabwe (0.4 percent) recorded the lowest population growth rate (Refer to Table 1.1 for details).

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

District	Population				Percentage Distribution				Density (Person per sq.km)				Growth Rate (%)			Area (sq.km)
	1969	1980	1990	2000	1969	1980	1990	2000	1969	1980	1990	2000	69-80	80-90	90-00	
Chibombo*	-	-	158,382	241,612	-	-	-	-	-	-	11.8	18	-	-	-	13,423
Kabwe	65,974	136,033	169,026	176,758	18.4	26.6	21.9	17.5	42	86.5	107.5	112.4	6.8	1.7	1.7	1,572
Kabwe Rural	122,570	146,295	-	-	34.2	28.6	29.8	-	4.8	5.7	-	-	1.6	4.1	4.1	-
Kapiri Mposhi*	-	-	110,762	194,752	-	-	-	19.2	-	-	6.4	11.3	-	-	-	17,219
Mkushi	56,992	72,190	76,747	107,438	15.6	14.1	15.1	10.6	2.5	3.2	4.3	6.1	2.2	4.2	4.2	17,726
Mumbwa	60,138	83,907	148,927	158,861	16.8	16.4	19.3	15.7	2.8	4	7.1	7.5	3.1	4.3	4.3	21,103
Serenje	52,981	73,480	107,974	132,836	14.8	14.4	14	13.1	2.3	3.1	4.6	5.7	3.0	3.5	3.5	23,351
Central Province	358,655	511,905	771,818	1,012,257	100	100	100	100	3.8	5.4	8.2	10.7	3.3	3.5	2.8	94,394
Zambia	4,056,995	5,661,801	7,759,117	9,885,591	100	100	100	100	5.4	7.5	10.3	13.1	3.1	2.7	2.5	752,612

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

Note: " * " denotes new districts which were formerly part of Kabwe Rural
"-" denotes not applicable as they refer either to new or non-existent districts.

1.4. Economy

Until 1990s, mining was an important economic activity in the province. However the closure of the mines has made mining less important. The mining operations are the Kabwe Lead and Zinc mines and a small gold mine in Mumbwa closed in 1993/94. Currently, Nampundwe Copper mine is the only operational mine in the province. Competition in imported products and the increasing cost of production have caused the closure of several important industries, which include the renowned Kapiri Glass Factory. However, a number of factories still exist, including the Mulungushi Textiles and Mumbwa Cotton Ginnery.

1.5 Agriculture

Agriculture is now the main economic activity in the province, following the closure of mines and other manufacturing enterprises. The province is the most important producer of nearly all-edible crops marketed in the country the major one being maize. Other crops include sunflower, cotton, soya beans, wheat, tobacco, groundnuts and kenaf.

Fishing is also a major economic activity in the province. Fishery resources consist of South Bangweulu, Lusiwashi and Lukanga flats. However, fish production has been declining over the years. For instance annual fish production from Lukanga was 1,481 metric tonnes in 2000, down from 1,554 in 1999 and 1,632 in 1998. Similar trends have been observed in the Lusiwashi fishery. There is also an increasing interest in aquaculture

in the province. The province has 1,240 fishponds and 536 fish farmers. These are mainly concentrated in Mumbwa, Serenje and Mkushi districts. (*Source: Zambia Poverty Reduction Strategy Paper, 2002-2004)*

Central province has considerable tourists' sites and access to a number of parks and important national heritage sites. (See Table 1.2 for details).

Table 1.2 Tourist Attractions, Central Province

District	National Park	*Heritage Site*
Serenje	Kasanka Game Park, South Luangwa	David Livingstone Memorial Site, Kundalila Falls, Katikululu Caves
Kapiri Mposhi	-	Wonder Gorge,Mulungushi Rock of Authority
Mkushi	Luano Game Management Area	Mpumbu Caves
Kabwe	-	Slave Tree
Chibombo	North Luangwa National Park	-
Mumbwa	Kafue National Park, Blue Lagoon National Park	Mumbwa Caves, Old Kabwe Mine

Source: Zambia Poverty Reduction Strategy Paper, 2002-2004

Note: "-" denotes not applicable.

1.6 Education

Pupil Progression rates at grade seven and nine have improved between 1998 and 2000. At grade seven level, the progression rate improved from 24.7 percent in 1998 to 44.3 in 1999 only to decline in 2000. Similarly, grade nine-progression rate improved from 23.0 percent in 1998 to 30.7 percent in 1999, only to decline to 26.0 percent in 2000. Table 1.3 shows the number of education facilities in Central Province. The table shows that there are 106 Community Schools, 432 Primary Schools, 52 Basic Schools, and 24 High Schools, refer to Table 1.3 for details.

Table 1.3 Number of Education Facilities, Central Province, 2000

		Primary Schools	Basic Schools	High Schools	Total Number of Teachers		
District	Community Schools	Total	**Total**	Total	Male	Female	Total
Kabwe	15	15	18	9	637	891	1,527
Mkushi	8	66	8	4	340	134	474
Serenje	8	86	6	2	329	147	476
Mumbwa	9	76	8	3	488	242	730
Chibombo	42	114	5	3	603	362	965
Kapiri Mposhi	24	81	7	3	371	188	559
Total	**106**	**432**	**52**	**24**	**2,618**	**1,964**	**4,682**

Source: Zambia Poverty Reduction Strategy Paper, 2002-2004

1.7 Health

Available information shows that health service provision in Central Province is inadequate. The number of people served by a health worker is gradually increasing. For instance, the service burden for medical doctors was higher than that of clinical officers (Table 1.4). Daily contacts per staff increased over the period from 68 to 125 for medical doctors and 19 to 24 patients per day for clinical staff. All health categories show a rise in the number of patients served per day indicating inadequate health staff in the province. Of the 114 health institutions in Central Province, 89 are Government owned (See Table 1.5 for details).

Table1.4: Provision of Health Services, Central Province, 2000 - 2001

Category of Staff	2000		
	Staff/total Population Ratio	Average Daily Contacts	Staff/Population rati
Medical Doctor	24,820	68.0	46,244
Clinical officer	6,810	18.9	9,249
Registered Nurse-Midwife	24,240	66.4	18,498
Registered Nurse	6,770	18.5	12,424
Zambia Enrolled Nurse	1,700	4.6	2,566

Source: Zambia Poverty Reduction Strategy Paper, 2002-2004

Table 1.5 Number of Health Facilities by District, Central Province, 2004

District	Government	Mission	Private	Total	Beds	Cots
Chibombo	22	-	2	24	319	16
Kabwe	16	-	5	21	573	154
Kapiri Mposhi	12	3	4	19	195	32
Mkushi	11	1	-	12	177	60
Mumbwa	15	3	5	23	251	11
Serenje	13	-	2	15	292	20
Total	89	7	18	114	1,807	293

Source: Ministry of Health, 2004

Note: "-" denotes not applicable.

1.8 HIV/AIDS

According to the 2001 ZDHS results, HIV prevalence level for the adult population aged between 15 and 49 years in Central Province is estimated at 15.3 percent. This is slightly less than the National prevalence rate of 15.6 percent (see Table 1.6). The table also shows that the female (16.8 percent) prevalence is higher than that of the males (13.4 percent)

Table 1.6: HIV Prevalence Among Men and Women Aged 15-49 Years by Province

Province	Percent Positive			Number Tested
	Men	Women	Total	
Central	13.4	16.8	15.3	306
Copperbelt	17.3	22.1	19.9	775
Eastern	11.0	16.1	13.7	471
Luapula	8.6	13.3	11.2	299
Lusaka	18.7	25.0	22.0	559
Northern	6.2	10.0	8.3	517
North-Western	9.5	8.8	9.2	166
Southern	14.6	20.2	17.6	408
Western	8.3	16.9	13.1	306
Zambia	12.9	17.8	15.6	3,807

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

Chapter 2

EVALUATION OF COVERAGE AND CONTENT ERRORS

2.1 Introduction

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

- Sex of members of household
- Age (in completed years) of members of household
- Residential status of household
- Children still living (with household or elsewhere), and
- Children dead

2.2 Concepts and Definitions

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

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

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

- **Content Error:** Mistake made in the recorded information in the census questionnaire either by the respondent or by the interviewer.

- **Coverage Error:** Under or over-enumeration in a population census due to either omission or duplication.

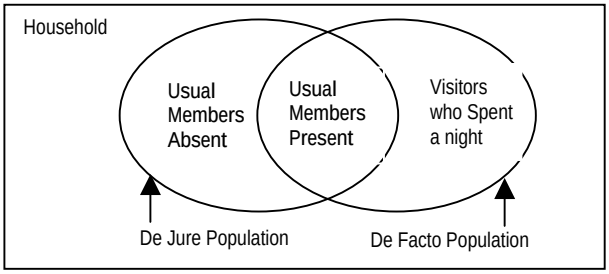
- De facto Population: **This refers to the usual household members present and visitors who spent the census night at any given household. This however excludes:**

(a) Foreign diplomatic personnel accredited to Zambia; and

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

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

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



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

- **Digit Preference:** Reporting of age by respondents often ending in certain preferred digits. This results in heaping of population in ages ending with certain digits.

- **Evaluation of Census Data:** Measurement of the quality of Census data.

- **Sex-ratio :** Number of males per 100 females in a population.

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

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

2.4 Methods of Evaluation

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

The direct method basically involves the carrying out of what is referred to as a Post Enumeration Survey (PES). In a PES, a sample of households is revisited after the census and data are again collected but on a smaller scale and later compared with that collected during the actual census. The matching process of the two sets of data can then be used to evaluate the quality of the census data. With regard to the 2000 Census of Population and Housing, the PES was carried out between February and March 2001. PES information is, however, only available for use at National Level, and therefore, will not be used to evaluate data quality at the Provincial Level.

Indirect methods usually employ the comparison of data using both internal and external consistency checks. Internal consistency checks compare relationships of data within the same census data, whereas external consistency checks compare census data with data generated from other sources. For instance, one can compare data on education obtained during a census with administrative data maintained by the Ministry of Education.

2.4.1 Coverage Error

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

2.4.1.1 Age Composition

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

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

Age Group	Population					
	1980	Percent	1990	Percent	2000	Percent
0-14	256,401	50.1	325,981	45.2	455,070	47.5

15-64	242,815	47.4	376,898	52.3	476,063	49.7
65+	12,689	2.5	17,748	2.5	26,155	2.7
Total	511,905	100.0	720,627	100.0	957,288	100.0

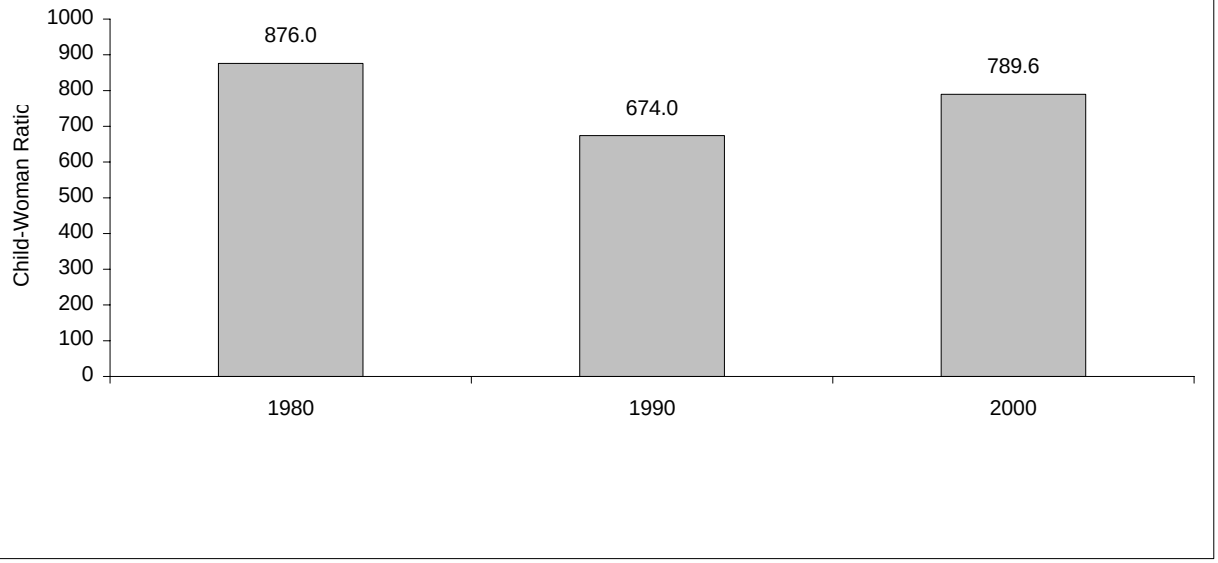
Source: CSO 1980, 1990 and 2000 Censuses of Population and Housing

The proportion of children 0-14 years reduced from 50.1 percent in 1980 to 45.2 percent in 1990 and later increased to 47.5 in 2000. In 2000, the proportion of children aged 0-14 increased by slightly over 2%. This could be attributed to the slight decline in fertility and the general decrease in child mortality in the province. In the age group 15-64 years and older, the proportion of persons to the overall population increased from 47.4 percent in 1980 to 52.3 percent in 1990 and later reduced to 49.7 percent in 2000. This reduction between 1990 and 2000 could be attributed to the observed increase in adult mortality. In the older age group (65 years and over), the proportion of persons has increased slightly over the same period (1990 and 2000). The population distribution shows that the quality of age data by broad age groups is acceptable.

2.4.1.2 Child-Woman Ratio

In 1980, the child-woman ratio was 876.0 per 1000 women aged 15-49 years. It declined to 674.0 in 1990 and increased in 2000 to 789.6 per 1000 women aged 15-49 years. This is in line with the changes in the proportion of the population in the 0-14 year age group. The increase in the proportion of the population 0-14 years and the increase in child-woman ratio between 1990 and 2000 (see Figure 2.1) appears to have been caused by the slight decline in fertility and the general decrease in child mortality.

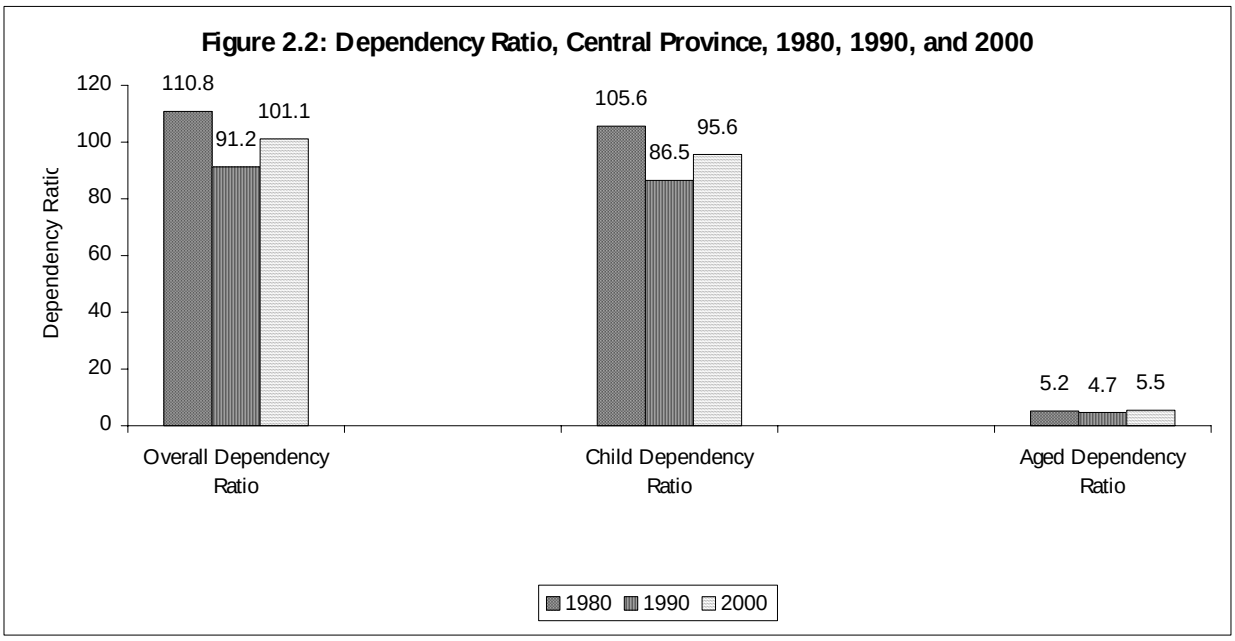
Figure 2.1: Child-Woman Ratio, Central Province, 1980, 1990, and 2000



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

2.4.1.3 Dependency Ratio

The overall dependency ratio for the population of Central Province declined from 110.8 persons in 1980 to 91.2 persons in 1990 but it increased to 101.1 persons per 100 persons in age group 15-64 years in 2000. This means that for every 100 producers in the age range 15-64 years, there were 101.1 dependants in 2000. The proportion of population 65 years and older increased slightly between 1990 and 2000. Age dependency ratio for the population aged 65 years and over to that of 15-64 years was 4.7 for 1990 and 5.5 in 2000 while that of children increased from 86.5 in 1990 to 95.6 in 2000. The increase in dependency ratios could be attributed to a decline in the proportion of population aged 15-64 years. This could be explained in relation to the significant deterioration in adult survivorship levels observed between 1990 and 2000 intercensal period (See Figure 2.2 for details).



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

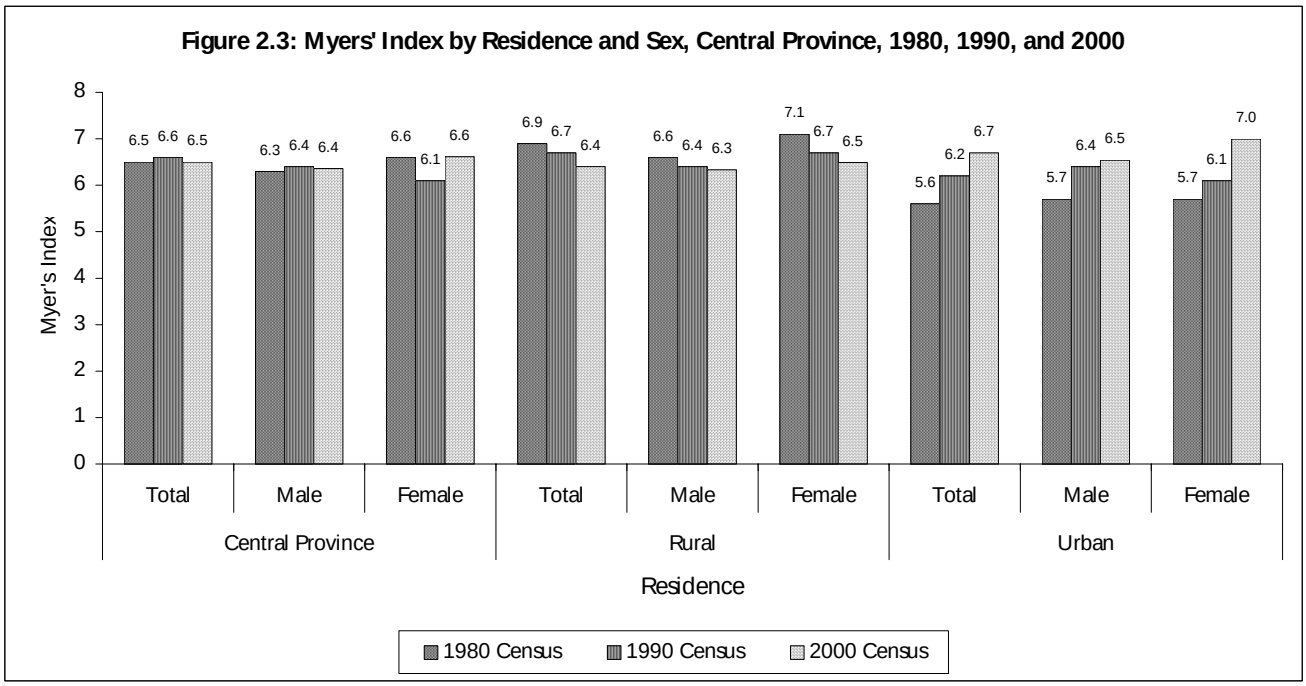
2.5 Content Error

A content error refers 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 the enumerator recording an incorrect response. For instance, a question about age in a census can be solicited by asking either the "date of birth" or "completed number of years". These two questions may yield different ages. During the 2000 Census, age was recorded in completed years. Some content errors are being estimated by the use of the Myers' Index, Sex-ratios, Age-ratios and Survival-ratios.

2.5.1 Digit Preference

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

Investigation of age heaping in Central Province is done through the calculation of the Myers' Index. This index has been calculated for 1980,1990 and 2000 Censuses data using the United Nations Population Analysis Software (PAS) for single age data (SINGAGE) and is presented in Figure 2.4. A high Myers' Index implies poor age reporting whereas a low Myers' Index indicates good age reporting. The maximum value of Myers' Index is 90 and the minimum value is 0. In Central Province, in all the three censuses, the index is less than 10, which implies that the age reporting is good.



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

Data in Figure 2.3 shows relative stability in the index. The results further show that the index for females is higher than that of males in 1980 and 2000, whereas in 1990 the index for males was higher than that of females. Myers' Index for males remained stable between 1990 and 2000 after it rose slightly from 6.3 in 1980 to 6.4 in 1990. That of females rose from 6.1 in 1990 to 6.6 in 2000, showing that age was more accurately reported among males than females. In terms of residence, the index has been declining in rural areas, though marginally. In the urban areas, the opposite was observed; the index has been rising since 1980, indicating deterioration in the quality of age data. In spite of the deterioration in the quality of age data in the urban areas, its index for 1980 and 1990 is lower than the rural one, implying better age reporting in the former than in the latter. Generally, however, the Index shows that age was more accurately reported for males than for females in 2000. Overall, in all the three censuses, the index is less than 10 implying that the age reporting has been good.

Table 2.2 and Figures 2.4 to 2.10 show that there was age heaping in all the three censuses. The table further shows the most preferred digits in decreasing order of preference for the three censuses. Preference for digits 0, 8, and 5 among males and 0,8 among females is observed in 2000.

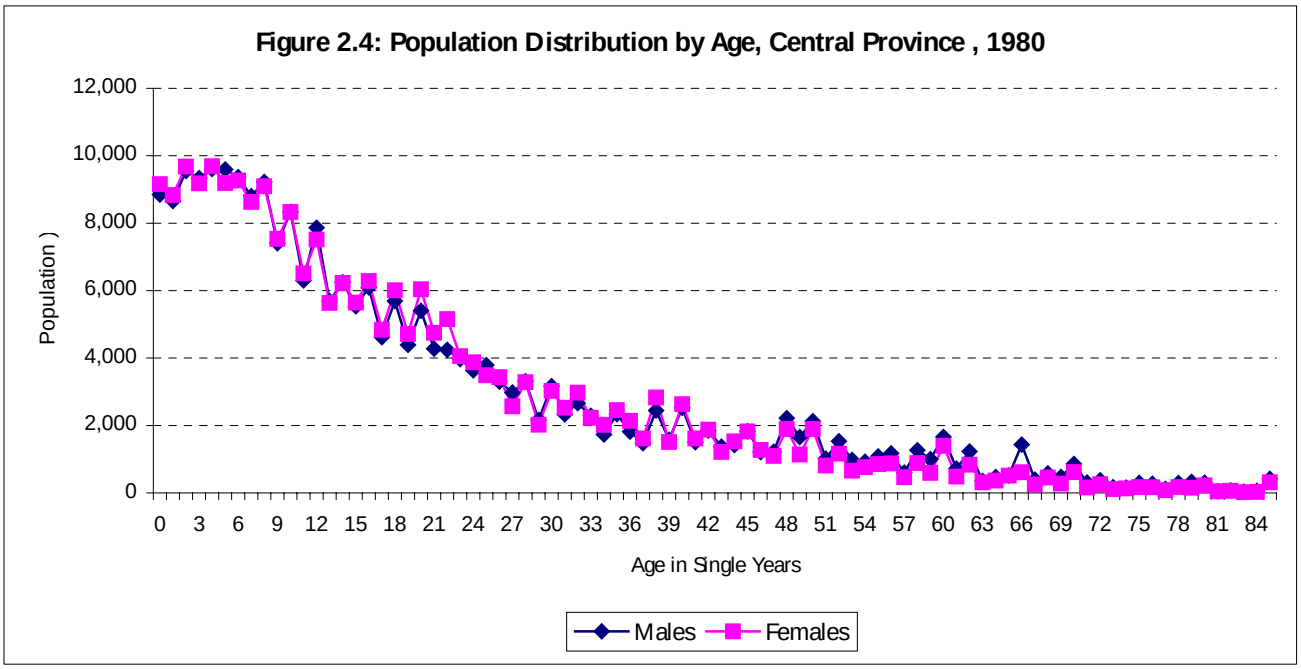
Table 2.2: Most Preferred Digits, Central Province, 1980, 1990, and 2000

Residence	Most Preferred Digits and Census Year			
	Sex	1980 Census	1990 Census	2000 Census
Central Province	Both Sexes	0,8,2	0,8,2	0,5,8
	Male	0,8,2	0,8,2	0,5,8
	Female	0,8,2	0,8,9,2	0,8
Rural	Both Sexes	0,8,2	0,8,2	0,5,8
	Male	0,8,2	0,8,2	0,5,8
	Female	0,8,2	0,8,2	0,8
Urban	Both Sexes	0,8,2	0,8,2	0,8
	Male	0,8,2	0,8,2	0,5,8
	Female	0,8,2	0,8,2,6	0,8

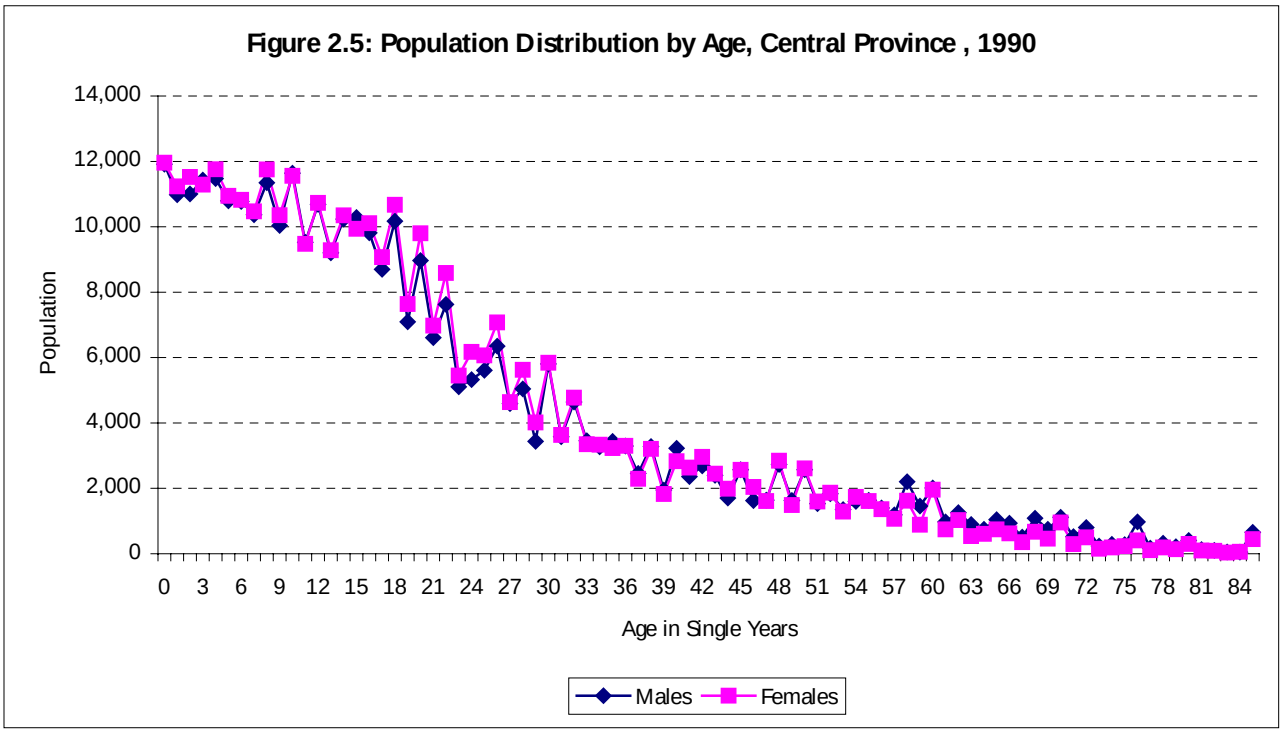
Source: CSO 1980, 1990 and 2000 Censuses of Population and Housing

Age misreporting errors are also presented in Figures 2.5 to 2.10. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under reported ages. A comparison of Figures 2.4,

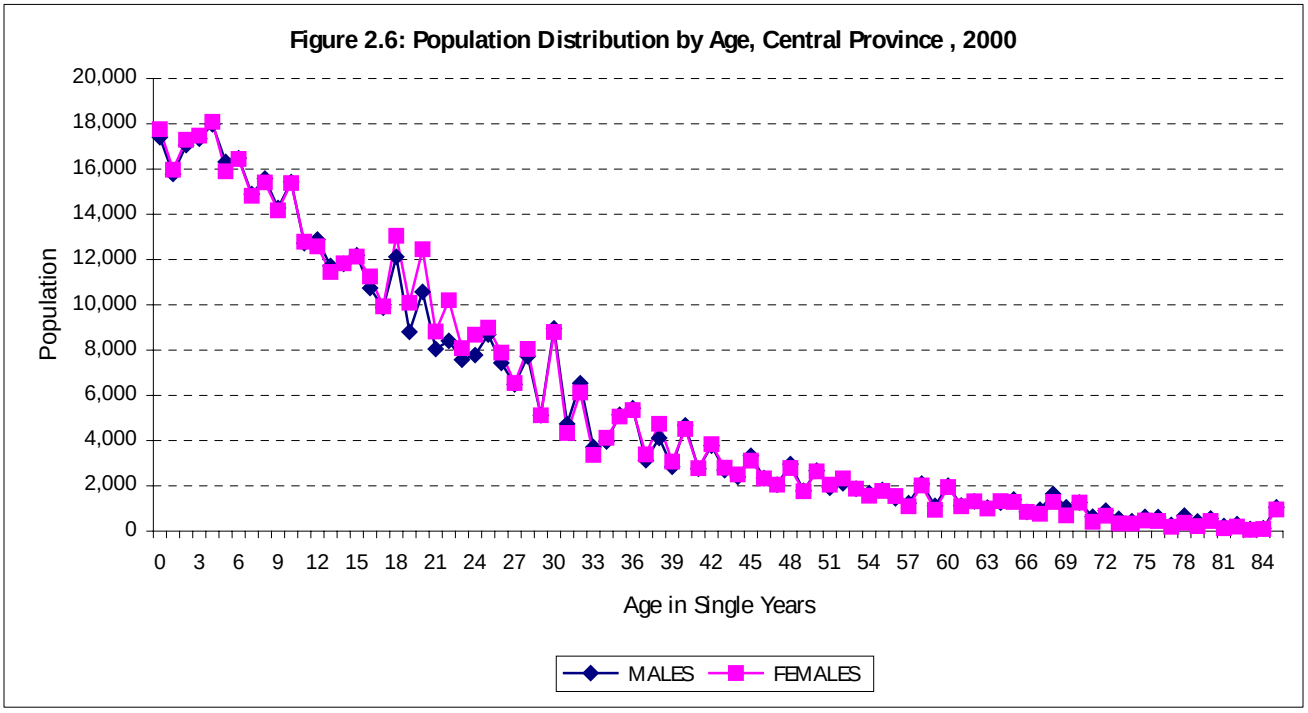
2.5 and 2.6 shows that the peaks and troughs are high for ages reported below 60 years and lower for ages reported above 60 years in 1980, than in 1990 and 2000. There is no noticeable difference in the height of the peaks and troughs for ages reported after 60 years in all the Censuses.



Source: CSO 1980 Censuses of Population and Housing

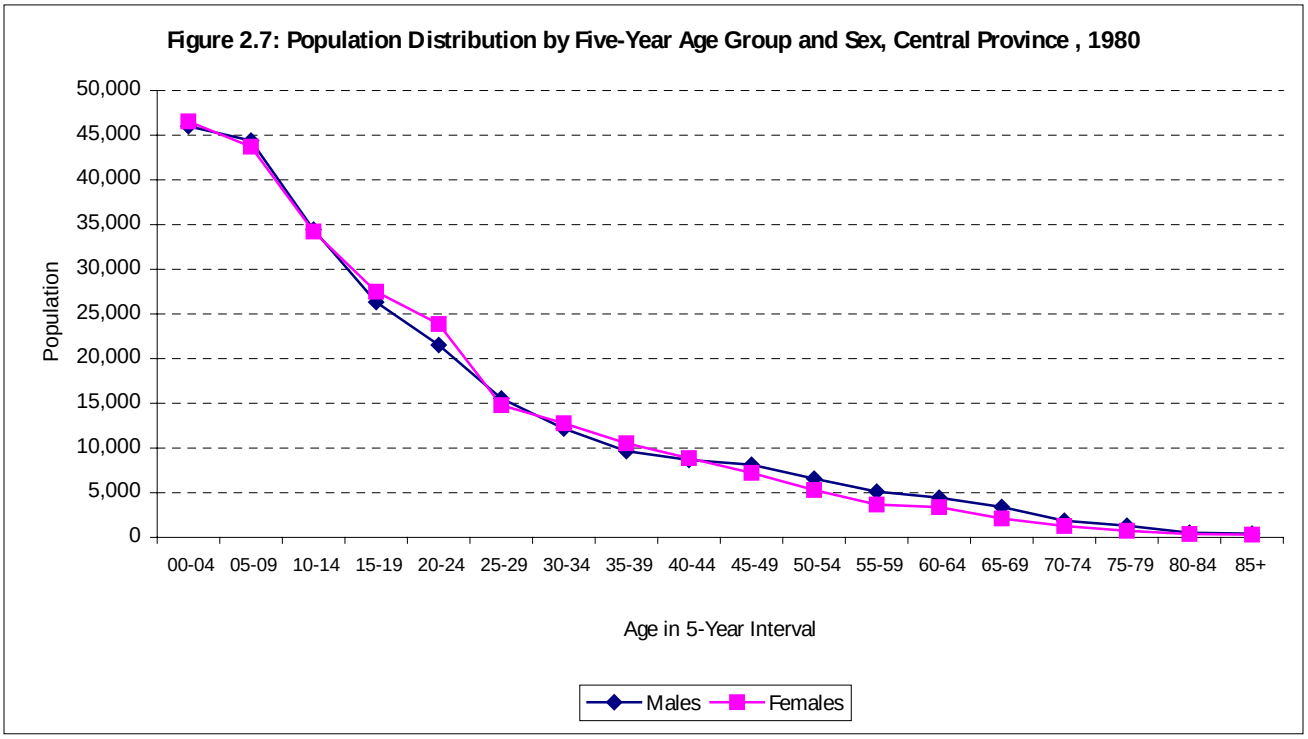


Source: CSO 1990 Censuses of Population and Housing

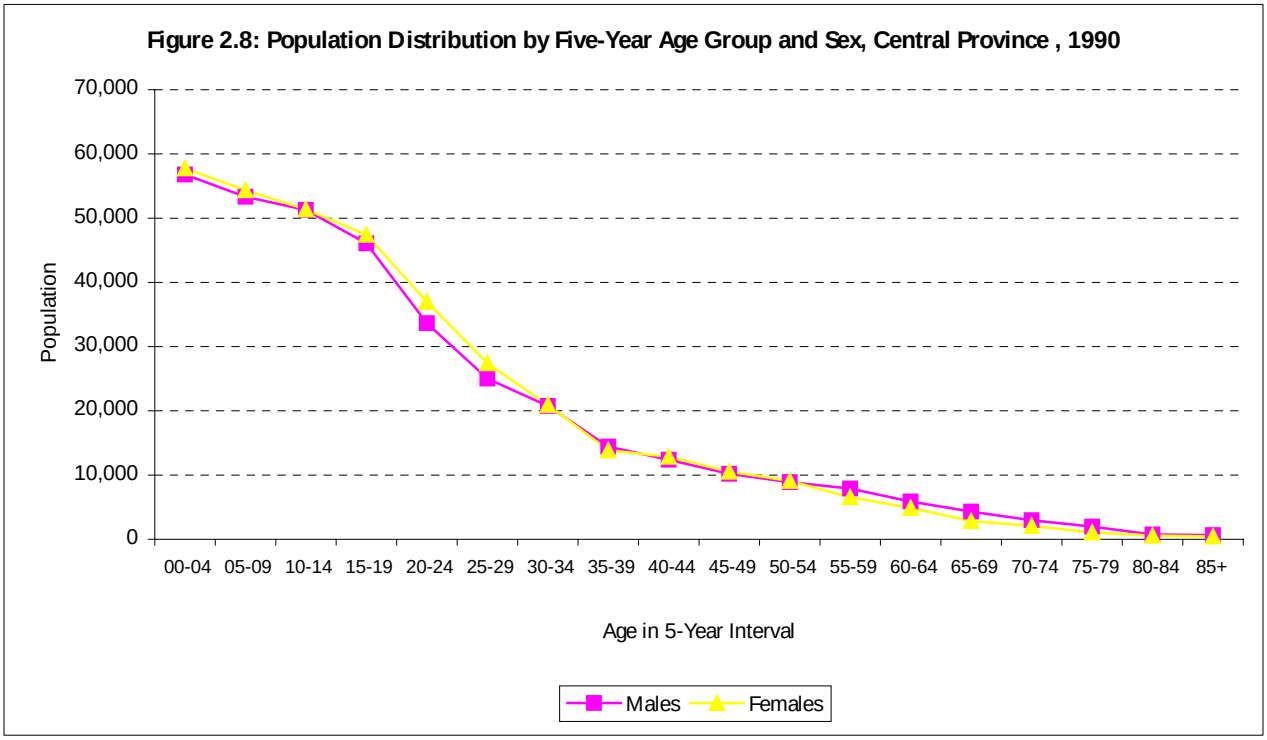


Source: CSO 2000 Censuses of Population and Housing

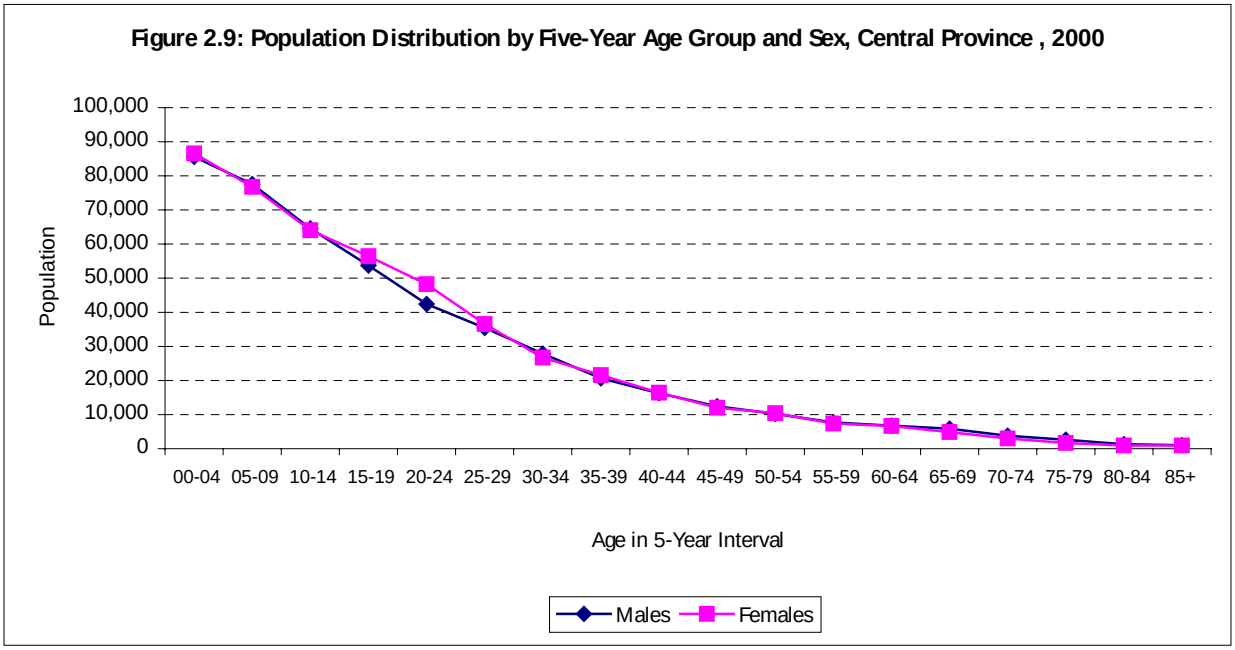
The smoothness of the curves in Figures 2.7, 2.8, and 2.9 shows that grouping single year age data into five year age groups improves irregularities in age data arising from age misreporting (Compare Figures 2.4, 2.5 and 2.6 with Figures 2.7, 2.8 and 2.9).



Source: CSO 1980 Censuses of Population and Housing



Source: CSO 1990 Censuses of Population and Housing



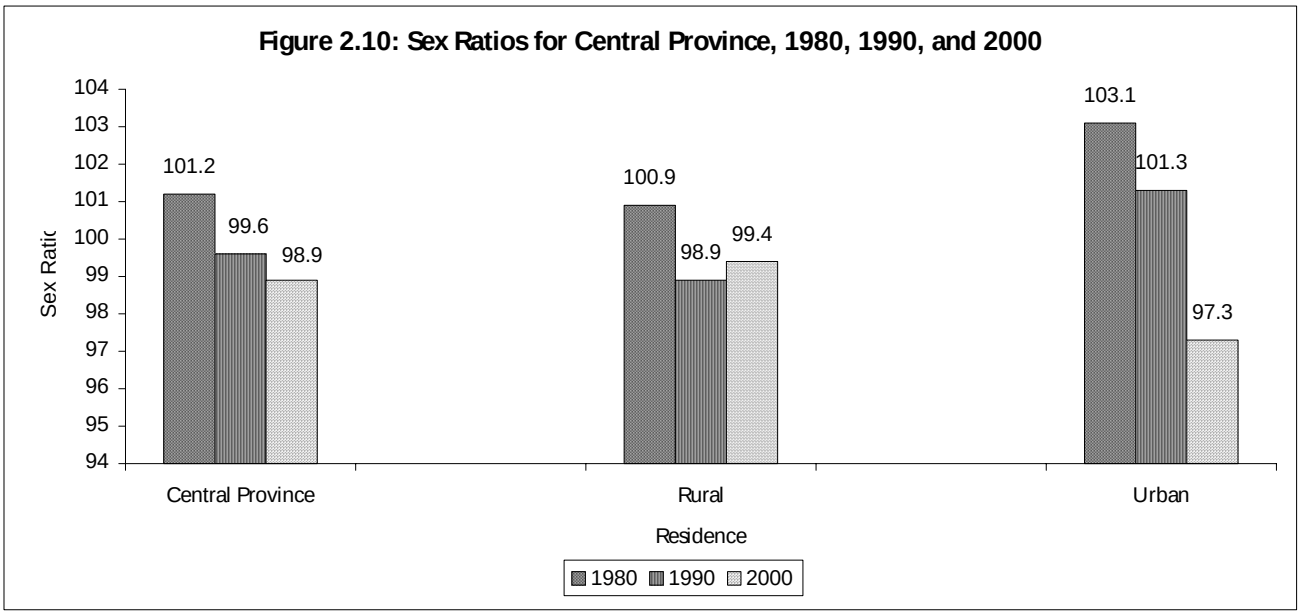
Source: CSO 2000 Censuses of Population and Housing

2.5.2 Sex-ratio

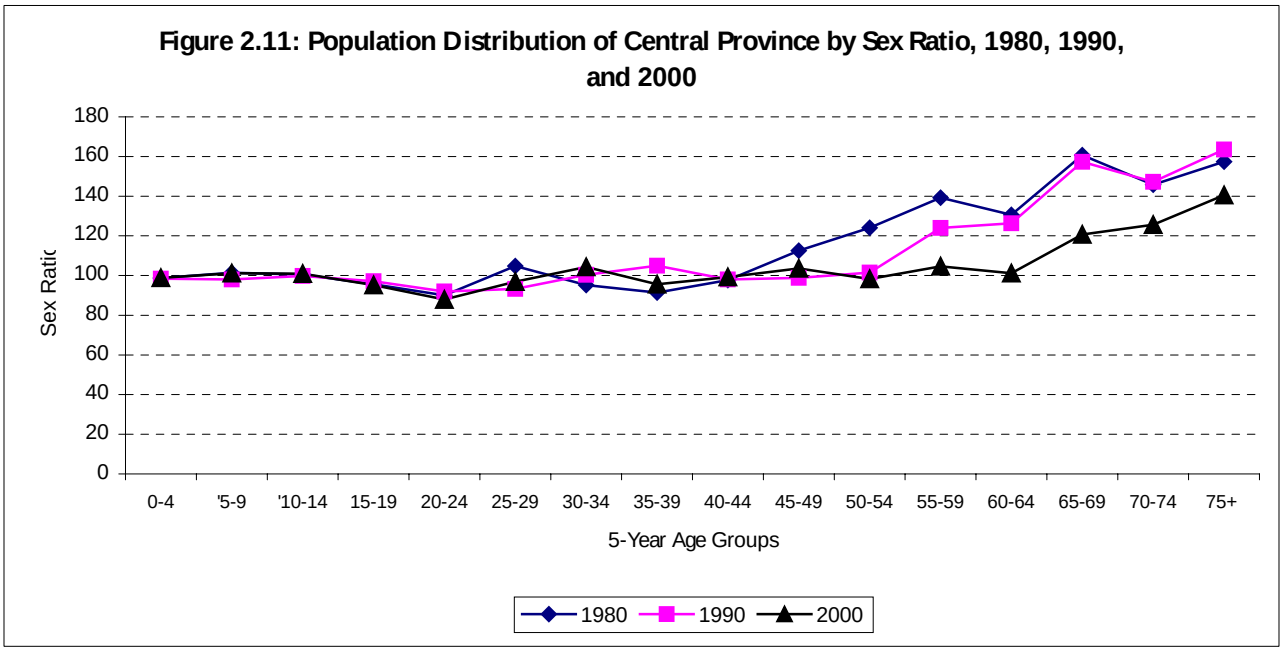
A sex-ratio is the number of males per 100 females. A sex-ratio of more than 100 shows an excess of males, a sex-ratio of less than 100 shows that there are more females than males and a sex-ratio of 100 indicates an equal number of males and females. The presence of errors of omission, age misreporting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

The sex-ratios for Central Province are given in Tables 2.3, 2.4, 2.5, and 2.6 and Figures 2.10 and 2.11. The sex-ratio for Central Province declined from 101.2 in 1980 to 99.6 in 1990 and finally to 98.9 males per 100 females. Central Province has changed from being an area of excess males in 1980 to an area in excess of

females in 1990 and 2000. This could be attributed to either out-migration of males and high male child mortality at ages below 5 years. It is also possible that the decline in mining activities could have had some influence on the demand for male labour. In terms of residence, sex-ratio was higher in urban areas than in rural areas in 1980 and 1990. This indicates predominance of males over females in the urban areas and vice versa in the rural areas. However, in 2000, the sex-ratio was higher in rural than urban areas, this could be attributed to out migration of males from urban areas to rural areas. Further observations also show that the sex-ratio for urban areas has been declining. The pattern of sex-ratios cannot only be attributed to errors in the data. In this era of the HIV/AIDS pandemic, high mortality could also be a major factor affecting the sex-ratios. Sex-ratios are also influenced by sex selective migration.



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



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

An analysis of age-specific sex-ratios for 1980 reveals a deficit of males in age groups 15-24 years and 30-44 while 1990 reveals a deficit of males in age groups 0-29 years and 40-49 years. On the other hand an analysis of age specific sex-ratios for 2000 reveals a deficit of males in a number of the age groups (00-04,15-29,35-44,50-54,60-64). There are many possible factors responsible for this, including high male mortality especially

in the younger ages and out-migration of economically active adult males to other provinces in the middle age groups. The tendency by men to over estimate their age could also have shifted men into older ages while the tendency by women to under-state their age could have shifted them into younger ages, hence, causing errors in age and sex data. A lower sex-ratio in the age group 00-04 and 05-09 may suggest under enumeration of children, since sex-ratio is supposed to be high at such age groups. The pattern of sex-ratio of 1980,1990 and 2000 suggest an under enumeration of children since the sex-ratio for all the censuses are less than 100 at age group 00-04.

The sex-ratios are higher than 100 for age groups 5-14 years, 25-29 years and 45 years and older in 1980 and age groups 30-39 years and 50 years and older in 1990. In 2000 sex-ratios are greater than 100 for age groups 5-14 years, 30-34 years, 45-49 years, 55-59 years and 65 years and older (See Tables 2.3 and 2.6 for more details). This means that these age groups have more males than females.

Table 2.3: Sex-ratio by Residence, Central Province, 1980, 1990 and 2000

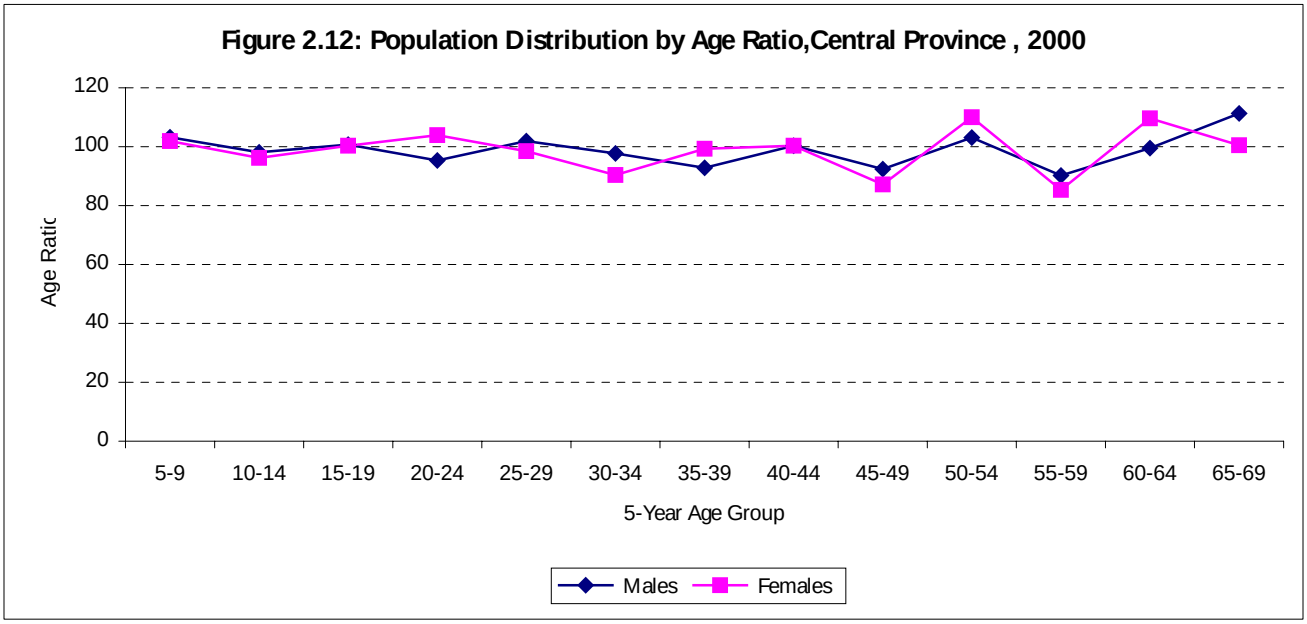
	1980			1990			2000		
Age Group	**Total**	**Rural**	**Urban**	**Total**	**Rural**	**Urban**	**Total**	**Rural**	**Urban**
0-04	98.7	103.4	100.2	98.4	98.6	97.9	98.8	99.3	97.0
5-09	101.4	102.2	99.5	98.0	99.2	95.3	101.1	101.4	99.8
10-14	100.5	104.0	92.8	99.8	102.2	94.4	100.9	103.7	92.4
15-19	95.6	94.5	90.8	97.1	98.7	93.4	95.2	95.9	93.5
20-24	90.0	95.7	79.8	91.9	91.4	93.1	87.9	87.3	89.5
25-29	104.8	100.3	112.9	93.2	93.2	93.1	96.9	98.2	93.3
30-34	95.2	83.4	121.7	100.3	99.2	102.7	104.3	105.7	100.5
35-39	91.4	79.7	123.8	104.9	95.2	125.9	95.6	95.3	96.4
40-44	97.7	86.3	135.9	98.0	83.5	140.8	99.2	96.1	108.3
45-49	112.5	101.2	157.4	98.8	86.3	145.4	103.6	97.5	123.6
50-54	124.1	111.2	182.9	101.5	90.9	151.8	98.2	91.1	126.8
55-59	139.2	130.1	190.1	124.0	117.4	159.9	104.6	100.6	125.4
60-64	130.6	125.7	168.5	126.3	124.8	134.3	101.1	101.5	99.1
65-69	160.7	157.1	191.2	157.3	160.8	137.9	120.7	122.7	109.2
70-74	145.8	147.9	124.0	147.2	146.1	154.5	125.6	128.5	108.2
75+	157.4	157.8	148.3	163.5	164.7	153.8	140.5	148.5	97.7

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

2.5.3 Age-ratio

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

Information about age-ratios is presented in Tables 2.4,2.5, 2.6 and Figure 2.12. Results from the 1980 Census show that age groups with age-ratios less than 100 in 1980 for males are 10-19, 25-44 and 55-59, while for females the age groups are 10-19, 25-29, 35-44, 50-59 and 65-69. In 1990, the age groups with ratios less than 100 are 5-9, 20-29, 35-39,45-54 and 60-69 for males, while for females the age groups 20-29, 35-39, 45-49, 55-59 and 65-69 show an age-ratio less than 100. In 2000, the age groups with sex ratios less than 100 for males were 10-14, 20-24, 30-39, 45-19 and 55-64. A similar pattern exists for females except for the age groups 20-24 and 60-64 (See Figure 2.12 and Tables 2.4 to 2.6).



Source: CSO 2000 Censuses of Population and Housing

The substantial deviations of the age-ratios could be affected by age misreporting, digit preference, omission, migration or fluctuations in births and deaths. Results from Tables 2.4, 2.5, 2.6 and Figure 2.12 suggest that reporting of age is less satisfactory for females than males. This is shown by having a higher average age-ratio deviation for females than males.

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

Age Group	Population		Age-ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	47,266	47,912					98.7	
5-9	45,607	44,999	110.3	108.3	10.3	8.3	101.4	2.7
10-14	35,393	35,225	97.4	96.1	-2.6	-3.9	100.5	-0.9
15-19	27,056	28,299	94.1	94.7	-5.9	-5.3	95.6	-4.9
20-24	22,122	24,567	102.8	112.9	2.8	12.9	90.0	-5.6
25-29	15,975	15,236	92.2	80.8	-7.8	-19.2	104.8	14.8
30-34	12,514	13,142	96.7	100.8	-3.3	0.8	95.2	-9.6
35-39	9,914	10,848	92.5	97.4	-7.5	-2.6	91.4	-3.8
40-44	8,914	9,124	97.5	99.8	-2.5	-0.2	97.7	6.3
45-49	8,362	7,436	106.7	102.0	6.7	2.0	112.5	14.8
50-54	6,761	5,450	99.2	97.2	-0.8	-2.8	124.1	11.6
55-59	5,265	3,782	93.0	84.6	-7.0	-15.4	139.2	15.1
60-64	4,559	3,491	104.2	117.3	4.2	17.3	130.6	-8.6
65-69	3,488	2,170	107.7	90.3	7.7	-9.7	160.7	30.1
70-74	1,919	1,317	N/A	N/A	0.0	0.0	145.8	-15.0
75+	2,319	1,473	N/A	N/A	N/A	N/A	157.4	N/A
Total	257,434	254,471			69.1*	100.4*	101.2	143.8*
Mean					5.3	7.7		10.3

Source: CSO 1980 Censuses of Population and Housing

Note: * Shows total irrespective of sign.

Age-Sex Accuracy Index = 3 times mean difference in sex-ratios plus mean deviations of male and female age-ratios.
= 3 x 10.3 + 5.3 + 7.7
= 43.9

The Age Accuracy Index reduced from 43.9 in 1980 to 32.1 in 1990 and finally to 27.7 in 2000. The United Nations define age data as "Accurate, Inaccurate and Highly Inaccurate" if the Age Accuracy Index lies below 20, between 20-40 and 40 and above, respectively. In as far as the United Nations Age-Sex Accuracy Index is

concerned, the 1980 age data were "highly inaccurate" whereas the 1990 and 2000 data were "inaccurate". However, the 2000 age data show some improvement over the 1990 and 1980 age data. Refer to Tables 2.4,2.5, 2.6 and Figure 2.12 for details.

Table 2.5: Population by Five Year Age Group, Sex, Age-ratio and the Age-Sex Accuracy Index, Central Province, 1990

Age Group	Population		Age-ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	58,388	59,310					98.4	
5-9	55,997	57,117	98.9	100.0	-1.1	0.0	98.0	-0.4
10-14	54,802	54,891	103.3	100.9	3.3	0.9	99.8	1.8
15-19	50,120	51,635	108.6	107.9	8.6	7.9	97.1	-2.8
20-24	37,486	40,793	95.9	99.8	-4.1	-0.2	91.9	-5.2
25-29	28,065	30,121	92.9	94.6	-7.1	-5.4	93.2	1.3
30-34	22,944	22,868	104.5	101.1	4.5	1.1	100.3	7.2
35-39	15,841	15,100	87.1	82.6	-12.9	-17.4	104.9	4.6
40-44	13,440	13,714	100.4	104.8	0.4	4.8	98.0	-6.9
45-49	10,933	11,069	95.2	95.9	-4.8	-4.1	98.8	0.8
50-54	9,517	9,379	98.5	105.2	-1.5	5.2	101.5	2.7
55-59	8,390	6,767	106.4	94.4	6.4	-5.6	124.0	22.5
60-64	6,261	4,959	96.7	102.6	-3.3	2.6	126.3	2.3
65-69	4,564	2,901	97.5	82.1	-2.5	-17.9	157.3	31.1
70-74	3,098	2,105	N/A	N/A	0.0	0.0	147.2	-10.2
75+	3,497	2,139	N/A	N/A	N/A	N/A	163.5	N/A
Total	383,343	384,868			60.5*	73.1*	99.6	99.8*
Mean					4.7	6.1		7.1

Source: CSO 1990 Censuses of Population and Housing

Note: * Shows total irrespective of sign.

Age-Sex Accuracy Index = 3 times mean difference in sex-ratios plus mean deviations of male and female age-ratios.
= 3 x 7.1 + 4.7 + 6.1
= 32.1

Table 2.6: Population by Five Year Age Group, Sex, Age-ratio and the Age-Sex Accuracy Index, Central Province, 2000

Age Group	Population		Age-ratio		Deviation from 100		Sex Ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	85,579	86,586					98.8	
5-9	77,554	76,743	103.3	101.9	3.30	1.90	101.1	2.2
10-14	64,577	64,031	98.4	96.2	-1.62	-3.85	100.9	-0.2
15-19	53,732	56,441	100.5	100.6	0.47	0.55	95.2	-5.7
20-24	42,382	48,231	95.1	103.7	-4.94	3.70	87.9	-7.3
25-29	35,439	36,580	100.9	97.6	0.86	-2.41	96.9	9.0
30-34	27,889	26,737	99.4	91.9	-0.56	-8.09	104.3	7.4
35-39	20,651	21,599	93.5	100.1	-6.51	0.09	95.6	-8.7
40-44	16,291	16,421	98.4	97.7	-1.57	-2.32	99.2	3.6
45-49	12,452	12,024	93.8	89.5	-6.19	-10.47	103.6	4.4
50-54	10,257	10,440	101.7	107.7	1.73	7.65	98.2	-5.3
55-59	7,713	7,372	90.7	86.2	-9.26	-13.82	104.6	6.4
60-64	6,743	6,669	99.2	108.9	-0.82	8.93	101.1	-3.5
65-69	5,884	4,873	111.7	100.6	11.74	0.62	120.7	19.6
70-74	3,789	3,017	N/A	N/A	0.00	0.00	125.6	4.8
75+	5,020	3,572	N/A	N/A	N/A	N/A	140.5	N/A
Total	475,952	481,336			49.6*	64.4*	98.9	88.2*
Mean					3.8	4.9		6.3

Source: CSO 2000 Censuses of Population and Housing

Note: * Shows total irrespective of sign.

Age-Sex Accuracy Index = 3 times mean difference in sex-ratios plus mean deviations of male and female age-ratios.
= 3 x 6.3 + 3.8 + 4.9
= 27.7

2.5.4 Survival-Ratios

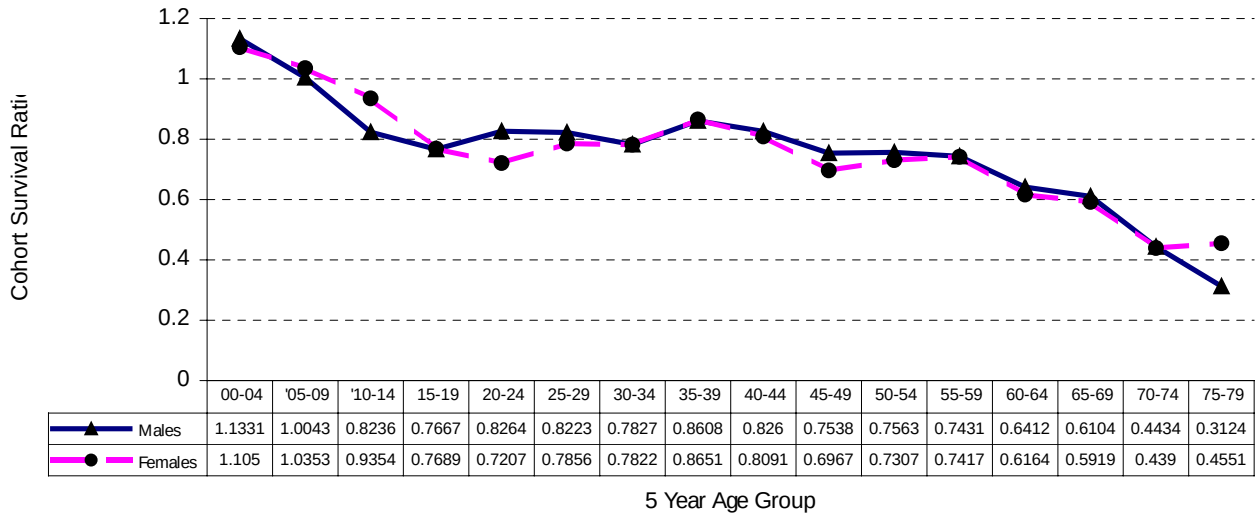
Survival-ratios represent the probability that individuals of the same birth cohort or group of cohorts will still be alive 10 years later. Evaluation of the quality of age and sex data from two censuses using the survival-

ratio method can be done only under certain assumptions; the population should be closed to migration, the influence of abnormal mortality through wars, disasters, and diseases over a 10-year period should be absent.

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

Cohort survival-ratios are expected to be highest at age group 10-14 where mortality is assumed to be lowest and then to decline continuously thereafter. Figure 2.13 shows fluctuations rather than the expected pattern. At age group 25-29 for instance, the male cohort survival-ratio is lower than in age groups 30-34,35-39,40-44,45-49 and 50-54. The female cohort survival-ratio is lower at age group 30-34 than the preceding and the following age groups up to age group 55-59, see Figure 2.13. Fluctuations in the cohort survival-ratios show that there was over-statement or under-statement of ages among males and females.

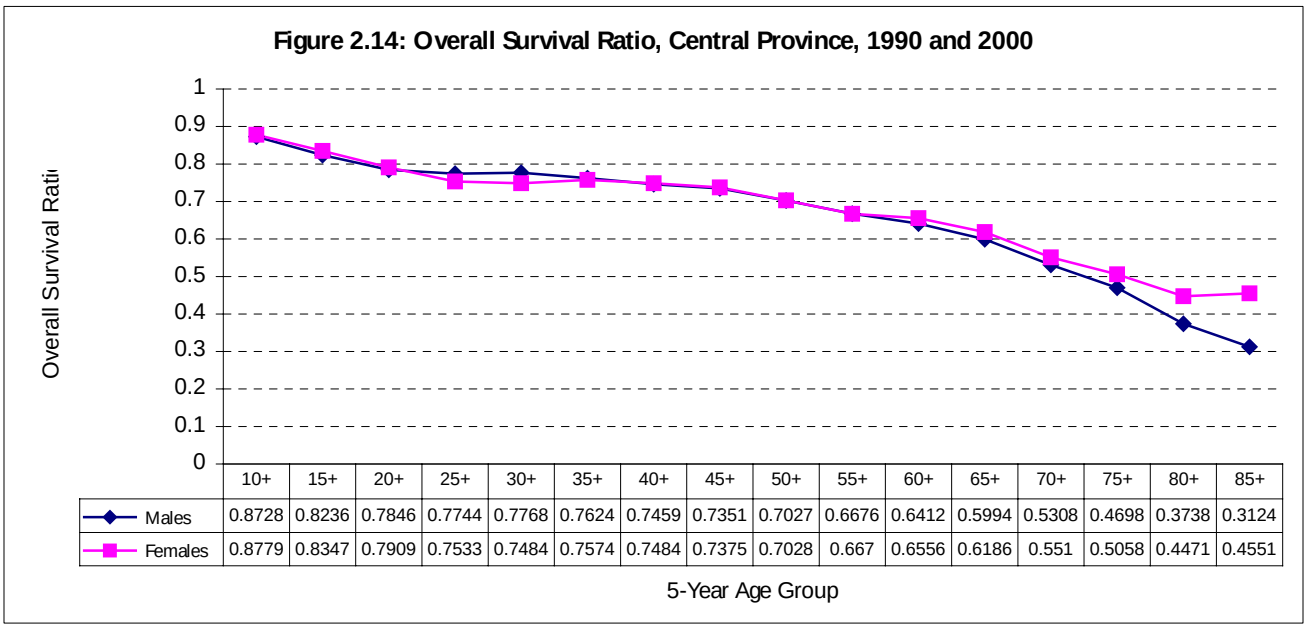
Figure 2.13: Cohort Survival Ratio, Central Province, 1990 - 2000



	00-04	'05-09	'10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79
Males	1.1331	1.0043	0.8236	0.7667	0.8264	0.8223	0.7827	0.8608	0.826	0.7538	0.7563	0.7431	0.6412	0.6104	0.4434	0.3124
Females	1.105	1.0353	0.9354	0.7689	0.7207	0.7856	0.7822	0.8651	0.8091	0.6967	0.7307	0.7417	0.6164	0.5919	0.439	0.4551

Source: CSO 1990 and 2000 Censuses of Population and Housing

In the absence of abnormal mortality and migration, the overall survival-ratios are expected to decline continuously with increasing age. The female ratios should be higher than the male ratios because of lower mortality of females compared to that of males. The pattern of having higher ratios for females than males is true for all except at 25+ and 30+ (see Figure 2.14). This could be an indication of high levels of maternal mortality in the reproductive age group (15-49) of women and also the effect of the HIV/AIDS pandemic.

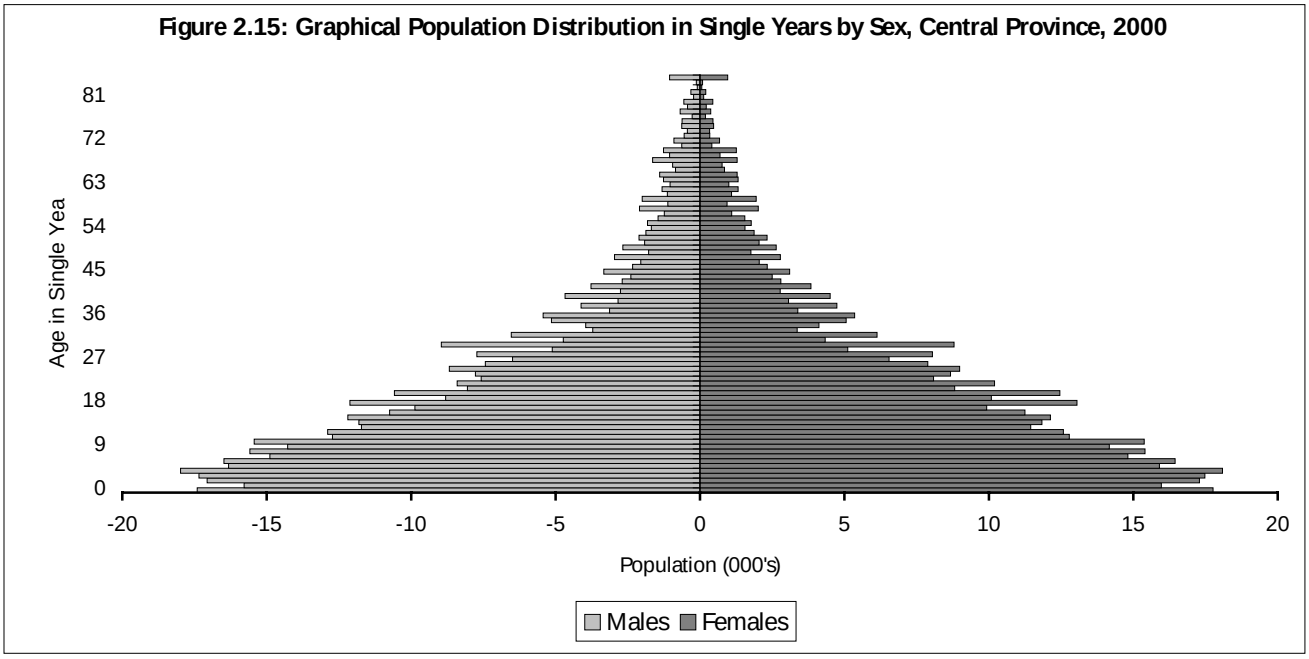


	10+	15+	20+	25+	30+	35+	40+	45+	50+	55+	60+	65+	70+	75+	80+	85+
Males	0.8728	0.8236	0.7846	0.7744	0.7768	0.7624	0.7459	0.7351	0.7027	0.6676	0.6412	0.5994	0.5308	0.4698	0.3738	0.3124
Females	0.8779	0.8347	0.7909	0.7533	0.7484	0.7574	0.7484	0.7375	0.7028	0.667	0.6556	0.6186	0.551	0.5058	0.4471	0.4551

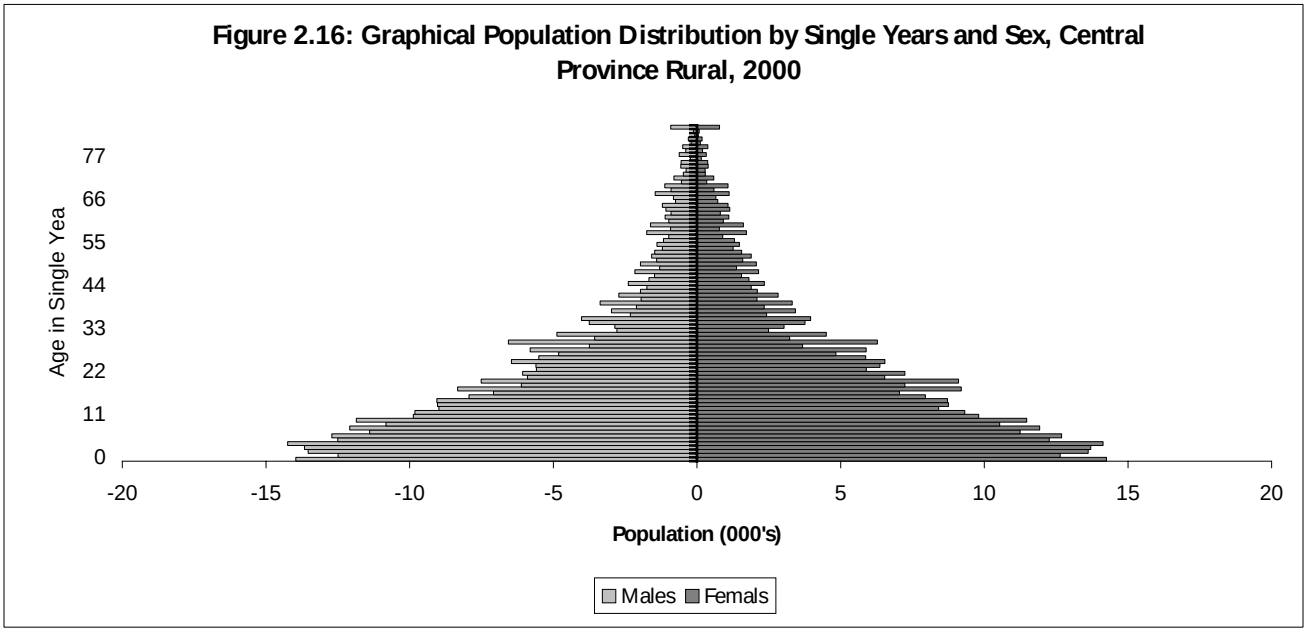
Source: CSO 1990 and 2000 Censuses of Population and Housing

2.5.5 Population Pyramids

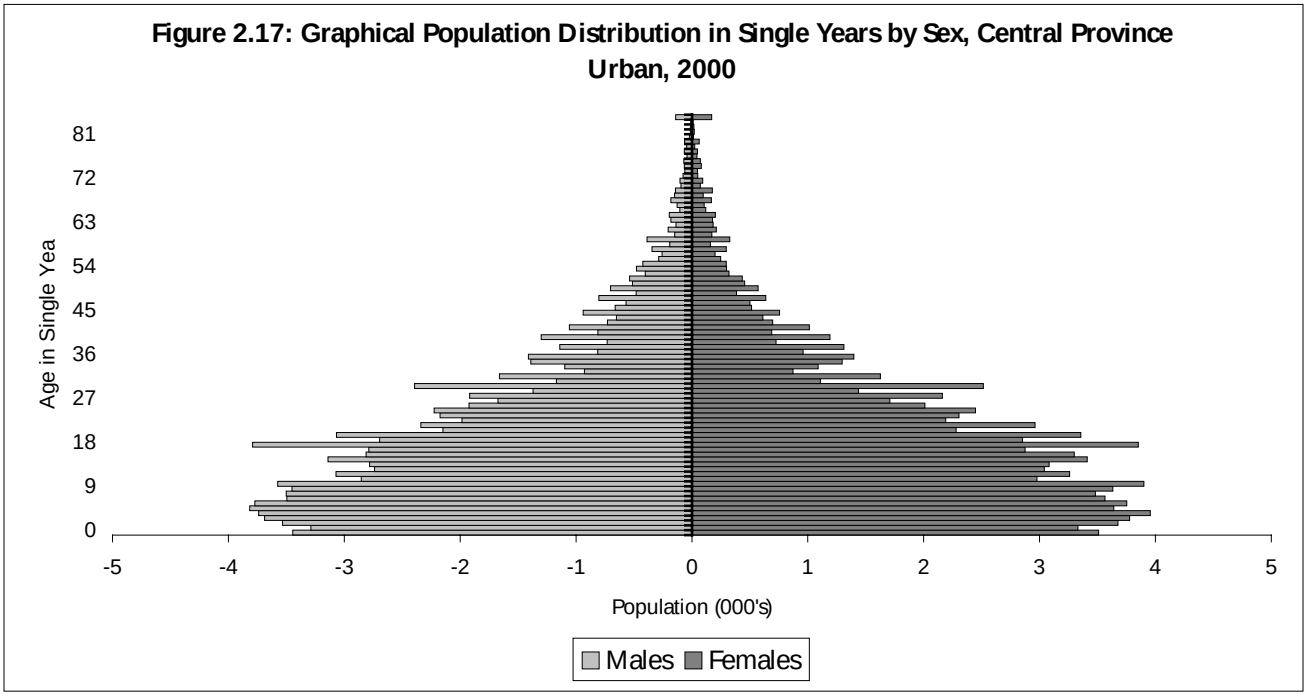
Another way of detecting irregularities in the reported age data of a survey or census is by looking at a Population Pyramid by single years of age. As already observed, when the age data is distributed in single years, inaccuracies can easily be spot out than when it is distributed in five-year age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



Source: CSO 2000 Census of Population and Housing



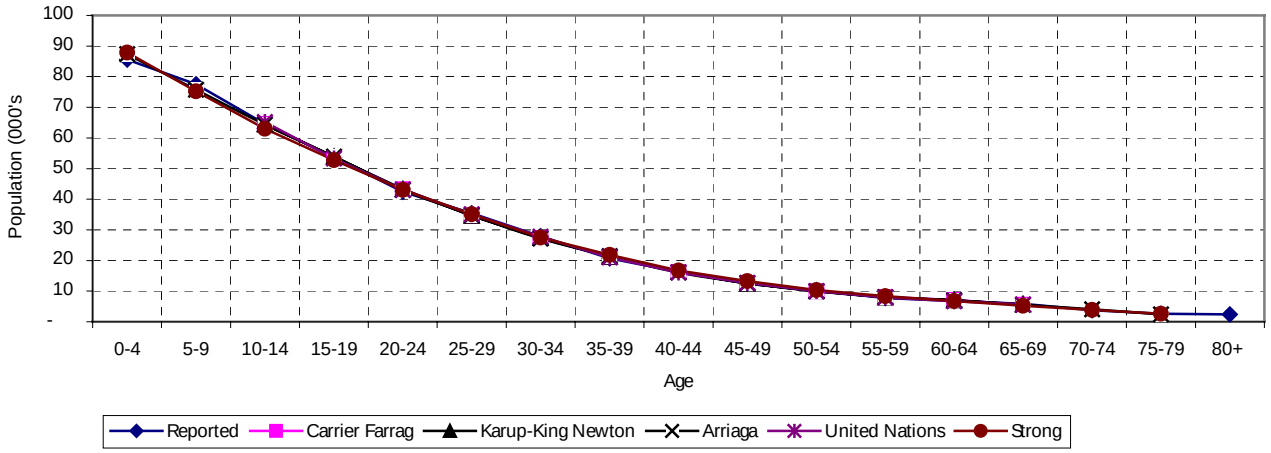
Source: CSO 2000 Censuses of Population and Housing



Source: CSO 2000 Censuses of Population and Housing

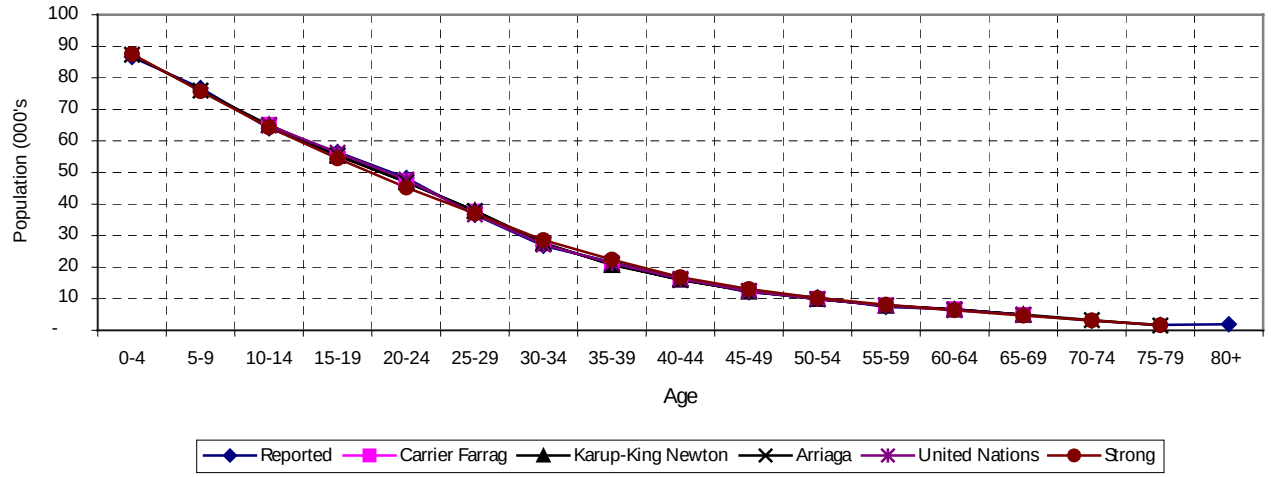
Smoothing the age data using selected techniques for light smoothing of the population (Edwardo E. Arriaga: November 1994, pages 11-42) shows that the irregularities in the structure are not severe, see Figures 2.18 and 2.19. The smoothing of data has been done using AGESMTH software program one of the Population Analysis Spreadsheet (PAS) programmes developed by the United Nations. Selected techniques for light smoothing of the population that have been used include Carrier Farrag, Karup-King Newton, Arriaga and United Nations. The strong smoothing technique has also been incorporated.

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



Source: CSO 2000 Censuses of Population and Housing

Figure 2.19: Reported and Smmothed Population by 5-Year Age Groups and Smoothing Technique, Central Province Females, 2000



Source: CSO 2000 Censuses of Population and Housing

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

2.6 Summary

Central Province has a young population. Out of the total number of 957,288 (de facto population) in 2000, 47.5 percent are below age 15 and almost 50 percent are aged 15-64. Central Province has more females than males and a sex-ratio of 98.8 males per 100 females was recorded in 2000. The low age specific sex-ratio of 98.8 in 2000 for those aged 0-4 suggests that there was under-coverage of children. In the evaluation of content and coverage errors, the notable observations made were that the pattern of Age Composition, Child Woman Ratio and Dependency Ratio in 2000 are in line with the observed declines in fertility, mortality and significant deterioration of adult survivorship levels. Digit preference has been observed during age reporting, the preferred digits being 0,8 and 5. Age heaping in the 2000 Census was also observed, just like in the two previous censuses. However, in spite of the age heaping, the 2000 age-sex data shows an improvement over the 1990 and 1980 age-sex data as evidenced by the decline in the Age-Sex Accuracy Index from 32.1 in 1990 to 27.7 in 2000.

Chapter 3

POPULATION SIZE, GROWTH AND COMPOSITION

3. 1. Introduction

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

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

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

3.2 Concepts and Definitions

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

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

  (c) Foreign diplomatic personnel accredited to Zambia; and

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

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

- **Population Growth Rate**

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

- **Population Composition**

This is defined as the distribution of certain traits, characteristics or attributes of the population and how these affect the overall demographic structure of the country. There are three main characteristics of population composition:

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

- *Age*

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

- *Household*

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

- **Head of Household**

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

- **Population Density**

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

- **Age Dependency Ratio**

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

- **Citizenship**

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

- **Age Dependency ratio**

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

3.3. Population Size and Growth

The 2000 de jure population for Central Province is 1,012,257 of which 501,756 are females and 510,501 are males, indicating that males have outnumbered females (see Table 3.1a).

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

Residence	Both Sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Zambia	9,885,591	100	4,946,298	50.0	4,939,293	50.0
Central	1,012,257	100	510,501	50.4	501,756	49.6
Rural	769,202	100	388,182	50.5	381,020	49.5
Urban	243,055	100	122,319	50.3	120,736	49.7

Source: 2000 Census of Population and Housing

In demographic terms, this de jure figure is considered the *true or resident population* of a nation. However, this type of population count does not allow collection of data on various characteristics (social, economic, political etc.) of individuals. The de jure population, becomes important only as far as the age sex distribution is concerned.

The Central Province de facto count, presented in Table 3.1b is 957,288 of which 50.3 percent are females. The de facto population allows for detailed analysis of individuals because these are present at the time of the count (*see definition above*). It can be noted that the de jure population is always larger than the de facto population.

Table 3.1b: Population Size (De facto) and Percent Distribution by Sex and Residence, Central Province, 2000

Residence	Both Sexes		Male		Female	
	Number	Percent	Number	Percent	Number	Percent
Zambia	9,337,425	100	4,594,290	49.2	4,743,135	50.8
Central	957,288	100	475,952	49.7	481,336	50.3
Rural	725,100	100	361,434	49.8	363,666	50.2
Urban	232,188	100	114,518	49.3	117,670	50.7

Source: 2000 Census of Population and Housing

The 2000 district population for Central Province is displayed in Table 3.2. Among the districts, Chibombo has the largest population of 241,612 followed by Kapiri Mposhi (194,752) and Kabwe (176,758). The least population is found in Mkushi, with just over one hundred thousand persons (107,438). It should be noted that, Kabwe is the most urbanized district, as it does not have rural areas.

Table 3.2: Population Size (De jure) by Sex, Residence and District, Central Province, 2000

Province/ District	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Central	1,012,257	510,501	501,756	769,202	388,182	381,020	243,055	122,319	120,736
Chibombo*	241,612	121,948	119,664	237,657	119,945	117,712	3,955	2,003	1,952
Kabwe	176,758	89,003	87,755	-	-	-	176,758	89,003	87,755
Kapiri Mposhi*	194,752	98,558	96,194	167,533	84,949	82,584	27,219	13,609	13,610
Mkushi	107,438	54,628	52,810	96,841	49,288	47,553	10,597	5,340	5,257
Mumbwa	158,861	79,795	79,066	142,912	71,788	71,124	15,949	8,007	7,942
Serenje	132,836	66,569	66,267	124,259	62,212	62,047	8,577	4,357	4,220

Source: 2000 Census of Population and Housing
Note: " * " denotes new districts which were formerly part of Kabwe Rural and "-" denotes not applicable.

The rate at which Central Province has grown in between censuses of 1969, 1980, 1990 and 2000 are shown in Table 3.3. The table shows that the provincial population has grown from slightly over half a million (511,905) in 1980 to over a million (1,012,257) in 2000. The province has in general experienced a drop in annual growth rate from 3.5 in 1980-1990 to 2.8 percent in the 1990-2000 inter-censal period. On average, the population of Central Province grew the most, at 3.5 percent, during the 1980-1990 inter-censal period. Its annual population growth rate between 1990 and 2000 is higher than the national average of 2.5 percent, presenting a deviation of 0.3 percent. The annual growth rate for rural areas decreased marginally by 0.1 percentage point, while that of urban areas dropped by over two percentage points (i.e. from 3.5 in 1990 to 0.9 percent in 2000).

Table 3.3: Population Size and Annual Average Population Growth Rate by District and Residence, Central Province, 1969-2000

Residence/District	1980 Population Size	Annual Growth Rate (1969-1980)	1990 Population Size	Annual Growth Rate (1980-1990	2000 Population Size	Annual Growth Rate (1990-2000)
Zambia	5,661,801	3.1	7,759,117	2.7	9,885,591	2.5
Central	511,905	3.3	771,818	3.5	1,012,257	2.8
Rural	360,486	-	549,104	3.5	769,202	3.4
Urban	151,419	-	222,714	3.5	243,055	0.9
District						
Chibombo*	-	-	158,382	-	241,612	4.3
Kabwe	136,033	6.8	169,026	1.7	176,758	0.5

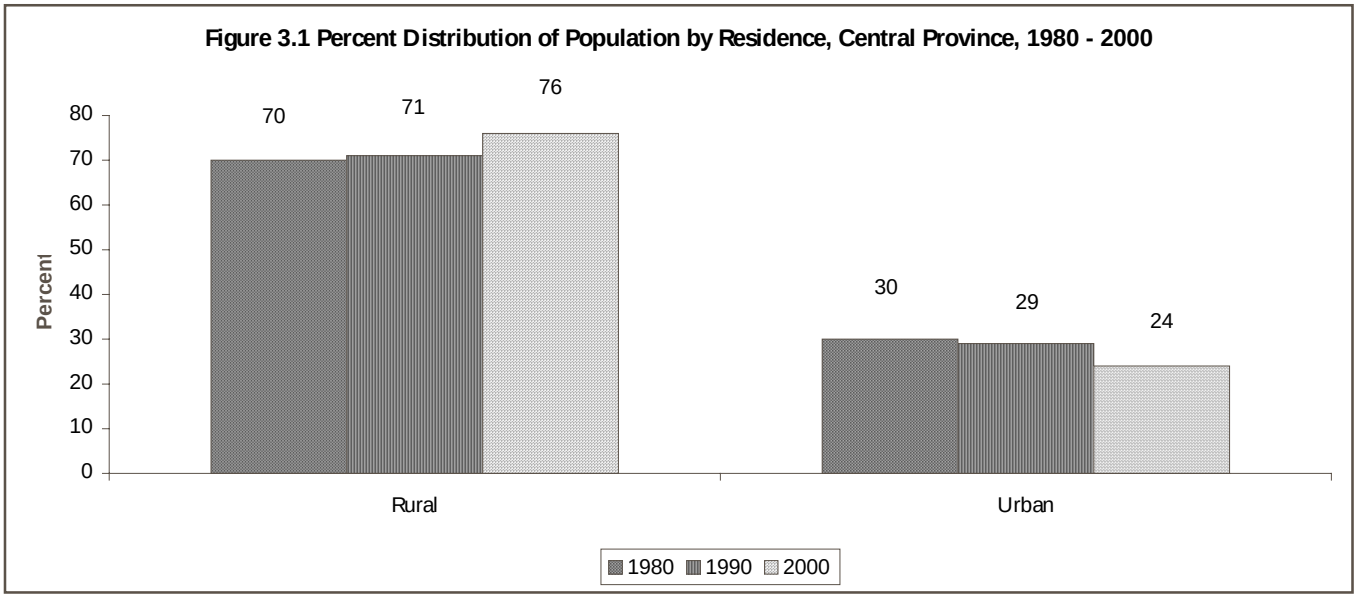
Kabwe Rural	146,295	1.6	-	-	-	-
Kapiri Mposhi*	-	-	110,762	-	194,752	5.8
Mkushi	72,190	2.2	76,747	4.2	107,438	3.4
Mumbwa	83,907	3.1	148,927	4.3	158,861	0.7
Serenje	73,480	3.0	107,974	3.5	132,836	2.1

Source: 1969, 1980, 1990 and 2000 Censuses of Population and Housing
Note: " * " denotes new districts which were formerly part of Kabwe Rural
"-" denotes not applicable as they refer either to new or non-existent districts.

At district level, Chibombo, and Kapiri Mposhi, exhibit high annual growth rates of 4.3 and 5.8 percent between 1990 and 2000. This is typically as a result of their designation as new districts following the apportionment of Kabwe Rural into two. This implies a mere carry over of the rural population, which had a high growth rate (4.1 percent) in the previous decade. Notably, Kabwe and Mumbwa grew the least during the same period, at a rate of 0.5 and 0.7 percent, respectively.

3.4. Population Distribution

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



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

Figure 3.1 illustrates that three in four persons (76 percent) in Central Province reside in rural areas. The proportion of rural population has steadily increased during the last two decades, from 70 percent in 1980 to 71 and 76 percent in 1990 and 2000, respectively. This implies an urban-rural migration trend, which is apparent in other urbanized provinces of Zambia such as Copperbelt and Lusaka. These provinces have over the years been characterised by economic decline, rendering them unattractive in economic terms. (*Details on internal migration trends are provided in the 2000 Migration and Urbanisation Report*).

The percent distribution of district population from 1980-2000 is shown in Table 3.4 and further illustrated for 2000 in Figure 3.2. Chibombo had the largest share of the population in Central Province with 24 percent, followed by Kapiri Mposhi with 19 percent. The share of provincial population for the other districts reduced over the ten-year period, with Mkushi exhibiting the lowest of 15 and 11 percent in 1990 and 2000, respectively.

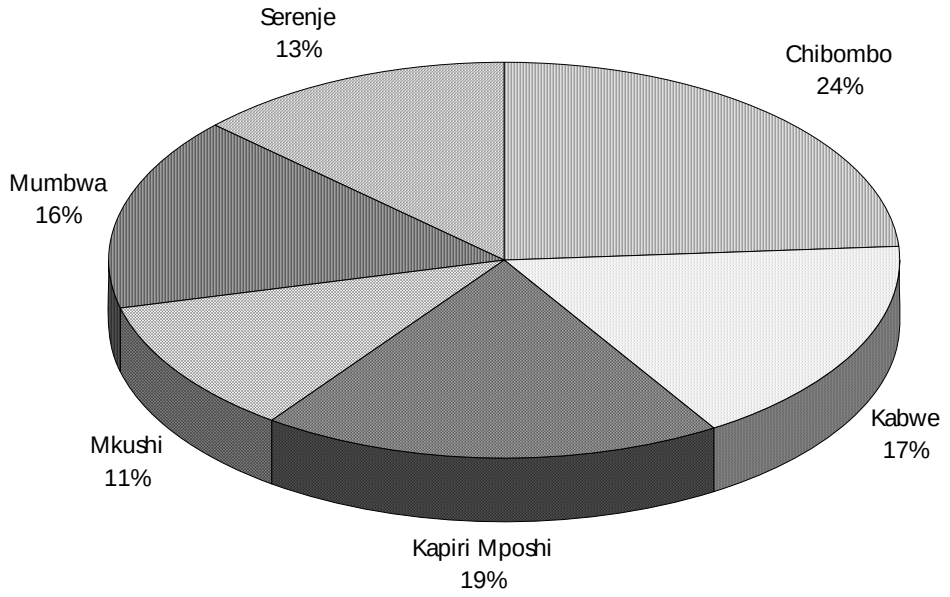
Table 3.4: Population Distribution (De jure) by District, Central Province, 1980, 1990 and 2000

District	1980		1990		2000	
	Number	Percent	Number	Percent	Number	Percent
Central Province	511,905	100	771,818	100	1,012,257	100
Chibombo	-		158,382	21	241,612	24
Kabwe	136,033	27	169,026	22	176,758	17

Kabwe Rural	146,295	29	-			
Kapiri Mposhi	-	-	110,762	14	194,752	19
Mkushi	72,190	14	76,747	10	107,438	11
Mumbwa	83,907	16	148,927	19	158,861	16
Serenje	73,480	14	107,974	14	132,836	13

Source: 1980, 1990 and 2000 Census of Population and Housing
Note: "-" denotes not applicable as they refer either to new or non-existent districts.

Figure 3.2 Population Distribution by District, Central Province, 2000



Source: 2000 Census of Population and Housing

3.4.1. Population Density

Table 3.5 shows the land area and population density for Central Province from 1969 to 2000. Density of population is defined as the number of people resident within a standard unit of area, in this case, measured per square kilometer (Pressant, 1985). Generally, with an increasing population in the past decades, the provincial population density has also been increasing, from 3.8 in 1969 to 5.4 and 8.2 in 1980 and 1990, respectively. In 2000, 10.7 persons per square kilometer were recorded. The provincial population density in 2000 is lower than the national population density of 13.1 persons per square kilometer.

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

Province	Area (sq.km)	Population Density/Census Year (Population per sq.km)			
		1969	1980	1990	2000
Zambia	752,612	5.4	7.5	10.3	13.1
Central Province	94,394	3.8	5.4	8.2	10.7
Districts					
Chibombo	13,423	-	-	11.8	18
Kabwe	1,572	42.0	86.5	107.5	112.4
Kabwe Rural*	-	4.8	5.7	-	-
Kapiri Mposhi	17,219	-	-	6.4	11.3
Mkushi	17,726	2.5	3.2	4.3	6.1
Mumbwa	21,103	2.8	4	7.1	7.5
Serenje	23,351	2.3	3.1	4.6	5.7

Source: 2000 Census of Population and Housing
Note:" *" Kabwe Rural was split into two districts (Chibombo and Kapiri Mposhi)
"-" denotes not applicable as they refer either to new or non-existent districts.

An important feature of the province's population distribution is that Kabwe, which has the smallest land area of 1,572 square kilometer, has maintained the highest population density of 42 (1969), doubled to 86 in 1980 and further increased to 108 in 1990 and 112 persons per square kilometer in 2000. While Kabwe's density has increased tremendously, those of other districts display slight increases in population density from 1969 to 2000.

3.5. Population Composition

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

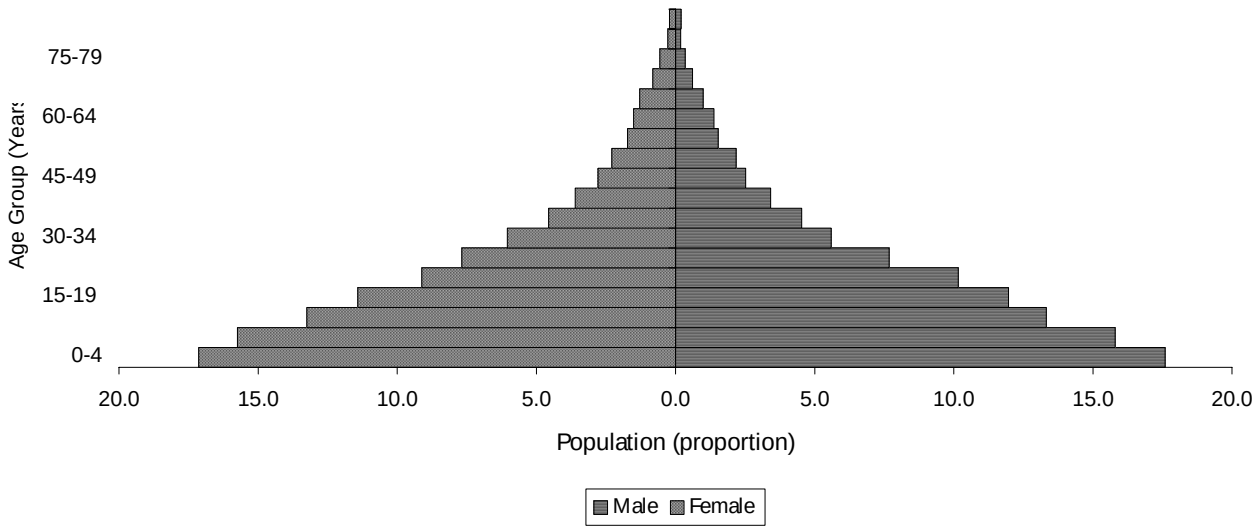
3.5.1. Age and Sex Composition

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

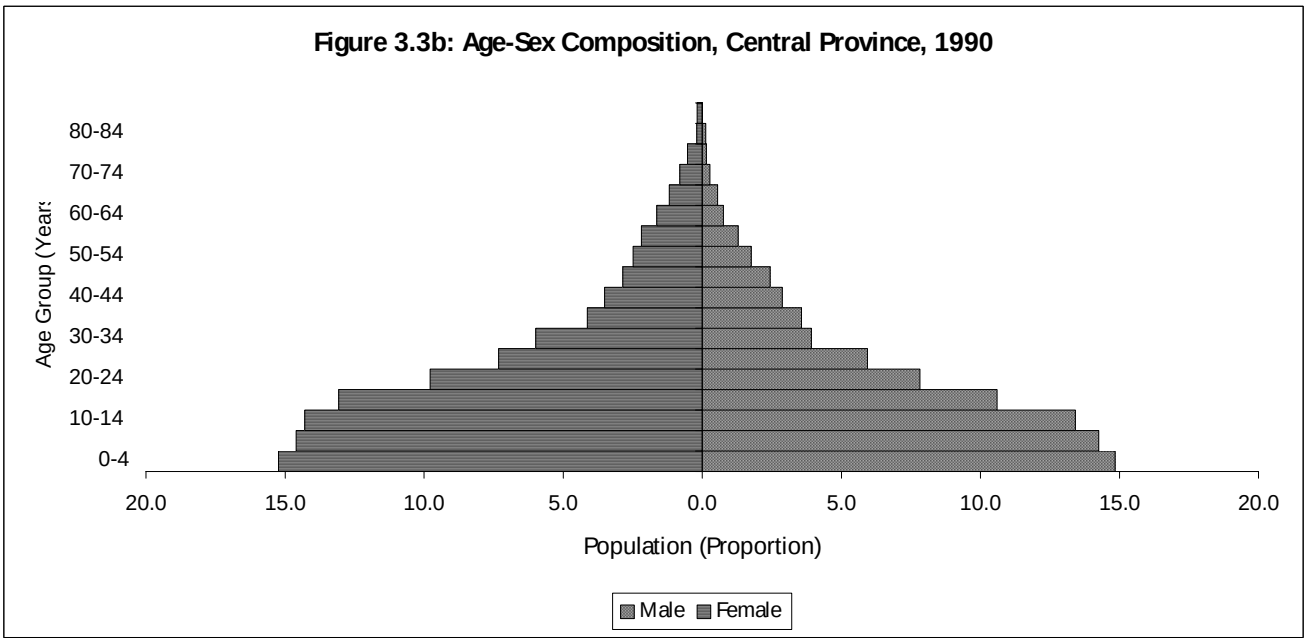
The age and sex structure of population in Central Province is illustrated in proportion by way of population pyramids for 1990 and 2000 in Figures 3.3a and 3.3b. Population pyramids are useful in presenting the population by age and sex graphically. Another important feature of population pyramids is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

In comparative terms, the 2000 population pyramid (Figure 3.3a) has a smoothened appearance while that of 1990 had a bump or near-funnel look from age groups 10-14 up to 25-29 (Figure 3.3b). This signifies population gaps from age groups 10-14 to 25-29 (see figure 3.4). These population gaps could be attributed to increased mortality, given the ravaging effects of HIV/AIDS pandemic coupled with odds of the declining economic situation in the country, particularly in the last decade.

Figure 3.3a: Age-Sex Composition, Central Province, 2000



Source: 2000 Census of Population and Housing



Source: 1990 Census of Population and Housing

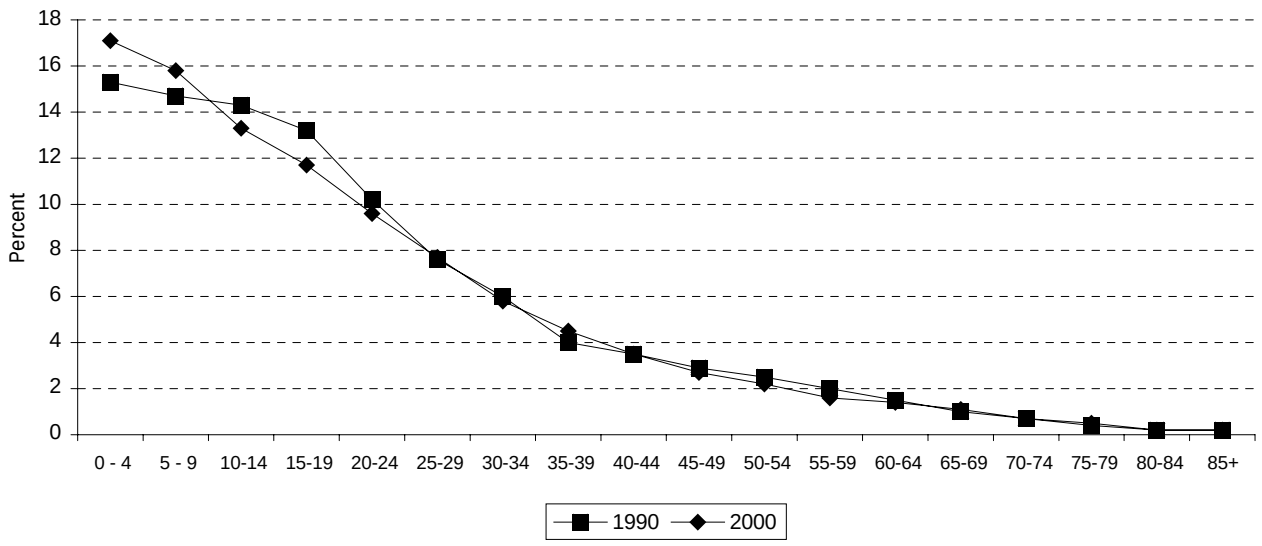
Table 3.6 presents the age-sex population distribution for Central Province, including the rural and urban areas. In 2000, children (0-14 years) constituted 46.5 percent of the total population in Central Province, which is a 2.2 percentage point increase from 44.3 recorded in 1990. Similarly, rural and urban populations mostly comprise of child population, with the rural proportion being higher (47.3 percent) than that for urban areas (43.4 percent). The proportion of population declines with increasing age, with less than one percent of persons recorded as having been 70 years and older. The broad base of the population pyramid has an impact on future population growth given the potential that lies in the huge proportion of young persons as they enter reproductive ages (15-49 years).

Table 3.6 Age-Sex Percent Distribution of Population by Residence, Central Province, 2000

Age Group	Central Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
0-4	17.4	17.1	17.6	18.1	17.9	18.3	14.9	14.6	15.2
5-9	15.8	15.7	15.8	15.9	15.9	16.0	15.2	15.2	15.3
10-14	13.3	13.3	13.3	13.3	13.4	13.1	13.3	12.8	13.9
15-19	11.7	11.4	12.0	11.1	10.9	11.3	13.6	13.2	14.0
20-24	9.6	9.1	10.2	9.3	8.7	9.8	10.8	10.3	11.2
25-29	7.7	7.7	7.7	7.5	7.5	7.5	8.3	8.2	8.4
30-34	5.8	6.0	5.6	5.6	5.8	5.4	6.4	6.7	6.2
35-39	4.5	4.6	4.5	4.4	4.4	4.4	5.1	5.2	4.9
40-44	3.5	3.6	3.4	3.4	3.4	3.4	3.9	4.2	3.6
45-49	2.7	2.8	2.5	2.6	2.7	2.6	2.8	3.2	2.4
50-54	2.2	2.3	2.2	2.3	2.2	2.3	2.1	2.5	1.8
55-59	1.6	1.7	1.5	1.8	1.8	1.7	1.2	1.4	1.0
60-64	1.4	1.5	1.4	1.6	1.7	1.5	0.9	1.0	0.9
65-69	1.1	1.3	1.0	1.3	1.5	1.1	0.6	0.7	0.5
70-74	0.7	0.8	0.6	0.8	1.0	0.7	0.4	0.4	0.3
75-79	0.5	0.6	0.3	0.5	0.7	0.4	0.2	0.2	0.2
80-84	0.2	0.3	0.2	0.3	0.3	0.2	0.1	0.1	0.1
85+	0.2	0.2	0.2	0.2	0.3	0.2	0.1	0.1	0.1
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Pop.	1,012,257	510,501	501,756	771,134	389,162	381,972	241,123	121,339	119,784

Source: 2000 Census of Population and Housing

Figure 3.4: Population Percent Distribution by Age, Central Province, 1990 and 2000



Source: 1990 and 2000 Censuses of Population and Housing

3.5.2. Age Dependency Ratio

Table 3.7 reveals that the overall dependency ratio for Central Province in 2000 was 101 per 100 persons in the working age group. Its overall dependency ratio is higher than the national ratio of 96 per 100 persons. The table further shows that the burden of dependency on the working age population increased during the 1990s. For instance, *overall* and *child* dependency ratios increased by 10 persons from 91 and 86 dependants per 100 persons in 1990 to 101 and 96 dependants in 2000, respectively.

Table 3.7 also reveals that during the 1990-2000 period, persons in productive ages who reside in rural areas continue to bear a heavy burden of dependants compared to their urban counterparts, whose dependency between 1990 and 2000 has actually more or less remained static. In 2000, for every 107 dependants per 100 persons in rural areas, there were 85 dependants for every 100 working age persons in urban areas.

Table 3.7: Age Dependency Ratio by Residence and District, Central Province, 1990 and 2000

Residence/District	Ratios	1990	2000
Zambia	Overall Dependency Ratio	95.1	96.2
	Child Dependency Ratio	87.2	90.9
	Aged Dependency Ratio	5.0	5.4
Central Province	Overall Dependency Ratio	91.2	101.1
	Child Dependency Ratio	86.5	95.6
	Aged Dependency Ratio	4.7	5.5
Rural	Overall Dependency Ratio	94.1	106.8
	Child Dependency Ratio	88.3	100.3
	Aged Dependency Ratio	5.9	6.5
Urban	Overall Dependency Ratio	84.5	85.2
	Child Dependency Ratio	82.5	82.4
	Aged Dependency Ratio	2.1	2.8
District			
Chibombo*	Overall Dependency Ratio	-	108.8
	Child Dependency Ratio	-	102.6
	Aged Dependency Ratio	-	6.2
Kabwe Rural	Overall Dependency Ratio	91.6	-
	Child Dependency Ratio	86.1	-
	Aged Dependency Ratio	5.5	-
Kabwe	Overall Dependency Ratio	83.3	83.5
	Child Dependency Ratio	81.2	80.6
	Aged Dependency Ratio	2.0	2.9
Kapiri Mposhi*	Overall Dependency Ratio	-	101.7
	Child Dependency Ratio	-	95.5
	Aged Dependency Ratio	-	6.1
Mkushi	Overall Dependency Ratio	89.9	101.9
	Child Dependency Ratio	85.5	97.2
	Aged Dependency Ratio	4.4	4.7
Mumbwa	Overall Dependency Ratio	96.0	108.4
	Child Dependency Ratio	89.3	101.4
	Aged Dependency Ratio	6.7	7.0
Serenje	Overall Dependency Ratio	99.4	104.0
	Child Dependency Ratio	94.0	97.9
	Aged Dependency Ratio	5.4	6.1

Source: 1990 and 2000 Censuses of Population and Housing
Note: " * " denotes new districts which were formerly part of Kabwe Rural
"-" denotes not applicable as they refer either to new or non-existent districts.

Table 3.7 further shows that between 1990 and 2000, dependency ratios of all types (overall, child and aged) have increased for all districts except for Kabwe, where child dependency ratio has declined, while increases in the overall and aged ratios were marginal. This district makes up most of the provincial urban population. As stated earlier, dependency on the productive population in urban areas did not vary much between 1990 and 2000. The 1990 dependency ratios for Chibombo and Kapiri Mposhi are reflected by those of Kabwe Rural, given the split alluded to in section 3.2 of this chapter.

3.5.3. Household Headship

Household headship by various characteristics is presented in Table 3.8. The table shows that approximately one in every six households, are female headed. In comparison to the national, Central province has less female headed households than the national level of one in five households. With a high rural provincial population, it is not surprising that there are more than twice as many heads of household in rural (131,793) than urban areas (47,027). Distinction of household heads by sex is important because it is often associated with aspects of household welfare. For instance, female-headed households are typically poorer than male-headed households (CSO, 1998 & 2003).

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

Residence/Marital Status/ District	Number of Household Heads	Total Percentage of Household Heads	Sex of Head	
			Male	Female
Zambia	1,884,741	100.0	81.1	18.9
Residence				
Central	178,820	100.0	83.1	16.9
Rural	131,793	100.0	83.7	16.3
Urban	47,027	100.0	81.3	18.7
Marital Status				
Married	135,475	100.0	96.1	3.9
Separated	4,872	100.0	42.8	57.2
Divorced	9,294	100.0	33.2	66.8
Widowed	18,240	100.0	21.9	78.1
Never Married	10,638	100.0	85.3	14.7
Living together/Cohabiting	301	100.0	42.9	57.1
District				
Chibombo	41,362	100.0	84.8	15.2
Kabwe	34,203	100.0	81.1	18.9
Kapiri Mposhi	35,010	100.0	83.6	16.4
Mkushi	19,357	100.0	85.2	14.8
Mumbwa	26,138	100.0	84.1	15.9
Serenje	22,750	100.0	79.3	20.7

Source: 2000 Census of Population and Housing

Table 3.8 further shows that, headship of household for a female is more likely to occur when they are separated (57 percent), divorced (67 percent) and widowed (78 percent). However, most of the married (96 percent) and never married (85 percent) heads of households are males.. Amongst the districts, Serenje exhibits the highest proportion of female heads of households with 21 percent, while Chibombo and Mkushi have the least at 15 percent each.

3.5.4. Marital Status

The marital status categories in the 2000 Census included married, separated, divorced, widowed, never married and co-habiting, which was not available in the 1990 Census. Table 3.9 presents the percentage distribution of marital status of population above 12 years by age, sex, residence and district. The majority of both males and females in the age group 15-19 years have never married. However, slightly over a quarter of the females (27 percent) compared to three percent of males are married.

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

Age Group	Married		Separated		Divorced		Widowed		Never Married		Co-habiting		Total Number of Cases	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
12-14	0.9	1.5	0.1	0.1	0.0	0.1	0.1	0.1	98.5	97.8	0.3	0.3	36,400	35,847
15 – 19	3.1	26.7	0.1	1.3	0.1	1.0	0.1	0.4	96.1	69.8	0.3	0.8	53,698	56,408
20 – 24	31.2	64.2	1.1	3.5	1.0	3.7	0.3	1.2	65.7	26.6	0.7	0.7	42,354	48,198
25 – 29	64.0	74.1	2.0	4.0	2.0	5.5	0.8	3.0	30.8	12.8	0.5	0.5	35,399	36,550
30 – 34	78.8	76.1	2.2	4.1	3.0	6.8	1.5	6.2	14.3	6.3	0.3	0.5	27,837	26,703
35 – 39	83.9	77.0	2.2	3.6	3.2	7.0	2.1	8.2	8.5	4.0	0.2	0.2	20,620	21,567
40 – 44	86.4	73.7	2.3	3.6	3.5	8.0	2.8	12.3	4.9	2.2	0.1	0.2	16,244	16,399
45 – 49	86.8	71.0	2.1	3.1	3.8	8.0	3.4	15.7	3.7	2.0	0.1	0.1	12,423	11,999
50 – 54	86.0	63.7	2.1	2.7	4.3	9.0	4.6	23.3	2.8	1.2	0.0	0.1	10,219	10,413
55+	79.7	42.4	2.3	2.7	5.1	9.0	10.5	44.6	2.2	1.2	0.1	0.1	29,052	25,428
Total Population	133,878	148,607	3,908	7,803	5,674	13,225	5,786	23,029	134,109	95,516	891	1,332	284,246	289,512

Source: 2000 Census of Population and Housing

It is common practice for males to marry later than females. Though not collected in 2000 census, the reported average age at marriage for Central Province in 1990 was 26 years for males and 21 years for females (CSO, 1995). Table 3.9 shows that about two in three females in their early 20s are married compared to one in three males of the same age. Females present higher rates of those separated, divorced and widowed than their male counterparts. This could be due to another common practice of males re-marrying more frequently than females. For instance, Table 3.9 shows that from age 30, proportions widows are larger than those of widowers by a range of 5 to 34 percentage points. In the oldest age group (55 and above), one in ten men compared to about one in two women is widowed.

3.5.5. Ethnicity and Citizenship

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

3.5.5.1. Ethnicity

Table 3.10 shows that the population in Central Province mostly constitutes persons of African origin (99.7 percent). The American, Asian, European and 'Other' ethnic groups make up the remaining 0.3 percent. This is similar to the national picture with 99.5 percent of the population being persons of African origin. This ethnic composition, dominated by Africans, is similar to that of 1990 Population census, with slight variations in proportions. In 1990, the proportion of Africans was 99.2 percent. 'Other' ethnic groups made up the remaining 0.8 percent.

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

Table 3.10: Ethnic Composition of the Population by Sex and Residence, Central Province, 2000

Residence/Sex		Ethnic Group						
		African	American	Asian	European	Other	Percent Total	Total Population
Zambia	Male	4,572,026	691	6,272	3,462	11,839	0.0	4,594,290
	Female	4,722,128	507	5,576	2,720	12,204	0.0	4,743,135
	Both sexes	9,294,154	1,198	11,848	6,182	24,043	0.0	9,337,425
Percent of total population		**99.54**	**0.01**	**0.13**	**0.07**	**0.26**		**100**
Central	Male	474,349	66	216	211	1110	0.0	475,952
	Female	479,855	51	203	150	1077	0.0	481,336
	Both sexes	954,204	117	419	361	2187	0.0	957,288
Percent of total population		**99.68**	**0.01**	**0.04**	**0.04**	**0.23**	**0.0**	**100**
Rural	Male	360,391	42	26	145	830	0.0	361,434
	Female	362,670	38	31	106	821	0.0	363,666
	Both sexes	723,061	80	57	251	1651	0.0	725,100
Percent of total population		**99.72**	**0.01**	**0.01**	**0.03**	**0.23**	**0.0**	**100**
Urban	Male	113,958	24	190	66	280	0.0	114,518
	Female	117,185	13	172	44	256	0.0	117,670
	Both sexes	231,143	37	362	110	536	0.0	232,188
Percent of total population		**99.55**	**0.02**	**0.16**	**0.05**	**0.23**	**0.0**	**100**

Source: 2000 Census of Population and Housing

3.5.5.2. Citizenship

Like past censuses, the 2000 Population census included questions on citizenship. Citizenship, defined as 'the legal nationality of each person', is not necessarily related to place of birth. Rather citizenship is normally acquired through various means such as being born within a state (or elsewhere with parents of the given nationality), through naturalization or marriage (Pressant, 1985). In Zambia, data on citizenship is collected for purposes of classification of members of its population either as citizens or foreigners.

Table 3.11 presents information on the citizenship of the population in Central Province. It is most apparent that the majority of foreign citizens in the province hail from Democratic Republic of Congo (DRC) (23 percent), followed by those from Zimbabwe (14.1 percent) and Malawi (11 percent). In the 1990 Census, Malawians formed the highest proportion (16.8 percent) of foreign citizens in Central Province. This shows an actual decrease in the number of foreign citizens from Malawi between 1990 and 2000. The influx of foreigners from DRC could be mostly attributed to refugees fleeing from civil strife in their country. Whereas these from Zimbabwe settle in the province mostly for large-scale farming.

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

Country/Region	Percent 1990	Percent 2000	Population 2000
Zimbabwe	12.2	14.1	1385
Malawi	16.8	11.0	1079
Botswana	0.1	0.2	23
Mozambique	0.7	0.5	47
Angola	1.3	2.0	194
South Africa		5.0	488
Other Southern Africa	1.0	0.3	32
Ghana	-	0.5	49
Mali	-	0.9	88
Nigeria	-	0.3	33
Senegal	-	1.2	119
Other Western Africa	2.3	1.0	96
Kenya		0.6	61
Tanzania	9.2		-
Uganda		0.5	46
Other Eastern Africa	1.2	4.0	393
Congo		5.7	556
(Congo DR)		23.1	2260
Other Central Africa	9.5	0.6	58
Egypt		0.2	17
Other Northern Africa	0.7	0.5	52
Other African Countries		0.1	5
United Kingdom		3.5	345
France		0.1	10
Germany		0.3	30
Other Europe	5.2	3.5	347
United States Of America		0.8	82
Canada		0.4	43
Other Americas	0.6	0.7	73
Australia		0.3	30
China		0.3	31
India		8.9	877
Japan		0.1	11
Other Asia & Oceania	8.7	1.8	176
Not Stated	30.5	6.8	664
% Total	100	100.0	
Total foreign Citizens	31,982		9800
% Foreign Population	2.2	0.6	

Source: 1990 and 2000 Census of Population and Housing

***Note**: Nationals less than five (5) were grouped under 'Other' totals.*
"-" denotes not applicable.

3.6. Economic Characteristics

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

Table 3.12: Summary of Economic Characteristics, Central Province, 2000

Characteristics	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Total Population (12 yrs and above)	574,506	284,663	289,843	427,675	212,302	215,373	146,831	72,361	74,470
Current Labour Force Size	317,676	190,980	126,696	252,802	148,233	104,569	64,874	42,747	22,127

Current Participation Rate	55.3	67.1	43.7	59.1	69.8	48.6	44.2	59.1	29.7
Age Dependency Ratio	101.1	103.8	98.5	106.8	110.7	103.0	85.2	84.7	85.6
Economic Dependency Ratio	80.8	49.1	128.8	69.2	43.2	106.0	126.3	69.3	236.6

Source: 2000 Census of Population and Housing

Table 3.12 shows that of the total population in Central Province, 574, 506 comprise those over 12 years, commonly referred to as the *working age population*. Majority of these are found in rural as opposed to urban areas (427,675 versus 146,831) and are mostly women. Despite dominance of females in the working age population, majority of these are considered economically inactive due to their classification as full-time homemakers. In all, fifty five percent of the total working age population in the province, are economically active or make up the labour force: 67.1 percent for males and 43.7 percent for females.

In general, Table 3.12 indicates that age dependency is higher for persons in rural than urban areas while the reverse is true for economic dependency ratios. Notably, females in the productive age, particularly those in urban areas, tend to experience more stress from persons in the non-productive age groups than the male counterparts. The economic dependency ratio for females in urban areas is twice that of rural areas, 237 versus 106.

3.7. Summary

Central Province's de jure or simply 'true' or resident population recorded in the 2000 census is 1,012,257. However, the de facto population adopted for analytical purposes in this chapter and the rest of the report is 957,288 of which 50.3 percent are females. The population has continued to grow from an average annual growth rate of 3.3 percent between 1969-1980 to 3.5 percent between 1980-1990 then at a declining average annual growth rate of 2.8 percent during the last inter-censal period of 1990-2000. The proportion living in rural areas in the past decades has continued to increase, whilst the proportion of the urban population has declined from 29 percent in 1990 to 24 percent in 2000.

Analysis of the age-sex distribution indicates that overtime, Central Province has maintained a young population. The proportion of those below the age of 15 years has increased from 44.3 (1990) to 46.5 percent (2000). Population pyramids for 1990 and 2000 indicate a change in the age-sex structure, which could be attributed to increased mortality, particularly for adults. This has been observed by population gaps in 2000 for persons aged 10 to 29 who may be more susceptible to terminal illnesses (e.g. AIDS).

Headship of households is still dominated by males, with only one in six being female household heads. In absolute terms, there are almost twice as many heads of household in rural than urban areas. The overall dependency ratio as of 2000 Census was 101 per 100 persons in the economically active group (15-64 years). It has been noted that dependency on productive persons increased during the 1990s. Summary economic characteristics of the population give a provincial labour force size of 317,676, most of which is found in rural areas.

In addition, participation rates for males are higher than females, 67 and 44 percent, respectively. In comparison to rural counterparts, the economic burden on productive persons in urban areas is higher.

Chapter 4

LANGUAGE AND ETHNICITY

4.1. Introduction

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

e 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, Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga. They represent language clusters around which exist several dialects. Although these languages are taught in schools in specific provinces, the official language of instruction in schools is English. The 2000 Census of Population and Housing collected information on the predominant language of communication in the cluster spoken by an individual as well as the second language of communication. The former referred to the language a person uses most frequently in their day-to-day communication. The second language is the next most frequently used language of communication. The matter of second language shows the phenomenon of trans-tribe character of some languages in that they are spoken by other tribes.

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

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

4.2 Predominant Language of Communication

Provincial Distribution

Table 4.1 and Figure 4.1 show the 16 most spoken languages in Central province. The predominantly spoken language of communication in Central province in the year 2000 was Bemba with 27.3 percent of the population using it.

Table 4.1 shows that Bemba is spoken by about five times as many people in urban than in rural areas (66.7 percent versus 14.5 percent). The same table reveals that seven times as many people speak Lala in rural areas as in urban areas (21.7 versus 3.0 percent).

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

Predominant Language of Communication	Total	Rural	Urban
Bemba	27.3	14.5	66.7
Lala	17.1	21.7	3.0
Lamba	2.5	3.1	0.6
Swaka	3.9	5.0	0.4
Tonga	12.0	14.8	3.3
Lenje	11.7	15.2	1.0
Ila	2.9	3.7	0.4
Sala	2.1	2.8	0.1
Kaonde	1.0	1.2	0.4
Lozi	1.0	0.9	1.4
Chewa	0.6	0.5	0.9
Nsenga	0.9	0.6	1.8
Ngoni	0.5	0.4	0.9
Nyanja	8.6	8.3	9.5
Namwanga	0.4	0.3	0.7
English	0.9	0.3	2.8
Other languages	6.6	6.7	6.1
Total	100	100	100
POPULATION	890,370	671,756	218,614

Source: 2000 Census of Population and Housing

The next most spoken languages in Central Province are Lala (17.1 percent) and Tonga (12.0 percent). In descending order of magnitude, the first seven widely spoken languages in Central province are, Bemba (27.3 percent), Lala (17.1 percent), Tonga (12.0 percent), Lenje (11.7 percent), Nyanja (8.6 percent), Swaka (3.9 percent) and Ila (2.9 percent).

The remaining languages apart from Lamba are each spoken by less than 2.5 percent of the population. Of the 16 most spoken languages in Central Province, five predominant languages are among the nation's seven official languages. These are Bemba, Tonga, Nyanja, Kaonde and Lozi accounting for 49.9 percent of the total population reporting use of a predominant language in the province.

4.2.2. District Distribution

Table 4.2 shows that at district level, Bemba is spoken by a large proportion of the population in two districts, Kabwe (69.4 percent) and Kapiri Mposhi (40 percent). In Mkushi and Serenje, Lala is the most used language of communication accounting for 49 and 80 percent, respectively. Slightly over one fifth (21.3 percent) of the population in Mumbwa reported use of Tonga as their predominant language of communication. Lenje was reported as the predominant language of communication in Chibombo, spoken by more than a third (34.6 percent) of the population. Whereas Bemba is the most used language for communication in Kabwe and Kapiri Mposhi, the next most spoken languages in these districts vary. In the case of Kabwe, the next most spoken language is Nyanja at 6.5 percent, in Kapiri Mposhi it is Swaka (13.6 percent). Bemba is the next most spoken language in Mkushi and Serenje at 22.9 and 12.4 percent respectively. In the case of Chibombo the next most spoken language is Tonga at 24.7 percent, while in Mumbwa,Ila is the next spoken language at 17.7 percent.

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

Predominant Language of Communication	Total	Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenje
Bemba	27.3	9.9	69.4	40.0	22.9	4.4	12.4
Lala	17.1	0.6	1.6	4.9	49.1	0.2	80.1
Lamba	2.5	0.5	0.6	9.5	0.6	2.4	0.1
Swaka	3.9	0.8	0.3	13.6	9.8	0.0	0.1
Tonga	12.0	24.7	3.9	8.4	4.9	21.3	0.6
Lenje	11.7	34.6	1.1	13.5	0.2	4.8	0.1
Ila	2.9	0.3	0.1	0.1	0.0	17.7	0.0
Sala	2.1	0.3	0.0	0.0	0.0	13.1	0.0
Kaonde	1.0	0.4	0.4	0.1	0.1	5.3	0.1
Lozi	1.0	1.1	1.6	0.2	0.3	2.6	0.1
Chewa	0.6	1.3	1.0	0.2	0.3	0.3	0.1
Nsenga	0.9	1.3	2.3	0.4	0.9	0.2	0.1
Ngoni	0.5	0.7	1.1	0.2	0.3	0.2	0.1

Nyanja	8.6	15.7	6.5	2.1	1.7	19.7	0.4
Namwanga	0.4	0.2	0.5	0.4	0.9	0.0	0.2
English	0.9	0.3	3.4	0.3	0.6	0.5	0.4
Other Language	6.6	7.3	6.2	6.1	7.4	7.3	5.1
Total	100	100	100	100	100	100	100
Population	890,370	209,889	160,814	171,248	94,105	137,393	116,921

rce: 2000 Census of Population and Housing

Predominant Language Groups

re than 50 percent of all languages spoken in Central Province are in the Bemba language group. In addition, 45 percent of the rural and 71.2 percent of the urban population are in the Bemba language group. The next most widely spoken languages in Central Province are in the Tonga (28.9 percent) and Nyanja (10.6 percent) language groups. The remaining language groups are each spoken by less than two percent of the population.

h the exception of Tonga and North-Western language groups, the rest of the language groups are more predominant in urban than in rural areas of the province (Table 4.3). Whereas more women speak the languages in the Bemba and Tonga group as their predominant language of communication, more men use English and languages in the Nyanja group for this purpose. This is true for both urban and rural areas.

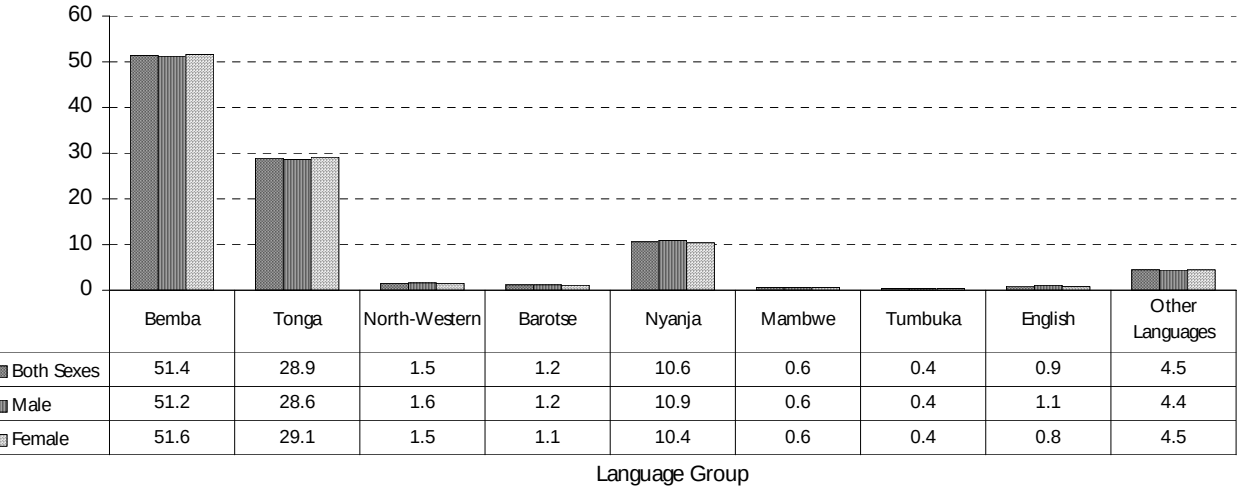
ble 4.3: Predominant Language Groups by Sex and Residence, Central Province, 2000

Predominant Language Group	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba	51.4	51.2	51.6	45.0	44.9	45.0	71.2	70.7	71.7
Tonga	28.9	28.6	29.1	36.7	36.3	37.1	4.9	4.9	5.0
North-Western	1.5	1.6	1.5	1.7	1.8	1.7	0.9	0.9	1.0
Barotse	1.2	1.2	1.1	1.1	1.1	1.0	1.5	1.5	1.4
Nyanja	10.6	10.9	10.4	9.8	10.1	9.6	13.1	13.3	13.0
Mambwe	0.6	0.6	0.6	0.4	0.4	0.4	1.3	1.3	1.4
Tumbuka	0.4	0.4	0.4	0.3	0.3	0.3	0.7	0.7	0.7
English	0.9	1.1	0.8	0.3	0.4	0.2	2.8	3.3	2.4
Other Languages	4.5	4.4	4.5	4.7	4.7	4.7	3.6	3.4	3.4
Total	100	100	100.0	100	100.0	100	100	100	100
Population	890,370	442,764	447,606	671,756	334,980	336,776	218,614	107,784	110,830

rce: 2000 Census of Population and Housing

urban areas, there is little variation between males and females in terms of languages spoken from the predominant language groups. Figure 4.1 shows that there are slightly more females who speak languages in the Tonga and Bemba group.

Figure 4.1 : Predominant Language Group by Sex, Central Province, 2000

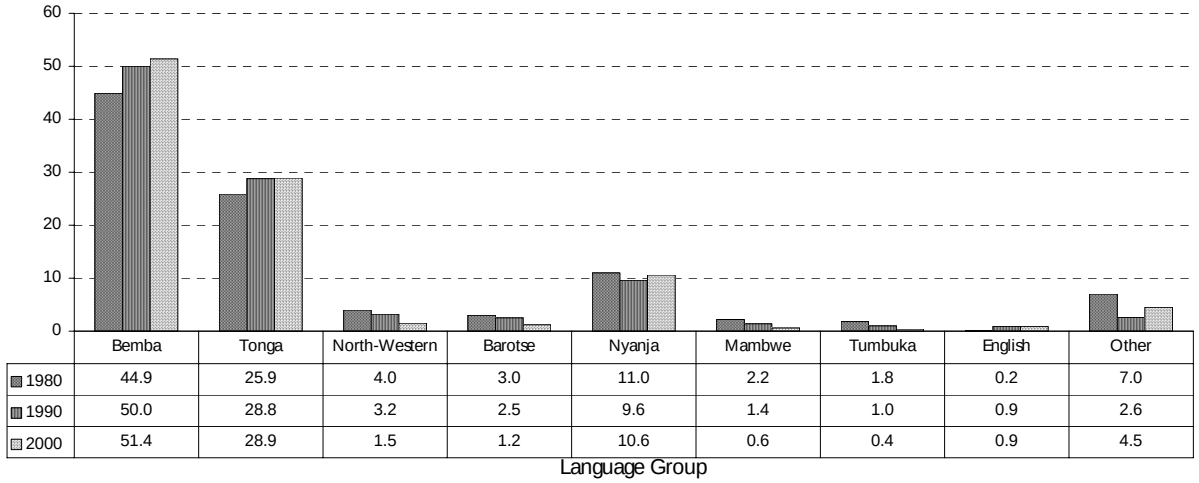


Source: 2000 Census of Population and Housing

4.4 Trends in Language Groups' Distribution, 1980 – 2000

le 4.4 shows trends in the percentage share of each language group for the period 1980–2000. The Bemba group has remained dominant throughout the last 20 years followed by Tonga and Nyanja. Only the Bemba and Tonga language groups have showed an increase in usage in Central Province.

Figure 4.2: Predominant Language Groups by Census Year, Central Province, 1980-2000



	Bemba	Tonga	North-Western	Barotse	Nyanja	Mambwe	Tumbuka	English	Other
1980	44.9	25.9	4.0	3.0	11.0	2.2	1.8	0.2	7.0
1990	50.0	28.8	3.2	2.5	9.6	1.4	1.0	0.9	2.6
2000	51.4	28.9	1.5	1.2	10.6	0.6	0.4	0.9	4.5

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

e distribution of the languages spoken over the last three decades indicate a continued predominance of languages spoken belonging to the Bemba language group. During the same period, there is a rise recorded in the Tonga group. The other groups show irregular trends in the periods between the three censuses of the population

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

Language group	Percentage of Total Population		
	1980	1990	2000
Bemba	44.9	50.0	51.4
Tonga	25.9	28.8	28.9
North-Western	4.0	3.2	1.5
Barotse	3.0	2.5	1.2
Nyanja	11.0	9.6	10.6
Mambwe	2.2	1.4	0.6
Tumbuka	1.8	1.0	0.4
English	0.2	0.9	0.9
Other	7.0	2.6	4.5
Total	100	100	100
Population	510,992	687,721	890,370

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

4.5 Second Language of Communication

Many people in Zambia speak more than one language. This is probably because there are many languages that exist within the country. For each respondent, the census collected information on the second language besides the predominant language of communication that they use from day to day. In Central Province a total of 442,942 respondents (or 49.7 percent) reported use of a second language out of a total of 890,370 persons who spoke a predominant language.

Most notable here is the fact that the most spoken second language of communication is Bemba with a percentage share of 28.3 percent. The four most widely spoken languages as the second language of

communication are Bemba (28.3 percent), Nyanja (20.4 percent), English (13.2 percent) and Tonga (8.7 percent).

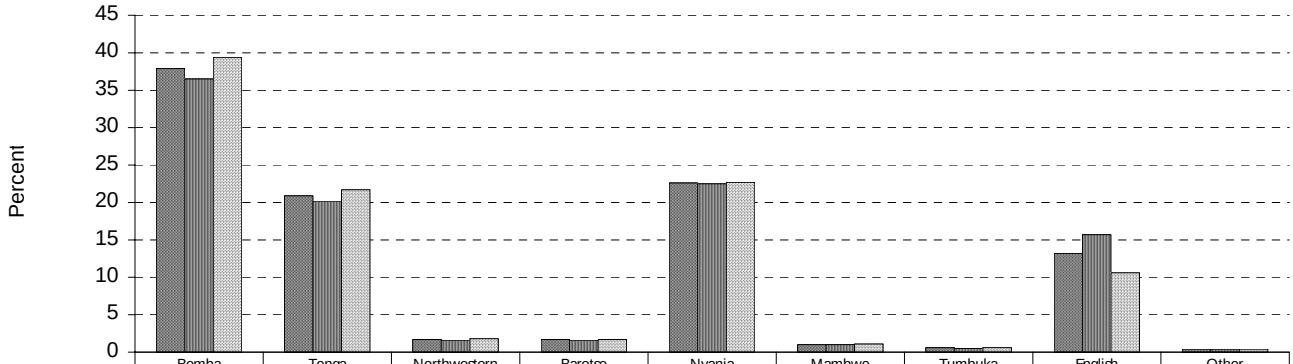
Table 4.5: Second Language by Residence: Central Province, 2000

Second Language of Communication	Total	Rural	Urban
Bemba	28.3	30.1	23.3
Lala	4.3	4.5	3.7
Bisa	0.2	0.1	0.5
Lamba	2.3	2.7	1.0
Swaka	2.5	3.1	0.5
Tonga	8.7	10.5	3.7
Lenje	7.9	10.0	2.1
Soli	0.3	0.4	0.2
Ila	2.9	3.6	0.8
Sala	1.1	1.4	0.1
Luvale	0.3	0.2	0.4
Lunda (North-Western)	0.1	0.1	0.3
Kaonde	1.2	1.2	1.0
Lozi	1.5	1.3	2.1
Nkoya	0.1	0.1	0.1
Chewa	0.6	0.5	0.8
Nsenga	0.9	0.6	2.0
Ngoni	0.5	0.4	0.9
Nyanja	20.4	21.5	17.5
Kunda	0.1	0.1	0.3
Mambwe	0.4	0.2	1.0
Namwanga	0.5	0.3	1.3
Tumbuka	0.5	0.3	0.9
English	13.2	5.8	34.1
Other Language	1.2	1.0	1.4
Total	100.0	100.0	100.0
Population	442,942	327,342	115,600

Source: 2000 Census of Population and Housing

The distribution of the second language groups and residence is further disaggregated by sex and is presented in Figure 4.3 and Table 4.6. Figure 4.3 and Table 4.6 show that both males and females use Bemba, Nyanja, Tonga and English as their second language of communication. The use of English as a second language of communication in Central province is not surprising because it is the nation's official language and as such many people who have had some years of schooling speak it.

Figure 4.3 Distribution of Second Language of Communication by Sex, Central Province,2000



	Bemba	Tonga	Northwestern	Barotse	Nyanja	Mambwe	Tumbuka	English	Other
Both Sexes	37.9	20.9	1.7	1.7	22.6	1.0	0.6	13.2	0.4
Male	36.5	20.2	1.6	1.6	22.5	1.0	0.5	15.7	0.4
Female	39.4	21.7	1.8	1.7	22.7	1.1	0.6	10.6	0.4

Source: 2000 Census of Population and Housing

The other language groups showing dominance in magnitude are Bemba (37.9 percent), Nyanja (22.6) and Tonga (20.9 percent). These three language groups account for more than four fifths of the population speaking a second language (81.4 percent). It must be noted that English is spoken as the second language of communication by more than one-third (34.1 percent) of the population in urban areas compared with 5.8 percent using the language in rural areas for the same purpose. There is a significant difference between urban women who speak English for this purpose (30.1) and their rural counterparts (3.6 percent). Furthermore, English is the only language spoken by more males than females.

Table 4.6: Distribution of Population by Second Language of Communication, Sex and Residence, Central Province, 2000

Language Group	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba_speaking	37.9	36.5	39.4	40.9	39.5	42.3	29.5	27.9	31.1
Tonga_speaking	20.9	20.2	21.7	25.9	25.1	26.7	6.9	6.3	7.6
Northwestern	1.7	1.6	1.8	1.6	1.6	1.7	1.8	1.6	2.1
Barotse	1.7	1.6	1.7	1.5	1.5	1.5	2.2	2.0	2.4
Nyanja_speaking	22.6	22.5	22.7	23.0	23.2	22.8	21.4	20.5	22.4
Mambwe	1.0	1.0	1.1	0.5	0.5	0.5	2.5	2.3	2.7
Tumbuka	0.6	0.5	0.6	0.4	0.3	0.4	1.1	1.0	1.2
English	13.2	15.7	10.6	5.8	7.9	3.6	34.1	38.0	30.1
Other Language	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.4	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Population	442,942	225,566	217,376	327,342	167,161	160,181	115,600	58,405	57,195

rce: 2000 Census of Population and Housing

4.6 ETHNICITY

he 2000 Census of Population and Housing, seven broad groups of tribes were identified. These are: Bemba group, Tonga group, North-Western group, Barotse group, Nyanja or Eastern Group, Mambwe group and the Tumbuka group. The groups are such that all the tribes in Central Province belong to one of these broad tribal

groupings. The Bemba group includes all tribes of Luapula Province, some tribes in Central and Copperbelt Provinces and all but those tribes belonging to the Mambwe group in the Northern Province. The Tonga group consists of all the tribes of Southern province in addition to Lenje from Central Province and also the Soli and Gowa tribes from Lusaka province. The North-Western and Barotse groups consist of all the tribes of the North-Western and Western Provinces respectively. The Nyanja group (getting its name from the lingua franca from the languages spoken by the people in its group) consists of some tribes of the Eastern Province including the Chikunda of Lusaka Province. Lungu, Mambwe, Namwanga, Wina and Tambo make up the Mambwe group while the Tumbuka group is made up of Tumbuka, Senga and the Yombe on the northern part of Eastern Province bordering the Northern Province.

In Central Province, the indigenous major ethnic tribes include Lenje, Lala ,Tonga and Swaka. However, internal migration since the early 1960's has brought about integration of various ethnic tribes in the province, of which Bemba is the most significant non indigenous ethnic tribe.

In Table 4.7 and Figure 4.4, the most predominant ethnic groups in Central Province as reported in the 2000 Census of Population and Housing are displayed. In descending order, the 10 largest ethnic groups are Lala (20.5 percent), Tonga (16.6 percent), Bemba (11.7 percent), Lenje (10.8 percent), Africans (4.2 percent), Lozi (3.4 percent), Swaka and Nsenga (3.3 percent), Kaonde (2.9 percent) and Ngoni at 2.6 percent of the total population.

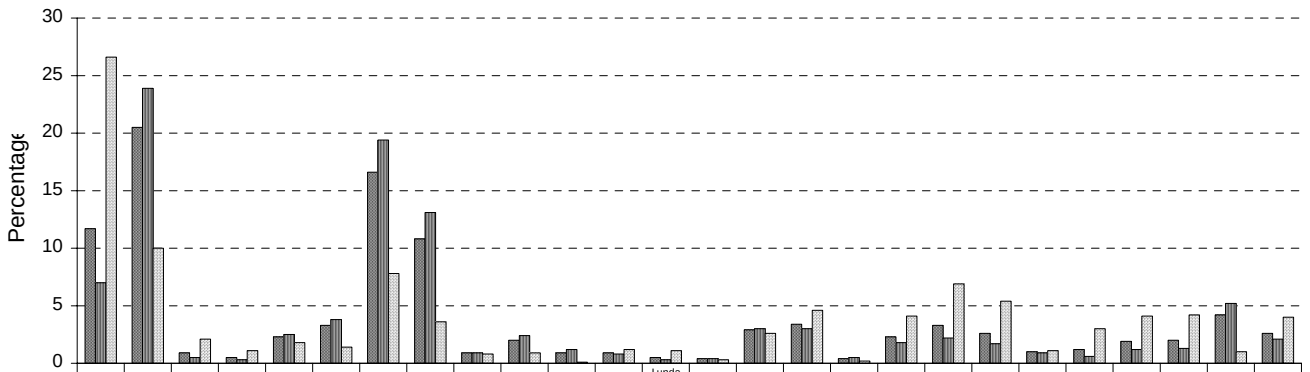
Table 4.7: Ethnic groups by Residence, Central Province, 2000

Ethnic Group	Total	Rural	Urban
Bemba	11.7	7.0	26.6
Lala	20.5	23.9	10.0
Bisa	0.9	0.5	2.1
Ushi	0.5	0.3	1.1
Lamba	2.3	2.5	1.8
Swaka	3.3	3.8	1.4
Tonga	16.6	19.4	7.8
Lenje	10.8	13.1	3.6
Soli	0.9	0.9	0.8
Ila	2.0	2.4	0.9
Sala	0.9	1.2	0.1
Luvale	0.9	0.8	1.2
Lunda (North-Western)	0.5	0.3	1.1
Mbunda	0.4	0.4	0.3
Kaonde	2.9	3.0	2.6
Lozi	3.4	3.0	4.6
Nkoya	0.4	0.5	0.2
Chewa	2.3	1.8	4.1
Nsenga	3.3	2.2	6.9
Ngoni	2.6	1.7	5.4
Nyanja	1.0	0.9	1.1
Mambwe	1.2	0.6	3.0
Namwanga	1.9	1.2	4.1
Tumbuka	2.0	1.3	4.2
Africans	4.2	5.2	1.0
Other Zambian	2.6	2.1	4.0
Total	100.0	100.0	100.0
Population	957,288	725,100	232,188

rce: 2000 Census of Population and Housing

In terms of residence, among the 10 largest ethnic groups, Lala, Tonga and Lenje ethnic groups are more prevalent in rural areas than in urban areas of the province. On the other hand, Bemba is more prevalent in urban than in rural areas. There are four times more Bemba people in urban than in rural areas (26.6 percent compared to 7.0 percent).

Figure 4.4: Ethnic Groups by Residence, Central Province, 2000



	Bemba	Lala	Bisa	Ushi	Lamba	Swaka	Tonga	Lenje	Soli	Ila	Sala	Luvale	Lunda (North-Western)	Mbunda	Kaonde	Lozi	Nkoya	Chewa	Nsenga	Ngoni	Nyanja	Mambwe	Namwanga	Tumbuka	Africans	Other Zambian
Total	11.7	20.5	0.9	0.5	2.3	3.3	16.6	10.8	0.9	2	0.9	0.9	0.5	0.4	2.9	3.4	0.4	2.3	3.3	2.6	1	1.2	1.9	2	4.2	2.6
Rural	7	23.9	0.5	0.3	2.5	3.8	19.4	13.1	0.9	2.4	1.2	0.8	0.3	0.4	3	3	0.5	1.8	2.2	1.7	0.9	0.6	1.2	1.3	5.2	2.1
Urban	26.6	10	2.1	1.1	1.8	1.4	7.8	3.6	0.8	0.9	0.1	1.2	1.1	0.3	2.6	4.6	0.2	4.1	6.9	5.4	1.1	3	4.1	4.2	1	4

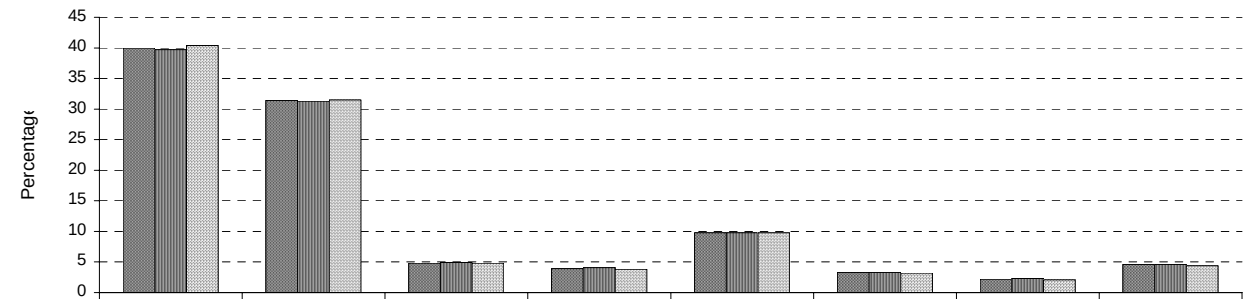
Source: 2000 Census of Population and Housing

It must be noted here that Bemba as an ethnic group is not indigenous to the province. This may be observed from its higher prevalence in urban than rural areas in the province. In addition, the ethnic groups originally from Eastern Province (Chewa, Nsenga, Ngoni, Tumbuka, Nyanja) are more prevalent in urban than in rural areas of the province.

Broad Ethnic Groups

e broad ethnic groups, as defined in the introduction above, are analyzed by looking at their distribution by sex and residence (see Figure 4.5 and Table 4.8). Tribes in the Bemba ethnic group account for more than one-third of all tribes in Central Province. Additionally, 38.7 percent and 44.2 percent of the people belonging to the Bemba tribal group reside in rural and urban areas respectively. The distribution of people of the Bemba group by sex shows very little variability.

Figure 4.5: Broad Ethnic Groups by Sex, Central Province,2000



	Bemba	Tonga	North-Western	Barotse	Nyanja	Mambwe	Tumbuka	Other
Both Sexes	40.0	31.4	4.8	3.9	9.8	3.3	2.2	4.6
Male	39.7	31.3	4.9	4.1	9.8	3.3	2.3	4.6
Female	40.4	31.5	4.8	3.8	9.8	3.2	2.1	4.4

Language Group

rce: 2000 Census of Population and Housing

ure 4.4 further reveals that in order of size, Tonga is the next largest of the tribal group at 31.4 percent of the whole population. The others are: Nyanja (9.8 percent), North-Western group (4.8), Barotse (3.9), Mambwe (3.3 percent) and Tumbuka (2.2 percent). The distribution by residence of all these tribes does not show much

variation except the Tonga group and Nyanja group. Three times the Tonga people live in rural areas compared with those in the urban areas of the province (37.2 percent versus 13.4 percent) and about three times the Nyanja people live in urban than in the rural areas of the province (18.7 percent versus 7.0 percent).

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

Ethnicity	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba	40.0	39.7	40.4	38.7	38.4	39.1	44.2	43.9	44.4
Tonga	31.4	31.3	31.5	37.2	37.0	37.3	13.4	13.4	13.4
North-Western	4.8	4.9	4.8	4.6	4.7	4.6	5.5	5.5	5.4
Barotse	3.9	4.1	3.8	3.6	3.8	3.5	4.9	5.1	4.7
Nyanja	9.8	9.8	9.8	7.0	7.1	6.9	18.7	18.5	18.8
Mambwe	3.3	3.3	3.2	1.9	2.0	1.8	7.4	7.4	7.4
Tumbuka	2.2	2.3	2.1	1.5	1.6	1.4	4.5	4.7	4.4
Other	4.6	4.6	4.4	5.5	5.4	5.4	1.4	1.5	1.5
Total	100	100	100	100	100	100	100	100	100
Population	957,288	475,952	481,336	725,100	361,434	363,666	232,188	114,518	117,670

rce: 2000 Census of Population and Housing

le 4.9 shows the ethnic language by district in Central province. The most predominant ethnic group at district level with the exception of Mkushi and Serenje is bemba. The most predominant ethnic group in Kabwe is Bemba (26.8 percent), Kapiri Mposhi is Lenje (15.4 percent) and Chibombo and Mumbwa is Tonga (30.2 and 27 percent), respectively.

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

Ethnic Group	Total	Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenje
Bemba	11.7	6.1	26.8	15.1	10.7	4.3	6.2
Lala	20.5	2.0	7.8	10.4	49.8	0.5	85.7
Bisa	0.9	0.4	2.3	1.3	0.6	0.1	0.7
Ushi	0.5	0.1	1.0	0.7	0.4	0.1	0.5
Lamba	2.3	1.0	1.8	6.8	1.2	1.8	0.3
Swaka	3.3	0.9	1.4	8.7	10.2	0.1	0.2
Tonga	16.6	30.2	8.4	14.9	6.9	27.0	1.0
Lenje	10.8	26.1	4.0	15.4	0.6	5.6	0.3
Soli	0.9	1.4	0.9	0.5	0.4	1.4	0.1
Ila	2.0	0.9	0.5	0.3	0.1	10.6	0.1
Sala	0.9	0.4	0.0	0.1	0.0	5.3	0.0
Luvale	0.9	0.7	1.1	1.0	0.3	1.9	0.1
Lunda (N-West)	0.5	0.3	1.1	0.4	0.3	0.5	0.1
Mbunda	0.4	0.2	0.3	0.1	0.1	1.4	0.0
Kaonde	2.9	1.8	2.4	1.5	0.6	10.6	0.3
Lozi	3.4	3.3	4.3	1.8	1.3	8.5	0.4
Nkoya	0.4	0.7	0.2	0.2	0.0	1.3	0.0
Chewa	2.3	3.3	4.5	1.6	1.4	1.5	0.2
Nsenga	3.3	3.8	8.1	2.5	2.4	1.4	0.4
Ngoni	2.6	2.8	6.3	2.1	1.6	1.5	0.4
Nyanja	1.0	1.3	1.2	0.9	0.8	1.1	0.2
Mambwe	1.2	0.5	2.6	1.6	1.7	0.4	0.5
Namwanga	1.9	0.8	3.5	3.2	2.8	0.4	0.8
Tumbuka	2.0	1.7	4.5	2.1	1.4	0.9	0.7
Africans	4.2	7.0	0.9	4.3	1.4	9.0	0.1
Other	2.6	2.3	4.1	2.5	3.0	2.8	0.7
Total	100	100	100	100	100	100	100
Population	957,288	226,393	170,387	184,429	101,992	148,079	126,008

rce: 2000 Census of Population and Housing

Summary

Overall, there were 890,370 persons who spoke predominant language. About half of the Population in Central province reported to speak a second language at all representing 442,942 people.

As the predominant language of communication, Bemba remains the most widely spoken language in Central Province with a percentage share of 27 percent of the whole population. Lala is the next most widely spoken language at 17 percent.

The distribution of languages by residence shows that of the seven most spoken predominant languages of communication, Bemba and Nyanja are more widely used in urban areas as opposed to Lala, Lenje, Tonga, Swaka and Ila, which are mostly spoken in rural areas.

Chapter 5

EDUCATION CHARACTERISTICS

5.1 Introduction

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

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

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

5.2 Census undertaking and Education

There are four main sources of education statistics in Zambia:

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

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

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

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

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

5.3. CONCEPTS AND DEFINITIONS

- **EDUCATIONAL SYSTEM**

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

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

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

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

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

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

- **SCHOOL ATTENDANCE**

School attendance, in population censuses is defined as attendance at any accredited educational institution or programme, public or private, for organized learning at any level of education. The primary school entry age in Zambia is seven years. Taking the admission age to grade 1 as 7 years, the following age-grade match applies for a given educational level:

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

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

- **GROSS SCHOOL ATTENDANCE RATE**

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

- **NET SCHOOL ATTENDANCE RATE**

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

- **ACADEMIC EDUCATION COMPLETED**

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

- **LITERACY**

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

5.4. Literacy Rate

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

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

A literate nation is more likely to develop than an illiterate one since the former is well informed. Table 5.1 shows that in the year 2000 the literacy rate for the population aged 5 years and above decreased marginally from the 1990 rate of 56.2 to 55.8 percent. The literacy rate for the province in 2000 is slightly above the national literacy rate of 55.3 percent for the population aged 5 years and above. Results further show that the problem of illiteracy still remained more common among the female than their male counterpart since 1990. The table reveals that almost one in every 2 females (49 percent) was illiterate compared to nearly 1 in every 3 males (39 percent) by the year 2000.

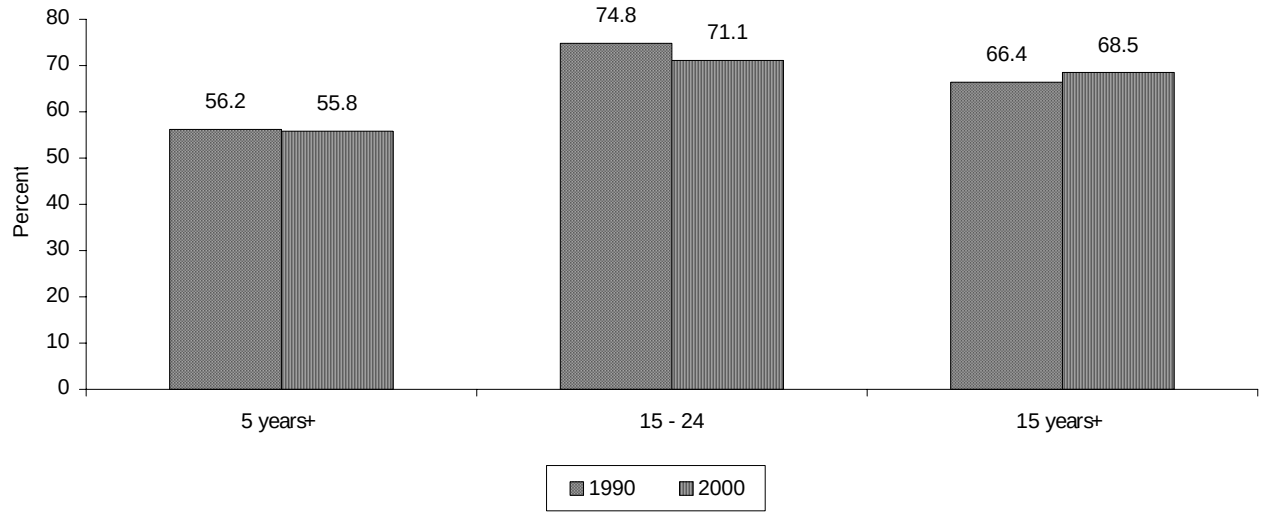
The problem of illiteracy was more pervasive among the rural population. In rural areas, the proportion of the population that could read and write in any language stagnated at about 50 percent between 1990 and 2000. About half of the rural population aged 5 years and above remained illiterate compared to less than one third of the urban population. On the other hand, literacy levels slightly increased in urban areas by 2 percentage points during the same period.

Table 5.1: Literacy Rates by Age Group, Sex and district, Central Province, 1990 and 2000

Sex, Residence and District	5 Years and Above	15 – 24	15 and Above	*Population*
Zambia (1990)	55.3	74.9	66.0	6,181,285
Central (1990)				
Both Sexes	56.2	74.8	66.4	605,228
Male	61.8	77.9	75.4	300,854
Female	50.6	71.8	57.5	304,374
Rural	50.3	69.4	60.1	425,260
Urban	70.0	86.7	81.3	175,968
Zambia (2000)	55.3	70.1	67.2	7,680,705
Central (2000)				
Both Sexes	55.8	71.1	68.5	785,123
Male	60.8	75.4	77.0	390,373
Female	50.9	67.2	60.3	394,750
Rural	50.4	65.6	63.7	587,273
Urban	71.8	85.2	82.6	197,850
District (2000)				
Chibombo	51.6	66.5	64.6	183,391
Kabwe	73.2	86.2	83.2	144,895
Kapiri Mposhi	50.5	64.9	63.6	151,135
Mkushi	49.9	64.0	63.5	82,305
Mumbwa	57.3	74.7	70.3	120,726
Serenje	49.6	65.4	63.4	102,671

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

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



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

Comparison of literacy rates for districts in Central Province reveals high rates in Kabwe (73 percent), followed by Mumbwa district at 57 percent, in the year 2000. Serenje and Mkushi districts scored the lowest rates of about 50 percent each. Overall, results indicate that the population in predominantly rural districts is less likely to be literate than the population in urbanized districts.

5.4.2. Literacy Levels for the population aged 15 – 24 years (Youth Literacy)

Youth literacy rate had declined from 74.8 percent in 1990 to 71.1 percent in 2000 (Figure 5.1). The drop in the proportion of the population aged 15 to 24 years was more pronounced among females (from 72 to 67 percent) than the males (from 78 to 75 percent). Similar to the national picture, the problem of youth illiteracy still remained pervasive among females than males between 1990 and 2000. By the year 2000, only one quarter of the male as opposed to one third of the female population aged 15 to 24 years were illiterate. Also, the youth literacy rate for the province in 2000 is slightly above the national youth literacy rate of 70.1 percent.

The problem of youth illiteracy is still more of a rural than urban phenomena. By the year 2000, 34 percent of the population aged 15 to 24 years in rural areas compared to only 15 percent in urban areas was illiterate. The youth literacy rate in rural areas declined by 3 percentage points, from 69.4 percent to 65.6 percent, between 1990 and 2000. The rate also dropped in urban areas by almost 2-percentage points between 1990 and 2000.

Mkushi district recorded the lowest youth literacy rate of 64 percent in the year 2000, followed by Kapiri Mposhi and Serenje districts, at 65 percent, each. The districts with the highest proportion of literate youths are Kabwe and Mumbwa districts, at 86 and 75 percent respectively.

The problem of youth literacy is more identifiable with predominantly rural districts than the urbanized ones in Central Province.

5.4.3. Literacy Levels for the Population Aged 15 Years and above (Adult literacy rates)

Adult literacy rate had slightly increased from 66.4 percent to 68.5 percent between 1990 and 2000 in Central Province (Figure 5.1). The provincial adult literacy rate is above the national adult literacy rate of 67.2 percent. The proportion of female adults who were literate increased from 57.5 percent to 60.3 percent while the male rate marginally increased from 75.4 percent to 77 percent. In rural areas, the rate increased by four percentage points over the 1990 level (60.1 percent) compared to the increase of two percent in the case of urban areas.

Kabwe (83.2 percent) had the highest rates of adult literacy closely followed by Mumbwa district (70.3 percent) while rest of the districts; Serenje, Mkushi, Kapiri Mposhi and Chibombo had rates of 63.4, 63.5, 63.6 and 64.6 percent by 2000, respectively.

5.5. School Attendance

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

Table 5.2 and Figure 5.2 show the population aged 5 years and above presently attending school in Central Province. Overall, the proportion of the population presently attending school marginally increased from 26.5 percent in 1990 to 27.1 percent in 2000. The provincial proportion of the population attending school in 2000 is slightly above the national average of 26.7 percent. Since 1990, there have been proportionately more males attending school than females. However, the percentage of both males and females attending school marginally increased between 1990 and 2000 from 28 and 25 percent to 29 and 26 percent, respectively.

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

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

Age	1990				2000			
	Total	Male	Female	Population	Total	Male	Female	Population
Central - Total	**26.5**	**28.2**	**24.7**	**605,228**	**27.1**	**28.7**	**25.5**	**785,123**
5 – 9	30.3	29.5	31.1	107,667	35.7	34.7	36.7	154,297
10 – 14	68.1	67.9	68.4	102,684	72.2	72.6	71.9	128,608
15 – 19	46.8	55.2	38.7	93,455	44.9	53.4	36.9	110,173
20 – 24	12.9	18.2	8.0	70,484	8.9	12.5	5.7	90,613
25 – 29	3.8	4.7	2.9	52,250	3.3	3.8	2.8	72,019
30 – 44	2.1	2.5	1.8	94,867	2.6	3.1	2.0	129,588
45+	0.8	1.0	0.6	83,821	1.6	2.1	1.2	99,825

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

Table 5.3 shows school attendance rates by residence and age group in Central Province. Results in the table reveal that almost 1 in every 4 persons in rural areas of Central Province was attending school, as opposed to 1 in every 3 in urban areas. However, there was some minor increase in the proportion of the rural population attending school from 23.5 percent in 1990 to 24.5 percentage points by 2000. In urban areas, the percentage of the population attending school increased by 2 percentage points from 33.4 percent in 1990 to 35.0 percent in 2000 (Figure 5.2). In general, older persons are less likely to be attending school than younger ones particularly those residing in rural parts of Central Province.

Table 5.3: Population age 5 years and above Presently Attending School by residence and age group, Central Province, 1990 and 2000.

Age	1990				2000			
	Total	Rural	Urban	Population	Total	Rural	Urban	Population
Central-Total	**26.5**	**23.5**	**33.4**	**605,237**	**27.1**	**24.5**	**35.0**	**785,123**
5 – 9	30.3	25.5	42.1	107,667	35.7	30.9	51.3	154,297
10 – 14	68.1	62.6	80.8	102,684	72.2	69.2	81.8	128,608
15 – 19	46.8	41.7	58.3	93,455	44.9	39.2	59.1	110,173
20 – 24	12.9	11.6	15.6	70,484	8.9	6.6	14.8	90,613
25 – 29	3.8	3.6	4.2	52,250	3.3	2.8	4.7	72,019
30 – 44	2.1	2.2	2.1	94,869	2.6	2.4	3.1	129,588
45+	0.8	0.9	0.7	83,828	1.6	1.6	1.7	99,825

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

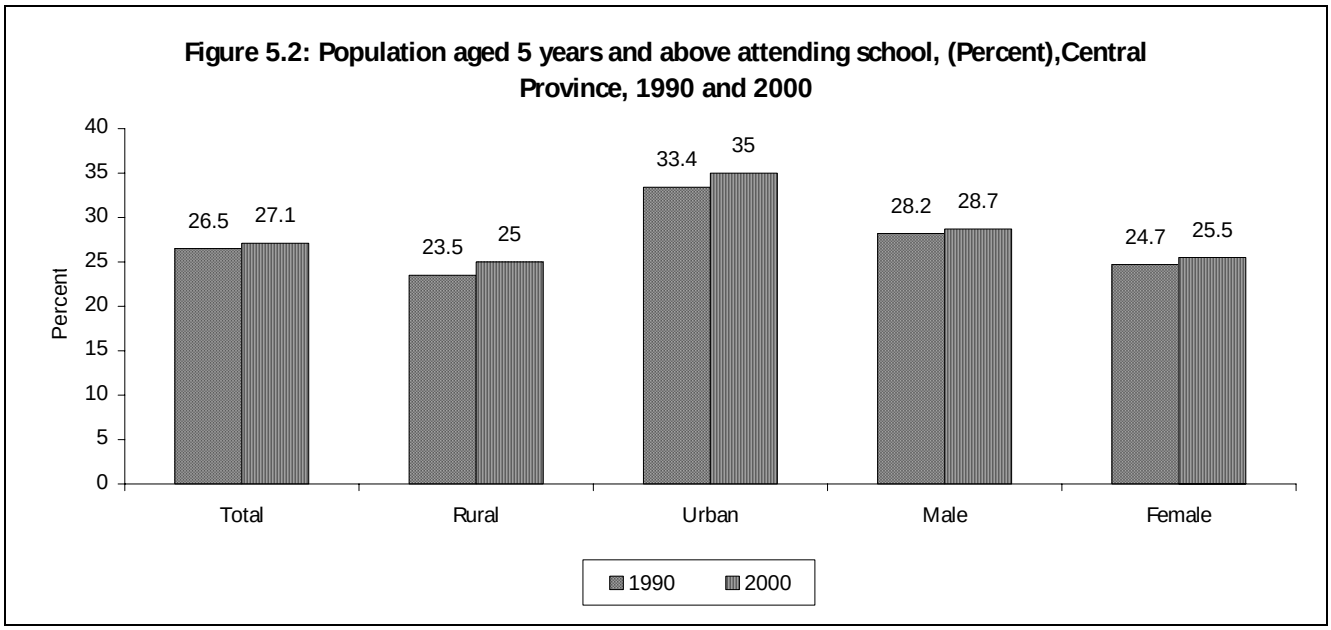
Furthermore, Table 5.4 reveals that females are less likely to be attending school than their male counterpart particularly those residing in rural areas. However, the proportion of the rural males attending school almost remained at the 1990 level of about 26 percent while that of females slightly increased from about 22 to 23 percent during the intercensal period. Variations in the proportion of the population presently attending school in all the six districts of Central Province have also been observed. Table 5.4 shows that during the year 2000, nearly one in every three persons aged 5 years and above attended school in Kabwe and Mumbwa districts compared to almost one in every four in the remaining districts.

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

Province and Residence	Sex			Population
	Total	Male	Female	
Zambia (1990)	25.8	28.1	23.6	6,181,285
Central (1990)				
Total	26.5	28.2	24.7	605,228
Rural	23.5	25.5	21.6	425,260
Urban	33.4	34.6	32.3	179,968
Zambia (2000)	26.7	28.7	24.9	7,680,705
Central (2000)				
Total	27.1	28.7	25.5	785,123
Rural	25.0	26.2	22.7	587,273
Urban	35.0	36.3	33.7	197,850
District				
Chibombo	25.1	26.6	23.6	183,391
Kabwe	35.9	37.2	34.7	144,895
Kapiri Mposhi	23.8	25.4	22.1	151,135

Mkushi	24.0	25.7	22.3	82,305
Mumbwa	30.0	31.7	28.3	120,726
Serenje	22.3	24.4	20.2	102,671

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



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

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

Analysis of school attendance becomes more meaningful when the data relates to the official school age population. In Zambia the official primary school age range is 7 to 13 years. This population cohort constitutes the target population for offering primary education. However, some of the members of this cohort may not be attending exact primary grades (Grades 1 to 7). Table 5.5 shows that school attendance by the population aged 7 to 13 years in Central Province had increased from 58.1 percent in 1990 to 63.3 percent in 2000. In 2000, the proportion of the primary school age population attending school in the province is slightly above the national average of 62.2 percent. The school attendance rates for boys and girls increased by 6 and 5 percent over and above the 1990 rates of 57 and 59 percent, respectively. It is important to take note that for this age cohort, girls are more likely to be attending primary school than boys, especially in rural areas of the Province. No major sex differences existed in school attendance among urban children.

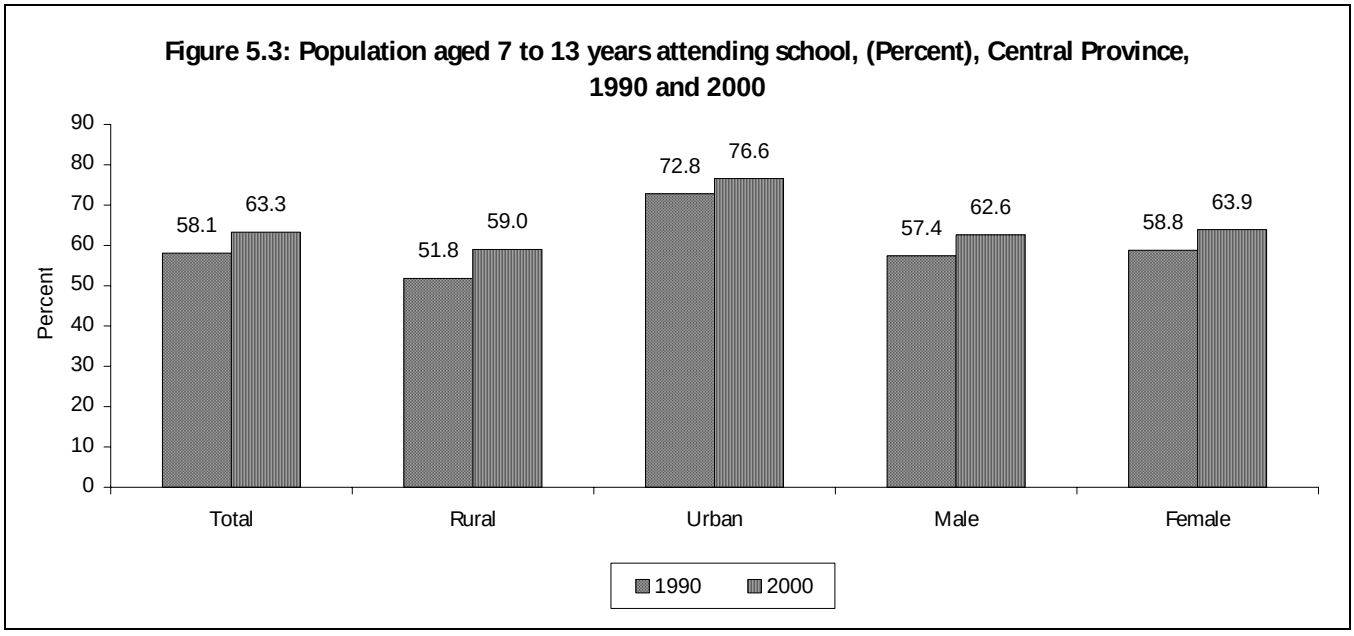
Table 5.5 shows that out of the total 102,908 rural children aged 7 to 13 years in Central Province, only 52 percent were attending school, compared to 73 percent of the 43,522 urban children in 1990. The school attendance rates increased from 52 to 59 percent and from 73 to 77 percent for the rural and urban areas between 1990 and 2000, respectively. School attendance among rural girls rose by 7 percentage points from about 53 percent in 1990 to nearly 60 percent in 2000. In urban areas, female school attendance rate increased by only 4 percent from 73 percent to 77 percent between 1990 and 2000. The same pattern was observed for the rural and urban boys of primary school age. Despite the high rate of increase in rural areas, these results clearly indicate the continued disparities in education participation between the rural and urban children of primary school age. Urban children are more likely to be attending school than their rural counterpart (refer to Figure 5.3).

Table 5.5 also reveals that during the year 2000, Serenje District had the lowest percentage of children attending school (52 percent), followed by Mkushi and Kapiri Mposhi districts both at about 58 percent. On the other hand, school attendance by the primary school age population was highest in Kabwe (78 percent), followed by Mumbwa (70 percent) and Chibombo (61 percent).

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

Province and Residence	Primary School Attendance Rates			
	Total	Male	Female	Population
Zambia (1990)	55.8	55.4	56.2	1,486,062
Central (1990)				
Total	58.1	57.4	58.8	146,430
Rural	51.8	51.2	52.5	102,908
Urban	72.8	72.5	73.1	43,522
Zambia (2000)	62.2	61.8	62.6	1,826,590
Central (2000)				
Total	63.3	62.6	63.9	194,108
Rural	59.0	58.4	59.7	147,190
Urban	76.6	76.5	76.7	46,918
District				
Chibombo	61.2	60.2	62.2	46,532
Kabwe	77.6	77.3	77.9	34,183
Kapiri Mposhi	58.1	57.4	58.8	37,045
Mkushi	57.6	57.9	57.3	19,838
Mumbwa	69.8	69.0	70.5	30,922
Serenje	52.0	51.7	52.2	25,588

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



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

5.7 Gross Primary School Attendance Ratio by Children of all Ages

Gross school attendance rate at primary level shows the ratio of children of all ages attending exact primary grades to the eligible school age population. Due to school enrolment and attendance of under and over age children in primary schools, the ratio is sometimes more than 100 percent. Table 5.6 shows gross primary school attendance rates by sex, residence and districts. The ratio declined from 86.2 to 79.8 percent during the 1990 to 2000 intercensal period. The provincial gross school attendance rate in 2000 is slightly above the national average of 79.1 percent. The gross rates for both females and males fell by 8 and 5 percentage points during the same period, respectively. Results from the last two census surveys further demonstrate that more males than females have had access to primary education in relative terms. The Gender Parity Index (GPI)

calculated as a ratio of female gross rate to that of males slightly increased from 0.92 in 1990 to 0.95 in 2000, indicating that there is growing equality in terms of participation of girls and boys in primary education.

By the year 2000, the Gross Primary School Attendance Ratios for urban population remained above those obtaining in rural areas. The ratios declined by four and ten percent in the rural and urban parts of the province, from about 80 to 76 percent and 101 to 91 percent respectively (see Figure 5.4 for details). The GPI for 2000 results exhibits inequality in terms of education participation in rural (0.94) than in urban areas, (0.96). Gender equality in terms of education participation can be said to be within reach in urban areas than in rural areas of the province. Generally, the GPI indices for both the rural and urban areas of Central Province have revealed increased female participation in primary education since 1990.

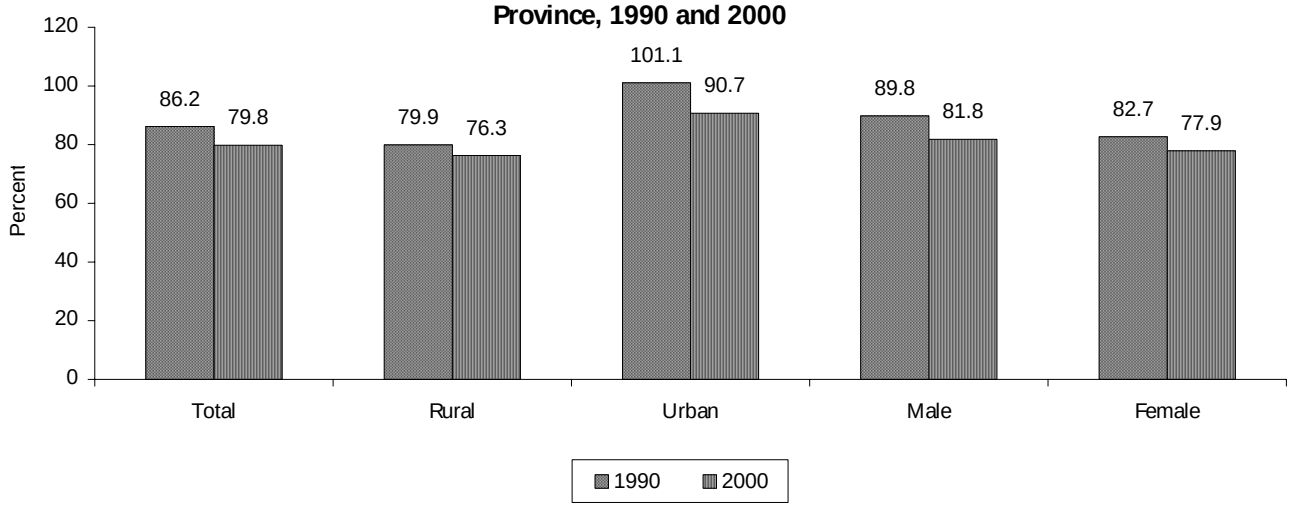
District level analysis of the 2000 Gross Primary School Attendance Rates shows high levels of participation in Kabwe (92.7 percent) and Mumbwa (85.2 percent) districts. Education participation in gross terms was lowest in Serenje District, at 70.2 percent followed by Kapiri Mposhi, at 74.4 percent. The scenario in the year 2000 revealed more attendance among boys than girls in all the 6 districts. In general, the gross ratios remained high among urbanized districts, especially those along the old line of rail and near the capital city of Lusaka.

Table 5.6: Gross Primary School Attendance Ratio by sex, Residence, Central Province, 1990 – 2000

Residence and District	Gross Primary School Attendance Rates			
	Total	Male	Female	Population
Zambia (1990)	82.3	85.7	78.9	1,486,062
Central (1990)				
Total	86.2	89.8	82.7	146,430
Rural	79.9	83.7	76.1	102,908
Urban	101.1	104.5	97.8	43,522
Zambia (2000)	79.1	81.4	76.8	1,826,590
Central (2000)				
Total	79.8	81.8	77.9	194,108
Rural	76.3	78.5	74.2	147,190
Urban	90.7	92.5	89.0	46,918
District				
Chibombo	77.5	78.8	76.1	46,532
Kabwe	92.7	94.3	91.1	34,183
Kapiri Mposhi	74.4	76.2	72.6	37,045
Mkushi	77.3	81.1	73.5	19,838
Mumbwa	85.2	87.1	83.2	30,922
Serenje	70.2	73.1	67.2	25,588

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

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



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

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

Net School Attendance Rate at Primary Level shows the percentage of the primary school age population currently attending exact primary grades (Grades 1 to 7). Table 5.7 shows an increase in the proportion of the primary school age population attending primary education in Central Province, from 57.3 percent in 1990 to 61.3 percent by the year 2000.

An increase in the proportion of the primary school age population attending primary education was also observed at national level from 55 percent in 1990 to 60 percent, however the provincial proportion is above the national average. The proportions of boys and girls attending primary education increased from 56.6 and 57.9 percent to 60.8 and 61.7 percent, respectively. Since 1990, no major sex differences were revealed in terms of net school attendance rates between boys and girls although the percentage of girls were slightly higher than those of boys. The attendance of girls of primary school age has been slightly higher than that of boys by about 1 percentage point in both the rural and urban areas of the province (see Figure 5.5). During the 1990-2000 intercensal period, the percentage of eligible primary school age children not in school declined from 43 to 39 percent.

Since 1990, Net Primary School Attendance Rates have been higher in urban than in rural areas, clearly indicating a higher likelihood of urban children to be in school than their rural counterparts. In 1990, almost half of the rural children aged 7 to 13 years were out of primary education compared to about one third of their urban counterpart. By 2000, the proportion of children attending school in rural areas increased by 7 percentage points, from 51.3 percent to 57.6 percent. These results imply that at least one in every two children aged 7 to 13 years in rural areas was attending primary education by 2000. In urban areas, net school attendance rate barely increased by about 2 percentage points, from about 71 percent in 1990 to about 73 percent in 2000. No major sex differences were noticed since 1990, an indication of achievement of gender parity in net attendance at primary level.

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

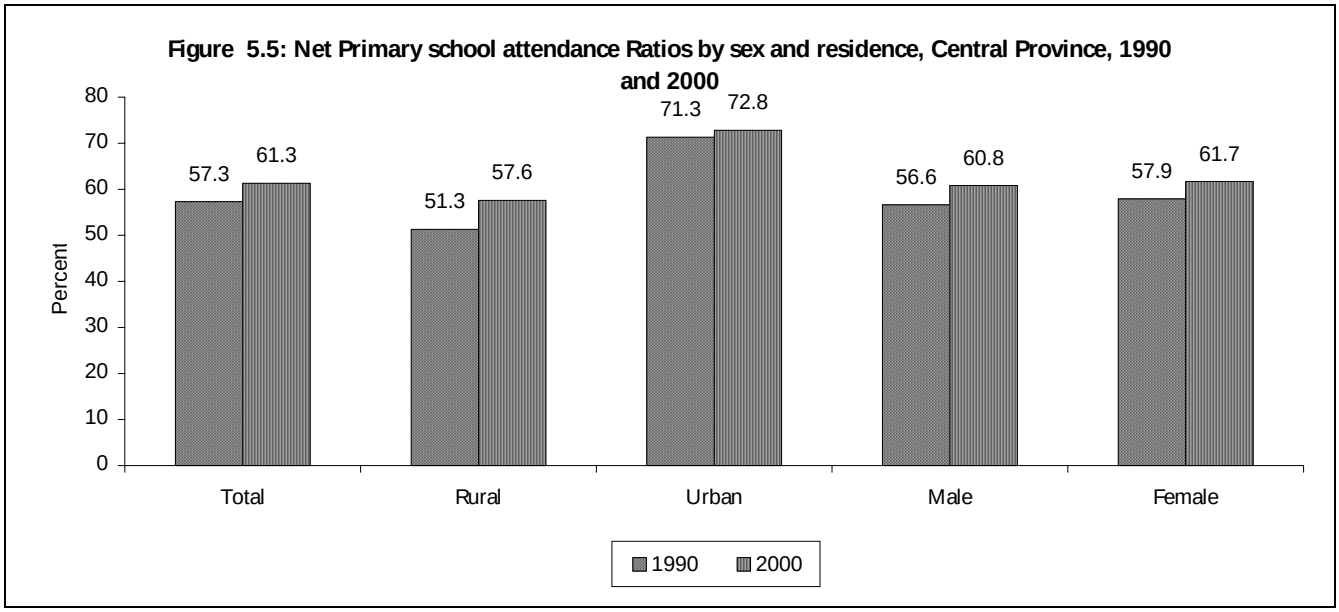
In 2000, the proportion of children aged 7 to 13 years attending primary education was highest in Kabwe (73.7 percent) followed by Mumbwa District (67.4 percent). Net school attendance at this level was lowest in Serenje (51 percent), Mkushi (56 percent) and Kapiri Mposhi (57 percent) districts. With the exception of

Mkushi District, girls are more likely to be attending school than boys in the rest of the districts, though the sex differences are insignificant.

Table 5.7: Net Primary School Attendance Rates by sex, and Residence, Central Province, 1990 and 2000

Residence and District	Net Primary School Attendance Rates			
	Total	Male	Female	Population
Zambia (1990)	55.0	54.6	55.3	1,486,062
Central (1990)				
Total	57.3	56.6	57.9	146,430
Rural	51.3	50.7	52.0	102,908
Urban	71.3	71.1	71.5	43,522
Zambia (2000)	60.0	59.8	60.2	1,826,590
Central (2000)				
Total	61.3	60.8	61.7	194,108
Rural	57.6	57.0	58.2	147,190
Urban	72.8	73.2	72.5	46,918
District				
Chibombo	59.6	58.7	60.5	46,532
Kabwe	73.7	74.0	73.5	34,183
Kapiri Mposhi	56.6	55.9	57.3	37,045
Mkushi	56.2	56.4	56.1	19,838
Mumbwa	67.4	67.0	67.8	30,922
Serenje	50.9	50.7	51.1	25,588

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



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

5.9 School Attendance by the Secondary School Age Population

Table 5.8 shows the proportion of children aged 14 to 18 attending school. Overall, the percentage of the secondary school age children attending school slightly declined from 53.9 percent to 53.3 between 1990 and 2000 (Figure 5.6). The provincial rate is below the national average of 54 percent. Since 1990, there were proportionately more boys (60 percent) than girls (47 percent) attending school. School attendance more or less remained at the 1990 level of 48.5 and 65.8 percent for the rural and urban parts of Central Province. The proportion of boys attending school was much higher in both rural and urban areas than that of girls. Whereas the percentage of rural male children attending school marginally increased from 55 to 56 percent the rate of attendance for females slightly declined by one percentage point, from about 42 to 41 percent. The opposite depicts the situation obtaining in urban areas where there was an observed decline in the proportion of males attending school and an increase in the rate for females. In general, these results clearly

indicate that the problem of the girl child is more associated to older (14 to 18 years) than younger children (7 to 13 years). At primary level there is normally near equality in terms of school attendance by boys and girls.

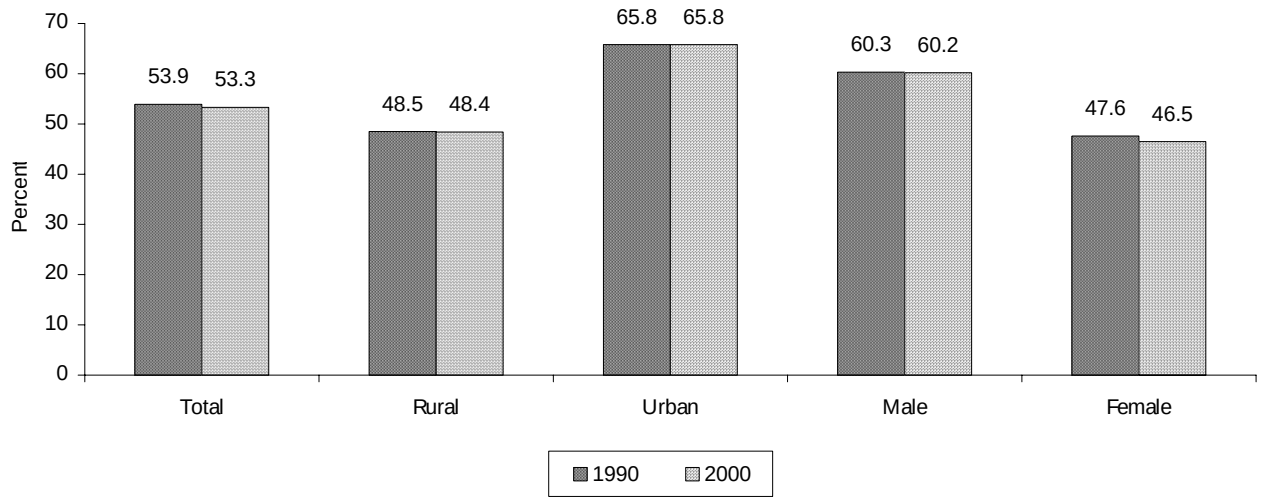
In 2000, school attendance by children of secondary school age was highest in Kabwe and Mumbwa, at 67.5 and 56.8 percent, respectively. The remaining districts recorded rates below the provincial average of 53.3 percent. Comparison of a highly urbanized district like Kabwe with a remote one for example Serenje, clearly shows how limited education opportunities, particularly at Secondary Level, are in rural areas compared to urban areas. With the exception of Kabwe and Mumbwa, more than half of girls aged 14 to 18 years in the remaining districts of Central Province were not attending school.

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

Province and Residence	School Attendance Rates			
	Total	Male	Female	Population (14–18 Yrs)
Zambia (1990)	53.9	61.1	47.1	996,450
Central (1990)				
Total	53.9	60.3	47.6	99,320
Rural	48.5	54.8	42.2	68,677
Urban	65.8	73.2	59.0	30,643
Zambia (2000)	53.9	61.3	47.0	1,105,484
Central (2000)				
Total	53.3	60.2	46.5	114,930
Rural	48.4	56.2	40.7	82,840
Urban	65.8	71.0	60.9	32,090
District				
Chibombo	49.1	56.3	42.0	25,388
Kabwe	67.5	72.2	63.1	23,591
Kapiri Mposhi	47.7	55.0	40.4	21,272
Mkushi	47.8	57.5	38.6	11,927
Mumbwa	56.8	63.0	50.7	17,802
Serenje	45.9	54.7	37.5	14,950

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

Figure 5.6: School Attendance Rates by Children Aged 14 to 18 years, by Sex and Residence, Central Province, 1990 - 2000



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

5.10 Gross Secondary School Attendance Rates

Results in Table 5.9 reveal that a sizeable proportion of secondary school age population in Central Province have had no access to secondary education. Overall, the proportion of children attending secondary education expressed as a percentage of the eligible secondary school age population increased from 32 percent in 1990 to 42 percent by 2000. In comparison to the national gross attendance ratios which increased from 34.6 to 44.5 percent, the provincial rate is lower in both 1990 and 2000. The gross attendance ratios have remained higher in urban than in rural areas. The increase in the ratios between 1990 and 2000 was more pronounced in urban, from 49 percent to 72 percent, than in rural areas, from 25 percent to 31 percent (see Figure 5.3). The gross attendance ratios indicate that females, more especially those residing in rural areas, are less likely to attend secondary education than their male counterpart in the province.

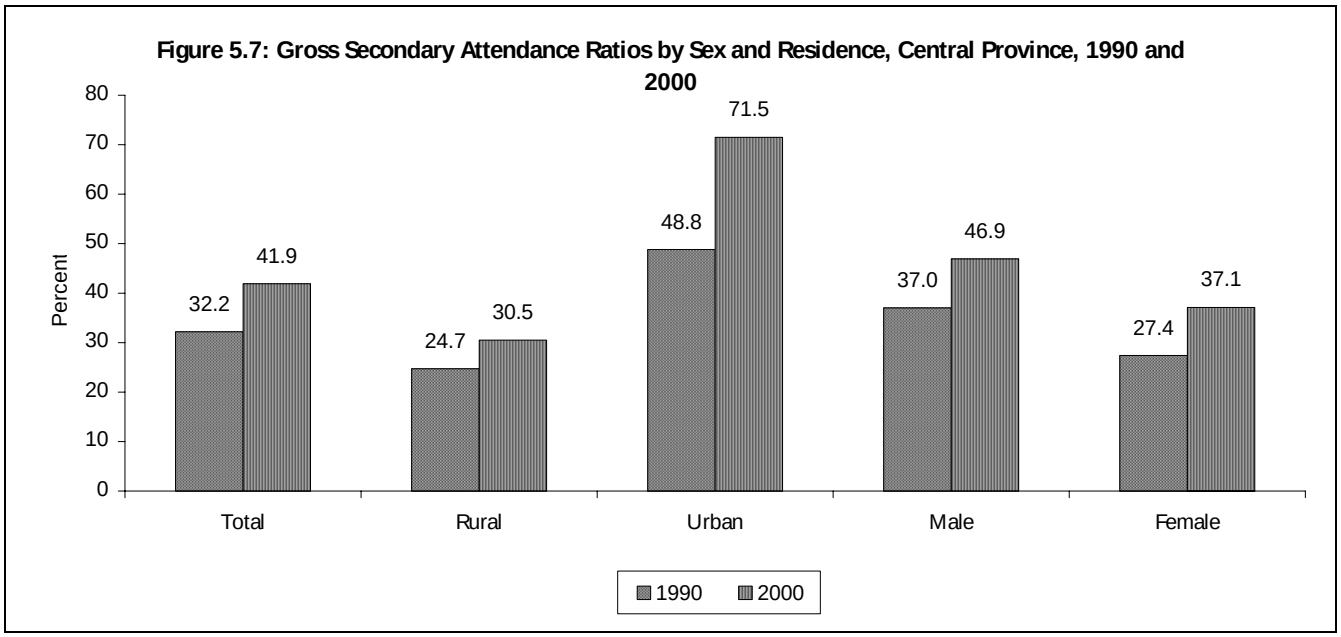
The 2000 Census results further reveal high levels of participation in secondary education in Kabwe District (74.2 percent), followed by Mumbwa District (45.8 percent). Serenje District recorded the least rate of gross attendance of about 27 percent. Secondary school attendance in Mkushi, Kapiri Mposhi and Chibombo districts were equally low as the rates were below the provincial average of about 42 percent.

Table 5.9: Gross Secondary School Attendance Ratio by Sex, and Residence, Central Province, 1990 and 2000

Residence and District	Gross Secondary School Attendance Rates			
	Total	Male	Female	Population (14 – 18 Yrs)
Zambia (1990)	34.6	40.4	29.0	996,450
Central (1990)				
Total	32.2	37.0	27.4	99,320
Rural	24.7	29.0	20.5	68,677
Urban	48.8	56.0	42.2	30,643
Zambia (2000)	44.5	50.2	39.1	1,105,484
Central (2000)				
Total	41.9	46.9	37.1	114,930
Rural	30.5	35.0	26.1	82,840
Urban	71.5	78.7	64.8	32,090
District				
Chibombo				
Kabwe	32.3	36.4	28.1	25,388
Kapiri Mposhi	74.2	80.8	68.1	23,591
Mkushi	32.1	37.1	27.3	21,272
Mumbwa	29.6	35.7	23.7	11,927

Serenje	45.8 26.6	49.7 31.7	41.8 21.8	17,802 14,950

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



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

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

Results in Table 5.10 indicate that a significant proportion of the secondary school age population had no access to education in Central Province. In 1990, only about one fifth of the children aged 14 to 18 years were attending secondary education. This proportion increased to approximately 30 percent during the year 2000. Since 1990 there were proportionately more boys than girls attending secondary school. The provincial rate is slightly below the national average of 30.9 percent.

Rural – urban differences in net secondary school attendance rates have existed since 1990. The proportion of urban eligible children attending secondary education (32 percent) was more than twice that of their rural counterpart (14 percent) in 1990. However, net secondary school attendance rate for rural areas nearly doubled from about 14 percent in 1990 to 22 percent in 2000. In urban areas, the proportion of eligible children attending secondary education rose from about 32 to 51 percent during the same period (see Figure 5.4).

Analysis of the 2000 Census results by districts show that Serenje District followed by Mkushi, Kapiri Mposhi and Chibombo had the lowest net secondary rates of 18, 21, 23, and 24 percent, respectively. On the other hand the highly urbanized District, in this case Kabwe District, recorded the highest rate of about 53 percent, followed by Mumbwa with 32 percent. In terms of proportions, more boys than girls have had access to secondary education in the province.

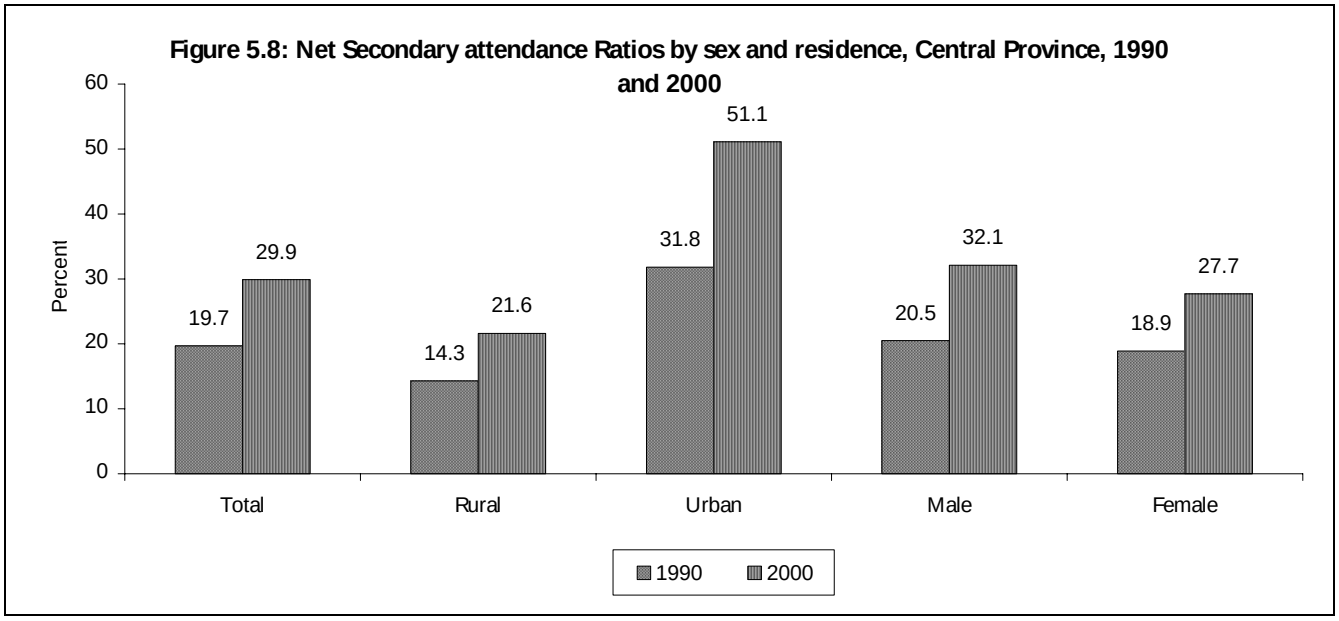
The recorded increase in secondary school attendance in all the districts in the province could be attributed to the increase in basic schools, which have provided additional school space for grades 8 and 9 pupils. As for urban areas there has been marked increases in the number of private schools offering secondary education. The 1996 education policy has championed the need to promote private participation in education delivery system.

Table 5.10: Population Net Secondary School Attendance Ratio by Sex and Residence, Central Province, 1990 and 2000

Residence and District	Net Secondary School Attendance Rates			
	Total	Male	Female	Population (14 – 18 Yrs)
Zambia (1990)	21.4	22.8	20.0	996,450
Central (1990)				
Total	19.7	20.5	18.9	99,320
Rural	14.3	15.0	13.6	68,677
Urban	31.8	33.6	30.2	30,643

Zambia (2000)	30.9	33.3	28.7	1,105,484
Central (2000)				
Total	29.9	32.1	27.7	114,930
Rural	21.6	23.9	19.4	82,840
Urban	51.1	53.8	48.5	32,090
District				
Chibombo	23.6	26	21.2	25,388
Kabwe	52.9	55.4	50.5	23,591
Kapiri Mposhi	22.7	25	20.4	21,272
Mkushi	21.2	24.1	18.6	11,927
Mumbwa	32.2	33.7	30.7	17,802
Serenje	18.4	20.6	16.2	14,950

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



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

5.12. Population Distribution by Fields of Study

Table 5.11 shows the distribution of the population by some selected fields of study and sex in Central Province. The table reveals that the most popular field of study since 1990 has been Teacher training. In 1990, teacher training accounted for about 29 percent of the population, while agricultural related fields, mechanics and accountancy accounted for 8 percent each. About 7 percent of the population reported nursing as their field of study in 1990.

By 2000, teacher training still accounted for the larger segment of the population, at 27 percent, followed by nursing at 21 percent, accountancy (8 percent), mechanics at 6 percent and agricultural related fields at 5 percent. Notable from the results in the table is the sudden increase in the proportion of males who reported nursing as their field of study from one percent to 19 percent between 1990 and 2000.

The results also clearly indicate that males have a wider variety of fields of specialization than their female counterparts. Further examination of the results in Table 5.11 reveals that very few females have been attempting more technically oriented fields of study such as engineering and other technical programmes since 1990. In order to enhance the participation of females in sciences and mathematics, the Ministry of Education started a program aimed at enhancing pupils' performance in English, mathematics and Sciences called AIEMS in 1994.

Table 5.11: Population by Sex and Field of Study, Central Province, (1990 and 2000)

Field of Study	1990			2000		
	Total	Male	Female	Total	Male	Female
All Fields	12,077	8,641	3,436	18,647	12,540	6,107
Total (percent)	100.0	100.0	100.0	100.0	100.0	100.0
Natural Science	1.9	2.0	1.8	0.6	0.7	0.4

Civil Engineering	1.4	1.9	0.2	0.7	1.0	0.0
Electronic Engineering	4.4	6.0	0.3	3.7	5.3	0.5
Mechanic Engineering	7.7	10.6	0.3	5.5	7.9	0.5
Mining Engineering	1.1	1.4	0.2	0.9	1.4	0.0
Industrial Engineering	2.1	2.0	2.3	1.3	1.3	1.1
Architecture	0.9	1.0	0.6	0.6	0.7	0.5
Medicine/Surgery	2.0	2.4	1.2	1.0	1.2	0.5
Pharmacy	1.4	1.4	1.3	0.7	0.7	0.5
Nursing	6.7	0.9	21.3	20.7	18.7	24.8
Medical Technology	1.5	1.8	0.8	1.5	1.9	0.7
Computer Science	0.3	0.4	0.2	1.4	1.2	1.9
Economics	1.1	0.9	1.7	0.7	0.7	0.9
Accountancy	7.7	9.0	4.5	7.8	9.5	4.4
Teacher Training	29.2	25.2	39.1	26.8	22.5	35.5
Law/jurisprudence	2.1	2.7	0.7	1.6	2.1	0.6
Fine arts	0.6	0.8	0.3	0.5	0.7	0.2
Social Welfare	1.3	1.4	1.1	1.1	1.0	1.3
Criminology	2.6	3.4	0.5	1.8	2.5	0.5
Business Administration	4.5	5.6	1.7	3.7	4.5	2.2
Secretarial Training	3.3	0.3	10.7	3.6	0.5	10.0
Office Machine	1.4	1.6	0.7	0.6	0.7	0.3
Service Trade	1.8	1.4	2.6	2.5	1.6	4.2
Agriculture/Forestry/Fisheries	7.8	9.9	2.5	5.4	7.1	1.8
Wood Working	3.3	4.5	0.1	2.4	3.5	0.1
Textile Trade	1.8	1.2	3.2	2.9	1.2	6.4

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

Table 5.12a and 5.12b show the distribution of the 1990 and 2000 population aged 5 years and above by field of study and educational level completed in Central Province. The tables reveal the type of restrictions education attainment imposes on various fields of study. Results clearly indicate that the minimum education level required for the majority of the fields of study is grades 10 – 12. This is more of the case for those in the field of engineering, medicine, natural and social sciences. Other programmes such as Accountancy, Business Administration, Teacher Training, Journalism and Secretarial training have overtime become more demanding in terms of educational entry requirements. During the same intercensal period, the share of degrees as an academic achievement also increased drastically for most of the fields.

Table 5.12a: Education Level Completed by Field of Study (Percent), Central Province, 1990

Field of Study	Size	Total	Level of Education Completed				
			1-7	8-9	10-12	'A' Level	Degree
Natural Science	230	100	10.9	8.3	60.0	9.6	11.3
Civil Engineering	173	100	17.9	10.4	63.6	2.9	5.2
Electronics/Engineering	533	100	16.1	5.6	74.5	1.9	1.9
Mechanics/Engineering	929	100	17.3	9.7	68.4	1.6	3.0
Chemical Engineering	39	100	15.4	5.1	71.8	5.1	2.6
Mining Engineering	130	100	50.8	4.6	38.5	3.8	2.3
Industrial Engineering	250	100	60.0	13.6	23.2	0.4	2.8
Metallurgical Engineering	39	100	2.6	15.4	59.0	-	23.1
Architecture	109	100	19.3	47.7	28.4	-	4.6
Other Engineering	350	100	14.0	6.3	75.7	0.6	3.4
Medicine/Surgery	247	100	15.8	10.5	59.5	6.1	8.1
Pharmacy	166	100	6.0	3.6	86.1	3.6	0.6
Dentistry	52	100	23.1	5.8	65.4	5.8	-
Nursing	811	100	7.4	6.9	82.7	1.6	1.4
Medical Technology	186	100	15.6	7.0	73.1	1.1	3.2
Veterinary	79	100	36.7	8.9	53.2	-	1.3
Computer Science	42	100	2.4	4.8	83.3	4.8	4.8
Economics	135	100	14.1	11.9	60.0	4.4	9.6
Accountancy	935	100	4.9	6.5	83.6	2.7	2.2
Teacher Training	3,524	100	8.8	9.9	77.2	2	2.1
Law/jurisprudence	257	100	19.1	11.7	60.7	4.7	3.9
Journalism	45	100	15.6	6.7	75.6	2.2	-
Fine arts	76	100	25.0	6.6	55.3	5.3	7.9
Social Welfare	157	100	20.4	15.3	56.7	3.8	3.8
Criminology	315	100	21.6	17.8	58.7	0.6	1.3
Business Administration	545	100	9.4	6.6	76.9	4.0	3.1
Secretarial Training	395	100	4.3	7.1	84.3	2.8	1.5
Shorthand Typing	457	100	10.5	14.4	73.1	0.7	1.3
Clerical typing	468	100	8.1	17.9	71.8	0.6	1.5
Office Machine	164	100	20.1	10.4	67.1	0.6	1.8
Service Trade	216	100	41.2	17.6	38.4	0.9	1.9
Agriculture/Forestry/Fisheries	944	100	21.3	10.9	59.5	3.4	4.9
Food/Drink Production	75	100	32.0	17.3	46.7	1.3	2.7
Wood Working	396	100	50.5	14.1	31.8	0.3	3.3
Textile Trade	212	100	31.1	20.3	46.2	-	2.4

Source: CSO, 1990 Census of Population and Housing

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

Table 5.12b: Education Level Completed by Field of Study (Percent), Central Province, 2000

Field of Study	Size	Total	Level of Education Completed				
			1-7	8-9	10-12	'A' Level	Degree
Natural Science	111	100	12.6	5.4	46.8	-	35.1
Civil Engineering	130	100	7.7	5.4	66.9	0.8	19.2
Electronics/Engineering	690	100	5.2	4.9	60.6	0.9	28.4
Mechanics/Engineering	1,019	100	5.9	7.0	62.2	1.1	23.8
Chemical Engineering	45	100	8.9	2.2	53.3	-	35.6
Mining Engineering	174	100	23.0	9.2	52.3	1.1	14.4
Industrial Engineering	236	100	48.3	24.2	17.4	-	10.2
Metallurgical Engineering	59	100	3.4	10.2	49.2	-	37.3
Architecture	119	100	11.8	41.2	37.8	-	9.2
Other Engineering	264	100	10.6	4.9	65.2	-	19.3
Medicine/Surgery	182	100	4.9	3.3	57.7	0.5	33.5
Pharmacy	125	100	1.6	2.4	83.2	-	12.8
Dentistry	87	100	10.3	2.3	75.9	1.1	10.3
Nursing	3,858	100	7.8	9.4	65.4	1.0	16.3
Medical Technology	279	100	3.9	2.2	75.6	2.9	15.4
Veterinary	76	100	9.2	10.5	53.9	-	26.3
Computer Science	267	100	1.5	0.7	68.2	1.9	27.7
Economics	136	100	4.4	14.0	55.9	-	25.7
Accountancy	1,459	100	2.0	3.2	62.6	0.8	31.4
Teacher Training	4,991	100	2.6	3.8	66.1	1.0	26.5
Law/jurisprudence	306	100	3.9	6.5	73.2	0.3	16.0
Journalism	61	100	4.9	6.6	60.7	3.3	24.6
Fine arts	96	100	8.3	7.3	66.7	-	17.7
Social Welfare	200	100	3.0	35	42.5	1.5	18.0
Criminology	343	100	4.1	5.2	52.2	0.3	38.2
Business Administration	698	100	1.3	4.0	60.2	1.4	33.1
Secretarial Training	676	100	1.9	7.5	62.9	0.9	26.8
Shorthand Typing	338	100	6.5	14.8	55.0	0.3	23.4
Clerical typing	384	100	6.8	16.4	52.9	0.3	23.7
Office Machine	104	100	5.8	11.5	68.3	-	14.4
Service Trade	458	100	18.6	18.8	45.0	0.4	17.2
Agriculture/Forestry/Fisheries	1,007	100	9.0	7.3	55.1	1.6	26.9
Food/Drink Production	129	100	9.3	15.5	54.3	0.8	20.2
Wood Working	444	100	23.0	19.1	42.6	0.7	14.6
Textile Trade	539	100	11.3	26.7	36.2	1.1	24.7

Source: CSO, 2000 Census of Population and Housing

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

5.13. Certificate and Diploma Holders by Level of Education Completed

Table 5.13 shows the education level completed by certificate and diploma holders in Central Province. The certification referred to here only relate to the one obtained after grades school. Overall, the number of certificate holders increased by 17.9 percent between 1990 (15,605) and 2000 (18,402). The percent increase was mainly as a result of a steady increase in the number of female certificate holder of 42.2 percent. On the other hand males recorded an increase of 7.6 percent from 10, 962 to 11,801 certificate holders. The proportion of persons with certificates who had attained grades 1 to 7 declined from 23.4 percent in 1990 to 10.4 percent in 2000, whilst the proportions attaining higher grades increased drastically. These findings demonstrate how difficult it has become to get certification with limited education background. On the other hand, the number of diploma holders after grades also rose by 23.4 percent from 3,211 in 1990 to 3, 962 in 2000. The increase in the number of diploma holders was much more marked among females (35.6 percent) than males (20.6 percent). There was a decline in the proportions of diploma holders between 1990 and 2000 with up to grade 7 and 9 education from 6.1 and 4.8 percent to 2.2 and 2.5 percent respectively. The same scenario applies to male and female holders. (Refer to Table 5.13). These results clearly demonstrate the kinds of restrictions that education background poses on certification and qualification.

Table 5.13: Certificate and Diploma Holders by Level of Education and Sex, 1990-2000

Level of Education and Sex	Size	Education Level Completed				
		1-7	8-9	10-12	'A' Level	Total
Certificates						
Central 1990						
Total	15,605	23.4	13.3	62.8	0.6	100
Male	10,962	26.0	12.8	60.8	0.4	100
Female	4,643	17.3	14.4	67.3	0.9	100
Central 2000						
Total	18,402	10.4	13.3	75.3	1.0	100
Male	11,801	11.4	11.6	75.9	1.1	100
Female	6,601	8.4	16.4	74.3	0.8	100
Diploma						
Central 1990						
Total	3,211	6.1	4.8	81.0	8.0	100
Male	2,629	6.5	5.0	80.8	7.7	100
Female	582	4.5	4.1	82.0	9.5	100
Central 2000						
Total	3,962	2.2	2.5	93.6	1.7	100
Male	3,173	2.3	2.4	93.5	1.7	100
Female	789	1.5	3.1	94.0	1.3	100

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

5.14. Summary

Nearly half of the population in Central Province has remained illiterate. Since 1990, 44 percent of the population aged 5 years and above remained illiterate. The level of illiteracy remained higher among female than male population. The problem of illiteracy is more common in rural than in urban parts of the province. About half of the rural population aged 5 years and above has been identified with illiteracy since 1990. Analysis of literacy rates by districts shows that the general rate varied from 50 percent in Serenje District to 73 percent in Kabwe District. Youth literacy rate declined from 75 percent to 71 percent between 1990 and 2000. Conversely, adult literacy rate increased from 66 to 68 percent during the same period.

School attendance among the population aged 5 years and above marginally increased from about 26.5 to 27.1 percent between 1990 and 2000. The rate of attendance remained higher in urban than in rural areas, particularly among males. School attendance rate ranged from 22 percent in Serenje District to about 36 percent in Kabwe District.

The proportion of the primary school-age population (7 to 13 years) attending school increased from 58 percent in 1990 to 63 percent by 2000. No major sex differences were observed in school attendance rates of the population aged 7 to 13 years. Children in urban areas are more likely to attend school than their rural counterpart

The rate of attendance has been poorer in remote districts like Serenje (52 percent) and superior in predominantly urban districts like Kabwe at about 78 percent.

The Gross Primary School Attendance Rates declined from 86.2 to 79.8 percent between 1990 and 2000. By 2000, the rates remained higher in urban than in rural areas. The rates also indicate a high likelihood of boys aged 7 to 13 years to be attending primary education compared to their female counterpart. Net Primary School Attendance Rates increased from 57.3 to 61.3 percent between 1990 and 2000. By 2000, the rate remained higher in urban (72.8 percent) than in rural areas of the province (57.6 percent). During the year 2000, Serenje district recorded the lowest net primary school attendance rate of about 51 percent while Kabwe District registered the highest rate of about 74 percent.

During the 1990-2000 intercensal period, school attendance by the secondary school-age population (14 to 18 years) barely declined from 53.9 to 53.3 percent. More males than females of the same age cohort have had access to education since 1990. Children in urban areas are more likely to attend school, particularly at the secondary level, than those in rural areas.

Crude measures of participation in secondary education reveal marked improvements in secondary school attendance especially in urban areas. The Gross Secondary School Attendance Rate increased from about 32.2 to 41.9 percent between 1990 and 2000. However, Gross School Attendance Rates for rural areas show low levels of education participation compared to urban areas. Net Secondary School Attendance Rate increased from about 20 percent in 1990 to 30 percent by 2000.

Teacher Training, Nursing, Accountancy, Mechanics and agricultural related fields are still among the most popular fields of study in Central Province. However, more males than females have had varied occupational fields of study since independence. Analysis of fields of study by level of education completed explicitly illuminates the restrictions education background imposes on the choice of the field of study. Secondary education has of late become the minimum requirement for most of the fields of study. Certification at any level has become heavily dependant on the level of education that an individual has completed. It has become much more difficult now to obtain a certificate than it was ten years ago.

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.

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

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

- Labourforce participation
- Employment and unemployment
- Employment status
- Occupation
- Industry and
- Educational attainment

6.2 Concepts and Definitions

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

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

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

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

- **Economically Active Population (Labourforce):** The economically active population or the Labour force is defined as all persons aged 12 years and above

whose main economic activity status is to supply their labour force to the production of economic goods and services. It is composed of the employed and unemployed. It includes all those who are working, those who are unemployed but seeking work and those not seeking work but available for work. Included also are those unpaid on family business.

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

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

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

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

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

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

6.3 Working-Age Population

Figure 6.1 is a diagrammatic presentation of the various categories of the population of working age.

Figure 6.1: Working Age Population 12 Years and Above

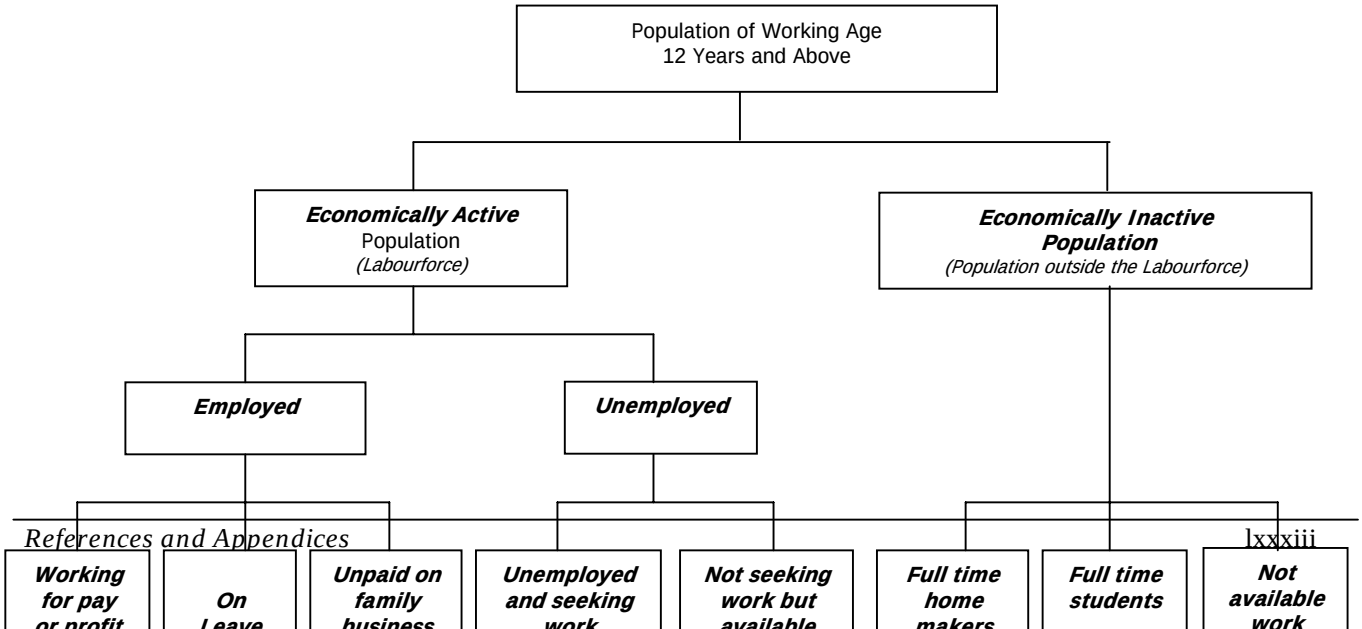


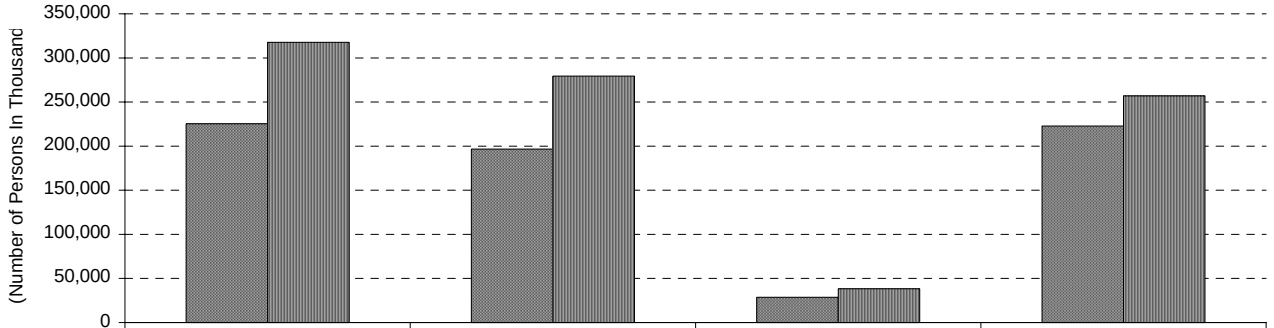
Table 6.1 presents population 12 years and over by age group, residence and sex for 1990 and 2000. The working-age population in Central Province has increased by 25.9 percent. The increase of the male working-age population of 25.3 percent is lower than the increase of 26.5 percent for the female working-age population. In rural areas, the working-age population has increased by 33.9 percent, while in urban areas it has increased by only 7.4 percent. The increase of 34.4 percent for the male working-age population in rural areas is just marginally higher than the increase of 33.4 percent for the female working-age population; In urban areas, on the other hand, the increase of 4.7 percent in the male working-age population was less than the increase in the female working-age population of 10.1 percent

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

Residence and Sex	Year	Size	Total	12-19	20-24	25-29	30-59	60+	Not Stated
Total	1990	456,197	100	34	16	12	31	6	1
	2000	574,506	100	32	16	13	33	7	0
Percent increase		25.9							
Male	1990	227,104	100	33	15	11	32	8	1
	2000	284,663	100	32	15	12	33	8	0
Percent increase		25.3							
Female	1990	229,093	100	34	16	12	33	5	0
	2000	289,843	100	32	17	13	33	6	0
Percent increase		26.5							
Residence									
Rural									
Total	1990	319,436	100	34	15	11	30	9	1
	2000	427,675	100	31	15	12	33	8	0
Percent increase		33.9							
Male	1990	157,966	100	34	15	11	30	9	1
	2000	212,302	100	31	14	12	33	9	0
Percent increase		34.4							
Female	1990	161,470	100	33	16	11	33	6	1
	2000	215,373	100	31	16	12	33	7	0
Percent increase		33.4							
Urban									
Total	1990	136,761	100	35	16	12	34	3	0
	2000	146,831	100	34	17	13	33	4	0
Percent increase		7.4							
Male	1990	69,138	100	33	15	12	36	3	1
	2000	72,361	100	33	16	13	34	4	0
Percent increase		4.7							
Female	1990	67,623	100	37	17	13	30	3	0
	2000	74,470	100	34	18	13	31	4	0
Percent increase		10.1							

Sources: 1990 and 2000 Censuses of Population and Housing

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



	Labour Force	Employed	Unemployed	Inactive
1990	225,287	196,663	28,624	222,862
2000	317,676	279,347	38,329	256,830

Sources: 1990 and 2000 Censuses of Population and Housing

6.4 The Economically Inactive Population

Table 6.2 shows the current economically inactive population by reason of activity, residence and sex in 2000. Almost two thirds (63.5 percent) of the inactive population is female, while over a third (36.5 percent) are male. About 68 percent are in rural areas while 32 percent are in urban areas. Studying (42.9 percent) is the most important reason for inactivity, followed by homemaking (36.5) and lastly other reasons (20.6 percent). Groups of people included in the category of those who are economically inactive for "other reasons" include pensioners, those that are too old to work, prisoners, invalids, beggars and the disabled. In both rural and urban areas, the reason for inactivity are in the order similar to the one for the whole province. However, it can be noted that there are slightly more home makers in the rural areas of Central province (36.9 percent) than in the urban areas (35.7 percent); more students in the urban areas (46.2 percent) than in the rural areas (41.3 percent); there are more economically inactive people for other reasons in rural areas (21.8 percent) compared to urban areas (18.1 percent).

In 2000, males are economically inactive mainly because of studying (65.4 percent) while females are inactive primarily because of home making (53.8 percent).

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

Residence and Sex	Reason For Inactivity				
	Total Number	Total	Home Maker	Student	Other
Central Province					
Total	256,830	100.0	36.5	42.9	20.6
Rural	174,873	100.0	36.9	41.3	21.8
Urban	81,957	100.0	35.7	46.2	18.1
Sex					
Male	93,683	100.0	6.4	65.4	28.2
Female	163,147	100.0	53.8	30.0	16.3

Source: 2000 Census of Population and Housing

6.5 Economically Active Population (Labour Force)

Figure 6.1 gives an illustration of the economically active population and economically inactive population. The economically active population by residence and sex are given in

Table 6.5. According to this table, the labour force increased by 41 percent, from 225,287 in 1990 to 317,676 in 2000 in absolute terms. However, the average annual growth rate was 3.5 percent. Its average annual growth rate in labour force between 1990 and 2000 was lower than the national average of 3.8 percent, presenting a deviation of 0.3 percentage points. The increase of 64 percent in the female labour force was more than the increase of 29 percent in the male labour force. A big proportion of the labour force (74.0 percent in 1990 and 79.6 percent in 2000) was in rural areas, as compared to the labour force in urban areas (26.0 percent in 1990 and 20.4 percent in 2000).

TABLE 6.3: TRENDS IN THE LABOUR FORCE AND AVERAGE ANNUAL GROWTH RATE OF THE LABOUR FORCE BY DISTRICT, CENTRAL PROVINCE, 1990 AND 2000

District	1990	2000	Average Annual Growth Rate
Zambia	2,162,487	3,165,151	3.8
Central Province	225,287	317,676	3.5
Chibombo	-	68,942	-
Kabwe Rural*	67,146	-	
Kabwe	45,033	46,201	0.3
Kapiri Mposhi*	-	76,283	-
Mkushi	36,336	35,937	-0.1
Mumbwa	39,835	48,134	1.9
Serenje	36,937	42,179	1.3

Sources: 1990 and 2000 Censuses of Population and Housing

Note:" *" Kabwe Rural was split into two districts (Chibombo and Kapiri Mposhi)

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

Mumbwa and Serenje districts recorded the highest average annual growth rates in the Labour force between 1990 and 2000 of 1.9 percent and 1.3 percent respectively. Mkushi recorded a negative average annual growth rate of –0.1 Percent. Kabwe also registered an average annual growth rate in the labourforce below the provincial level each at 0.3 Percent.

In terms of percentage distribution of the labourforce in 2000, Kapiri Mposhi district had the highest (24 Percent), followed by Chibombo and Mumbwa districts with 21.7 percent and 15.2 percent respectively. Mkushi and Serenje districts had the least with 11.3 percent and 13.3 percent respectively.

Table 6.4: Distribution of the Labour force (Percent) by District, Central Province, 2000

District	Total	Male	Female
Central Province Total Labourforce:	317,676	190,980	126,696
Total Percent	100.0	100.0	100.0
Chibombo	21.7	23.4	19.1
Kabwe	14.5	16.1	12.2
Kapiri Mposhi	24.0	21.8	27.4
Mkushi	11.3	11.4	11.2
Mumbwa	15.2	14.5	16.1
Serenje	13.3	12.8	14.0

Sources: 1990 and 2000 Censuses of Population and Housing

Of the 317,676 total labour force in Central province in 2000, 279,347 or 88 percent were employed. The employed population increased by 42.0 percent from 196,663 in 1990 to 279,347 in 2000. The proportion of the employed population residing in rural areas had

increased from 74.0 percent in 1990 to 83.1 percent in 2000 while the proportion of the employed labour force residing in urban areas has decreased from 26.0 percent in 1990 to 16.9 percent in 2000.

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

According to Table 6.5 the unemployed population had increased by 33.9 percent from 28,624 in 1990 to 38,329 in 2000. The increase of 42.5 percent in the male unemployed population was much more than the increase in the female unemployed population of 20.9 percent.

In 1990 there were more unemployed persons in the rural areas (70 percent for total; 72 percent for males and 67 percent for females) than in the urban areas (30 percent for total; 28 percent for males and 33 percent for females). In 2000 the same situation prevails, there are more unemployed persons residing in the rural areas (54.1 percent for total; 55.3 percent for males and 52 percent for females) compared to urban areas (45.9 percent for total; 44.7 percent for males and 48 percent for females). However, the proportion of the unemployed residing in urban areas increased in 2000.

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

Activity and Sex	Residence							
	1990				2000			
	Total Number	Total	Rural	Urban	Total Number	Total	Rural	Urban
Population								
Total	456,197	100	70.0	30.0	574,506	100	74.4	25.6
Male	227,104	100	70.0	30.0	284,663	100	74.6	25.4
Female	229,093	100	71.0	29.0	289,843	100	74.3	25.7
Labour Force								
Total	225,287	100	74.0	26.0	317,676	100	79.6	20.4
Male	147,935	100	72.0	28.0	190,980	100	77.6	22.4
Female	77,352	100	77.0	23.0	126,696	100	82.5	17.5
Employed								
Total	196,663	100	74.0	26.0	279,347	100	83.1	16.9
Male	130,683	100	72.0	28.0	166,398	100	80.9	19.1
Female	65,980	100	79.0	21.0	112,949	100	86.3	13.7
Unemployed								
Total	28,624	100	70.0	30.0	38,329	100	54.1	45.9
Male	17,252	100	72.0	28.0	24,582	100	55.3	44.7
Female	11,372	100	67.0	33.0	13,747	100	52.0	48.0
Inactive								
Total	222,862	100	66.0	34.0	256,830	100	68.1	31.9
Male	75,057	100	64.0	36.0	93,683	100	68.4	31.6
Female	147,805	100	67.0	33.0	163,147	100	67.9	32.1
Not Stated								
Total	8,047	100	74.0	26.0	-	-	-	0
Male	4,111	100	74.0	26.0	-	-	-	0
Female	3,936	100	74.0	26.0	-	-	-	0

Sources: 1990 and 2000 Censuses of Population and Housing

The economically inactive population comprises all persons 12 years and over who are classified neither as employed nor as unemployed during the reference period; i.e. the part of the population that is considered to be outside the labour force. This category includes all persons who are full time housewives/homemakers, full time students and those who are not available for work aged 12 years and over.

Out of the total working population of 574,506, 256,830 were classified as being economically inactive. The economically inactive population had increased by 15.2 percent from 222,862 in 1990 to 256,830 in 2000. Economic inactivity for males increased by 24.8 percent from 75,057 in 1990 to 93,683 in 2000. Similarly, female economic inactivity increased by 10.4 percent from 147,805 in 1990 to 163,147 in 2000. In 2000 there were more economically inactive persons in the rural areas than in the urban areas. The same situation pertained for 1990 with more economically inactive persons residing in the rural areas than in the urban areas.

Table 6.6 shows the economically active and economically inactive population by age, sex and nature of current economic activity.

For the Labour force and the employed, the peak age group was 35-54 years (27 percent for total; 27.9 percent for males and 25.7 percent for females and 28.7 percent for total;29.4 percent for males and 27.6 percent for females, respectively).

For the unemployed population, the peak was in the age groups 12-19 years (28.9 percent for total: 23.8 percent for males and 38.0 percent for females) and 20-24 (27.9 percent for total; 27.4 percent for males and 28.8 percent for females).

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

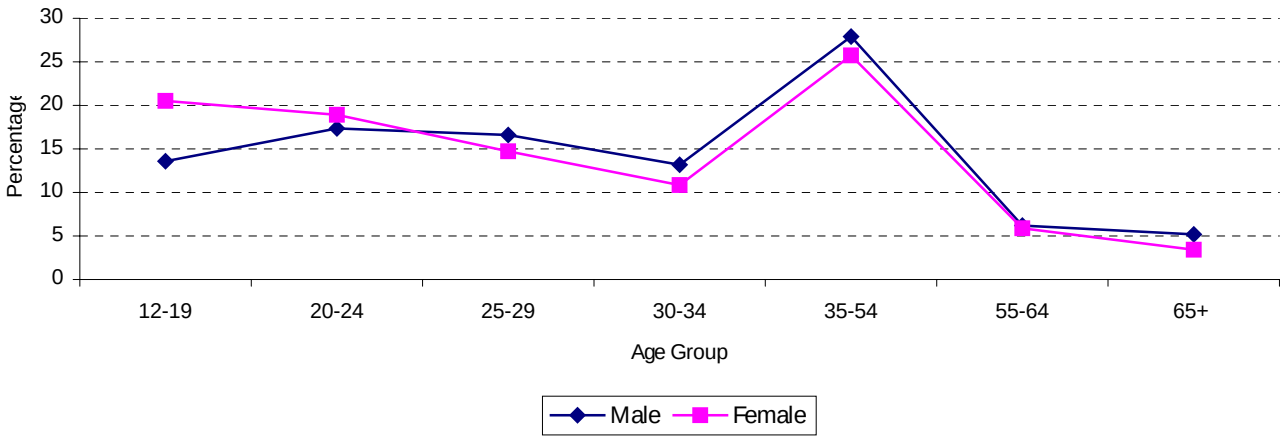
Figure 6.3 shows a diagrammatic presentation by age and sex of the economically active population in 2000. The peak is in the age-range 35-54

Table 6.6: Economically Active Population (12 Years and Over) by Age, Sex, and nature of current Economic Activity, Central Province, 2000

Activity and Sex	Total Number	Total	Age Group							
			12-19	20-24	25-29	30-34	35-54	55-64	65+	Not Stated
Labour Force										
Total	317,676	100.0	16.3	18.0	15.8	12.2	27.0	6.1	4.5	0.0
Male	190,980	100.0	13.6	17.4	16.6	13.2	27.9	6.2	5.2	0.0
Female	126,696	100.0	20.5	18.9	14.7	10.8	25.7	5.9	3.4	0.0
Employed										
Total	279,347	100.0	14.6	16.6	15.8	12.7	28.7	6.6	4.9	0.0
Male	166,398	100.0	12.1	15.9	16.5	13.6	29.4	6.8	5.7	0.0
Female	112,949	100.0	18.4	17.7	14.8	11.3	27.6	6.4	3.7	0.0
Unemployed										
Total	38,329	100.0	28.9	27.9	15.9	9.1	14.9	2.1	1.2	0.0
Male	24,582	100.0	23.8	27.4	17.2	10.3	17.6	2.4	1.3	0.0
Female	13,747	100.0	38.0	28.8	13.7	6.8	10.2	1.5	1.0	0.0
Inactive										
Total	256,830	100.0	50.8	13.1	8.4	6.1	13.3	3.6	4.6	0.0
Male	93,683	100.0	68.5	9.9	4.0	2.9	6.8	2.8	5.1	0.0
Female	163,147	100.0	40.7	14.9	11.0	8.0	17.1	4.0	4.4	0.0

Source: 2000 Census of Population and Housing

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



Source: 2000 Census of Population and Housing

6.6. Economic Dependency Ratios

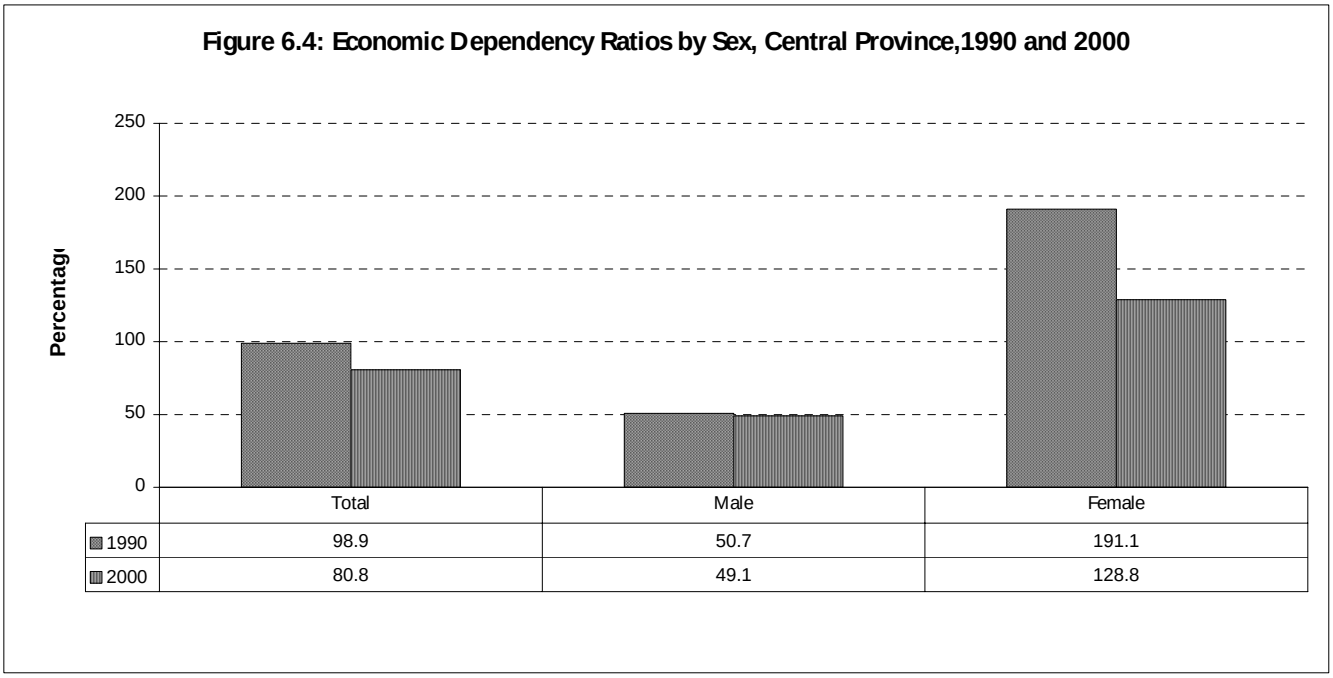
Table 6.7 shows the current economically active population and economic dependency ratios by sex and residence. The table shows that the ratios have decreased for all the categories. Notable decreases are for females from 191 percent in 1990 to 129 percent in 2000 and rural areas (89 percent in 1990 to 69 percent in 2000). The dependency ratio for urban areas decreased by only about 2 percent. A diagrammatical illustration of the decreases are indicated in figure 6.4.

The decline in the economic dependency ratio at national level between 1990 and 2000 was significantly more than the decline of the ratio in the province (114 in 1990 to 79 in 2000 at national level versus 99 in 1990 to 81 in 2000 at provincial level). The economic dependency ratio for the province was slightly higher than the national economic dependency ratio, in 2000.

Table 6.7: Current Economically active Population and Economic Dependency Ratios by Sex and Residence, Central Province, 1990 and 2000

Labour Force	1990	2000
Total Zambia	2162487	3165151
Total Central Province	225,287	317,676
Male	147,935	190,980
Female	77,352	126,696
Rural	166,174	252802
Urban	59,113	64874
Economic dependency ratios (Percentage)		
Total Zambia	114	79
Total Central Province	99	81
Male	51	49
Female	191	129
Rural	89	69
Urban	128	126

Sources: 1990 and 2000 Censuses of Population and Housing



Sources: 1990 and 2000 Censuses of Population and Housing

6.7 Current Labour Force Participation Rates

Labour force participation rates by age, sex, and residence are shown in Table 6.8. There has been an increase in the working-age population involved in economic activities between the two censuses. The labour force

participation rate increased from 49 percent in 1990 to 55 percent in 2000. The increase in the female labour force from 34 percent to 44 percent was more than the increase for males from 65 percent to 67 percent.

The provincial labour force participation rates were slightly below the national rates, in 2000 (55.3 percent compared to 56 percent). In contrast, in 1990 the provincial labour force participation rates were higher than the national labour force participation rates.

The Labour force participation rates increased most in Mkushi district (53 percent in 1990 to 59.6 percent in 2000) followed by Mumbwa district (49.7 percent in 1990 to 54.8 percent in 2000). Kabwe and Serenje districts recorded declines (from 43 and 58 percent in 1990 to 42 and 56 percent in 2000, respectively).

Table 6.8: Trends in Labour force Participation Rates by District and Sex, Central Province,1990 and 2000

District	1990			2000		
	Total	Males	Females	Total	Males	Females
Zambia	**46.6**	**62.2**	**31.9**	**56.0**	**67.0**	**45.0**
Central Province	49.4	65.1	33.8	55.3	67.1	43.7
Chibombo	-	-	-	52.2	68.4	36.4
Kabwe Rural*	48.2	64.8	31.7	-	-	-
Kabwe	43.3	60.3	25.7	42.5	57.3	28.1
Kapiri Mposhi	-	-	-	68.9	75.5	62.5
Mkushi	52.8	67.8	37.2	59.6	71.2	47.7
Mumbwa	49.7	65.3	34.5	54.8	63.8	46.0
Serenje	57.9	70.8	46.1	56.2	67.0	46.0

Sources: 1990 and 2000 Censuses of Population and Housing

Note:" *" Kabwe Rural was split into two districts (Chibombo and Kapiri Mposhi)

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

The increase in the rural labour force participation rate (from 52 percent to 59 percent) was greater than the increase in the urban areas (from 43 percent in 1990 to 44 percent in 2000).

The increase in labour force participation rates were greater for females than for males in rural areas. In the rural areas, the female participation rate had increased from 37 percent in 1990 to 49 percent in 2000, while the male participation rate had increased from 67 percent in 1990 to 70 percent in 2000. In the urban areas, the female labour force participation rate had increased from 26 percent in 1990 to 30 percent in 2000, in contrast participation rate of males had declined slightly from 60 percent in 1990 to 59 percent in 2000.

An examination of the labour force participation rates by age reveal that they were lowest (15.7 percent) in the age-group 12-14 years, rose with the increase in ages to reach a peak of 72.2 percent for the age-group 40-44 years, and then started to decline until it reached 42.4 percent for the oldest age-group 75 years and over. The pattern of the distribution of the labour force participation rates by age in urban areas were similar to the pattern described above for the total population, in rural areas the peak was reached in the age group 45-49. The pattern for the sexes in urban central province is slightly different in that the peak for males and females was reached in the age group 35-39.

The male labour force participation rates were higher than those for females at every age-group; this pattern was the same between the two sexes and in both rural and urban areas, except in rural areas where the female participation rates were slightly higher than those for males in the age group 15-19.

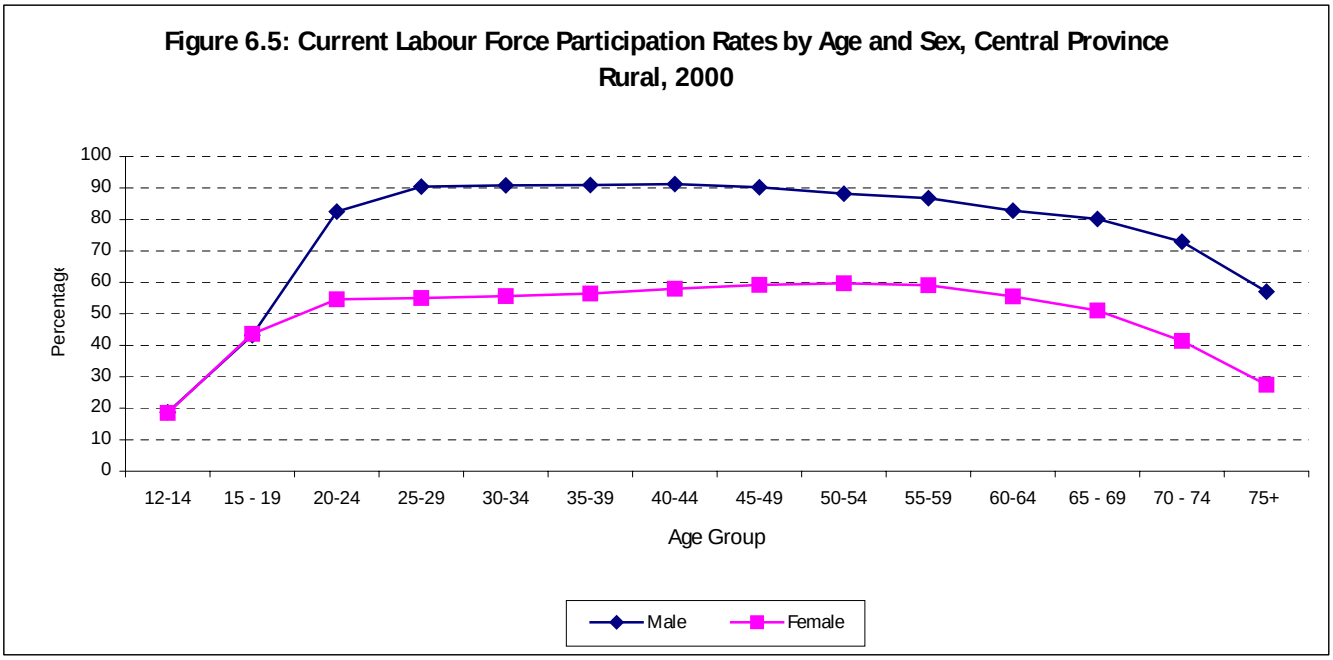
Table 6.9: Current Labour Force Participation Rates by Age, Sex and Residence, Central Province, 1990 and 2000

Year	Current Participation Rates								
	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
1990	49	65	34	52	67	37	43	60	26

2000	55	67	44	59	70	49	44	59	30
2000 Census Age Group									
Total									
12 – 14	15.7	16.0	15.4	18.6	18.8	18.5	6.9	7.1	6.7
15 – 19	36.8	37.5	36.2	43.4	43.3	43.6	20.3	22.8	18.0
20 – 24	63.0	78.2	49.7	67.6	82.5	54.7	50.8	67.0	36.3
25 – 29	69.9	89.4	51.0	72.6	90.4	55.1	62.3	86.6	39.7
30 – 34	71.2	90.2	51.4	73.7	90.8	55.6	64.2	88.4	39.8
35 – 39	71.2	90.5	52.8	73.3	90.9	56.5	65.5	89.5	42.4
40 – 44	72.2	90.7	53.8	74.3	91.2	57.9	66.5	89.3	41.9
45 – 49	72.1	88.6	55.0	74.5	90.3	59.2	65.1	84.3	41.2
50 – 54	70.3	85.8	55.0	73.3	88.2	59.7	59.9	78.7	36.1
55 – 59	69.6	84.1	54.4	73.0	86.8	59.1	54.0	72.8	30.4
60 – 64	65.6	79.5	51.4	69.3	82.8	55.6	45.7	61.7	29.9
65 – 69	63.1	76.6	46.8	67.1	80.1	51.1	37.9	53.0	21.4
70 – 74	55.7	69.7	38.1	59.1	72.9	41.4	33.6	47.2	18.9
75+	42.4	54.7	25.1	45.2	57.1	27.5	23.9	35.5	12.5

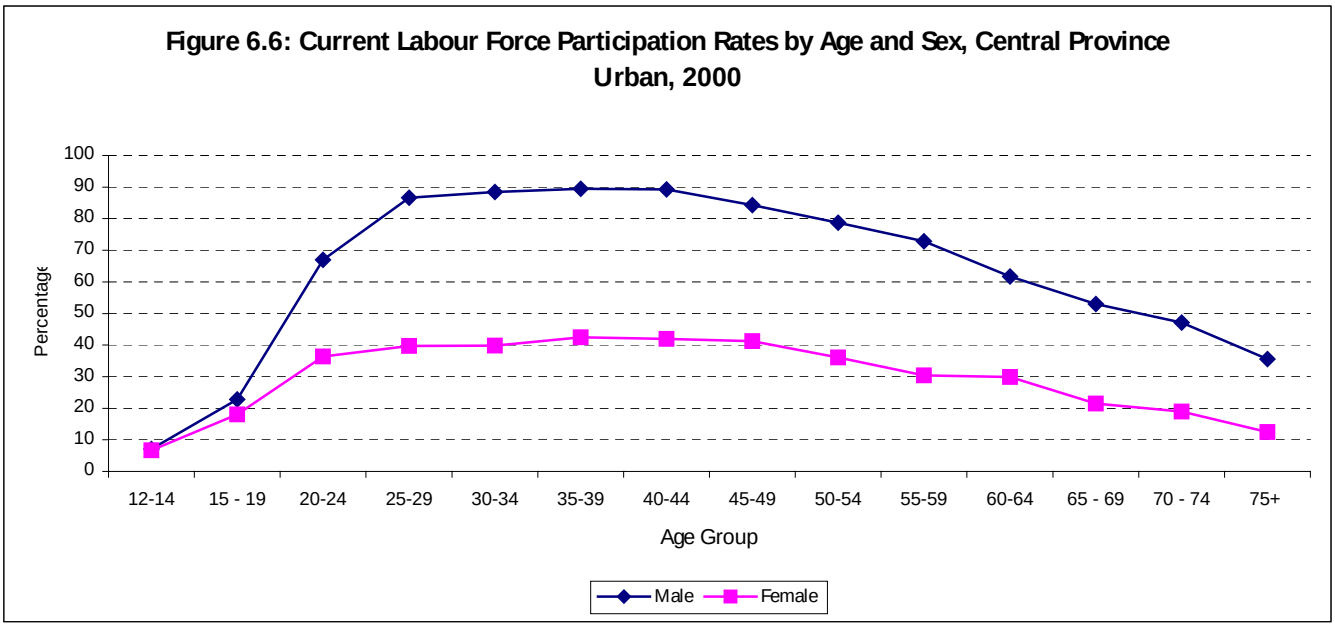
Sources: 1990 and 2000 Censuses of Population and Housing

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



Source: 2000 Census of Population and Housing

Figure 6.6: Current Labour Force Participation Rates by Age and Sex, Central Province Urban, 2000



Source: 2000 Census of Population and Housing

6.8 Employment Status, Occupation And Industrial Classification

The occupational and industrial structure and employment status of a country's labour force reflect the level of its economic development and the efficiency with which it uses and allocates its resources. If economic

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

6.8.1. Employment status

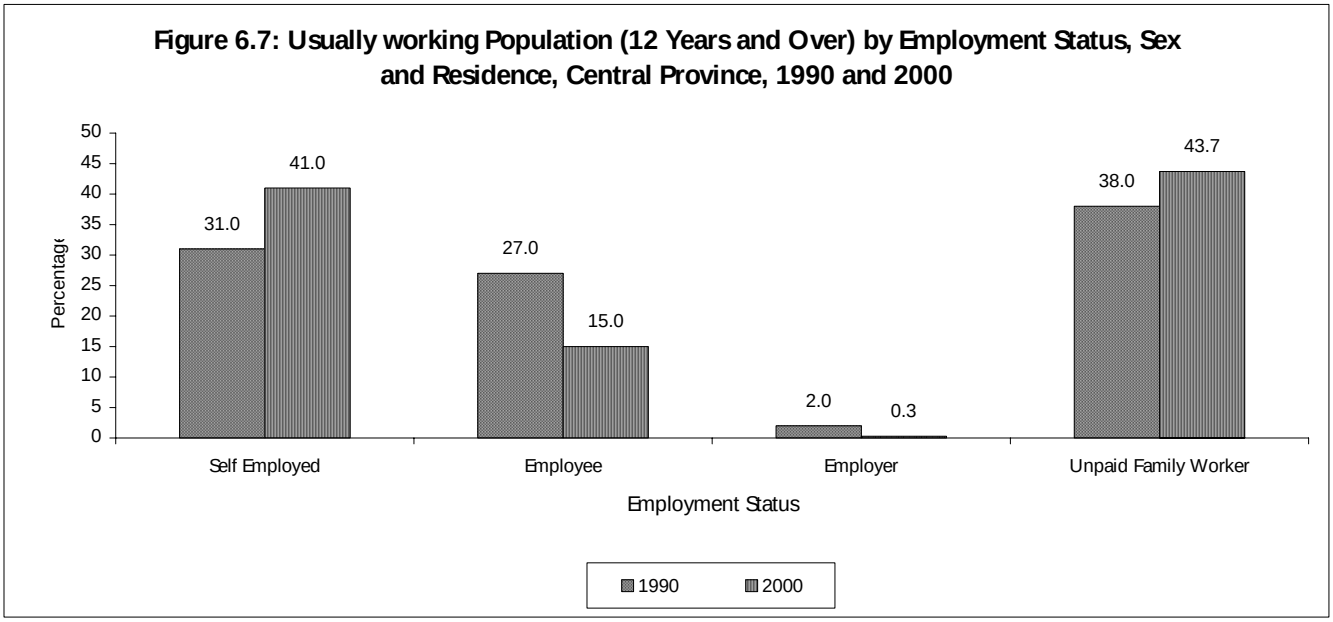
Table 6.10 shows that the usually working population increased by 52.9 percent between 1990 and 2000 from182,898 in 1990 to 279,720 in 2000. The national working population increased by the same percentage of 52.9 percent.

In terms of employment status, the total self-employed persons as a proportion of the total usually working population increased from 31 percent in 1990 to 41 percent in 2000. The ratio of the self-employed persons by sex also increased between the two periods. However, the increase in the male self- employed persons (from 32 percent in 1990 to 49.7 percent in 2000) is more than the increase in the female self-employed persons (from 28 percent in 1990 to 29.3 percent in 2000). With regard to residence, a similar pattern was observed where the proportion of the male self-employed population had increased by a bigger percentage (from 37 percent in 1990 to 53.2 percent for the rural areas and from 19 percent to 34.8 percent for the urban areas) than the female self-employed population which had increased from 26 percent in 1990 to 27.8 percent in 2000 for the rural areas and from 37 percent in 1990 to 39.5 percent in 2000 for urban areas.

There was a decrease in the proportion of the workforce classified as employers. From a proportion of 2.0 percent in 1990, it dropped to 0.3 percent in 2000. A similar trend by sex and residence is observed.

The proportion of the total population classified as employees decreased from 27 percent in 1990 to 15 percent in 2000. A similar pattern by sex and residence was observed. This decrease was significantly higher in the proportion of males classified as employees than in females.

The proportion of the unpaid family workers had increased in general from 38 percent in 1990 to 43.7 percent in 2000. There were larger increases in the proportion of the urban unpaid family workers especially for females who increased from 17 percent in 1990 to 20.9 percent in 2000. The biggest decrease was in the proportion of male unpaid family workers in the rural areas (from 40 percent in 1990 to 34.4 percent in 2000).



Sources: 1990 and 2000 Censuses of Population and Housing

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

Employment Status and Sex	Residence and Year					
	Total		Rural		Urban	
	1990	2000	1990	2000	1990	2000
Total number						
Total	182,898	279,720	134,860	234,881	48,038	44,839
Male	123,119	160,281	87,830	130,488	35,289	29,793
Female	59,779	119,439	47,030	104,393	12,749	15,046
Total percentage						
Total	100	100	100	100	100	100
Male	100	100	100	100	100	100
Female	100	100	100	100	100	100
Self-employed						
Total	31.0	41.0	33.0	41.9	24.0	36.4
Male	32.0	49.7	37.0	53.2	19.0	34.8
Female	28.0	29.3	26.0	27.8	37.0	39.5
Employee						
Total	27.0	15.0	15.0	8.3	62.0	50.6
Male	34.0	20.4	20.0	12.1	70.0	56.3
Female	14.0	7.9	7.0	3.4	40.0	39.1
Employer						
Total	2.0	0.3	1.0	0.2	3.0	0.6
Male	2.0	0.4	1.0	0.3	3.0	0.7
Female	1.0	0.1	1.0	0.1	2.0	0.5
Unpaid family worker						
Total	38.0	43.7	49.0	49.7	9.0	12.4
Male	30.0	29.5	40.0	34.4	6.0	8.1
Female	55.0	62.7	65.0	68.8	17.0	20.9

Employment Status and Sex	Residence and Year					
	Total		Rural		Urban	
	1990	2000	1990	2000	1990	2000
Not stated						
Total	2.0	0.0	2.0	0.0	3.0	0.0
Male	2.0	0.0	2.0	0.0	2.0	0.0
Female	2.0	0.0	2.0	0.0	4.0	0.0

Sources: 1990 and 2000 Censuses of Population and Housing

6.8.2 Working Population by Occupation

The distribution of male and female workers among occupations showed some similarities. The three most common occupations for males were Agriculture (57.0 percent in 1990 and 73.9 percent in 2000), Production and related workers (9.0 percent in 1990 and 7.2 percent in 2000), and Sales Workers (4.0 percent in 1990 and 5.3 percent in 2000).

The three most common occupations for females were Agriculture (60.0 percent in 1990 and 78.8 percent in 2000), Sales workers (8.0 percent in 1990 and 6.2 percent in 2000) and Production and related workers (2.0 in 1990 and 4.2 percent in 2000).

In rural areas, the distribution of workers among the various occupations was similar to the one for total Central province, except that the proportion of workers who were in Agriculture and related occupations was much higher in rural areas. The differences between the distributions of male and female workers over the various occupations in rural areas were not so significant. The distribution of workers over occupations in urban areas were different from both the total and that of the rural areas. In urban areas, workers were more widely distributed over many occupations, and not concentrated in few occupations. The four most common occupations in urban areas were Sales workers (24.7 percent in 2000), Agriculture (20.3 percent in 2000), Production and related workers (16.6 percent in 2000) and Professional, technical and related workers (12.5 percent in 2000).

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

Occupation	Year	Percentage of Working Population								
		Total			Rural			Urban		
		Both	Male	Female	Both	Male	Female	Both	Male	Female
Total Number of Workers	1990	182,898	123,119	59,779	134,860	87,830	47,030	48,038	35,289	12,749
	2000	279,720	160,281	119,439	234,881	130,488	104,393	44,839	29,793	15,046
Total Percent	1990	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	2000	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Prof. Tech. Related	1990	5.0	5.0	5.0	3.0	3.0	2.0	12.0	11.0	15.0
Workers	2000	3.4	4.0	2.7	1.7	2.2	1.1	12.5	11.6	14.2
Admin. & Managerial	1990	0.0	0.0	0.0	0.0	0.0	0.0	1.0	1.0	1.0
Workers	2000	0.2	0.2	0.0	0.0	0.1	0.0	0.8	1.0	0.3
Clerical & Related	1990	2.0	2.0	3.0	0.0	1.0	1.0	6.0	6.0	9.0
Workers	2000	0.9	1.1	0.7	0.2	0.3	0.1	4.5	4.4	4.6
Sales Workers	1990	5.0	4.0	8.0	2.0	2.0	2.0	15.0	10.0	29.0
	2000	5.7	5.3	6.2	2.1	1.9	2.3	24.7	20.3	33.3
Service Workers	1990	5.0	6.0	3.0	2.0	2.0	1.0	13.0	15.0	7.0
	2000	2.8	3.5	1.9	1.0	1.3	0.7	12.3	13.1	10.7
Agric.	1990	59.0	57.0	60.0	75.0	74.0	76.0	13.0	13.0	11.0
	2000	76.0	73.9	78.8	86.6	86.1	87.2	20.3	20.5	19.8
Prod. & Transport	1990	7.0	9.0	2.0	3.0	4.0	1.0	17.0	21.0	6.0
Workers	2000	5.9	7.2	4.2	3.9	4.0	3.6	16.6	20.9	8.2
Unclassified	1990	1.0	2.0	2.0	1.0	1.0	1.0	3.0	3.0	2.0
	2000	0.3	0.2	0.5	0.3	0.1	0.5	0.3	0.3	0.3

Not Stated	1990	16.0	15.0	17.0	14.0	13.0	16.0	20.0	20.0	20.0
	2000	4.9	4.8	5.0	4.2	4.1	4.5	8.1	7.9	8.5

Source: 1990 and 2000 Censuses of Population and Housing

Figure 6.8: Usually Working Population (12 Years and Over) by Occupation, Central Province, 1990 and 2000

Sources: 1990 and 2000 Censuses of Population and Housing

6.8.3 Working Population by Industry

The distribution of the usually working population 12 years and over by industry and employment status for 1990 and 2000 is shown in Table 6.12.

The industrial structure in Central province continues to be dominated by the Agriculture industry. In 2000 the Agriculture sector employed 77.4 percent of the labour force, the Mining industry employed 0.3 percent. In comparison to 1990, agriculture and trade were the only sectors that had recorded an increase. Agriculture had increased from 60 percent in 1990 to 77.4 in 2000 and trade had increased from 3.0 percent in 1990 to 4.9 percent in 2000. The rest of the sectors had shown decreases. A study of the mobility of workers from one industry to another shows that apart from trade, all non-agricultural industries had experienced manpower losses during the 1990's, while the Agricultural and Trade industries are the only industries which gained manpower. The industrial distribution of workers by employment status revealed that the unpaid family workers (77 percent in 1990 and 90.1 percent in 2000) and the self-employed (75 percent in 1990 and 81 percent in 2000) are mostly in the Agricultural sector. Employees are more widely distributed over the industries than any other employment status. Employers were more predominant in Agriculture (38 percent in 1990 and 46 percent in 2000) and Community and Personal Services (21 percent in 1990 and 13 percent in 2000).

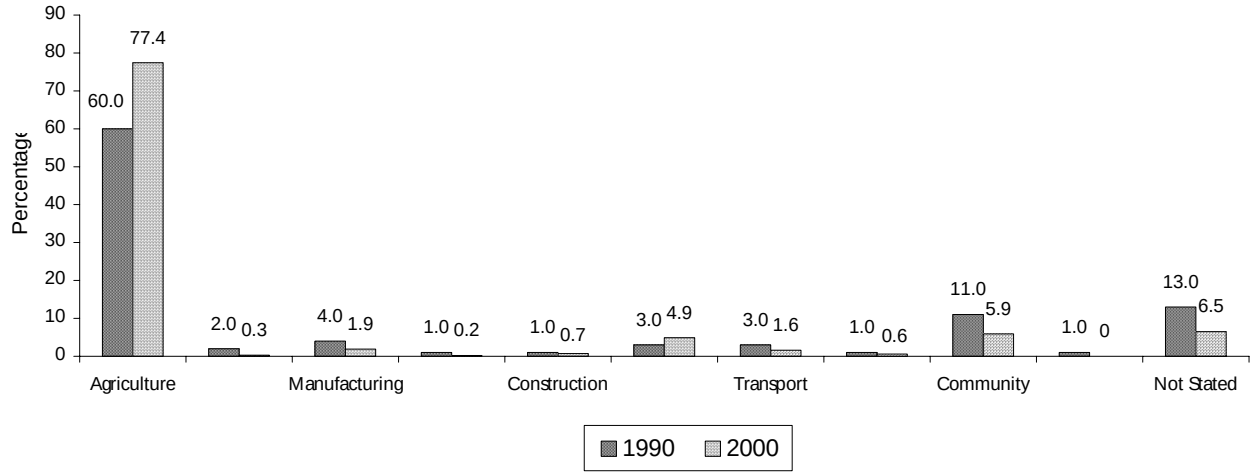
Table 6.12: Percent Distribution of the Usually Working Population (12 Years and Over) by Employment Status and Industry, Central Province, 1990 and 2000

Industry and Year		Total Number Working	Self-Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total Number	1990	182,898	56,068	50,571	2,893	69,615	3,751
	2000	279,720	114,675	42,060	716	122,269	0.0
Total Percentage	1990	100.0	100.0	100.0	100.0	100.0	100.0
	2000	100.0	100.0	100.0	100.0	100.0	0.0
Agriculture	1990	60.0	75.0	25.0	38.0	77.0	25.0
	2000	77.4	81.2	30.5	46.1	90.1	0.0
Mining	1990	2.0	0.0	5.0	2.0	0.0	1.0
	2000	0.3	0.0	1.8	0.6	0.0	0.0
Manufacturing	1990	4.0	3.0	9.0	8.0	0.0	3.0
	2000	1.9	1.8	6.5	5.3	0.4	0.0
Electricity	1990	1.0	0.0	2.0	2.0	0.0	1.0
	2000	0.2	0.0	1.3	0.7	0.0	0.0
Construction	1990	1.0	1.0	4.0	3.0	0.0	1.0
	2000	0.7	0.7	2.3	2.2	0.1	0.0

Trade	1990	3.0	6.0	4.0	5.0	1.0	2.0
	2000	4.9	7.4	6.5	16.3	2.0	0.0
Transport	1990	3.0	0.0	10.0	8.0	0.0	2.0
	2000	1.6	0.3	9.3	4.7	0.1	0.0
Finance	1990	1.0	2.0	2.0	2.0	0.0	1.0
	2000	0.6	0.6	1.8	1.5	0.2	0.0
Community	1990	11.0	6.0	28.0	21.0	1.0	6.0
	2000	5.9	1.9	31.0	13.0	1.1	0.0
Other	1990	1.0	1.0	2.0	2.0	1.0	0.0
	2000	0.0	0.0	0.0	0.0	0.0	0.0
Not Stated	1990	13.0	6.0	9.0	9.0	20.0	58.0
	2000	6.5	6.0	9.0	9.5	6.1	0.0

Source: 1990 and 2000 Censuses of Population and Housing

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



Sources: 1990 and 2000 Censuses of Population and Housing

The distribution of the usually working population by employment status in each industry is shown in Table 6.13. Unpaid family workers (38.0 percent in 1990 and 43.7 percent in 2000) was the most predominant status for all industries. The Employees are prominent in all industries, except in Agriculture in both 1990 and 2000. The employment status of employer is not very predominant in any industry in both Censuses. Self-employed is prominent in the Trading, Agricultural and Construction industries in 2000 (62 percent in Trade, 43 percent in Agriculture and Construction). Unpaid family workers are dominant in the Agricultural industry in both Censuses.

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

Industry and Year		Total Number Working	Total	Self-Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total	1990	182,898	100.0	31.0	28.0	2.0	38.0	2.0
	2000	279,720	100.0	41.0	15.0	0.3	43.7	0.0
Total Percentage	1990	110,139	100.0	38.0	12.0	1.0	48.0	1.0
	2000	216,468	100.0	43.0	5.9	0.2	50.9	0.0
Agriculture	1990	2,647	100.0	2.0	95.0	2.0	0.0	1.0
	2000	829	100.0	6.3	91.8	0.5	1.4	0.0
Mining	1990	6,543	100.0	22.0	69.0	4.0	4.0	1.0
	2000	5,382	100.0	39.1	50.8	0.7	9.3	0.0

Manufacturing	1990	911	100.0	3.0	89.0	6.0	1.0	1.0
	2000	611	100.0	8.0	90.7	0.8	0.5	0.0
Electricity	1990	2,694	100.0	16.0	76.0	3.0	3.0	2.0
	2000	1,853	100.0	43.2	52.4	0.9	3.6	0.0
Construction	1990	5,805	100.0	56.0	34.0	3.0	6.0	1.0
	2000	13,767	100.0	61.6	19.9	0.8	17.6	0.0
Trade	1990	5,375	100.0	3.0	90.0	5.0	1.0	1.0
	2000	4,361	100.0	8.1	89.5	0.8	1.6	0.0
Transport	1990	2,167	100.0	43.0	49.0	2.0	4.0	2.0
	2000	1,614	100.0	39.5	45.9	0.7	13.9	0.0
Finance	1990	19,583	100.0	17.0	74.0	3.0	5.0	1.0
	2000	16,618	100.0	13.1	78.4	0.6	7.9	0.0
Community	1990	2,682	100.0	16.0	47.0	2.0	32.0	3.0
	2000	0	0.0	-	-	-	-	-
Other	1990	24,352	100.0	15.0	19.0	1.0	56.0	9.0
	2000	18,217	100.0	37.9	20.8	0.4	40.9	0.0

Sources: 1990 and 2000 Censuses of Population and Housing

Table 6.14 and Table 6.15 shows the distribution of the usually working population by industry, sex and residence for the year 2000. The majority of the labour force were employed in the agricultural sector (77 percent) followed by Community and Personal services sector with 6 percent. By residence, the rural areas employ 88 percent in the Agricultural industry. Whereas in urban areas Agriculture, Trade, Restaurants and Hotels and Community and Personal services sectors account for 21 percent, 22 percent and 23 percent respectively.

Table 6.14: Percent Distribution of Working Population by Industry, Residence and Sex, Central Province, 2000

Industry	Total Number	Rural	Urban	Male	Female
Agriculture	77.4	88.1	21.4	74.8	80.8
Mining & Quarrying	0.3	0.2	0.9	0.5	0.0
Manufacturing	1.9	0.7	8.2	2.3	1.5
Electricity, Gas & Water	0.2	0.1	1.0	0.3	0.0
Construction	0.7	0.4	2.0	1.1	0.1
Trade, Restaurant and Hotel	4.9	1.7	21.6	4.6	5.3
Transport and Communication	1.6	0.4	7.8	2.5	0.2
Finance and Real Estates	0.6	0.3	2.2	0.6	0.5
Community and Personal Services	5.9	2.8	22.5	6.5	5.2
Not Stated	6.5	5.4	12.4	6.7	6.3
Percent Total	100.0	100.0	100.0	100.0	100.0
Total Number	279,720	234,881	44,839	160,281	119,439

Sources: 2000 Census of Population and Housing

Disaggregated by Sex, 81 percent of the total usually working population of females were in the Agricultural sector while 5 percent were in the Trade, Restaurant and Hotel sector and the Community and Personal Services.

Table 6.15 Percent Distribution of the Usually Working Population by Industry, Residence and Sex, Central Province, 2000

Central Province	Total Number	PercentTotal	Male	Female	Rural Total	PercentTotal	Male	Female	Urban Total	Percent Total	Male	Female
Total	279,720	100	57	43	234,881	100	56	44	44,839	100	66	34
Agriculture	216,468	100	55	45	206,865	100	55	45	9,603	100	67	33
Mining & Quarrying	829	100	96	4	439	100	95	5	390	100	97	3
Manufacturing	5,382	100	67	33	1,692	100	49	51	3,690	100	76	24
Electricity, Gas & Water	611	100	91	9	173	100	98	2	438	100	88	12
Construction	1,853	100	96	4	944	100	97	3	909	100	94	6
Trade, Restaurant and Hotel	13,767	100	54	46	4,078	100	52	48	9,689	100	54	46
Transport and Communication	4,361	100	94	6	881	100	98	2	3,480	100	92	8
Finance and Real Estates	1,614	100	62	38	617	100	60	40	997	100	63	37
Community and Personal Services	16,618	100	63	37	6,526	100	63	37	10,092	100	62	38

Sources: 2000 Census of Population and Housing

For males, 75 percent were in the agricultural sector while 7 percent are in Community and Personal services sector. For the total working population by industry, sex and residence, 57 percent were males and 43 percent were females. The Mining, Electricity, Construction and Transport sector account for the majority of the male working population of 96 percent, 91 percent, 96 percent and 94 percent respectively. The distribution by rural and urban does not differ much from the total distribution.

6.9 Educational Attainment

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

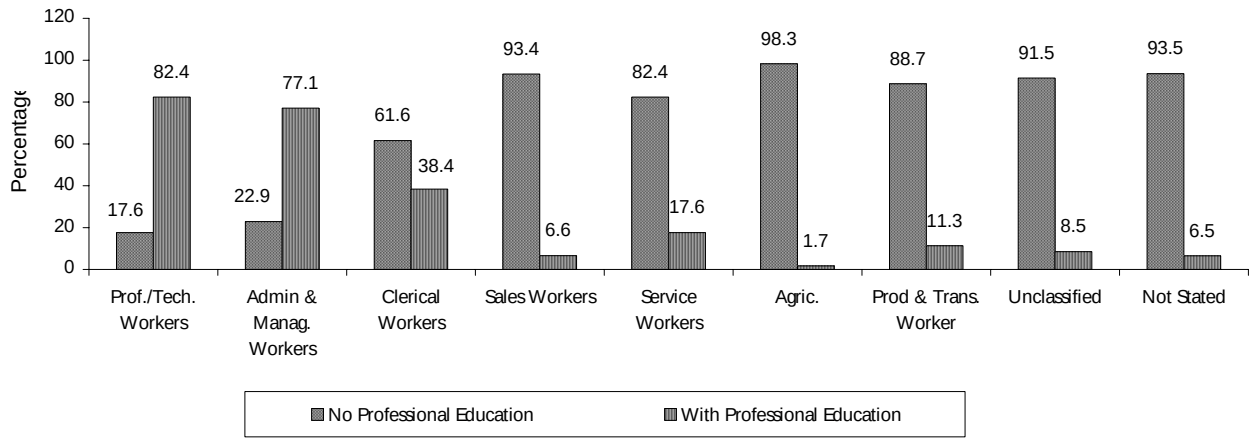
It is necessary for a country to invest time and money in the development of its human resources because of the benefits, which result from increased efficiency, and productivity of those who receive training. The specific type and number of skills required will be determined by the needs of economic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

Table 6.16, shows the distribution of the usually working population 12 years and over by professional/vocational training and occupation in 2000. According to this table, 93.5 percent of the province's working population had absolutely no professional /vocational education while only 6.5 percent had such education. Figure 6.10 shows the distribution among the various occupations, about four fifths of those in the Professional, Technical and related occupations had professional education, while a fifth did not have. Slightly more than three quarters of the Administrative and Managerial occupations had professional education while about a quarter did not have. For the Clerical and related workers only about two fifth had professional education. Over four fifths of the Sales, Service, Agriculture and Production workers do not have professional education. A comparison of the distribution of male and female workers by professional/vocational workers does not show significant differences.

An examination of the levels of training of those who reported to have had professional education shows that more than three quarters (77.5 percent) were trained at Certificate level, almost a fifth (18.0 percent) were trained up to Diploma level and only 4.4 percent were trained up to Degree level. The proportion that had been trained up to Degree level in the province was still very low by 2000 (refer to Table 6.16). A substantial number of workers trained up to Diploma level were in the three occupations; Administrative and managerial (49.4 percent); Professional and technical (23.2 percent) and Sales workers (22.6 percent). The majority (ranging from 36.5 percent to 91.9 percent) of the workers were trained up to Certificate level in all the remaining occupations. The proportion of Diploma

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

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



Source: 2000 Census of Population and Housing

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

Sex and occupational Category	Total usually Working Population	Working Population			Working Population With Professional Education				
		Total	No Professional Education	With Professional Education	Number Having Professional Education	Total	Certificate	Diploma	Degree
Both Sexes									
Total	279,720	100.0	93.5	6.5	18,172	100	77.5	18.0	4.4
Prof/Tech	9,622	100.0	17.6	82.4	58.5	100	71.0	23.2	5.8
Admin. Managerial	433	100.0	22.9	77.1	28.2	100	36.5	49.4	14.1
Clerical & Related	2,473	100.0	61.6	38.4	33.9	100	88.4	10.0	1.6
Sales workers	15,930	100.0	93.4	6.6	4.9	100	74.1	22.6	3.3
Service workers	7,894	100.0	82.4	17.6	15.9	100	90.5	7.2	2.3
Agric.	212,457	100.0	98.3	1.7	1.4	100	82.9	13.3	3.8
Production	16,514	100.0	88.7	11.3	10.4	100	91.9	6.8	1.3
Unclassified	819	100.0	91.5	8.5	5.3	100	61.4	25.7	12.9
Not stated. .	13,578	100.0	93.5	6.5	4.7	100	71.9	23.0	5.1
Males									
Total	160,281	100.0	91.9	8.1	13,002	100	74.2	20.6	5.2
Prof/Tech	6,360	100.0	20.7	79.3	5,046	100	64.7	27.8	7.5
Admin. Managerial	374	100.0	21.1	78.9	295	100	34.6	50.5	14.9
Clerical & Related	1,683	100.0	73.1	26.9	453	100	83.2	15.0	1.8
Sales workers	8,494	100.0	91.9	8.1	687	100	66.7	28.7	4.7
Service workers. .	5,576	100.0	79.2	20.8	1,161	100	89.8	7.8	2.5
Agric., Husbandry	129,889	100.0	96.4	3.6	4,680	100	84.6	12.4	3.0
Production	265	100.0	82.3	17.7	47	100	66.0	21.3	12.8
Unclassified	0	100.0	0.0	0.0	0	100	0.0	0.0	0.0
Not stated	7,640	100.0	91.7	8.3	633	100	66.2	27.8	6.0
Females									
Total	119,439	100.0	95.7	4.3	5,170	100	85.7	11.7	2.5
Prof/Tech workers.	3,262	100.0	11.6	88.4	2,882	100	82.1	15.2	2.7
Admin. Workers. .	59	100.0	33.9	66.1	39	100	51.3	41.0	7.7
Clerical & Related	790	100.0	37.2	62.8	496	100	93.1	5.4	1.4
Sales workers.	7,436	100.0	95.2	4.8	358	100	88.3	10.9	0.8
Service workers.	2,318	100.0	90.1	9.9	229	100	94.3	4.4	1.3
Agric., Husbandry	94,066	100.0	99.4	0.6	590	100	90.2	5.8	4.1
Production, Transport	5,016	100.0	94.0	6.0	300	100	97.3	2.0	0.7
Unclassified	554	100.0	95.8	4.2	23	100	52.2	34.8	13.0
Not stated.	5,938	100.0	95.7	4.3	253	100	86.2	11.1	2.8

Source: 2000 Census of Population and Housing

Table 6.17 shows the usual working population 12 years and over by professional/vocational training, occupation and sex in 1990 for Central province. Intercensal comparisons of training in human resources shows that the proportion of those having professional education declined from 9.2 percent in 1990 to 6.5 percent in 2000 while those having no professional qualification increased from 90.8 percent in 1990 to 93.5 percent in 2000. In all the occupations with the exception of agriculture and production there has been an increase in the proportion of personnel having professional education.

The comparison of those educational levels reached by those having professional/vocational training shows that the proportion of those who were trained at the level Certificate have declined from 81.0 percent in 1990 to 77.5 percent in 2000 while the proportion of those trained at diploma level remained stable at 18.0 percent in the intercensal period. The proportion of those trained at degree level increased from 1.0 percent in 1990 to 4.4 percent in 2000. The above pattern of change between the two censuses was maintained all the occupations. It must be noted that there was a remarkable increase in the proportion of those trained at Degree level in the two occupations of Administrative and Managerial from 3.2 percent in 1990 to 14.1 percent in 2000, and Professional and Technical from 1.7 percent in 1990 to 5.8 percent in 2000.

Although Central province has made big strides in increasing the number of workers who have received professional/vocational training at Certificate, Diploma and Degree levels in view of the fact that the province had very few persons with university education and with secondary education at the time of independence in 1964-the above data still shows that the bulk of the province's workforce is unskilled (and may hence have low productivity), while critical skills in the professional, Technical, administrative, managerial and related occupations may still be too inadequate to enable the province to sustain appreciable development efforts.

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

Sex and occupational Category	Total usually Working Population	Working Population			Working population with professional education				
		Total	No Professional Education	With Professional Education	Number Having Professional Education	Total	Certificate	Diploma	Degree
Both Sexes									
Total	182,898	100.0	90.8	9.2	16,773	100	81.0	18.0	1.0
Prof/Tech	9,891	100.0	32.1	67.9	3,143	100	73.0	25.2	1.7
Admin. Managerial	609	100.0	42.2	57.8	250	100	50.4	46.4	3.2
Clerical & Related	3,798	100.0	63.3	36.7	2,378	100	87.6	12.3	0.1
Sales workers	9,782	100.0	93.6	6.4	9,082	100	78.1	21.3	0.6
Service workers	8,711	100.0	85.0	15.0	7,361	100	91.4	8.4	0.2
Agric.	106,967	100.0	97.1	2.9	103,191	100	86.6	12.9	0.5
Production	11,909	100.0	87.7	12.3	10,363	100	88.8	11.2	0.1
Unclassified	2,780	100.0	90.6	9.4	2,495	100	76.4	20.5	3.1
Not stated	28,451	100.0	93.9	6.1	26,387	100	89.9	9.5	0.6
Males									
Total	123119	100.0	89.5	10.5	12,873	100	79.1	19.7	1.1
Prof/Tech	6898	100.0	34.5	65.5	4,467	100	67.7	30.2	2.1
Admin. Managerial	543	100.0	43.1	56.9	301	100	48.5	47.8	3.7
Clerical & Related	2442	100.0	73.7	26.3	635	100	82.4	17.3	0.3
Sales workers	5147	100.0	90.5	9.5	484	100	74.0	25.2	0.8
Service workers	7339	100.0	83.6	16.4	1,194	100	91.0	8.7	0.3
Agric., Husbandry	69815	100.0	96.1	3.9	4,044	100	86.8	12.8	0.4
Production	10587	100.0	87.3	12.7	210	100	73.8	23.3	2.9
Unclassified	1995	100.0	89.3	10.7	0	100	0.0	0.0	0.0
Not stated	18353	100.0	91.5	8.5	1,538	100	90.0	9.4	0.7
Females									
Total	59,779	100.0	93.4	6.6	3,900	100	87.1	12.3	0.6
Prof/Tech workers	2,993	100.0	26.5	73.5	2,188	100	83.9	15.1	1.0
Admin. Workers	66	100.0	34.4	65.6	42	100	64.3	35.7	0.0
Clerical & Related	1,356	100.0	44.6	55.4	744	94	92.1	1.5	0.0
Sales workers.	4,635	100.0	96.9	3.1	141	100	92.2	7.8	0.0

Service workers	1,372	100.0	92.4	7.6	104	100	95.2	4.8	0.0
Agric., Husbandry	37,152	100.0	99.1	0.9	331	100	91.2	8.8	0.0
Production, Transport	1,322	100.0	90.9	9.1	120	100	92.5	7.5	0.0
Unclassified	785	100.0	93.9	6.1	48	100	87.5	8.3	4.2
Not stated	10,098	100.0	98.2	1.8	182	100	89.6	10.4	0.0

Source: 1990 Census of Population and Housing

Table 6.18 shows the usually working population 12 years and over by field of training and professional/vocational training level completed by 2000. The biggest proportion of the province's workforce of 67.1 percent had not received training at any level by 2000. There was more concentration of training in the Social Sciences and Arts than in the Natural Sciences. The following are the five most important fields of training for those who received professional/vocational training in 2000: Teacher training (23.9 percent); Nursing (16.2 percent); Accountancy (6.2 percent); Agriculture (4.5 percent) and Mechanical Engineering (4.3 percent).

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

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

Field of Training	Total usually Working Population	No Professional Education	Professional/vocational training			
			Total	Certificate	Diploma	Degree
Total Working Number	279,720	261,548	18,172	14,085	3,280	807
Percent Total	100.0	100.0	100.0	100.0	100.0	100.0
Natural science	0.0	0.0	0.4	0.2	0.6	4.6
Civil engineering	0.0	0.0	0.6	0.4	0.9	2.0
Elec. & Electronic Engineering.	0.2	0.0	2.9	2.9	3.4	2.2
Mechanical Engineering	0.3	0.0	4.3	4.4	4.0	4.2
Chemical Engineering	0.0	0.0	0.2	0.2	0.3	0.2
Mining Engineering	0.1	0.0	0.8	0.8	0.5	0.7
Industrial Engineering	0.0	0.0	0.0	0.0	0.0	0.0
Metallurgical Engineering	0.0	0.0	0.2	0.2	0.3	0.2
Architectural& T/Planning	0.0	0.0	0.5	0.5	0.2	0.2
Other Engineering	0.1	0.0	1.2	1.2	1.4	1.0
Medicine and Surgery	0.1	0.0	0.9	0.4	2.2	3.6
Pharmacy	0.0	0.0	0.5	0.5	0.5	0.4
Dentistry	0.0	0.0	0.4	0.3	0.6	0.2
Nursing	1.1	0.0	16.2	17.7	13.0	3.2
Medical Technology	0.1	0.0	1.4	0.5	2.6	12.3
X-RAY Technology	0.0	0.0	0.2	0.0	0.3	3.6
Veterinary	0.0	0.0	0.3	0.3	0.2	1.2
Statistics	0.0	0.0	0.1	0.1	0.2	0.0
Mathematics	0.0	0.0	0.2	0.2	0.2	0.6
Computer Science	0.1	0.0	1.0	0.9	1.5	0.7
Economics	0.0	0.0	0.5	0.4	0.5	2.9
Accountancy	0.4	0.0	6.2	4.9	12.0	6.1
Teacher Training	1.6	0.0	23.9	23.8	25.9	17.1
Law and Jurisprudence	0.1	0.0	1.5	1.5	0.7	3.6
Journalism	0.0	0.0	0.3	0.1	0.7	0.6
Fine Arts	0.0	0.0	0.4	0.4	0.3	0.7
Physical Education	0.0	0.0	0.1	0.1	0.1	0.1
Library Science	0.0	0.0	0.2	0.2	0.2	0.0
Social Welfare	0.1	0.0	0.9	0.9	0.5	2.1
Criminology	0.1	0.0	1.7	2.1	0.3	0.6
Business Administration	0.2	0.0	2.9	1.9	6.7	4.8
Secretarial Training	0.1	0.0	2.2	2.5	1.2	0.1
Shorthand Typing	0.1	0.0	1.0	1.3	0.1	0.0
Clerical Typing	0.1	0.0	1.3	1.7	0.3	0.0
Operating of Office Machine	0.0	0.0	0.4	0.5	0.2	0.1
Service Trade	0.1	0.0	1.6	1.9	0.6	0.2
Radio & TV Broadcasting	0.0	0.0	0.1	0.1	0.1	0.2
Fire Protection & Fire Fighting	0.0	0.0	0.3	0.3	0.2	0.0

Field of Training	Total usually Working Population	No Professional Education	Professional/vocational training			
			Total	Certificate	Diploma	Degree
Agriculture, Forestry & Fishery	0.3	0.0	4.5	4.1	5.5	8.3
Food and drink Processing	0.0	0.0	0.4	0.4	0.6	0.1
Wood working	0.1	0.0	2.1	2.6	0.3	0.1
Textile Trades	0.1	0.0	1.7	2.0	0.4	0.9
Leather Trades	0.0	0.0	0.1	0.1	0.1	0.0
Other Programmers	0.8	0.0	12.7	13.7	9.1	9.5
No Training	67.1	71.8	0.0	0.0	0.0	0.0
Not stated	26.5	28.2	0.9	1.1	0.4	0.2

Source: 2000 Census of Population and Housing

6.10 Unemployment

Poor economic conditions are primarily responsible for unemployment, although demographic trends do affect the growth and composition of the labour force. A high unemployment rate generally means that many people are without jobs because of a shortfall in employment opportunities. The unemployment rate is found by measuring the number of unemployed persons against the labour force.

Table 6.19 and 6.20 show unemployment rates by sex and residence for 1990 and 2000. There was a decline in the overall unemployment rate from 13.0 percent in 1990 to 12.1 percent in 2000. Females had experienced a bigger drop from 15.0 percent in 1990 to 10.9 percent in 2000 while the male unemployment rate had increased slightly from 12.0 to 12.9 percent during the two reference periods.

In the rural areas the unemployment rate declined for both male and females. The total unemployment rate declined from 12.0 percent in 1990 to 8.2 percent in 2000. The Male unemployment rate declined from 12.0 percent in 1990 to 9.2 percent in 2000 while the Female unemployment rate declined from 13.0 percent in 1990 to 6.8 percent in 2000. However unemployment ratios increased in the urban areas. The total unemployment rate increased from 14.0 percent in 1990 to 27.1 percent in 2000. The increase in the male urban unemployment rate (from 12.0 percent in 1990 to 25.7 percent in 2000) was more than the increase in the urban female unemployment rate (from 21.0 percent in 1990 to 29.8 percent in 2000). The increase in the unemployment rates in the urban areas could be accounted for by the fact that there were a lot of job losses because a good number of companies were either liquidated or privatized. Correspondingly, this can explain the decrease in unemployment rates in the rural areas probably because those who lost jobs in the urban areas got employed in the rural areas.

The total unemployment rate for the province was below the national unemployment rate in 2000 (12 percent compared with the national rates of 13 percent). The same case prevailed in 1990.

Unemployment rates had increased most in Kabwe district (14.8 percent in 1990 to 28.7 percent in 2000). Mkushi also recorded an increase in the unemployment rate from 9.0 percent in 1990 to 11.3 percent in 2000. Mumbwa and Serenje districts recorded declines in unemployment rates, from 16 percent in 1990 to 12 percent in 2000 for Mumbwa and from 9 percent in 1990 to 5.3 percent in 2000 for Serenje. Disaggregated by sex, the unemployment rates for males increased most in Kabwe disrtict followed by Mkushi district. Serenje district registered the biggest decrease in the male unemployment rate from 9.0 percent in 1990 to 6.2 percent in 2000. The female unemployment rate increased most in Kabwe districts and declined most in Mumbwa district.

Table 6.19: Trends in Unemployment rates by District and Sex, Central Province, 1990 and 2000

District	1990			2000		
	Total	Male	Female	Total	Male	Female
Zambia	15.0	14.1	16.7	12.9	14.1	11.3
Central Province	13.0	12.0	15.0	12.1	12.9	10.9
Districts						
Chibombo	-	-	-	12.5	12.6	12.4
Kabwe Rural*	13.0	12.3	14.6	-	-	-
Kabwe	14.8	11.8	22.2	28.7	27.2	31.5
Kapiri Mposhi	-	-	-	5.8	6.4	5.0
Mkushi	9.0	9.2	9.5	11.3	12.1	10.0
Mumbwa	16.0	14.8	18.1	12.0	13.5	9.9
Serenje	9.0	9.0	9.6	5.3	6.2	4.0

Sources: 1990 and 2000 Censuses of Population and Housing

Note:" *" Kabwe Rural was split into two districts (Chibombo and Kapiri Mposhi)

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

Table 6.20: Unemployment Rates by Sex and residence, Central Province, 1990 and 2000

Residence	Sex	1990	2000
Central Province	Total	13.0	12.1
	Male	12.0	12.9
	Female	15.0	10.9
Rural	Total	12.0	8.2
	Male	12.0	9.2
	Female	13.0	6.8
Urban	Total	14.0	27.1
	Male	12.0	25.7
	Female	21.0	29.8

Sources: 1990 and 2000 Censuses of Population and Housing

Current unemployment rates by age, sex and residence in 2000 are shown in table 6.21 and illustrated for in 2000 in Figure 6.11. This figure shows that unemployment was a more serious problem in the young age groups 12-14 (20.9 percent); 15-19 (21.4 percent); 20-24 (18.7 percent) and 25-29 (12.1 percent). The peak was in the age-group 15-19 years. This pattern was the similar for both sexes, and in both rural and urban areas.

The overall unemployment rate of 12.9 percent for males was more than that of females of 10.9 percent. A comparison of the rates by age between the two sexes shows that apart from the older age groups (70+) the male unemployment rates were higher than the female unemployment rates at all ages.

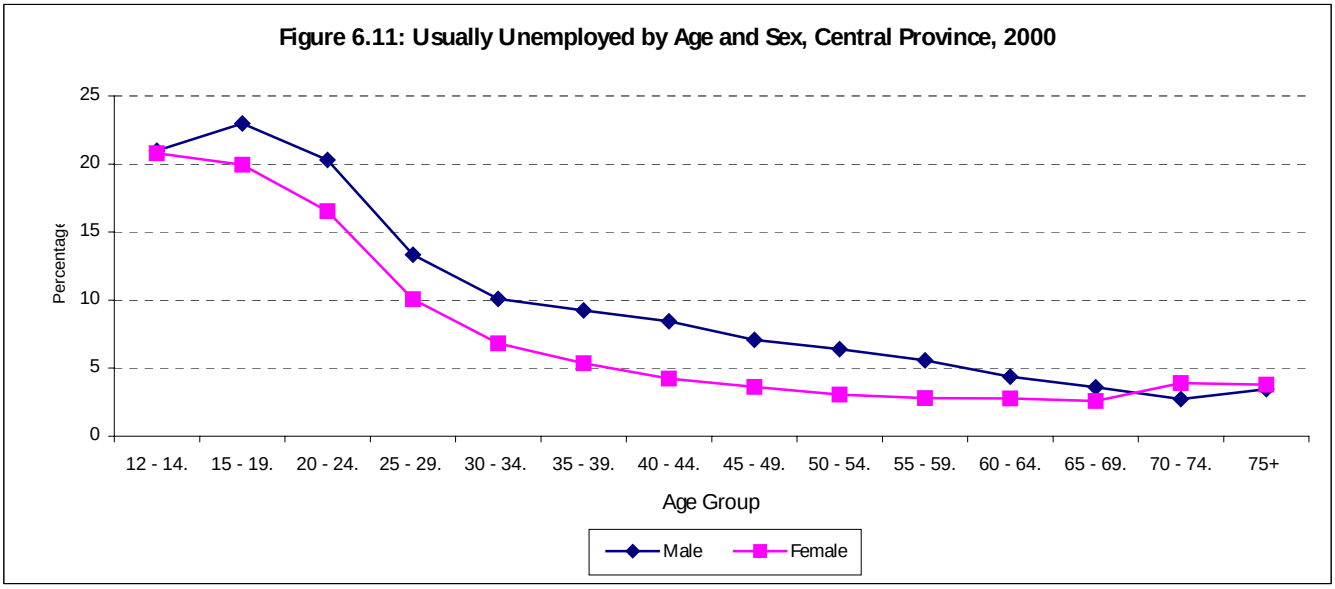
In rural areas apart from the older age groups (70+) the male unemployment rates were higher than the female unemployment rates at all ages while in the urban areas, the female unemployment rates were higher

the male unemployment rates in the age-groups 15-24 and the older ages (70+). In the remaining age groups the male unemployment rates were higher than the female unemployment rates.

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

Age Group	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Total	12.1	12.9	10.9	8.2	9.2	6.8	27.1	25.7	29.8
12 – 14	20.9	21.0	20.8	16.1	16.4	15.9	59.9	60.7	59.2
15 – 19	21.4	23.0	19.9	14.6	16.2	13.1	58.1	55.8	60.9
20 – 24	18.7	20.3	16.5	11.6	13.9	8.5	44.0	41.1	48.8
25 – 29	12.1	13.3	10.1	8.3	9.6	6.4	24.5	24.7	24.2
30 – 34	8.9	10.1	6.8	6.5	7.9	4.3	16.5	16.6	16.5
35 – 39	7.8	9.2	5.4	5.5	6.6	3.7	14.9	16.5	11.6
40 - 44	6.9	8.4	4.2	4.6	5.9	2.7	13.7	15.2	10.2
45 – 49	5.8	7.1	3.6	3.8	4.5	2.6	12.5	14.1	8.5
50 – 54	5.1	6.4	3.1	3.5	4.4	2.3	11.7	12.9	8.3
55 – 59	4.5	5.6	2.8	3.1	3.7	2.2	13.3	14.9	8.5
60 – 64	3.7	4.4	2.8	2.7	3.0	2.2	12.0	13.9	8.1
65 – 69	3.3	3.6	2.6	2.5	2.7	2.3	11.6	13.2	7.4
70 – 74	3.1	2.7	3.9	2.5	2.2	3.2	9.4	8.0	13.3
75+	3.5	3.5	3.8	3.1	3.1	3.3	8.7	8.2	10.0
Not stated	12.1	12.9	10.9	8.2	9.2	6.8	27.1	25.7	29.8

Source: 2000 Census of Population and Housing



Source: 2000 Census of Population and Housing

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

About three quarter (74.8 percent) of the unemployed population in the province either completed no education or they have a rudimentary education of grade 1 to 7. Less than a quarter of the unemployed population (23.3 percent) had secondary school education of grade 8 to 12. Those who had 'A' level education and Degree constitute 1.9 percent. The distribution of the unemployed population by age shows that the proportion of those who have no education increase with the increase in age, while the proportion of those with Grade 8-12 decrease with increase in age.

The data in table 6.22 suggests that unemployment in the country is a bigger problem for those with little or no education. However, this also appears to be a growing problem for those with a secondary education of Grade 8-12, especially in the age group 20-54 years.

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

Age Group	Total Number Unemployed	Total	None	Grade 1-7	Grade 8-12	"A" Level	Degree
Total	376,447	100.0	21.6	53.2	23.3	0.4	1.5
12-19	79,617	100.0	9.9	86.3	3.8	0.0	0.0
20-24	100,182	100.0	12.2	55.3	32.2	0.3	0.0
25-29	57,418	100.0	19.7	38.0	41.0	0.6	0.7
30-34	36,535	100.0	24.5	39.5	32.9	0.6	2.4
35-39	25,191	100.0	26.6	43.0	24.8	0.6	5.0
40-44	18,221	100.0	28.3	43.7	21.4	0.5	6.1
45-49	13,507	100.0	32.2	43.0	19.6	0.6	4.7
50-54	9,484	100.0	35.6	41.1	17.5	0.9	4.9
55-59	8,231	100.0	45.0	38.5	11.8	0.8	3.9
60-64	6,241	100.0	51.3	35.2	9.5	0.6	3.4
65-69	6,447	100.0	61.3	30.4	5.6	0.3	2.4
70-74	5,075	100.0	61.7	31.3	4.3	0.4	2.3
75+	3,959	100.0	68.0	26.0	4.0	0.2	1.8

Source: 2000 Census of Population and Housing

6.10.1 Marital Status of the Unemployed

Table 6.23 shows the distribution of the currently unemployed population by marital status, sex and residence. According to the table, the majority (59.9 percent) of the unemployed population had never been married, close to a third (30.0 percent) were married and 9.5 percent were either widowed, divorced or separated. The proportion of the female never married unemployed population was higher (59.3 percent in rural and 65.6 percent in urban areas) than the male never married unemployed population (56.1 percent in rural and 61.3 in urban areas) in both rural and urban areas.

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

Residence and Sex	Total Number Unemployed	Marital Status						
		Total	Married	Separated	Divorced	Widowed	Never Married	Living Together
Total								
Both Sexes	51,502	100.0	30.0	2.8	3.8	2.9	59.9	0.7
Male	33,724	100.0	35.8	1.7	2.2	1.2	58.5	0.5
Female	17,778	100.0	19.4	4.7	6.6	5.8	62.3	1.0
Rural								
Both Sexes	33,215	100.0	32.1	2.9	4.2	2.7	57.2	0.9
Male	22,438	100.0	37.5	1.9	2.5	1.1	56.1	0.7
Female	10,777	100.0	21.8	4.8	7.3	5.6	59.3	1.1
Urban								
Both Sexes	18,287	100.0	27.4	2.7	3.3	3.1	62.9	0.6
Male	11,286	100.0	33.8	1.5	1.8	1.3	61.3	0.3
Female	7,001	100.0	16.8	4.7	5.9	6.0	65.6	1.0

Source: 2000 Census of Population and Housing

6.10.2 Youth Unemployment

Data presented in Table 6.24 shows that youth unemployment was high in the province, 21.4 percent for the age group 15-19 and 18.7 percent in the age group 20-24. Comparing these rates with the rest of the age

groups (refer to Table 6.21 above) it can be seen that youth unemployment was still a big problem in the province. In terms of residence youth unemployment was higher in urban areas as opposed to rural areas. The reason here could be that youths in rural areas may be involved in agricultural activities thereby reducing the number of those unemployed whereas in urban areas where there were less agricultural activities youths end up having no employment. It was interesting to note that in rural areas male unemployment rates were higher than female unemployment rates whilst the opposite was the case in urban areas. The rates were also higher among youths in the age group 15-19 as opposed to those in the age group 20-24. This however could be attributed to the fact that youths in the age group 15-19 could still be attending school.

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

Age Group	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Total	12.1	12.9	10.9	8.2	9.2	6.8	27.1	25.7	29.8
15 – 19	21.4	23.0	19.9	14.6	16.2	13.1	58.1	55.8	60.9
20 – 24	18.7	20.3	16.5	11.6	13.9	8.5	44.0	41.1	48.8

Sources: 2000 Census of Population and Housing

6.11 Summary

The size of the working-age population in Central province had increased by 25.9 percent between 1990 and 2000. The distribution of this population by age shows that it declines with the increase in age, just like the total population declines.

The Labour force had increased by 41 percent between 1990 and 2000. About 79.6 percent of the Labour force was in rural areas, while 20.4 percent is in urban areas. Half of the Labour force was in the young age group of 12-29 years.

The employed population had increased by 42.0 percent. The female employed population increased by 71.2 percent, while male employed Labour force increased by 27.3 percent. The increase in the female employed population may be due to both the increased female participation in informal sector activities, as well as due to the improved coverage of informal sector activities in the 2000 Census compared to the 1990 Census.

The number of the unemployed increased by 33.9 percent between 1990 and 2000. The size of the male unemployed population increased by 42.5 percent, while that of females increased by 20.9 percent. There were more unemployed persons in the rural than in the urban areas for both males and females. In 2000, unemployment was a more serious problem among the young age group of 12-29 years than among the adult age-group of 30 years and over.

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

The economically inactive population increased by 15.2 percent against an increase of 41 percent in the Labour force between 1990 and 2000. This implies that most of the 25.9 percent increase in the working-age population between 1990 and 2000 had increased the inactive population but not more than the Labour force. Hence the Labour force participation rate increased from 49 percent in 1990 to 55 percent in 2000. Similarly the overall unemployment rate declined from 13.0 percent in 1990 to 12.1 percent in 2000

Economic activities were still organized around family Labour as evidenced by the predominance (84.7 percent) of workers who were classified as either self-employed or unpaid family workers. In contrast, only 15.3 percent were classified as employees or employers. The transformation of the Zambian economy in the 1990's seems to have reduced employment opportunities in the formal sector, thereby forcing a large part of the Labour force into self-employment in the informal sector. There was a large concentration of workers (76.0 percent) in the Agricultural and related occupations partly because of the ease of entry into the sector even with individuals with very low educational attainment.

Lack of industrialization in the country was reflected by the continued predominance of the primary economic activities of Agriculture, which employed over three quarters (76.0 percent) of the workforce in 2000. This situation has been exacerbated by the economic recession of the 1990's, which had caused manpower losses in all the non-agricultural industries and manpower gains in the Agriculture industry.

A very big proportion of 67 percent of the province's workforce had not received training at any level by 2000. This could explain the large number of people who find themselves in primary activities of Agriculture.

Chapter 7

FERTILITY LEVELS, PATTERNS AND TRENDS

7.1. Introduction

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

7.2. Concepts and Definitions:

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

7.3. Nature and Quality of Fertility Data

7.3.1. Data Availability and Limitations

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

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

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

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

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

7.3.2 Data Evaluation and Adjustment

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

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

The Brass PF Ratio technique is used to estimate fertility by comparing the lifetime fertility (Completed fertility =P) to the current fertility (Age specific fertility pattern prevailing at a particular time=F). If the age pattern and the level of fertility are correctly reported, the ratio of the current fertility and completed fertility, or PF ratio is equal to one.

Deviations from one may indicate the extent and nature of biases in the data, but if consistency checks show that both the P and F are accurate, the deviations with a pattern of increasing ratios with an increase in the age of the woman may be an indication of recent declines in fertility levels.

The Trussel variant of the Brass PF ratio uses adjustment factors developed by Trussel using a set of fertility models (Coale and Trussel, 1974). Since the age specific fertility pattern are with respect to 5-year age groups of women aged 15-19, 20-24, 25-29,… whose mid-point ages are 17.5, 22.5, 27.5, etc, and the completed fertility refer to fertility at exact age 20, 25, 30,..etc, there is need to adjust the data so that the reference ages are harmonized.

The Gompertz fertility model assumes that a relationship exists between the cumulative fertility and the Gompertz function, and hence attempts to fit the completed fertility to the double exponential function.

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

Province	Gompertz Relational 2+2 Points based on ASFR and CEB Avg. (20-34)	Trussel-Brass PF Ratio Avg. (P2/F2:P3/F3: P4/F4)
Zambia	6.0	6.0

Central	6.2	6.1
Copperbelt	5.2	5.2
Eastern	6.6	6.7
Luapula	7.0	7.1
Lusaka	4.6	4.6
Northern	6.9	7.0
North Western	6.3	6.6
Southern	6.3	6.3
Western	5.8	5.9

Source: CSO, 2000 Census of Population and Housing

7.4. Fertility Levels, Patterns and Trends, 1980-2000

Table 7.2 presents information on the current fertility levels for Central province. According to the 2000 Census results, the total fertility rate is 6.1. This means that on average, a woman in Central province at the beginning of her child bearing years, will give birth to about 6.1 children by the end of her reproductive period if current fertility levels remain constant. The provincial TFR is just slightly above the national average of 6.0.

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

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

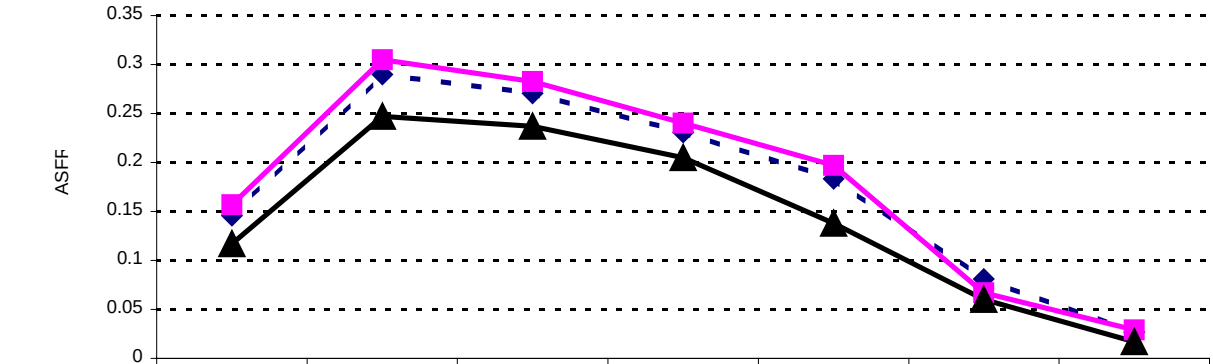
Table 7.2: Age Specific Fertility Rate (ASFR) and Total Fertility rate (TFR), Central Province, Rural/Urban, 2000.

Age Group	Total				Rural				Urban			
	Total Women	Births	Observed ASFR	Adjusted ASFR	Total Women	Births	Observed ASFR	Adjusted ASFR	Total Women	Births	Observed ASFR	Adjusted ASFR
15-19	56,441	5,670	0.100	0.1456	40,150	4,592	0.114	0.1568	16,291	1,078	0.066	0.117
20-24	48,231	11,288	0.234	0.2899	35,139	9,143	0.260	0.3050	13,092	2,145	0.164	0.247
25-29	36,580	8,209	0.224	0.2707	26,816	6,633	0.247	0.2827	9,764	1,576	0.161	0.237
30-34	26,737	5,156	0.193	0.2308	19,525	4,127	0.211	0.2402	7,212	1,029	0.143	0.205
35-39	21,599	3,386	0.157	0.1832	15,910	2,827	0.178	0.1972	5,689	559	0.098	0.138
40-44	16,421	1,199	0.073	0.0811	12,220	1,011	0.083	0.0871	4,201	188	0.045	0.060
45-49	12,024	333	0.028	0.0269	9,230	291	0.032	0.0291	2,794	42	0.015	0.017
Observed TFR			**5.0**				**5.6**				**3.1**	
Adjusted TFR				**6.1**				**6.5**				**5.1**

Source: CSO, 2000 Census of Population and Housing

The table, as well as Figure 7.1 shows that childbearing is at its peak in the age group 20-24 after which it steadily declines. In both rural and urban areas, the peak of childbearing is at the same age group. Women in urban areas have lower ASFR at all ages.

Figure 7.1 Age Specific Fertility Rate (ASFR), Central Province, Rural and Urban, 2000



	15-19	20-24	25-29	30-34	35-39	40-44	45-49
Total	0.1456	0.2899	0.2707	0.2308	0.1832	0.0811	0.0269
Rural	0.1568	0.305	0.2827	0.2402	0.1972	0.0671	0.0291
Urban	0.117	0.247	0.237	0.205	0.138	0.06	0.017

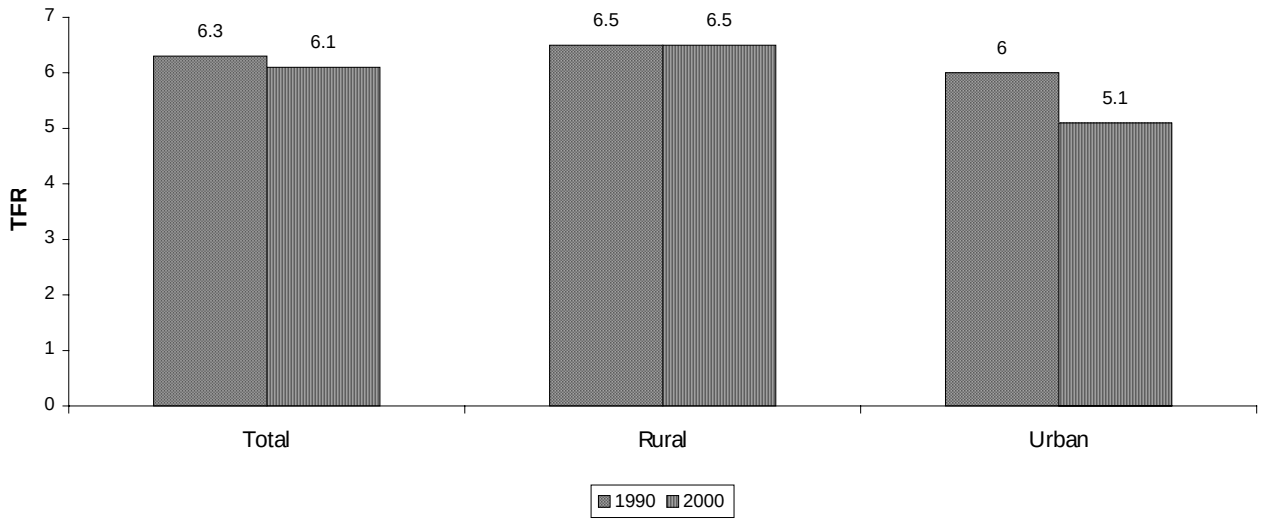
Age Group

Source: CSO, 2000 Census of Population and Housing

Fertility declined slightly from 6.3 to 6.1 between 1990 and 2000. While the fertility for women in rural areas has not changed in the ten year period at 6.5, urban women have experienced a drop in fertility of about one child (Figure 7.2), from 6.0 in 1990 to 5.1 in 2000. The decline in fertility in the urban areas could point to the fact that urban areas may have the socio-economic conditions necessary for fertility decline such as access to reproductive health services, better and enhanced access to education by both girls and boys etc as opposed to the conditions prevailing in rural areas.

Though fertility has been declining in Central province, the rate of decline has been rather slow, with TFR declining from 6.3 in 1990 to 6.1 in 2000 (Figure 7.2).

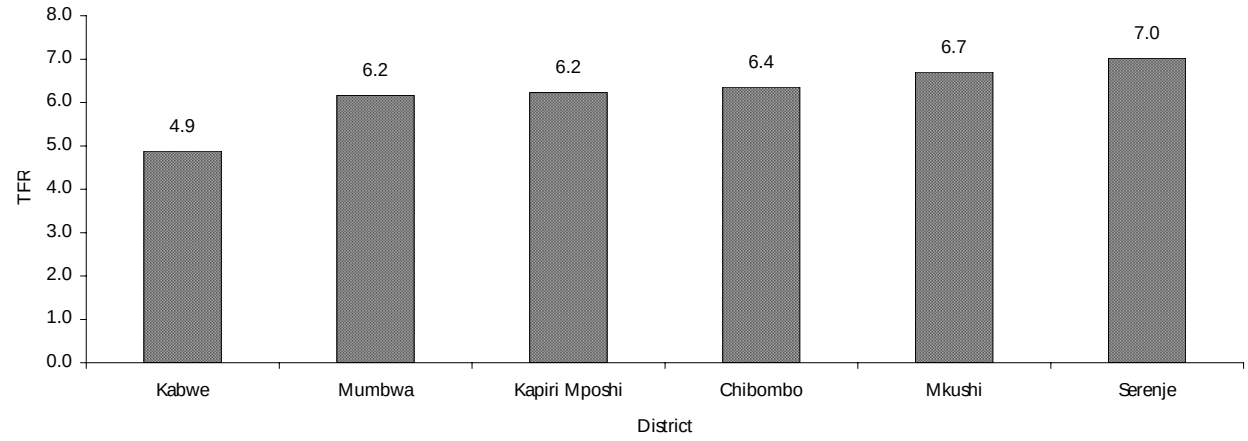
Figure 7.2: Total Fertility Rate (TFR) by Residence, Central Province, 1990 and 2000



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

Among the districts, Serenje has the largest TFR of 7.0 followed by Mkushi with 6.7 while Kabwe has the least with 4.9 (see figure 7.3).

Figure 7.3: Adjusted Total Fertility Rates by Districts, Central Province, 2000



Source: CSO, 2000 Census of Population and Housing

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

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

7.5.1 Fertility Differentials by Marital Status of Women aged 15-49

Marital status has a bearing on the fertility levels of women because of the amount of exposure to the risk of pregnancy that married women have compared to other women. The 2000 Census results show that married women have higher fertility with TFR of 6.6, compared to 5.1 for widowed, 5.0 for separated, 4.8 for divorced, 4.6 for living together (co-habiting); and least among the never married (2.0).

Table 7.3: Fertility Differentials by Marital Status of Women aged 15-49, Central Province, 2000

District	Marital Status						
	Total	Married	Separated	Divorced	Widowed	Never Married	Living Together
Chibombo	6.4	6.5	4.3	4.3	4.6	2.8	4.6
Kabwe	4.9	5.0	3.1	3.5	3.6	1.3	2.4
Kapiri Mposhi	6.2	6.4	4.6	3.9	4.5	1.7	4.3
Mkushi	6.7	6.8	5.0	4.3	4.7	1.2	4.3
Mumbwa	6.2	7.0	5.3	5.0	5.0	1.2	4.2
Serenje	7.0	7.1	4.3	4.8	5.2	1.7	0.0
Central	6.1	6.6	5.0	4.8	5.1	2.0	4.6

Source: CSO, 2000 Census of Population and Housing

7.5.2 Fertility Differentials by Economic Status of Women aged 15-49

Table 7.4 shows the fertility levels of working and non working women. Definitions of working are described in detail in Chapter six. Women classified as working have a slightly lower total fertility rate of 5.9 compared to 6.1 for those classified not working. This pattern holds true for all the districts in the province.

Table 7.4: Fertility Differentials by Economic Status of Women aged 15-49, Central Province, 2000

District	Economic Status		
	Total	Working	Not Working
Chibombo	6.4	6.1	6.5
Kabwe	4.9	3.7	5.3
Kapiri Mposhi	6.2	6.0	6.2
Mkushi	6.7	6.6	6.7

Mumbwa	6.2	6.1	6.2
Serenje	7.0	6.8	7.1
Central	6.1	5.9	6.1

Source: CSO, 2000 Census of Population and Housing

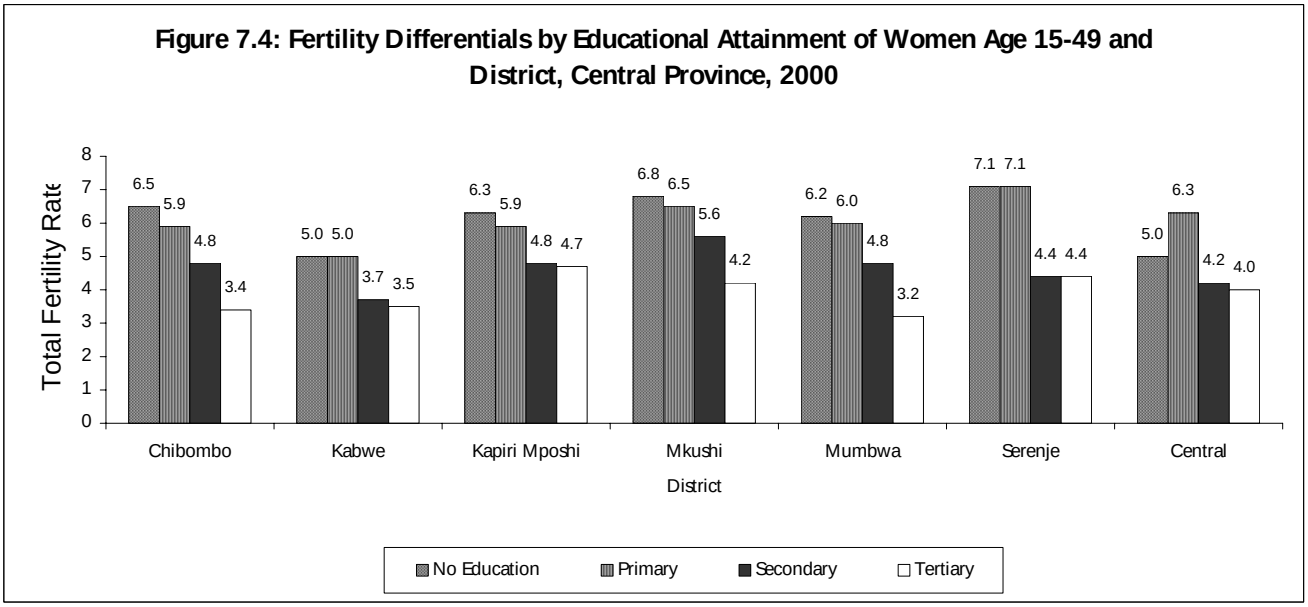
7.5.3 Fertility Differentials by level of Education of Women aged 15-49

Table 7.5 and Figure 7.4 show the fertility levels according to women's levels of education in Central Province. Women with tertiary education have lower fertility than women in other education categories. For instance, women with tertiary education had a TFR of 4.0 compared with TFR of 5.0 for women without any schooling. The difference is highest in Chibombo, Mumbwa and Serenje districts where women without schooling have on average about three children more than those with tertiary education.

Table 7.5: Fertility Differentials by Level of Education of Women aged 15-49, Central Province, 2000

District	Level of Education				
	Total	No Education	Primary	Secondary	Tertiary
Chibombo	6.4	6.5	5.9	4.8	3.4
Kabwe	4.9	5.0	5.0	3.7	3.5
Kapiri Mposhi	6.2	6.3	5.9	4.8	4.7
Mkushi	6.7	6.8	6.5	5.6	4.2
Mumbwa	6.2	6.2	6.0	4.8	3.2
Serenje	7.0	7.1	7.1	4.4	4.4
Central	6.1	5.0	6.3	4.2	4.0

Source: CSO, 2000 Census of Population and Housing



Source: CSO, 2000 Census of Population and Housing

7.6. Gross Reproduction Rate (GRR)

From Table 7.6, it can be observed that the GRR for women in Central Province is estimated at 2.5. This means that by the time a woman reaches the end of her reproductive period, she will have given birth to 2.5 female children if she conforms to the current observed age specific fertility patterns. The provincial GRR is just slightly above the national average of 2.3. Women in rural areas give birth to a large number of girls (2.8 per thousand live births) by the time they reach the end of their reproductive age compared to women in urban areas with a GRR of 1.7.

Table 7.6: Gross Reproduction Rate (GRR), Central Province, Rural- Urban, 2000

Age Group	Total			Rural			Urban		
	Women	Female Births	ASFR (f)	Women	Female Births	ASFR (f)	Women	Female Births	ASFR (f)
15-19	56,441	2,787	0.0494	40,150	2,201	0.0548	16,291	586	0.0360
20-24	48,231	5,527	0.1146	35,139	4,511	0.1284	13,092	1,016	0.0776

25-29	36,580	3,933	0.1075	26,816	3,193	0.1191	9,764	740	0.0758
30-34	26,737	2,574	0.0963	19,525	2,022	0.1036	7,212	552	0.0765
35-39	21,599	1,665	0.0771	15,910	1,389	0.0873	5,689	276	0.0485
40-44	16,421	603	0.0367	12,220	517	0.0423	4,201	86	0.0205
45-49	12,024	170	0.0141	9,230	150	0.0163	2,794	20	0.0072
GRR			**2.5**			**2.8**			**1.7**

Source: CSO, 2000 Census of Population and Housing

7.7 Net Reproduction Rate (NRR)

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

An NRR equal to 1.0 is referred to as the "replacement level fertility" because it indicates that on average each woman will be replaced by exactly one daughter after a generation. A higher value indicates a growing population while a lower value shows a declining population. The NRR for Central province in 2000 was estimated at 1.8 daughters, implying that each woman will be replaced by almost two daughters who will survive up to the end of their reproductive age. The NRR is higher in rural (1.9) than in Urban areas (1.1). This means that the population will continue growing at a faster rate in rural than in urban areas (See Table 7.7)

Table 7.7: Net Reproduction Rate (NRR), Central province, Rural- Urban, 2000

	Total			Rural			Urban		
Age Group	ASFR(f)	Survival Ratios	*ASFR(f)	ASFR(f)	Survival Ratios	*ASFR(f)	ASFR(f)	Survival Ratios	*ASFR(f)
15-19	0.0494	0.7853	0.0388	0.0548	0.7979	0.0479	0.036	0.7700	0.0216
20-24	0.1146	0.7678	0.0880	0.1284	0.7811	0.0914	0.0776	0.7518	0.0511
25-29	0.1075	0.7477	0.0804	0.1191	0.7616	0.0891	0.0758	0.7308	0.0555
30-34	0.0963	0.7251	0.0698	0.1036	0.7398	0.0688	0.0765	0.7074	0.0474
35-35	0.0771	0.7000	0.0540	0.0873	0.7156	0.0530	0.0485	0.6814	0.0313
40-44	0.0367	0.6723	0.0247	0.0423	0.6886	0.0241	0.0205	0.6529	0.0118
45-49	0.0141	0.6425	0.0091	0.0163	0.6594	0.0073	0.0072	0.6225	0.0037
NRR			**1.8**			**1.9**			**1.1**

Source: CSO, 2000 Census of Population and Housing

Note: *ASFR at prevailing rates of mortality

NRR has declined over the last 20 years (Table 7.8). This implies that population has been growing, but at a declining rate. NRR has declined from 3.0 in 1980 to 2.6 in 1990 and 1.8 in 2000. The decline has occurred more in urban areas, declining by 1.8 between 1990 and 2000, compared to a decline of 0.6 in rural areas over the same period.

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

Residence	Census Year		
	1980	1990	2000
Total	3.0	2.6	1.8
Rural	3.1	2.5	1.9
Urban	3.0	2.9	1.1

Source: CSO, 2000 Census of Population and Housing

7.8. Mean Parity

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

Table 7.9 shows that the Completed Family Size (CFS) or mean parity for women in Central Province is 7.0 children per woman, with rural women having a higher CFS of 7.2 compared with their urban counterparts with 6.5 children per woman. The mean parity for the province is slightly above the national average of 6.8 children per woman.

Another measure of trends in fertility is comparing the TFR with the mean number of CEB to women at the end of their childbearing period, aged 45-49 (mean parity). While TFR is a measure of current fertility, mean parity measures past or completed fertility. Overall, women age 45–49 reported having given birth to an average of 7 children. This compares with a TFR of 6.1 for women age 15-49, the difference may be attributed to the observed fertility decline overtime .

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

Age Group	Central Province	Rural	Urban
15-19	0.3	0.3	0.2
20-24	1.5	1.6	1.2
25-29	2.8	3.0	2.4
30-34	4.2	4.3	3.7
35-39	5.5	5.7	4.9
40-44	6.6	6.8	6.1
45-49	**7.0**	**7.2**	**6.5**

Source: CSO, 2000 Census of Population and Housing

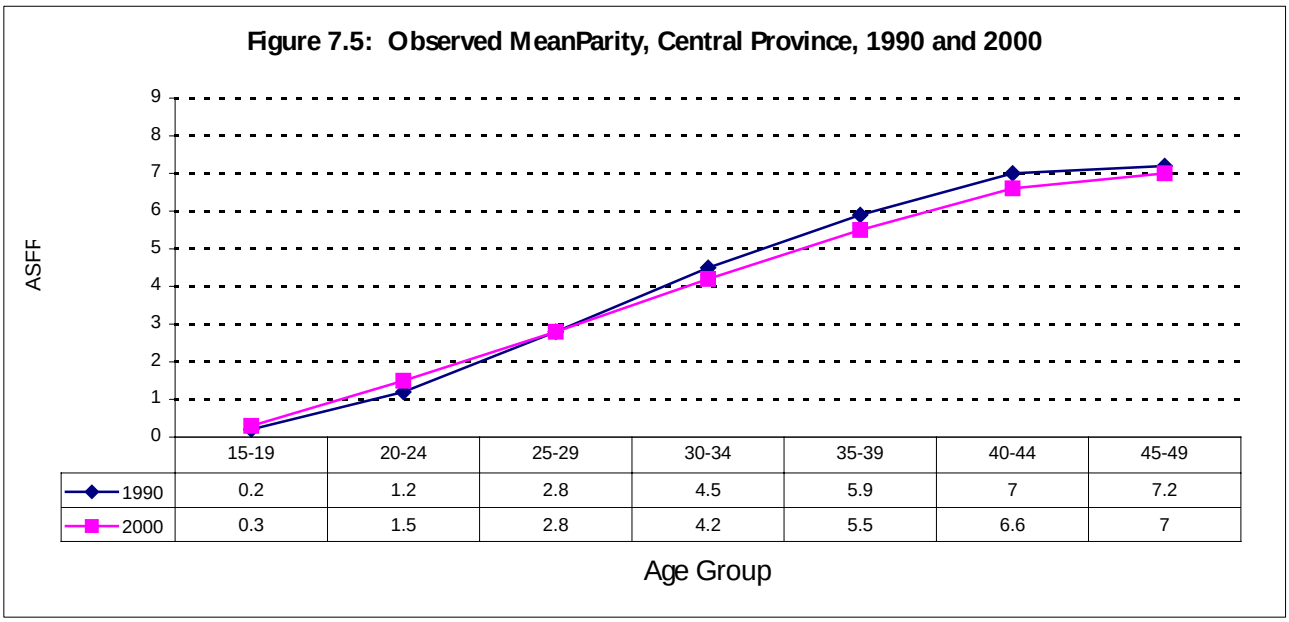
Table 7.10 and Figure 7.5 show that the mean parity or CFS for Central province has declined between 1990 and 2000. In the young age groups of 15-24, the mean parity has increased while in the higher age groups, the rate has decreased between the said period.

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

Age Group	Mean Parity (1990)	Mean Parity (2000)
15-19	0.2	0.3
20-24	1.2	1.5
25-29	2.8	2.8
30-34	4.5	4.2
35-39	5.9	5.5
40-44	7.0	6.6
45-49	**7.2**	**7.0**

Source: **CSO, 2000 Census of Population and Housing**

Note: **1990 estimates extracted from Analytical Report Vol. 1 of the 1990 Census of Population, Housing and Agriculture, CSO 1995.**



Source: CSO, 2000 Census of Population and Housing

7.9 Other Fertility Indicators

Table 7.11 shows a summary of fertility indicators for districts in Central province. These include Crude Birth Rate (CBR), Child Woman Ratio (CWR) and General Fertility Rate (GFR). The table shows that the Crude Birth Rate (CBR) range from 26.8 in Kabwe to 41.3 in Mkushi. The General Fertility Rate, Child Woman Ratio and Mean Parity are lowest in Kabwe and highest in Mkushi.

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

District	Adjusted Total Fertility Rate	Crude Birth Rate	General Fertility Rate	Child Woman Ratio	Mean Parity	Gross Reproduction Rate
Central province	6.1	37	163	790	7.0	2.5
Chibombo	6.4	39.9	181.9	866	7.2	2.7
Kabwe	4.9	26.8	104.5	584	6.5	1.6
Kapiri Mposhi	6.2	38.6	173.0	809	7.1	2.6
Mkushi	6.7	41.3	185.6	867	7.2	2.8
Mumbwa	6.2	37.3	170.1	843	7.0	2.6
Serenje	7.0	39.5	175.2	822	7.1	2.9

Source: CSO, 2000 Census of Population and Housing

7.10 Summary

Over the past decade, fertility levels for Central Province have declined from 6.3 to 6.1. The drop in urban childbearing is the principal reason for the overall decline in fertility levels in Central province. TFR dropped from 6.0 in 1990 to 5.1 in 2000 while that of the rural areas has remained constant over the period at 6.5.

Child bearing is at its peak in the age group 20-24 years after which it declines steadily. Serenje has the largest TFR (7.0) among the districts while Kabwe has the least (4.9)

Generally, fertility rates are highest in Mkushi and lowest in Kabwe. These include Crude Birth Rate, General Fertility Rate, Mean Parity and Gross Reproduction Rate.

Chapter 8

CHILD AND ADULT MORTALITY

8.1. Introduction

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

Indirect demographic methods are used to derive both child and adult mortality indicators. Information on child mortality estimation was based on the reports of the mothers, aged 15-49 years, of the survival of their children by sex. This gives information on children surviving and dying out of the total children ever born per woman (mother) in the reproductive age group (15-49 years). The United Nations Mortality measurement package, Mortpak-Lite as well as Q-Five were used to compute child mortality indicators, namely, infant mortality rate (IMR), child mortality rate (CMR), under-five mortality rate (UMR) and life expectancy at birth (e_0) based on the Coale-Demeny North Model. It is worth noting that these child mortality indicators are based on life tables that were developed on mortality data in the pre-AIDS era. WHO (2002:13) notes that if deaths from HIV/AIDS were to be excluded, life expectancy at birth in some countries in Southern Africa including Zambia would be 15 to 20 years higher.

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

8.2. Concepts and Definitions

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

8.3. Infant Mortality Levels, Trends and Differentials

Table 8.1 shows the infant mortality rates in Central Province from 1980 to 2000. Overall, infant mortality rate (IMR) has declined in Central Province by about 5 percent, but is still higher than the 1980 figure. In 1980, IMR stood at 81 deaths per 1000 live infant births. It increased by about 32 percent between 1980 and 1990, from 81 to 107 deaths per 1000 live infant births, respectively. In 2000, it dropped to 102 deaths per 1000 live births. In other words about 21 more infants died in 2000 than in 1980 for every 1000 live births. However, when compared to the 1990 figure, about 5 more infants survived in 2000 for every 1000 live births, suggesting that survival chances for infants were better in 1980 than in both1990 and 2000.

In comparison with the national infant mortality indicator in 2000, the infant mortality rate for the province is much lower than the national rate of 110 deaths per 1000 live infant births. About 8 more infants survived in Central province than the average of all the provinces in the country.

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

Residence and Sex	Infant Mortality Rate (per '000)		
	1980	1990	2000
Zambia	**99**	**124**	**110**
Central	81	107	102
Residence			
Rural	78	107	100
Urban	89	108	106
Sex of Child			
Male	88	112	106
Female	74	101	97
District (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Chibombo	86	84	192
Kabwe	95	-	95
Kapiri Mposhi	107	108	105
Mkushi	117	115	133
Mumbwa	93	89	141
Serenje	123	120	157

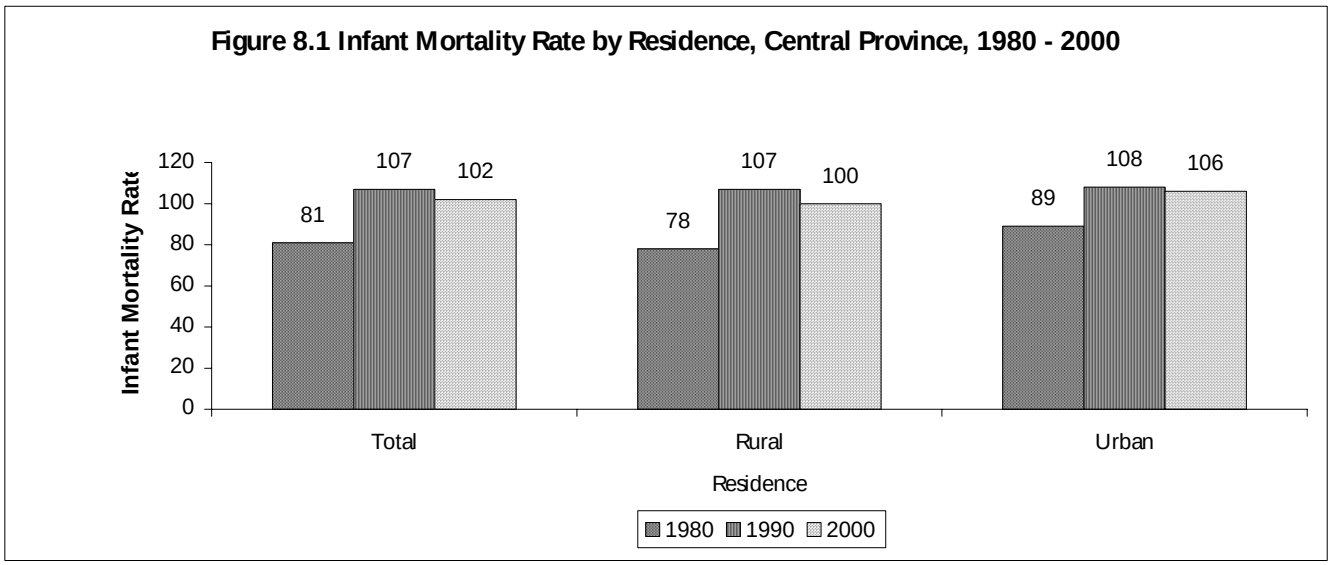
Sources: 1980, 1990 and 2000 Censuses of Population and Housing

Note: "-" denotes not applicable as Kabwe is a predominantly urban district.

8.3.1. Infant Mortality Rate by Residence

There are rural and urban differences in IMR (Table 8.1 and Figure 8.1), with the latter experiencing higher levels than the former. In 1980, for instance, IMR in urban areas was 14 percent higher than in rural areas. A similar pattern was observed in 2000. In 2000, about 1 in 9 infants in urban areas and 1 in 10 infants in rural areas die before celebrating their first birthday.

In rural areas of Central province, IMR increased from 78 in 1980 to 107 in 1990, but declined to 100 deaths per 1000 live births in 2000. The trends in urban areas were similar, IMR increased from 89 in 1980 to 108 in 1990 and declined to 106 deaths per 1000 live births in 2000. This result shows that infants in urban areas of Central Province experience a higher risk of dying before age one than rural infants.

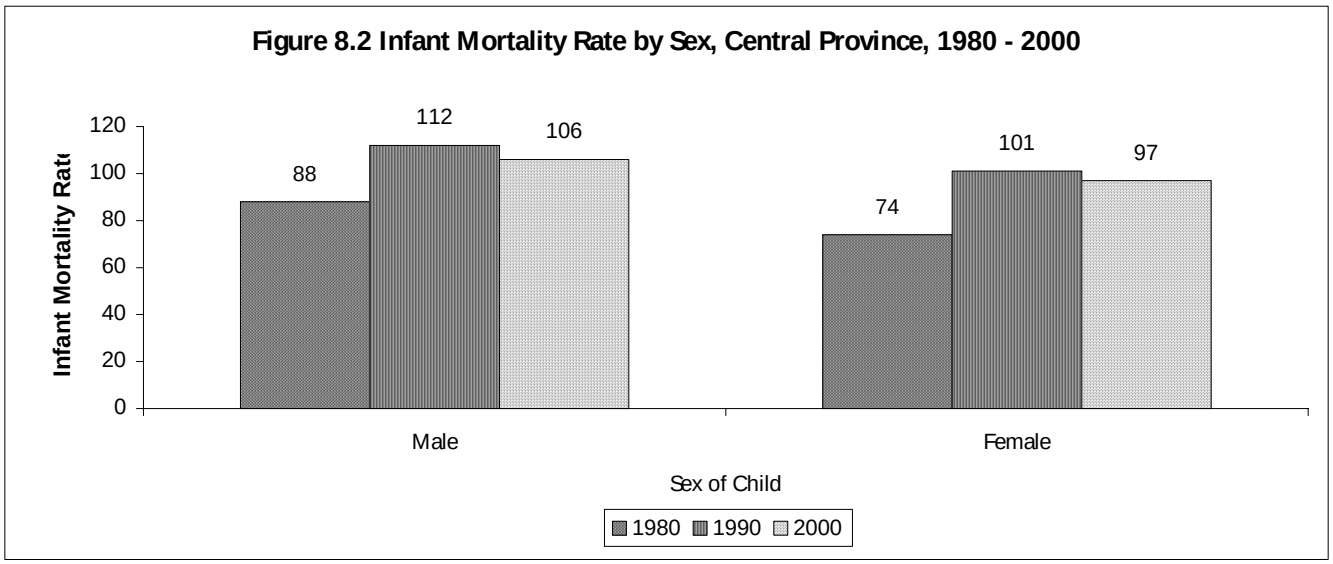


Sources: 1980, 1990 and 2000 Censuses of Population and Housing

8.3.2. Infant Mortality Rate by Sex

Results presented in Figure 8.2 show that IMR is higher for males than females. In 2000, 106 deaths per 1000 live births occurred among males compared to 97 deaths for females. A similar pattern is also observed in 1980 and 1990 census years. In 1980, 88 male infants died and 74 female infants before reaching age one. In 1990, 112 male infants and 101 female infants died before reaching age one. However, the 2000 IMR for both sexes is still higher than the 1980 levels.

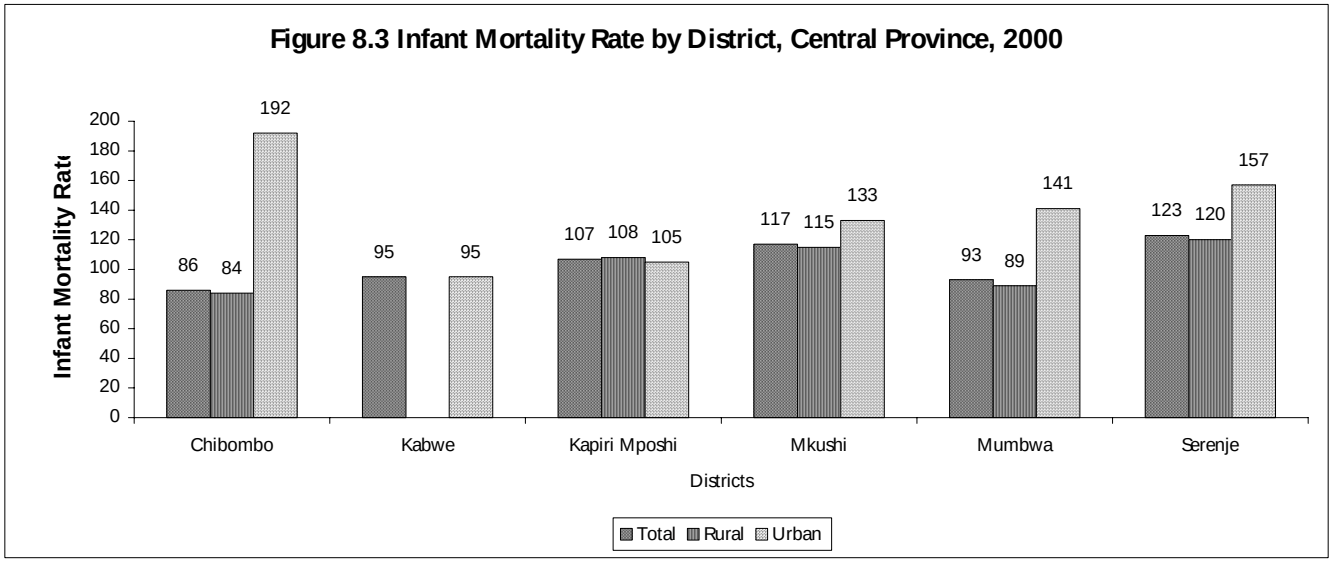
In all the censuses 1980,1990 and 2000 the pattern of infant mortality by sex is similar to the national, more female infants than male infants survive to their first birthday. However, when compared to the national infant mortality rate, about 11 more male infants and 7 more female infants survived in the province for every 1000 infants born, suggesting that survival chances for infants were higher in the province compared to the national average.



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

8.3.3. Infant Mortality Rate by District

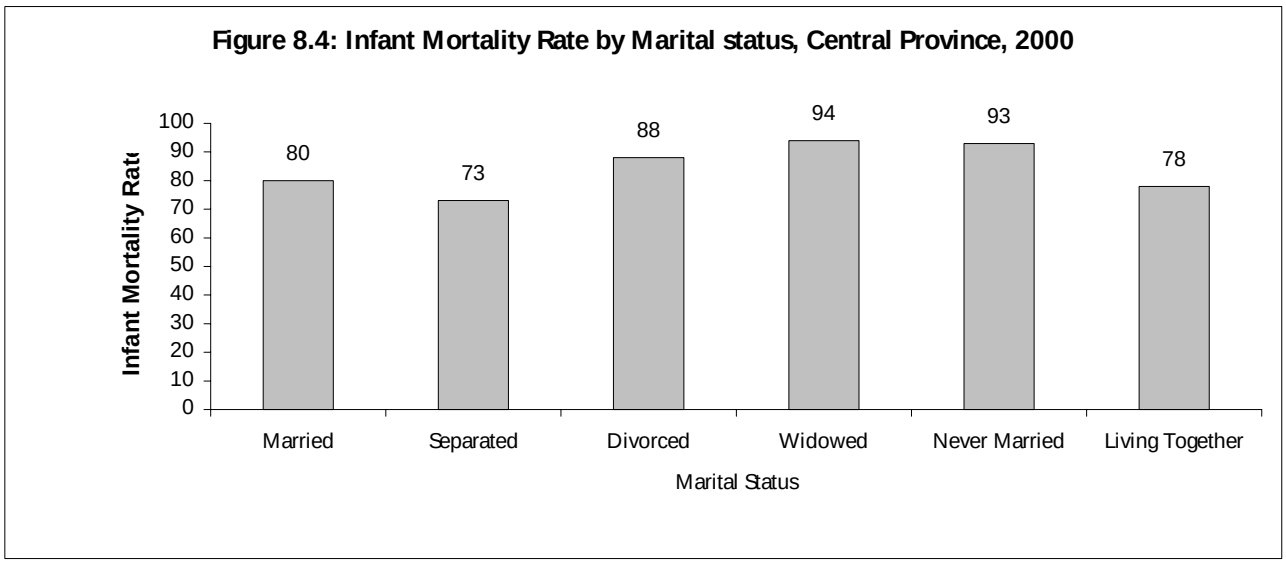
Figure 8.3 shows that IMR is relatively very high in Serenje (123), Mkushi (117) and Kapiri Mposhi (107) districts and relatively low in Chibombo (86), Mumbwa (93) and Kabwe (95) deaths per 1000 live births, respectively. In terms of residence with the exception of Kapiri Mposhi, it is evident that infants in urban areas of all the districts have higher risks of dying before age one than their rural counterparts. The difference is significantly high in Chibombo district. It is important to note that Kabwe is an urban district.



Source: CSO, 2000 Census of Population and Housing

8.3.4. Infant Mortality Rate by Marital Status of the Mother

Figure 8.4 and Table 8.2 show that infants born to mothers who are widowed, never married and divorced tend to have higher chances of dying (almost 1 in every 11 children born), than infants born to married, separated and co-habiting mothers (living together). Infants born to separated mothers have the highest survival rates at 73 deaths per 1000 live births (almost 1 in every 14 children born).



Source: CSO, 2000 Census of Population and Housing

Table 8.2: Infant Mortality Rate by Marital Status and Residence, Central Province, 2000

Marital Status	Infant Mortality Rate (per '000)		
	Total	Rural	Urban
Married	80	83	68

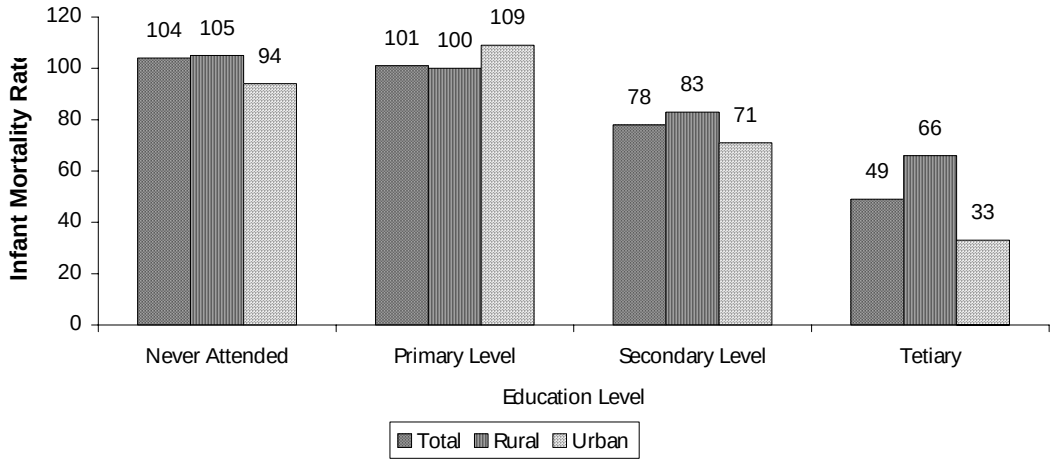
Separated	73	71	80
Divorced	88	87	89
Widowed	94	85	119
Never Married	93	100	78
Living Together	78	79	73

Source: CSO, 2000 Census of Population and Housing

8.3.5. Infant Mortality Rate by Education Level of the Mother

Results in Figure 8.5 indicate that IMR varies markedly according to the level of education of mother, with survival chances of infants increasing substantially as the level of education of mothers increases. The IMR ranges from 104 to 49 deaths per 1000 live births. Infants born to mothers who have never attended school or those with primary level of education have higher risks of dying before age one (almost one in every 10 children born), than infants born to mothers who have attained a higher level of education. Infants born to mothers with tertiary education have the highest survival rates at 49 deaths per 1000 live births (almost 1 in every 20 children born).

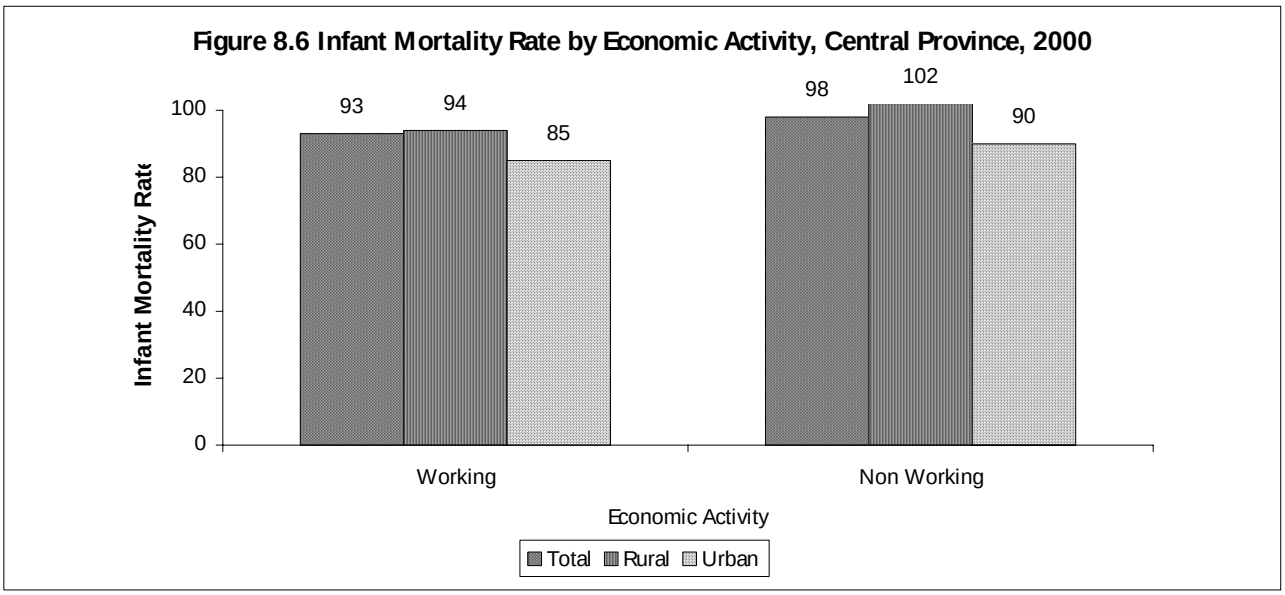
Figure 8.5: Infant Mortality Rate by Education Level, Central Province, 2000



Source: CSO, 2000 Census of Population and Housing

8.3.6. Infant Mortality by Economic Activity of the Mother

Infants born to working mothers have higher chances of reaching age one than those born to non-working mothers. About 1 in 11 infants born to working mothers compared to 1 in 10 infants born to non-working mothers die before age one (Figure 8.6).



Source: CSO, 2000 Census of Population and Housing

8.4 Child Mortality Levels, Trends and Differentials

Table 8.3 shows that Child Mortality Rate (CMR) has declined slightly between 1990 and 2000 by about 6 percent, from 78 to 73 deaths per 1000 children. However, despite this decline the 2000 levels are still higher than the 1980 one (73 compared with 54 deaths per 1000 children). In other words about 19 more children died in 2000 than in 1980 for every 1000 children born.

In comparison with the national, Central province has a significantly lower child mortality rate for all the three census years. In the year 2000, there were about 9 more child survivors in the province compared to the national average (the child mortality rates were 73 and 82 for Central and Zambia respectively).

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

Residence and sex	Child Mortality Rate (per '000)		
	1980	1990	2000
Zambia	**71**	**96**	**82**
Central	54	78	73
Residence			
Rural	51	78	71
Urban	60	79	77
Sex of Child			
Male	60	77	71
Female	47	80	75
Districts (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Chibombo	57	56	160
Kabwe	66	-	66
Kapiri Mposhi	79	79	76
Mkushi	89	87	105
Mumbwa	64	60	114
Serenje	95	92	128

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

8.4.1. Child Mortality Rate by Residence

Figure 8.7 shows that children born to mothers residing in urban areas have higher risks of dying between age one and five than in rural areas (77 compared to 71 deaths per 1000 children).

In rural areas, CMR has declined from 78 to 71 deaths per 1000 children. Similarly, in urban areas it declined form 79 to 77 deaths per 1000 children.

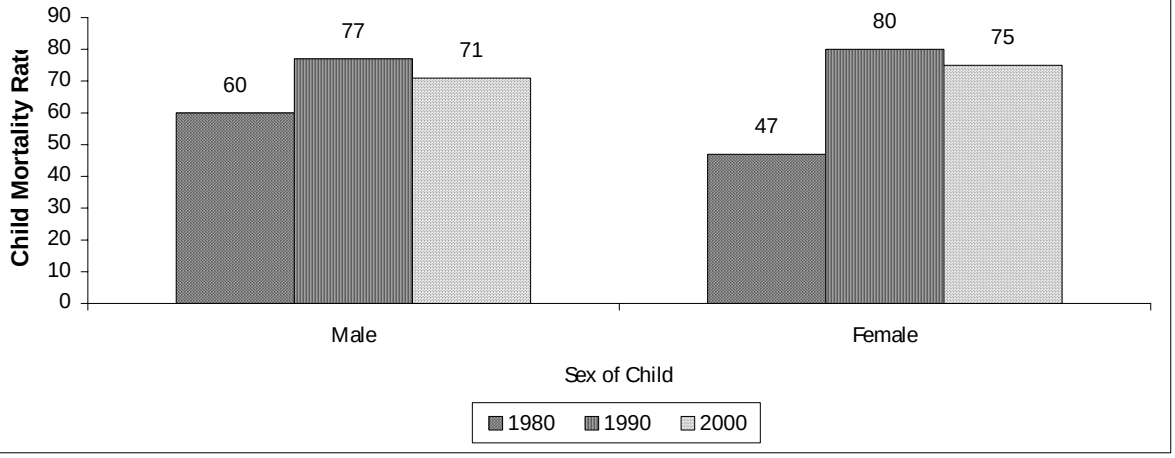
Figure 8.7 Child Mortality Rate by Residence, Central Province, 1980 - 2000

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

8.4.2. Child Mortality Rate by Sex

Figure 8.8 shows that CMR is higher (75 deaths per 1000 children) among female than male children (71 deaths per 1000 children). A similar pattern is also observed for the 1990 census data. In 1990, 80 female and 77 male died between age one and five for every 1000 live births. In contrast in 1980 more male than female children died between age one and five (60 male versus 47 female children). Furthermore the 1980 levels are lower than the 1990 and 2000, respectively.

Figure 8.8 Child Mortality Rate by Sex, Central Province, 1980 - 2000

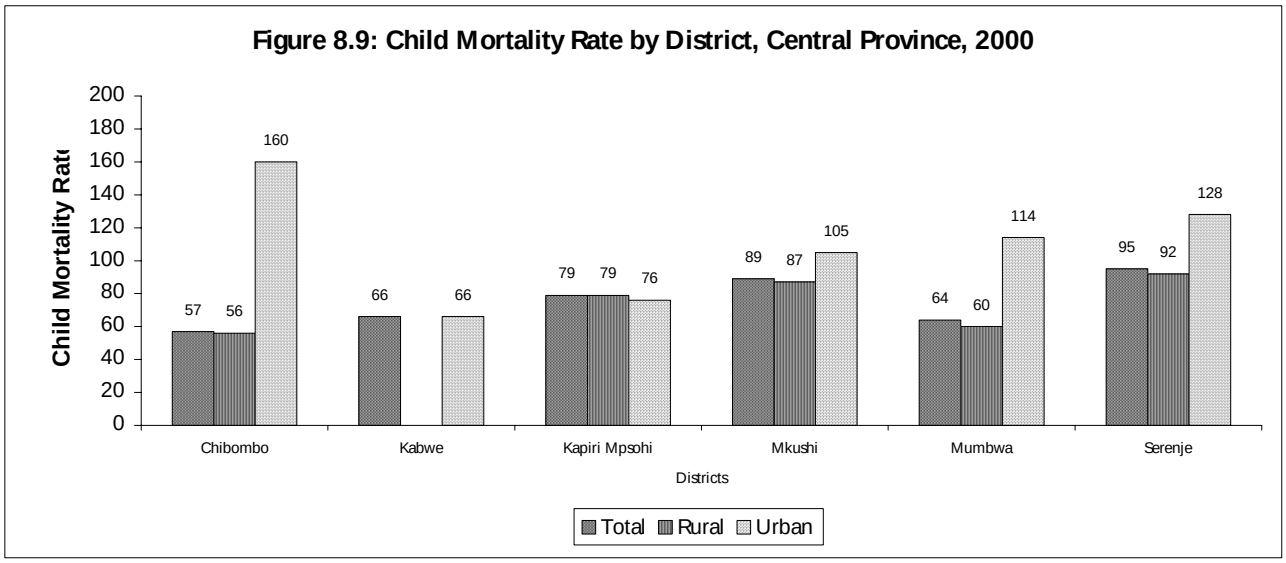


Sources: 1980, 1990 and 2000 Censuses of Population and Housing

8.4.3. Child Mortality Rate by District

Figure 8.9 shows that CMR is relatively high in Serenje (95), Mkushi (89) and Kapiri Mposhi (79) districts and relatively low in Chibombo (57), Mumbwa (64) and Kabwe (66) deaths per 1000 children respectively. In terms

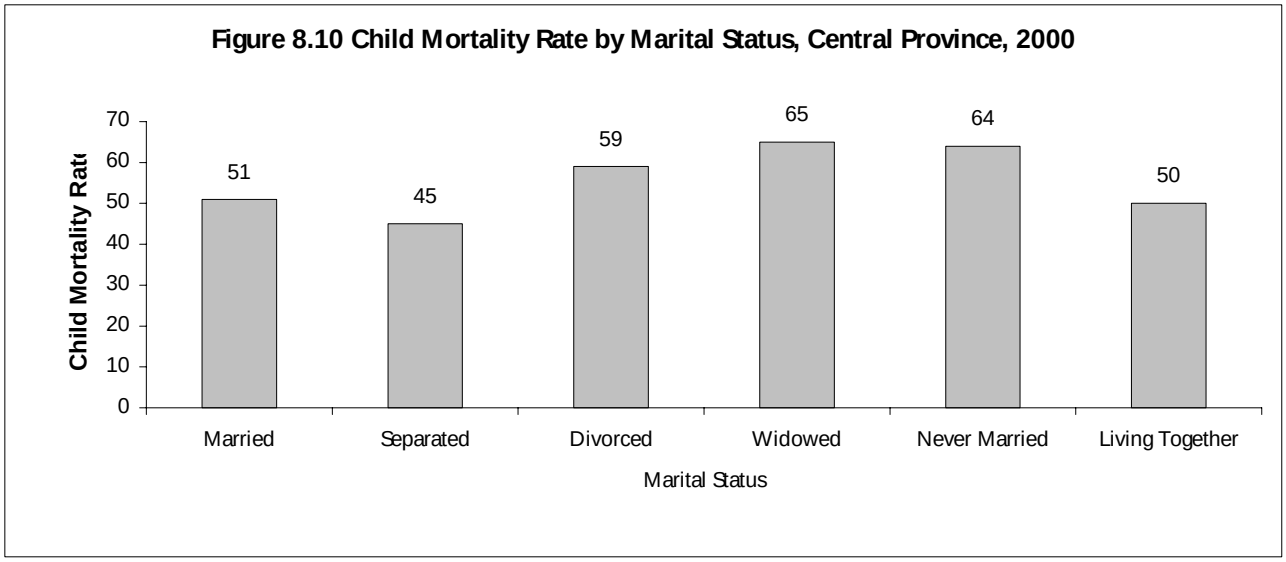
of residence with the exception of Kapiri Mposhi, it is evident that children in urban areas of all the districts have higher risks of dying between age one and five than their rural counterparts. The difference is significantly high in Chibombo district.



Source: CSO, 2000 Census of Population and Housing

8.4.4. Child Mortality by Marital Status of the Mother

Figure 8.10 shows that children born to mothers who are widowed, never married and divorced have lower chances of surviving between exact age one and five (ranging from one in every 15 to one in17 children), while children born to separated mothers have the highest survival chances (1 in every 22 children).



Source: CSO, 2000 Census of Population and Housing

Table 8.4 Child Mortality Rate by Marital Status and Residence, Central Province, 2000

Marital Status	Child Mortality Rate (per '000)		
	Total	Rural	Urban
Married	51	55	41

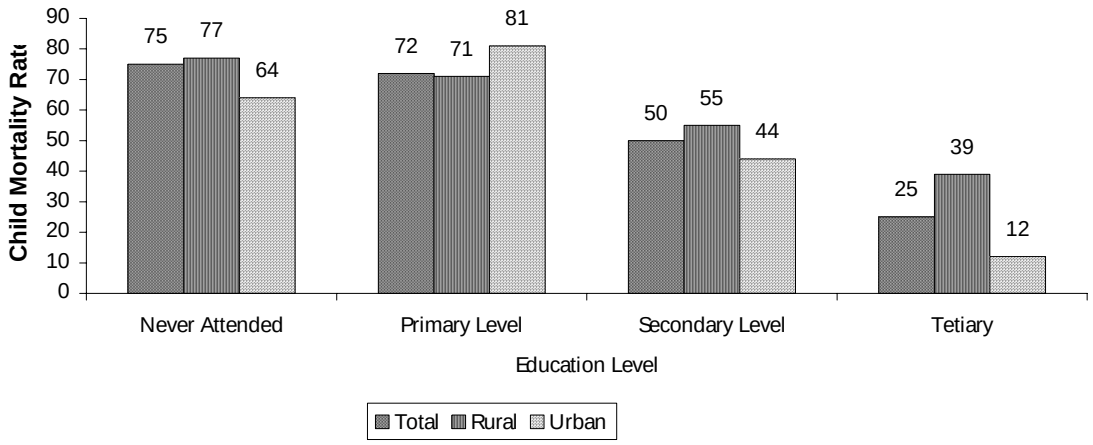
Separated	45	43	52
Divorced	59	58	60
Widowed	65	57	92
Never Married	64	71	49
Living Together	50	50	45

Source: CSO, 2000 Census of Population and Housing

8.4.5. Child Mortality Rate by Education Level of Mother

The lowest CMR was observed among women who had attained tertiary level of schooling (25 deaths per 1000) (Figure 8.11), while the highest CMR was observed among mothers who have never attended school (75 deaths per 1000 children). CMR varies markedly according to the level of education of mother decreasing with increasing level of education of mothers. CMR among children whose mothers have never attended school is 75 compared to 25 for children born to mothers with tertiary education. CMR for mothers with primary level of education is slightly lower than for mothers with no education (72 deaths per 1000 children). CMR for mothers with secondary school education was 50 deaths per 1000 children.

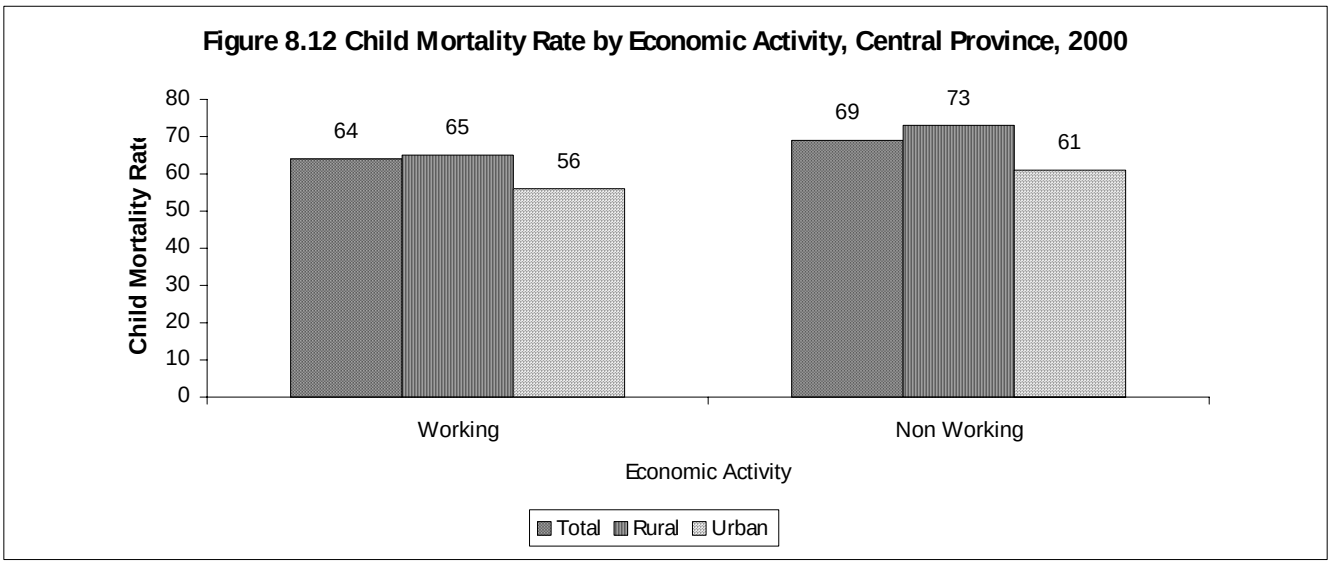
Figure 8.11: Child Mortality Rate by Education Level, Central Province, 2000



Source: CSO, 2000 Census of Population and Housing

8.4.6. Child Mortality by Economic Activity of Mother

Children born to working mothers have lower chances of dying between age one and five than those born to non-working mothers. The differences are notable (64 versus 69 deaths per 1000 children, respectively), representing about 8 percent higher deaths among the non-working mothers (Figure 8.12).



Source: CSO, 2000 Census of Population and Housing

8.5. Under Five Mortality Levels, Trends and Differentials

Table 8.3 shows that Under-five Mortality Rate (UMR) has declined between 1990 and 2000 by about 6 percent, from 177 to 167 deaths per 1000 children. However, despite this decline the 2000 levels are significantly higher than the 1980 one (167 compared with 100 deaths per 1000 children), indicating that about 67 more children died in 2000 than in 1980 for every 1000 children born.

The UMR for Central province is significantly lower that the national rate (167 compared to 183 deaths per 1000 children). In other words there were about 16 less under-five deaths in the province than the national average. The same pattern is observed in 1980 and 1990.

Table 8.5 Under Five-Mortality Rate by Sex of Child, Residence and District, Central Province, 1980-2000

Residence and sex	Under Five Mortality Rate (per '000)		
	1980	**1990**	**2000**
Zambia	**121**	**208**	**183**
Central	100	177	167
Residence			
Rural	97	176	164
Urban	107	179	175
Sex of Child			
Male	108	181	170
Female	92	174	165
Districts (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Chibombo	137	135	322
Kabwe	155	-	155
Kapiri Mposhi	177	178	173
Mkushi	195	192	224
Mumbwa	151	144	239
Serenje	206	201	266

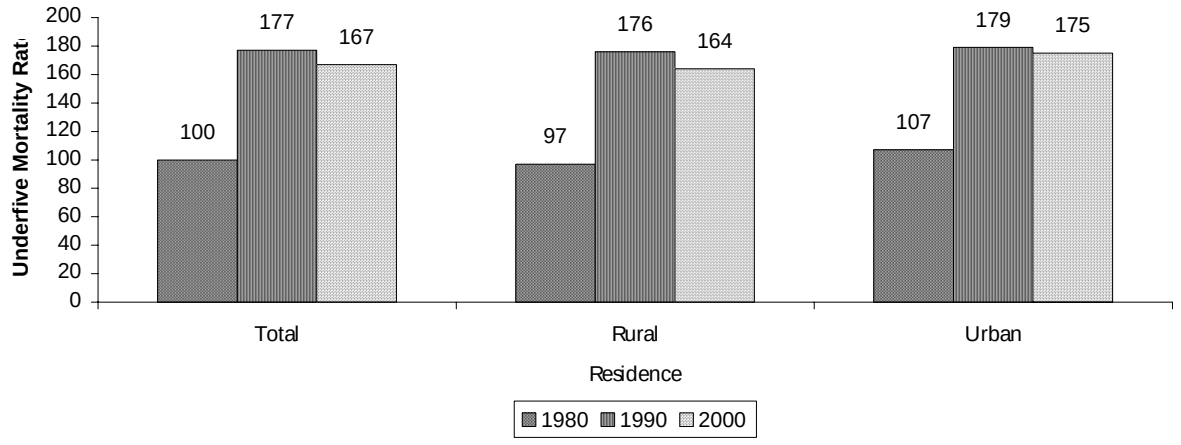
Sources: 1980, 1990 and 2000 Censuses of Population and Housing

8.5.1. Under Five Mortality Rate by Residence

The rural and urban differences in UMR (Figure 8.13) is similar to IMR and CMR, with the latter experiencing higher levels than the former. In 2000, UMR in urban areas was 7 percent higher than in rural areas (175 compared with 164 deaths per 1000). A similar pattern was observed in 1980 and 1990.

The pattern of UMR in both rural and urban areas is similar to provincial pattern. In rural areas, UMR has declined from 176 to 164 deaths per 1000 children and in urban areas it declined form 179 to 175 deaths per 1000 children.

Figure 8.13: Under-Five Mortality Rate by Residence, Central Province, 1980 - 2000



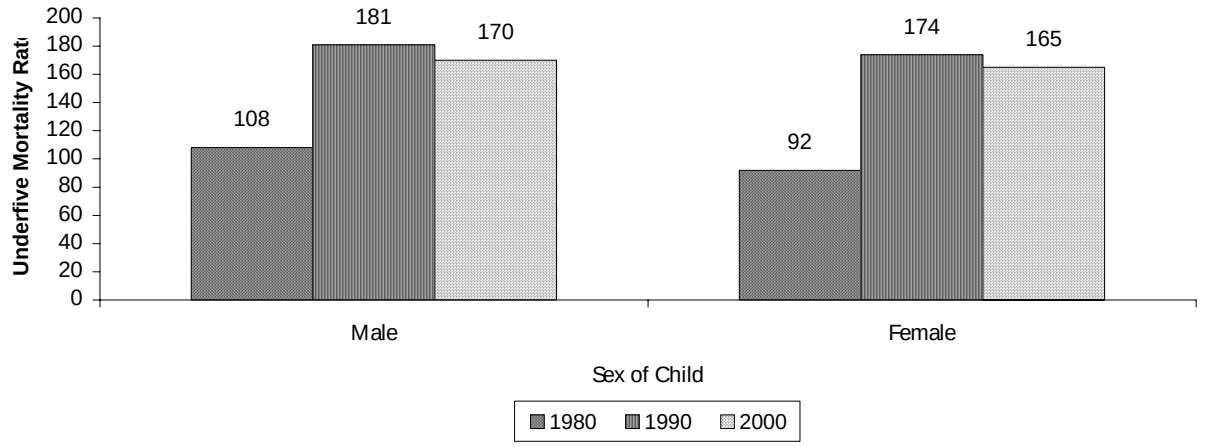
Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.5.2. Under Five Mortality Rate by Sex

Figure 8.14 shows that male children have higher U5MR than female children; 170 versus 165 deaths per 1000 children. A similar pattern is also observed in 1980 and 1990.. In 1980, 108 male and 92 female, and in 1990, 181 male and 174 female children died before reaching their fifth birthday of 1000 children.

The pattern of Under Five mortality by sex (1980,1990 and 2000) is similar to that of the national, where female infants have lower U5MR than male infants. However, survival chances for children were higher in the province than that of the national average.

Figure 8.14: Under-Five Mortality Rate by Sex, Central Province, 1980 - 2000

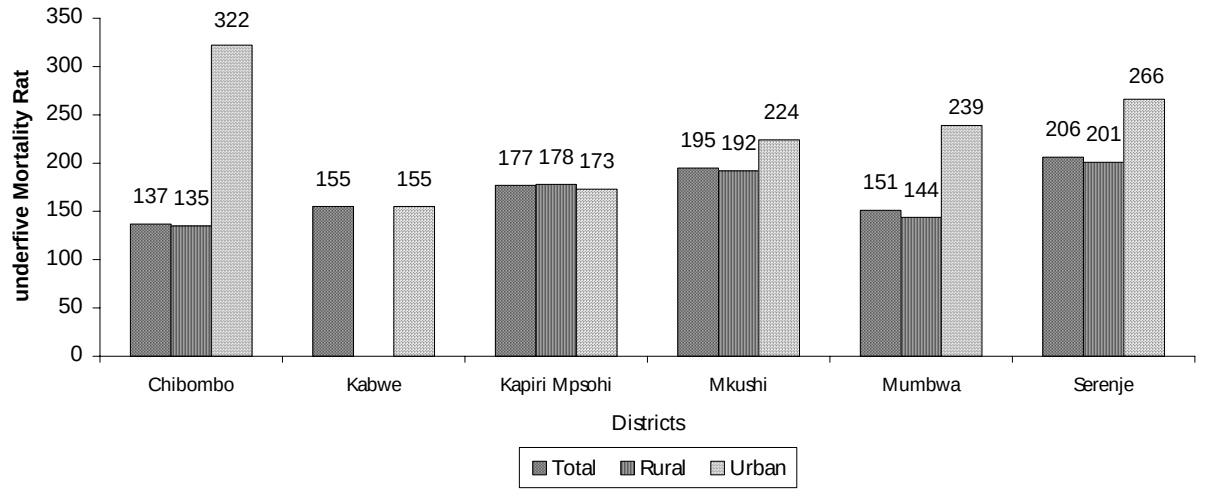


Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.5.3. Under Five Mortality by District

Figure 8.15 shows that at district level UMR is relatively very high in Serenje (206), Mkushi (195), and Kapiri Mposhi (177) districts and relatively low in Chibombo (137), Mumbwa (151) and Kabwe (155) deaths per 1000 children, respectively. In terms rural-urban residence of the districts, with the exception of Kapiri Mposhi, children born to mothers residing in rural areas have higher risks of dying before reaching their fifth birthday than in urban areas.

Figure 8.15: Under Five Mortality Rate by District, Central Province, 2000

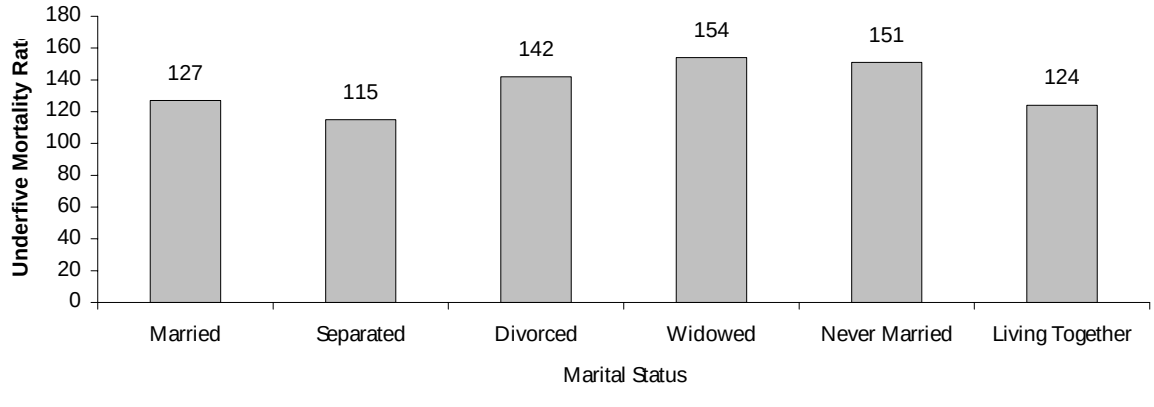


Source: CSO, 2000 Census of Population and Housing

8.5.4. Under Five Mortality Rate by Marital Status of Mother

UMR differentials by marital status of mother show that children born to mothers who are widowed, never married or divorced have slightly higher chances of dying before reaching age five (about 1 in 7 children born) than those born to mothers who are married, separated and co-habiting (living together). Children born to separated mothers have the U5MR at 115 deaths per 1000 children born (almost 1 in every 9 children born). (Refer to Figure 8.16 and Table 8.6).

Figure 8.16: Under-Five Mortality Rate by Marital Status, Central Province, 2000



Source: CSO, 2000 Census of Population and Housing

Table 8.6 Under-Five Mortality Rate by Marital Status and Residence, Central Province, 2000

Marital Status	Under-Five Mortality Rate (per '000)

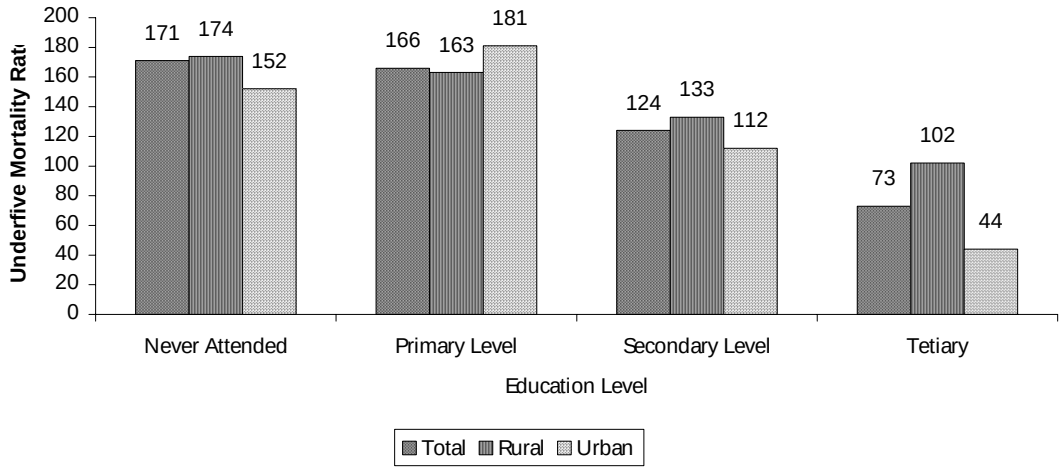
	Total	Rural	Urban
Married	127	133	106
Separated	115	111	128
Divorced	142	141	144
Widowed	154	137	200
Never Married	151	164	123
Living Together	124	125	115

Source: CSO, 2000 Census of Population and Housing

8.5.5. Under Five Mortality by Education Level of Mother

UMR varies markedly according to the level of education of mother (Figure 8.17). Children born to mothers with primary or less formal education are at the greatest risk of not celebrating their fifth birthday (almost 1 in 6 children born) than those born to mothers who have completed at least secondary school. Children born to mothers with tertiary education have the lowest U5MR at 73 deaths per 1000 children born (almost 1 in every 14 children born).

Figure 8.17: Under-Five Mortality Rate by Education Level, Central Province, 2000

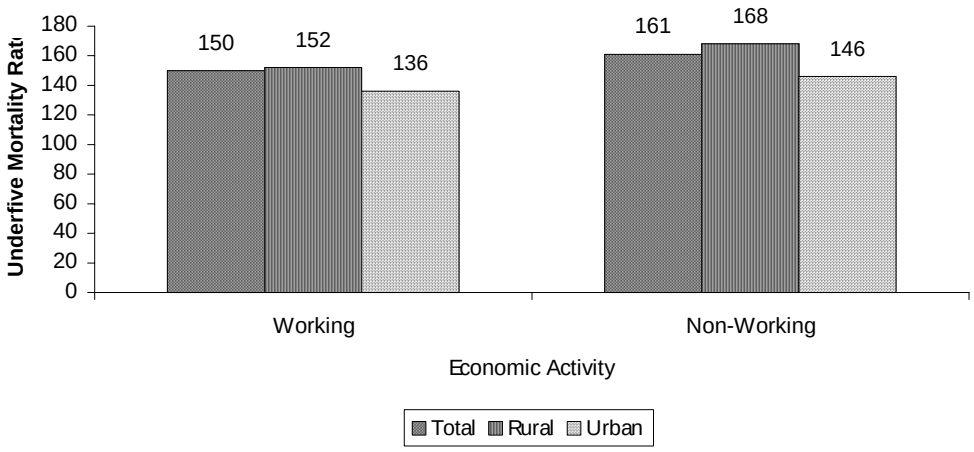


Source: CSO, 2000 Census of Population and Housing

8.5.6. Under Five Mortality Rate by Economic Activity of Mother

Results in Figure 8.18 show that Children born to working mothers have higher chances of surviving to age five than those born to non-working mothers.

Figure 8.18: Under-Five Mortality Rate by Economic Activity, Central Province, 2000



Source: CSO, 2000 Census of Population and Housing

8.6. LIFE EXPECTANCY AT BIRTH: LEVELS, TRENDS AND DIFFERENTIALS

Table 8.4 shows that there has been an increase in Life Expectancy at Birth between 1990 and 2000. It rose from 50 in 1990 to 51 in 2000. Despite the increase, the 2000 figure is still lower than the 1980 one estimated at 56. When disaggregated by sex, the same trend is observed. It is also observed that female babies experience higher expectation of life at birth at 58, 51 and 52 years in 1980, 1990 and 2000, compared to 54, 49 and 50 years for males in 1980, 1990 and 2000 respectively.

The life expectancy at birth for Central province is slightly higher than that of the national average in 2000 (51 years compared with 50 years).

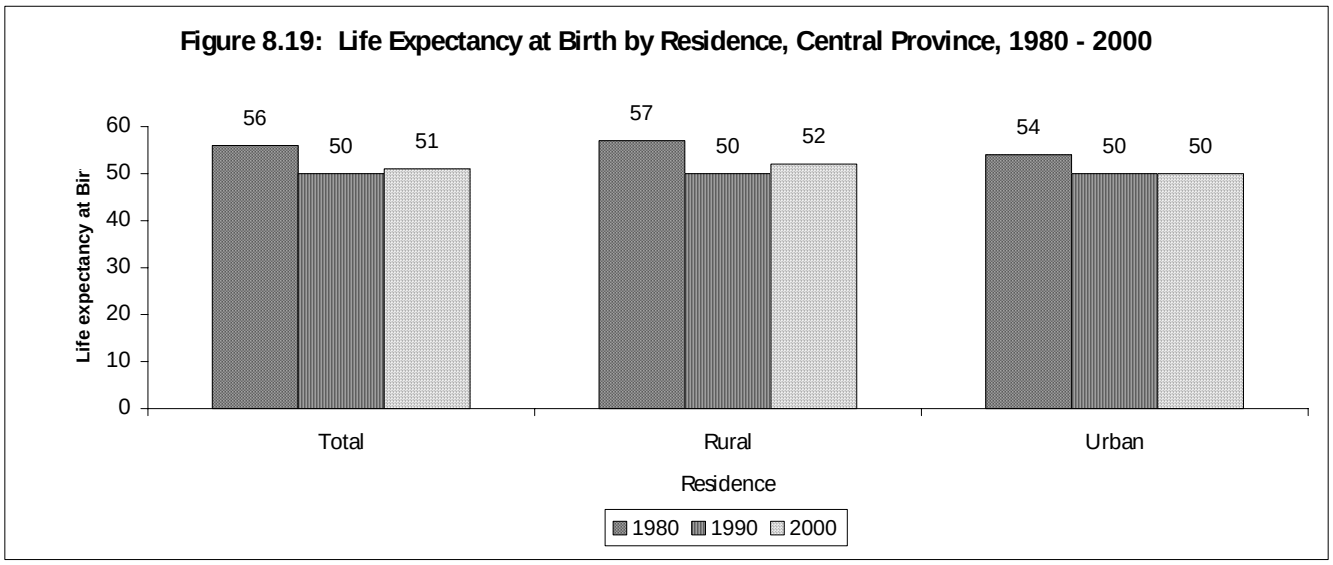
Table 8.7: Life Expectancy by Sex of Child, Residence and District, Central Province, 1980-2000

District and Residence	Life Expectancy at Birth (Years)		
	1980	1990	2000
Zambia	**52**	**47**	**50**
Central	56	50	51
Residence			
Rural	57	50	52
Urban	54	50	50
Sex of Child			
Male	54	49	50
Female	58	51	52
Districts (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Chibombo	55	56	35
Kabwe	53	-	53
Kapiri Mposhi	50	50	51
Mkushi	48	49	45
Mumbwa	53	54	44
Serenje	47	48	41

Source: CSO, 2000 Census of Population and Housing

8.6.1. Life Expectancy at Birth by Residence

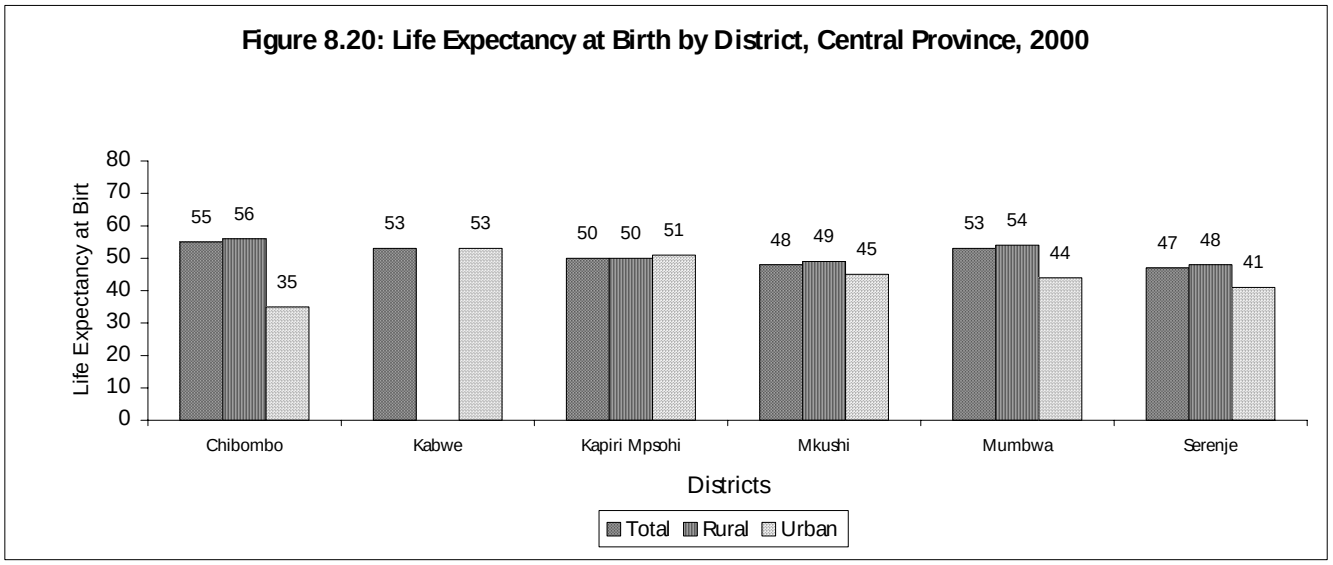
Figure 8.19 shows that the rural figures follow the provincial trend where the 2000 life expectancy has not increased above the 1980 figure. In the urban areas, however, life expectancy remained stable at 50 years between 1990 and 2000. It is also observed that in rural areas at birth is higher than that of urban areas. In the rural areas, life expectancy was 57, 50 and 52 years while in the urban areas it was 54, 50 and 50 years in 1980, 1990 and 2000, respectively.



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

8.6.2. Life Expectancy at Birth by District

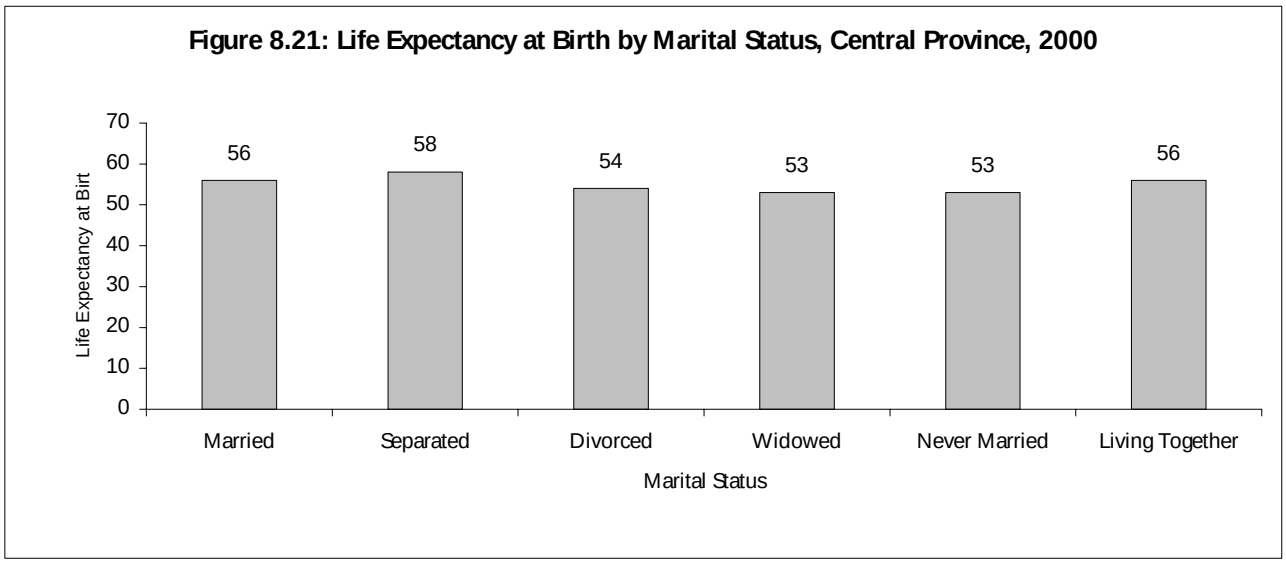
At the district level, Life Expectancy at Birth is relatively low in Serenje (47) and Mkushi (48). Chibombo has the highest Life Expectancy at Birth of 55 years followed by Kabwe and Mumbwa (53). In terms of rural-urban residence of the mother, with the exception of Kapiri Mposhi, babies born to mothers residing in rural areas of the districts have a higher number of years expected to live than their urban counterparts. Babies born to mothers residing in the urban areas of Chibombo have the least expected years to live at 35 years (See Figure 8.20).



Source: CSO, 2000 Census of Population and Housing

8.6.3. Life Expectancy at Birth by Marital Status of the Mother

There are no notable differences in Life Expectancy at birth by marital status of mother (Figure 8.21 and Table 8.8). Life Expectancy ranges from 53 years for children born to widowed and never married mothers to 58 years for those born to separated mothers.



Source: CSO, 2000 Census of Population and Housing

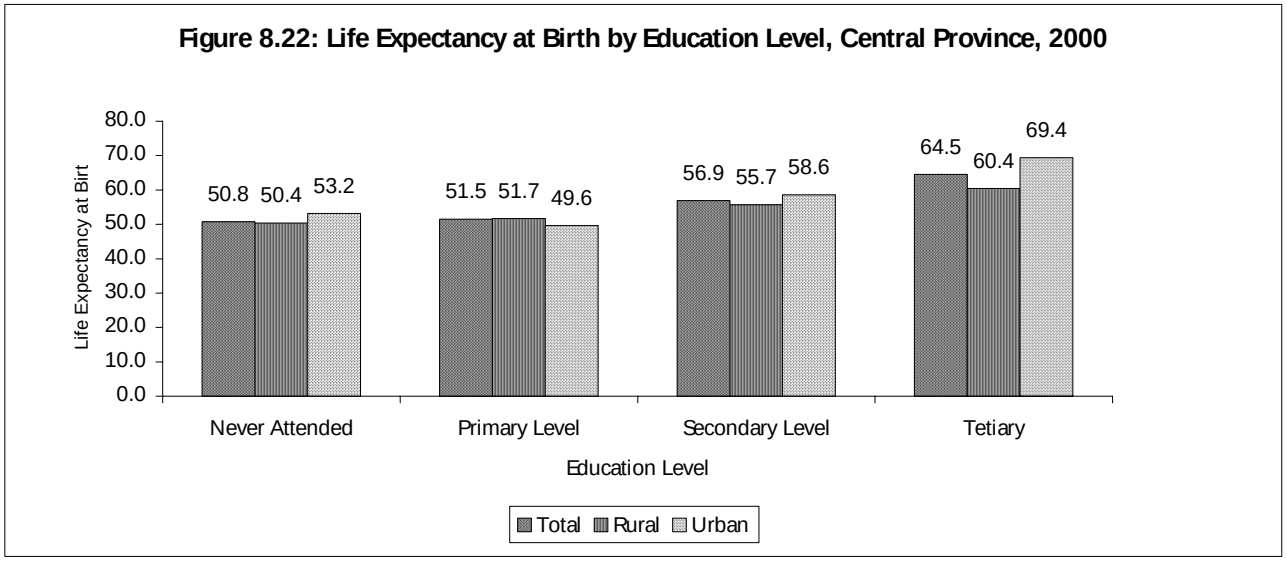
Table 8.8 Life Expectancy at Birth by Marital Status and Residence, Central Province, 2000

Marital Status	Life Expectancy at Birth (Years)		
	Total	Rural	Urban
Married	56.5	55.7	59.4
Separated	58.1	58.6	56.4
Divorced	54.5	54.7	54.2
Widowed	53.2	55.2	47.5
Never Married	53.3	51.7	56.9
Living Together	56.8	56.6	58.5

Source: CSO, 2000 Census of Population and Housing

8.6.4. Life Expectancy at birth by Education Level of Mother

Life Expectancy at Birth varies markedly according to the level of education of mother. Children born to mothers with tertiary education have the highest number of years they are expected to live (64 years) where as those born to mothers who have never attended formal schooling have the lowest number of years they are expected to live at 51 years.

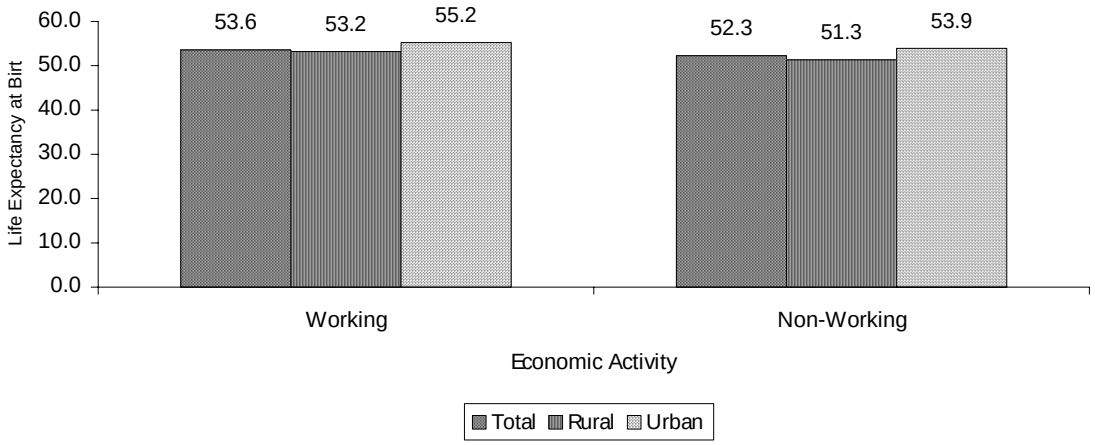


Source: CSO, 2000 Census of Population and Housing

8.6.5. Life Expectancy at birth by Economic Activity of Mother

As may be expected, children born to working mothers have a higher expectation of life at birth than those born to non-working mothers (Figure 8.23). The difference, however, is not large (53 compared with 52 years, respectively).

Figure 8.23: Life Expectancy at Birth by Economic Activity, Central Province, 2000

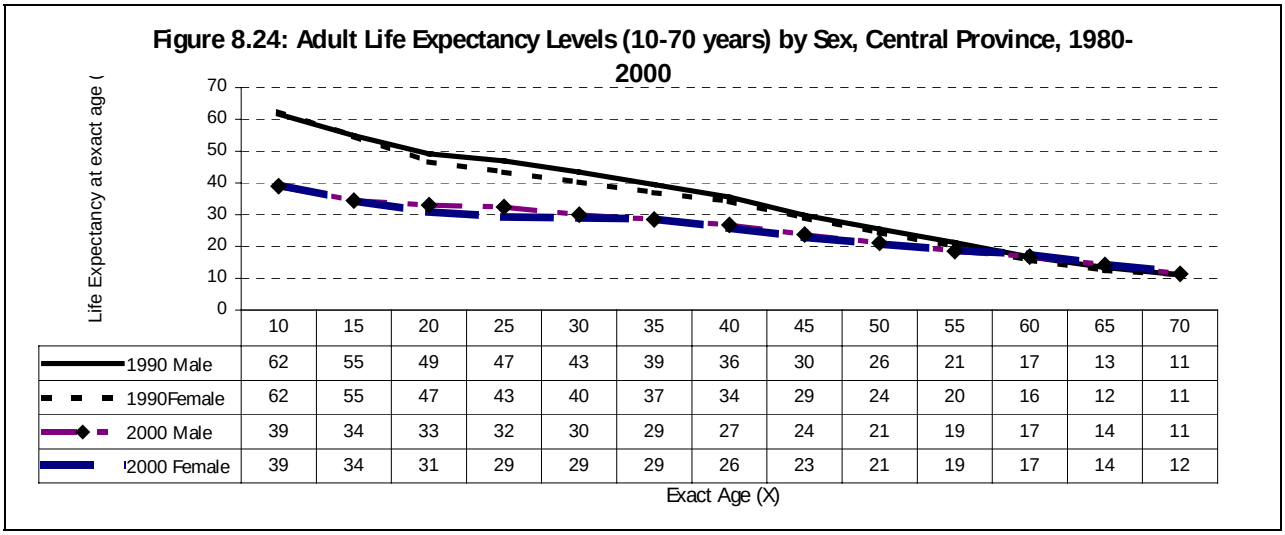


Source: CSO, 2000 Census of Population and Housing

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

Results in Figure 8.24 show that adult life expectancy levels in Central Province decreased between 1990 and 2000. The decrease may be attributed to the HIV/AIDS pandemic.

Figure 8.24: Adult Life Expectancy Levels (10-70 years) by Sex, Central Province, 1980-2000



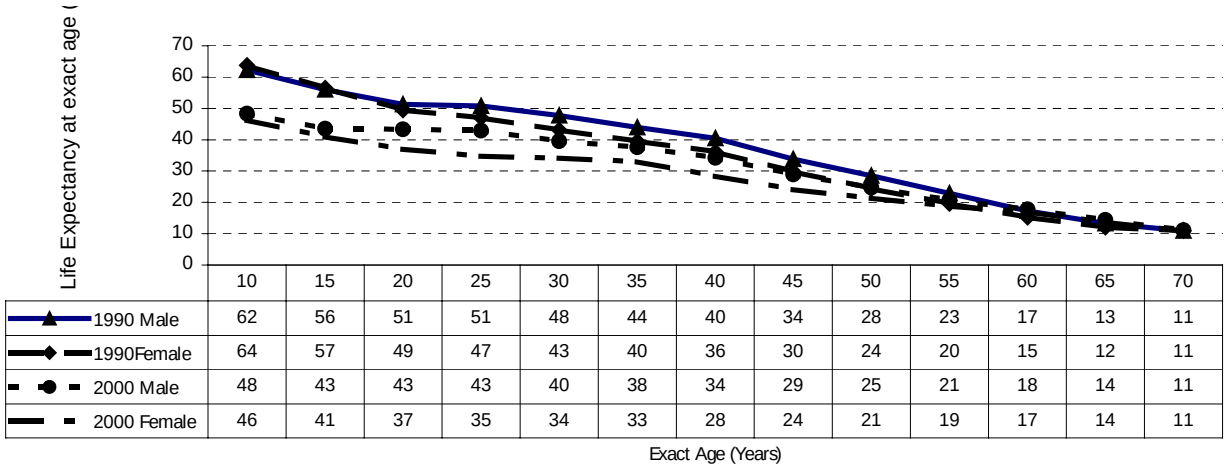
	10	15	20	25	30	35	40	45	50	55	60	65	70
1990 Male	62	55	49	47	43	39	36	30	26	21	17	13	11
1990Female	62	55	47	43	40	37	34	29	24	20	16	12	11
2000 Male	39	34	33	32	30	29	27	24	21	19	17	14	11
2000 Female	39	34	31	29	29	29	26	23	21	19	17	14	12

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

There was a steep decline in life expectancy at exact ages 10-55, for both males and females. At the older ages, life expectancy remained almost the same between.

Differentials by residence in Figures 8.25 and 8.26 show that adults in rural areas have higher chances of surviving to older ages than in urban areas. In rural areas in both 1990 and 2000, males live longer than females at all ages (10-70). The gap is even wider between age 20 and 45 years. In urban areas, on the contrary, males and females have the same life expectancies between ages 10 and 20. From age 30 onwards, females have a higher life expectancy than males.

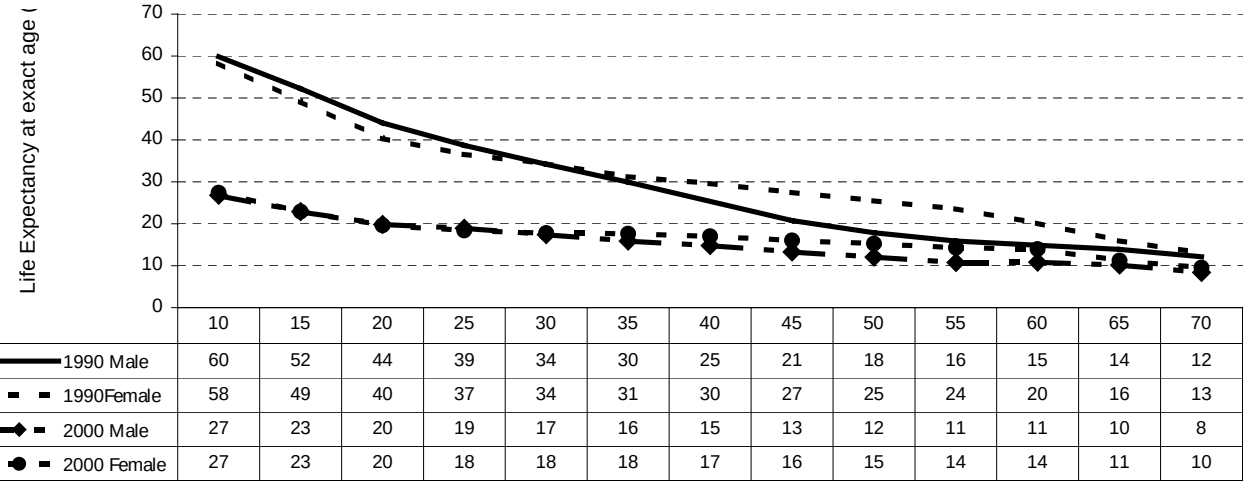
Figure 8.25: Adult Life Expectancy Levels (10-70 years) by Sex,Rural Central Province, 1990-2000



	10	15	20	25	30	35	40	45	50	55	60	65	70
1990 Male	62	56	51	51	48	44	40	34	28	23	17	13	11
1990Female	64	57	49	47	43	40	36	30	24	20	15	12	11
2000 Male	48	43	43	43	40	38	34	29	25	21	18	14	11
2000 Female	46	41	37	35	34	33	28	24	21	19	17	14	11

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

Figure 8.26: Adult Life Expectancy Levels (10-70 years) by Sex of Adult, Urban Central Province, 1990-2000



	10	15	20	25	30	35	40	45	50	55	60	65	70
1990 Male	60	52	44	39	34	30	25	21	18	16	15	14	12
1990Female	58	49	40	37	34	31	30	27	25	24	20	16	13
2000 Male	27	23	20	19	17	16	15	13	12	11	11	10	8
2000 Female	27	23	20	18	18	18	17	16	15	14	14	11	10

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

The figures also show that there has been a larger decline in life expectancy in urban areas compared to rural areas for both males and females. In rural areas, life expectancy declined by over 10 years at ages 10 –15 years for males and 10-25 for females. In urban areas on the other hand, such a decline has been between ages 10 and 40 for males and 10-55 for females.

8.8. Summary

Overall, infant mortality rate has declined in Central Province by about 5 percent. Despite the decline, the levels are still high, with one in ten infants dying before their first birthday compared to one in nine in 1990. At district level, Serenje recorded the highest IMR and Chibombo the least. In Serenje about one in eight die before their first birthday compared to 1 in 12 in Chibombo. Higher Infant mortality risks are associated with mothers who live in urban areas, have no formal education, divorced, widowed and never married and not working.

There was a 6 percent decline in Child Mortality Rate (CMR) between 1990 and 2000, from 78 to 73. However, the 2000 level is still above the 1980 one (54 deaths per 1000). At the district level CMR was highest in Serenje (95) and lowest in Chibombo (57). Higher incidents of dying among children aged between exact age 1 and 5 were observed in those born to urban mothers, divorced, widowed and never married, mothers with no formal education and non-working.

Under five Mortality Rate (UMR) declined in Central Province by six percent between 1990 and 2000. Despite the decline, the levels are still higher than the levels in 1980, with about one in six children dying before their fifth birthday in 2000 compared to one in ten in the 1980. At district level, Kabwe district recorded the least UMR and Serenje recorded the highest. About one in five under-five children in Serenje die before reaching age five. Higher UMRs were associated with mothers from rural areas, with a low level of education, widowed and never married and not working.

Life expectancy at birth in Central Province has improved slightly by about one year in 1990 to 2000 period (rose from about 50 to 51 years). At district level, Serenje registered the lowest life expectancy at birth of 47 years, compared with the highest, Chibombo at 55 years. Low Life Expectancy at Birth is also associated with babies born to urban mothers, widowed, divorced or never married mothers, mothers with no or low levels of education and among not working mothers.

Adult survivorship levels have significantly deteriorated between 1990-2000. Males have higher chances of surviving than females.

Chapter 9
DISABILITY

9.1 Introduction

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

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

Table 9.1: Disability Categories used in Censuses 1969 - 2000

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

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

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

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

9.2. Concepts and Definitions

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

Types of Disability

- Blind (Visually Impaired)- complete loss of sight
- Partially sighted- loss of one eye or poor sight but not complete blindness
- Deaf/Dumb (speech impaired)- complete loss of sense of hearing/speech
- Hard of Hearing- Partial loss of sense of hearing but not complete loss
- Mentally ill- A disorder related to the individuals mental state or state of mind

- Ex-mental- a person that suffered from mental disorder before but is now rehabilitated or undergoing rehabilitation
- Mentally retarded- a person that is very slow to learn or has deficiency of mental intellect
- Physically handicapped (Physically disabled)- A person with a physical impairment relating to the loss of bodily stature

CAUSES OF DISABILITY

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

9.3. Limitations of Data on Disability

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

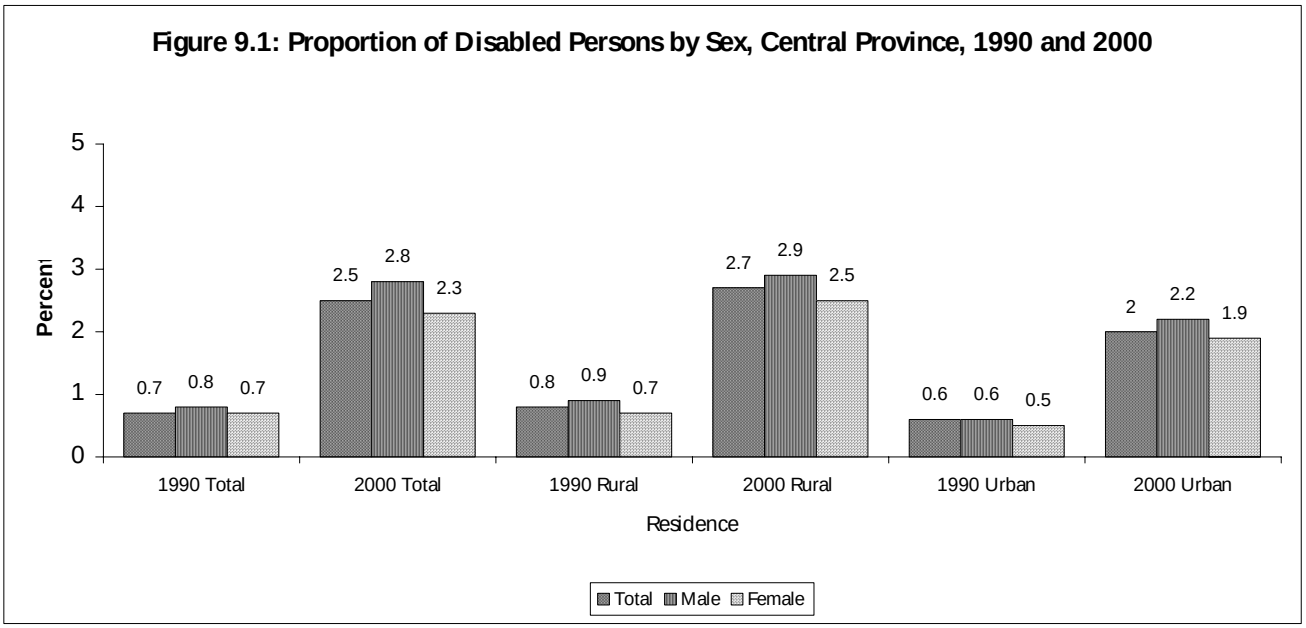
The categories employed in the current census, however, do not take into account the international definitions of disabilities, which include variations in the intensity of disability, such as the loss of feelings in fingers (UN, 1996).

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

9.4. Proportion of the disabled to the total population

Out of a total population of 957,288; 24,379 reported to be disabled; a proportion of 2.5 percent of the total population. This is just slightly lower than the national one at 2.7 percent. This proportion (2.5 percent) was an increase over 1990 census when only 0.7 percent of the total population reported to be disabled. An examination of the proportions of the disabled between the two censuses may indicate that there has been an increase in the prevalence of disability between 1990 and 2000. While this may be true, the observed increase was largely caused by the increase in the categories of the disabled (see Figure 9.1 and Table 9.2).

Figure 9.1: Proportion of Disabled Persons by Sex, Central Province, 1990 and 2000



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

Table 9.2: Proportion of disabled persons by Sex and Residence, Central Province, 1990 and 2000

Sex and year	Total Population			Proportions Of The Disabled		
	Total	Rural	Urban	Total	Rural	Urban
1990						
Zambia	7,383,097	4,477,814	2,905,283	0.9	1.1	0.7
Central Province	720,627	507,430	213,197	0.7	0.8	0.6
Male	358,396	251,725	106,671	0.8	0.9	0.6
Female	362,231	255,705	106,526	0.7	0.7	0.5
2000						
Zambia	9,337,425	5,990,356	3,347,069	2.7	3.2	0.2
Central Province	957,288	725,100	232,188	2.5	2.7	2
Male	475,952	361,434	114,518	2.8	2.9	2.2
Female	481,336	363,666	117,670	2.3	2.5	1.9

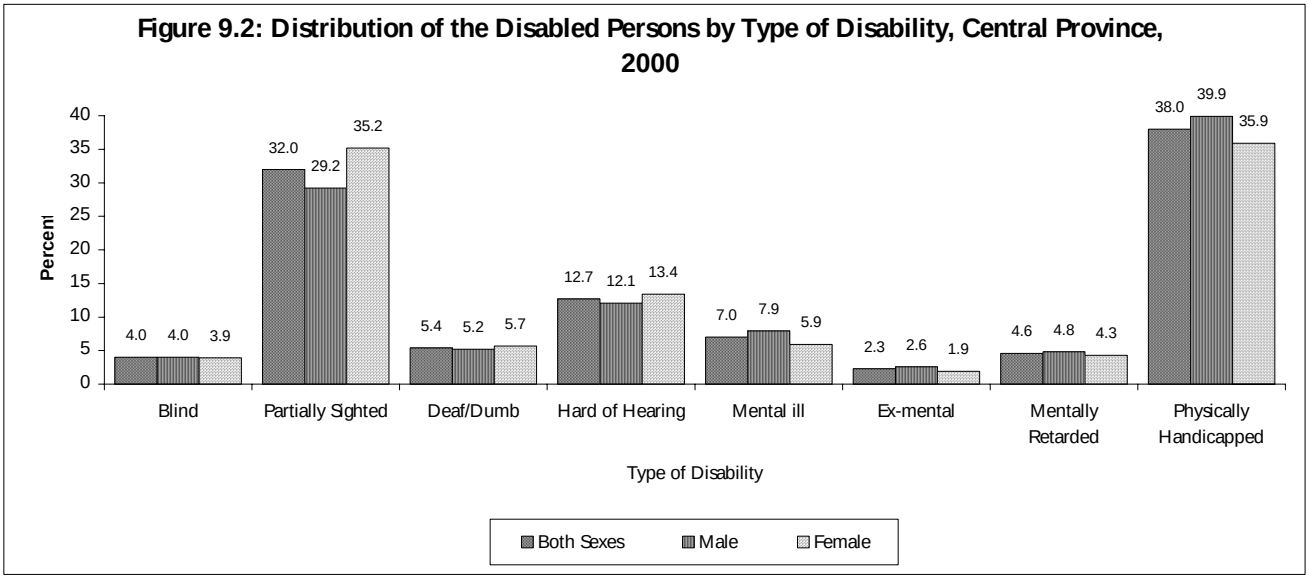
Source: CSO, 1990 and 2000 Censuses of Population and Housing

A comparison between rural and urban areas show that rural areas have a larger proportion of persons with disabilities. About 3 percent of the population of rural areas is disabled compared to 2 percent in urban areas.

9.5 Types of Disability

The distribution of disabled persons by type of disability in Central province shows that out of a total of 24,379 disabled persons, 54 percent are male and 46 percent are female.

As mentioned earlier, the types of disability include the blind, partially sighted, deaf/dumb, hard of hearing, mentally ill, ex-mental, mentally retarded and the physically handicapped. Table 9.3 and Figure 9.2 show that the physically handicapped form the largest proportion of the disabled persons, which also holds true for the national. These form 38.0 percent of the 24,379 disabled persons. The second most common disability is partial sightedness, which was reported by 32.0 percent of the disabled population. Some disability categories such as blindness (4.0 percent), ex-mental (2.3 percent), mental retardation (4.6 percent) and deaf/dumbness (5.4 percent) are less common.



Source: CSO 2000 Census of Population and Housing

The table also shows that there were more male than female persons who reported a disability; (13,114 against 11,265). The pattern of the disabled regarding the more common and less common disabilities for the male and female is similar to that of the total disabled persons. However, for the females, the difference in proportion between the partially sighted and physically handicapped is minimal. This pattern is also similar across districts although proportions vary slightly. For instance, Kabwe (2.4 percent), and Mkushi (3.1 percent) have lower proportions of the blind compared to districts such as Mumbwa (4.7 percent) and Chibombo (5.0

percent). Partial sightedness is most common in Mumbwa (39.0 percent) and least in Serenje (27.1 percent). The proportion of the deaf and dumb ranges from 4.0 percent in Kabwe to 6.7 percent in Chibombo while that of the hard of hearing ranges from 9.1 percent in Kabwe to 15.1 percent in Mkushi. Physically disabled is most common in Serenje (39.7 percent) and least in Mumbwa with 34.1 percent.

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

Type of Disability	Zambia	Central	Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenje
Total	256,690	24,379	4,942	3,542	4,737	3,132	4,264	3,762
Blind	5.3	4	5	2.4	3.9	3.1	4.7	3.8
Partially sighted	30.2	32	31.7	33.7	28.9	31.4	39	27.1
Deaf/dumb	6.2	5.4	6.7	4	5	5.3	4.7	6.5
Hard of hearing	12.4	12.7	12.2	9.1	11.5	15.1	14.7	13.8
Mentally ill	8.1	7	7.5	6.4	6.9	6.1	6.1	8.6
Ex-mental	3.6	2.3	1.9	3	2	2.5	2	2.5
Mentally retarded	5.4	4.6	4.5	5.7	5	4.3	3.2	4.8
Physically handicapped	38.8	38	38.6	38.3	39.3	38.2	34.1	39.7
Male	135,613	13,114	2,721	1,909	2,577	1,658	2,198	2,051
Blind	5	4	5	2.5	3.8	3	5.1	3.9
Partially sighted	27.7	29.2	29.8	29.9	26.3	29.8	35.6	23.9
Deaf/dumb	6.2	5.2	6.3	4	4.8	5.2	4.9	5.7
Hard of hearing.	11.5	12.1	11.6	7.8	9.5	14.7	14	15.9
Mentally ill	8.8	7.9	8.1	7.8	7.6	7.2	7	9.4
Ex-mental	3.7	2.6	2	3.2	2.4	3	2.1	3.2
Mentally retarded	5.6	4.8	4.7	5.2	5.7	4.8	3.3	5
Physically handicapped	40.7	39.9	40	41.5	42.4	38.1	35.5	41
Female	121,077	11,265	2,221	1,633	2,160	1,474	2,066	1,711
Blind	5.6	3.9	5	2.3	4.1	3.3	4.4	3.8
Partially sighted	33	35.2	34	38	31.9	33.2	42.7	30.9
Deaf/dumb	6.2	5.7	7.2	4	5.3	5.4	4.4	7.5
Hard of hearing	13.3	13.4	12.9	10.6	13.8	15.6	15.5	11.4
Mentally ill	7.3	5.9	6.7	4.9	6	4.8	5.2	7.6
Ex-mental	3.6	1.9	1.8	2.9	1.5	1.9	1.9	1.8
Mentally retarded	5.3	4.3	4.3	6.3	4.3	3.7	3.1	4.4
Physically handicapped	36.7	35.9	37	34.5	35.6	38.4	32.5	38

Source: CSO 2000 Census of Population and Housing

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

9.6 AGE STRUCTURE OF THE DISABLED

The age structure of the disabled is shown in Table 9.4. Data show that the number of the disabled increases with increasing age up to age group 20-24 at which it reaches the peak. After this age group, the numbers fluctuate. Across age groups 0-4 to 50-54, the largest proportion of the disabled are physically handicapped closely followed by the partially sighted. For the older age groups, the largest proportion is partially sighted closely followed by the physically handicapped.

Table 9.4: Percent Distribution of the disabled by type of disability and age, Central Province, 2000

Age Group	Type of Disability								
	Total	Blind	Partially Sighted	Deaf/Dumb	Hard of Hearing	Mentally ill	Ex Mental	Mentally Retarded	Physically Handicapped
0 - 4	953	2.3	19.1	10.8	10.6	5.0	2.7	5.7	41.2
5-9	1,572	1.5	16.4	12.4	14.2	5.7	2.8	6.5	39.9
10-14	1,741	1.5	16.1	11.5	18.3	8.4	1.9	8.4	37.1
15 - 19	1,731	1.4	24.0	7.9	11.0	10.5	2.0	8.3	37.9
20 - 24	1,776	2.1	22.4	6.3	8.8	11.4	3.8	6.7	40.4
25 - 29	1,727	2.3	23.8	5.3	8.8	12.2	3.0	7.9	39.0
30 - 34	1,659	2.3	21.1	4.8	9.4	11.6	4.1	5.4	43.8
35 - 39	1,411	3.7	24.7	4.3	9.7	8.2	3.5	5.5	44.4
40 - 44	1,479	2.5	32.7	2.5	9.2	8.0	3.0	3.4	41.8
45 - 49	1,375	2.1	37.5	3.5	9.6	6.9	2.5	3.2	38.7
50 - 54	1,576	2.6	37.6	2.7	8.6	4.5	1.5	2.7	44.0
55 - 59	1,306	3.8	40.0	3.2	11.6	4.0	1.7	1.5	39.6
60 - 64	1,659	5.5	52.5	1.9	17.0	2.4	1.1	1.6	31.0
65 - 69	1,370	7.0	46.3	3.2	13.1	5.5	1.2	1.2	32.8
70 - 74	1,099	8.9	47.8	3.2	16.7	2.2	1.2	1.2	33.2
75+	1,945	13.3	51.7	3.5	23.5	1.7	0.6	1.7	26.3
Total	24,379	4.0	32.0	5.4	12.7	7.0	2.3	4.6	38.0

Source: CSO 2000 Census of Population and Housing

9.7. Causes of Disability

The various causes of disability were categorized as congenital/prenatal, disease/illness, injury, accident/trauma and other. Of these, the most common cause is disease, which was reported by 36.1 percent of the disabled population. Disease was also cited as the most common cause of disability at national level, reported by 38.9 percent of the disabled population. Prenatal causes were reported by 12.4 percent, injury by 16.6 percent, and other causes by 9.5 percent while 22.9 percent reported that they did not know the cause of their disability (see Table 9.5).

Some causes of disability affect females more than they do males. These include disease and other causes. Injuries are more common among males than females while proportions of males and females reporting prenatal causes are the same. This pattern holds true for the districts as well. Among the districts, Mumbwa has the largest proportion of 39.2 percent while Serenje has the least proportion with 32.6 percent reporting disease as a cause of disability.

Table 9.5: Percent Distribution of the disabled by district and cause, Central Province, 2000

Cause of Disability	Zambia	Central	Chibombo	Kabwe	Kapiri Mposhi	Mkushi	Mumbwa	Serenje
Total	256,690	24,379	4,942	3,542	4,737	3,132	4,264	3,762
Congenital/pre-natal	13.7	12	13.3	11.2	12.6	11.5	9.5	13.7
Disease/illness.	38.9	36.1	35.6	37	36.5	35.5	39.2	32.6
Injury/accident/trauma	17.2	16.6	16.2	17.1	18	14.9	13.5	19.7
Other	9.3	9.5	9.3	8.3	7.8	9.7	9.5	12.9
Unknown	20.2	22.9	23	23.8	20.7	26.4	25	19.5
Male	135,613	13,114	2,721	1,909	2,577	1,658	2,198	2,051
Congenital/pre-natal	13.7	12	12.6	11.3	12.5	11.5	10.2	13.9
Disease/illness	36.3	33.7	33.7	36.4	34.1	31.5	36	30.1
Injury/accident/trauma	20.7	20.3	19.1	21.1	22	19.7	16.5	23.6
Other	8.9	9.1	8.9	7.7	7	9.5	9.5	12.4
Unknown	19.4	22.1	22.8	20.8	20.3	25.9	24.8	18.8
Female	121,077	11,265	2,221	1,633	2,160	1,474	2,066	1,711
Congenital/pre-natal	13.7	12	14.2	11.1	12.8	11.5	8.8	13.4
Disease/illness	41.9	38.9	37.9	37.7	39.4	39.9	42.6	35.5
Injury/accident/trauma	13.2	12.3	12.7	12.4	13.3	9.6	10.4	15
Other	9.7	10	9.8	9.1	8.7	10	9.6	13.6
Unknown	21	23.8	23.3	27.3	21.2	27	25.1	20.3

Source: CSO 2000 Census of Population and Housing

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

. Education Levels of the Disabled

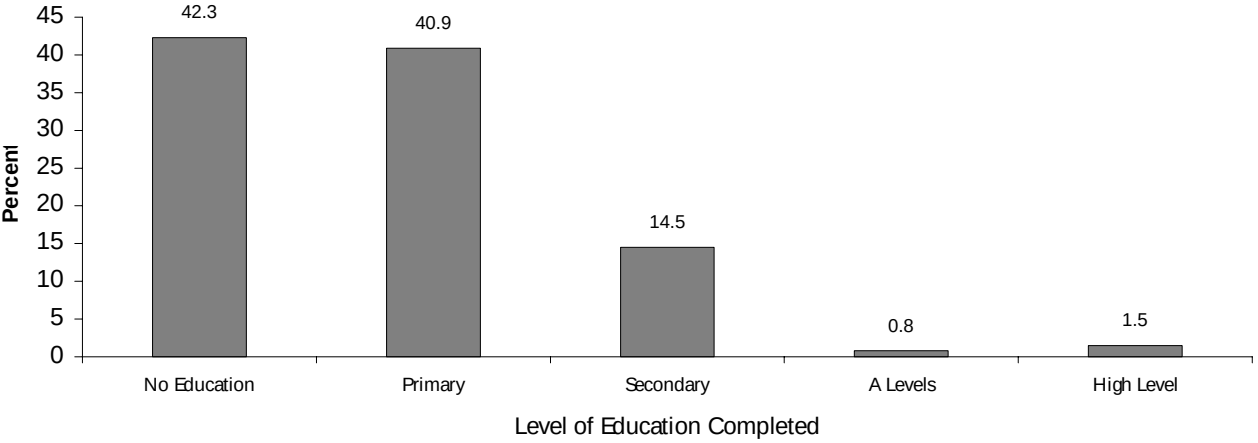
le 9.6 and Figure 9.3 show completed levels of education by disabled persons. The proportion of those who have never attended school is highest among the deaf/dumb (69.2 percent). The proportions of completed levels of education decrease with increasing level among the disabled. About two fifths have had no education and another two fifths have only completed primary education. Only 2.3 percent have completed post secondary education. The highest proportion of those who completed higher education was among the partially sighted followed by the ex-mental.

Table 9.6: Percent Distribution of the disabled persons 5 years and over, by type of disability and level of education, Central Province, 2000

Type of Disability	Level of Education Completed						
	Total Number	Percent Total	No Education	Primary	Secondary	A Levels	Higher Level
Blind	941	100.0	63.9	28.5	6.3	0.5	0.9
Partially Sighted	7,610	100.0	38.7	40.4	17.1	1.1	2.7
Deaf/Dumb	1,221	100.0	69.2	24.1	5.7	0.2	0.8
Hard of Hearing	2,991	100.0	51.4	39.5	7.9	0.5	0.8
Mentally Ill	1,649	100.0	54.8	31.5	12.7	0.2	0.8
Ex-Mental	531	100.0	44.3	35.8	16.9	0.9	2.1
Mentally Retarded	1,061	100.0	59.9	32.3	7.1	0.4	0.3
Physically Handicapped	8,876	100.0	37.5	45.3	15.6	0.8	0.9
Total	23,426	100.0	42.3	40.9	14.5	0.8	1.5

Source: CSO, 2000 Census of Population and Housing

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



Source: CSO, 2000 Census of Population and Housing

. Economic Activity of the Disabled

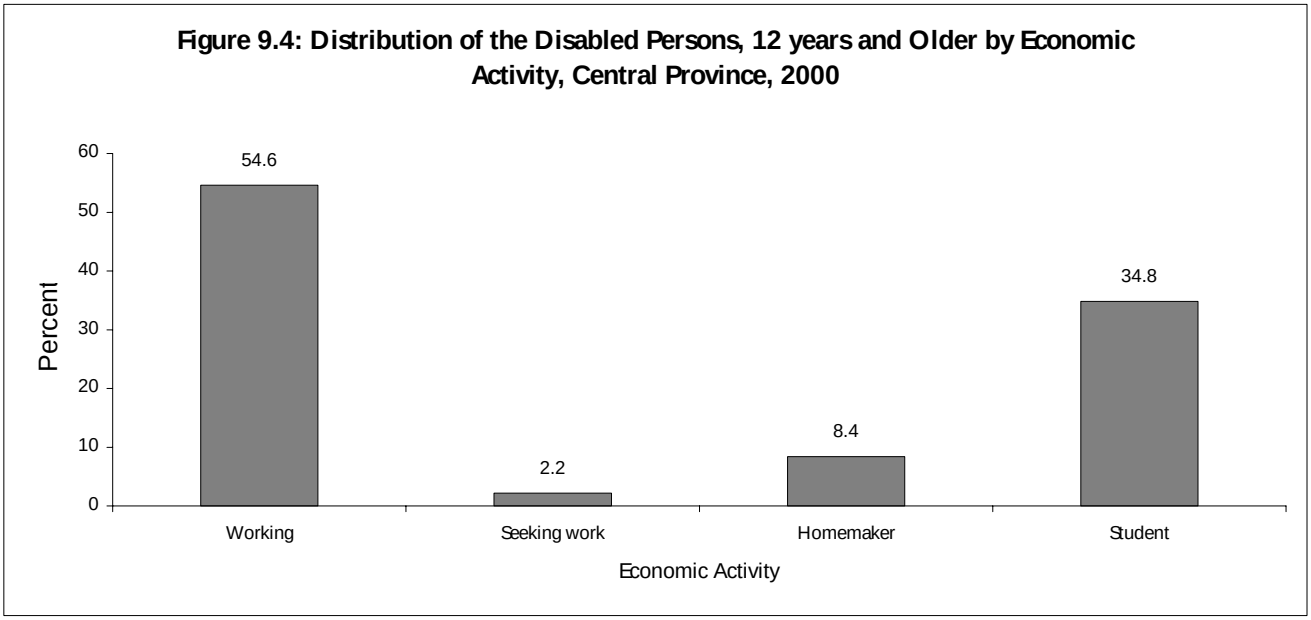
le 9.7 and Figure 9.4 show the economic activities of the disabled persons. Over half of the disabled persons are working and about one third are students (This also holds true at national level). It is worth noting that none of the disabled persons falls in the categories "not available for work" and "available for work" but not seeking work. Details on the definitions of the various economic activities are given in Chapter 6.

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

Table 9.7: Percent Distribution of the disabled persons 12 years and over, by type of disability and economic activity, Central Province, 2000

Usual Economic Activity	Type of Disability								
	Zambia	Central	Partially Blind	Sighted	Hard of Deaf/Dumb	Hearing	Mentally ill	Mentally Ex Mental	Physically Retarded
Working	55.5	54.6	21.6	60.8	40.9	54.9	26.3	50.7	35.9
Seeking work	2.6	2.2	0.7	1.9	2.2	2	1.3	1.9	2.3
Homemaker	8.8	8.4	2.6	8.8	8	7.5	4.3	7.3	6.9
Student	33.1	34.8	75.1	28.5	48.8	35.6	68.1	40.1	55
Percent Total	100	100	100	100	100	100	100	100	100
Total Number	194,039	843	6,359	850	2,340	1,395	426	817	7,106

Source: CSO, 2000 Census of Population and Housing



Source: CSO, 2000 Census of Population and Housing

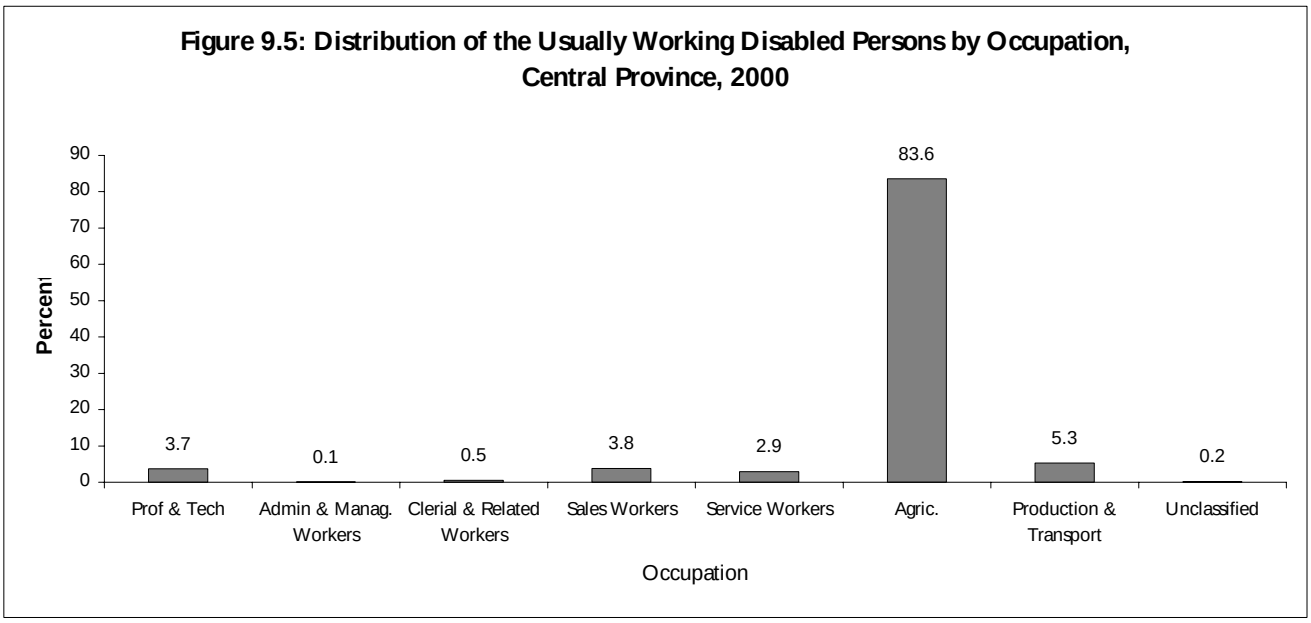
0. Occupation of the Disabled

a on occupation of the disabled persons was also collected during the 2000 census and is shown in Table 9.8 and Figure 9.5. The most common occupation among the disabled is agriculture. Sales, production/transportation and professional/technical are also fairly common occupations.

Table 9.8: Percent Distribution of the usually working disabled by type of disability and occupation, Central Province, 2000

Type of Disability	Occupation									
	Total Number	Percent Total	Prof & Tech	Admin & manag. Workers	Clerical & Related Workers	Sales Workers	Service Workers	Agric.	Production and Transport	Unclass.
Blind	173	100.0	2.9	0.6	1.7	2.3	4.0	85.5	2.9	0.0
Partially Sighted	3,696	100.0	6.4	0.2	0.6	3.8	1.5	83.5	3.6	0.2
Deaf/Dumb	335	100.0	0.3	0.0	0.3	2.1	0.6	93.1	3.3	0.3
Hard Hearing	1,234	100.0	1.0	0.1	0.2	2.6	1.2	91.5	3.5	0.0
Mentally ill	345	100.0	0.6	0.0	0.6	3.5	0.6	90.4	4.1	0.3
Ex Mental	209	100.0	1.9	0.0	0.0	5.3	4.3	81.8	6.7	0.0
Mentally Retarded	279	100.0	0.4	0.0	0.4	2.9	2.5	89.2	4.7	0.0
Physically Handicapped	3,880	100.0	2.8	0.1	0.6	4.3	4.9	79.3	7.7	0.1
Total	10,151	100.0	3.7	0.1	0.5	3.8	2.9	83.6	5.3	0.2

Source: CSO, 2000 Census of Population and Housing



Source: CSO, 2000 Census of Population and Housing

1. Employment Status of the Disabled Household Heads

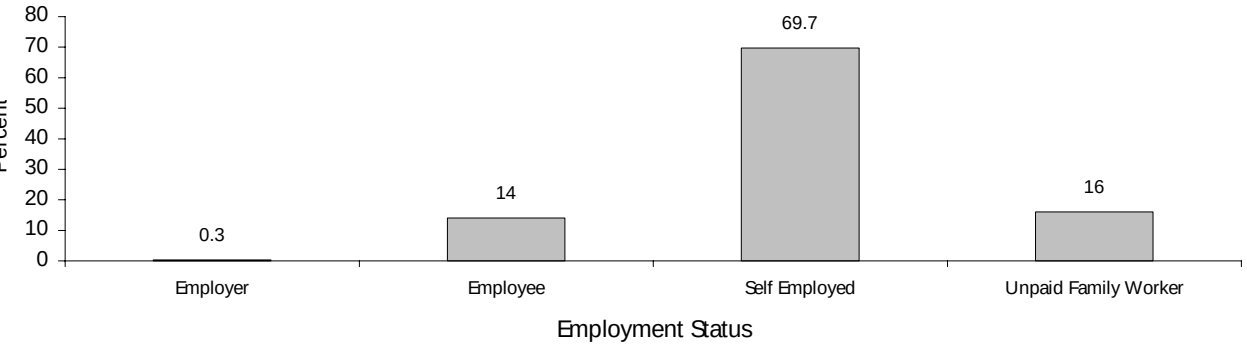
The employment status of disabled household heads is shown in Table 9.9 and Figure 9.6. The largest proportions of the disabled are self-employed (69.7 percent) while the least proportion is among the employers (0.3 percent). There are however, some variations between the different disability categories.

Table 9.9: Percent Distribution of the disabled household heads, by type of disability and employment status, Central Province, 2000

Type of Disability	Employment Status					
	Total Number	Percent Total	Employer	Employee	Self Employed	Family Worker
Blind	109	100.0	0.0	14.6	68.9	16.5
Partially Sighted	2,475	100.0	0.3	14.3	68.7	16.8
Deaf/Dumb	108	100.0	0.0	8.3	75.1	16.7
Hard of Hearing	543	100.0	0.4	11.8	67.7	20.1
Mentally Ill	117	100.0	0.0	10.2	68.4	21.3
Ex-Mental	219	100.0	0.9	8.2	72.1	18.8
Mentally Retarded	137	100.0	0.0	7.3	70.1	22.6
Physically Handicapped	2,411	100.0	0.3	15.4	70.9	13.3
Total	6,120	100.0	0.3	14.0	69.7	16.0

Source: CSO, 2000 Census of Population and Housing

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



Source: CSO, 2000 Census of Population and Housing

9.12. Summary

Out of the total population of Central province, 2.5 percent is disabled. The proportion of the disabled is higher in rural than urban areas. There are more disabled male (54 percent) than female (46 percent).

Physical disability is the most common type of disability affecting about 38 percent of the disabled population while the ex mental form the smallest proportion of 2.3 percent.

ease is the most common cause of disability reported by about 36 percent of the disabled population. Prenatal causes were reported by 12.0 percent, injury by 16.6 percent, and other causes by 9.5 percent while 22.9 percent reported that they did not know the cause of their disability. Injury is more commonly reported by males than females while disease is more common among females than males. Among the districts, Mumbwa reported the largest proportion of the disabled citing disease as a cause of their disability with 39.2 percent while Serenje has the least with 32.6 percent.

out two fifths of the disabled have never been to school and another two fifths have completed primary education. Amongst all categories of disability, the largest proportions of the disabled are self-employed. The least proportion is among the employers. The most common of the stated occupations among the disabled is agriculture which takes up about 83.6 percent.

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Appendix A

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