2000 Census of Population and Housing

North-Western Province Report

Volume Seven

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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.

Dr. Buleti G. Nsemukila
Director of Census and Statistics

October, 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

North-Western province's population recorded as at 16th October 2000 (Census Night) is 583,350 comprising 292,494 males and 290,856 females. The majority of the population, 88 percent or 51,1647 lives in rural areas, while the urban areas have the remaining 12 percent or 71,703.

Of the total population, 46.4 percent are below the age of 15, resulting in a median age of 16 years. Hence North Western Province has continued to have a young population with an in-built potential to grow for many years to come. North Western Province's population grew at an average annual growth rate of 2.5 percent between 1969-1980, 3.8 percent between 1980-1990, and finally 2.9 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 4.6 persons per square kilometer, with the highest population density occurring in Solwezi, with 6.7 persons per square kilometer.

Though Household-Headship is still dominated by males, the results from the census show that almost one in five households or 19.1 percent is female headed. There is very little variation by rural or urban residence. Chavuma has the highest percentage of female-headed households at 22 percent.

A total of 500,939 persons reported their predominant language of communication in the 2000 census, with Lunda being the most spoken language, spoken by 33.9 percent of the population as their predominant language of communication, followed by Kaonde spoken by 27.1 percent, Luvale is spoken by 19.3 percent, Luchazi by 3.2 percent, Chokwe by 2.4 percent of the population. English is used by only 0.3 percent of the population, as their predominant language of communication, despite it being the country's official language.

Census results show that 43 percent of the provincial population is literate i.e. is able to read and write in any language, with 50.5 of males and 36.6 percent of females able to read and write in any language.

Literacy rates have decreased marginally from the 1990 rate of 42 percent. Forty percent of the population in rural areas can read and write in any language compared to 67 percent of the population in urban areas. The proportion of youths who could read and write in any language declined from about 64 percent in 1990 to 59 percent by 2000.

The province's labour force population stands at 182,761. However, economic participation rates stand at 56.6 percent for males, and 34.3 percent for females. The labour force has increased by 67.5 percent between 1990 and 2000. About 89 percent of the labour force is in rural areas, while 11 percent is in urban areas. About Fifty percent of the labour force is in the young age group of 12-29 years.

The employed population increased by 80 percent between 1990 and 2000. The female employed population increased by 100.9 percent, while the male employed population increased by 65.1 percent.

The number of the unemployed declined by 10.9 percent between 1990 and 2000. The size of the male unemployed population decreased by 9.9 percent, while that of females increased by 12.7 percent.

Economic activities are still organized around family labour as evidenced by the predominance (82.1 percent) of workers who are classified as either self-employed or unpaid family workers. In contrast, only 16.3 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 (86 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 6.7 is higher than the 5.3 estimated for urban areas. North Western province's TFR at 6.6 is relatively high. Infant mortality rate has declined by about 19 percent in the period 1990-2000. However, the IMR is still high, with about one in every eight infants dying before reaching their first birthday. Similarly, Childhood mortality rate has also declined by 19 percent in the period 1990 and 2000, from 75 to 56 deaths per 1000 children. Under-five mortality, however has recorded an increase of 9 percent in the period 1990 to 2000, with about one in seven under-five children dying before their fifth birthday. The decline in the IMR has led to a slight increase in the Life Expectancy at birth from 51 years in 1990 to 56 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 2.8 percent of total population of North Western province. The proportion of the disabled is higher in rural than urban areas. Physical disability is the most common type of disability affecting about 47 percent of the disabled population, while ex-mental is the least common type of disability accounting for about three percent of the disabled population. Disease is the most common cause of disability reported by about 40 percent of the disabled population.

About half of the disabled have never been to school and a little over one third 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 occupation among the disabled is agriculture, which takes up about 91.5 percent.

Chapter1

BACKGROUND

1.1 Geography

North-Western Province covers an area of 125,826 square kilometers, which is about 17 percent of the total area of Zambia. Administratively, the province is divided into seven districts, namely: Chavuma, Kabompo, Kasempa, Mufumbwe, Mwinilunga, Solwezi and Zambezi. Solwezi is the Provincial Capital.

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

1.2. Population

The population of North-Western Province continued to increase. It increased from 231,733 in 1969, to 302,668 in 1980, to 438,216 in 1990 and 538,350 in 2000, thus registering a rising growth rate of 2.0 percent during the 1969-1980, 2.4 percent during the 1980-1990 and 2.9 in 1990-2000 intercensal periods. This is the opposite of what is obtaining at the National Level where the population growth rate was decreasing through the succeeding intercensal periods. North Western province's population is now growing at a faster rate compared to the whole country, which has a growth rate of 2.5 percent (1990-2000).

Its share of the country's population has been the smallest, accounting for 5.7 percent in 1969, 5.4 percent in 1980 and 5.2 in 1990 and 6 percent in 2000. It is sparsely populated though the density increased from 1.8 in 1969, to 2.4 in 1980, 3.5 in 1990 to 4.6 persons per square kilometre in 2000 (this is three times less than the population density of the country which stands at 13.1 in 2000). Out of the 539,822 population of North-Western Province enumerated in 2000, 51 percent were females and 49 percent were males.

Population by district ranges from 29,941in Chavuma to 203,797 in Solwezi. Chavuma has the highest population density 7.0 persons per square kilometre. Mufumbwe District population grew the fastest at 5.8 percent, the highest population growth rate among all the districts in the country. Table 1.1 provides more details.

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

District	Population				Percentage Distribution				Area (Sq.Km	Density				Growth Rate (%)		
	1969	1980	1990	2000	1969	1980	1990	2000		1969	1980	1990	2000	1969-80	1980-90	1990-00
Chavuma	-	-	27,944	29,941	-	-	6.4	5.1	4,280	-	-	6.5	7.0	-		0.7
Kabompo	33,376	40,347	60,164	71,238	14.4	13.3	13.7	12.2	14,532	2.3	2.8	4.1	4.9	1.9	2.8	1.7
Kasempa	32,656	30,606	42,261	51,904	14	10.1	9.6	8.9	20,821	1.6	1.5	2.0	2.5	-0.6	1.9	2.1
Mufumbwe	–	9,286	25,151	44,002	–	3.1	5.7	7.5	20,756	-	0.5	1.2	2.1	-	9.5	5.8
Mwinilunga	51,398	68,845	93,941	117,505	22.2	22.7	21.4	20.1	21,116	2.4	3.3	4.4	5.6	3	1.7	2.3
Solwezi	52,979	92,773	137,728	203,797	22.9	30.7	31.4	34.9	30,261	1.8	3.1	4.6	6.7	5.8	3	4.0
Zambezi	61,324	60,811	51,027	64,963	26.5	20.1	11.6	11.1	14,060	3.3	3.3	3.6	4.6	-0.1	1.2	2.4

North-Western	231,733	302,668	438,216	583,350	100	100	100	100	125,826	1.8	2.4	3.5	4.6	2	2.4	2.9
Zambia	4,056,995	5,661,801	7,759,161	9,885,591	100	100	100	100	752,612	5.4	7.5	10.3	13.1	3.1	2.7	2.5

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

1.3 Economy

The province is endowed with minerals, which include; Copper ore in Kalengwa, Kansanshi, Lumwana and Mwinilunga and Gold ore at Kansanshi. Manufacturing is insignificant. There are, however, grinding mills (on small scale) in all the districts and the honey factory in Kabompo and several other honey-processing facilities.

1.4 Agriculture

Agriculture is the main economic activity in the province. About 96 percent of the population is engaged in small-scale subsistence farming. Maize has assumed an increasing role as a staple food in the province in all the seven districts. Paradoxically, maize is not suitable on many parts of the province due to acidic soils. Other major crops grown include; rice, millet, groundnuts and mixed beans.

1.5 Forestry

About half the size of the Province is covered by forestry and Game Reserves. The province has a high potential for timber production. Currently, the province has quite a good number of timber sawyers.

1.6 Tourism

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

1.7 Education

There are 382 basic schools in the province and 21 secondary schools. It also has three colleges namely; Solwezi Teacher Training College, Solwezi Trades Training Institute and the Mwinilunga Trades Training School.

1.8 Health

The province has 9 hospitals and 109 Health Centres. Out of the 9 hospitals, government runs 4 and the rest are run by mission. Out of the 109 Health Centres, 9 belong to Missions, while government runs 99 and one is privately run. Table 1.2 gives more information.

Table1.2 Number of Health Facilities by District and Province, North-western Province, 2004

District	Government	Mission	Private	Total	Beds	Cots
Chavuma	6	1	-	7	222	6
Kabompo	10	3	-	13	351	68
Kasempa	13	2	-	15	240	24
Mufumbwe	9	2	-	11	65	13
Mwilnilunga	17	6	-	23	382	13
Solwezi	38	2	-	40	674	63
Zambezi	6	3	-	9	396	30
Total	99	19	-	118	2,330	217

Source: Ministry of Health

1.9 HIV/AIDS

The disease burden in the province has been compounded by the HIV/AIDS pandemic, which is a major concern in the province. The 2001/2 Zambia Demographic and Health Survey (ZDHS) estimated the HIV/AIDS levels to be nine percent among adults aged 15- 49 years, see Table 1.3 for details.

Table 1.3: 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.

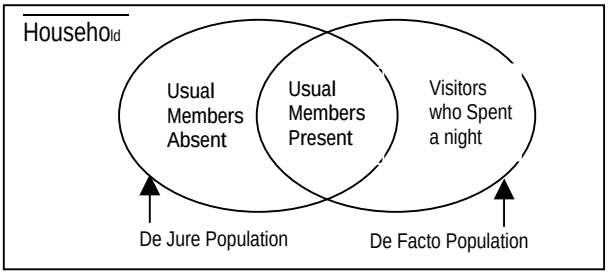
- De facto Population: **This refers to the usual household members present and visitors who spent the census night at any given household. This however excludes:**

(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).**

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 and co-operation with respondents. Difficulties in communication and lack of proper boundary descriptions also contribute to coverage errors. Examining certain statistics such as growth rate, age composition, child-woman ratio and dependency ratio usually highlights coverage errors.

2.4.1.1 Age Composition

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

Table 2.1: Population Distribution by Broad Age Groups, North-Western Province, 1980, 1990, and 2000

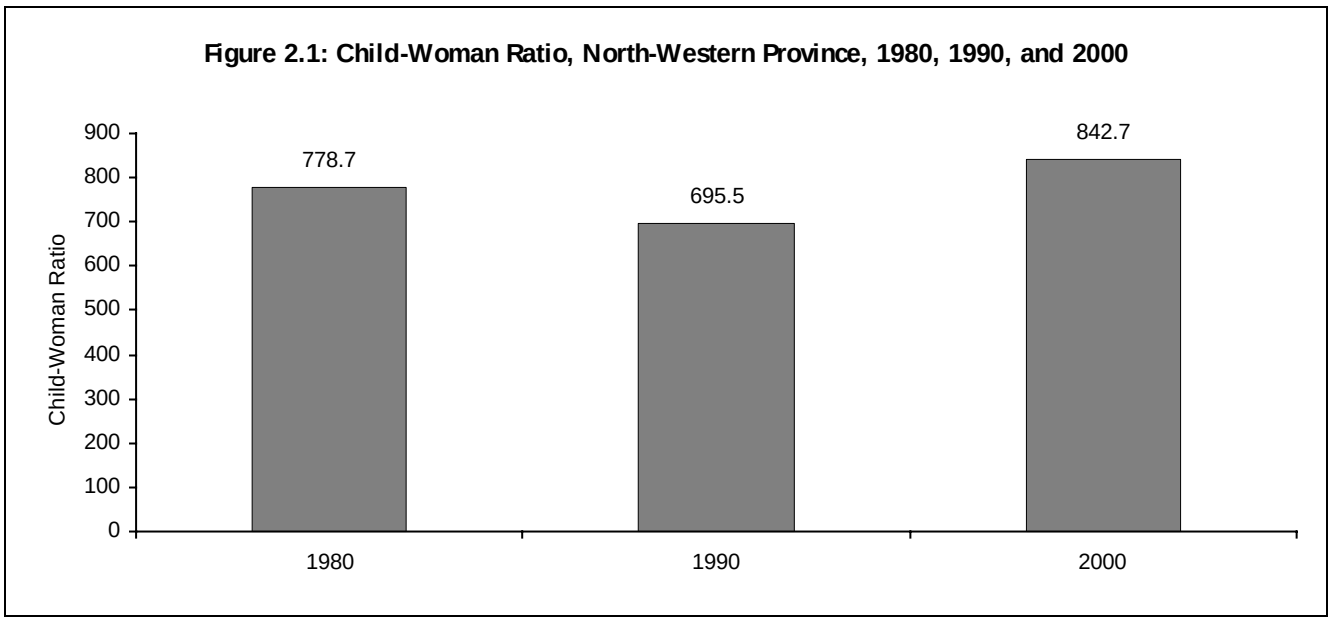
Age Group	Population					
	1980 Census	Percent	1990 Census	Percent	2000 Census	Percent
0-14	142669	47.1	174,251	45.0	256,625	47.5
15-64	143,177	47.3	195,649	50.5	263,395	48.8
65+	16,823	5.6	17,652	4.6	19,802	3.7
Total	302,668	100.0	387,552	100.0	539,822	100.0

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

The proportion of children 0-14 years dropped from 47.1 percent in 1980 to 45.0 percent in 1990 but rose to 47.5 percent in 2000. There was a reduction in the proportion of adults (15-64) from 50.5 percent in 1990 to 48.8 percent in 2000. The proportion of persons aged 65 years or older has been declining since 1980 (See Table 2.1). The population distribution shows that the quality of age data by broad age groups is acceptable.

2.4.1.2 Child-Woman Ratio

The child-woman ratio dropped from 778.7 in 1980 to 695.5 in 1990 but increased to 842.7 per 1000 women aged 15-49 years in 2000 (See Figure 2.1). This is in line with the increase in the percentage 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 the child-woman ratio between 1990 and 2000 appear to have been caused by the decline in child mortality.

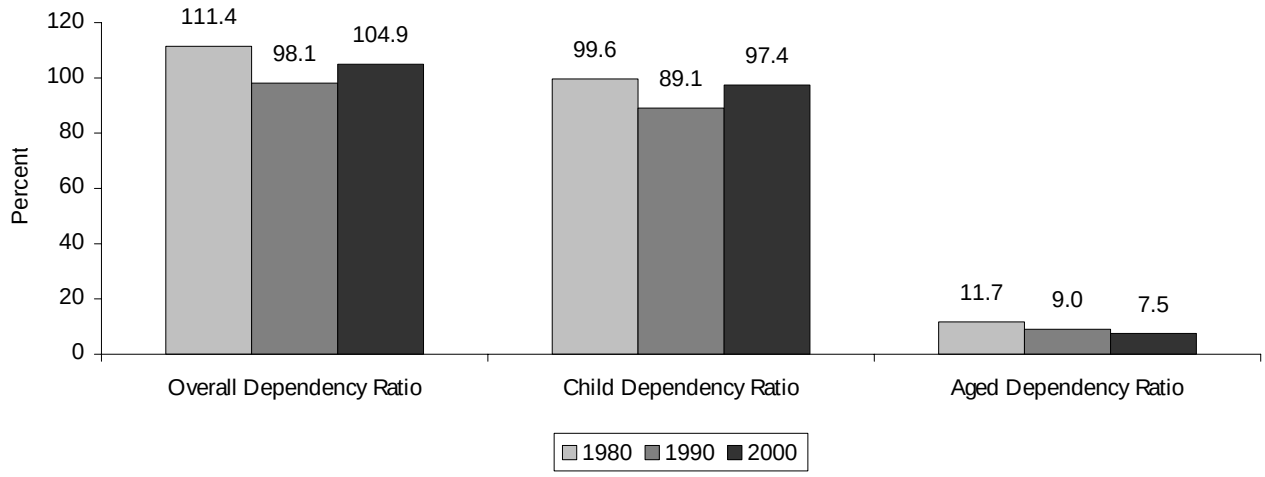


Source: CSO, 1980, 1990, and 2000 Census of Population and Housing

2.4.1.3 Dependency Ratio

The overall dependency ratio for the population of North-Western Province for 1980, 1990 and 2000 Censuses were 114.4, 98.1, and 104.9 respectively per 100 persons in age group 15-64 years. This means that for every 100 persons in the age range 15-64 years, there were 104.9 persons in the age groups 0-14 and 65 years or older. The proportion of population 65 years or older decreased from 4.7 percent in 1990 to 3.7 percent in 2000. The age dependency ratio for the population aged 65 years and over to that of 15-64 years (Old Age Dependency Ratio) was 9.0 for 1990 and 7.5 in 2000 while that of children increased from 89.1 in 1990 to 97.4 in 2000 (See Figure 2.2).

Figure 2.2: Dependency Ratio, North-Western Province, 1980, 1990, and 2000



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

2.5 Content Error

Content errors refer to instances where characteristics such as age, sex, marital status, and economic activity 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.

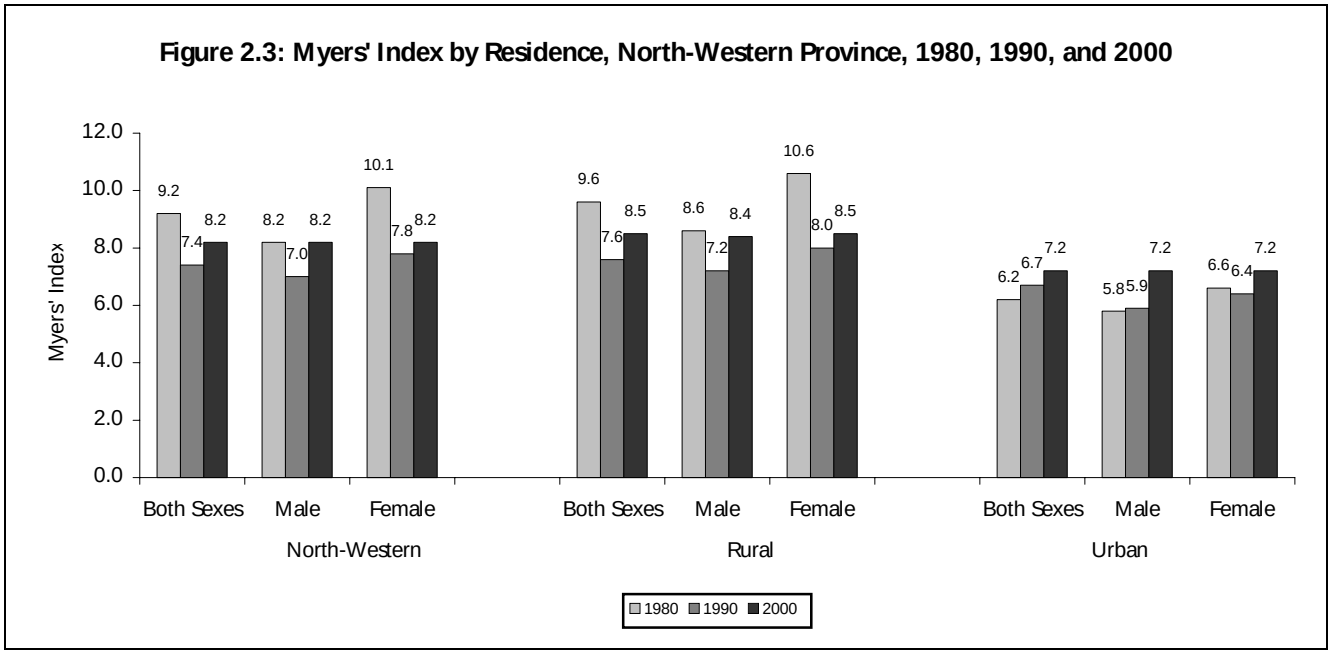
2.5.1 Digit Preference

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

Investigation of age heaping in the North-Western Province is done through the calculation of Myers' Index. This index has been calculated for 1980 and 1990 Censuses data and is presented in Table 2.2. 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 case of North-western Province, 1990 and 2000 censuses had an index that was lower than 10 which implies that age reporting was good. In the 1980 census on the other hand, the female index in total and Rural North-western Province is greater than 10, which implies that the age reporting was not so good.

Figure 2.3 and Table 2.2 show the results of digit preference in age data for North-Western Province using Myers' Index. Results from Figure 2.3 show that the index for males and females was the same (8.2) in 2000, while in 1980 and 1990, the Myers' Index for Males was lower than that of females. Myers' Index for males dropped from 8.2 in 1980 to 7.0 in 1990 and later rose to 8.2 in 2000 while that of females declined from 10.1 in 1980 to 7.8 in 1990 but later rose to 8.2 in 2000. In as far as the Myers' Index is concerned, North-Western Province experienced an increase between 1990 and 2000 for the province as a whole as well as in rural and urban areas. The index rose from 7.6 in 1990 to 8.5 in 2000 for the rural areas and from 6.7 in 1990 to 7.2 in 2000 for the urban areas. In fact, Myers' Index shows an upward trend for the urban area and for males in urban areas since 1980 (See Figure 2.3). The upward trend observed between 1990 and 2000 in the Myers' Index shows a deterioration of the quality of the age data. Generally, the Index shows that age reporting has been better in urban areas than in rural areas since 1980 due to the small Index observed. Results from Figure 2.3 show that the accuracy of age reporting for the province as a whole was the same for

males and females in 2000. Overall, other than in 1980 when the index was more than 10 for females, the index has been less than 10 implying that age reporting has been good.



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

Table 2.2 shows the most preferred digits in decreasing order of preference for the three censuses. This shows that there was age heaping in North-Western Province. Preference for digits 0, 2, and 8 among males was observed in all the three censuses with 6 being preferred in 1990 by females in urban areas while 5 was preferred in 2000.

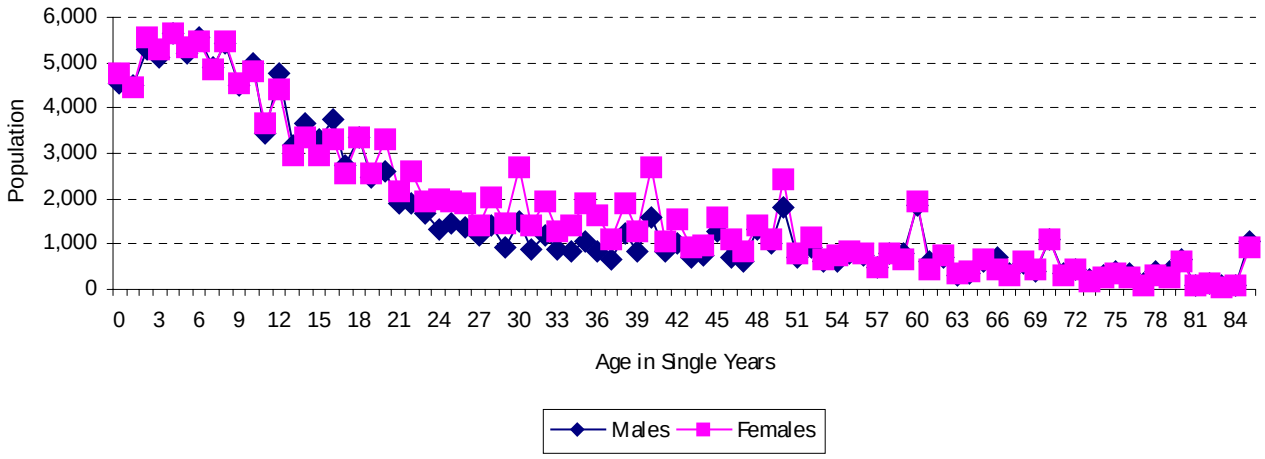
Table 2.2: Most Preferred Digits, North-Western Province, 1980, 1990, and 2000

Residence	Most Preferred Digits and Census Year			
	Sex	1980	1990	2000
North-Western	Both Sexes	0, 8	0, 2,8	0,8,5
	Male	0, 8	0, 2,8	0,8,5
	Female	0, 2, 8	0, 2,8	0,8,5
Rural	Both Sexes	0, 8	0,2, 8	0,8,5
	Male	0, 2, 8	0,2, 8	0,8,5
	Female	0, 2, 8	0,2, 8	0,8,5
Urban	Both Sexes	0, 2, 8	0, 2,8	0, 8
	Male	0, 8	0, 8	0, 8
	Female	0,2, 8	0,2,6, 8	0,8,2

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

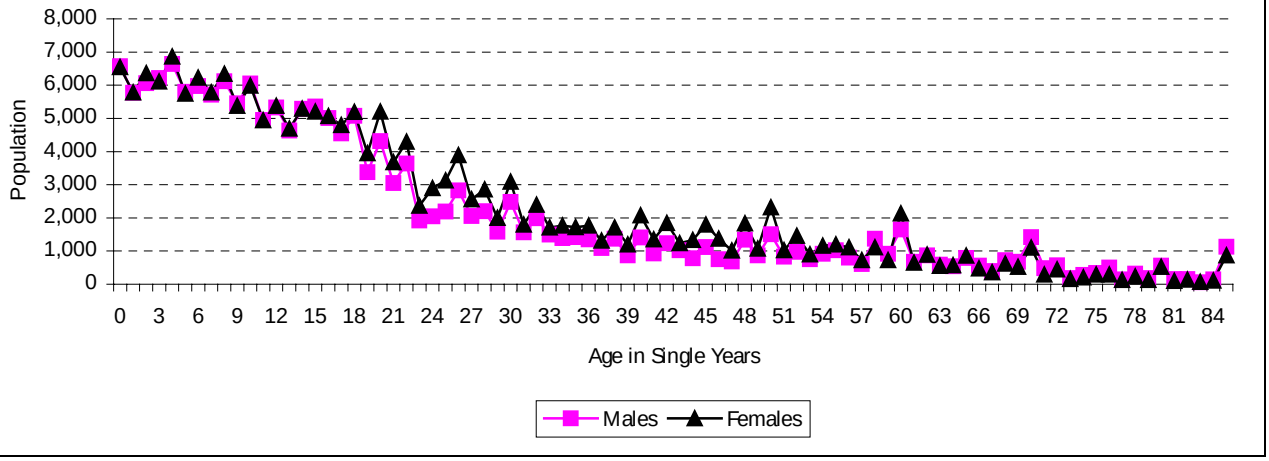
Age misreporting errors are also presented in Figures 2.4 to 2.9. The peaks on the curves indicate the most preferred ages in reporting while the troughs indicate the under reported ages. A comparison of Figures 2.4, 2.5, and 2.6 shows that the peaks and troughs are higher for ages reported below age 60 in all census years. There is no noticeable difference in the height of the peaks and troughs for ages reported after age 60 in 1980, 1990, and 2000 Censuses.

Figure 2.4: Population Distribution in Single Years, North-Western Province, 1980



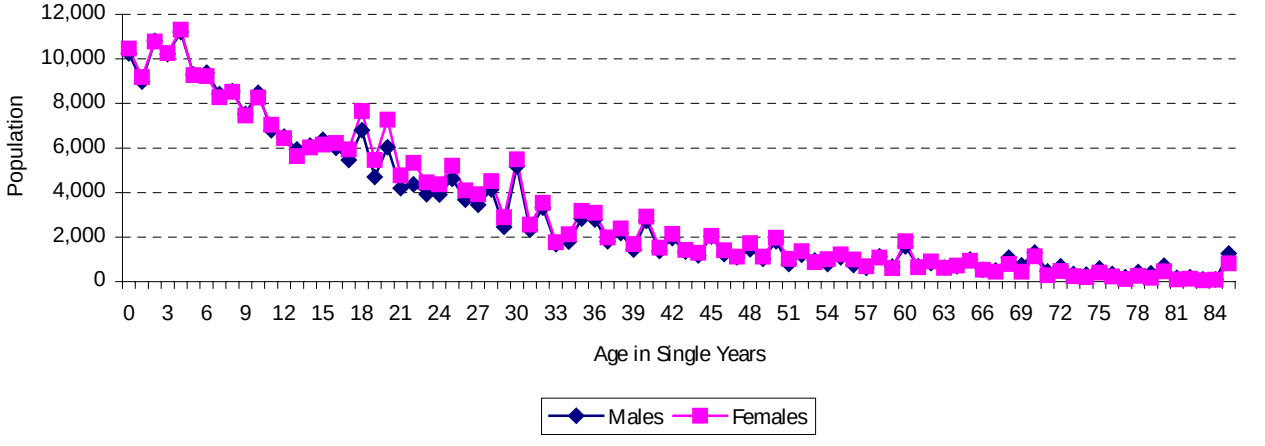
Source: CSO 1980 Census of Population and Housing

Figure 2.5: Population Distribution in Single Years, North-Western Province , 1990



Source: CSO 1990 Census of Population and Housing

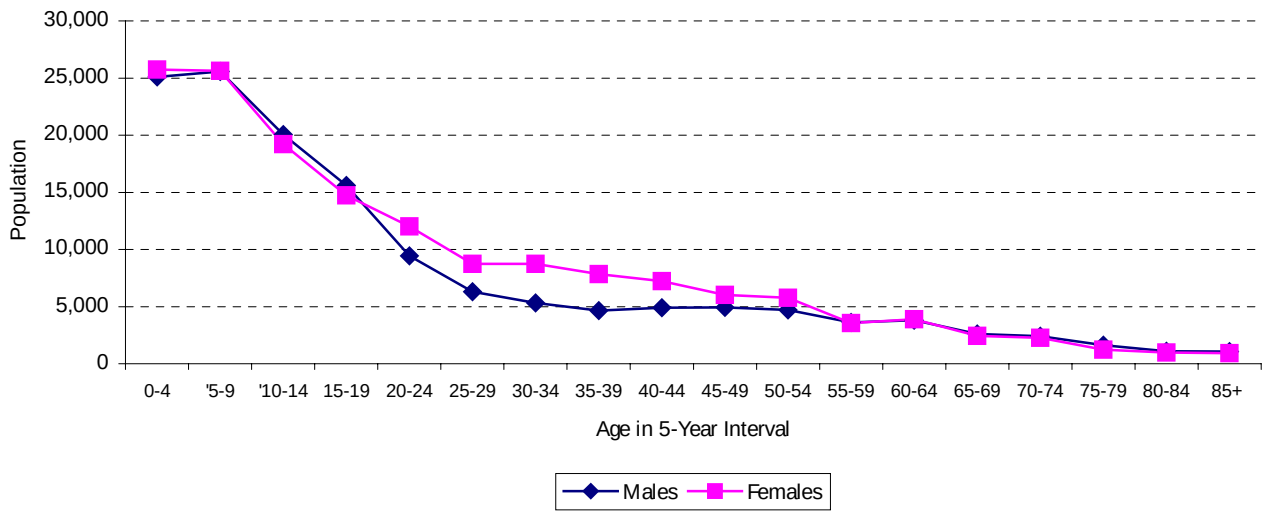
Figure 2.6: Population Distribution in Single Years, North-Western Province, 2000



Source: CSO 2000 Census of Population and Housing

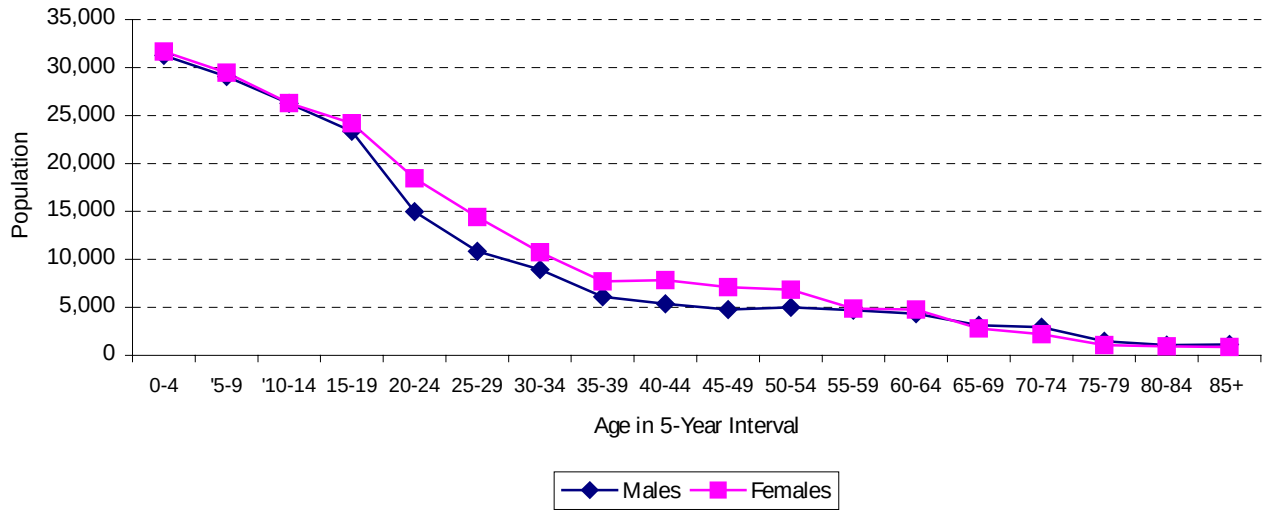
The smoothness of the curves in Figures 2.7 to 2.9 show that grouping single year age data into five year age groups improves irregularities in age data arising from age misreporting.

Figure 2.7: Population Distribution by 5-Year Age Group, North-Western Province , 1980



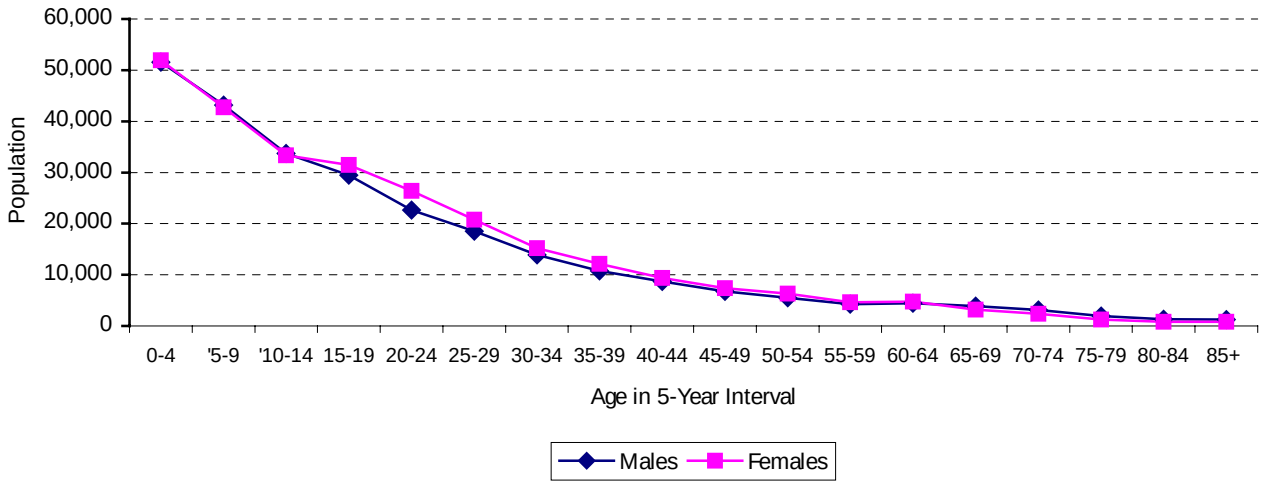
Source: CSO 1980 Census of Population and Housing

Figure 2.8: Population Distribution by 5-Year Age Group, North-Western Province , 1990



Source: CSO 1990 Census of Population and Housing

Figure 2.9: Population Distribution by 5-Year Age Group, North-Western Province , 2000



Source: CSO 2000 Census of Population and Housing

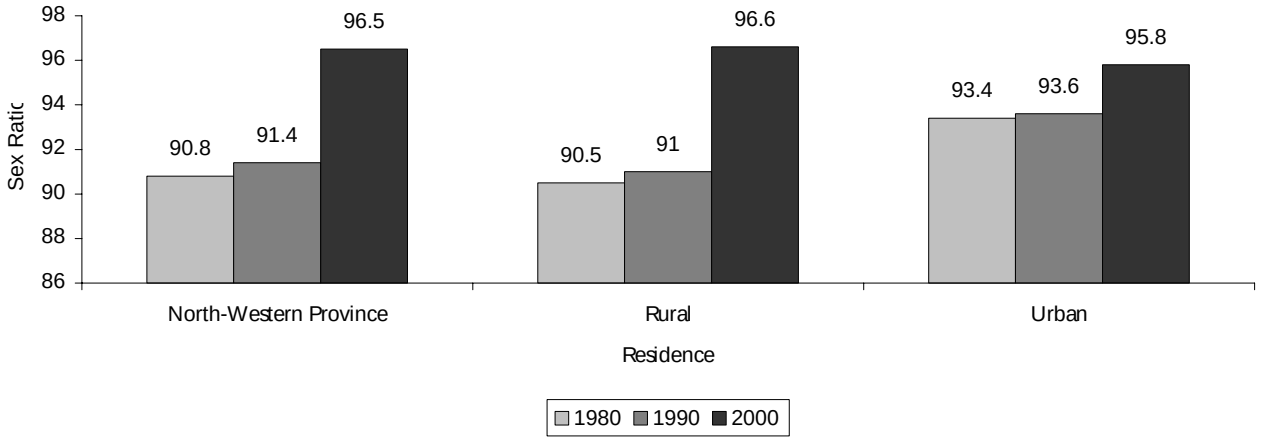
2.5.2 Sex-ratio

A sex-ratio is the number of males per 100 females. A sex-ratio of more than 100 shows that there are more females than males and a sex-ratio of 100 indicates an equal number of males and females. In the absence of big fluctuations in births, deaths and migration, the sex-ratios are expected to be high at infant ages 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.

In a natural process where data on population is accurately recorded, the sex-ratios by age group are expected to start from about 102 to 106 at birth depending on the cultural set up being examined and gradually decline progressively until the lowest is recorded in the oldest age group. Although more males than females are born, there is sex difference in mortality as the population grows older such that males die off faster than females and this leads to the reversal of the sex-ratio from above 102 at birth to below 100 and sometimes even below 90 in older age groups. Departure from this expected norms suggest errors in the data.

The overall sex-ratio for North-Western Province using the 1980, 1990, and 2000 Census data shows an increase from 90.8 to 91.4 and to 96.5 males per 100 females, respectively, see Figure 2.10. In all the three censuses, the sex-ratio is below 100 showing more females than males in North-Western province. In terms of residence, the sex-ratio was higher in urban areas than in rural areas for 1980 and 1990 while it was higher in rural areas than in urban areas for the 2000 Census. Observations also show that the sex-ratio has been increasing in North-Western Province. Further observations show that the sex ratio in the rural areas increased wider than in urban areas between 1990 and 2000 (Compare 91.0 to 96.6 in rural areas with 93.6 to 95.8 in urban areas). The pattern of sex-ratios cannot only be attributed to errors in the data, Sex-ratios are also influenced by sex selective migration. In this case, selective migration from urban to rural areas could have been in favour of males. This could have reduced the overall sex-ratios in the urban areas and increased sex-ratios in the rural areas in 1980 and 1990.

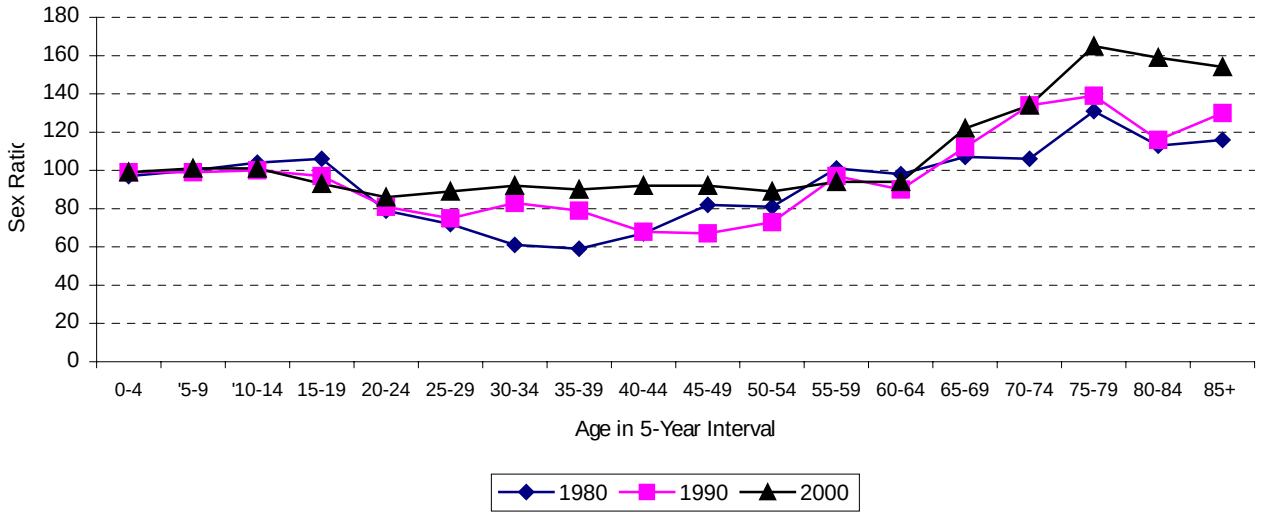
Figure 2.10: Sex Ratios by Residence, North-Western Province, 1980, 1990, and 2000



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

Looking at the pattern of sex-ratios in Table 2.3 and Figure 2.11 assesses manifestation of errors of omission and age misreporting. An analysis of age-specific sex-ratios for 1980 reveals a deficit of males in age groups 0-4, 5-9, 20-24, 25-29, 30-34, 35-39, 40-44, 45-49, 50-54 and 60-64 whereas that for 1990 reveals a deficit of males in the age ranging from 0 to 64. For the 2000 Census, the age group 0-4 and the age range 15 to 64 shows a deficit of males (See Figure 2.11 and Table 2.3 for details). There are many possible factors responsible for this, including mortality as well as the sex-selective migration. The tendency by men to over estimate their age could have shifted men into older ages while the tendency by women to under-state their age could have shifted them into young ages, hence, causing errors in age and sex data.

Figure 2.11: Sex Ratio by 5-Year Age Group and Census Year, North-Western Province



Source: CSO 1980, 1990, and 2000

Table 2.3: Sex-Ratios By Age Group and Residence, North-Western Province, 1980,1990 and 2000.

	Total	Rural	Urban

	1980	1990	2000	1980	1990	2000	1980	1990	2000
0-4	97.4	98.7	99.0	97.4	98.9	98.9	96.8	98.1	100.3
5-9	99.6	98.7	101.0	100.4	99.7	101.3	94.5	92.8	99.0
10-14	104.2	99.9	101.2	107.5	102.1	102.4	86.7	88.7	94.5
15-19	105.8	96.6	93.3	108.9	97.3	94.0	88.6	92.8	89.7
20-24	78.5	81.2	85.6	79.7	82.1	85.4	72.6	76.6	87.1
25-29	72.1	75.3	88.9	69.8	74.7	88.7	82.5	78.4	90.2
30-34	60.8	83.1	92.4	55.8	81.0	92.3	93.4	93.2	92.9
35-39	59.5	79.2	89.7	55.3	74.2	89.4	92.0	107.7	91.6
40-44	67.5	68.5	92.4	62.8	61.2	91.4	112.2	130.1	99.1
45-49	81.6	67.1	91.8	77.2	62.4	88.6	130.5	117.3	119.8
50-54	81.4	72.8	88.7	77.3	69.6	84.1	137.4	111.5	147.3
55-59	101.0	97.1	93.7	97.3	94.6	91.9	162.2	133.8	115.0
60-64	97.9	90.4	94.1	96.6	88.6	94.6	123.2	125.1	88.8
65-69	107.2	111.8	121.6	106.1	112.0	122.9	130.1	108.9	107.7
70-74	105.8	134.0	134.0	106.4	133.4	137.3	94.1	148.0	96.3
75-79	131.2	139.1	165.5	132.0	140.3	167.3	114.0	113.4	139.7
80-84	113.0	116.4	158.8	112.1	116.4	162.4	147.7	116.2	109.1
85+	115.9	130.1	154.4	121.1	132.2	160.5	136.6	87.8	93.2
Total	90.8	91.4	96.5	90.5	91.0	96.6	93.4	93.6	95.8

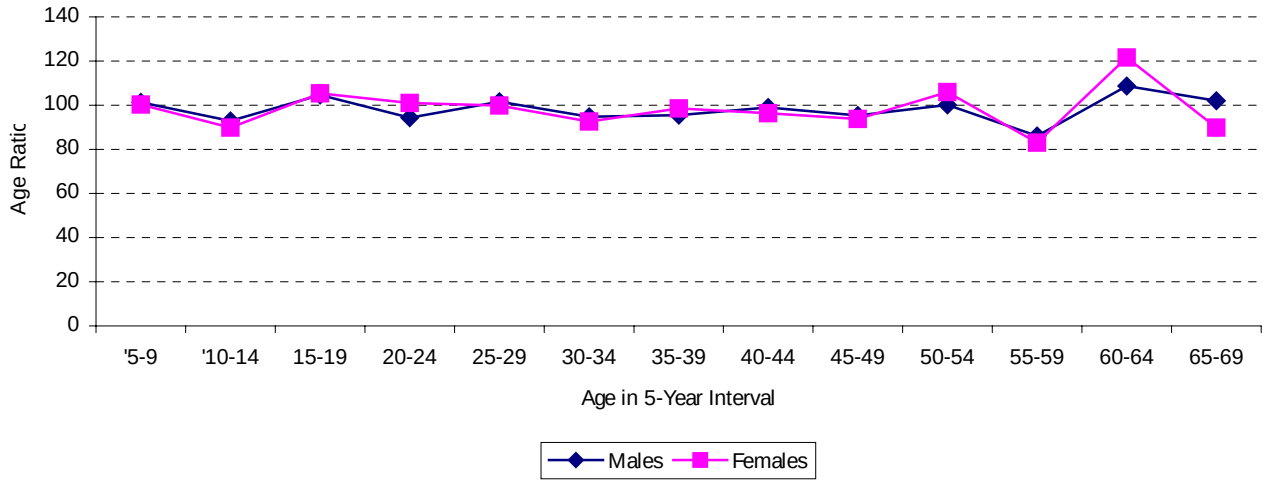
Source: CSO 1980, 1990, and 2000 Census of Population and Housing

2.5.3 Age-ratios

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). 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.

Results from the 1980 Census show that age groups with age-ratios less than 100 in 1980 for males are 10-14, 20-24, 25-29, 30-34, 35-39, 55-59, and 65-69 and for females, the age groups are 10-14, 15-19, 25-29, 30-34, 35-39, 45-49, 55-59, and 65-69. In 1990, the age groups with ratios less than 100 are 20-29, 35-39, 40-44, 45-49, and 65-69 for males. For females, the age groups showing an age-ratio of less than 100 are 10-14, 20-24, 25-29, 30-34, 35-39, 45-49, 55-59, and 65-69. In 2000, the age groups with ratios less than 100 for males are 10-14, 20-24, 25-29, 30-34, 35-39, 40-44,45-49, 50-54, and 55-59 while for females, the age groups are 10-14, 25-29, 30-34, 35-39, 40-44, 45-49, 55-59, and 65-69. See Figure 2.12 and Tables 2.4, 2.5, and 2.6 for details.

Figure 2.12: Population Distribution by Age Ratio, North-Western Province , 2000



Source: CSO 2000 Census of Population and Housing

The substantial deviations of the age-ratios are suggestive distortions arising from age misreporting. 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 as shown by having a higher average age-ratio deviation for females than males.

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

Group Age	Population		Age-ratio		Deviation from 10		Sex-ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	25,329	26,017					97.4	
5-9	25,791	25,896	113.2	114.0	13.2	14.0	99.6	2.2
10-14	20,225	19,406	97.4	95.2	-2.6	-4.8	104.2	4.6
15-19	**15,745**	14,884	105.8	94.4	5.8	-5.6	105.8	1.6
20-24	9,532	12,141	86.3	102.5	-13.7	2.5	78.5	-27.3
25-29	6,355	8,818	85.3	84.1	-14.7	-15.9	72.1	-6.4
30-34	5,365	8,826	97.0	105.5	-3.0	5.5	60.8	-11.3
35-39	4,703	7,910	91.3	98.0	-8.7	-2.0	59.5	-1.3
40-44	4,934	7,314	102.0	104.4	2.0	4.4	67.5	8.0
45-49	4,973	6,095	102.8	92.8	2.8	-7.2	81.6	14.1
50-54	4,736	5,820	109.9	120.0	9.9	20.0	81.4	-0.2
55-59	3,643	3,607	84.9	74.0	-15.1	-26.0	101.0	19.6
60-64	3,849	3,932	122.5	129.5	22.5	29.5	97.9	-3.1
65-69	2,642	2,464	84.1	79.1	-15.9	-20.9	107.2	9.3
70-74	2,432	2,299	0.0	0.0	0.0	0.0	105.8	-1.4
75+	3,824	3,160	0.0	0.0	0.0	0.0	121.0	0.0
Total	144,078	158,589			130*	158.3*	90.8	110.5*
Mean	-	-	-	-	10.0	12.2	-	7.9

Source: CSO 2000 Census 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 7.9 + 10.0 + 12.2

= 45.9

The Age Accuracy Index reduced from 45.9 in 1980 to 44.6 in 1990 and later 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 2000 were "inaccurate". However, the 1990 age data showed some improvement over the 1980 age data (Refer to Tables 2.4, 2.5 and 2.6 for details).

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

Age Group	Population		Age-ratio		Deviation from 10		Sex-ratio	Difference
	Male	Female	Male	Female	Male	Female		
All ages	**185,038**	**202,514**					**91.37**	
0-4	**31,304**	31,701					98.75	
5-9	29,119	29,509	101.10	101.72	1.10	1.72	98.68	-0.07
10-14	26,298	26,320	100.14	97.94	0.14	-2.06	99.91	1.24
15-19	23,406	24,239	113.36	108.23	13.36	8.23	96.56	-3.35
20-24	14,997	18,472	87.50	95.51	-12.50	-4.49	81.19	-15.38
25-29	10,872	14,439	90.81	98.77	-9.19	-1.23	75.29	-5.90
30-34	8,947	10,766	105.36	97.20	5.36	-2.80	83.10	7.81
35-39	6,112	7,714	85.33	82.85	-14.67	-17.15	79.23	-3.87
40-44	5,379	7,856	98.89	106.04	-1.11	6.04	68.48	-10.76
45-49	4,767	7,102	91.88	96.52	-8.12	-3.48	67.12	-1.36
50-54	4,998	6,862	105.28	114.66	5.28	14.66	72.83	5.71
55-59	4,727	4,867	101.33	83.50	1.33	-16.50	97.13	24.30
60-64	4,332	4,795	109.95	124.76	9.95	24.76	90.36	-6.77
65-69	3,153	2,820	86.76	80.72	-13.24	-19.28	111.84	21.48
70-74	2,937	2,192	0	0	0.00	0.00	134.02	22.18
Total	181347	199653			95.35*	122.4*	90.80	130*
Mean	-	-	-	-	7.33	9.42	-	9.3

Source: CSO 2000 Census 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 9.3+ 7.33 + 9.42
= 44.6

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

Age Group	Population		*Age-ratio*		Deviation From 100		Sex-ratio	Difference
	Male	Female	Male	Female	Male	Female		
0-4	51,479	51,989					99.0	
5-9	43,186	42,755	101.3	100.1	1.3	0.1	101.0	2.0
10-14	33,815	33,401	93.3	90.0	-6.7	-10.0	101.2	0.2
15-19	29,326	31,429	104.3	105.5	4.3	5.5	93.3	-7.9
20-24	22,434	26,193	94.1	100.6	-5.9	0.6	85.6	-7.7
25-29	18,345	20,627	99.9	99.0	-0.1	-1.0	88.9	3.3
30-34	14,303	1,5476	97.3	94.0	-2.7	-6.0	92.4	3.5
35-39	11,053	1,2318	96.5	99.4	-3.5	-0.6	89.7	-2.7
40-44	8,597	9,304	96.2	94.2	-3.8	-5.8	92.4	2.7
45-49	6,826	7,433	96.6	95.6	-3.4	-4.4	91.8	-0.6
50-54	5,535	6,243	99.6	104.0	-0.4	4.0	88.7	-3.2
55-59	4,284	4,572	86.1	83.7	-13.9	-16.3	93.7	5.0
60-64	4,411	4,686	108.6	121.2	8.6	21.2	94.1	0.4
65-69	3,841	3,158	101.9	89.9	1.9	-10.1	121.6	27.5
70-74	3,131	2,336	N/A	N/A	0.0	0.0	134.0	12.4
75+	4,518	2,818	N/A	N/A	N/A	N/A	160.3	
Total	265,084	274,738						
Mean					4.3	6.6		5.6

Source: CSO 2000 Census of Population and Housing

Age-Sex Accuracy Index = 3 times mean difference in sex-ratios plus mean deviations of male and female age-ratios.
= 3 x 5.6+ 4.3 + 6.6
= 27.7

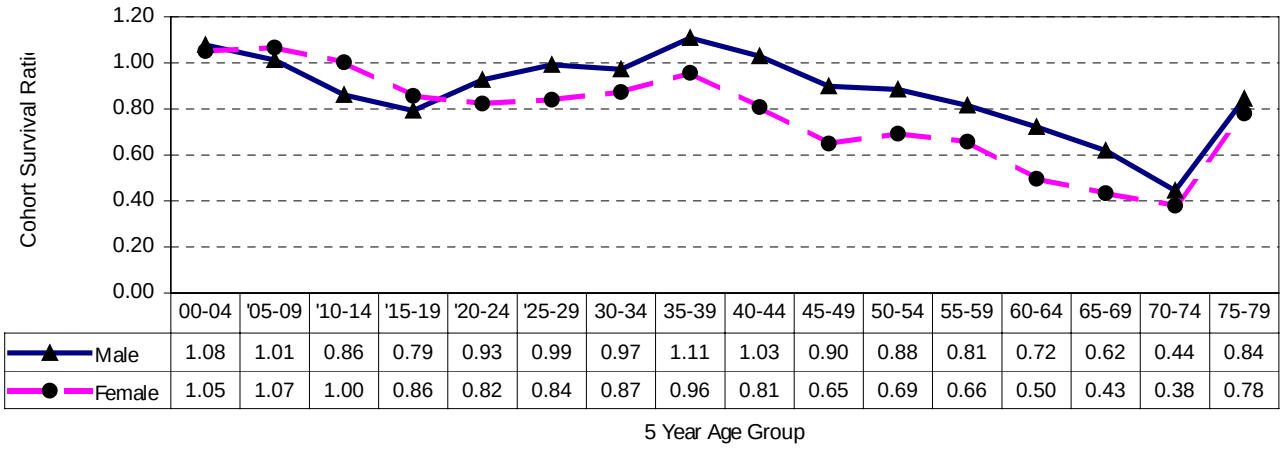
2.5.4 Survival-ratios

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. It is also assumed that influence of abnormal mortality through wars, disasters, diseases, etc, 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 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. Results from Figure 2.13 shows fluctuations rather than the expected pattern. 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,North-Western Province, 1990 and 2000



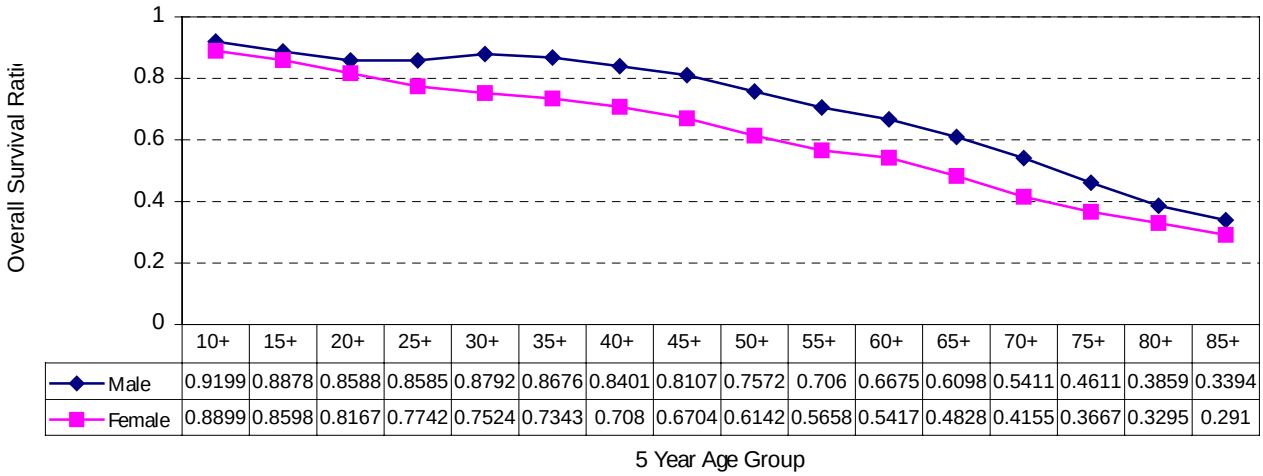
	00-04	'05-09	'10-14	'15-19	'20-24	'25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79
Male	1.08	1.01	0.86	0.79	0.93	0.99	0.97	1.11	1.03	0.90	0.88	0.81	0.72	0.62	0.44	0.84
Female	1.05	1.07	1.00	0.86	0.82	0.84	0.87	0.96	0.81	0.65	0.69	0.66	0.50	0.43	0.38	0.78

5 Year Age Group

Source: CSO 2000 Census of Population and Housing

In the absence of abnormal mortality and migration, the overall survival-ratios should decline continuously as we go up to the older ages. The female ratios should be higher than the male ratios because of lower mortality of females compared to that of males. Results from Figure 2.14 show the opposite of the expected pattern in that the male ratios are higher than the female ratios. This could be an indication of over-statement or under-statement of ages among males and females.

Figure 2.14: Overall Survival Ratio, North-Western Province, 1990-2000



	10+	15+	20+	25+	30+	35+	40+	45+	50+	55+	60+	65+	70+	75+	80+	85+
Male	0.9199	0.8878	0.8588	0.8585	0.8792	0.8676	0.8401	0.8107	0.7572	0.706	0.6675	0.6098	0.5411	0.4611	0.3859	0.3394
Female	0.8899	0.8598	0.8167	0.7742	0.7524	0.7343	0.708	0.6704	0.6142	0.5658	0.5417	0.4828	0.4155	0.3667	0.3295	0.291

5 Year Age Group

Source: CSO 2000 Census 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 census age data is distributed in single years, one can easily spot out inaccuracies than when it is distributed in five-year age groups. 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.

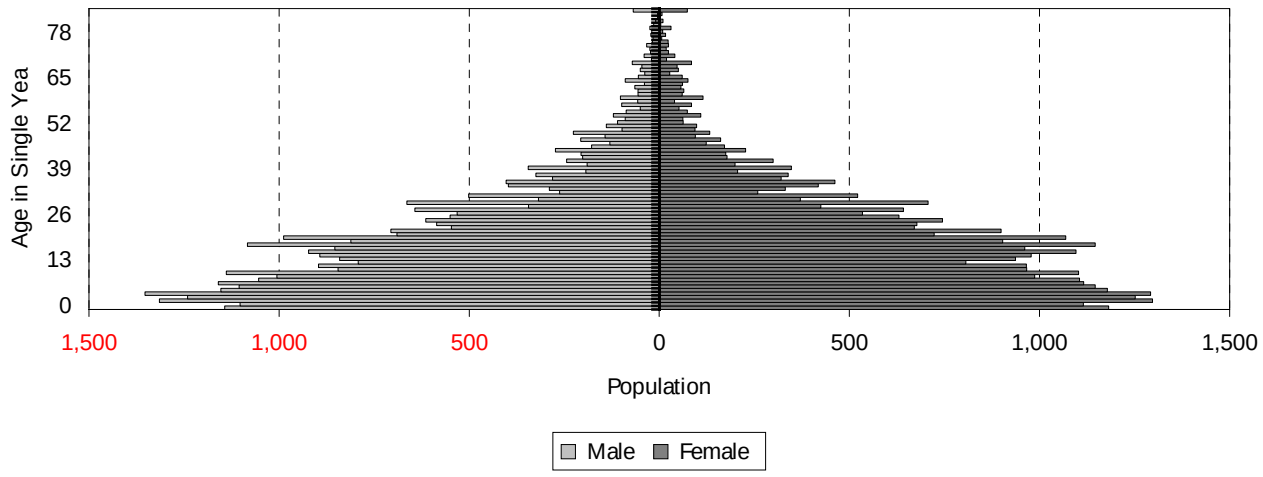
Figure 2.15: Graphical Population Distribution in Single Years by Sex, North-Western Province, Total, 2000

Source: CSO 2000 Census of Population and Housing

Figure 2.16: Graphical Population Distribution in Single Years by Sex, North-Western Province, Rural, 2000

Source: CSO 2000 Census of Population and Housing

Figure 2.17: Graphical Population Distribution in Single Years by Sex, North-Western Province, Urban, 2000

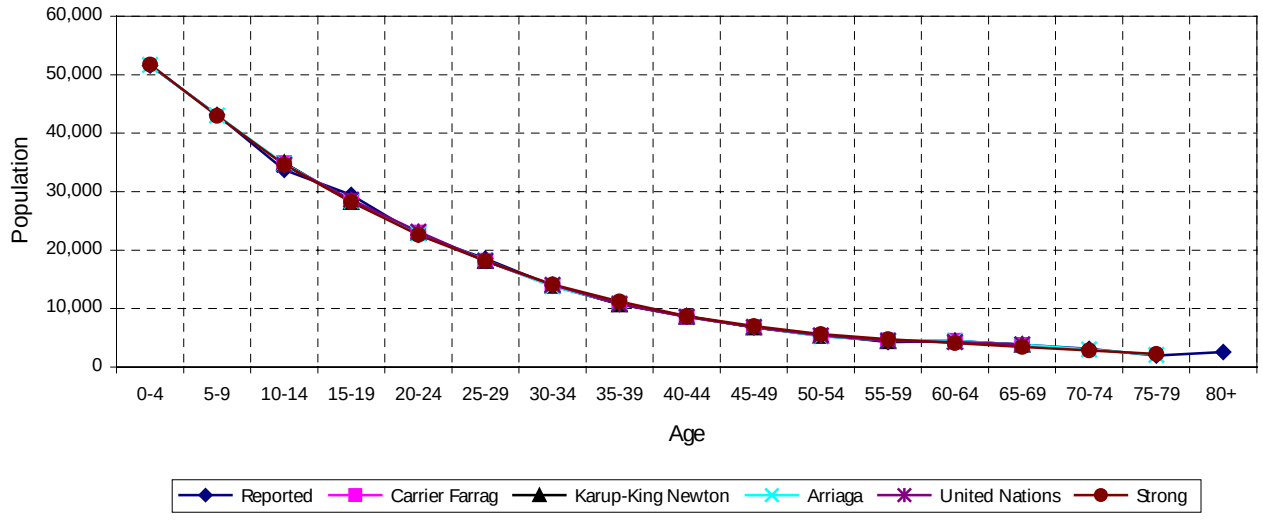


Source: CSO 2000 Census of Population and Housing

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.

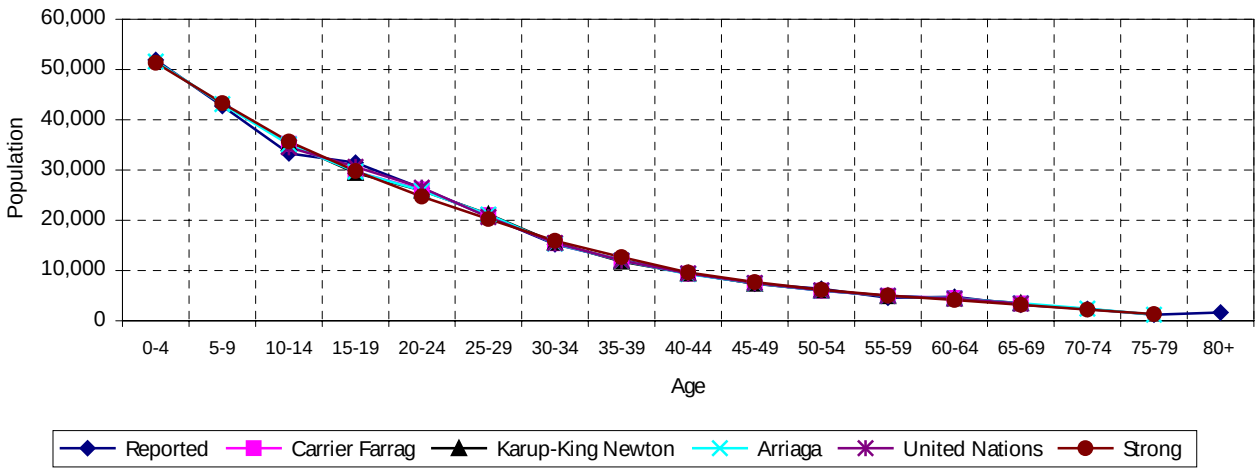
The smoothing of data has been done using AGESMTH software program one of the Population Analysis Spreadsheet (PAS) programmes developed by the United Nations. Selected techniques for light smoothing of the population include Carrier Farrag, Karup-King Newton, Arriaga and United Nations. The strong smoothing technique has also been incorporated.

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



Source: CSO, 2000 Census of Population and Housing

Table 2.19: Reported and Smoothed Population by 5-Year Age Groups and Smoothing Technique, North-Western Province, Females, 2000



Source: CSO, 2000 Census 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

North-Western Province has a young population. Out of the total number of 539,822 in 2000, 47.5 percent were below age 15, 48.8 percent were aged 15-64 and 3.7 percent were aged 65 years or older. The overall dependency ratio of the province increased from 98.1 in 1990 to 104.9 dependants per 100 persons aged 15-64 for the 2000 census year. North-Western Province has more females than males and a sex-ratio of 96.5 males per 100 females was recorded in 2000**.** There was age heaping among males and females, with 0,5 and 8 being the most preferred digits in 2000. The 2000 age data showed an improvement over the 1980 and 1990 age data in as far as the Age-Sex Accuracy Index is concerned which declined from 45.9 in 1980 to 44.6 in 1990 and later to 27.7 in 2000.

Chapter 3

POPULATION SIZE, GROWTH AND COMPOSITION

3.1. Introduction

According to the United Nations, "a Census of population may be defined as the total process of collecting, compiling and publishing demographic, economic and social data pertaining, at a specified time or times, to all persons in a country or delimited territory". The objective of a census is therefore to determine the number of a country's inhabitants.

In Zambia, the first Census of Population and Housing was undertaken in 1969 after which it has been done regularly every ten (10) years. The Census of Population in Zambia has included questions on births and deaths, given the poor status of the vital registration system. The Census of Population in Zambia 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, economic and political aspects of a population such as education, economic activity etc. This therefore provides sound basis for carrying out detailed analysis 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, etc. 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 to 2000. This analysis is based on the de facto population of Zambia as opposed to the de jure. Some readers may be aware that such analysis is only possible by use of defacto data, which provides individual characteristics-social, economic, etc.

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 gives us the Average Annual growth rate for each year of the inter-censual 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.

- **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.

- **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.

- **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).

- **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).

3.3 Population Size and Growth

The 2000 de jure population for North-Western Province is 583,350 of which 292,494 are females and 290,856 are males (see Table 3.1a).

Table 3.1a Population Size (de jure) and Percent Distribution by Sex and Residence, North-Western Province, 2000

Residence	Both Sexes		Male		Female	
	Number	Percent Total	Number	Percent	Number	Percent
Zambia	9,885,591	100	4,946,298	50	4,939,293	50
North-Western	583,350	100	290,856	49.9	292,494	50.1
Rural	511,647	100	254,910	50	256,737	50.2
Urban	71,703	100	35,946	50	35,757	49.9

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 count of population does not allow collection of data on various characteristics (social, economic, political etc.) of individuals as it makes count in totality. For instance, persons in institutions such as prisons are counted as a group. The de jure population therefore becomes important as far as the age sex distribution is concerned. It is, for instance, a useful denominator in the calculation of vital education indicators such as gross and net enrolment and intake rates.

The North-Western Province de facto however, presented in Table 3.1b is 539,822 of which 50.9 percent are females. The de facto population allows for detailed analysis of individuals because these are present at the time of count. 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, North-Western Province, 2000

Residence	Both Sexes		Male		Female	
	Number	Percent Total	Number	Percent	Number	Percent
Zambia	9,337,425	100	4,594,290	49.2	4,743,135	50.8
North-Western	539,822	100	265,084	49.1	274,738	50.9
Rural	468,796	100	230,334	49.1	238,462	50.9
Urban	71,026	100	34750	48.9	36276	51.1

Source: 2000 Census of Population and Housing
Note: (-) Chavuma has no urban area

The district population sizes for North-Western Province are displayed in Table 3.2. Solwezi, the provincial headquarter has the largest population size at 203,797 followed by Mwinilunga with a population of 117,505. The smallest population size is found in Chavuma, with just about thirty thousand persons. Amongst the districts, Solwezi continues to be the most urbanised, given that in comparison to others, it bears the largest number of urban population (38,121) in relation to the total provincial urban population of 71,703.

Table 3.2 Population Size by Sex, Residence and Province, (de jure) North-Western Province, 2000

Province	Total			Rural			Urban		
	Both Sexes	Males	Females	Both Sexes	Males	Females	Both Sexes	Males	Females
N/Western	583,350	290,856	292,494	511,647	254,910	256,737	71,703	35,946	35,757
Chavuma	29,941	14,815	15,126	29,941	14,815	15,126	-	-	-
Kabompo	71,238	35,286	35,952	65,439	32,425	33,014	5,799	2,861	2,938
Kasempa	51,904	25,810	26,094	46,958	23,364	23,594	4,946	2,446	2,500
Mufumbwe	44,002	21,875	22,127	38,587	19,200	19,387	5,415	2,675	2,740
Mwinilunga	117,505	58,543	58,962	106,760	53,203	53,557	10,745	5,340	5,405
Solwezi	203,797	102,241	101,556	165,676	83,032	82,644	38,121	19,209	18,912
Zambezi	64,963	32,286	32,677	58,286	28,871	29,415	6,677	3,415	3,262

Source: 2000 Census of Population and Housing
Note (-) Chavuma has no urban area

The rate at which North-Western Province has grown in between censuses of 1969, 1980, 1990 and 2000 is shown in Table 3.3. The Table shows that the provincial population has grown from slightly over three hundred thousand (302,668) in 1980 to over half million in 2000. The province has in general experienced a drop in annual growth rate from 3.8 in 1980-90 to 2.9 percent in the last inter-censal period. On average, the population of North-Western Province grew the most, at 3.8 percent, during the 1980-90 inter-censal period. Its annual population growth rate between 1990 and 2000 is higher than the national average of 2.4 percent, presenting a deviation of 0.3 percent. The annual growth rate for rural and urban areas decreased marginally by one (1) percentage point, i.e. from 3.8 and 3.9 in 1990 to 2.9 and 2.7 percent in 2000, respectively.

At district level, Solwezi and Mufumbwe, exhibited high annual growth rates of 4 and 5.8 percent respectively, between 1990 and 2000. This growth might be a result of an influx of refugees from Angola, Democratic Republic of Congo and the Great Lakes region. Notably, Zambezi grew the least during the same period, at a rate of –1.9, while Chavuma had no growth rate at all since it was part of Zambezi district in 1990.

Table 3.3 Population Size and Annual Average Population Growth Rate, (de jure) North-Western Province, 1980, 1990 and 2000

Residence	Population Size 1980	Annual Growth Rate (69-80)	Population Size 1990	Annual Growth Rate (80-90)	Population Size 1980	Annual Growth Rate (90-00)

Zambia	5,661,801	3.1	7,759,117	2.7	9,885,591	2.4
North-Western	302,668	2.5	438,216	3.8	583,350	2.9
Rural	261,819	1.1	378,412	3.8	505,594	2.9
Urban	40,849	-	59,804	3.9	77,756	2.7
District						
Chavuma*		-	27,944	-	29,941	0.7
Kabompo	40,347	1.7	60,164	4.1	71,238	1.7
Kasempa	30,606	-0.6	42,261	3.3	51,904	2.1
Mufumbwe	9,286	-	25,151	10.5	44,002	5.8
Mwinilunga	68,845	2.7	93,941	3.2	117,505	2.3
Solwezi	92,773	5.2	137,728	4	203,797	4.0
Zambezi	60,811	-0.1	51,027	2.4	64,963	2.4

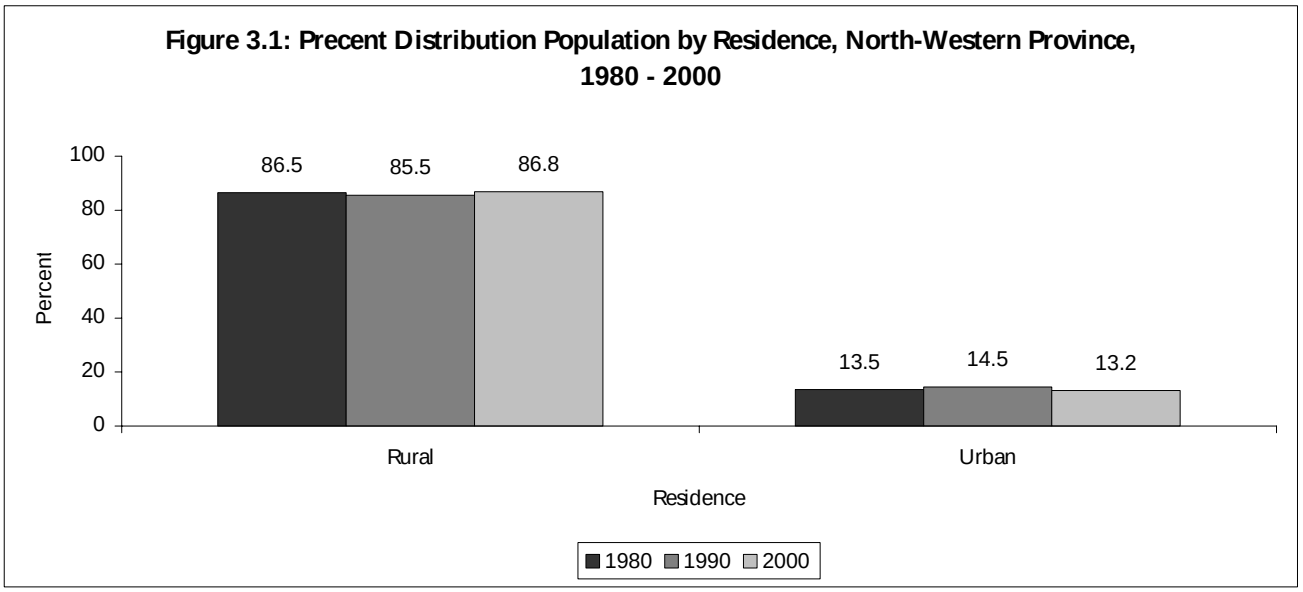
Source: 2000 Census of Population and Housing
Note: " * " denotes new district.

3.4. Population Distribution and Density

The spatial or geographical distribution of the population in North-Western Province from 1980 to 2000 is shown graphically in Figure 3.1, 3.2 and Table 3.4.

Figure 3.1 illustrates that 9 in 10 persons in North-Western Province reside in rural areas. The proportion of rural and has remained stable since 1980. Details on internal migration are provided in the 2000 Census Migration Report.

Figure 3.1: Precent Distribution Population by Residence, North-Western Province, 1980 - 2000



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

Table 3.4 shows that in 2000, Solwezi had the largest share of the population in North-Western Province, followed by Mwinilunga with 35 percent and 20 percent, respectively. Apart from Solwezi and Mufumbwe population shares for the other districts reduced over the ten-year period**.** 1980-2000

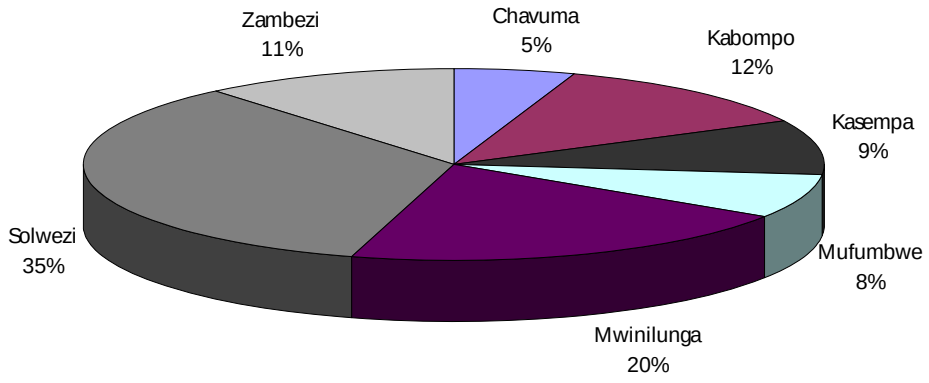
Table 3.4 Population Distributions by Districts, North-Western Province, (Dejure), 1980, 1990 and 2000

Residence	1980		1990		2000	
	Number	Percent	Number	Percent	Number	Percent
North- Western	302,668	100	438,216	100	583,350	100
Chavuma	-	-	27,944	6	29,941	5
Kabompo	40,347	13	60,164	14	71,238	12
Kasempa	30,606	10	42,261	10	51,904	9
Mufumbwe	9,286	3	25,151	6	44,002	8
Mwinilunga	68,845	23	93,941	21	117,505	20
Solwezi	92,773	31	137,728	31	203,797	35

Zambezi	60,811	20	51,027	12	64,963	11

Source: 1980, 1990 and 2000 Census of Population and Housing
Note: (-) district was not existent

Figure 3.2: Population Distribution by District, 2000



Source: CSO, 2000 Census of Population and Housing
Note: (-) district was not existent

3.4.1. Population Density

Table 3.5 shows the land area and population density for North-Western 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 1.8 in 1969 to 2.4 and 3.1 in 1980 and 1990, respectively. In 2000, 4.6 persons per square km were recorded. This Population density is lower than the national one, which is 13.1 persons per square kilometers. With the smallest land area of 4,280 square km, Chavuma has the highest population density of 7 persons per square kilometre, followed by Solwezi with a population density of 6.7 persons per square kilometre.

Table 3.5: Area and (de Jure 2000) Population Density by Province and Population Census Year, North-western Province, 1969-2000

Residence		Population Density/ Census Year (Population per sq. Km)			
	Area (Sq Km)	**1969**	**1980**	**1990**	**2000**
Zambia	752,612	5.4	7.5	10.3	13.1
North-western	125,826	1.8	2.4	3.5	4.6
District					
Chavuma	4280	-	-	6.5	7
Mufumbwe	20,756	-	0.5	1.2	3.4
Kabompo	14,532	2.3	2.8	4.1	3.6
Kasempa	20,821	1.6	1.5	2.0	2.1
Mwinilunga	21,116	2.4	3.3	4.4	5.6
Solwezi	30,261	1.8	3.1	4.6	6.7
Zambezi	14,060	3.3	3.2	3.6	4.7

Source: CSO, 2000 Census of Population and Housing
Note: (-) districts was not existent

3.5 Population Composition

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

3.5.1 Age and Sex Composition

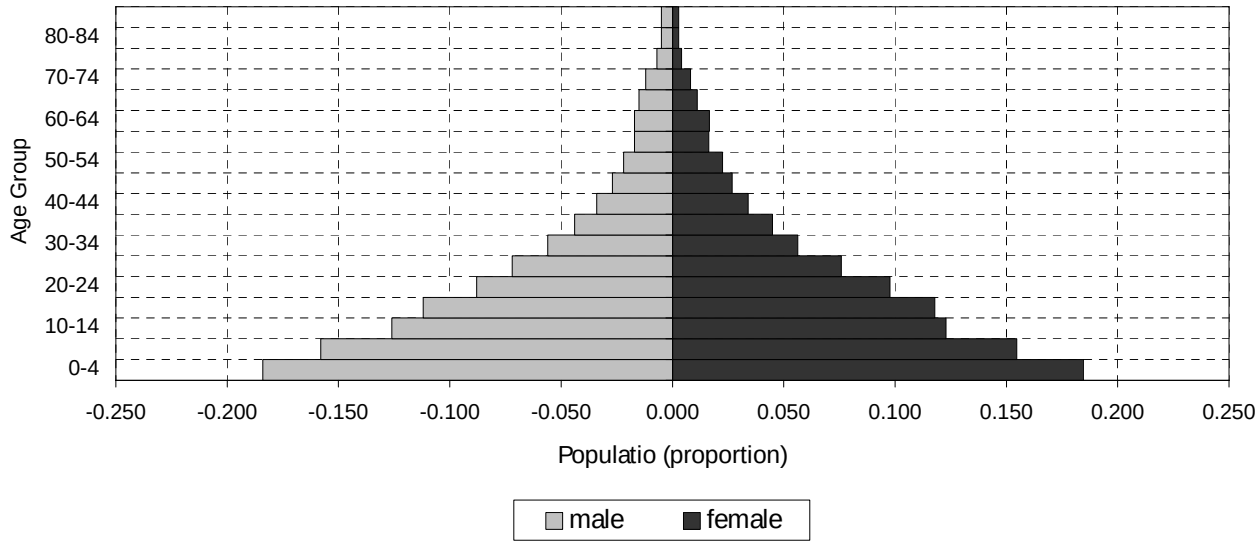
The analysis of most population phenomena is difficult to understand without taking into consideration the age and sex structure of any given population. Generally, 'tabulations on age and sex are essential in the

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.

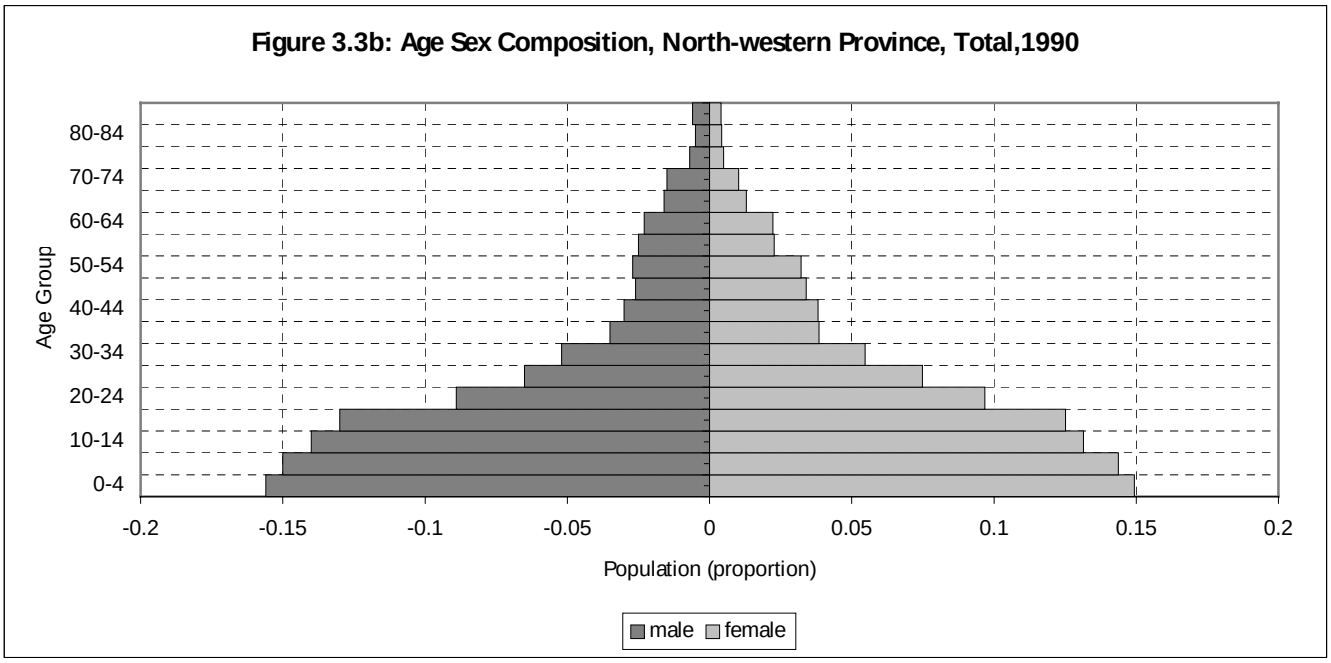
The age and sex structure of population in North-Western Province is illustrated in proportion by way of population pyramids for 1990 and 2000 in Figure 3.3a and 3.3b. Population pyramids are useful in describing the population by age and sex pictorially. Another important feature of population pyramids is their strength in illustrating whether a population is 'young' or 'old'. Similar to the national pattern, North-Western 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.

Comparatively, the 2000 population pyramid (Figure 3.3a) has a smoothened appearance along the ages of 0-4 up to the mid 20s, which otherwise had a bump or near-funnel look in 1990 (Figure 3.3b). By comparison, this signifies population gaps or absences from ages 8 to 23. These population gaps could very well be attributed to increased mortality, perhaps given the ravaging effects of HIV/AIDS pandemic coupled with odds of the declining economic situation in the country, particularly in the last decade. Supporting this likelihood of events also is the evidence that fertility has in the same period decreased (*see chapter on Fertility*).

Figure 3.3 a: Age Sex Composition, North-western Province, Total, 2000



Source: CSO, 2000 Census of Population and Housing



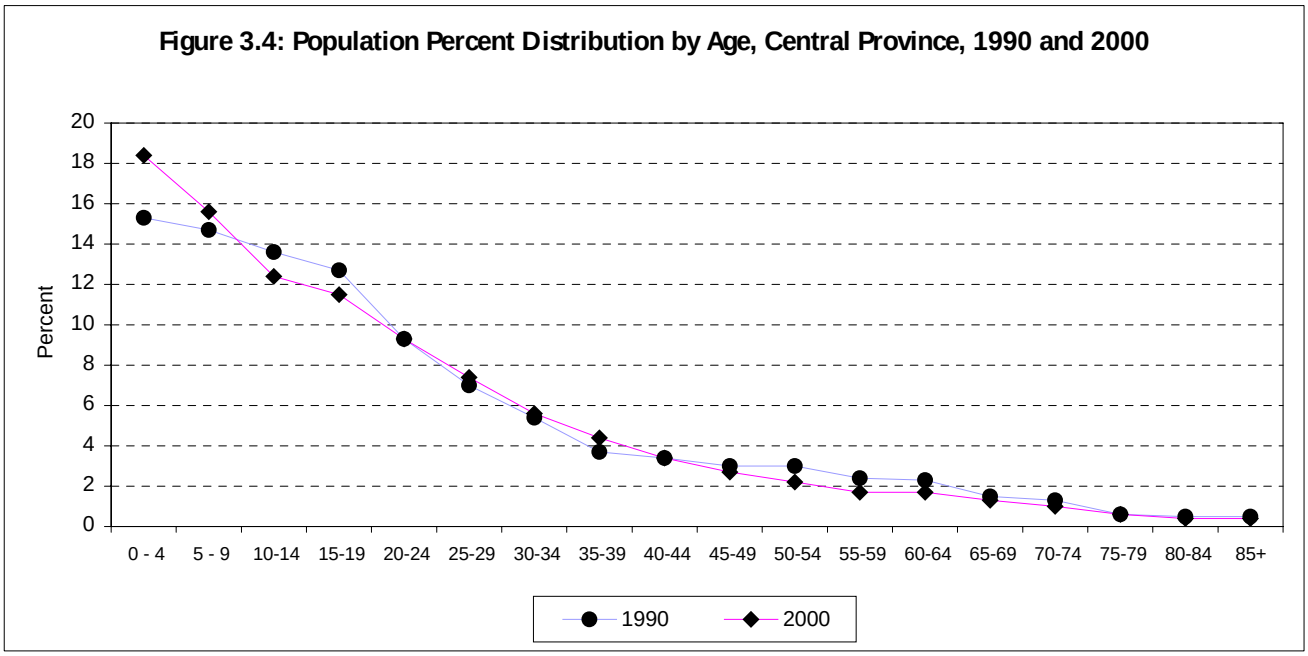
Source: CSO, 1990 Census of Population and Housing

The percentage age-sex population distribution for North-Western Province, including the rural and urban areas is shown in Table 3.6. As of 2000, children (0-14 years) constituted 46.4 percent of the total population in North-Western Province, which is a 3.0 percentage point increase from 43.5 recorded in 1990. Similarly, rural and urban populations mostly comprise the child population, with the rural proportion being higher by 2 percent (46.8 vs. 44.5 percent). The proportion for the rest of the population declines pointing towards a thin aged population (of about one and less percent) around the 60s and above.

Table 3.6: De Jure Age-Sex Distribution of Population by Residence (Percent), North-Western Province, 2000.

Age Group	Northwestern Province Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
0-4	18.4	18.4	18.5	18.7	18.7	18.8	16.6	16.6	16.6
5-9	15.6	15.8	15.5	15.7	15.9	15.5	15.0	15.1	15.0
10-14	12.4	12.6	12.3	12.4	12.6	12.1	12.9	12.7	13.2
15-19	11.5	11.2	11.8	11.2	10.9	11.4	13.7	13.1	14.3
20-24	9.3	8.8	9.8	9.0	8.6	9.5	11.0	10.5	11.4
25-29	7.4	7.2	7.6	7.3	7.1	7.5	8.2	8.0	8.3
30-34	5.6	5.6	5.6	5.6	5.6	5.6	6.1	6.2	6.0
35-39	4.4	4.4	4.5	4.4	4.3	4.4	5.0	5.0	4.9
40-44	3.4	3.4	3.4	3.4	3.3	3.4	3.5	3.8	3.3
45-49	2.7	2.7	2.7	2.7	2.7	2.8	2.5	2.9	2.2
50-54	2.2	2.2	2.2	2.3	2.2	2.4	1.6	2.0	1.2
55-59	1.7	1.7	1.6	1.7	1.7	1.7	1.1	1.3	1.0
60-64	1.7	1.7	1.7	1.8	1.8	1.8	0.9	0.9	0.9
65-69	1.3	1.5	1.1	1.4	1.6	1.2	0.7	0.8	0.7
70-74	1.0	1.2	0.8	1.1	1.3	0.9	0.5	0.5	0.5
75-79	0.6	0.7	0.4	0.6	0.8	0.4	0.3	0.3	0.2
80-84	0.4	0.5	0.3	0.4	0.5	0.3	0.2	0.2	0.1
85+	0.4	0.5	0.3	0.4	0.5	0.3	0.2	0.2	0.2
Total Percent	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Total Pop	583,350	290,856	292,494	505,594	251,963	253,631	77,756	38,893	38,863

Source: CSO, 2000 Census of Population and Housing



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

3.5.2 Age Dependency Ratio

Table 3.7 reveals that the overall dependency ratio for North-Western Province in 2000 was 105 per 100 persons in the working group. It is apparent from the table that dependency on the working age population substantially increased during the 1990s. For instance, *overall* and *child* dependency ratios increased by 7 and 8 persons from 98 and 89 dependants per 100 persons, respectively in 1990 to 105 and 97 dependants in 2000.

From the foregoing, it is also observed that persons in productive ages who reside in rural areas continue to bear a heavy burden of dependants compared to their urban counterparts. Table 3.7, shows that for every 106 dependants per 100 persons in rural areas, there were 96 dependants for every 100 persons in urban areas. One explanation for this variation could be the effects of HIV/AIDS, which have pushed most ailing urban dwellers back to villages for home care. Generally, all the three dependency ratios were higher for the province than the national average.

Table 3.7 Dependency Ratio by Residence, North Western Province, 1980-2000

Residence	Dependency Ratio	1990	2000
Zambia	Overall Dependency Ratio	110.2	95.1
	Child Dependency Ratio	104.3	87.2
	Aged Dependency Ratio	5.9	5
North-western Province	Overall Dependency Ratios	98.1	104.9
	Child Dependency Ratios	89.1	97.4
	Aged Dependency Ratios	9	7.5
Rural	Overall Dependency Ratios	99.4	106.4
	Child Dependency Ratios	89.3	99
	Aged Dependency Ratios	10.1	7.5
Urban	Overall Dependency Ratios	90.5	95.8
	Child Dependency Ratios	87.8	87.9
	Aged Dependency Ratios	2.7	3.6
Chavuma	Overall Dependency Ratios	-	112.9
	Child Dependency Ratios	-	98.1
	Aged Dependency Ratios	-	12.9
Mufumbwe	Overall Dependency Ratios	105.3	107.4
	Child Dependency Ratios	97.9	100.6
	Aged Dependency Ratios	7.4	6.8
Kabompo	Overall Dependency Ratios	94.4	104.6
	Child Dependency Ratios	82.7	94.5
	Aged Dependency Ratios	11.7	10.1
Kasempa	Overall Dependency Ratios	98	107.3
	Child Dependency Ratios	92.1	101.6
	Aged Dependency Ratios	5.9	5.7
Mwinilunga	Overall Dependency Ratios	105.6	108.4
	Child Dependency Ratios	96.3	101.4
	Aged Dependency Ratios	9.3	7
Solwezi	Overall Dependency Ratios		99.3
	Child Dependency Ratios	92.5	93.6
	Aged Dependency Ratios	87.1	5.7
		5.5	
Zambezi	Overall Dependency Ratios	100.5	110.5
	Child Dependency Ratios	85	99.6
	Aged Dependency Ratios	15.5	10.8

Source: CSO, 2000 Census of Population and Housing

3.5.3 Household Headship

Household headship by various characteristics is presented in Table 3.8. The table shows that close to 1 in 5 households are female headed (this compares with the proportion of female headed households at the national level which is also 1 in 5 households). 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, North-Western Province, 2000.

Province/Residence/Marital Status	Number of Household Heads	Total Percentage of Household heads	Sex of Head	
			Male	Female
Residence				
Zambia	1,884,741	100	81.1	18.9
North-Western Province	111,133	100	80.9	19.1
Rural	98,345	100	80.9	19.1
Urban	12,788	100	81	19
Marital Status				
Married	82,269	100	95.9	4.1
Separated	3,612	100	34.8	65.2
Divorced	9,072	100	26.2	73.8
Widowed	10,155	100	27.3	72.7
Never Married	5792	100	77.4	22.6
Living together/Cohabiting	233	100	41.2	58.8
District	6,298	100	77.7	22.3
Chavuma	14,029	100	79.2	20.8
Kabompo	9,265	100	80.7	19.3
Kasempa	7,777	100	82.3	17.7
Mufumbwe	22,590	100	80.2	19.8
Mwinilunga	38,546	100	82.6	17.4
Solwezi	12,628	100	79.4	20.6
Zambezi				

Source: CSO, 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 (62 percent), widowed (73 percent) and divorced (74 percent). Amongst the districts, Chavuma exhibits the highest proportion of female heads of households with 22 percent, while Solwezi has the least at 17 percent.

3.5.4. Marital Status

Categorisation of marital status 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 districts. The majority of males and females in the young age group 15-19 years have never married. However, slightly over a quarter of the females (27 percent) compared to 3 percent of males are married.

It is a common practice for males to marry later than females with the latter presenting higher rates of those separated, divorced and widowed than their counterpart. Table 3.9 also shows that the about 2 in 3 females in their early 20s are married compared to 1 in 3 males of the same age. Another common practice is that of males re-marrying more frequently than females, thus their low proportions in the separated, divorced and widowed categories.

Table 3.9 Percent Distribution of Population 12 Years and Above by Age, Sex and Marital Status, North-Western Province, 2000

Age Group	Married		Separated		Divorced		Widowed		Never Married		Cohabiting		Total Number of Cases	
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
12-14	1.2	1.3	0.0	0.1	0.1	0.2	0.1	0.2	97.9	97.5	0.7	0.8	18,528	1,8092
15 – 19	3.9	25.3	0.1	1.3	0.2	1.4	0.2	0.3	94.9	70.5	0.7	1.3	29,323	3,1420
20 – 24	35.6	62.3	1.0	3.1	1.1	4.8	0.3	1.0	61.0	27.7	0.9	1.0	22,416	2,6179
25 - 29	69.1	73.5	1.6	4.0	2.2	8.3	0.5	1.9	26.1	11.7	0.4	0.6	18,327	2,0624
30 - 34	82.3	75.1	1.8	4.4	3.1	10.5	1.1	4.0	11.3	5.7	0.3	0.4	14,290	15,464
35 - 39	86.4	76.6	2.0	3.9	3.1	10.7	1.4	5.3	6.8	3.3	0.2	0.3	11,042	12,309
40 - 44	87.4	72.8	2.2	4.0	3.7	11.8	2.3	8.7	4.0	2.4	0.2	0.2	8,580	9,297
45 - 49	88.2	71.2	1.8	4.0	3.6	11.8	2.7	11.3	3.2	1.5	0.2	0.2	6,816	7,427
50 - 54	86.2	64.2	1.8	3.9	4.9	12.5	4.4	18.0	2.1	1.3	0.1	0.1	5,523	6,240

55+	78.2	43.3	2.4	3.7	5.9	14.6	13.2	36.8	1.9	1.4	0.1	0.2	20,158	17,555
Total Size	77,361	84,354	1,925	4,760	3,531	11,711	3,617	11,306	67,828	51,374	741	1,102	155,003	164,607

Source: CSO, 2000 Census of Population and Housing

3.5.5 Ethnicity and Citizenship

Similar to the previous census, ethnicity in the 2000 Census implied indigenous Zambian tribes while this referred to the continent of origin for non-Zambians. For purposes of this chapter, the former explanation is applicable, with the latter presented in Chapter Four. Table 3.10 presents the ethnic composition of the population in North-Western Province by rural and urban. 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 North-Western Province mostly constitutes persons of African origin, with 99.8 percent. The American, Asian, European and 'Other' ethnic groups make up the remaining 0.1 percent. This is similar to the national which is also predominantly of African origin (99.5 percent). 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 99.5 percent. 'Other' ethnic groups made up the remaining 0.5 percent.

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

Table 3.10 Ethnic Composition of the Population of North- Western Province, 2000

Residence/Sex		Ethnic Group						
		African	**American**	**Asian**	**European**	**Other**	**Not Stated**	**Total**
Zambia	Male	4,572,026	691	6,272	3,462	11,839	0	4,594,290
	Female	4,722,128	507	5,576	2,720	12,204	0	4,743,135
	Both sexes	9,294,154	1,198	11,848	6,182	24,043	0	9,337,425
Percent of total population		**99.54**	**0.01**	**0.13**	**0.07**	**0.26**		**100**
N-Western Province	Male	264,710	59	38	60	217	0	265,084
	Female	274,436	43	34	30	195	0	274,738
	Both sexes	539,146	102	72	90	412	0	539,822
Percent of total population		**99.87**	**0.02**	**0.01**	**0.02**	**0.08**	**0**	**100**
Rural	Male	230,052	40	20	38	184	0	230,334
	Female	238,231	30	18	23	160	0	238,462
	Both sexes	468,283	70	38	61	344	0	468,796
Percent of total population		**99.89**	**0.01**	**0.01**	**0.01**	**0.07**	**0**	**100**
Urban	Male	34,658	19	18	22	33	0	34,750
	Female	36,205	13	16	7	35	0	36,276
	Both sexes	70,863	32	34	29	68	0	71,026
Percent of total population		**99.77**	**0.05**	**0.05**	**0.04**	**0.1**	**0**	**100**

Source: CSO, 2000 Census of Population and Housing

3.5.5.2 Citizenship

Like past censuses, the 2000 Population census included questions on citizenship. 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 North-Western Province. It is most apparent that the majority of foreign citizens in the province hail from Angola (82 percent), followed by those from Zaire Congo DR (8.9 percent) and Other Eastern Africa (6.7 percent). Amongst those who stated

their citizenship in the 1990 Census, Angola had the highest proportion (82 percent) of citizens in North-Western Province. This shows an actual decrease in the number of foreign citizens from Angola and an increase in the number of foreign citizens from Other Eastern Africa between 1990 and 2000. The influx of foreigners from Angola, Congo DR and Other Eastern Africa could be mostly attributed to refugees fleeing from civil strife in these countries.

Table 3.11 Foreign Population of North-Western Province by Citizenship, 1990 and 2000

Country/Region	Percent 1990	Percent 2000	Population 2000
Malawi	0.2	0.01	3
Zimbabwe	0.3	0.13	39
Botswana	0.1	0.04	12
Angola	85.7	82.14	23,801
Namibia (SWAfrica)	0.1	0.00	1
South Africa		0.06	16
Other Southern Africa	0.1	0.01	4
Ghana		0.02	6
Senegal		0.02	6
Other Western Africa	0.2	0.16	47
Tanzania	0.1		-
Uganda		0.06	18
Other Eastern Africa	0.2	6.68	1,937
Cameroun		0.02	5
Congo		0.87	253
Zaire (Congo DR)	4.2	8.88	2,574
Other Central Africa	0.1	0.06	16
Egypt		0.02	7
Other Northern Africa	0.1	0.13	38
United Kingdom		0.08	24
Germany (East and West)		0.05	14
Other Europe	1.3	0.10	29
United States Of America		0.12	36
Canada		0.03	8
Other Americas	0.5	0.02	6
Australia		0.07	21
India		0.06	16
Other Asia & Oceania	0.3	0.08	24
Not Stated	6.5	0.06	18
% Total	100	100	
Total foreign Citizens	16,271		28,976
% Foreign Population	4.2	5.37	

Source: CSO, 2000 Census of Population and Housing

***Note**: Nationals less than five (5) were grouped under 'Other' totals.*

3.6 Economic Characteristics

Data on economic characteristics of the North-Western 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 3.11 also shows that out of the total population in North-Western Province, 319,826 comprise those over 12 years, commonly referred to as the *working age population*. Majority of these are found in rural than urban areas (276,156 vs. 142,150) and are mostly women. Of the total working age population in the province, about 1 in 2 are economically active or make up the labourforce (57.1). Despite dominance of females in the working age population, majority of these are considered economically inactive due to their classification as full-time homemakers.

Table 3.12: Summaries of Economic Characteristics, North-Western Province, 2000

Characteristics	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female

Total Population (12 yrs and above)	319,826	155,139	164,687	276,156	134,006	142,150	43,670	21,133	22,537
Current Labour Force Size	182,761	99,059	83,702	162,683	87,271	75,412	20,078	11,788	8,290
Current Participation Rate	57.1	63.9	50.8	58.9	65.1	36	46	55.9	36.7
Age Dependency Ratio	98.1	89.1	9.0	99.4	89.3	10.1	90.5	87.8	2.7
Economic Dependency Ratio	75.0	56.6	96.8	69.8	53.6	88.5	117.5	79.0	172.3

Source: CSO, 2000 Census of Population and Housing

Generally, 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, 172 vs. 88.

3.7 Summary

North-Western's de jure or simply 'true' or resident population recorded in the 2000 census is 583,350. However, the de facto population adopted for analytical purposes in this chapter and the rest of the report is 539,822 of which 50.9 percent are females. The population has continued to grow at an average annual growth rate of 2.5 percent between 1969-1980 to 3.8 percent between 1980-1990 and 2.9 percent during the last inter-censal period of 1990-2000. The proportion living in both rural and urban areas has remained stable through the past decades from 86 and 14 percent in 1990 to 87 and 13 percent in 2000.

An Analysis of the age-sex distribution indicates that overtime North-Western has maintained a Young population. The proportion of those below the age of 15 years increased by three percentage points between 1990 and 2000, i.e., 43 percent to 46 percent. 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 adults in the 20s and 30s who may be more susceptible to terminal illnesses (e.g. AIDS) as well as complications associated with a declining economy.

Headship of households is still dominated by males, with only one in five being female household heads. In absolute terms, there are almost four times as many heads of household in rural than urban areas. The overall dependency ratio as of 2000 Census was 105 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 182,761, most of which is found in rural areas.

In addition, participation rates for males are higher than females, 64 and 51 percent, respectively. Finally, the chapter indicates that in comparison to rural counterparts, the economic burden on productive persons in urban areas is higher.

Chapter 4

LANGUAGE OF COMMUNICATION AND ETHNICITY

4.1 INTRODUCTION

Zambia is a country endowed with many languages. Many people in the country speak more than one language. 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.

ere are seven languages or language clusters that are used in Zambia besides English for official purposes such as broadcasting (both on radio and television), literacy campaigns and the official dissemination of information. These are (in alphabetical order), Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja and Tonga. They represent language clusters around which exist several dialects. Although these languages are taught in schools in some 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 frequently used language of communication. The matter of second language shows the phenomenon of trans-tribe of some languages in that they are spoken by other tribes.

guages 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. For example, when a person says they are Chishinga or Tabwa, they will say their mother tongue is Bemba. Fifthly, the languages presented in this chapter are illustrated by sex. 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.

hould 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.

. Predominant Language of Communication

.1 Provincial Distribution

Table 4.1 and Figure 4.1 show the 17 predominant languages of communication in North-Western Province. The predominant language of communication in the province in the year 2000 was Lunda (N/Western) with 33.9 percent of the population using it.

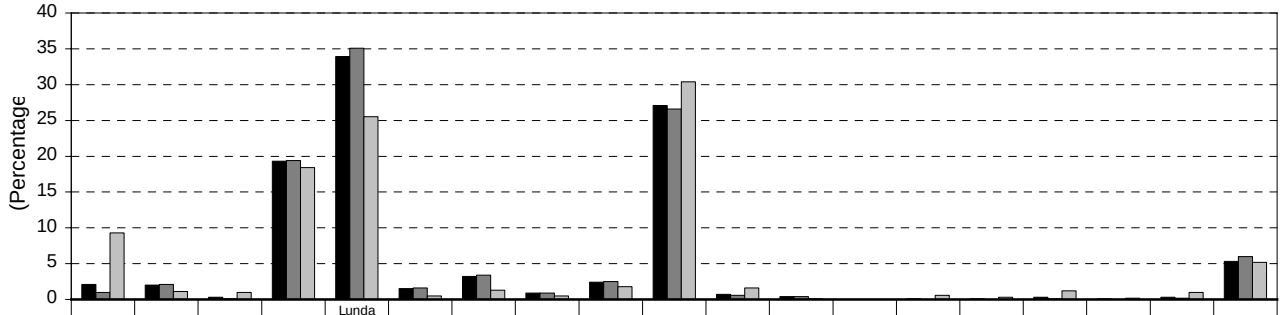
ble 4.1: Predominant Language of Communication by Residence, North Western Province, 2000

Predominant Language	Total	Rural	Urban
Bemba	2.1	1	9.3
Lamba	2	2.1	1.1
Tonga	0.3	0.1	1
Luvale	19.3	19.4	18.4
Lunda (North-Western)	33.9	35.1	25.5
Mbunda	1.5	1.6	0.5
Luchazi	3.2	3.4	1.3
Ndembu	0.9	0.9	0.5
Chokwe	2.4	2.5	1.8
Kaonde	27.1	26.6	30.4
Lozi	0.7	0.6	1.6
Nkoya	0.4	0.4	0.1
Mashasha	0	0	0
Chewa	0.1	0	0.6
Nsenga	0.1	0	0.3
Nyanja	0.3	0.1	1.2
Mambwe	0.1	0	0.2
English	0.3	0.2	1
Other	5.3	6	5.2
Total	100	100	100
Population	500,939	434456	66483

rce: CSO, 2000 Census of Population and Housing

In descending order of magnitude therefore, the first six widely spoken languages in North-Western Province are, Lunda (N/west) at 33.9 percent of the population, Kaonde (27.1 percent), Luvale (19.3 percent), Luchazi (3.2 percent), Chokwe (2.4 percent) and Bemba (2.1 percent). Refer to Table 4.1 and figure 4.1 for details.

Figure 4.1: Predominant Language of Communication by Residence, North-Western Province, 2000



	Bemba	Lamba	Tonga	Luvale	Lunda (North-Western)	Mbunda	Luchazi	Ndembu	Chokwe	Kaonde	Lozi	Nkoya	Mashasha	Chewa	Nsenga	Nyanja	Mambwe	English	Other
Total	2.1	2	0.3	19.3	33.9	1.5	3.2	0.9	2.4	27.1	0.7	0.4	0	0.1	0.1	0.3	0.1	0.3	5.3
Rural	1	2.1	0.1	19.4	35.1	1.6	3.4	0.9	2.5	26.6	0.6	0.4	0	0	0	0.1	0	0.2	6
Urban	9.3	1.1	1	18.4	25.5	0.5	1.3	0.5	1.8	30.4	1.6	0.1	0	0.6	0.3	1.2	0.2	1	5.2

Source: CSO, 2000 Census of Population and Housing

The remaining languages are each spoken by less than 2.0 percent of the population. Of the 17 most spoken languages in North-Western Province, there are four predominant languages that are among the nation seven official languages. These are Lunda, Kaonde, Luvale and Bemba accounting for 82.4 percent of the total population reporting use of a predominant language in the province. The percentage share of these four languages has remained unchanged over the last 10 years.

4.2.2. District Distribution

At District Level Lunda is the most predominant language of communication by at least 20 percent of the population in Mwinilunga, Zambezi, Solwezi and Kabompo districts. Lunda is the most spoken language of communication in 2 of these districts, Mwinilunga (87 percent) and Zambezi (41 percent). In Chavuma, Luvale is the most predominant language of communication Kaonde is spoken by 90.3 percent and 52.2 percent of population in Kasempa and Mufumbwe respectively. See Table 4.2 for details

ble 4.2: Predominant Language of Communication by District, North-western Province, 2000

Predominant Language of Communication	Total	Chavuma	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
Bemba	2.1	0.2	1	1.4	2.2	0.9	4.1	0.8
Tonga	0.3	0	0.2	0.2	0.4	0.1	0.4	0.2
Luvale	19.3	92.2	34.8	1	10.9	1.2	11.1	47.6
Lunda (North-western)	33.9	2.2	26.4	0.9	11.4	87.0	19.7	41.0
Mbunda	1.5	0.1	3.5	0.1	1.1	0.1	2.5	0.7
Luchazi	3.2	0.2	19.8	0.2	2.3	0.0	1.0	1.6
Ndembu	0.9	0	0.5	0	0.0	3.8	0.0	0.0
Chokwe	2.4	0.3	5	0.1	8.9	0.1	2.7	1.5
Kaonde	27.1	0.3	1	90.3	52.2	1.2	43.1	0.3
Lozi	0.7	0.0	0.5	0.3	4.7	0.1	0.6	0.7
Nkoya	0.4	0.0	2.4	0.1	0.5	0.0	0.0	0.1
Chewa	0.1	0.0	0.0	0.0	0.1	0.0	0.3	0.0
Nsenga	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.0
Nyanja	0.3	0.1	0.2	0.3	0.4	0.1	0.4	0.2
Mambwe	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.0
English	0.3	0.0	0.1	0.6	0.3	0.2	0.4	0.6
Other Language	5.3	4.4	4.6	4.2	4.4	5.1	7.8	4.7
Total	100	100	100	100	100	100	100	100
Population	500,939	25955	61226	45367	37794	105651	168939	56007

rce: CSO, 2000 Census of Population and Housing

. Predominant Language Groups

re than 88 percent of all languages spoken in North-Western Province are in the North-Western language group. In addition, 89.6 percent rural and 78.5 percent of the urban population speak a language in this group. The next most widely spoken languages belong to the Bemba group (4.2 percent) and Nyanja group (1.2 percent).

ore than three quarters of the urban population speak a language in the North-western language group while in the rural areas this language group accounts for about nine-tenths of the languages spoken. The Bemba, Tonga and Nyanja language groups are more principally prevalent in urban than rural areas. The Nyanja language group is nine times more dominant in urban than in rural areas (1.8 percent versus 0.2 percent). See Table 4.3 for details.

Table 4.3: Predominant Language Groups by Sex and Residence, North-Western Province, 2000

Predominant Language of communication	Total			Rural			Urban		
	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba	4.2	3.2	10.6	3.2	3.3	3.1	10.6	11	10.2
Tonga	0.4	0.2	1.2	0.2	0.3	0.2	1.2	1.2	1.1
North-Western	88.1	89.6	78.5	89.6	89.1	90	78.5	77.4	79.6
Barotse	0.5	0.2	2.4	1.1	1.1	1.1	2.4	2.6	2.2
Nyanja	1.2	1.1	1.8	0.2	0.2	0.2	1.8	1.7	1.8
Mambwe	0	0	0.1	0	0	0	0.1	0.1	0.1
Tumbuka	0	0	0.2	0	0	0	0.2	0.3	0.2
English	0.3	0.2	1	0.2	0.3	0.1	1	1.3	0.7
Others	5.2	5.4	4	5.4	4.5	5.3	4	4.1	3.9
Total	100	100	100	100	99	100	100	100	100
Population	500,939	434456	66483	434456	213,345	221,111	66483	32,504	33,979

rce: CSO, 2000 Census of Population and Housing

urban areas, more women than men speak North Western group of languages and Nyanja. There are more females who speak the languages in the Bemba, Tonga, North Western, Barotse, Nyanja, Mambwe and Tumbuka Groups, while the opposite is true for English and Other languages.

. Trends in Language Groups' Distribution, 1980- 2000

ble 4.4 shows trends in the percentage share of each language group for the period 1980 –2000. The North-Western group has remained dominant throughout the last 20 years followed by Bemba. The North-Western group has shown the largest drop in usage with a magnitude of 3.1 percentage points followed by the Bemba group (1.3) percentage points. The Barotse, Nyanja and Tumbuka groups as predominant languages groups recorded a small percentage decrease in the same period.

e distribution of the languages spoken over the last two decades indicates a continued predominance of languages spoken belonging to the North-Western language group.

ble 4.4: Predominant Language Groups by Census year, North-western Province, 1980 – 2000.

Language group	Percentage of Total Population		
	1980	1990	2000
Bemba	5.8	5.5	4.2
Tonga	0.5	0.4	0.4
North-Western	87.4	91.2	88.1
Barotse	1.5	1.3	1.2
Nyanja	0.7	0.6	0.5
Mambwe	0.1	0	0
Tumbuka	0.1	0.1	0
English	2.4	0.7	0.3
Other	1.6	0.3	5.2
Total	**100**	**100**	**100**
Population	**282,936**	**371,496**	**500,939**

rce: CSO, 2000 Census of Population and Housing

4.5 Second Language of Communication

Many people speak more than one language. There are many languages that exist in Zambia and as such, for each respondent, the census collected information on the second language besides the predominant language of communication that they used from day to day. In North-Western Province, a total of 175,628 respondents (35.0 percent) reported use of a second language out of the total of 500,939 persons with a predominant language.

The five most common second languages of communication in descending order are Luvale (20.8 percent), Bemba (17.2 percent), Lunda (North-western) with 16.3percent of the population, Kaonde (16.1percent) and English (10.7 percent). The five languages stated here represent more than two-thirds of the population that reported speaking a second language of communication in the 2000 Census of Population and Housing.

Table 4.5: Second Language of Communication by Residence: North-western Province, 2000

Second Language of Communication	Total	Rural	Urban
Bemba	17.5	15.9	23.3
Lamba	3	3.5	1.2
Tonga	0.6	0.5	0.8
Luvale	20.8	23.6	10.4
Lunda (Northwestern)	16.3	16.2	16.5
Mbunda	1.8	2.1	0.6
Luchazi	3.6	4.2	1.3
Ndembu	0.2	0.2	0.2
Chokwe	3.3	3.8	1.6
Kaonde	16.1	14.8	21
Lozi	1.7	1.7	1.5
Nkoya	0.6	0.7	0.1
Nyanja	2.2	2	3.1
English	10.7	9	16.9
Other Language	1.8	1.9	1.5
Total	100	100	100

Population	175,628	138,074	37,554

Source: CSO, 2000 Census of Population and Housing

The distribution of the second language groups and residence is further disaggregated by sex and is presented in Table 4.6. Results show that the language groups present a picture much similar to that for the predominant languages with the exception of the proportion using English, which is significantly higher. This may be attributed to the fact that it is the nation's official language of communication, and as such many people who had some years of schooling speak it.

Table 4.6: Second Language Group by Sex and Residence: North-Western Province, 2000

Language Group	Total			Rural			Urban		
	Both Sexes	**Male**	**Female**	**Both Sexes**	**Male**	**Female**	**Both Sexes**	**Male**	**Female**
Bemba	20.7	19.8	21.6	19.6	19.0	20.28	24.7	22.9	26.4
Tonga	0.8	0.7	0.8	0.7	0.7	0.80	0.9	0.9	1.0
North-Western	62.1	59.1	65.2	64.9	61.6	68.38	51.7	49.4	54.0
Barotse	2.3	2.3	2.4	2.5	2.5	2.55	1.7	1.6	1.7
Nyanja	2.5	2.5	2.4	2.2	2.2	2.05	3.6	3.7	3.5
Mambwe	0.1	0.0	0.1	0.0	0.0	0.04	0.2	0.1	0.2
Tumbuka	0.1	0.1	0.1	0.1	0.1	0.08	0.2	0.2	0.2
English	10.7	14.5	6.7	9.0	12.8	4.94	16.9	21.0	12.9
Other Languages	0.8	0.8	0.7	0.9	1.0	0.87	0.1	0.2	0.1
Total	100.0	100.0	100.0	100.0	100.0	100.00	100.0	100.0	100.0
Population	175,401	89,958	85,443	137,887	71,330	66,557	37,514	18,628	18,886

rce: CSO, 2000 Census of Population and Housing

The proportion of the population using North-western languages as a second language is significantly lower than that using it as a predominant language. This may be attributed to the increase in the use of English and Bemba as second language of communication. The increase in the use of the former may be attributed to its' usage as the nation's official language. As a result, many people who have had some years of schooling speak it especially as a second language. However the use of North-Western languages as second language of communication is still relatively high (62.1 percent).

The other language groups showing dominance in magnitude are Bemba (20.7 percent) and English (10.7 percent). These two language groups account for over one third of the population speaking a second language (31.4 percent). It must be noted that English is used as a second language of communication by 16.9 percent of the population in urban areas compared with less than one-tenth (9 percent) in rural areas. There is also a difference between urban women who speak English (12.9) and their rural counterparts at only 4.9 percent.

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 Zambia 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 Soli and Gowa tribes from Lusaka Province. The North-Western and Barotse groups consist of all the tribes of 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 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 .

Table 4.7 and Figure 4.2 show the 13 most predominant ethnic groups in the province as reported in the 2000 Census of Population and Housing. In descending order, the 8 largest ethnic groups are Lunda (North-Western) (34.6 percent), Kaonde (25.8 percent), Luvale (15.2 percent), Luchazi (3.6 percent), Chokwe (3.5 percent), Lamba (2.4 percent), Bemba (1.4 percent) and Mbunda (1.3 percent). The rest of each accounted for less than 1 percent of the provincial population.

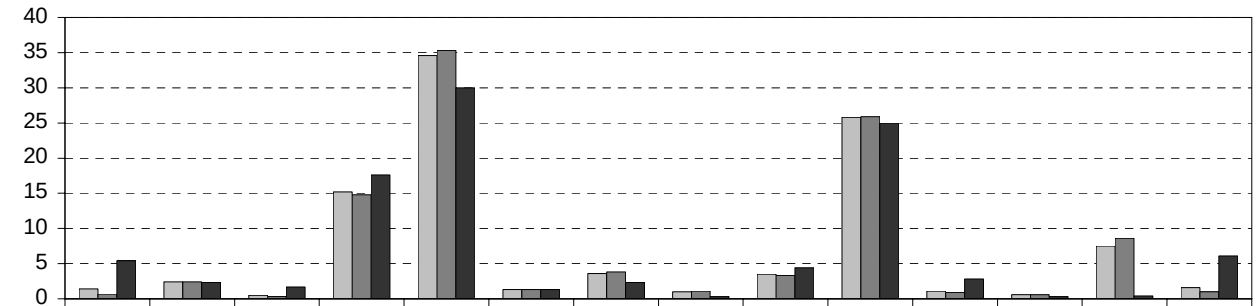
Table 4.7: Ethnic groups by Residence, North-Western Province, 2000

Ethnic group	Total	Rural	Urban
Bemba	1.4	0.7	5.4
Lamba	2.4	2.4	2.3
Tonga	0.5	0.3	1.7
Luvale	15.2	14.8	17.6
Lunda (North-West)	34.6	35.3	30.0
Mbunda	1.3	1.3	1.3
Luchazi	3.6	3.8	2.3
Ndembu	1.0	1.1	0.3
Chokwe	3.5	3.3	4.4
Kaonde	25.8	25.9	25.0
Lozi	1.1	0.9	2.8
Nkoya	0.6	0.6	0.3
Africans	7.5	8.6	0.4
Other	1.6	1.0	6.1
Total	100	100	100
Population	539,822	71,026	468,796

rce: CSO, 2000 Census of Population and Housing

In terms of residence, the Luvale, Bemba, Chokwe, Tonga, and Lozi ethnic groups are more prevalent in urban than in rural areas of the province. There are more Luvale people in urban than in rural areas (17.6 percent versus 14.8 percent). Conversely, tribes such as Lunda, Luchazi, Kaonde and the collection of all African non-Zambian are more prevalent in the rural than urban areas. It should be noted that the group 'Africans' might mostly represent refugees from Angola and the Democratic Republic of the Congo (DRC).

Figure 4.2: Ethnic Groups by Residence, North-Western Province, 2000



rce: CSO, 2000 Census of Population and Housing

It is worth noting here that 6 of the 10 largest ethnic groups above are from North-Western province. These six ethnic groups are Lunda (N/West), Kaonde, Luvale, Luchazi, Mbunda and Chokwe, accounting for 84 percent of all ethnic groups in the province.

ble 4.8 shows that the most predominant ethnic group at District Level does not follow the provincial pattern. The most predominant ethnic group in Chavuma is Luvale (87.2 percent), in Kabompo is Lunda (28.1 percent), Kasempa is Kaonde (90.1 percent), Mufumbwe is Kaonde (44.3 percent), Mwinilunga is Lunda (88.9 percent), Solwezi is Kaonde (40.3 percent) while Zambezi it is Luvale (45.2 percent), see Table 4.8 for more details.

Table 4.8: Ethnic Group by District: North-Western Province, 2000

Ethnic Group	Total	Chavuma	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
Bemba	1.4	0.3	0.6	1.2	1.0	0.5	2.8	0.4
Lamba	2.4	0.0	0.1	0.9	0.5	0.1	6.5	0.1
Tonga	0.5	0.1	0.3	0.5	0.6	0.2	0.7	0.4
Luvale	15.2	87.2	25.0	1.5	9.1	2.2	3.8	45.2
Lunda (N/West)	34.6	5.5	28.1	2.1	16.7	88.9	17.7	42.6
Mbunda	1.3	0.8	5.5	0.3	2.1	0.1	0.5	2.0
Luchazi	3.6	1.2	23.0	0.3	3.7	0.1	0.3	2.9
Ndembu	1.0	0.0	0.6	0.0	-	4.4	0.0	0.0
Chokwe	3.5	3.2	10.4	0.3	14.5	0.2	1.4	3.3
Kaonde	25.8	0.5	1.2	90.1	44.3	1.8	40.3	0.7
Lozi	1.1	0.4	1.0	0.7	5.0	0.3	0.9	1.3
Nkoya	0.6	0.0	3.2	0.4	0.8	0.0	0.1	0.3
Africans	7.5	0.1	0.1	0.1	0.0	0.1	22.2	0.1
Other	1.6	0.7	0.9	1.7	1.6	1.0	2.8	0.7
Total	**100**	**100**	**100**	**100**	**100**	**100**	**100**	**100**
Population	**539,822**	**27,837**	**66,173**	**49,112**	**40,876**	**113,722**	**181,930**	**60,172**

Source: CSO, 2000 Census of Population and Housing

Broad Ethnic Groups

e broad ethnic groups, are analyzed by looking at their distribution by sex and residence (see Table 4.9). Tribes in the North-Western ethnic group account for more than three-quarters of all tribes in North-Western Province (85 percent). By residence, 85.3 percent and 84.6 percent of the people belonging to the North-Western tribal group reside in rural and urban areas respectively. The distribution of people of the Bemba group by sex shows very little variability.

order of size, the Bemba ethnic group is the next largest of the tribal groups at 4 percent of the whole population. The others are Barotse (1.7), Tonga (0.7) and Nyanja (0.6). The others (that is non-Zambian tribes/ethnic groups) accounted for 2.3 percent. The distribution by residence of all these tribes does not show much variation except the English for whom both rural and urban areas depict the same proportions. In urban areas, there are more Bemba, Tonga, Nyanja, Barotse, Mambwe and Tumbuka ethnic groups than in rural areas while the Northwestern ethnic groups are more significant in rural areas.

Table 4.9: Broad Ethnic Groups by Sex and Residence, North-western Province, 2000

	Total			Rural			Urban		
Broad Ethnicity	Both Sexes	Male	Female	Both Sexes	Male	Female	Both Sexes	Male	Female
Bemba Group	4.0	4.1	3.9	3.3	3.4	3.2	8.5	4.1	8.2
Tonga Group	0.7	0.7	0.7	0.4	0.4	0.4	2.5	0.7	2.4
North-Western Group	85.0	84.6	85.4	85.6	85.3	85.9	81.0	84.6	81.7
Barotse Group	1.7	1.8	1.7	1.5	1.6	1.5	3.2	1.8	3.1
Nyanja Group	0.6	0.6	0.5	0.3	0.3	0.2	2.5	0.6	2.4
Mambwe Group	0.2	0.2	0.2	0.1	0.1	0.1	0.8	0.2	0.8
Tumbuka Group	0.2	0.2	0.2	0.1	0.1	0.1	0.8	0.2	0.8
English	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	7.7	7.8	7.5	8.7	8.9	8.6	0.7	7.8	0.6
Total	100	100	100	100	100	100	100	100	100
Population	539,822	265,084	274,738	468,796	230,334	238,462	71,026	34,750	36276

Source: 2000 Census of Population and Housing

4.8 Summary

Lunda is the most predominant language of communication while Luvale is the second language of communication. Over one-third of the Population in North-Western reported to speak a second language at all representing 175,628 persons. Out of 500,939 who reported a predominant language.

North-Western Languages remain the most widely spoken in the province with a percentage share of 88.1 percent of the whole population.

The distribution of languages by residence shows that of the 5 most predominant languages of communication, Kaonde and Bemba are more widely used in urban areas as opposed to Lunda, and Luvale

which are mostly spoken in rural areas. Lunda (North-Western) is spoken by more people in rural than in urban areas (35.1 percent versus 25.5 percent). More people speak Kaonde in rural areas (30.4 percent) than in urban areas (26.6 percent).

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 (EFA2000) 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. 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 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. Therefore periodical monitoring of an education system is beyond doubt necessary especially that education has become a human rights issue.

5.2 Census undertaking and Education

There are four main sources of education statistics in Zambia:

- Annual school censuses (sometimes supplemented by school surveys)
- Household Surveys conducted by the Central Statistical Office
- Population Censuses, 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 even at the smallest administrative unit in the country. 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 adsorption power of the same system. The 2000 Census of Population and Housing captured the following education aspects for all persons as per United Nations (UN) recommendations for the 2000 census round:

- Literacy, i.e whether an individual can read and write,
- School attendance
- Educational attainment
- Educational qualifications

- Academic qualification, and
- Fields of study.

This chapter looks at school attendance as a measure of participation in an education system at all levels and literacy levels as a measure of effectiveness of the education system. In addition, various fields of study available in Zambia 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. 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 (still on pilot)
- 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 what has come to be known as formal education system.

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 these schools actually enroll 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 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).

Another form of learning in Zambia takes place through non-formal education. This comprises continuing and adult education. There is also education for better living, which 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 1,2,3 and 4 correspond to pupils aged 7 to 10 years.

- Upper primary (Middle basic) grades 5,6 and 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 10,11 and 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 exist 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 RATES**

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 underage and overage school attendance in an education system. The difference between gross and net school attendance is an indication of the degree of under-age and over age enrolment at 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, etc, 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, while those who cannot read or write in any language are considered illiterate.

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 over who can read and write. Conversely, 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.

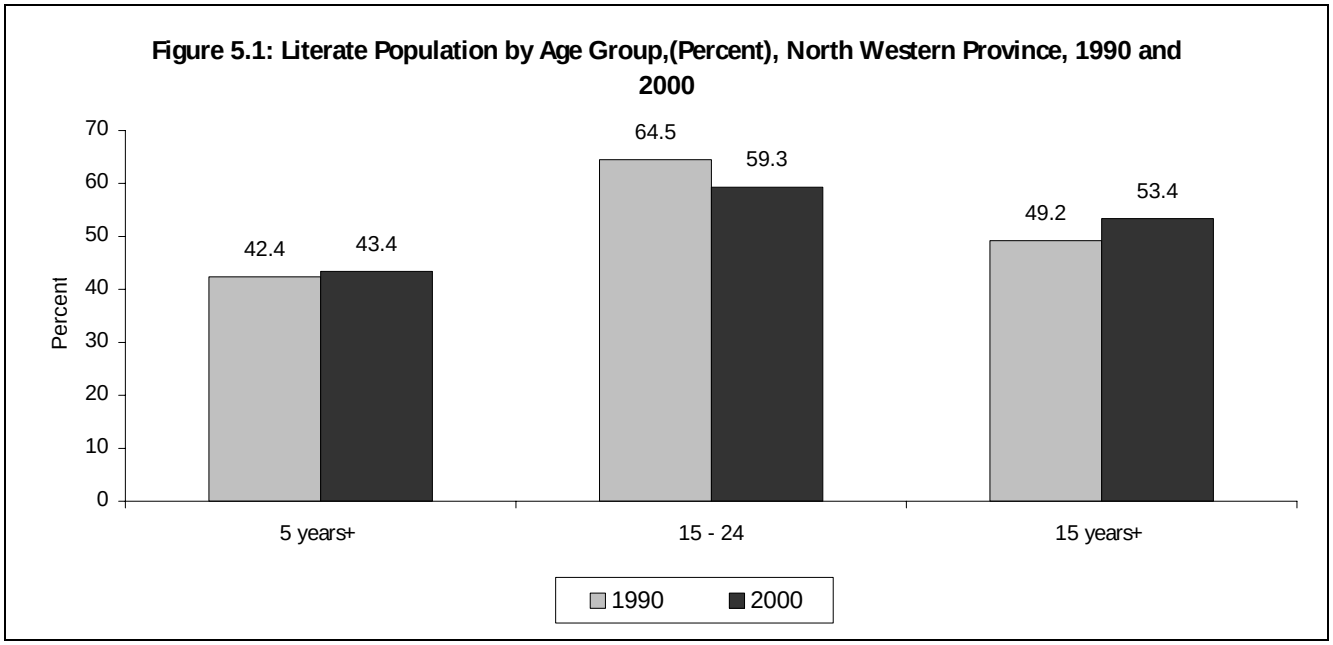
A literate nation is more likely to develop than an illiterate one since the former is well informed. Table 5.1 shows that in the year 2000 the literacy rate for the population aged 5 years and above improved only marginally from 42.4 percent in 1990 to 43.4 percent. This trend is different from the national one, which is slightly higher and has remained stable at 55.3 since 1990. Results further show that the problem of illiteracy is still more common among the female than their male counterpart since 1990. The table shows that 36.6 percent of females were literate, compared to about 1 in every 2 males (50.5 percent) by the year 2000.

The problem of illiteracy was more pervasive in rural areas than urban. In rural areas, the proportion of the population that could read and write in any language remained low at 40.1 percent in 2000, showing little improvement from the 1990 rate of 38.3 percent. The urban population registered a slight increase of 0.6 percentage points, from 66.4 percent in 1990 to 67.0 percent in 2000.

Table 5.1: Literacy Rates by Age Group, Sex and District, North-Western Province, 1990 – 2000

Sex, Residence and District	5+	15 - 24	15+	Population
Zambia (1990)	55.3	74.9	66	6,181,285
North-Western Province (1990)	42.4	64.5	49.2	324,578
Male	50.4	71.4	62.4	153,741
Female	35.1	58.3	38	170,837
Rural	38.3	60.4	44.7	277,671
Urban	66.4	85.1	76.6	46,907
Zambia (2000)	55.3	70.1	67.2	7,680,705
North-Western Province (2000)	43.4	59.3	53.4	436,354
Male	50.5	67.1	64.8	213,605
Female	36.6	52.2	42.8	222,749
Rural	40.1	55.2	49.7	382,043
Urban	67	83.1	79.5	54,311
District (2000)				
Chavuma	34.9	49.2	42.6	22,600
Kabompo	43.4	57.8	52.3	53,535
Kasempa	49.7	69.7	63.6	39,583
Mufumbwe	47.8	66.6	61.1	33,028
Mwinilynga	37.2	52.2	46.6	91,278
Solwezi	46.8	62.6	57	147,711
Zambezi	40.6	54.3	48.4	48,619

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



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

Comparison of literacy rates for districts in North-Western Province shows that Chavuma has the lowest literacy rate of 34.9 percent followed by Mwinilunga, which had 37.2 percent of its population literate, in 2000. The district with the highest literacy rate was Kasempa with 49.7 percent. These literacy rates are very low. All districts in the province had less than 50 percent of its population as literate. This is despite showing a relatively much higher rate among its urban population at provincial level. This is because the province is predominantly rural; the urban population is very small.

5.4.2 Literacy Levels for the Population Aged 15–24 Years (Youth Literacy)

Youth literacy rate had declined from 64.5 percent in 1990 to 59.3 percent in 2000. This trend is also depicted at national level where Youth literacy rate declined from 74.9 in 1990 to 70.1 in 2000; however, the provincial rates are on the lower side compared to the national in both 1990 and 2000. The drop in the proportion of the population aged 15 to 24 years was more pronounced among females than the males. By the year 2000, one third of the male as opposed to nearly half of the female population aged 15 to 24 years were illiterate. Therefore the problem of youth illiteracy is more likely to be high among female than male population.

The problem of youth illiteracy is still more of a rural than urban phenomena. By the year 2000, 44.8 percent of the youths in rural areas compared to 16.9 percent in urban areas were illiterate. The youth literacy rate in rural areas declined from 60.4 percent to 52.2 percent between 1990 and 2000. The rate also dropped in urban areas by 2-percentage points between 1990 and 2000.

The districts with the highest proportion of literate youths are Kasempa and Mufumbwe districts. However, in general, all the 7 districts registered low youth literacy rates in 2000 (Refer to table 5.1).

5.4.3 Literacy Levels for the Population Aged 15 Years and Above (Adult Literacy Rates)

Adult literacy rate have slightly increased from 49.2 percent to 53.4 percent between 1990 and 2000. This is below the national average, which just made a marginal increase from 66 to 67.2. The proportion of female adults who were literate increased from 38.0 percent to 42.8 percent while the male rate marginally increased by over 2 percentage points. In rural areas, the rate increased by 5 percentage points over the 1990 level (from 44.7 percent (1990) to 49.7 percent (2000)). Kasempa (63.6 percent) had the highest rates of adult literacy closely followed by Mufumbwe (61.1 percent). Mwinilunga had the lowest rates 46.6 percent by 2000.

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 population of official school age.

Table 5.2 and Figure 5.2 shows the population aged 5 years and above presently attending school in North-Western Province. Overall, the proportion of the population presently attending school slightly increased from 22.6 percent in 1990 to 24.5 percent in 2000, a trend that is observed also at national level. North-Western province attendance rates are slightly lower than the national both in 1990 and 2000 at 25.8 percent and 26.7 percent respectively. Since 1990, there have been proportionately more males attending school than females. The percentage of both males and females attending school marginally increased between 1990 and 2000 from 25.9 percent and 19.6 percent to 27.3 percent and 21.8 percent, respectively.

During the same period under review, there was an increase in the proportion of children of all age groups except the 15-19 age group which remained static at 46.1 percentin both years.

Table 5.2: Population Age 5 Years and Above Presently Attending School by Sex and Age Group, (Percent), North-Western Province, 1990 – 2000

Age	1990				2000			
	Total	Male	Female	Population	Total	Male	Female	Population
5 – 9	24.1	23.1	25.1	58,531	27.4	26.8	27.9	85,941
10 – 14	58.5	59.2	57.7	52,530	63.1	64.0	62.3	67,216
15 – 19	46.1	56.6	36	47,565	46.1	56.7	36.1	60,755
20 – 24	13.1	20.4	7.3	33,397	14.2	20.4	8.8	48,627
25 – 29	3.2	4.3	2.4	25,258	5.6	7.5	3.9	38,972
30 – 44	2	2.7	1.4	46,680	3.7	4.9	2.6	71,051
45+	0.6	0.9	0.4	60,617	1.8	2.6	0.9	63,792
Total	22.6	25.9	19.6	324,578	24.5	27.3	21.8	436,354

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

Table 5.3 shows school attendance rates by residence and age group in North-Western Province. Results in the table reveal that 22.7 percent of the population in rural areas of Zambia was attending school, as opposed to 37.2 percent in urban parts of the country. However, there was some increase in the proportion of the rural population attending school from 20.6 percent in 1990 to 22.7 percent by 2000. In urban areas, school attendance also showed a slight increase in 2000 compared to the 1990 level from 34.1 percent to 37.2 percent.

Table 5.3: Population age 5 Years and Above Presently Attending School by Residence and Age Group, (Percent), North-Western Province, 1990 – 2000

Age	1990				2000			
	Total	Rural	Urban	Population	Total	Rural	Urban	Population
5 – 9	24.1	21.2	40.9	58,531	27.4	24.8	46.6	85,941
10 – 14	58.5	54.8	78.5	52,530	63.1	60.4	81.4	67,216
15 – 19	46.1	43.1	61.5	47,565	46.1	43.1	62.9	60,755
20 – 24	13.1	12.6	16	33,400	14.2	12.3	25.4	48,627
25 – 29	3.2	3.2	3.4	25,258	5.6	4.9	9.6	38,972
30 – 44	2	1.9	2.4	46,684	3.7	3.6	4.4	71,051
45+	0.6	0.6	0.6	60,637	1.8	1.7	2.1	63,792
Total	22.6	20.6	34.1	324,605	24.5	22.7	37.2	436,354

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

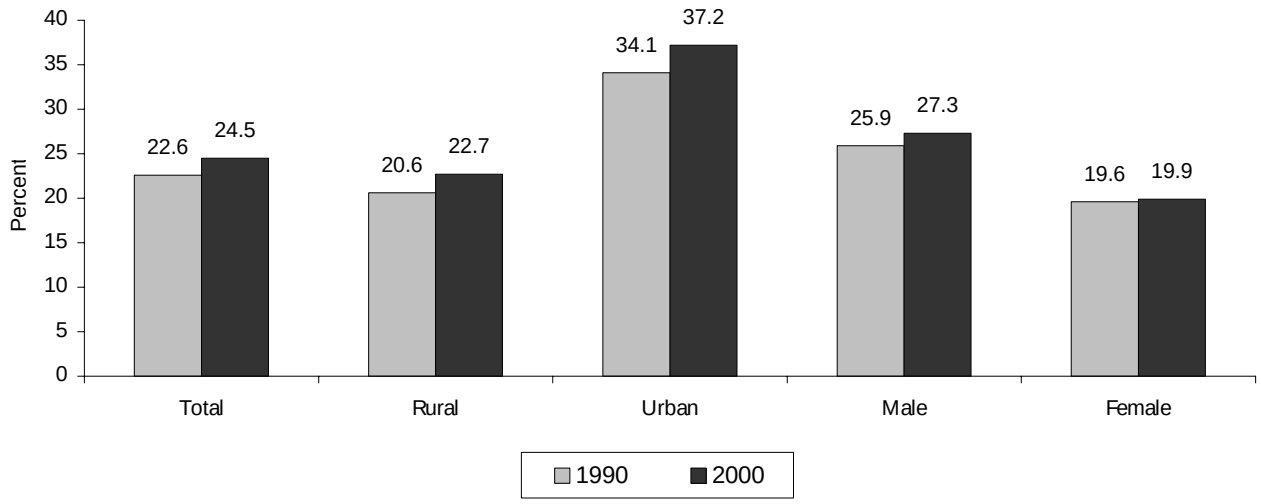
Furthermore, variations in the proportion of the population presently attending school in all the seven districts have been observed. Twenty-nine percent attended school in Kasempa compared to 18.7 percent in Chavuma District.(Refer to table 5.4).

Table 5.4: Population Age 5 years and Above Presently Attending School by District, (Percent) North-Western Province, 1990 – 2000

Province and Residence	Sex			Population
	Total	Male	Female	
Zambia (1990)	**25.8**	**28.1**	23.6	6,181,285
North-Western Province (1990)	22.6	25.9	19.6	324,578
Rural	20.6	24.1	17.5	277,671
Urban	34.1	36.2	32	46,907
Zambia (2000)	26.7	28.7	24.9	7,680,705
North-Western Province (2000)	24.5	27.3	21.8	436,354
Rural				
Urban	22.7	25.6	19.9	382,043
	37.2	39.3	35.2	54,311
District (2000)				
Chavuma	18.7	21.2	16.3	22,600
Kabompo	24	26.2	21.8	53,535
Kasempa	29	32.4	25.8	39,583
Mufumbwe	27.2	30.2	24.4	33,028
Mwinilunga	21.7	25.5	18.1	91,278
Solwezi	26.1	28.5	23.7	147,711
Zambezi	22.5	25	20.2	48,619

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

Figure 5.2: Population Aged 5 Years and Above Attending School, (Percent),North-Western Province, 1990 and 2000



Source: CSO, 1990 and 2000 Censuses 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 exactly primary grades (Grades 1 to 7). Table 5.5 shows that in North-Western Province, school attendance by the population aged 7 to 13 years had increased from 47.7 percent in 1990 to 52.3 percent in 2000. The proportion attending school in both 1990 and 2000 is below the national level, though the trend is the same. Both the male and female attendance rates increased in 2000 from the 1990 levels by about 5 percentage points from 47.3 and 48.1 percent, respectively. For this age cohort, females were more likely to be attending school than their male counterpart (Refer to figure 4).

Table 5.5 shows that out of a total of 65,248 rural children aged 7 to 13 years, only 43.7 percent were attending school, compared to 70.2 percent of the 11,493 urban children in 1990. The school attendance rates increased to 49.1 percent and 74.8 percent for the rural and urban areas by 2000, respectively. School attendance among rural girls rose by 5 percentage points from about 44 percent in 1990 to about 49 percent by 2000. In urban areas, female school attendance rate increased from 70.7 percent to 75.5 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.

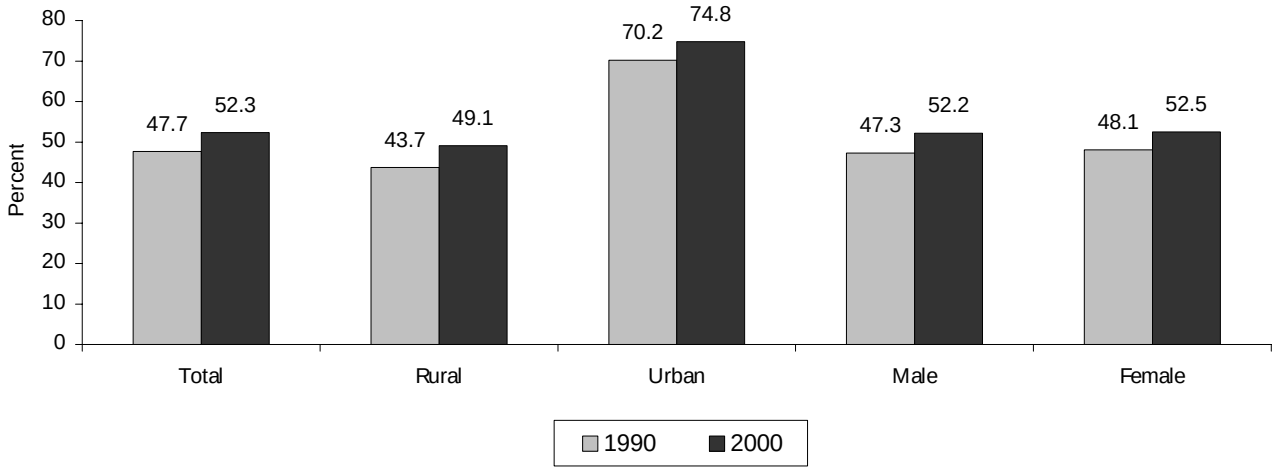
Table 5.5 also shows that in 2000, Chavuma District (41.9 percent) followed by Mwinilunga (44.4 percent) recorded the lowest rates of school attendance while Mufumbwe and Kasempa had the highest rates of 61.7 and 60.6 percent respectively (Refer to Table 5.5 and Figure 5.3).

Table 5.5: Population aged 7 to 13 years Presently Attending School by Sex and Residence, (Percent) North-Western Province, 1990 – 2000

Province and Residence	Primary School Attendance Rates			
	Total	Male	Female	Population
Zambia (1990)	55.8	55.4	56.2	1,486,062
North-Western Province (1990)	47.7	47.3	48.1	76,741
Rural	43.7	43.6	43.9	65,248
Urban	70.2	69.7	70.7	11,493
Zambia (2000)	62.2	61.8	62.6	1,826,590
North-Western Province (2000)	52.3	52.2	52.5	103,855
Rural	49.1	49.1	49.1	90,931
Urban	74.8	74.1	75.5	12,924
District (2000)				
Chavuma	41.9	41.1	42.8	5,233
Kabompo	54.6	53.2	56.0	12,167
Kasempa	60.6	60.2	61.0	9,829
Mufumbwe	61.7	61.5	62.2	8,218
Mwinilunga	44.4	45.5	43.3	22,203
Solwezi	55.0	55.2	54.8	34,712
Zambezi	47.8	46.7	49.0	11,493

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

Figure 5.3: Population Aged 7 to 13 Years Attending School, (Percent), North Western Province, 1990 and 2000



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

5.7 Gross Primary School Attendance Rates 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 school age population. Due to the school attendance of under-age and over-age children in primary schools, the ratio is sometimes more than 100 percent. Table 5.6 shows an increase in gross primary school attendance ratio from 68.4 percent in 1990 to 71 percent by the year 2000. (The trend at national level is, however, different, in that, it declined from 82.3 percent in 1990 to 79.1 percent in 2000. The rates are nevertheless higher than the provincial ones). Over the same period the gross rate for both males and females marginally increased from 72.5 percent and 64.3 percent to 73.9 percent and 68 percent respectively. The Gender Parity Index (GPI) based on gross rates only marginally increased from 0.89 to 0.92, indicating that there is some growing equality in terms of participation of girls and boys in primary education.

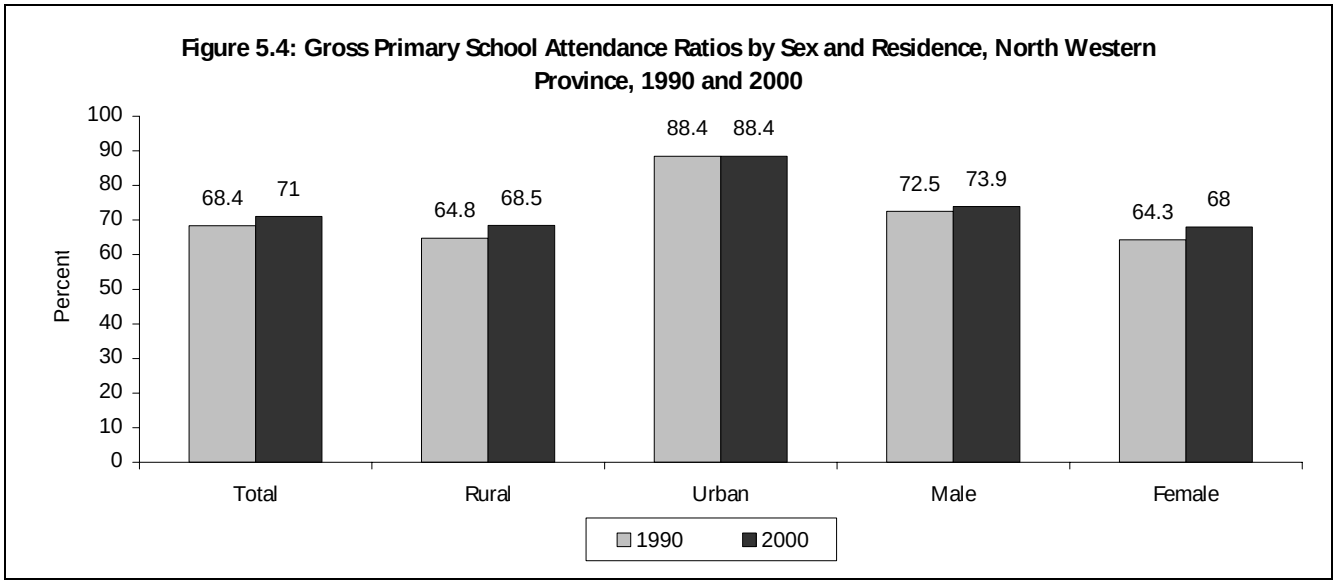
By the year 2000, the Gross Primary Attendance ratios for urban population remained above those obtaining in rural areas. However, gross school attendance in rural areas increased from 64.8 percent to 68.5 percent, while in urban areas it stagnated at 88.4 percent between 1990 and 2000.
The GPI for 2000 results show gross inequality in rural (0.91) than in urban areas, 0.98. Gender equality in terms of education participation is within reach in urban areas than in rural areas.

District level of anlysis of the 2000 Gross Primary School Attendance Rates shows that Chavuma District had the lowest ratio of 60.2 percent. On the other hand, Kasempa had the highest ratio of 83.3 percent in 2000. Also, attendance is higher among boys than girls in all 6 districts.

Table 5.6: Gross Primary School Attendance Ratio by sex, Residence and Districts, North-Western Province, 1990 – 2000

Residence and District	Gross Primary Attendance rate			
	Total	Male	Female	Population
Zambia (1990)	82.3	85.7	78.9	1,486,062
North-Western Province (1990)	68.4	72.5	64.3	76,741
Rural	64.8	69..3	60.3	65,248
Urban	88.4	91..9	85.4	11,493
Zambia (2000)	79.1	81.4	76.8	1,826,590
North-Western Province (2000)	71	73.9	68	103,855
Rural	68.5	71.8	65.2	90,931
Urban	88.4	89.1	87.6	12,924
District (2000)				
Chavuma	60.2	62.7	57.7	5,233
Kabompo	73.5	75.7	71.3	12,167
Kasempa	83.3	86.8	79.9	9,829
Mufumbwe	83.1	85.5	80.7	8,218
Mwinilunga	63.3	68.4	58.2	22,203
Solwezi	72.3	75.1	69.5	34,712
Zambezi	64.7	65.4	63.9	11,493

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



Source: CSO, 1990 and 2000 Censuses 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, from 41.9 percent in 1990 to 50.8 percent by the year 2000. The trend is similar to the national average, though the rates are lower than the national one. For the country as a whole the Net primary school attendance rate increased from 55 in 1990 to 60 in 2000. In 1990, the attendance of girls of primary school age was slightly higher than that of boys. By the year 2000, there was near equality in primary education participation by both boys and girls of the official age. The 2000 census results indicate that about 50 percent of children of the official primary school age were out of the school system.

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. In 1990, 61.5 percent of the rural children aged 7 to 13 years were out of primary education compared to 38.4 percent of their urban counterpart. By 2000, the proportion of children attending school in both rural and urban areas increased by nearly 10 percentage points, from 38.5 percent and 61.6 percent to 48 percent and 70.8 percent respectively. No major sex differences were noticed since 1990, an indication of near 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 Survey have shown that long distance to schools inhibits school attendance particularly for young children who may not safely walk alone to school (CSO, LCMS; 1996, 1998).

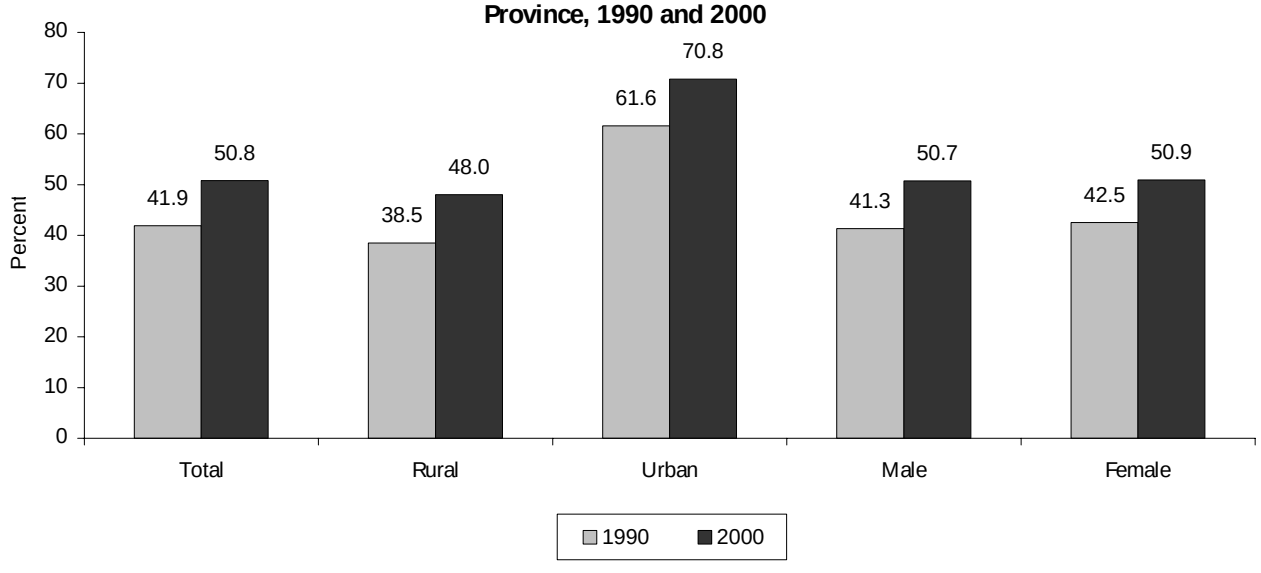
Analysis at district level, of net primary school attendance rates indicates that, in general, net attendance rates in North-Western Province are very low. The district with the highest net primary attendance rate was Mufumbwe, with 60.8 percent while Chavuma was the lowest with a rate of 41.3 percent.

Table 5.7: Net Primary School Attendance Rates by Sex, Residence and District, North-Western Province, 1990 – 2000

Residence and District	Net Primary Attendance Rate			
	Total	Male	Female	Population
Zambia (1990)	55.0	54.6	55.3	1,486,062
North-Western Province (1990)	41.9	41.3	42.5	76,741
Rural	38.5	38.1	38.9	65,248
Urban	61.6	61.1	61.9	11,493
Zambia (2000)	60.0	59.8	60.2	1,826,590
North-Western Province (2000)	50.8	50.7	50.9	103,855
Rural	48.0	48.0	48.0	90,931
Urban	70.8	70.4	71.3	12,924
District (2000)				
Chavuma	41.3	40.6	42.0	5,233
Kabompo	53.1	51.7	54.4	12,167
Kasempa	59.2	58.8	59.5	9,829
Mufumbwe	60.8	60.5	61.1	8,218
Mwinilunga	43.3	44.4	42.2	22,203
Solwezi	53.0	53.2	52.7	34,712
Zambezi	46.6	45.5	47.8	11,493

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

Figure 5.5: Net Primary School Attendance Ratios by Sex and Residence, North Western Province, 1990 and 2000



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

5.9 School Attendance by the Secondary School Age Population (14-18)

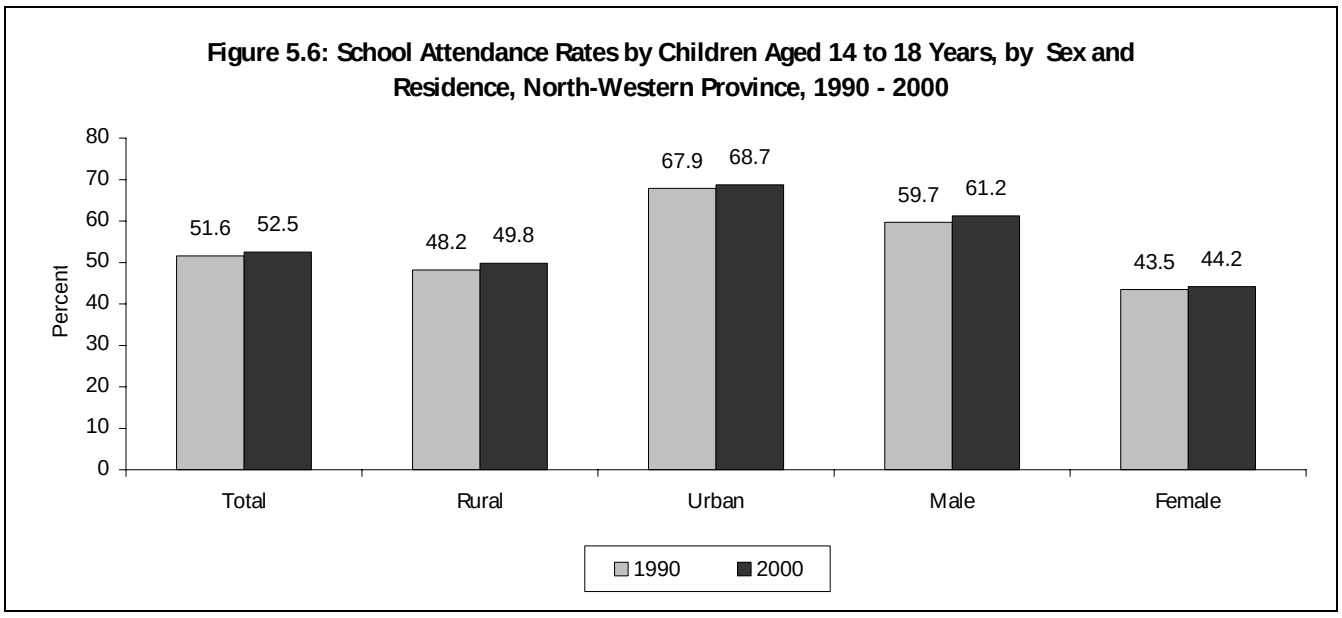
Table 5.8 shows the proportion of children aged 14 to 18 attending school. Overall, the percentage of children attending school remained static at about 52 percent between 1990 and 2000, this similar to the national, which stagnated at 53.9 since 1990. Since 1990, there were proportionately more boys (60 percent) than girls (43 percent) attending school. A slight increase was observed in the rate of attendance in rural areas from about 48.4 to 49.8 percent, in urban areas the rate increased from 67.9 to 68.7 percent by 2000. Once again, the proportion of boys attending school was much higher in both rural and urban areas than for girls. 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.

Differences at district level in school attendance, by eligible secondary school age population was evident in the year 2000. In 2000 the lowest rate of attendance was recorded in Chavuma District.(48.5 percent) Kasempa had the highest at 62.4 percent.

Table 5.8: Population Aged 14 to 18 Years Presently Attending School by Sex and Residence, North-Western Province, 1990 – 2000

Province and Resince	Percent 14-18 years attending school			
	Total	Male	Female	Population
Zambia (1990)	53.9	61.1	47.1	996,450
North-Western Province (1990)	51.6	59.7	43.5	50,823
Rural	48.4	56.6	40.1	42,452
Urban	67.9	76.4	60	8,371
Zambia (2000)	53.9	61.3	47.0	1,105,484
North-Western Province (2000)	52.5	61.2	44.2	62,724
Rural	49.8	59.1	40.8	53,708
Urban	68.7	74.4	63.6	9,016
District (2000)				
Chavuma	41.2	48.5	34.4	3,057
Kabompo	52.4	60.7	44.1	7,318
Kasempa	62.4	72.3	52.7	6,139
Mufumbwe	56.9	67	47.2	4,754
Mwinilunga	48.8	59.9	37.9	13,055
Solwezi	53.8	61.5	46.7	21,745
Zambezi	48.7	55	42.5	6,656

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



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

5.10 Gross Secondary School Attendance Rates

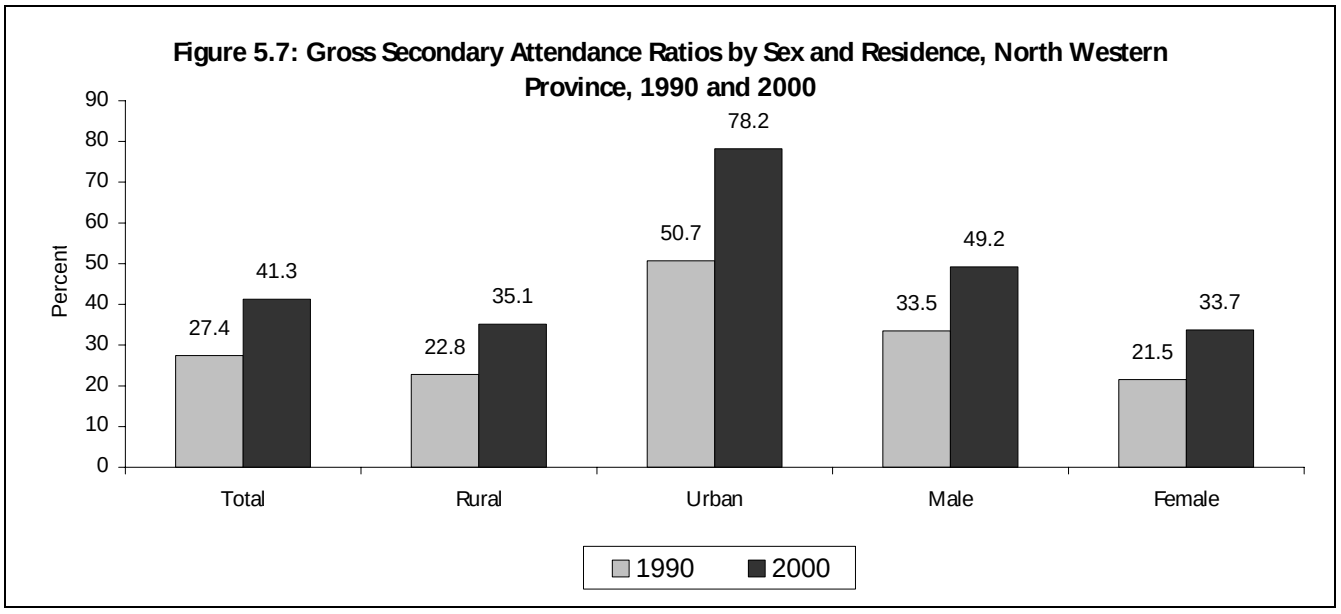
Results in Table 5.9 reveal that a sizeable proportion of secondary school age population have had no access to secondary education. At provincial level, the proportion of children attending secondary education in North-Western Province expressed as a percentage of the eligible secondary school age population increased from 27.4 percent in 1990 to 41.3 percent by 2000. This trend is similar to the national, which increased from 34.6 in 1990 to 44.5 in 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 50.7 percent to 78.2 percent, than in rural areas, from 22.8 percent to 35.1 percent. There were major differences in the gross attendance rates in both 1990 and 2000.

The results show that in 2000, the ratio of learners at secondary level to eligible children for that level was lowest in Chavuma. The highest gross attendance rate was in Kasempa with 57.1 percent.

Table 5.9: Gross Secondary School Attendance Ratio by Sex, Residence and district, North-Western Province, 1990 – 2000

Residence and District	Gross Secondary Attendance Rate			
	Total	Male	Female	Population
Zambia (1990)	34.6	40.4	29	996,450
North-Western Province (1990)	27.4	33.5	21.5	50,823
Rural	22.8	28.4	17.2	42,452
Urban	50.7	60.2	42	8,371
Zambia (2000)	44.5	50.2	39.1	1,105,484
North-Western Province (2000)	41.3	49.2	33.7	62,724
Rural	35.1	43.5	27	53,708
Urban	78.2	85.1	71.9	9,016
District (2000)				
Chavuma	26.9	32.7	21.5	3,057
Kabompo	40.5	47.2	33.8	7,318
Kasempa	46.7	57.1	36.6	6,139
Mufumbwe	40.7	51.7	30.3	4,754
Mwinilunga	34.7	44.2	25.2	13,055
Solwezi	46.9	53.6	40.6	21,745
Zambezi	39	46.1	32	6,656

Source: CSO, 1990 and 2000 Censuses 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 has no access to education in North-Western Province. In 1990 only 16.5 percent of the children aged 14 to 18 years were attending secondary education. This proportion increased to 26.3 percent in 2000. This pattern is similar to national level where the proportion increased from 21.4 percent in 1990 to 30.9 percent in 2000. However, the Provincial rate is slightly below the national average of 30.9 percent. Since 1990 there were proportionately more boys than girls attending secondary school.

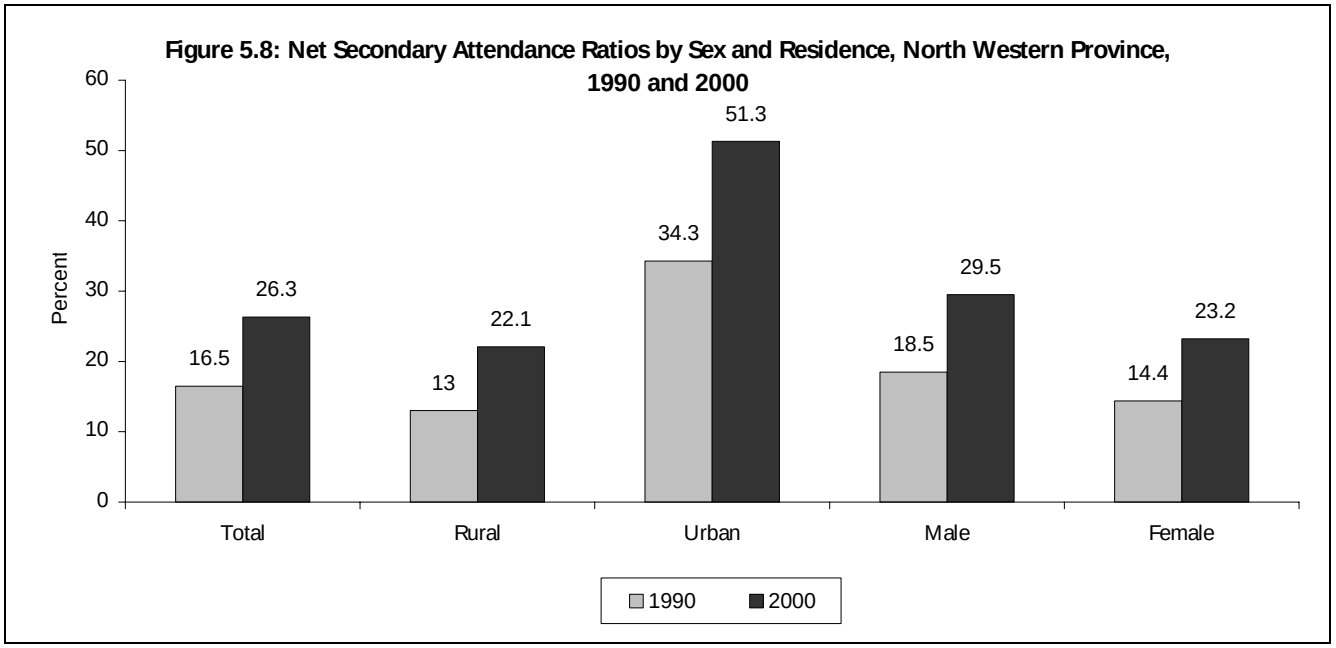
Rural - urban differences in net secondary school attendance rates have existed since 1990. In 1990 the proportion of urban eligible children attending secondary education (34.3 percent) was more than twice that of their rural counterpart (13.0 percent). For both rural and urban areas, net secondary school attendance rate increased between 1990 and 2000.

Analysis by districts shows that Chavuma had the least net secondary rate of 17.8 percent, followed by Mwinilunga (25.2 percent). In the same year Kasempa and Solwezi districts recorded the highest rates of 34.8 and 33.1 percent respectively.

Table 5.10: Net Secondary School Attendance Ratio by Sex and Residence , North-Western Province, 1990 – 2000

Residence and District	Net Secondary School Attendance Rate			
	Total	**Male**	**Female**	**Population**
Zambia (1990)	21.4	22.8	20	996,450
North-Western Province (1990)	16.5	18.5	14.4	50,823
Rural	13	14.8	11.1	42,452
Urban	34.3	38.3	30.6	8,371
Zambia (2000)	30.9	33.3	28.7	1,105,484
North-Western Province (2000)	26.3	29.5	23.2	62,724
Rural	22.1	25.5	18.7	53,708
Urban	51.3	53.8	48.9	9,016
District (2000)				
Chavuma	16.1	17.8	14.6	3,057
Kabompo	25.9	28.8	23	7,318
Kasempa	30.5	34.8	26.3	6,139
Mufumbwe	25.9	30.1	21.8	4,754
Mwinilunga	21.1	25.2	17.1	13,055
Solwezi	30.4	33.1	28	21,745
Zambezi	24.1	27.1	21.1	6,656

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



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

5.12 Population Distribution by Field of Study

Table 5.11 shows the distribution of the population by some selected field of study and sex in North-Western Province . The table reveals that the most popular fields of study since 1990 have been Teacher training, Nursing, Agriculture/Forestry/Fisheries, Mechanical Engineering/Mechanics, Accountancy, and Wood Working.

The results also clearly indicate that males have a wider variety of fields of specialization than their female counterpart. Further examination of the results in table 5.11 highlights the fact that very few females have been attempting more technically oriented fields of study such as engineering and other technical programmes since 1990. Except for Nursing, secretarial training, service trade and textile trade, where there were more females than males, males dominate participation in all training courses.

Table 5.11: Population (5 Years and Above) by Sex and Field of Study, North-Western Province, 1990 - 2000

Field of study	1990			2000		
	Total	Male	Female	Total	Male	Female
Natural Science	61	75.4	24.6	30	83.3	16.7
Civil Engineering	72	95.8	4.2	32	96.9	3.1
Electronic Engineering	85	91.8	8.2	92	96.7	3.3
Mechanic Engineering	145	100.0	0	188	98.4	1.6
Mining Engineering	58	93.1	6.9	41	95.1	4.9
Industrial Engineering	97	58.8	41.2	27	70.4	29.6
Architecture	49	79.6	20.4	26	84.6	15.4
Medicine/Surgery	86	83.7	16.3	56	98.2	1.8
Pharmacy	110	74.5	25.5	50	88.0	12.0
Nursing	437	26.3	73.7	2,242	68.3	31.7
Medical Technology	109	92.7	7.3	139	94.2	5.8
Computer Science	3	100.0	0	29	51.7	48.3
Economics	57	35.1	64.9	37	56.8	43.2
Accountancy	185	85.9	14.1	262	85.9	14.1
Teacher Training	1,564	75.8	24.2	2,173	72.9	27.1
Law/jurisprudence	71	94.4	5.6	84	90.5	9.5
Fine arts	15	66.7	33.3	20	60.0	40.0
Social Welfare	85	70.6	29.4	60	73.3	26.7
Criminology	166	95.8	4.2	162	93.8	6.2
Business Administration	120	89.2	10.8	131	83.2	16.8
Secretarial Training	77	40.3	59.7	98	12.2	87.8
Office Machine	35	88.6	11.4	22	72.7	27.3
Service Trade	60	56.7	43.3	59	39.0	61.0
Agriculture/Forestry/Fisheries	391	95.1	4.9	306	91.2	8.8
Wood Working	168	96.4	3.6	131	92.4	7.6
Textile Trade	45	46.7	53.3	45	37.8	62.2

Source: CSO, 1990 and 2000 Censuses 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 5.12 shows the distribution of the population aged 5 years and above by field of study and education level completed. The table reveals the type of restrictions education attainment imposes on field 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.

Table 5.12 Education Level Completed by Field of Study (Percent), North-Western Province, 2000

Field of Study	Size	Total	Level of Education Completed				
			1-7	8-9	10-12	'A' Level	Degree
North-Western Province							
Natural Science	30	100	3.3	0	83.3	3.3	10
Civil Engineering	32	100	21.9	15.6	37.5	3.1	21.9
Electronics/Engineering	92	100	14.1	3.3	72.8	2.2	7.6
Mechanics/Engineering	188	100	6.4	14.4	67.6	0.5	11.2
Chemical Engineering	7	100	0	0	85.7	0	14.3
Mining Engineering	41	100	34.1	9.8	36.6	0	19.5
Industrial Engineering	27	100	25.9	29.6	33.3	0	11.1
Metallurgical Engineering	4	100	0	25	50	0	25
Architecture	26	100	23.1	26.9	42.3	0	7.7
Other Engineering	41	100	12.2	9.8	70.7	2.4	4.9
Medicine/Surgery	56	100	0	1.8	66.1	5.4	26.8
Pharmacy	50	100	4	8	66	6	16
Dentistry	55	100	9.1	14.5	49.1	21.8	5.5
Nursing	2,242	100	9.8	11	68.4	1	9.8
Medical Technology	138	100	6.5	4.3	69.6	4.3	15.2
Veterinary	29	100	13.8	10.3	72.4	0	3.4
Computer Science	29	100	3.4	6.9	72.4	0	17.2
Economics	37	100	13.5	8.1	54.1	5.4	18.9
Accountancy	262	100	2.3	3.4	77.1	3.4	13.7
Teacher Training	2,173	100	3.9	3	72.9	2.6	17.6
Law/jurisprudence	84	100	7.1	9.5	65.5	6	11.9
Journalism	24	100	12.5	8.3	62.5	0	16.7
Fine arts	20	100	0	20	55	0	25
Social Welfare	59	100	11.9	11.9	62.7	3.4	10.2
Criminology	162	100	9.3	13	72.2	0.6	4.9
Business Administration	131	100	6.1	3.8	67.9	3.1	19.1
Secretarial Training	98	100	1	13.3	73.5	3.1	9.2
Shorthand Typing	60	100	3.3	20	68.3	0	8.3
Clerical typing	93	100	8.6	18.3	63.4	1.1	8.6
Office Machine	22	100	22.7	13.6	63.6	0	0
Service Trade	59	100	39	11.9	37.3	1.7	10.2
Agriculture/Forestry/Fisheries	306	100	10.1	10.1	66	2	11.8
Wood Working	16	100	12.5	25	31.3	0	31.3
Textile Trade	131	100	29	31.3	33.6	0.8	5.3

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 North-Western Province. The certificate referred to here only relate to the one obtained after grades school. The proportion of persons with certificates who had attained grades 1 to 7 declined from 29.6 percent in 1990 to 11.9 percent in 2000, whilst the proportions attaining higher grades increased drastically. On the other hand, there was a decline in the proportions of diploma holders with up to grade 7 and 9 education from 6.3 percent and 4 percent to 3.4 percent and 2.2 percent respectively. The same scenario applies to both males and females. (Refer to table 5.13).

Table 5.13 Certificates and Diplomas by Level of Education and Sex, 1990-2000

Certificates	Size	Education Level Completed				
		1-7	8-9	10-12	'A' Level	Total
Certificates						
North-Western 1990						
Total	5,728	29.6	13	57	0	100
Male	4,296	32.4	13	54.7	0	100
Female	1,432	21.2	14	64	1	100
North-Western 2000						
Total	5,418	11.9	12.4	73.5	2.2	100
Male	3,932	12.6	11.5	73.7	2.2	100
Female	1,486	10.2	14.6	73	2.2	100
Diploma						
North-Western 1990						
Total	889	6.3	4	79.8	10	100
Male	724	6.2	5	82	7	100
Female	165	6.7	2	69.7	21	100
North-Western 2000						
Total	909	3.4	2.2	91.7	2.5	100
Male	760	3.7	1.8	92.2	2.2	100
Female	149	2	4	89.3	4	100

5.14 Summary

In North-Western Province literacy rates remained very low. The literacy rate for the population of 5 years and above marginally improved between 1990 and 2000, from about 42 percent to about 43 percent respectively. Thus over half of all persons 5 years and above were illiterate. Literacy rates for males and urban are much higher than those for females and rural areas respectively. The youth (15-24) and adults (15 years +) recorded better overall rates of 59 percent and 53 percent respectively, in 2000.

In 2000, 25 percent, of the 5 years and above, were in school an increase of only 2 percent from the 1990 level. There were no significant differences between the sexes.

Sex disparities in enrollments are more significant at secondary level of education and beyond. At primary level, the males had an attendance rate of 33 percent compared to 22 percent for females in 2000.

Children coming from the following groups are disadvantaged: rural, female. Rural and female children are less likely to enroll and progress beyond primary level.

The most popular fields of study are teacher training, nursing and agriculture. This, being a typical rural province, has limited institutions of higher learning.

Chapter 6

ECONOMIC CHARATERISTICS

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 the 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 over time 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:

- Labour force participation
- Economic Dependency
- 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: Population 12 years and above by Economic activity Status.

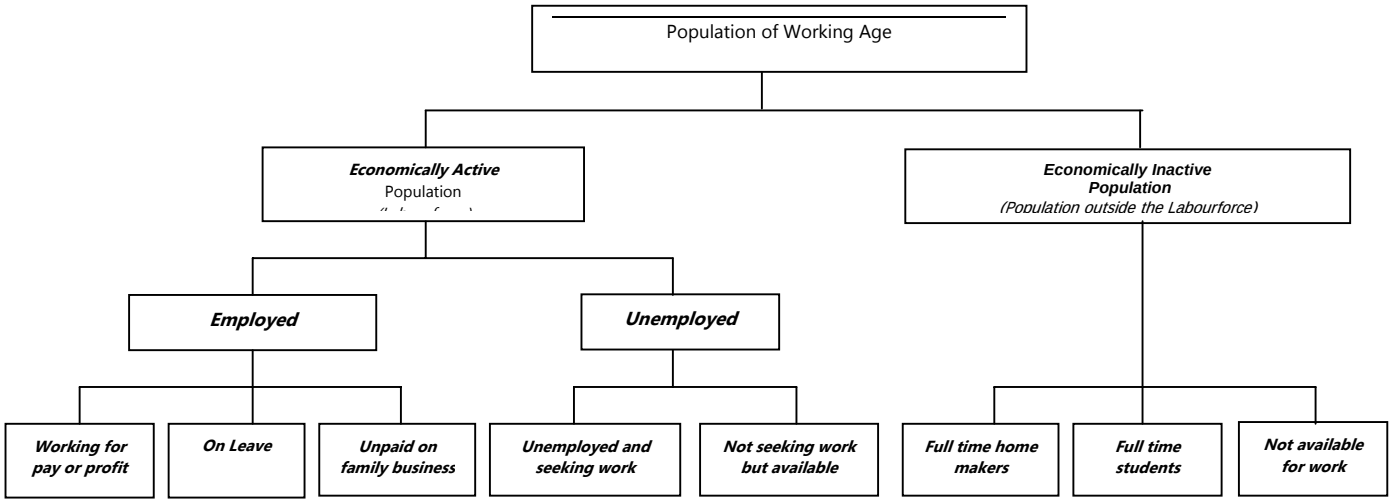
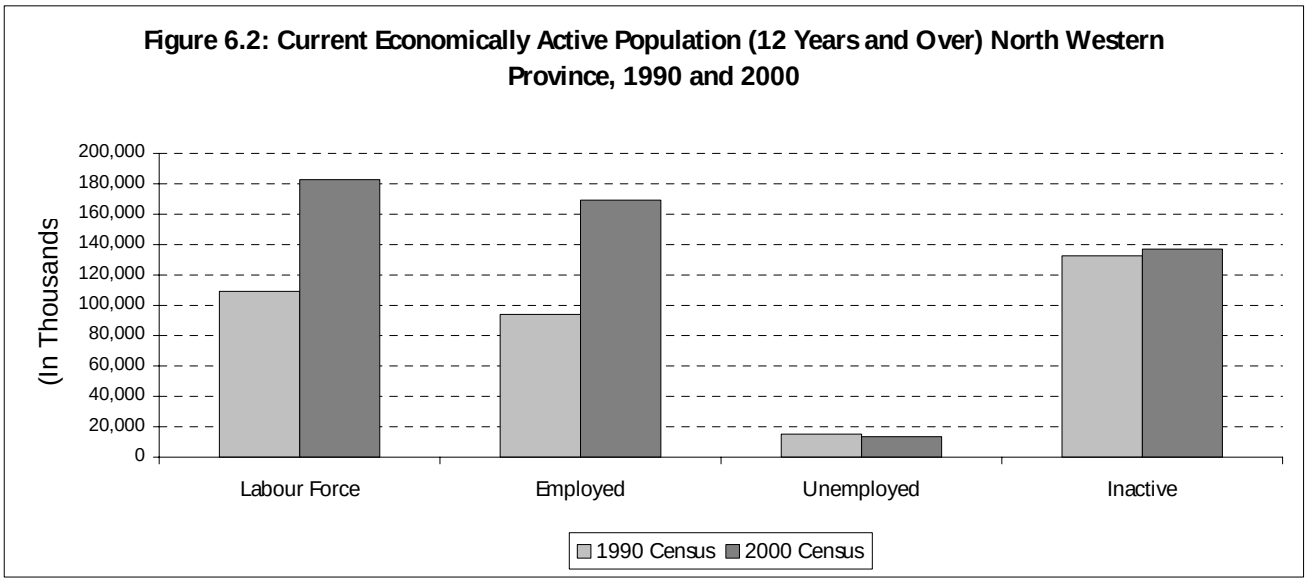


Table 6.1 presents the population 12 years and over by age group, residence and sex for 1990 and 2000. The working-age population in Northwestern province has increased by 31.0 percent. The increase of the male working-age population of 36.4 percent is more than the increase of 26.2 percent in the female working-age population. In rural areas, the working-age population has increased by 32.1 percent, while in urban areas it has increased by only 24.1 percent. The increase of 84.0 percent for the male working-age population in rural areas is much more than the increase of 26.7 percent for the female working-age population; Similarly in urban areas, on the other hand, the increase of 24.8 percent in the male working-age population is slightly higher than the increase in the female working-age population of 23.5 percent.

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

Residence and Sex	Year	Size	Total	12-19	20-24	25-29	30-59	60+	Not Stated
Total	1990	244,195	100	29.1	11.8	8.2	36.6	12.8	1.5
	2000	319,826	100	30.4	15.2	12.2	33.1	9.0	0.0
Percent increase		31.0							
Male	1990	113,717	100	33.9	13.2	9.5	30.7	12.4	0.3
	2000	155,139	100	30.9	14.5	11.8	32.6	10.2	0.0
Percent increase		36.4							
Female	1990	130,478	100	30.3	14.1	11.0	34.6	9.7	0.3
	2000	164,687	100	30.1	15.9	12.5	33.6	7.9	0.0
Percent increase		26.2							
Rural									
Total	1990	209,011	100	31.3	13.3	10.0	32.9	12.2	0.3
	2000	276,156	100	29.9	14.9	12.1	33.5	9.7	0.0
Percent increase		32.1							
Male	1990	72,815	100	32.7	10.9	6.8	32.6	15.7	1.3
	2000	134,006	100	30.4	14.1	11.7	32.7	11.1	0.0
Percent increase		84.0							
Female	1990	112,226	100	29.7	13.7	10.7	35.4	10.7	0.3
	2000	142,150	100	29.4	15.6	12.4	34.2	8.4	0.0
Percent increase		26.7							
Urban									
Total	1990	35,184	100	36.3	15.7	12.5	31.6	3.7	0.2
	2000	43,670	100	34.1	17.3	13.0	31.0	4.6	0.0
Percent increase		24.1							
Male	1990	16,932	100	35.8	14.1	11.4	34.2	4.3	0.2
	2000	21,133	100	33.6	16.6	12.7	32.3	4.8	0.0
Percent increase		24.8							
Female	1990	18,252	101	36.8	17.1	13.5	29.1	3.3	0.2
	2000	22,537	100	34.6	17.9	13.2	29.8	4.5	0.0
Percent increase		23.5							

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



Sources: CSO, 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 three fifths (59.1 percent) of the inactive population are female, while about a two fifth (40.9 percent)

are male. About 83 percent are in the rural areas while 17 percent are in the urban areas. Studying (43.3 percent) is the most important reason for inactivity, followed by homemaking (29.5) and lastly other reasons (27.3 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 reasons for inactivity are in an order similar to the one for the whole Province. The only thing to note is that there are more students in the urban areas (52.3 percent) than in the rural areas (41.4 percent); slightly more homemakers in the rural areas (29.6 percent) than in the urban areas (28.9 percent); there are more economically inactive people for other reasons in rural areas (29.1 percent) compared to urban areas (18.7 percent).

In 2000, males are economically inactive mainly because of studying (60.8 percent) while females are inactive primarily because of home making (46.0 percent).

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

Residence and Sex	Reason For Inactivity				
	Total Number	Total	Home Maker	Student	Other
North Western					
Total	137,065	100.0	29.5	43.3	27.3
Rural	113,473	100.0	29.6	41.4	29.1
Urban	23,592	100.0	28.9	52.3	18.7
Sex					
Male	56,080	100.0	5.6	60.8	33.6
Female	80,985	100.0	46.0	31.1	22.9

Source: CSO, 2000 Census of Population and Housing

6.5 Economically Active Population (Labourforce)

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 67.5 percent, from 109,106 in 1990 to 182,761 in 2000 in absolute terms. However, the average annual growth rate was 5.3. This is slightly higher than the national one, which was 3.8. The increase of 87.3 percent in the female labour force is more than the increase of 53.8 percent in the male labour force. A big proportion of the labour force (87.4 percent in 1990 and 89.0 percent in 2000) was in rural areas, as compared to the labour force in urban areas (12.6 percent in 1990 and 11.0 percent in 2000).

Table 6.3: Trends in the Labourforce and the average annual growth rate of the Labourforce , North Western Province, 1990 –2000

District	1990	2000	Growth rate
Zambia	2,162,487	3,165,151	3.8
North Western	109,106	182,761	5.29
Chavuma		10,720	
Kabompo	14,761	20,284	3.2
Kasempa	8,259	15,570	6.5
Mufumbwe	7,022	12,277	5.8
Mwinilunga	25,853	38,437	4.1
Solwezi	34,456	66,184	6.8
Zambezi	18,757	19,289	0.3

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

Solwezi, Kasempa and Mufumbwe districts recorded the highest average annual growth rates in the Labourforce between 1990 and 2000 of 6.8 percent, 6.5 percent and 5.8 percent respectively. Zambezi district recorded the lowest average annual growth rate (0.3 percent) followed by Kabompo district (3.2 percent). The other district to register an average annual growth rate in the labourforce below the provincial level wasMwinilunga district (4.0 percent).

In terms of percentage distribution of the labourforce in 2000, Solwezi district has the highest (36.2 percent), followed by Mwinilunga, Kabompo and Zambezi districts with 21.0 percent, 11.1 percent and 10.6 percent

respectively. Kasempa, Mufumbwe and Chavuma districts had the least with 8.5 percent, 6.7 percent and 5.9 percent, respectively.

Table 6.4: Percent Distribution of the Labourforce by District, North Western Province, 2000

District	Total	Males	Females
North Western	100	100	100
Chavuma	5.9	5.6	6.2
Kabompo	11.1	12.1	9.9
Kasempa	8.5	8.5	8.5
Mufumbwe	6.7	7.5	5.8
Mwinilunga	21.0	20.2	22.0
Solwezi	36.2	35.3	37.4
Zambezi	10.6	10.8	10.2

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

Of the 182,761 total labour force in North Western Province in 2000, 169,329 or 92.7 percent are employed. The employed population increased by 80.1 percent from 94,026 in 1990 to 169, 329 in 2000. The increase of 100.9 in the female employed labour force is much more than the increase of 65.1 percent in the male employed labour force. The proportion of the employed population residing in rural areas has increased from 88.1 percent in 1990 to 90.1 percent in 2000 while the proportion of the employed labour force residing in urban areas decreased from 11.9 percent in 1990 to 9.9 percent in 2000.

According to Table 6.5 the unemployed population has declined by 10.9 percent from 15,080 in 1990 to 13,432 in 2000. The decline of 9.9 percent in the male unemployed population is less than the decline in the female unemployed population of 12.7 percent.

In 1990 there were more unemployed people in the rural areas (83.1 percent for total; 84.5 percent for males and 80.6 for females) than in the urban areas (16.9 percent for total; 15.5 percent for males and 19.4 for females) In 2000 the same situation prevails, there were more unemployed persons residing in the rural areas. (75.2 percent for males and 73.9 percent for females) compared to urban areas (24.8 Percent for total; 24.1 percent for males and 26.1 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, North-Western Province, 1990 and 2000

Activity and Sex	Residence							
	1990				2000			
	Total Number	Total	Rural	Urban	Total Number	Total	Rural	Urban
Population								
Total	244,195	100	85.6	14.4	319,826	100	86.3	13.7
Male	113,717	100	85.1	14.9	155,139	100	86.4	13.6
Female	130,478	100	86	14	164,687	100	86.3	13.7
Labour Force								
Total	109,106	100	87.4	12.6	182,761	100	89	11
Male	64,406	100	85.8	14.2	99,059	100	88.1	11.9
Female	44,700	100	89.8	10.2	83,702	100	90.1	9.9
Employed								
Total	94,026	100	88.1	11.9	169,329	100	90.1	9.9
Male	54,687	100	86	14	90,305	100	89.2	10.8
Female	39,339	100	91	9	79,024	100	91.1	8.9
Unemployed								
Total	15,080	100	83.1	16.9	13,432	100	75.2	24.8
Male	9,719	100	84.5	15.5	8,754	100	75.9	24.1
Female	5,361	100	80.6	19.4	4,678	100	73.9	26.1

Inactive								
Total	132,474	100	84.2	15.8	137,065	100	82.8	17.2
Male	47,977	100	84.4	15.6	56,080	100	83.4	16.6
Female	84,497	100	84.1	15.9	80,985	100	82.4	17.6
Not Stated								
Total	2,615	100	78.9	21.1	-	-	-	0
Male	1,334	100	77.4	22.6	-	-	-	0
Female	1,281	100	80.5	19.5	-	-	-	0

Sources: CSO, 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 319,826, 137,065 were classified as being economically inactive. The economically inactive population has increased slightly by 3.5 percent from 132,474 in 1990 to 137,065 in 2000. Economic inactivity in males increased by 16.9 percent from 47,977 in 1990 to 56,080 in 2000. In contrast, female economic inactivity has declined by 4.2 percent from 84,497 in 1990 to 80,985 in 2000. In 2000 there are more economically inactive persons in the rural areas than in the urban areas. These differences are significant. The same situation pertained for 1990.

Table 6.6 shows the economically active and economically inactive population by age, sex and nature of current economic activity. For the labourforce and the employed, the peak age-group is 35-54 years (27.4 percent for total; 28.4 percent for males and 26.3 percent for females and 28.5 percent for total; 29.5 percent for males and 27.3 percent for females, respectively).

For the unemployed population, the peak is in the age groups 12-19 (30.9 percent for total, 24.9 percent for males and 41.9 percent for females).

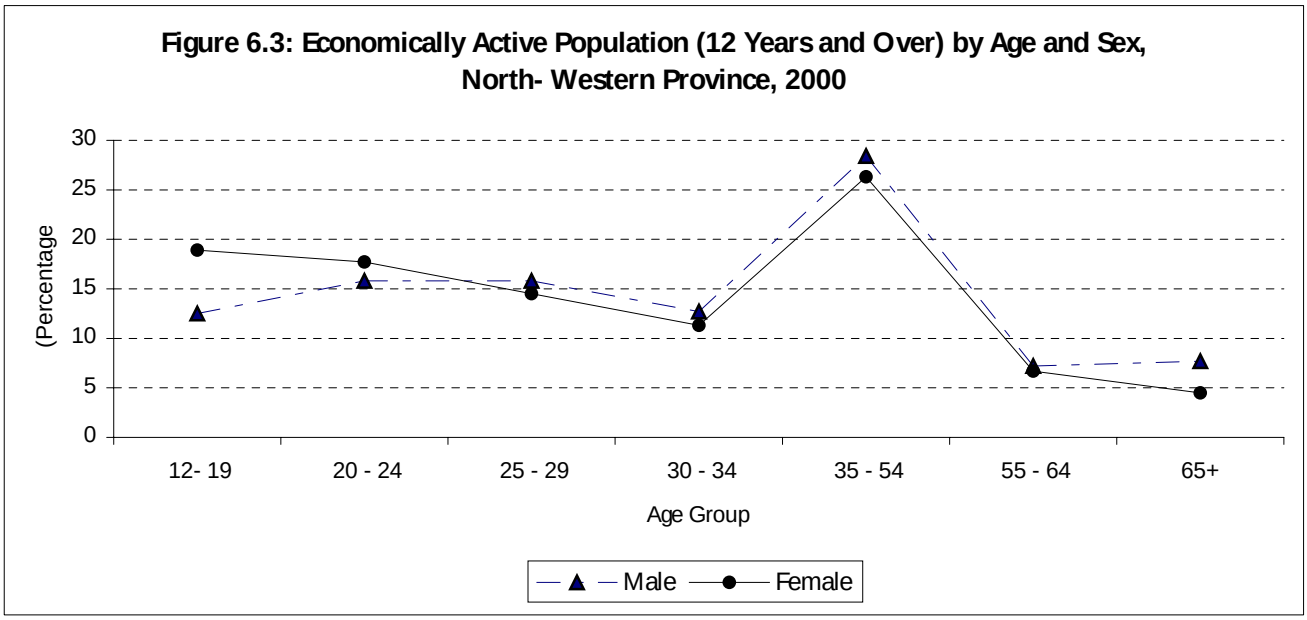
In so far as the economically inactive population is concerned, the peak is in the 12-19 age group largely due to the fact that this is the age-range where you have a lot of school going persons on a full time basis.

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: Current Economically Active Population (12 Years and Over) by Age, Sex, and Nature of current Economic Activity, North-Western 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	182,761	100	15.5	16.7	15.2	12.1	27.4	6.9	6.2	0.0
Male	99,059	100	12.5	15.8	15.8	12.7	28.4	7.2	7.7	0.0
Female	83,702	100	18.9	17.7	14.5	11.3	26.3	6.7	4.5	0.0
Employed										
Total	169,329	100	14.2	16.0	15.1	12.3	28.5	7.3	6.6	0.0
Male	90,305	100	11.3	14.8	15.6	13.0	29.5	7.6	8.2	0.0
Female	79,024	100	17.6	17.2	14.6	11.6	27.3	7.0	4.7	0.0
Unemployed										
Total	13,432	100	30.9	25.8	16.0	8.8	14.0	2.5	2.1	0.0
Male	8,754	100	24.9	25.6	17.8	10.2	16.4	2.8	2.3	0.0
Female	4,678	100	41.9	26.1	12.7	6.3	9.4	1.8	1.7	0.0
Inactive										
Total	137,065	100	50.4	13.2	8.2	5.6	12.5	3.8	6.1	0.0
Male	56,080	100	63.2	12.1	4.9	3.1	7.0	2.9	6.9	0.0
Female	80,985	100	41.6	14.0	10.5	7.4	16.4	4.5	5.6	0.0

Source: CSO, 2000 Census of Population and Housing



Source: CSO, 2000 Census of Population and Housing

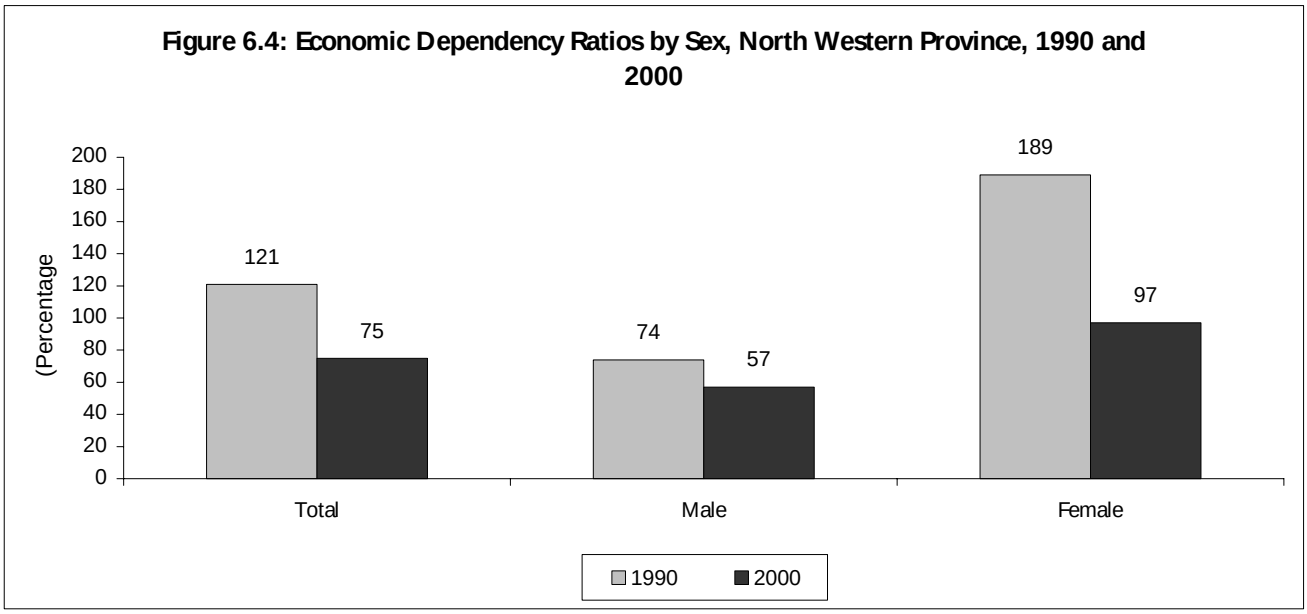
6.6 ECONOMIC DEPENDENCY RATIOS

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 in North Western Province. This trend is similar to the national one. The decreases are mostly for the females (189 percent in 1990 to 97 percent in 2000) and the rural areas (117 percent in 1990 to 70 percent in 2000). A diagrammatic illustrations of the decreases are indicated in figure 6.4. The economic dependency ratio for the province is slightly lower than the national economic dependency ratio, in 2000, (75 compared to 79).

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

Sex and residence	1990	2000
Labourforce		
Total Zambia	2,162,487	3,165,151
Total North Western Province	109,106	182,761
Male	64,406	99,059
Female	44,700	83,702
Rural	95,359	162,683
Urban	13,747	20,078
Economic dependency ratios (Percentage)		
Total Zambia	114	79
Total North Western Province	121	75
Male	74	57
Female	189	97
Rural	117	70
Urban	152	117

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



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

6.7 Current Labour Force Participation Rates

There was an increase in the working-age population involved in economic activities between the 1990 and 2000 censuses. The labour force participation rate was increased from 44.7 percent in 1990 to 57.1 percent in 2000. The same trend was observed at national level where the labour force participation rate increased from 47 to 56 between 1990 and 2000, respectively. The increase in the female labour force from 34.3 percent to 50.8 is more than the increase for males from 56.6 percent to 63.9 percent.

Table 6.8: Trends in Labour force Participation Rates by District and Sex, North Western Province, 1990 and 2000 (Percentage)

District	1990			2000		
	Total	Males	Females	Total	Males	Females
Zambia	46.6	62.2	31.9	56	67	45
North-western Province	44.7	56.6	34.3	57.1	63.9	50.8
Chavuma				65.1	71.5	59.4
Kabompo	42.7	55.1	32.1	50.8	62	40.3
Kasempa	35.9	47.1	26	54.1	61.4	47.3
Mufumbwe	50.4	62.3	39.6	51.2	63.5	39.7
Mwinilunga	52	61.8	43.6	58.1	62.4	54
Solwezi	43.6	56.4	32.1	60.6	65.2	56.2
Zambezi	42.6	55.6	31.8	54.6	63.1	46.6

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

The increase in the rural labour force participation rate (from 45.6 percent to 58.9 percent) is greater than the increase in the urban areas (from 39.0 percent in 1990 to 46.0 percent in 2000).

The increase in labour force participation rates is greater for females than for males in both rural and urban areas. In the rural areas, the female participation rate has increased from 35.7 percent in 1990 to 53.1 percent in 2000, while the male participation rate has increased from 57.1 percent in 1990 to 65.1 percent in 2000. In the urban areas, the female labour force participation rate has increased from 25.1 percent in 1990 to 36.7 percent in 2000. Similarly, the participation rate of males has increased from 54.0 percent in 1990 to 55.9 percent in 2000.

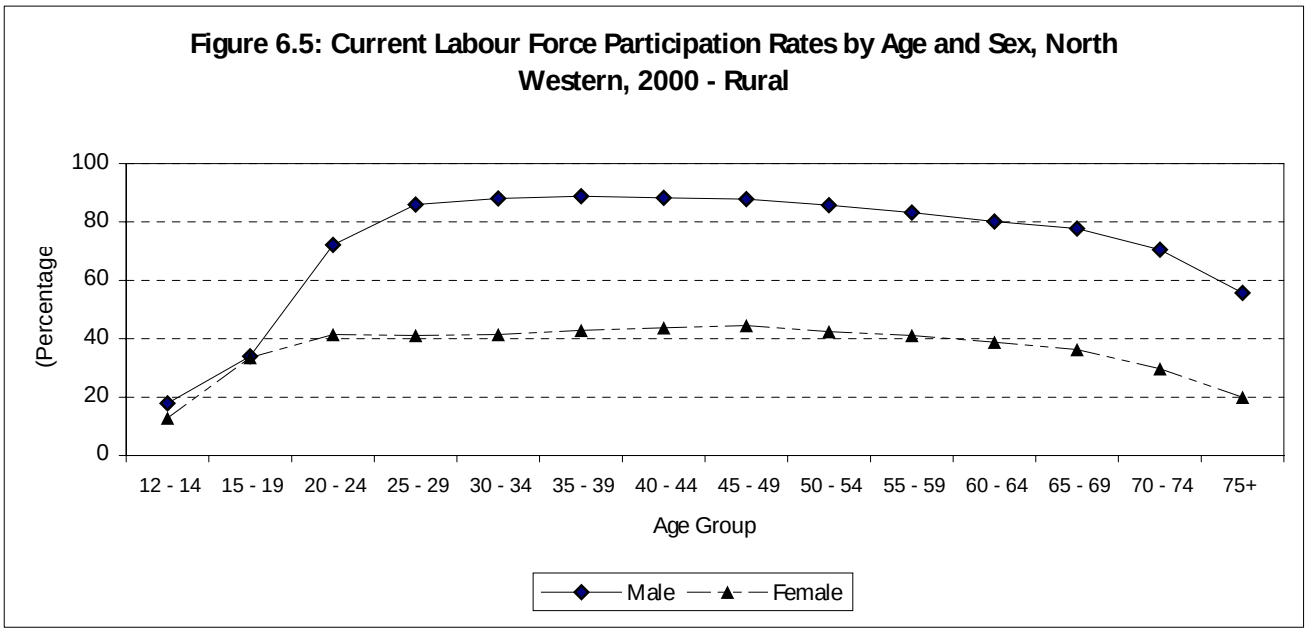
An examination of the labour force participation rates by age reveal that they were lowest (17.4 percent) in the age-group 12-14 years, rose with the increase in ages to reach a peak of 75.2 percent for the age-group 40-44 years, and then started to decline until it reached 46.7 percent for the oldest age-group 75 years and over. The pattern of the distribution of the labour force participation rates by age in rural areas was similar to the pattern described above for the total population, in urban areas the peaks was reached in the age group 45-49 (except the peak in urban is in the age group 45-49).

The male labour force participation rates are higher than those for females from age group 15-19 onwards; the pattern between the two sexes in both rural and urban areas show higher male than females labour force participation rates in all age groups, with exception of age group 15-19 in urban areas where the female rates are higher.

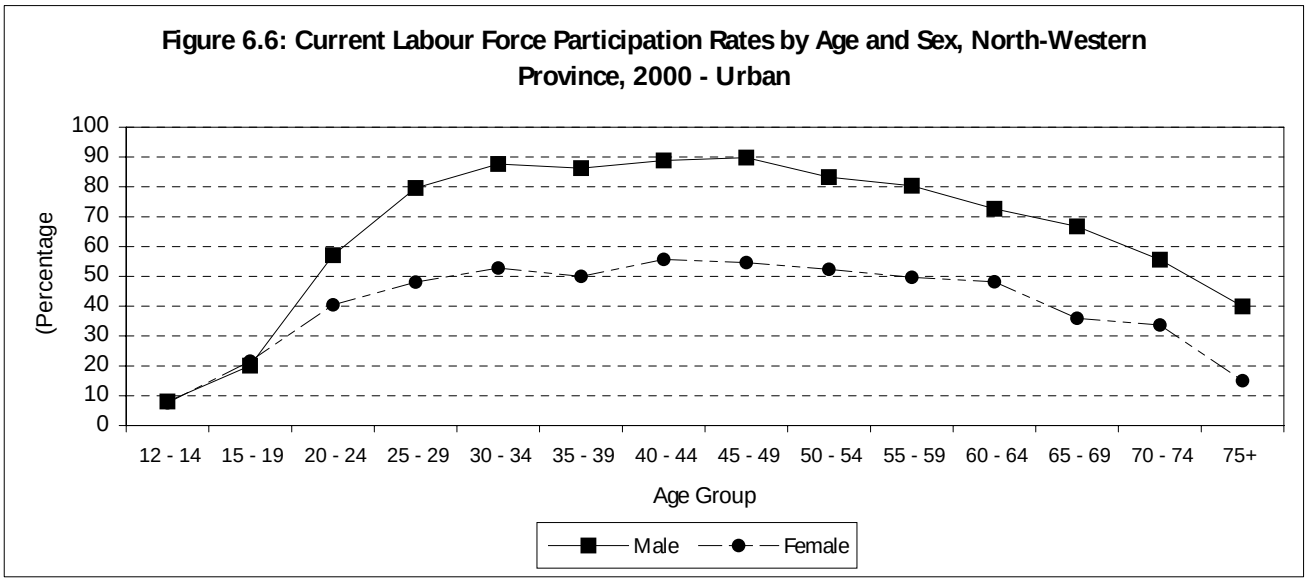
Table 6.9: Current Labour Force Participation Rates by Age, Sex and Residence, North-Western Province, 1990 and 2000

Age-Group	Residence and Sex								
	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
1990	44.7	56.6	34.3	45.6	57.1	35.7	39	54	25.1
2000	57.1	63.9	50.8	58.9	65.1	53.1	46	55.9	36.7
2000 Census Age Group									
Total	57.1	63.9	50.8	58.9	65.1	53.1	46	55.9	36.7
12 – 14	17.4	16.6	18.23	19	17.94	12.8	7.83	8.11	7.57
15 – 19	36.02	31.86	39.9	38.87	34.02	33.56	20.88	20.12	21.56
20 – 24	62.67	69.73	56.62	65.33	72.08	41.45	48.21	57.12	40.46
25 – 29	71.19	85.06	58.85	72.57	86	41.11	63.03	79.58	48.12
30 – 34	74.13	88	61.32	74.88	88.04	41.44	69.63	87.71	52.83
35 – 39	73.99	88.45	61.02	75.1	88.81	42.89	67.34	86.3	49.97
40 – 44	75.21	88.37	63.06	75.68	88.3	43.84	72.16	88.8	55.68
45 – 49	75.15	88.05	63.31	75.34	87.77	44.51	73.77	89.8	54.57
50 – 54	73.62	85.38	63.19	73.91	85.67	42.39	70.8	83.26	52.44
55 – 59	71.95	82.91	61.68	72.51	83.18	41.05	66.15	80.43	49.72
60 – 64	69.35	80.05	59.28	70.13	80.63	38.76	59.64	72.56	48.18
65 – 69	67.54	76.88	56.17	68.84	77.68	36.3	51.86	66.67	35.91
70 – 74	59.19	69.66	45.16	60.25	70.52	29.68	44.41	55.56	33.69
75+	46.67	54.89	33.5	47.86	55.72	20.04	28.31	39.92	14.98

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



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



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

6.8 Employment Status, Occupation and Industrial Classification

The occupational and industrial structure and employment status of a country's workforce 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 seen 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 agriculture sector and other occupations characterized by low skill requirements.

6.8.1 Employment status

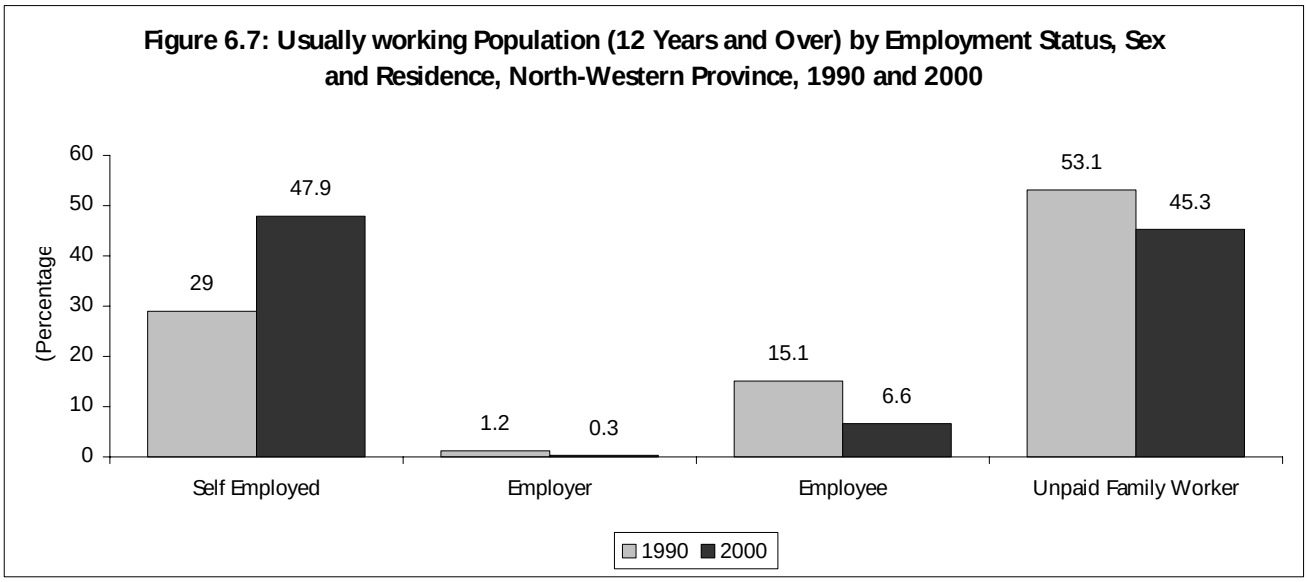
Table 6.10 shows that the usually working population increased by 89.5 percent between 1990 and 2000 from 87,524 in 1990 to 165,906 in 2000.

In terms of employment status, the total self-employed persons as a proportion of the total usually working population increased from 29.0 percent in 1990 to 47.9 in 2000. The ratio of the self-employed persons by sex has also increased between the two periods. However, the increase in the male self- employed persons (from 30.4 percent in 1990 to 53.0 percent in 2000) is more than the increase in the female self-employed persons (from 27.0 percent in 1990 to 42.4 percent in 2000). With regard to residence, a similar pattern is observed where the proportion of the male self-employed population has increased by a bigger percentage (from 32.8 percent in 1990 to 54.4 percent for the rural areas and from 16.1 percent to 41.3 percent for the urban areas) than the female self-employed population which has increased from 27.3 percent in 1990 to 42.3 percent in 2000 for the rural areas and from 23.3 percent in 1990 to 42.6 percent in 2000, for urban areas.

There was a drastic decrease in the proportion of the workforce classified as employers. From a proportion of 1.2 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 15.1 percent in 1990 to 6.6 percent in 2000. The decrease in the male employees (from 21.7 percent in 1990 to 10.0 percent in 2000 is more than the decrease in the female employees (from 5.9 percent in 1990 to 2.8 percent in 2000).

The proportion of the unpaid family workers has decreased in general from 53.1 percent in 1990 to 45.3 percent in 2000. Similar to the total the on paid family workers in rural areas decreased from 58.1 percent in 1990 to 47.2 percent in 2000. In contrast, in urban areas the unpaid family workers increased from 6.9 in 1990 to 28 percent in 2000.



Sources: CSO, 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, North-Western Province, 1990 and 2000

Employment Status and Sex	Residence and Year					
	Total		Rural		Urban	
	1990	2000	1990	2000	1990	2000
Total number						
Total	87,524	165,906	76,928	149,600	10,596	16,306
Male	51,136	86,328	43,768	77,120	7,368	9,208
Female	36,388	79,578	33,160	72,480	3,228	7,098
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	29	47.9	30.5	48.5	18.3	41.9
Male	30.4	53	32.8	54.4	16.1	41.3
Female	27	42.4	27.3	42.3	23.3	42.6
Employer						
Total	1.2	0.3	0.9	0.3	3	0.5
Male	1.6	0.4	1.3	0.4	3.5	0.6
Female	0.5	0.1	0.4	0.1	1.9	0.3
Employee						
Total	15.1	6.6	9	4	59.4	29.6
Male	21.7	10	13.7	6.5	68.8	39.6
Female	5.9	2.8	2.8	1.5	37.9	16.8
Unpaid family worker						
Total	53.1	45.3	58.1	47.2	6.9	28
Male	44.7	36.6	50.6	38.8	9.7	18.5
Female	65	54.7	68	56.1	33.4	40.4
Not stated						
Total	1.6	0	1.5	0	2.4	0
Male	1.6	0	1.6	0	1.9	0
Female	1.6	0	1.5	0	3.5	0

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

6.8.2. Working Population by Occupation

The distribution of male and female workers among occupations shows some similarities. The three most important occupations for males are Agriculture (57.7 percent in 1990 and 85.2 percent in 2000), Production and related workers (4.2 percent in 1990 and 3.7 percent in 2000), and Professional, Technical and related occupations (5.4 percent in 1990 and 2.6 percent in 2000).

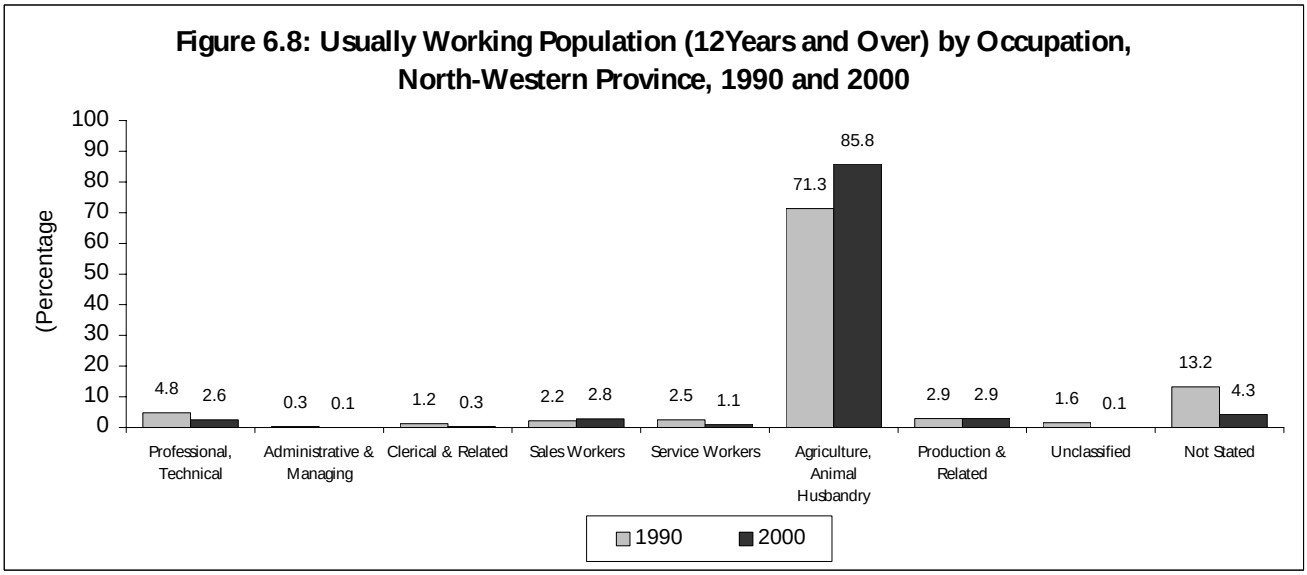
The three most important occupations for females are Agriculture (62.3 percent in 1990 and 89.5 percent in 2000), Sales workers (2.6 percent in 1990 and 3.3 percent in 2000) and Production and related workers (2.7 in 1990 and 2.4 percent in 2000).

In rural areas, the distribution of workers among the various occupations is similar to the one for total Northwestern province, except that the proportion of workers who are in Agriculture and related occupations is much higher in rural areas. The differences between the distributions of male and female workers over the various occupations in rural areas are not so significant. The distribution of workers over occupations in urban areas is different from both that of the total and that of the rural areas. In urban areas, workers are more widely distributed over many occupations, and not concentrated in few occupations. The four most important occupations in urban areas are Agriculture (30.6 percent in 2000), Sales workers (27.4 percent in 2000), Production and related workers (13.4 percent in 2000) and Professional, technical and related workers (10.7 percent).

Table 6.11: Percent Distribution of the Usually Working Population By Occupation, Sex and Residence,(Percent), North-Western 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	87,524	51,136	58,830	231,33	69,257	53,876	14,927	9,973	4,954
	2000	165,906	134,452	160,404	273,304	123,070	150,234	21,552	11,382	10,170
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
Professional, Technical	1990	4.8	5.4	3.9	3.3	3.9	2.5	16.7	15.3	19.6
	2000	2.6	2.6	1.2	1.1	1.7	0.6	10.7	11.6	9.6
Administrative & Managing	1990	0.3	0.3	0.1	0.1	0.2	0.0	1.2	1.6	0.4
	2000	0.1	0.1	0.0	0.0	0.0	0.0	0.4	0.7	0.1
Clerical & Related	1990	1.2	1.0	0.8	0.3	0.4	0.2	6.4	5.7	7.7
	2000	0.3	0.4	0.2	0.1	0.1	0.0	2.6	2.8	2.4
Sales Workers	1990	2.2	2.9	2.6	1.7	1.8	1.5	11.9	10.4	15.1
	2000	2.8	3.7	3.3	1.6	1.8	1.5	27.4	24.3	30.8
Service Workers	1990	2.5	4.1	1.5	1.9	2.4	1.1	12.4	15.8	5.4
	2000	1.1	1.7	0.8	0.5	0.6	0.4	10.4	13.3	7.1
Agriculture, Animal Husbandry	1990	71.3	57.7	62.3	65.3	64.2	66.8	12.6	12.5	12.9
	2000	85.8	85.2	89.5	92.1	90.7	93.2	30.6	26.2	35.5
Production & Related	1990	2.9	4.2	2.7	2.8	3.3	2.2	9.8	10.6	8.3
	2000	2.9	3.7	2.4	2.2	2.6	1.8	13.4	16.2	10.3
Unclassified	1990	1.6	1.5	1.3	1.2	1.3	1.1	3.2	3.0	3.4
	2000	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.2
Not Stated	1990	13.2	22.9	24.8	23.4	22.5	24.6	25.8	25.1	27.2
	2000	4.3	2.6	2.5	2.4	2.5	2.4	4.2	4.6	3.9

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



Sources: **CSO,** 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 6.2.

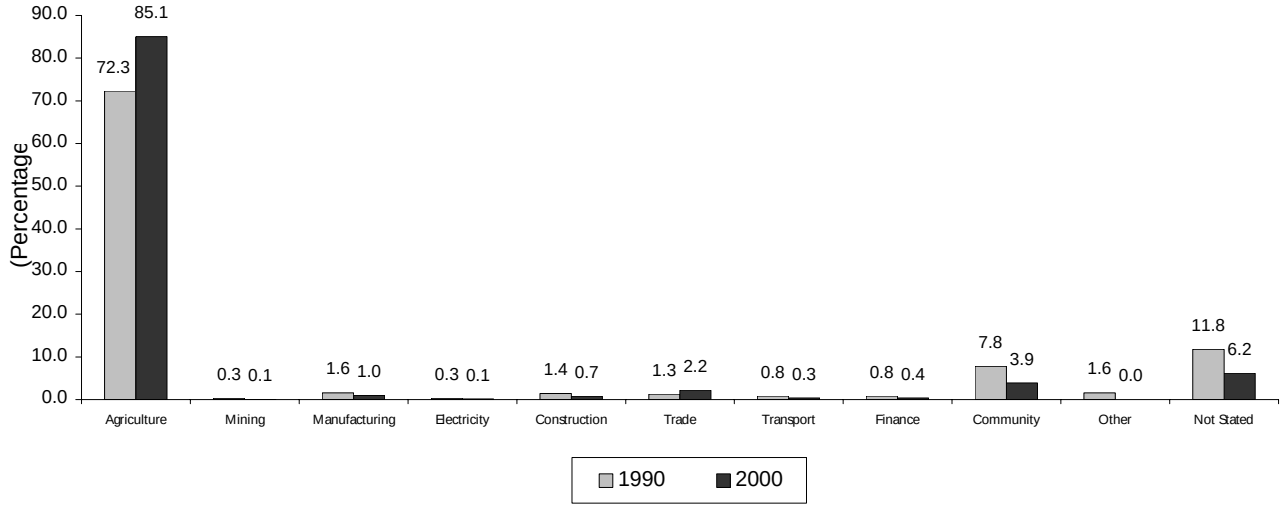
The industrial structure in North-Western province is dominated by the Agriculture industry. In 2000 the Agriculture sector employed 85.1percent of the workers, the Mining industry employed 0.1 percent. In comparison to 1990, the Agriculture and Trade were the only sectors that recorded an increase. Agriculture increased from 72.3 percent in 1990 to 85.1 in 2000 and Trade increased from 1.3 to 2.2 percent between 1990 and 2000, respectively. The rest of the sectors have shown decreases. The most significant are Community (7.8 percent in 1990 to 3.9 percent in 2000) and Manufacturing (1.6 percent in 1990 to 1.0 percent in 2000). A study of the mobility of workers from one industry to another show apart from Trade that all non-agricultural industries experienced manpower losses during the 1990's, while the Agricultural and Trade, industry are the only industries which gained manpower. The industrial distribution of workers by employment status revealed that the unpaid family workers (84.3 percent in 1990 and 91.9 percent in 2000) and the self-employed (83.6 percent in 1990 and 46.9 percent in 2000) are mostly in the Agricultural sector. Employees were more widely distributed over the industries than other statuses. Employers were more predominant in Agriculture (32.1 percent in 1990 and 88.4 percent in 2000) and Community and Personal Services (30.0 percent in 1990 and 1.2 percent in 2000).

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

Industry and Year		Total Number Working	Self Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total Number	1990	87,524	25,358	13,217	1027	46,486	1,436
	2000	165,906	454.0	10,876	79,436	75,140	-
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	72.3	83.6	16.4	32.1	84.3	29.6
	2000	85.1	46.9	14.8	88.4	91.9	0.0
Mining	1990	0.3	0.0	1.6	0.7	0.0	0.0
	2000	0.1	1.8	0.9	0.0	0.0	0.0
Manufacturing	1990	1.6	2.5	4.3	4.2	0.4	1.1
	2000	1.0	2.4	3.3	1.3	0.3	0.0
Electricity	1990	0.3	0.0	1.9	1.5	0.0	0.3
	2000	0.1	0.7	1.5	0.0	0.0	0.0
Construction	1990	1.4	0.8	6.6	3.2	0.2	1.0
	2000	0.7	2.6	5.1	0.6	0.2	0.0
Trade	1990	1.3	1.7	3.8	4.2	0.2	0.9
	2000	2.2	6.8	5.9	2.8	1.0	0.0
Transport	1990	0.8	0.1	4.6	2.8	0.0	0.5
	2000	0.3	2.2	4.3	0.1	0.0	0.0
Finance	1990	0.8	1.0	2.2	1.3	0.3	0.8
	2000	0.4	1.5	2.5	0.4	0.1	0.0
Community	1990	7.8	2.2	42.4	30.0	0.6	5.5
	2000	3.9	23.6	45.8	1.2	0.6	0.0
Other	1990	1.6	1.1	3.9	2.1	1.2	3.1
	2000	0.0	0.0	0.0	0.0	0.0	0.0
Not Stated	1990	11.8	7.0	12.3	17.9	12.8	57.2
	2000	6.2	11.5	15.9	5.1	5.9	0.0

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

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



Sources: CSO, 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 6.12. Unpaid family workers (53.1 percent in 1990 and 45.3 percent in 2000) are the most prominent status for all industries. The Employees are prominent in all industries, except those of Agriculture in both 1990 and 2000. The employment status of employer is of not predominant in any industry in both Censuses. Self-employed is of prominent in the Manufacturing, Trading and Agricultural industries in 2000 (63.2 in Manufacturing 61.4 percent in trade and 49.8 percent in Agriculture). Unpaid family workers are only important 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, North-Western Province 1990 and 2000

Industrial and Year		Total Number Working	Total	Self Employed	Employee	Employer	Unpaid Family Worker	Not Stated
Total	1990	87,524	100	29.0	15.1	1.2	53.1	1.6
	2000	165,906	100	47.9	6.6	0.3	45.3	0.0
Agriculture	1990	63,295	100	33.5	3.4	0.5	61.9	0.7
	2000	141,115	100	49.8	1.1	0.2	48.9	0.0
Mining	1990	237	100	1.3	92.4	3.0	3.4	0.0
	2000	135	100	20.0	71.1	5.9	3.0	0.0
Manufacturing	1990	1,444	100	43.2	39.1	3.0	13.6	1.1
	2000	1,665	100	63.2	21.9	0.7	14.3	0.0
Electricity	1990	270	100	1.5	91.5	5.6		1.5
	2000	188	100	7.4	88.3	1.6	2.7	0.0
Construction	1990	1,197	100	17.3	72.9	2.8	5.8	1.3
	2000	1,226	100	41.7	45.1	1.0	12.2	0.0
Trade	1990	1,101	100	39.1	45.7	3.9	10.1	1.2
	2000	3,617	100	61.4	17.7	0.9	20.0	0.0
Transport	1990	674	100	3.4	89.6	4.3	1.6	1.0
	2000	565	100	12.2	82.3	1.8	3.7	0.0
Finance	1990	731	100	35.6	40.5	1.8	20.7	1.5
	2000	639	100	46.0	43.2	1.1	9.7	0.0
Community	1990	6,791	100	8.0	82.5	4.5	3.8	1.2
	2000	6,501	100	14.8	76.6	1.6	6.9	0.0
Other	1990	1,441	100	20.0	35.9	1.5	39.4	3.1
	2000	0	0	0.0	0.0	0.0	0.0	0.0
Not Stated	1990	10,343	100	20.0	15.7	1.8	57.4	7.9
	2000	10,255	100	39.4	16.8	0.5	43.3	0.0

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

Table 6.14 and table 6.15 show the distribution of the usually working population by industry, sex and residence for the year 2000. The majority of the labour forces are employed in the agricultural sector (85 percent) followed by the community and personal services sector with 10 percent. By residence, the rural areas employ 90 percent in the agriculture industry. Whereas in urban areas, agriculture, community and personal services and the trade, restaurants and hotels sectors account for 43 percent, 30 percent and 15 percent, respectively.

Table 6.14: Percent Distribution of Usually Working Population by Industry, Residence and Sex, North-Western Province, 2000.

Industry	Total Number	Rural	Urban	Male	Female
Total	165,906	149,600	16,306	86,328	79,578
Total Percentage	100	100	100	100	100
Agriculture	85	90	43	82	89
Mining and Quarrying	0	0	0	0	0
Manufacturing	1	1	4	1	1
Elect, Gas and Water	0	0	1	0	0
Construction	1	1	2	1	0
Trade, Restaurants and Hotels	2	1	15	2	2
Transport and Communication	0	0	2	1	0
Finance and real Estates	0	0	2	0	0
Community and Personal services	10	8	30	12	8

Source: CSO, 2000 Census of population and housing

Disaggregated by sex, 89 percent of the total usually working population of the females are in the agriculture sector while 8 percent are in community and personal services sector.

Table 6.15: Usually working Population by industry, Residence and Sex, North-Western Province, 2000.

Industry	Total Number	Total Percent	Male	Female	Rural Number	Total Percent	Male	Female	Urban Number	Total Percent	Male	Female
Total Number	165,906	100	52	48	149,600	100	52	48	16,306	100	56	44
Agriculture	141,115	100	50	50	134,109	100	50	50	7,006	100	49	51
Mining and Quarrying	135	100	95	5	98	100	96	4	37	100	92	8
Manufacturing	1,665	100	72	28	1040	100	75	25	625	100	66	34
Elect, Gas and Water	188	100	96	4	50	100	96	4	138	100	96	4
Construction	1,226	100	99	1	870	100	99	1	356	100	99	1
Trade, Restaurants and Hotels	3,617	100	53	47	1107	100	65	35	2510	100	48	52
Transport and Communication	565	100	97	3	203	100	100	0	362	100	95	5
Finance and real Estates	639	100	67	33	274	100	65	35	365	100	69	31
Community and Personal services	16,756	100	61	39	11,849	100	61	39	4,907	100	62	38

Source: CSO, 2000 Census of Population and Housing

For males 82 percent are in agricultural sector while 12 percent are in the Community and Personal services sector.

From the total working population by industry, sex and residence, 52 percent were males and 48 percent were females. The mining, electricity, construction and transport sectors account for the majority of the males working population of 95 percent, 96 percent, 99 percent and 97 percent, respectively. The distribution by rural and urban does not differ much from the total distribution.

6.9 Educational Attainment

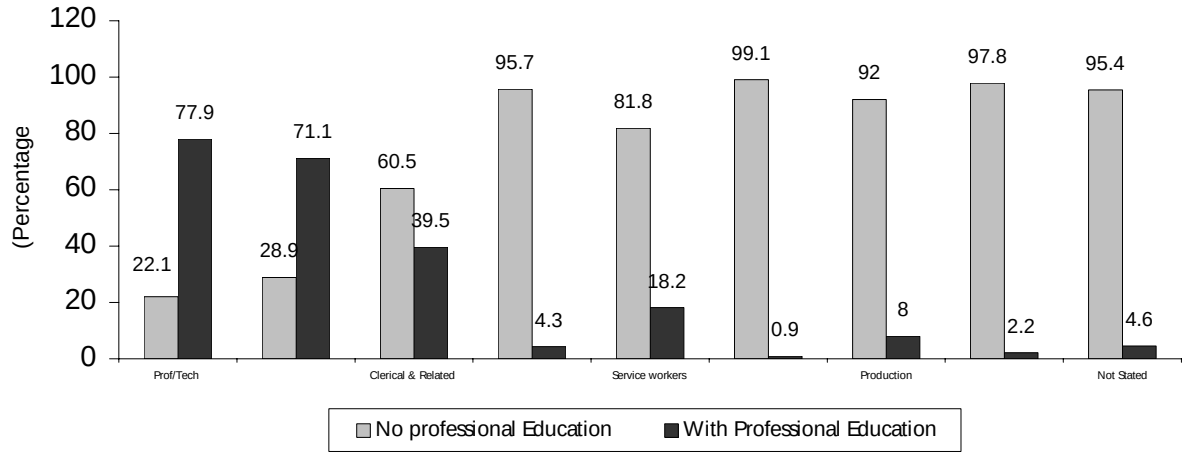
The main objective of human resource development is to secure the optimal number of people with the right qualifications for the right jobs at the right time. It is necessary for country to invest time and money in the development of its human resources because of the benefits, which result from increased efficiency, and productivity of those who receive training. Then 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 of required to produce the planned additional volume of output, not forgetting to add some percentage for those who will die, retire, be upgraded, 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.

Figure 6.10 shows the distribution of the usually working population 12 years and over by professional/vocational training and occupation in 2000. According to this table, 96.3 percent of the province's workforce had absolutely no professional /vocational education while only 3.7 percent had such education. The distribution among the various occupations, shows that more than three quarters of those in the Professional, Technical and related occupations had professional education, while a fifth do not have. About three quarters of the Administrative and Managerial occupations had while a quarter did not have. For the Clerical and related workers, about two fifths had professional education and three fifths did not. 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 are reported to have professional education shows that about four fifths (79.6 percent) are trained at Certificate level, one in six (16.0 percent) are trained up to Diploma level and only 4.4 percent are trained up to Degree level. Except for the Administrative and Managerial workers (29.2 percent), the proportion that has been trained up to Degree level is still very low by 2000. A substantial number of workers trained up to Diploma level in the three occupations; Administrative and managerial (43.8 percent); Professional and technical (19.8 percent) and Sales workers (19.3 percent). The majority (ranging from 43.8 percent to 92.4 percent) of the workers are trained up to Certificate level in all the remaining occupations. The proportion of Diploma and degree holders is higher for males than for females, while the opposite is true of certificate holders. This pattern is the same in the majority of the occupations.

Figure 6.10: Usually Working Population (12 Years and Older)by Professional Training, Occupation, North-Western Province ,2000



Source: CSO, 2000 Census of population and housing

Table 6.16: Percent Distribution of the Usually Working Population 12 Years and over by Professional/Vocational Training; Occupation and Sex (Percent), North-Western 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	165,906	100	96.3	3.7	6,149	100	79.6	16.0	4.4
Prof/Tech	4,235	100	22.1	77.9	3,301	100	75.0	19.8	5.2
Admin. Managerial	135	100	28.9	71.1	96	100	43.8	43.8	12.5
Clerical & Related	501	100	60.5	39.5	198	100	83.3	16.2	0.5
Sales workers	4,673	100	95.7	4.3	202	100	74.8	19.3	5.9
Service workers	1,887	100	81.8	18.2	344	100	92.4	6.1	1.5
Agric	142,423	100	99.1	0.9	1,298	100	87.9	9.5	2.6
Production	4,801	100	92.0	8.0	383	100	92.4	5.7	1.8
Unclassified	183	100	97.8	2.2	4	100	75.0	0.0	25.0
Not Stated	7,068	100	95.4	4.6	323	100	76.2	16.1	7.7
Males									
Total	86,328	100	94.5	5.5	4,751	100	77.2	17.7	5.2
Prof/Tech	3,103	100	21.8	78.2	2,427	100	71.2	22.4	6.5
Admin. Managerial	122	100	27.0	73.0	89	100	41.6	44.9	13.5
Clerical & Related	350	100	69.4	30.6	107	100	72.9	26.2	0.9
Sales workers	2,472	100	94.4	5.6	139	100	70.5	22.3	7.2
Service workers	1,404	100	78.0	22.0	309	100	92.2	6.1	1.6
Agric	71,092	100	98.5	1.5	1,091	100	86.9	10.4	2.7
Production	3902	100	91.2	8.8	344	100	91.6	6.4	2.0
Unclassified	119	-	100	0	4	100	0.0	0.0	0.0
Not Stated	3,764	100	93.6	6.4	241	100	73.0	17.4	9.5
Females									
Total	79,578	100	98.2	1.8	1,398	100	88.0	10.3	1.7
Prof/Tech	1,132	100	22.8	77.2	874	100	85.8	12.5	1.7
Admin. Managerial	13	100	46.2	53.8	7	100	71.4	28.6	0.0
Clerical & Related	151	100	39.7	60.3	91	100	95.6	4.4	0.0
Sales workers	2,201	100	97.1	2.9	63	100	84.1	12.7	3.2
Service workers	483	100	92.8	7.2	35	100	94.3	5.7	0.0
Agric	71,331	100	99.7	0.3	207	100	93.2	4.3	2.4
Production	899	100	95.7	4.3	39	100	100.0	0.0	0.0
Unclassified	64	100	100.0	0.0	0	100	0.0	0.0	0.0
Not Stated	3,304	100	97.5	2.5	82	100	85.4	12.2	2.4

Source: CSO, 2000 Census of population and housing

Table 6.17 shows the usually working population 12 years and over by professional/vocational training, occupation and sex in 1990. Intercensal comparisons of training in human resources shows that the proportion of those having professional education declined from 6.6 percent in 1990 to 3.7 percent in 2000 while those having no professional qualification have increased from 93.4 percent in 1990 to 96.3 percent in 2000. In all the occupations with the exception of Sale workers, agriculture and Production related workers, there has been an increase in the proportion of personnel having professional education.

The comparison of the educational levels reached by those having professional/vocational training shows that the proportion of both those who are trained at the Diploma and Degree level have increased (from 14.1 percent in 1990 to 16.0 percent in 2000 for Diploma and from 1.1 percent in 1990 to 4.4 percent in 2000 for Degree). The proportion of those trained at Certificate level has declined from 84.9 percent in 1990 to 79.6 percent in 2000. The above pattern of change between the two censuses is maintained between the two censuses in almost all occupations. It must be noted that there is a remarkable increase in the proportion of

those trained at Degree level in the occupations of Administrative and Managerial (from 2.4 percent in 1990 to 12.5 percent in 2000.

North Western Province has not made significant 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 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), Total North-Western Province, 1990

Sex and Occupational Category	Total Usually Working Population	Total	Total usually working Population		Working Population with professional Educational				
			No Professional Education	With Professional Education	Number Having Professional Education	Total	Certificate	Diploma	Degree
Both Sexes									
Total	93,663	100	93.4	6.6	6,139	100	84.9	14.1	1.1
Prof/Tech	6,966	100	60.2	39.8	2,771	100	78.1	20.2	1.8
Admini.Mana	351	100	63.5	36.5	128	100	55.6	42.1	2.4
Clerical	1,468	100	73.1	26.9	395	100	88.9	10.8	0.3
Sales Workers	2,064	100	92.3	7.7	158	100	85.8	11.6	2.6
Service workers	2,653	100	83.2	16.8	445	100	95.4	3.9	0.7
Agric.	63,650	100	98.1	1.9	1,239	100	92.1	7.6	0.4
Production	2,781	100	89.8	10.2	283	100	94.2	5.8	0.0
Unclassified	1,528	100	94.0	6.0	92	100	85.2	14.8	0.0
Not stated	12,202	100	94.9	5.1	628	100	94.0	5.8	0.2
Male									
Total	55,939	100	91.4	8.6	4,803	100	83.8	15.1	1.1
Prof/Tech	4,979	100	60.4	39.6	1,974	100	74.9	23.0	2.1
Admini.Mana	333	100	63.1	36.9	123	100	55.4	43.0	1.7
Clerical	967	100	78.0	22.0	213	100	84.1	15.4	0.5
Sales Workers	1,266	100	90.3	9.7	123	100	85.4	13.0	1.6
Service workers	2,342	100	82.2	17.8	416	100	95.6	3.7	0.7
Agric.	34,480	100	96.9	3.1	1072	100	91.5	8.1	0.4
Production	2,457	100	89.5	10.5	259	100	94.1	5.9	0.0
Unclassified	1,121	100	93.4	6.6	74	100	81.4	18.6	0.0
Not stated	7,994	100	93.1	6.9	549	100	94.3	5.7	0.0
Female									
Total	37,724	100	96.5	3.5	1,336	100	88.8	10.3	0.9
Prof/Tech	1,987	100	59.9	40.1	797	100	85.8	13.3	0.9
Admini.Mana	18	100	72.2	27.8	5	100	60.0	20.0	20.0
Clerical	501	100	63.7	36.3	182	100	94.5	5.5	0.0
Sales Workers	798	100	95.6	4.4	35	100	87.5	6.3	6.3
Service workers	311	100	90.7	9.3	29	100	92.9	7.1	0.0
Agric.	29,170	100	99.4	0.6	167	100	96.2	3.8	0.0
Production	324	100	92.6	7.4	24	100	95.5	4.5	0.0
Unclassified	4,07	100	95.6	4.4	18	100	100.0	0.0	0.0
Not stated	4,208	100	98.1	1.9	79	100	91.2	7.0	1.8

Source: CSO, 2000 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 51.5 percent had not received training at any level by 2000. There are no significant differences in terms of concentration of training in all the fields of study. The two most important fields of training for those who received professional/vocational training in 2000: Teacher training (30.7 percent); Nursing (27.7 percent).

A comparison of fields of training by level of training completed shows patterns, which are 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), North-Western Province, 2000

Field of Training	Total Usually Working Population	No professional Education	Professional/Vocational training			
			Total	Certificate	Diploma	Degree
Total Working Number	165,906	159,757	6,149	4,897	983	269
Total %	100	100	100	100	100	100
Natural science	0.0	0	0.4	0.1	0.9	4.1
Civil engineering	0.0	0	0.4	0.3	0.6	1.1
Elec. & Electronic Engineering.	0.0	0	1.3	1.2	1.4	1.5
Mechanical Engineering	0.1	0	2.5	2.5	2.1	2.6
Chemical Engineering	0.0	0	0.1	0.0	0.2	0.4
Mining Engineering	0.0	0	0.5	0.6	0.1	0.4
Industrial Engineering	0.0	0	0.0	0.0	0.0	0.0
Metallurgical Engineering	0.0	0	0.0	0.0	0.0	0.0
Architectural& T/Planning	0.0	0	0.3	0.3	0.4	0.7
Other Engineering	0.0	0	0.6	0.6	0.4	0.7
Medicine and Surgery	0.0	0	0.8	0.4	2.2	4.1
Pharmacy	0.0	0	0.5	0.5	0.7	0.4
Dentistry	0.0	0	0.5	0.5	0.5	0.4
Nursing	1.0	0	27.7	30.0	23.2	4.1
Medical Technology	0.1	0	2.0	0.6	4.9	17.1
X-RAY Technology	0.0	0	0.2	0.0	0.3	3.7
Veterinary	0.0	0	0.5	0.4	0.6	0.7
Statistics	0.0	0	0.1	0.1	0.2	0.0
Mathematics	0.0	0	0.1	0.0	0.2	0.4
Computer Science	0.0	0	0.3	0.4	0.2	0.0
Economics	0.0	0	0.5	0.3	0.8	2.2
Accountancy	0.1	0	3.4	2.5	7.7	5.2
Teacher Training	1.1	0	30.7	31.1	31.5	19.3
Law and Jurisprudence	0.0	0	1.3	1.3	1.1	0.4
Journalism	0.0	0	0.3	0.2	0.7	0.7
Fine Arts	0.0	0	0.2	0.2	0.2	0.7
Physical Education	0.0	0	0.3	0.3	0.3	0.4
Library Science	0.0	0	0.1	0.1	0.1	0.7
Social Welfare	0.0	0	0.8	0.7	0.8	2.2
Criminology	0.1	0	2.5	2.9	0.8	1.1
Business Administration	0.1	0	1.8	1.3	3.7	3.7
Secretarial Training.	0.0	0	1.2	1.3	0.6	0.0
Shorthand Typing	0.0	0	0.6	0.7	0.1	0.0
Clerical Typing	0.0	0	1.1	1.4	0.3	0.0
Operating of Off. Machine	0.0	0	0.3	0.3	0.2	0.0
Service Trade	0.0	0	0.7	0.8	0.3	0.7
Radio & TV Broadcasting	0.0	0	0.1	0.1	0.2	0.0
Fire Protection & Fire Fighting	0.0	0	0.1	0.2	0.0	0.0
Agriculture, Forestry & Fishery	0.2	0	4.3	4.0	4.0	10.8
Food and drink Processing	0.0	0	0.2	0.3	0.0	0.0
Wood working	0.1	0	1.9	2.3	0.2	0.4
Textile Trades	0.0	0	0.5	0.6	0.2	0.0
Leather Trades	0.0	0	0.1	0.1	0.1	0.0
Other Programmes	0.3	0	7.9	8.2	6.4	8.6
No Training	51.5	53.5	0.0	0.0	0.0	0.0
Not stated	44.8	46.5	0.2	0.2	0.3	0.4

Source: CSO, 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 ratio 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 13.8 percent in 1990 to 7.3 in 2000. This trend also holds true when observed by sex, males experienced a drop from 15.1 in 1990 to 8.8 in 2000 and the female unemployment rate dropped from 12.0 in 1990 to 5.6 in 2000.

In the rural areas the unemployment rate has declined for both male and females. The total unemployment rate has declined from 13.1 in 1990 to 6.2 in 2000. The male unemployment rate has declined from 14.9 in 1990 to 7.6 in 2000 while the female unemployment rate has declined from 10.8 in 1990 to 4.6 in 2000. For urban areas, the unemployment rates have reduced for urban total and females from 18.6 in 1990 to 16.6 in 2000 for urban total and from 22.7 in 1990 to 14.8 in 2000 for females. The male unemployment rate has however, increased from 16.5 in 1990 to 17.8 in 2000 . The increase in the unemployment rates for the males 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.

Unemployment rates only increased in Kabompo District (9.9 percent in 1990 to 12.3 percent in 2000). The rest of the district experienced declines in unemployment rates. Kasempa District recorded the biggest decline in unemployment rate from 20.3 percent in 1990 to 8.5 percent followed by Solwezi from 15.8 percent in 1990 to 6.4 percent in 2000. Disaggregated by sex, the unemployment rates for males decreased most in Kasempa District (from 20.8 percent in 1990 to 5.5 percent in 2000) followed by Zambezi District from 18.9 percent in 1990 to 6.3 percent in 2000) and Solwezi District from 16.5 percent in 1990 to 4.1 percent in 2000. A similar pattern is observed for the female unemployment rates.

Table 6.19: Trends in Unemployment rates by District and Sex, North-Western Province, 1990 and 2000

District	1990			2000		
	Total	Male	Female	Total	Male	Female
Zambia	15	14.1	16.7	12.9	14.1	11.3
North western Province	13.8	15.1	12.0	7.3	8.8	5.6
Chavuma	-	-	-	7.9	4.8	3.1
Kabompo	9.9	11.2	8.0	12.3	8.8	3.5
Kasempa	20.3	20.8	19.6	8.5	5.5	3
Mufumbwe	8.9	10.9	6.2	6.6	4.3	2.2
Mwinilunga	10.2	11.6	8.6	4.5	2.9	1.6
Solwezi	15.8	16.5	14.6	6.4	4.1	2.3
Zambezi	17.2	18.9	14.8	10.4	6.3	4.1

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

Table 6.20: Unemployment Rates by Sex and residence, North-Western Province, 1990 and 2000

Residence	Sex	1990	2000
North-Western Province			
	Total	13.8	7.3
	Male	15.1	8.8
	Female	12.0	5.6
Rural			
	Total	13.1	6.2
	Male	14.9	7.6
	Female	10.8	4.6
Urban			
	Total	18.6	16.6
	Male	16.5	17.8
	Female	22.7	14.8

Sources: CSO, 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 in figure 6.11. This table shows that unemployment is a more serious problem in the young age groups 12-14 (17.1 percent); 15-19 (14.0 percent); 20-24 (11.4 percent) and 25-29 (7.8 percent). The peak is in the age-group 12-14 years. This pattern is the same for both sexes, and in both rural and urban areas.

The overall unemployment rate of 8.8 percent for males is more than that of females of 5.6 percent. A comparison of the rates by age between the two sexes shows that the male unemployment rates are higher than the female unemployment rates at all ages.

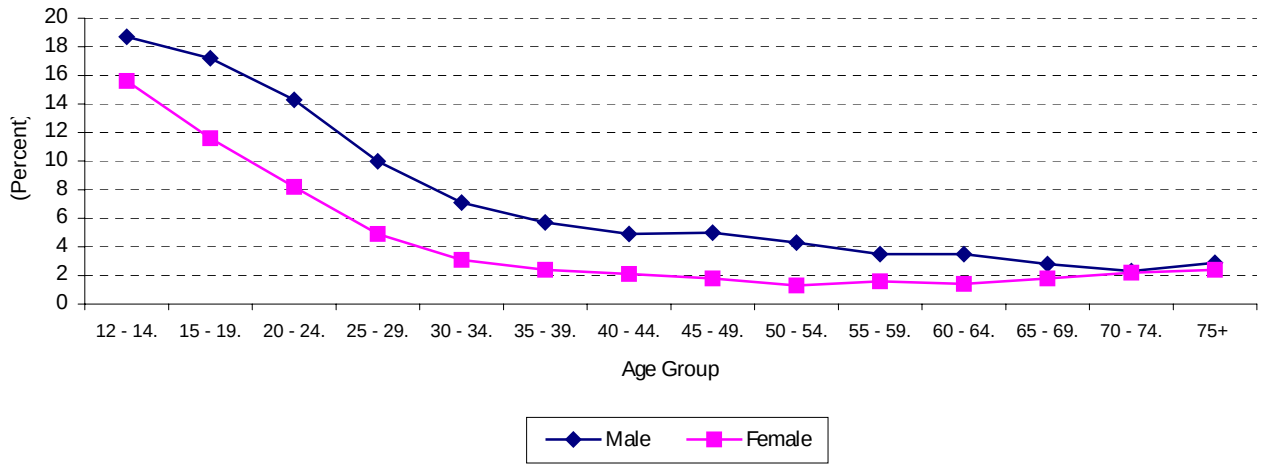
In rural areas, the male unemployment rates are higher than the female unemployment rates at all ages while in the urban areas; the male unemployment rates are higher than the female unemployment rates in all age groups except the age groups 70-74 and 75+. In the remaining age groups the male unemployment rates are higher than the female unemployment rates.

Table 6.21: Current Unemployment Rates by Age, Sex and Residence, North-Western Province, 2000

Age Group	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Total	7.3	8.8	5.6	6.2	7.6	4.6	16.6	17.8	14.8
12 – 14	17.1	18.7	15.6	15.7	17.1	14.4	37.3	41.5	33.2
15 – 19	14.0	17.2	11.6	11.8	14.9	9.6	35.2	38.8	32.2
20 – 24	11.4	14.3	8.2	8.9	11.7	6.1	29.1	32.4	25.2
25 – 29	7.8	10.0	4.9	6.4	8.5	3.9	16.7	19.4	12.6
30 – 34	5.4	7.1	3.1	4.6	6.2	2.4	10.7	12.2	8.5
35 – 39	4.3	5.7	2.4	3.7	5.1	2.0	7.7	9.6	4.8
40 – 44	3.7	4.9	2.1	3.3	4.5	1.9	6.2	7.6	4.0
45 – 49	3.6	5.0	1.8	3.1	4.5	1.5	7.0	7.9	5.2
50 – 54	3.0	4.3	1.3	2.7	3.9	1.3	6.0	7.6	2.1
55 – 59	2.7	3.5	1.6	2.4	3.2	1.5	5.5	6.3	3.9
60 – 64	2.6	3.5	1.4	2.3	3.0	1.4	6.5	10.4	1.2
65 – 69	2.4	2.8	1.8	2.2	2.5	1.8	5.7	7.5	2.2
70 – 74	2.3	2.3	2.2	2.2	2.4	2.0	2.5	1.0	4.8
75+	2.7	2.9	2.4	2.6	2.7	2.3	6.3	6.3	6.5

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

Figure 6.11: Usually Unemployed by Age and Sex, North-western Province,2000



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

Table 6.22 shows the unemployment rate by level of education completed and age in 2000.About one third (32.9 percent) of the unemployed population in the province have no education, while those who have had a rudimentary education of grade 1 to 7 accounted for 43.3 percent. Slightly over a fifth of the unemployed population (21.2 percent) had secondary school education of grade 8 to 12. Those who have 'A' level education and Degree account for 0.3 percent and 2.3 percent respectively. 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 1-7 and 8-12 fluctuate with the increase in age.

The data in table 6.22 strongly suggests that unemployment in the Northwestern province 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 15-54 years.

Table 6.22: Usually Unemployed, by Level of Academic Educational Completed and Age, North-Western Province Total, 2000

Age Group	Total Number Unemployed	Total	None	Grade 1-7	Grade 8-12	A Level	Degree
Total	153,920	100	32.9	43.3	21.2	0.3	2.3
12 – 14	32,340	100	17.1	78.9	4.0	0.0	0.0
15 – 19	43,599	100	18.8	47.7	33.1	0.3	0.0
20 – 24	22,669	100	29.8	27.4	40.7	1.0	1.2
25 – 29	13,708	100	37.2	30.3	26.8	0.3	5.4
30 – 34	8,976	100	41.6	31.7	18.2	0.2	8.3
35 – 39	6,791	100	45.7	31.6	13.8	0.3	8.7
40 – 44	4,944	100	50.3	30.0	11.2	0.2	8.3
45 – 49	3,879	100	57.3	26.0	9.7	0.2	6.8
50 – 54	3,264	100	69.1	20.9	5.0	0.1	4.9
55 – 59	2,505	100	72.2	19.8	3.8	0.2	4.1
60 – 64	2,823	100	80.4	14.0	2.2	0.0	3.4
65 – 69	2,257	100	80.5	14.7	2.2	0.0	2.6
70 – 74	2,242	100	85.5	11.6	1.0	0.1	1.8
75+	3,923	100	87.3	10.2	1.0	0.0	1.4

Sources: CSO, 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 (57.1 percent) of the unemployed population were separated, about a third of them (32.8 percent) have never been married. The proportion of the female never married unemployed population is lower (19.2 percent in rural and 19.3 percent in urban areas) than the male never married unemployed population (42.4 percent in rural 32.7 in urban areas) in both rural and urban areas.

Table 6.23: Currently Unemployed by Marital Status, Sex and Residence, (Percent), North-Western, 2000

Residence And Sex	Total Number Unemployed	Marital Status						
		Total	Married	Separated	Divorced	Widowed	Never Married	Living Together
Total								
Both Sexes	13,432	100	2.4	57.1	2.1	4.6	32.8	0.9
Male	8,754	100	1.5	54.2	1.2	2.4	40.1	0.6
Female	4,678	100	4.2	62.6	3.9	8.7	19.2	1.3
								Rural
Both Sexes	10,101	100	2.6	55.0	2.1	4.8	34.5	0.9
Male	6,645	100	1.5	51.7	1.2	2.5	42.4	0.6
Female	3,456	100	4.7	61.3	3.9	9.3	19.2	1.6

								Urban
Both Sexes	3,331	100	1.9	63.6	2.1	3.9	27.8	0.7
Male	2,109	100	1.4	62.1	1.2	2.0	32.7	0.7
Female	1,222	100	2.9	66.3	3.7	7.1	19.3	0.7

Source: CSO, 2000 Census of Population and Housing

6.10.2 Youth Unemployment

The data presented in Table 6.24 shows that youth unemployment is high in Northwestern province, 14 percent for the age group 15-19 and 11.4 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 is still a big problem in the province. In Terms of residence youth unemployment is 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 are less agricultural activities youths end up having no employment. It is interesting to note that in all cases male unemployment rates are higher than female unemployment rates. Unemployment rates are also higher among youths in the age group 15-19 as opposed to those in the age group 20-24. This can be attributed to the fact that youths in the age group 15-19 could still be attending school.

Table 6.24: Youth Unemployment Rates by Sex and Residence, North-Western Province, 2000

Age Group	Total			Rural			Urban		
	Both	Male	Female	Both	Male	Female	Both	Male	Female
Total	7.3	8.8	5.6	6.2	7.6	4.6	16.6	17.8	14.8
15 – 19	14	17.2	11.6	11.8	14.9	9.6	35.2	38.8	32.2
20 - 24	11.4	14.3	8.2	8.9	11.7	6.1	29.1	32.4	25.2

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

6.11 Summary

The size of the working-age population in North-western Province has increased by 31.0 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.

The Labour force has increased by 67 percent between 1990 and 2000. About 89 percent of the Labour force is in rural areas, while 11 percent is in urban areas. About half of the Labour force is in the young age-group of 12-29 years.

The employed population has increased by 80.1 percent. The female employed population has increased by an impressive 10 percent, while male employed Labour force increased by 65 percent. The increase in the female employed population must 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 1980 Census.

The number of the unemployed has decreased by 11 percent between 1990 and 2000. The size of the male unemployed population has decreased by 9.9 percent, while that of females has decreased by 12.7 percent. There are more unemployed persons in the rural than in the urban areas for both males and females. In 2000, unemployment is a more serious problem for the young age group of 12-29 years than for 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 are young people.

The economically inactive population increased by 3.5 percent against an increase of 67 percent in the Labour force between 1990 and 2000. This implies that most of the 31.0 percent increase in the working-age

population between 1990 and 2000 has increased the inactive population but not more than the Labour force. Hence the Labour force participation rate has increased from 44.7 percent in 1990 to 57.1 percent in 2000. Similarly the overall unemployment rate has reduced from 13.8 percent in 1990 to 7.3 percent in 2000.

Economic activities are still organized around family Labour as evidenced by the predominance (93.7 percent) of workers who are classified as either self-employed or unpaid family workers. In contrast, only 6.9 percent are classified as employees or employers. The transformation of the Zambian economy in the 1990's seems to reduced employment opportunities in the formal sector, thereby forcing a large part of the Labour force into self-employment of the informal sector. There is a large concentration of workers (85.1 percent) in the Agricultural and related occupations because of the ease with which it is easy to enter the sector even with very low educational attainment.

Lack of industrialization in the country is reflected by the continued predominance of the primary economic activities of Agriculture which employed over two thirds (85.1 percent) of the workforce in 2000. This situation has been exacerbated by the economic recession of the 1990's, which has caused manpower losses in all the non-agricultural industries and manpower gains in the Agriculture industry.

Chapter 7

FERTILITY LEVELS, PATTERNS AND TRENDS

7.1 Introduction

Fertility is one of the three dynamics of population change; the other two being mortality and migration. 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 month 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

Fertility levels refer to the currently observed fertility rates prevailing in a particular territory at a particular time, while fertility Patterns refer to the prevailing fertility rates by the various background characteristics of women. Fertility trends look at what has been happening to fertility over time.

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 shows observed and adjusted Age Specific Fertility Rates (ASFR) and Total Fertility Rates (TFR) for North-Western province, rural and urban estimated for the 2000 Census. Women in rural areas with a TFR of 6.7, have one child more their counterparts in urban areas with a TFR of 5.3.

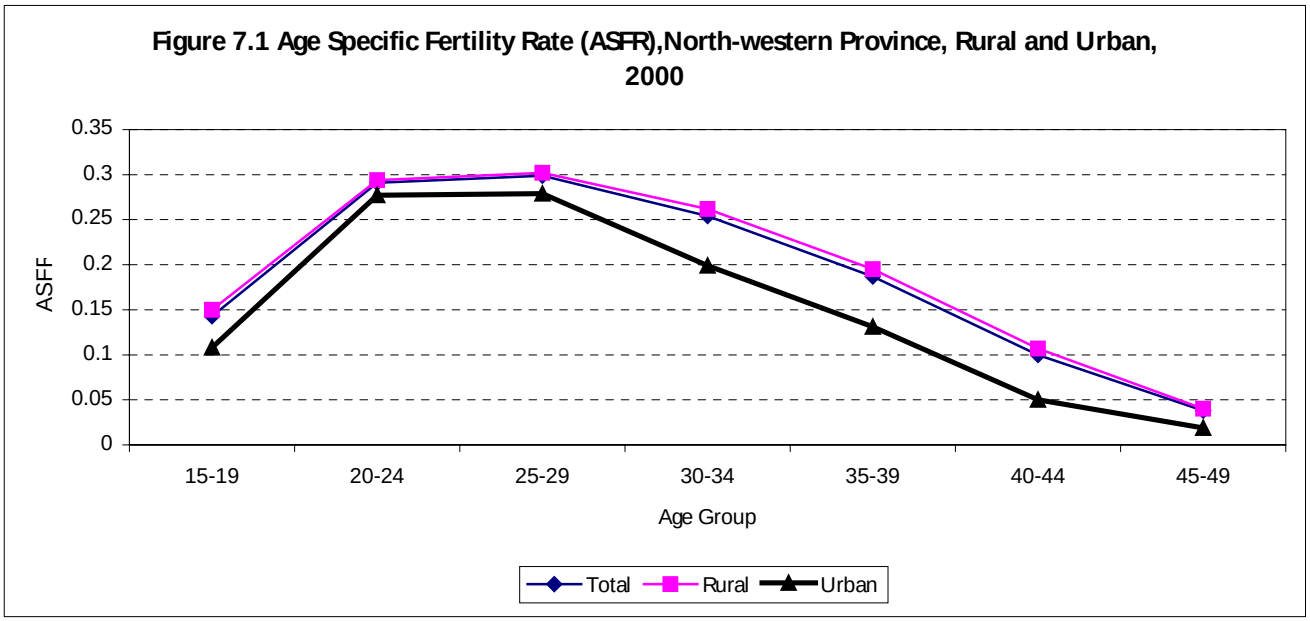
Table 7.2: Age Specific Fertility Rate (ASFR) and Total Fertility Rate (TFR), North-Western Province, Rural and Urban, 2000.

	Total				Rural				Urban			
Age Group	Total Women	Births	Observed ASFR	Adjusted ASFR	Total Women	Births	Observed ASFR	Adjusted ASFR	Total Women	Births	Observed ASFR	Adjusted ASFR
15-19	31429	3143	0.100	0.143	26345	2805	0.106	0.150	5084	338	0.066	0.108
20-24	26193	6128	0.234	0.291	22154	5312	0.240	0.294	4039	816	0.202	0.277
25-29	20627	5130	0.249	0.299	17651	4489	0.254	0.302	2976	641	0.215	0.279
30-34	15476	3316	0.214	0.254	13286	2973	0.224	0.262	2190	343	0.157	0.199
35-39	12318	1970	0.160	0.187	10573	1786	0.169	0.195	1745	184	0.105	0.131
40-44	9304	839	0.090	0.100	8106	790	0.097	0.107	1198	49	0.041	0.050
45-49	7433	285	0.038	0.038	6656	271	0.041	0.040	777	14	0.018	0.019
Observed TFR			**5.4**				**5.7**				**4.0**	
Adjusted				**6.6**				**6.7**				**5.3**

TFR												

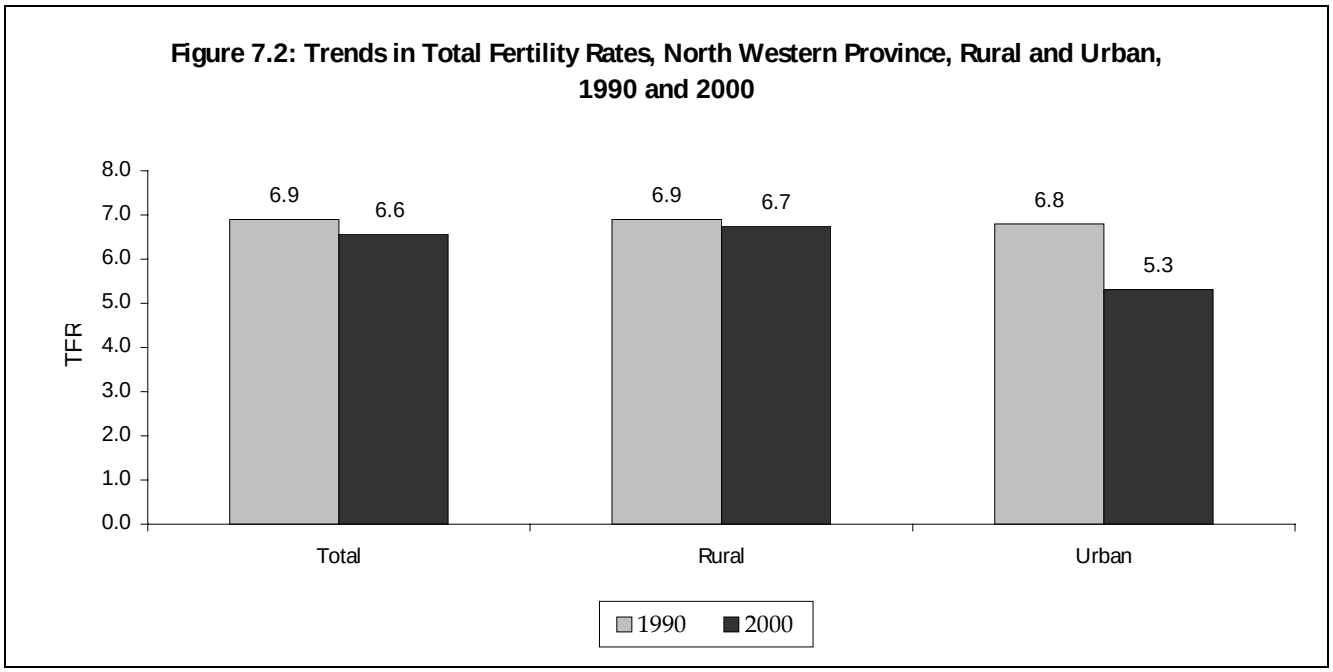
Source: CSO, 2000 Census of Population and Housing

Figure 7.1 shows that urban women have lower ASFR at all ages. Most of the decline has occurred in the older women age 30-49. The peak of childbearing for women occurs in the age groups 25-29 for both rural and urban women.



Source: CSO, 2000 Census of Population and Housing

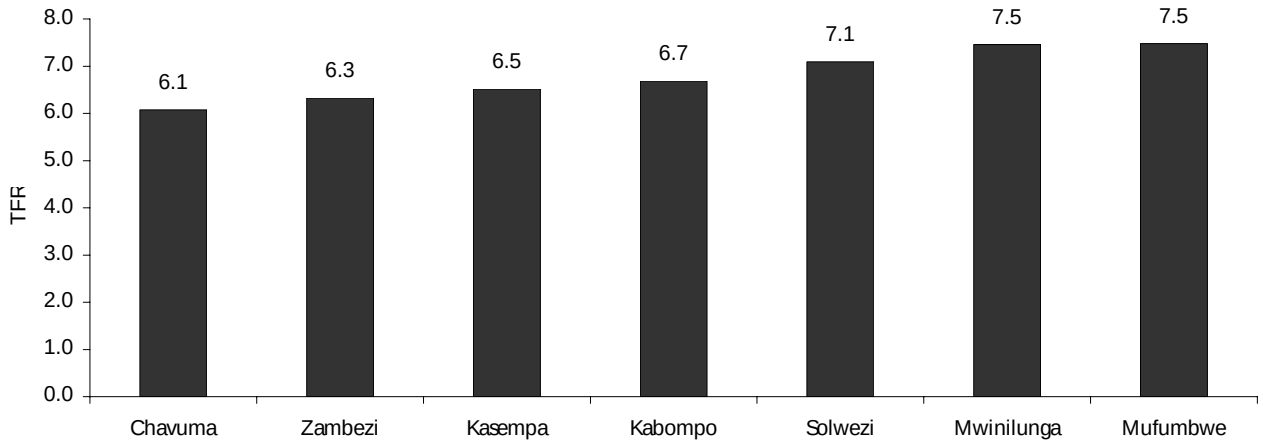
Figure 7.2 shows a slight decline in TFR for North western province between 1990 and 2000 from 6.9 to 6.6. The decline in TRF was more pronounced in urban areas as opposed to rural areas in which fertility has remained almost constant over the said period.



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

Fertility levels in the districts of North western province vary slightly. The rates range from 6.1 in Chavuma to 7.5 in Mufumbwe. Although Solwezi (the provincial capital) is more urbanized than the other districts, it has a higher TRF than that of the provincial average of 6.6.

Figure 7.3: Adjusted Age Specific Fertility Rate, by Districts, North-Western 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 and economic status.

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 the unmarried. Table 7.3 shows that TFR is highest among the married 6.8 followed by the widowed 5.9 and least among the never married 2.9.

Table 7.3: Fertility Differentials by Marital Status of Women Aged 15-49, North-Western Province, 2000

Districts	Marital Status						
	Total	Married	Separated	Divorced	Widowed	Never Married	Living Together
Chavuma	6.1	7.2	5.2	4.8	5.8	1.9	3.4
Kabompo	6.7	6.8	5.7	4.8	4.3	2.8	4.5
Kasempa	6.5	6.7	4.8	4.8	4.6	2.4	3.9
Mufumbwe	7.5	7.7	4.6	5.5	4.8	1.2	7.2
Mwinilunga	7.5	7.6	5.3	5.3	6.5	2.4	3.6
Solwezi	7.1	7.3	5.5	4.7	4.6	2.2	5.7
Zambezi	6.3	6.3	5.2	5.1	4.0	3.4	2.6
North-Western	**6.6**	**6.8**	**4.6**	**5.2**	**5.9**	**2.9**	**5.0**

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. Detailed definitions of working are shown in Chapter 6 of this report. Women classified as working have a slightly lower fertility rate of 6.2 than those classified otherwise (6.6). This pattern holds true for all the districts in the province.

Table 7.4: Fertility Differentials by Economic Status of Women Aged 15-49, North-Western Province, 2000

Districts	Economic Status		
	Total	Working	Not Working
Chavuma	**6.1**	**5.6**	**6.9**
Kabompo	**6.7**	**5.9**	**6.8**
Kasempa	**6.5**	**6.3**	**6.6**
Mufumbwe	**7.5**	**6.1**	**8.1**
Mwinilunga	**7.5**	**6.8**	**7.1**
Solwezi	**7.1**	**6.1**	**6.4**
Zambezi	**6.3**	**5.4**	**6.4**
North-Western	**6.6**	**6.2**	**6.6**

Source: CSO, 2000 Census of Population and Housing

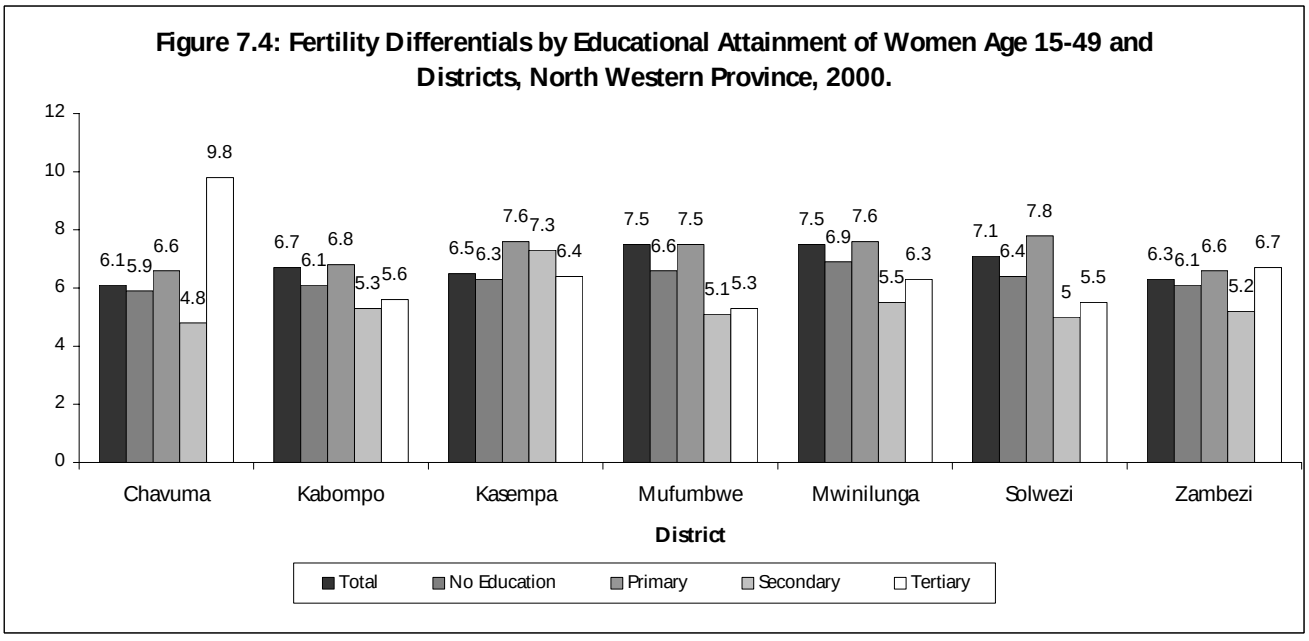
7.5.3 Fertility Differentials by Level of Education Attainment of Women Aged 15-49

Table 7.5 shows the fertility levels according to women's levels of education in North Western Province. It is expected that women with tertiary education would have lower fertility than women in other education categories. However, in North western province, this is not the case. Women with tertiary education are seen to have a higher TFR than those in other categories. For instance, women with tertiary education had a TFR of 7.9 compared with TFR of 6.4 for women without any schooling. These figures, however, may not necessarily reflect the true picture but may be because of the small number of cases.

Table 7.5: Fertility Differentials by Level of Education of Women Aged 15 - 49, North-Western Province, 2000

District					Level of Education
	Total	No Education	Primary	Secondary	Tertiary
Chavuma	6.1	5.9	6.6	4.8	9.8
Kabompo	6.7	6.1	6.8	5.3	5.6
Kasempa	6.5	6.3	7.6	7.3	6.4
Mufumbwe	7.5	6.6	7.5	5.1	5.3
Mwinilunga	7.5	6.9	7.6	5.5	6.3
Solwezi	7.1	6.4	7.8	5.0	5.5
Zambezi	6.3	6.1	6.6	5.2	6.7
North Western	6.6	6.4	7.4	5.1	7.9

Source: CSO, 2000 Census of Population and Housing



Source: CSO, 2000 Census of Population and Housing

7.6 Gross Reproduction Rate (GRR)

The Gross Reproduction Rate (GRR) for North Western province is 2.6, implying that about three daughters will replace a woman experiencing the fertility pertain prevailing at the time of the census by the time she reaches the end of her reproductive life. Women in rural areas are likely to be replaced by about three daughters while women in urban areas are likely to be replaced by about two daughters.

Table 7.6: Gross Reproduction Rate (GRR), North-Western Province, Rural/ Urban, 2000

Age Group	Total			Rural			Urban		
	Total Women	Female Births	ASFR (f)	Total Women	Female Births	ASFR (f)	Total Women	Female Births	ASFR (f)
15-19	31,429	1,552	0.049	26,345	1,385	0.053	5,084	167	0.033
20-24	26,193	2,905	0.111	22,154	2,571	0.116	4,039	334	0.083
25-29	20,627	2,564	0.124	17,651	2,276	0.129	2,976	288	0.097
30-34	15,476	1,589	0.103	13,286	1,417	0.107	2,190	172	0.079
35-39	12,318	955	0.078	10,573	872	0.082	1,745	83	0.048
40-44	9,304	428	0.046	8,106	406	0.050	1,198	22	0.018
45-49	7,433	132	0.018	6,656	130	0.020	777	2	0.003
GRR			**2.6**			**2.8**			**1.8**

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. North Western province has an NRR of 2.0, with the rural women having an NRR of 2.2 compared to 1.5 for urban women.

Table 7.7: Net Reproduction Rate (NRR), North Western, Rural and 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	0.049	0.8153	0.0400	0.053	0.8227	0.0436	0.033	0.8855	0.0292
20-24	0.111	0.7995	0.0887	0.116	0.8073	0.0936	0.083	0.8743	0.0726
25-29	0.124	0.7811	0.0969	0.129	0.7894	0.1018	0.097	0.8609	0.0835
30-34	0.103	0.7604	0.0783	0.107	0.7693	0.0823	0.079	0.8458	0.0668
35-35	0.078	0.7374	0.0575	0.082	0.7468	0.0612	0.048	0.8290	0.0398
40-44	0.046	0.7116	0.0327	0.050	0.7215	0.0361	0.018	0.8091	0.0146
45-49	0.018	0.6832	0.0123	0.020	0.6935	0.0139	0.003	0.7860	0.0024
NRR			**2.0**			**2.2**			**1.5**

Source: CSO, 2000 Census of Population and Housing
Note*: *ASFR at prevailing rates of mortality*

Table 7.8 shows that the Net Reproduction Rate has declined has continued to decline over the last ten years in both rural and urban areas.

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

Residence	Year of Census		
	1980	1990	2000
Total	2.4	2.5	2.0
Rural	2.4	2.5	2.2
Urban	2.5	2.4	1.5

Source: CSO, 1980, 1990 and 2000 Censuses 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.

Table 7.9 shows that the Completed Family Size (CFS) or mean parity for women in North Western Province is 6.5 children per woman, with rural women having a lower CFS of 6.5 compared with their urban counterparts with 6.9 children per woman.

A comparison of the TFR with the mean parity also shows trends in fertility. While TFR is a measure of current fertility, mean parity measures completed fertility. Women age 45–49 have given birth to an average of 6.5 children. The TFR (6.6) is slightly higher than the CFS.

Table 7.9: Observed Mean Parity, North-Western Province, Rural and Urban, 2000

Age Group	Total	Rural	Urban
15-19	0.3	0.3	0.2
20-24	1.4	1.5	1.2
25-29	2.9	3.0	2.6
30-34	4.3	4.3	4.1
35-39	5.4	5.5	5.3
40-44	6.2	6.2	6.3
45-49	**6.5**	**6.5**	**6.9**

Source: CSO, 2000 Census of Population and Housing

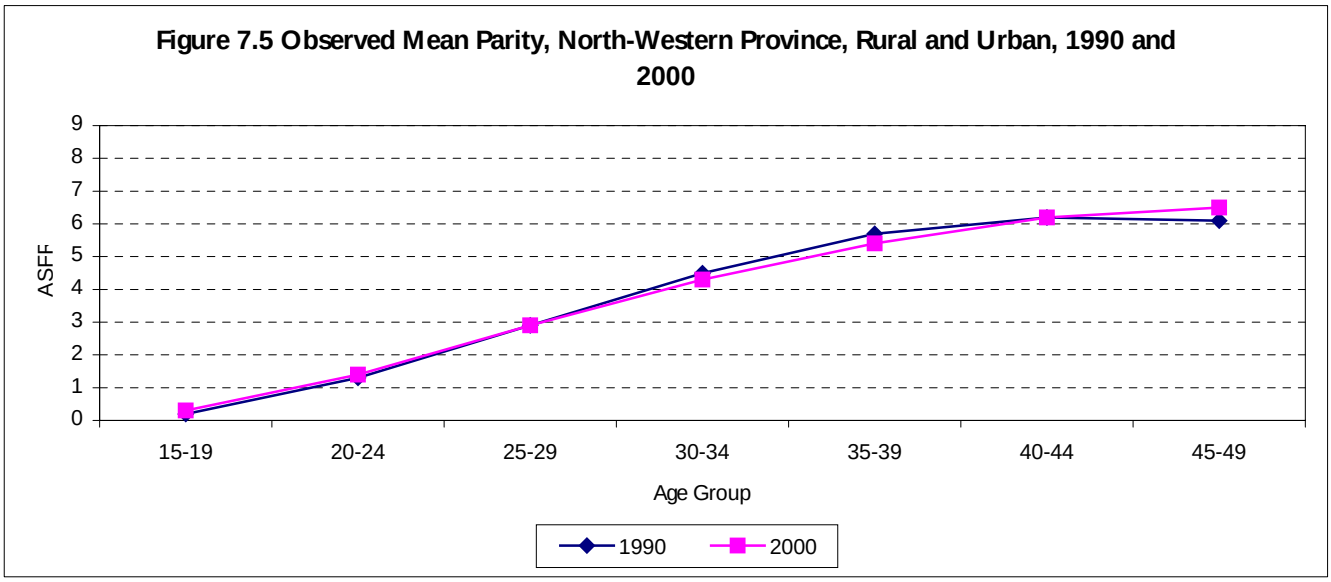
Mean Parity for the age group 45-49 for North Western Province, has increased slightly from 6.1 children per woman in 1990 to 6.5 children per woman in 2000. This could be more a result of under reporting of children ever born in 1990 compared to 2000, than an a real increase. (see Table 7.10 and 7.4)

Table 7.10: Observed Mean Parity North-Western Province, 1990-2000

Age Group	Mean Parity (1990)*	Mean Parity (2000)
15-19	0.2	0.3
20-24	1.3	1.4
25-29	2.9	2.9
30-34	4.5	4.3
35-39	5.7	5.4
40-44	6.2	6.2
45-49	**6.1**	**6.5**

Source: 1990 and 2000 Census of Population and Housing

Note: 1990 estimates extracted from Analytical Report Vol. 7 of the 1990 Census of Population, Housing and Agriculture, CSO 1995.



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

7.9 Other Fertility Indicators

Table 7.11 shows a summary of fertility indicators for districts of North western Province. The table shows that the Crude Birth Rate (CBR) range from 30.9 in Solwezi to 46.8 in Mufumbwe. The General Fertility Rate is lowest in Zambezi and highest in Kasempa while the Child Woman Ratio is lowest in Chavuma and highest in Mufumbwe.

Table 7.11: Summary of Fertility Indicators by District, North-Western Province, 2000

District	Adjusted Total Fertility Rate	Crude Birth Rate	General Fertility Rate	Child Woman Ratio	Mean Parity	Gross Reproduction Rate
Chavuma	6.1	40.1	179.6	806	5.6	2.6
Kabompo	6.7	36.2	160.5	814	6.6	2.5
Kasaempa	6.5	35.8	191.1	809	7.1	2.9
Mufumbwe	7.5	46.8	170.1	812	7.4	2.6
Mwinilunga	7.5	40.0	183.1	874	6.5	3.0
Solwezi	7.1	30.9	158.2	768	6.4	2.5
Zambezi	6.3	34.1	154.6	848	6.1	2.4

Source: CSO, 2000 Census of Population and Housing

7.10 Summary

Fertility levels for North-western Province have declined over the period 1990-2000, from 6.9 to 6.6. This decline has been attributed to the decline in urban areas in which the TFR dropped from 6.8 in 1990 to 5.3 in 2000 while that of the rural areas has remained almost constant over the period, declining from 6.9 to 6.7.

Child bearing is at its peak in the age group 25-29 years after which it declines steadily. Mufumbwe has the largest TFR (7.5) among the districts while Chavuma the least (6.1)

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, and Q-5 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) ($_1q_0$) refers to the number of deaths among infants aged below one year per thousand (1,000) live births per year
- *Child mortality rate* (CMR) ($_5q_1$) 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) ($_5q_0$) 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_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_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* ($_{60}q_{15}$) refers to the number of deaths that occur to persons in the age range 15 to 60 years.

8.3 Infant Mortality Rate, Levels, Trends and Differentials

Table 8.1 shows the infant Mortality Rate (IMR) in North-Western Province between 1980 and 2000. In 1980, IMR was 77. In 1990, it increased to 103 and then decreased to 83 in 2000. It is worth noting that the IMR in North-Western Province is lower than the natural average (1 in every 8 infants as opposed to 1 in every 16 at the national level in the year 2000). However, the mortality trend in the province is similar to the national one.

Table 8.1: Infant Mortality Rate by Residence and Sex, North-western Province, 1980, 1990 and 2000

Residence and Sex	Infant Mortality Rate (per '000)		
	1980	1990	2000
Zambia	**99**	**124**	**110**
North-Western	77	103	83
Residence			
Rural	91	120	88
Urban	85	108	62
Sex Of Child			
Male	88	133	86
Female	87	104	83
Districts (2000)	**Infant Mortality Rate (per '000)**		
	Total (2000)	**Rural (2000)**	**Urban (2000)**
Chavuma	70	75	41
Kabompo	84	85	68
Mufumbwe	81	81	69
Kasempa	97	104	62
Mwinilnga	79	81	45
Solwezi	79	92	67
Zambezi	84	86	47

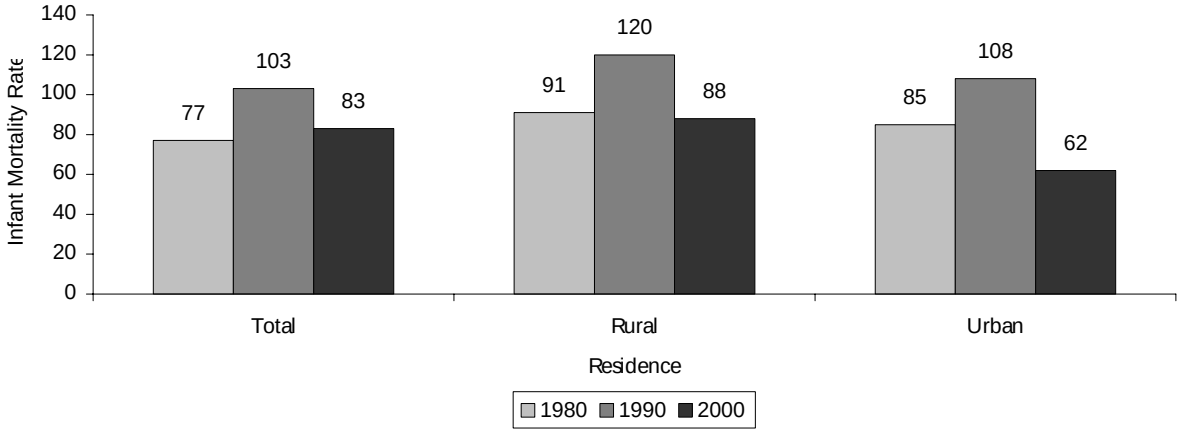
Source: CSO, 2000 Census of Population and Housing

8.3.1 Infant Mortality Rate by Residence of Mother

There are rural and urban differentials in IMR (Figure 8.1), with rural areas experiencing higher levels than urban areas. In 1980, for instance, IMR in rural areas was 91 compared to 85 in urban areas. The trend persisted in both 1990 and 2000. In 2000, About 1 in 11 infants in rural areas and 1 in 16 infants in urban areas die before celebrating their first birthday.

Between 1990 and 2000 IMR declined in both rural and urban areas, from 120 to 88 deaths per 1000 live births in the former and from 108 to 62 deaths per 1000 live births in the latter.

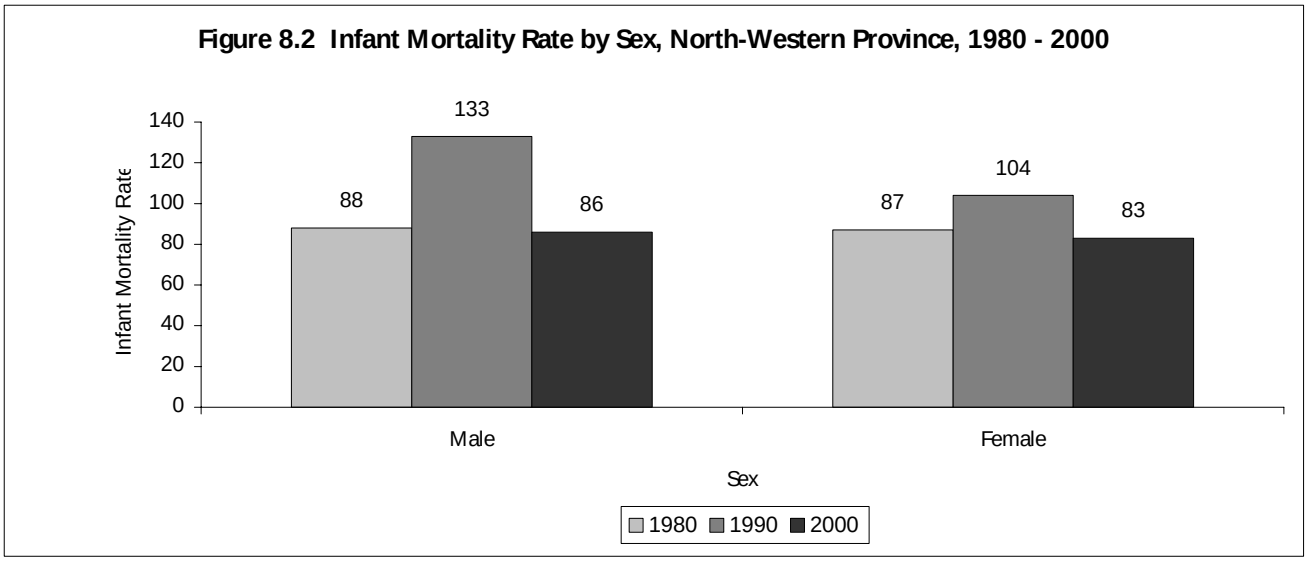
Figure 8.1 Infant Mortality Rate by Residence, North-Western Province, 1980 - 2000



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

8.3.2 Infant Mortality Rate by Sex

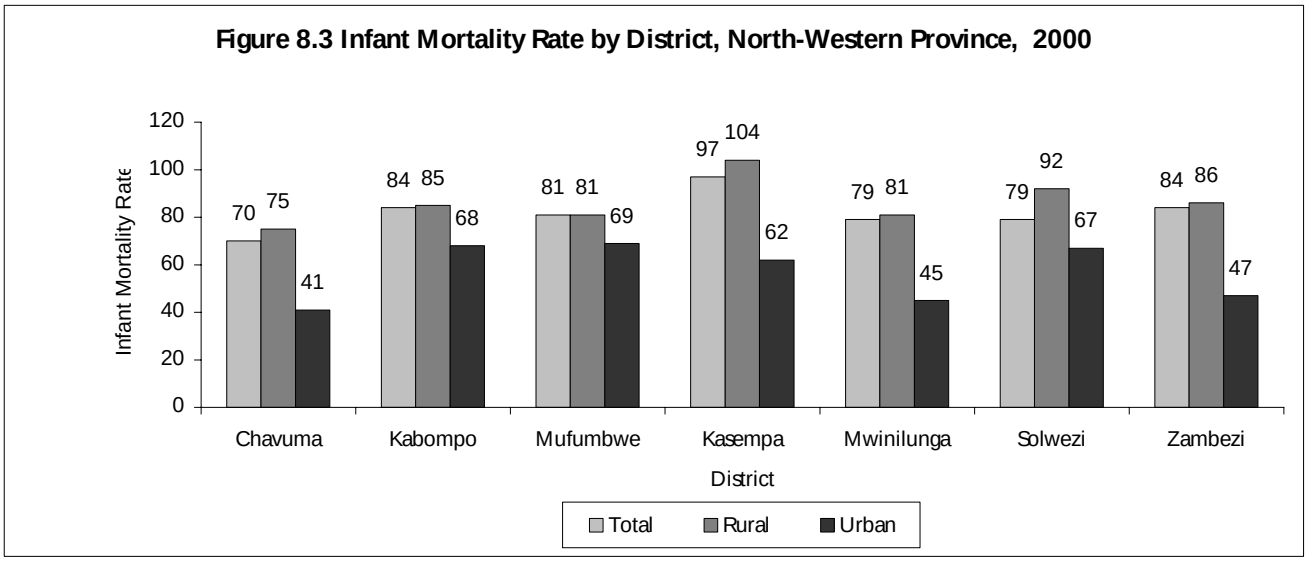
Results presented in Figure 8.2 show that males have a higher IMR than females. In 2000, 86 deaths per 1000 live births occurred among males compared to 83 deaths for females. A similar pattern is also observed in 1980 and 1990 census data. In 1980, 88 male and 87 female infants died before reaching age one. In 1990, 133 male infants and 104 female infants died before reaching age one.



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

8.3.3 Infant Mortality Rate by District

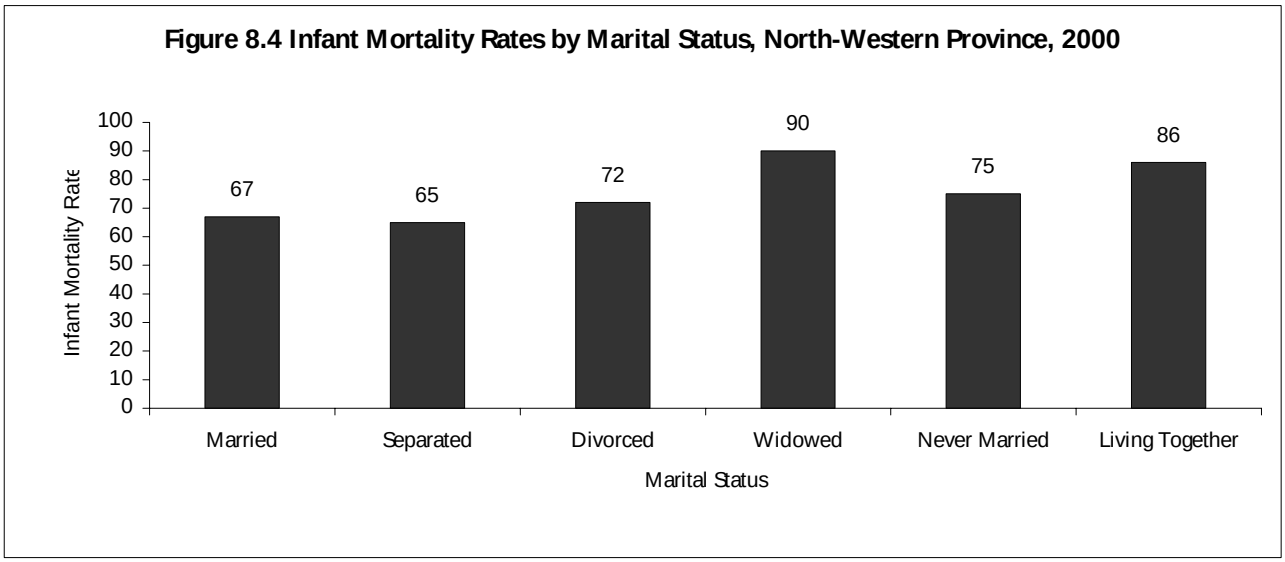
Figure 8.3 shows that overall IMR is relatively very high in all the districts. The highest infant mortality is in Kasempa (97) and the lowest is in Chavuma (70). In all the districts IMR is higher in rural than in urban areas.



Source: 2000 Census of Population and Housing

8.3.4 Infant Mortality Rate by Marital status of Mother

Figure 8.4 and Table 8.2 show that children born to widowed mothers (90) have the highest IMR, closely followed by those of cohabiting mothers (86). Children born to separated (65) and married (67) mothers have the lowest chances of dying.



Source: CSO, 2000 Census of Population and Housing

In rural areas, the lowest IMR is among separated (37) mothers and highest among the widowed (63). In urban areas, on the other hand, the lowest is among the never married (25) and highest among the cohabiting mothers (57).

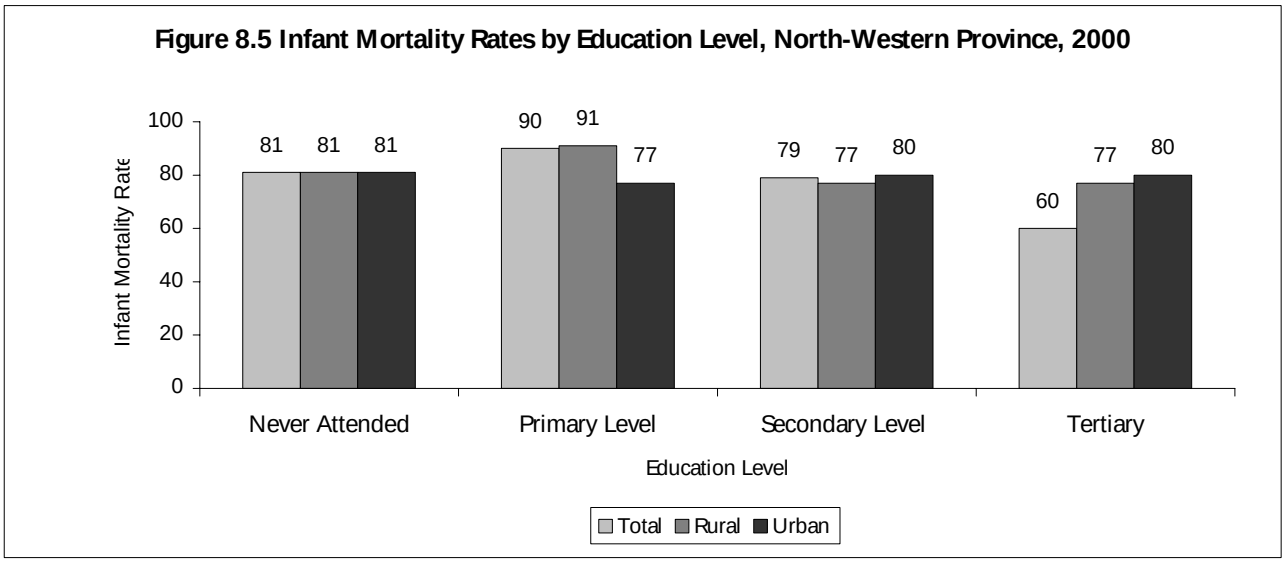
Table 8.2 Infant Mortality Rate by Marital status of Mother by rural-urban residence, North-western Province, 2000

Marital Status	Infant Mortality Rate Per '000		
	Total	**Rural**	**Urban**
Married	67	69	52
Separated	65	63	83
Divorced	72	75	50
Widowed	90	91	82
Never Married	75	84	49
Living Together	86	83	85

Source: CSO, 2000 Census of Population and Housing

8.3.5 Infant Mortality Rate by Education Level of Mother

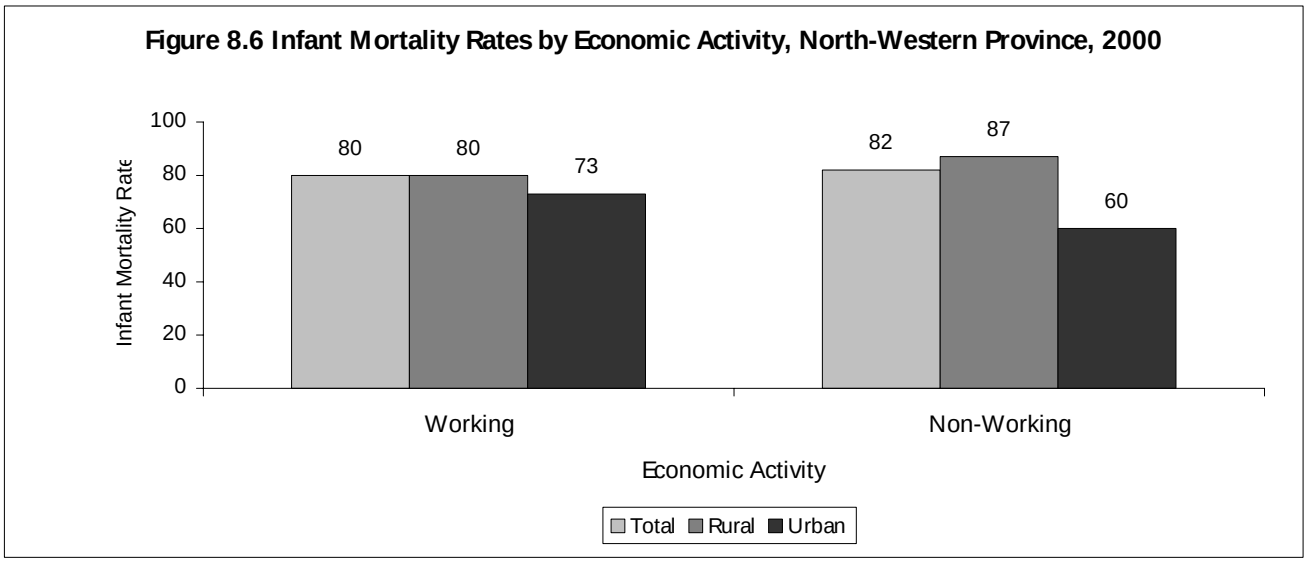
Results in Figure 8.5 indicate that IMR for babies born to mothers with no education is 81 deaths per 1000 live births. Among mothers who have attended some form of schooling, IMR varies with the level of education of mother, with chances of dying decreasing as the level of education of mother increases. IMR for children of mothers with primary education is 90, while that of children of mothers with secondary education is 79. IMR is lowest among those whose mothers have completed tertiary education.



Source: CSO, 2000 Census of Population and Housing

8.3.6 Infant Mortality Rate by Economic Activity of Mother

Children born to working mothers have higher chances of reaching age one than those born to non-working mothers. IMR is 80 deaths per 1000 for children of working mothers and 82 deaths per 1000 among non-working mothers. In rural areas, IMR is lower among the working than the non working mothers. On the other hand, in urban atreas, IMR is lower among the non working than the working mothers.



Source: CSO, 2000 Census of Population and Housing

8.4 Child Mortality Rate, Levels, Trends and Differentials

Table 8.3 shows that overall, Child Mortality Rate (CMR) increased from 50 in 1980 to 75 in 1990 and then decreased to 56 in 2000. A similar trend is also observed at national level. However, child mortality rate is lower in North-western province compared to the national average which in 2000 was 82 deaths in 1000 children.

Table 8.3 Child Mortality Rate by Residence and Sex, North-western Province, 2000

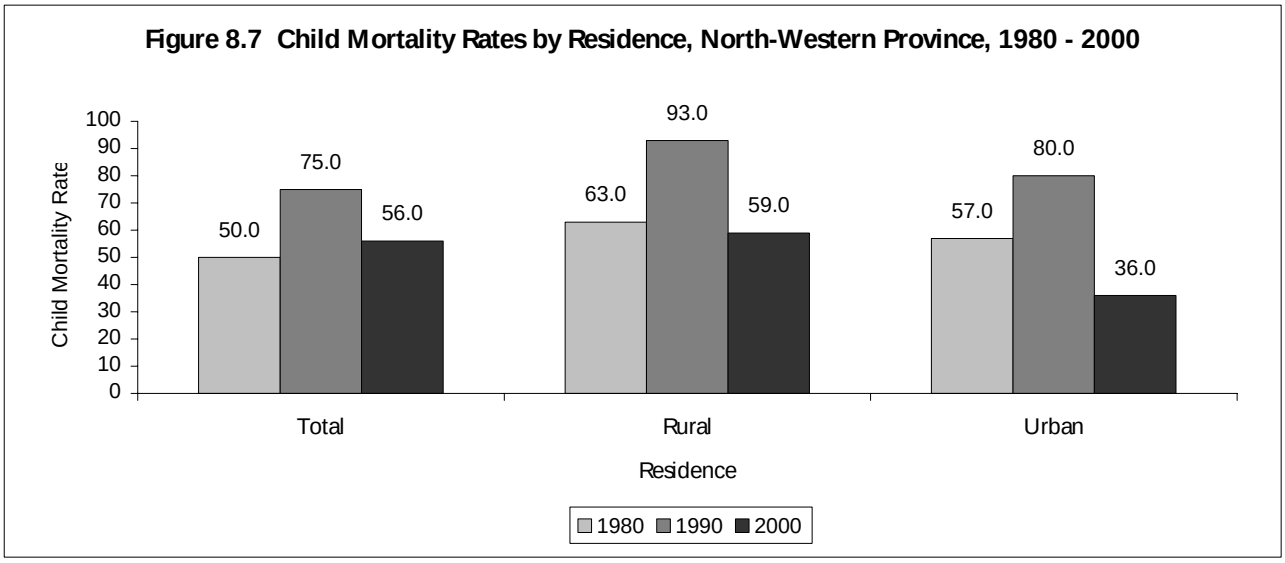
Residence and Sex	Child Mortality Rate (per '000)		
	1980	1990	2000
Zambia	**71**	**95**	**82**
North Western	50	75	56
Residence			
Rural	63	93	59
Urban	57	80	36
Sex of Child			
Male	60	98	53
Female	59	84	60
Districts (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Chavuma	43	47	19
Kabompo	55	56	41
Mufumbwe	52	53	41
Kasempa	68	75	35
Mwinilnga	50	52	22
Solwezi	50	63	40
Zambezi	55	57	23

Source: CSO, 2000 Census of Population and Housing

8.4.1 Child Mortality Rate by Residence

Figure 8.7 shows that the pattern of CMR is similar to that of total IMR in the sense that children born to mothers residing in rural areas have higher risks of dying between age one and five than those in urban areas (59 compared to 36 deaths per 1000 children).

Figure 8.7 Child Mortality Rates by Residence, North-Western Province, 1980 - 2000

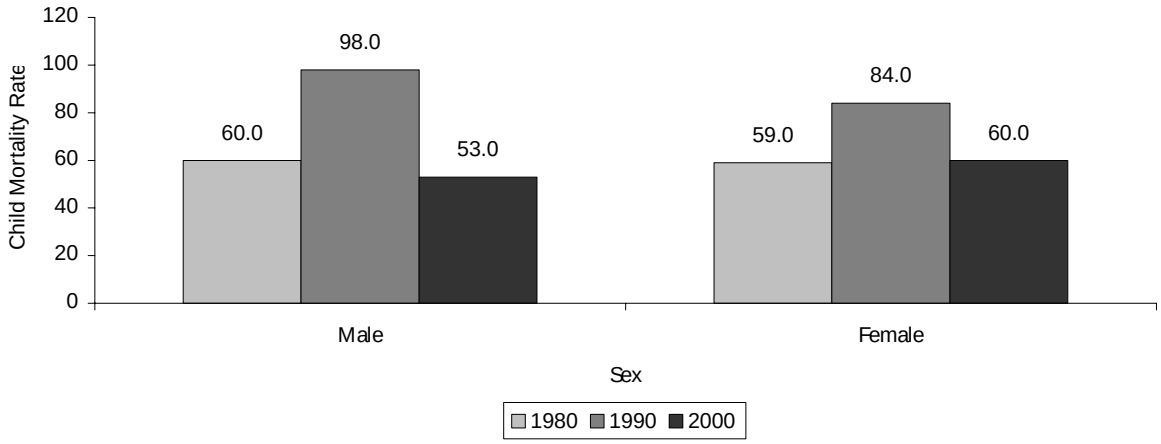


Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.4.2 Child Mortality Rate by Sex

According to Figure 8.8, CMR is lower among males than among females (53 deaths compared to 60 deaths per 1000 children). A different pattern is observed in the 1980 and 1990 where CMR is higher among male than female children.

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

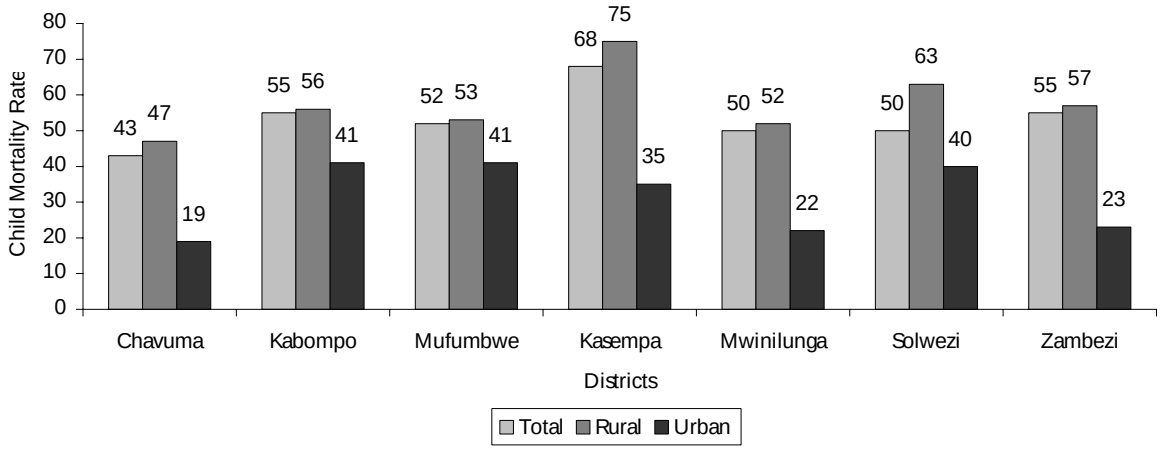


Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.4.3 Child Mortality Rate by District

A comparison of the districts in Figure 8.9 shows that the CMR is highest in Kasempa District (68) and lowest in Chavuma District (43). In terms of residence, it is evident that children aged one in urban areas of all the districts have higher chances of reaching five than their rural counterparts.

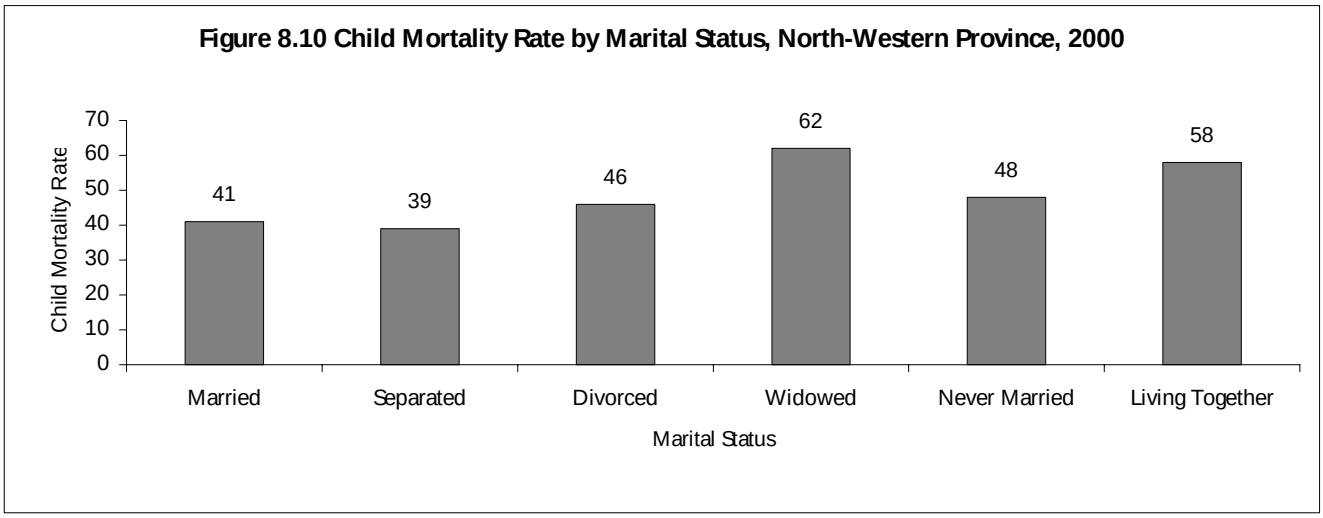
Figure 8.9 Child Mortality Rate at Birth by District, North-Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

8.4.4 Child Mortality Rate by Marital Status of Mother

Figure 8.10 shows that children born to widowed mothers have the highest chance of dying between age one and five (almost 1 in every 16), while children born to married or separated have the lowest chances of dying (1 in every 26 and 1 in every 24, respectively).



Sources: CSO, 2000 Census of Population and Housing

In rural areas, CMR is highest among the widowed (63) and lowest among the separated (37). In urban areas, it is highest among the cohabiting (57) and lowest among the never married (25).

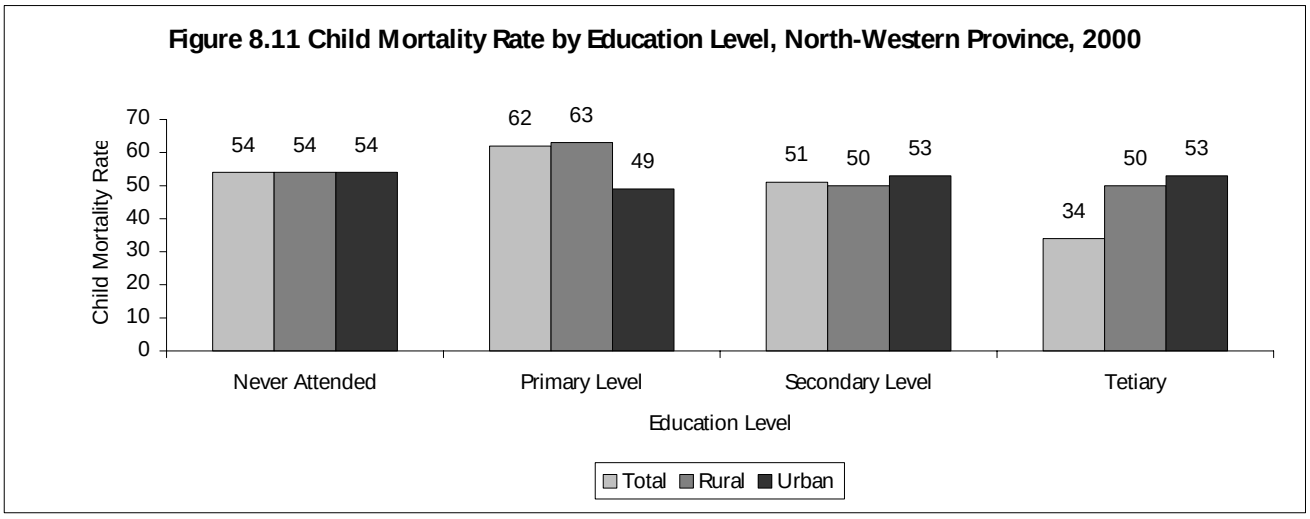
Table 8.4 Child Mortality Rate by selected characteristics according to rural/urban residence, North-Western Province, 2000

Marital Status	Child Mortality Rate Per '000		
	Total	**Rural**	**Urban**
Married	41	42	28
Separated	39	37	56
Divorced	46	48	26
Widowed	62	63	55
Never Married	48	56	25
Living Together	58	55	57

Source: CSO, 2000 Census of Population and Housing

8.4.5 Child Mortality Rate by Education Level of Mother

Results in Figure 8.11 indicate that CMR for babies born to mothers with no education is 54 deaths per 1000 live births. Among mothers who have attended some form of schooling, CMR varies with the level of education of mother, with chances of dying decreasing as the level of education of mother increases. CMR for children of mothers with primary education is 62, while that of children of mothers with secondary education is 51. CMR is lowest among those whose mothers have completed tertiary education (34).

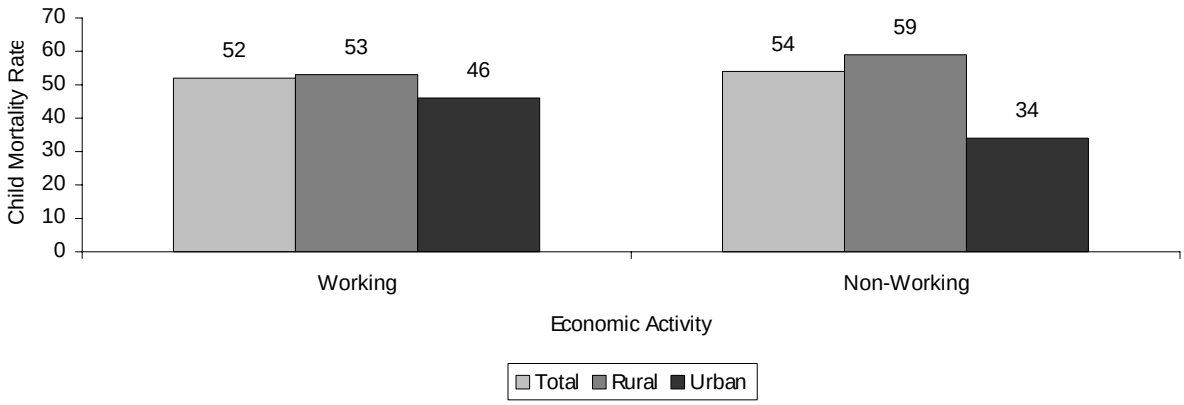


Source: CSO, 2000 Census of Population and Housing

8.4.6 Child Mortality Rate by Economic Activity of the Mother

Figure 8.12 shows that 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 not very significant (52 versus 54 deaths per 1000 children, respectively). In rural areas, the rate is lower among working mothers while in urban areas, it is higher among working mothers.

Figure 8.12 Child Mortality Rate by Economic Activity, North-Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

8.5 Under-Five Mortality Levels, Trends and Differentials

Table 8.5 shows that Under-five Mortality Rates (UMRs) in North-western Province increased from 95 in 1980 to 164 in 1990 and then decreased to 135 in 2000. At national level also, UMR increased between 1980 and 1990, then decreased in 2000. However, Under-five Mortality rate for the province is lower than the national one. In 2000, the national Under-five mortality rate was 162 deaths per 1000 children.

Table 8.5 Under Five -Mortality Rate by Residence and Sex, North-western Province, 2000

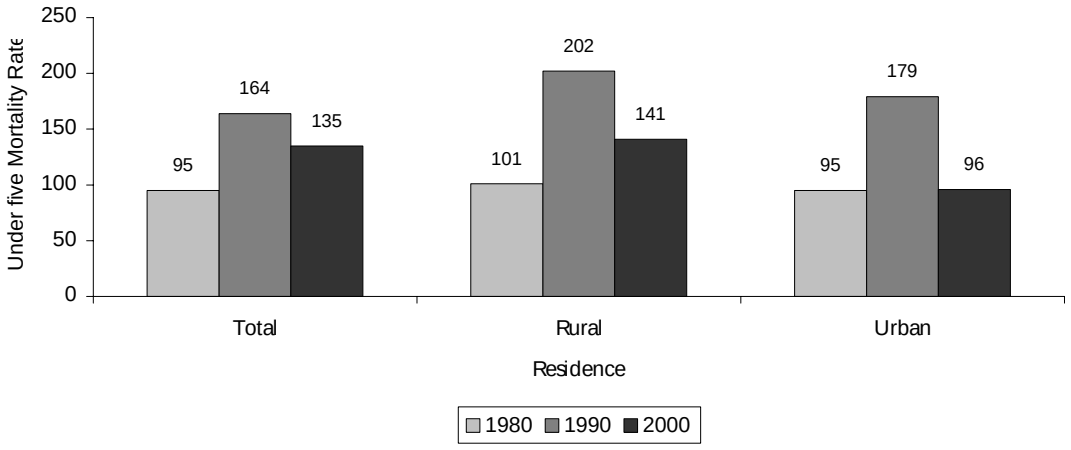
Residence and Sex	Under Five Mortality Rate (per '000)		
	1980	1990	2000
Zambia	**121**	**151**	**162**
North Western	95	164	135
Residence			
Rural	101	202	141
Urban	95	179	96
Sex of Child			
Male	98	218	134
Female	97	179	138
Districts (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Chavuma	110	118	59
Kabompo	135	137	28
Mufumbwe	128	130	107
Kasempa	158	172	95
Mwinilnga	125	128	66
Solwezi	125	150	104
Zambezi	134	139	68

Source: CSO, 2000 Census of Population and Housing

8.5.1 Under-Five Mortality Rate by Residence

Figure 8.13 shows that UMR in 1980 stood at 101 and 95 in rural areas and urban areas, respectively. In 1990, UMR substantially increased to 202 in rural areas and 179 in urban areas. In 2000, it declined to 141 and 96 in rural and urban areas, respectively. Overall, children born to mothers residing in rural areas have higher risks of dying between birth and age five than those in urban areas.

Figure 8.13 Under-Five Mortality Rates by Residence, North-Western Province, 1980 - 2000

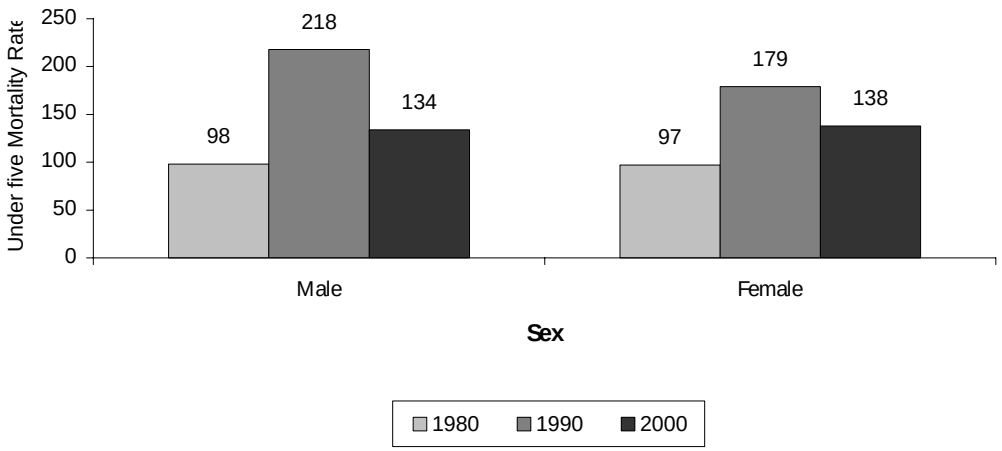


Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.5.2 Under-Five Mortality Rate by Sex

Figure 8.14 shows that in 2000 females have a higher Under Five Mortality Rate than males (134 vs 138), respectively. In 1980 and 1990, however, females had a lower UMR than males.

Figure 8.14: Under-Five Mortality Rates by Sex, North-Western Province, 1980 - 2000

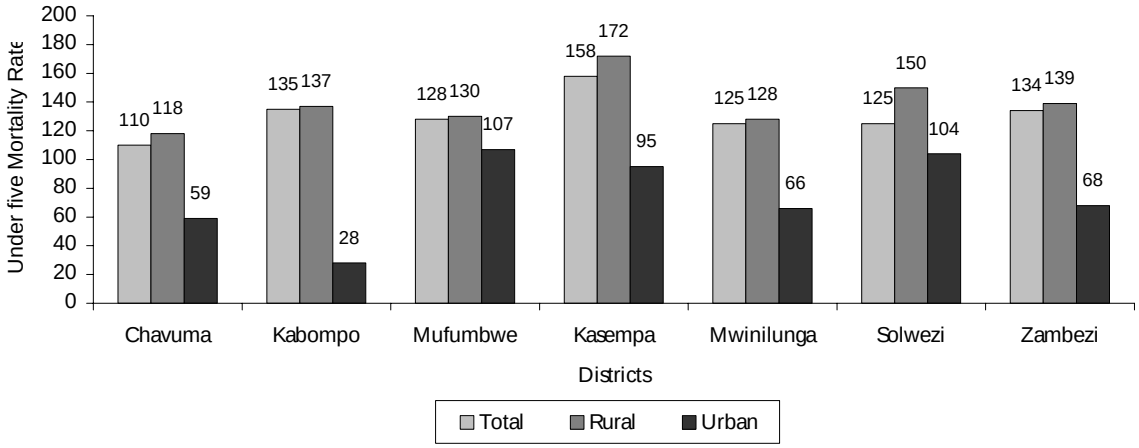


Sources: CSO, 1980, 1990 and 2000 Censuses of Population and Housing

8.5.3 Under-Five Mortality Rate by District of Residence of Mother

Figure 8.15 shows that UMR is highest in Kasempa District (158) and lowest in Chavuma District (110). In all the Districts UMR is higher in rural areas compared to urban areas.

Figure 8.15 Under-Five Mortality Rate by District, North-Western Province, 2000

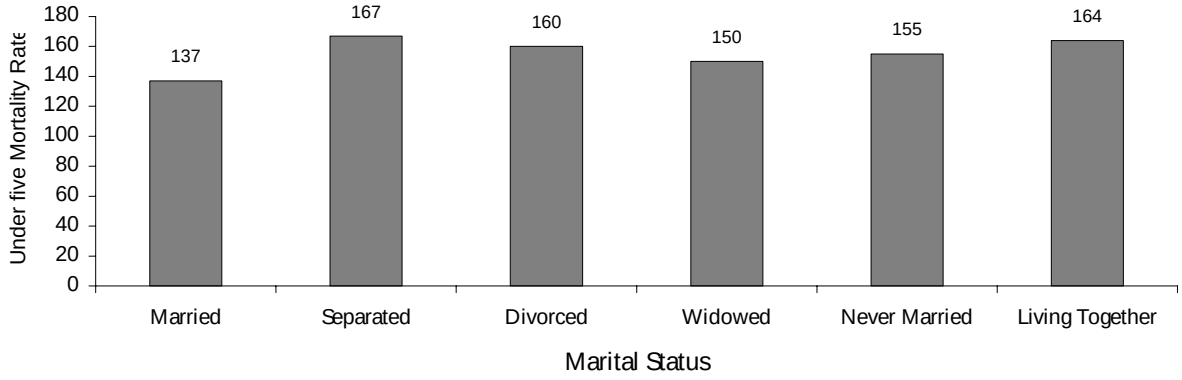


Source: 2000 Census of Population and Housing

8.5.4 Under-Five Mortality Rate by Marital Status of Mother

Figure 8.16 and Table 8.6 show the UMR differentials by marital status of mother. Data show that children born to separated widowed and cohabiting mothers have higher risks of children dying before reaching age five (1 in every 6 children died before reaching age five), than those born to currently married mothers (1 in every 7 children died before reaching age five).

Figure 8.16 Under Five Mortality Rate by Marital Status, North-Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

In rural areas, UMR is highest among the separated (174) and lowest among the cohabiting mothers (138). In urban areas, it is highest among the divorced (146) and lowest among the never married (83).

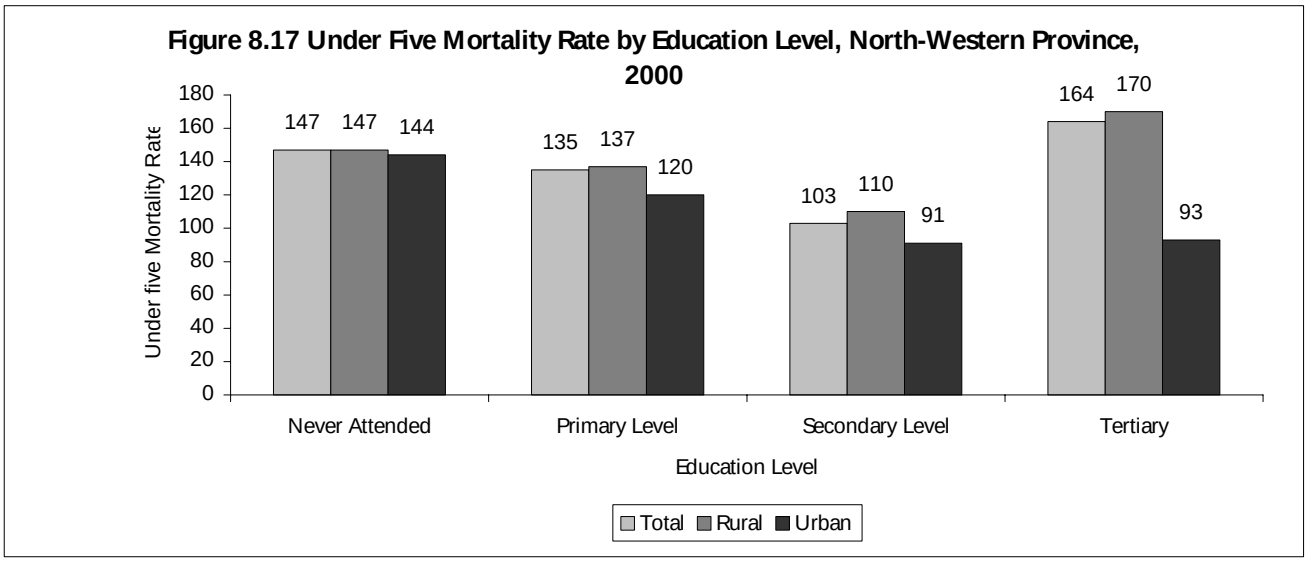
Table 8.6 Under-Five Mortality Rate by selected background characteristics according to rural-urban, North-Western Province, 2000

Marital Status	Under-Five Mortality Rate Per '000		
	Total	Rural	Urban
Married	137	141	117
Separated	167	174	126
Divorced	160	162	146
Widowed	147	149	134
Never Married	155	170	83
Living Together	165	138	108

Source: CSO, 2000 Census of Population and Housing

8.5.5 Under-Five Mortality Rate by Education Level of Mother

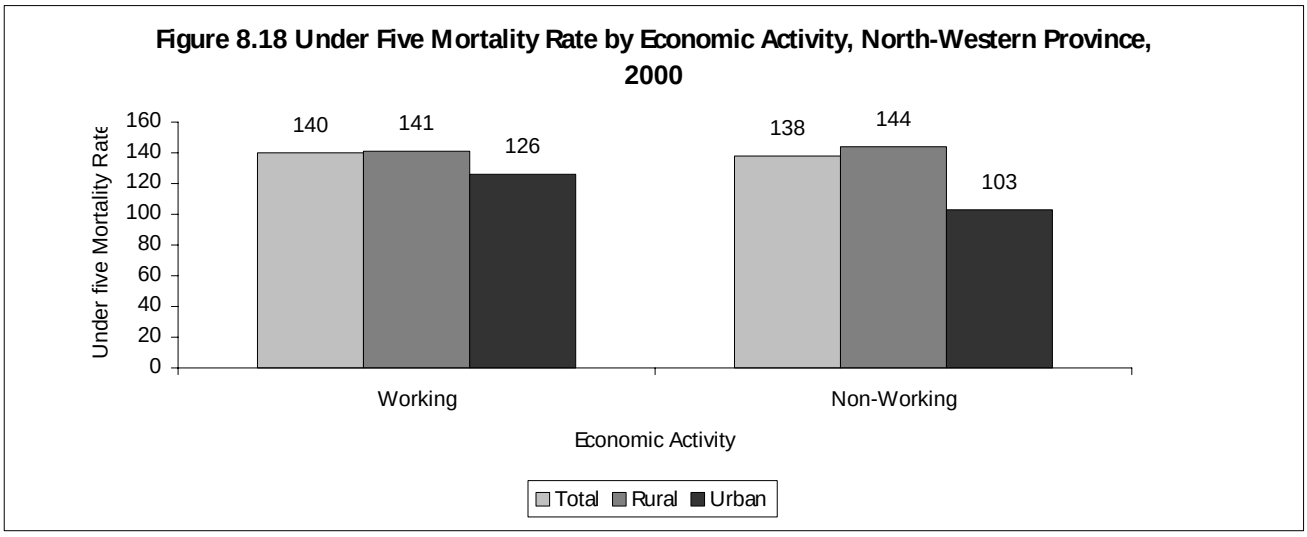
Figure 8.17 shows the variations of UMR with level of education of mother. The risk of children dying before their fifth birthday normally declines with the increase in the education of the mother. However, in North western it is highest in children born to mothers with tertiary education (164).



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 relatively higher chances of dying before age five than those born to non-working mothers. The differences, however, are not very significant (140 versus 138 deaths per 1000 children, respectively).



Source: CSO, 2000 Census of Population and Housing

8.6 Life Expectancy at Birth: Levels, Trends and Differentials

Table 8.7 shows that Life Expectancy at Birth decreased from 57 in 1980 to 51 in 1990 then increased to 56 in 2000. When disaggregated by sex, it is observed that females experienced higher expectation of life at birth than males (50 versus 45 in 1990 and 56 versus 55 in 2000, respectively). In 1980 no differences were observed in life expectancy among male and female babies (both were 55 years). When compared to the nation as a whole the province is experiencing a higher life expectancy by 6 years, that is, 56 years as compared to 50 years in 2000.

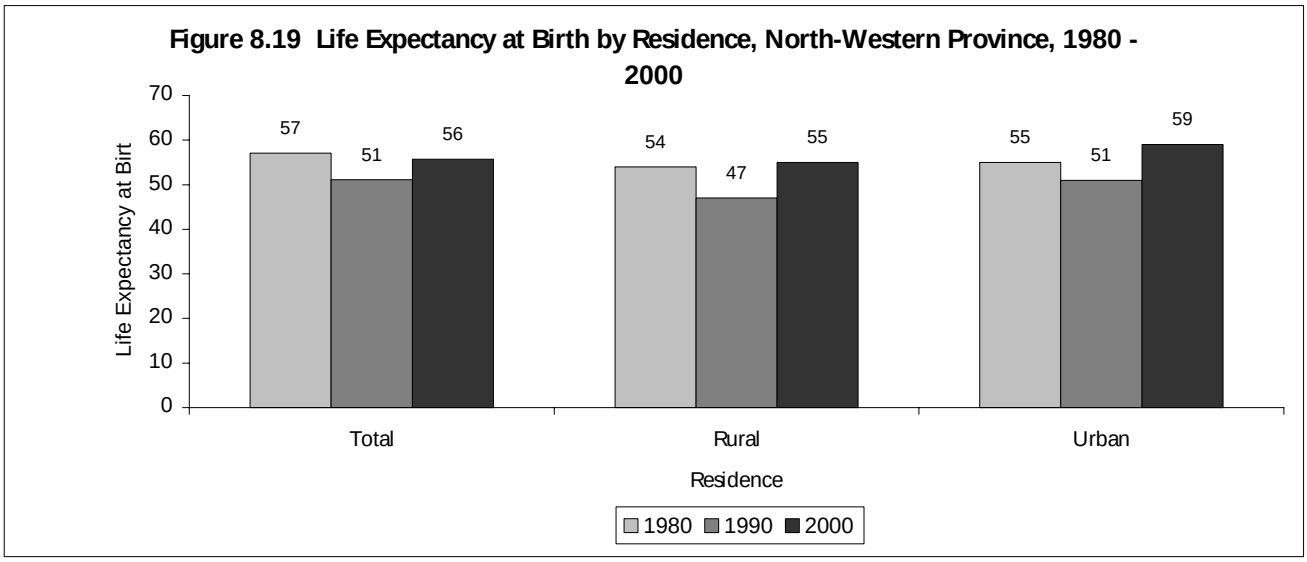
Table 8.7 Life Expectancy at Birth by Residence and Sex, North-western, 2000

Residence and Sex	Life Expectancy At Birth (Years)		
	1980	1990	2000
Zambia	**52**	**47**	**50**
North Western	57	51	56
Residence			
Rural	54	47	55
Urban	55	51	59
Sex of Child			
Male	55	45	55
Female	55	50	56
Districts (2000)	**Total (2000)**	**Rural (2000)**	**Urban (2000)**
Chavuma	59	57	68
Kabompo	55	55	63
Mufumbwe	56	56	60
Kasempa	52	51	61
Mwinilnga	57	56	67
Solwezi	54	53	60
Zambezi	55	55	63

Source: CSO, 2000 Census of Population and Housing

8.6.1 Life Expectancy at Birth by Residence

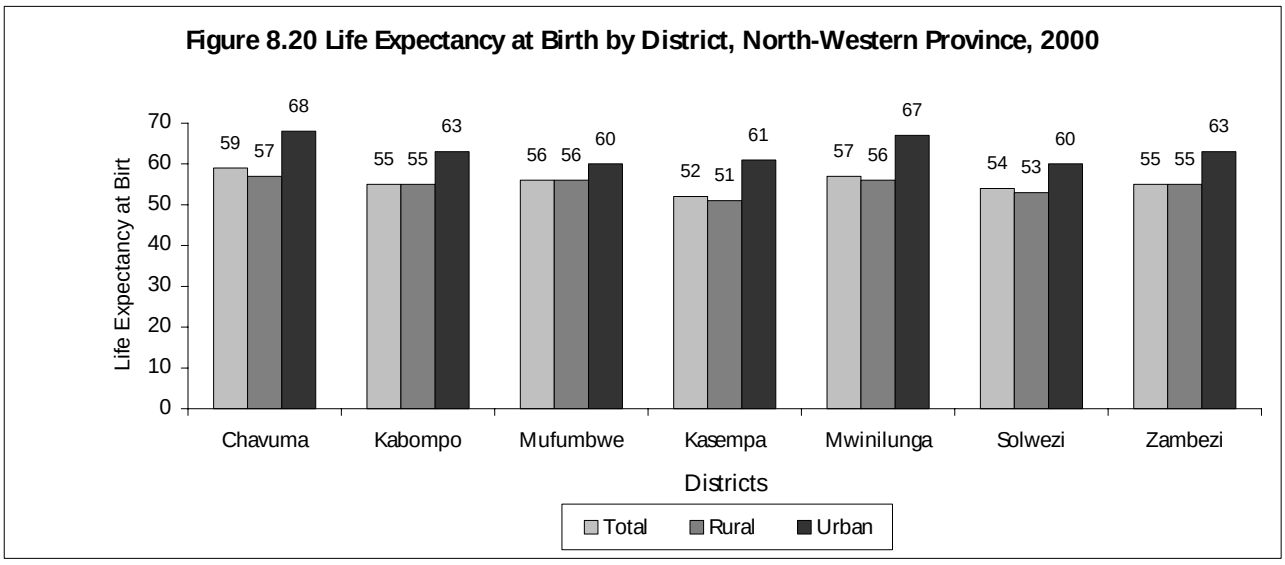
Figure 8.19 shows that in the rural and urban areas, the 2000 figure is greater than for both 1990 and 1980 census years. It is also observed that newly born babies in urban areas have a higher expectation of life at birth than their rural counterparts .In the urban areas, life expectancy was 55, 51 and 59, while in the rural areas it was 54, 47 and 55 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

Figure 8.20 shows that, Life Expectancy at Birth was highest in Chavuma District (59) and was lowest in Kasempa District (52). In all the Districts Life expectancy is higher in urban than in rural areas.



Source: CSO, 2000 Census of Population and Housing

8.6.3 Life Expectancy at Birth by Marital Status of Mother

Differentials by marital status of mother show that babies born to mothers who are separated, married and divorced have relatively higher expectation of life (60, 57 and 58 years, respectively), than those born to widowed and cohabiting mothers who are expected to live to 55 years.

Figure 8.21 Life Expectancy at Birth by Marital Status, North-Western Province, 2000

Source: CSO, 2000 Census of Population and Housing

In rural areas, Life expectancy is highest among the separated (61) and lowest among the never married mothers (56). In urban areas, it is highest among the widowed (71) and lowest among the cohabiting mothers (55).

Table 8.8 Life Expectancy At Birth, by Marital Status , North-western Provinces, 2000

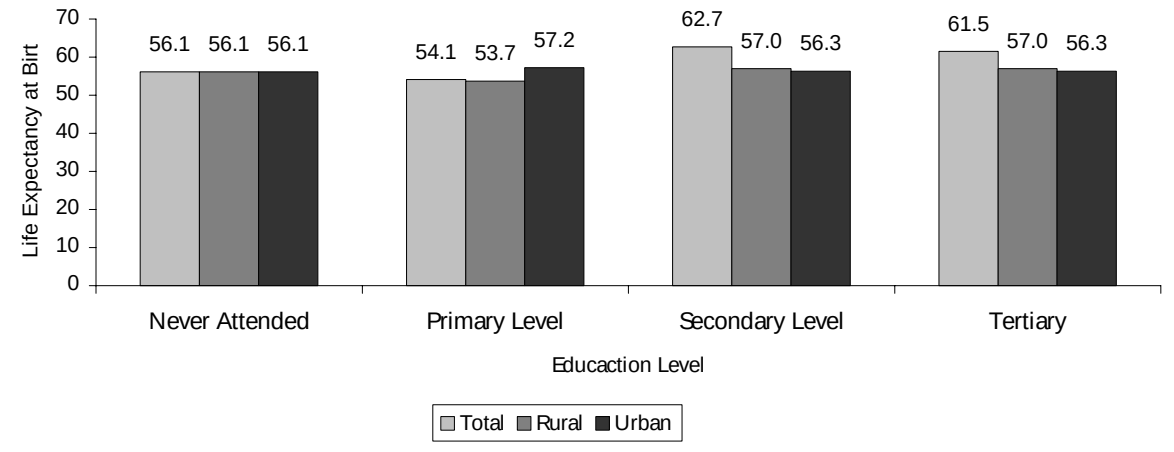
Marital Status	Life Expectancy at Birth (Years)		
	Total	**Rural**	**Urban**
Married	59.4	58.9	63.6
Separated	60.1	60.6	55.6
Divorced	58.2	57.6	62.2
Widowed	58.0	56.0	70.8
Never Married	57.5	55.5	64.4
Living Together	54.9	55.6	55.2

Source: CSO, 2000 Census of Population and Housing

8.6.4 Life Expectancy at Birth by Education Level of Mother

Life Expectancy at Birth is highest among children whose mothers have completed secondary education and lowest for those whose mothers have completed primary education (54 years).

Figure 8.22 Life Expectancy at Birth by Education Level, North-Western Province, 2000

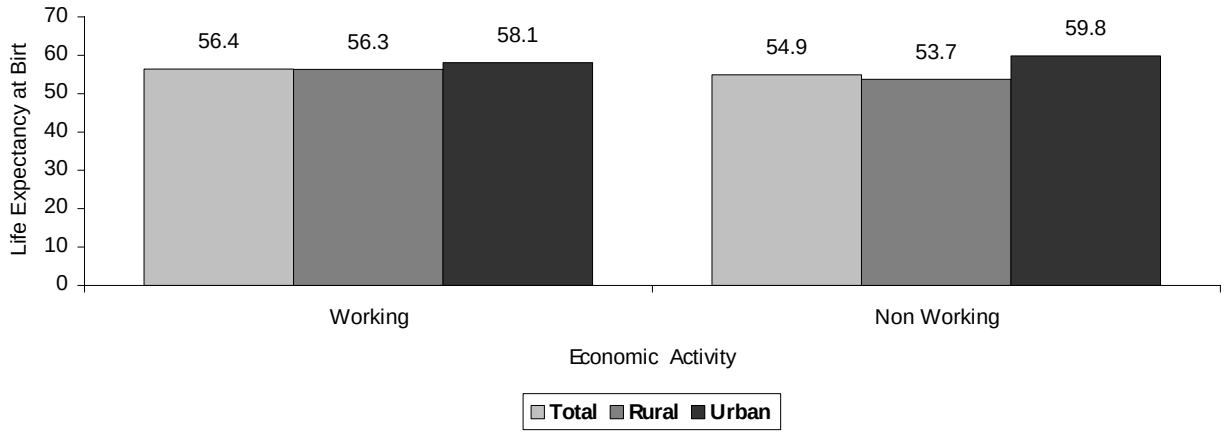


Source: CSO, 2000 Census of Population and Housing

8.6.5 Life Expectancy at Birth by Economic Activity of Mother

Figure 8.23 shows that there is little difference in life expectancy between children born to working mothers and those born to non-working mothers (56 vs 55 years). In both rural and urban areas, differences in life expectancy at birth between working and non working mothers are not large.

Figure 8.23 Life Expectancy at Birth by Economic Activity, North-Western Province, 2000



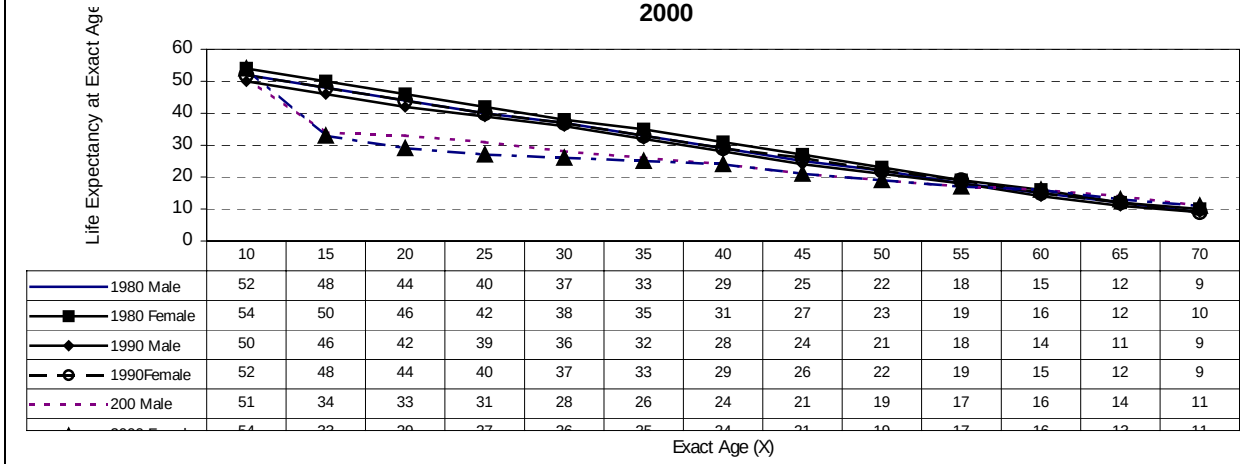
Source**:** CSO, 2000 Census of Population and Housing

8.7 Adult Mortality: Life Expectancy Levels, Trends and Differentials

Results in Figure 8.24 show that adult life expectancy levels in North western Province decreased between 1980 and 2000. The decrease may be attributed to the HIV/AIDS pandemic.

There was a steep decline in life expectancy at exact ages 10-40, for both males and females. After age 50, life expectancy remained almost the same between.

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

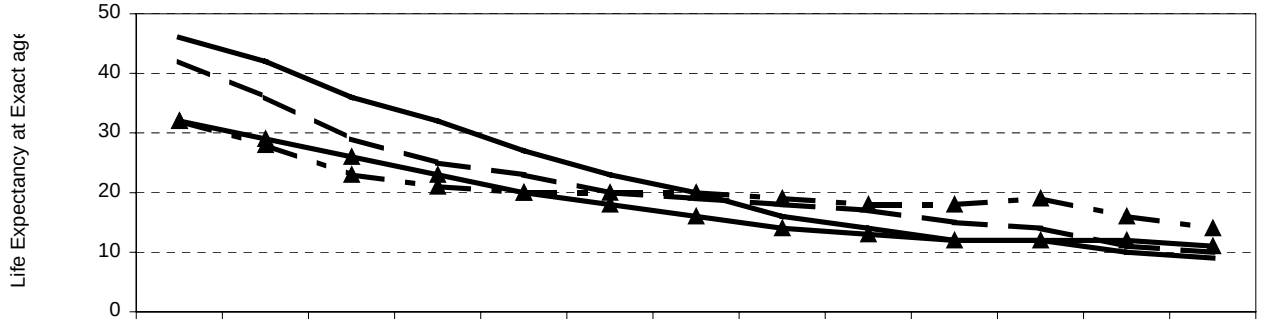


	10	15	20	25	30	35	40	45	50	55	60	65	70
1980 Male	52	48	44	40	37	33	29	25	22	18	15	12	9
1980 Female	54	50	46	42	38	35	31	27	23	19	16	12	10
1990 Male	50	46	42	39	36	32	28	24	21	18	14	11	9
1990Female	52	48	44	40	37	33	29	26	22	19	15	12	9
200 Male	51	34	33	31	28	26	24	21	19	17	16	14	11

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

Differentials by residence in Figures 8.25 and 8.26 show that adults in urban areas have higher chances of surviving to older ages than in rural 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 15 and 30 in rural areas and 20 and 50 years

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

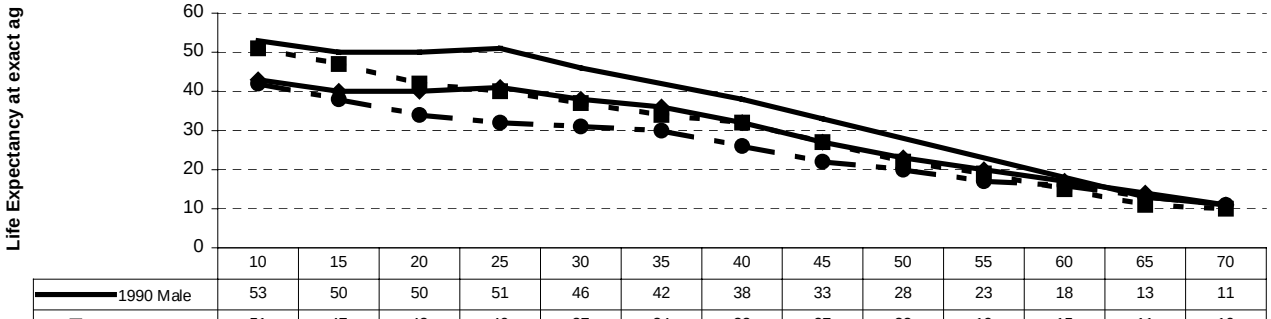


	10	15	20	25	30	35	40	45	50	55	60	65	70
1990 Male	46	42	36	32	27	23	20	16	14	12	12	10	9
1990Female	42	36	29	25	23	20	19	18	17	15	14	11	10
2000 Male	32	29	26	23	20	18	16	14	13	12	12	12	11
2000 Female	32	28	23	21	20	20	20	19	18	18	19	16	14

Exact Age (Years)

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

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



	10	15	20	25	30	35	40	45	50	55	60	65	70
1990 Male	53	50	50	51	46	42	38	33	28	23	18	13	11
1990Female	51	47	42	40	37	34	32	27	22	19	15	11	10
2000 Male	43	40	40	41	38	36	32	27	23	20	17	14	11
2000 Female	42	38	34	32	31	30	26	22	20	17	16	13	11

Exact Age (Years)

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

The figures also show that there is no major difference in the decline in life expectancy in rural and urban areas. At ages 20-35 years, there has been a decline of between 6 to 10 years for males and 4 to 8 years for females in both rural and urban areas.

8.8 Summary

Overall, infant mortality rate has declined in North-Western province by about 19 percent. Despite the decline, 1 in 24 infants, currently die before their first birthday compared to 1 in 19 in 1980. At district level, Kasempa registered the highest infant deaths while Chavuma registered the least. In Kasempa District 1 in 21 infants die before their first birthday compared to 1 in 29 in Chavuma district. Higher Infant mortality risks are associated with mothers who live in a rural area, with less education, widowed or living together, and not working.

There was a 19 percent decline in Child Mortality Rate (CMR) between 1990 and 2000, from 75 to 56. However, the 2000 level is still above that of 1980 (50 deaths per 1000). At the district level CMR was highest in Kasempa (68) and lowest in Chavuma (43). Higher incidents of dying among children aged between exact age 1 and 5 were observed in those born to rural mothers, widowed and cohabiting mothers, mothers with a low level of education (primary), and non-working.

The Under five Mortality Rate has increased in North-western Province between 1990 and 2000 by about 9 percent. Currently, UMR is 137 compared 95 in 1980. At district level, Chavuma district (110) recorded the least under-five deaths and Kasempa district recorded the highest (158). Higher UMRs were associated with mothers from rural areas, with a low level education, non-working, widowed and cohabiting mothers.

Life expectancy at birth in North-western Province increased by about 5 years between 1990 and 2000, from 51 to 56 years. At district level, Kasempa district registered the lowest life expectancy at birth of 52 years, while Chavuma had the highest at 59 years. Low Life Expectancy at Birth is also associated with babies born to rural mothers, widowed or cohabiting mothers, mothers with a low level educational (primary).

Adult life expectancy levels in North western Province decreased between 1980 and 2000. The decrease may be attributed to the HIV/AIDS pandemic. Adults in urban areas have higher chances of surviving to older ages than in rural areas.

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

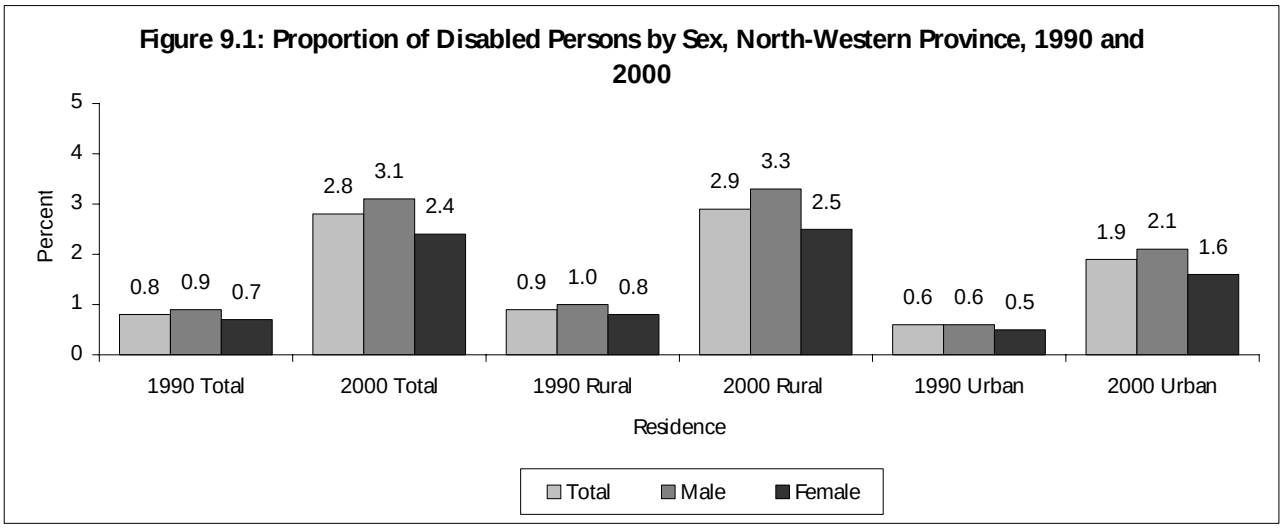
Out of a total population of 539,822; 14,963 reported to be disabled; a proportion of 2.8 percent (see Table 9.2 and Figure 9.1). The proportion of the disabled for the province compared with the national average (2.8 percent against 2.7 percent in 1990 and 0.8 percent against 0.9 percent for North Western province and the national average respectively). For both the province and the national average the highest proportions of the disabled are in rural areas as opposed to urban areas. An examination of the distribution 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.

Table 9.2: Proportion of the Disabled by Sex and Residence, North-Western Province, 1990 and 2000

Sex and year	Total Population			Proportions Of The Disabled		
	Total	Rural	Urban	Total	Rural	Urban
1990						
Zambia Total	7,383,097	4,477,814	2,905,283	0.9	1.1	0.7
North Western	387,552	331,465	56,087	0.8	0.9	0.6
Male	185,038	157,918	27,120	0.9	1	0.6
Female	202,514	173,547	28,967	0.7	0.8	0.5
2000						
Zambia Total	9,337,425	5,990,356	3,347,069	2.7	3.2	0.2
North Western	539,822	468,796	71,026	2.8	2.9	1.9
Male	265,084	230,334	34,750	3.1	3.3	2.1
Female	274,738	238,462	36,276	2.4	2.5	1.6

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

Rural-urban differentials exist in terms of proportions of persons with disabilities. Of the total rural population, 2.9 percent is disabled compared to 1.9 percent in urban areas. Differences also exist between males and females. In both rural and urban areas, the proportion of the disabled is higher for males than females.

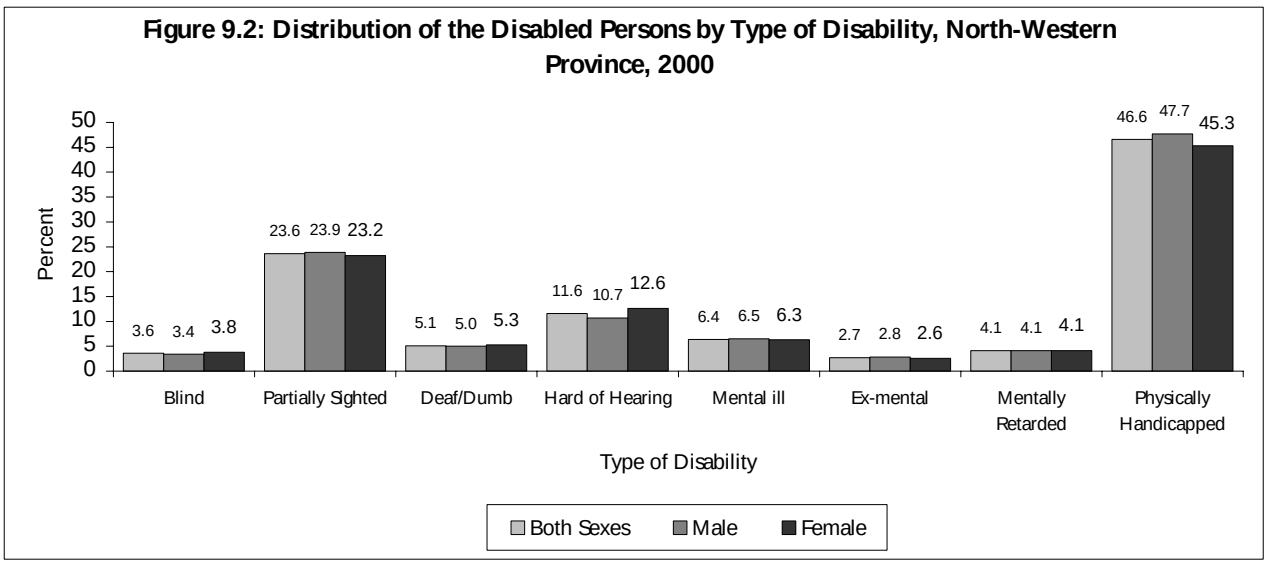


Sources: CSO, 1990 and 2000 Censuses of Population and Housing

9.5 Types of Disability

Figure 9.2 and Table 9.3 show the percent distribution of the disabled by type of disability and residence. Out of a total of 14,963 persons reported to be disabled in North Western Province, 6,614 are female and 8,349 are male. A comparison of the districts shows that Solwezi has the largest proportion of persons with disabilities while Chavuma has the least.

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. The physically handicapped form the largest proportion of the disabled persons. These form 46.6 percent of the disabled persons. The second most common disability is partial sightedness, which was reported by 23.6 percent of the disabled population. This scenario is the same as that of the national average; however, the physically handicapped provincial proportion is higher than the national one, while the partially sighted one is lower. Some disability categories such as blindness (3.6 percent), ex-mental (2.7 percent) and mental retardation (4.1 percent) are less common. The pattern of the distribution of disabled persons by type is similar for both males and females and across districts.



Source: CSO, 2000 Census of Population and Housing

Table 9.3: Percent Distribution of the Disabled by Type of Disability and Residence, North-Western, 2000

Type of Disability and Sex	Zambia Total	North-Western	Chavuma	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
Total disabled	256,690	**14,963**	**1,016**	**1,903**	**1,456**	**1,207**	**2,705**	**4,691**	**1,985**
Blind	5.3	3.6	2.5	4.9	1.9	3.6	4	3.5	3.8
Partially sighted	30.2	23.6	23.7	21.6	24.8	23.3	21.9	25.3	23.1
Deaf/dumb	6.2	5.1	3.9	6	6.4	4.9	4.7	5	4.8
Hard of hearing	12.4	11.6	12.8	10.8	12	11.1	12.5	10.8	12.2
Mentally ill	8.1	6.4	6	4.8	9.8	8.3	5	6.8	5.7
Ex-mental	3.6	2.7	2.8	2	2.3	2	2.8	3.3	2.4
Mentally retarded	5.4	4.1	4.3	3.4	6	3.3	4.8	4.1	2.8
Physically handicapped	38.8	46.6	47	48.5	42.7	51.3	46.4	44.4	50.1
Male	135,613	**8,349**	**567**	**1,120**	**794**	**693**	**1,472**	**2,594**	**1,109**
Blind	5	3.4	2.5	4.6	1.8	3.3	3.6	3.5	3
Partially sighted	27.7	23.9	22.9	22.9	25.1	22.4	22.4	25.4	23.8
Deaf/dumb	6.2	5	3.5	5.3	7.1	4.9	4.1	5	4.9
Hard of hearing	11.5	10.7	10.9	10	11.5	11.3	12.1	9.9	10.6
Mentally ill	8.8	6.5	5.8	4.8	9.6	7.8	5.4	7	6
Ex-mental	3.7	2.8	3	2.1	2.3	2.5	3.1	3.2	2.9
Mentally retarded	5.6	4.1	5.1	2.9	5.9	3	5.6	4	2.3
Physically handicapped	40.7	47.7	48.9	50.6	42.6	52.5	46.7	45.4	51.4
Female	121,077	**6,614**	**449**	**783**	**662**	**514**	**1,233**	**2,097**	**876**
Blind	5.6	3.8	2.4	5.2	2	3.9	4.5	3.3	4.9
Partially sighted	33	23.2	24.7	19.8	24.5	24.5	21.2	25.1	22.1
Deaf/dumb	6.2	5.3	4.5	7.2	5.6	4.9	5.4	5.1	4.7
Hard of hearing	13.3	12.6	15.1	11.9	12.5	10.9	13.1	11.9	14.4
Mentally ill	7.3	6.3	6.2	4.9	10	8.9	4.5	6.4	5.3
Ex-mental	3.6	2.6	2.4	2	2.4	1.4	2.4	3.5	1.8
Mentally retarded	5.3	4.1	3.3	4.2	6	3.7	3.9	4.1	3.5
Physically handicapped	36.7	45.3	44.8	45.5	42.7	49.6	46.1	43.2	48.5

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.

Partial sightedness is most common in Solwezi district (25.3 percent) and least in Kabompo (21.6 percent) district. A comparison of the districts as regards the physically disabled shows that it is most common in Zambezi district with 47.7 percent and least in Kasempa with 40.4 percent.

9.6 AGE STRUCTURE OF THE DISABLED

The age structure of the disabled is shown in Table 9.4. Data shows that the number of the disabled increases with increasing age up to age group 15-19, decreases in the age group 20- 24 and increases again from 25- 29 and 30-34 at which it reaches the peak and then it starts declining up to age group 45-49. After this age group, the numbers fluctuate. Across age groups 0-4 to 70-74, 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, North-Western, 2000

	Type of Disability								
Age group	**Total**	**Blind**	**Partially Sighted**	**Deaf/Dumb**	**Hard of Hearing**	**Mentally ill**	**Ex Mental**	**Mentally Retarded**	**Physically Handicapped**
0 - 4	580	3.4	12.9	8.4	11.2	6.0	2.6	3.8	48.6
5-9	905	2.1	13.1	12.8	14.9	7.3	2.7	5.4	39.6
10-14	910	1.3	13.6	13.0	14.3	7.9	3.1	6.2	41.1
15 - 19	1,042	1.5	14.7	7.5	11.4	9.3	3.1	7.0	45.2
20 - 24	968	1.2	17.1	4.4	9.1	11.8	3.8	7.5	46.2
25 - 29	1,027	1.8	15.9	4.1	9.7	12.2	4.5	5.6	48.0
30 - 34	1,060	1.9	17.0	5.6	8.2	9.0	4.0	5.3	51.2
35 - 39	934	2.1	15.5	4.3	9.3	6.5	3.5	5.1	51.4
40 - 44	836	2.8	20.2	5.0	9.9	7.1	3.0	3.3	51.0
45 - 49	791	3.2	25.3	2.1	8.8	4.4	2.4	3.0	52.1
50 - 54	893	3.7	28.6	3.5	9.1	4.1	1.5	3.1	47.7
55 - 59	776	4.0	29.8	2.2	9.9	4.1	1.9	3.1	50.9
60 - 64	987	5.6	31.0	1.8	11.7	4.0	2.2	1.6	47.6
65-69	894	4.1	33.2	2.8	11.9	2.7	1.7	2.2	48.9

70-74	834	7.3	39.8	1.7	15.8	2.4	1.9	2.2	42.7
75+	1,526	8.7	40.4	3.7	16.8	3.2	1.5	1.4	39.6
Total	14,963	4.7	27.1	2.0	10.9	2.1	0.8	0.8	26.1

Source: CSO, 2000 Census of Population and Housing

9.7 Causes of Disability

The various causes of disability were categorized as prenatal, disease, injury and other. Of these, the most common cause is disease, which was reported by 40.0 percent of the disabled population. This is in line with what is depicted on the national level where more than three-thirds (38.9 percent) were disabled due to disease/illness. The pattern is also the same for both males and females in both cases. Prenatal causes were reported by 11.2 percent, injury by 20.0 percent, and other by 8.9 percent while 18.5 percent reported that they did not know the cause of their disability.

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 females and males reporting prenatal causes are more or less the same males (11.0 percent) against females (11.5 percent) respectively.

Among the districts, the percentage citing disease/illness is highest in Zambezi (44.2 percent) and least in Solwezi with 37.7 percent.

Table 9.5: Percent Distribution of the Disabled by Province and Cause, North-Western, 2000

Cause of disability	Zambia	Total	Chavuma	Kabompo	Kasempa	Mufumbwe	Mwinilunga	Solwezi	Zambezi
Total	**256,690**	14,963	1,016	1,903	1,456	1,207	2,705	4,691	1,985
Congenital/pre-natal	13.7	11.2	14.1	10.9	13.7	14.6	10.3	10.3	9.7
Disease/illness	38.9	40	40.4	42	39.7	43.3	38.3	37.7	44.2
Injury/accident/trauma	17.2	20	17.5	19.4	20.1	21.5	22.3	21.7	13.7
Other	9.3	8.4	8.3	8.6	8.6	5.4	8.3	9	8.8
Unknown	20.2	18.5	16.8	14.6	20.3	15	19	19.8	20.5
Male	**135,613**	8,349	567	1,120	794	693	1,472	2,594	1,109
Congenital/pre-natal	13.7	11	12.5	10.6	12.6	14.7	11.5	10	8.7
Disease/illness	36.3	36.8	38.3	41	35.8	38.4	34.1	34.2	41.6
Injury/accident/trauma	20.7	23.9	21.3	21.9	23.8	27.1	27.1	25.6	16.9
Other.	8.9	8.2	7.1	7.9	8.2	5.1	8.1	9.3	8.9
Unknown	19.4	18	18.7	13.5	20.8	14.6	17.6	19	20.6
Female	**121,077**	6,614	449	783	662	514	1,233	2,097	876
Congenital/pre-natal	13.7	11.5	16	11.2	15	14.4	8.8	10.7	11
Disease/illness	41.9	44.1	43	43.6	44.4	50	43.2	42	47.6
Injury/accident/trauma	13.2	15.1	12.7	16	15.6	14	16.5	16.8	9.7
Other	9.7	8.6	9.8	9.5	9.1	5.8	8.5	8.7	8.7
Unknown	21	19.2	14.5	16.2	19.6	15.6	20.6	20.7	20.2

Source: CSO, 2000 Census of Population and Housing

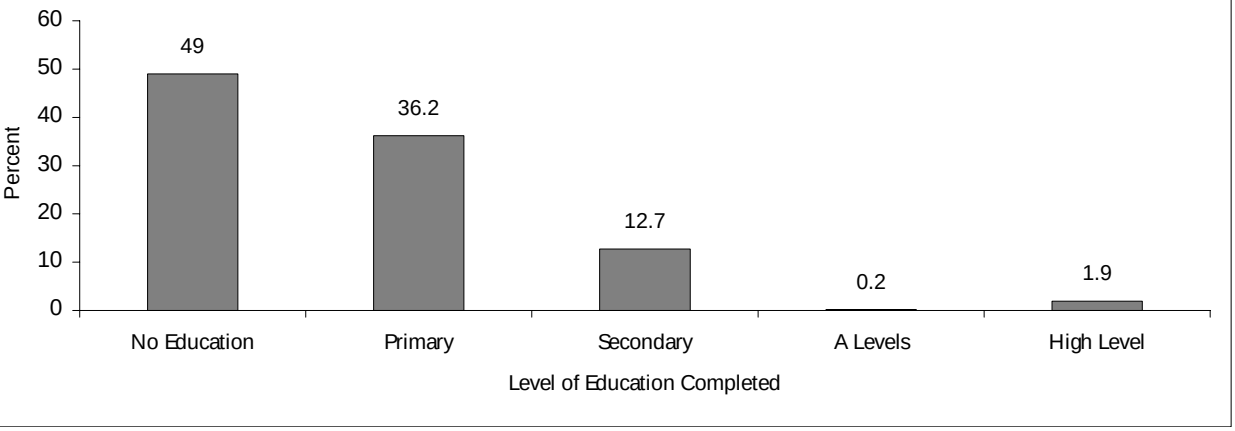
Note: It is worth noting that the percentages will not necessarily add up to 100 because some persons reported more than one cause of disability.

Education Levels of the Disabled

ure 9.3 and Table 9.6 show the percent distribution of the disabled population, 5 years and older, by type of disability and level of education. About half of these persons have had no education while a little over one third have completed primary education. Proportions of those who have had no education range from 54 percent among the physically disabled to 82 percent among the blind.

e proportion of those who have never attended school is highest among the deaf/dumb 62.3 percent. The highest proportion of those who completed higher education is among the partially sighted.

Figure 9.3: Distribution of the Disabled Population, 5 Years and Older by Level of Education, North-Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

Table 9.6: Percent Distribution of the Disabled Population, 5 Years and Older, by Type of Disability and Level of Education, North-Western, 2000

Type of Disability	Level of Education Completed						
	Total Number	Percent Total	No Education	Primary	Secondary	A Levels	Higher Level
Blind	1,310	100	81.9	14.0	3.1	0.0	1.0
Partially Sighted	9,067	100	57.8	30.7	9.7	0.1	1.6
Deaf/Dumb	2,111	100	79.6	15.5	3.8	0.0	1.1
Hard of Hearing	4,363	100	64.5	29.5	5.5	0.0	0.6
Mentally ill	3,254	100	61.2	25.5	11.4	0.2	1.7
Ex-mental	1,305	100	55.6	29.2	13.8	0.0	1.3
Mentally Retarded	2,131	100	68.4	24.8	5.2	0.2	1.4
Physically Handicapped	14,358	100	54.0	34.2	10.2	0.2	1.4
Total	35,729	100	49.0	36.2	12.7	0.2	1.9

Source: CSO, 2000 Census of Population and Housing

Economic Activity of the Disabled

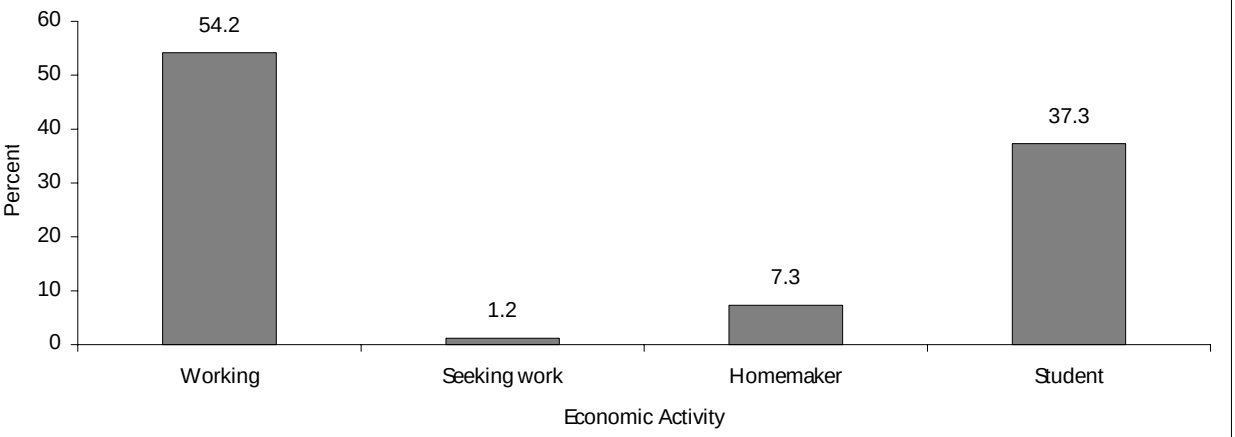
ble 9.7 and Figure 9.4 show the economic activities of the disabled persons. Over half of the disabled persons in this province are working (54.2 percent) and over one third are students (37.3 percent). The percentage of the disabled who are working is almost equal to the national average, while that of students is higher than the national average (54.2 percent against 55.5 percent for the working and 37.3 percent against 33.1 percent for students). Among the blind, 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 Older by Type of Disability and Economic Activity, Zambia, 2000

Usual Economic Activity	Type of Disability									
	Zambia Total	North-Western Total	Blind	Partially Sighted	Deaf/Dumb	Hard of Hearing	Mentally ill	Ex Mental	Mentally Retarded	Physically Handicapped
Working	55.5	54.2	28.8	58.7	48	55.6	31.5	54.7	39.1	55
Seeking work	2.6	1.2	0.4	1.2	1.6	0.7	1.3	1.6	0.4	1.1
Homemaker	8.8	7.3	2	6.4	6.9	6.9	6.2	6.6	7.4	7.2
Student	33.1	37.3	68.8	33.7	43.5	36.7	61.1	37	53.1	36.7
Percent Total	100	100	100	100	100	100	100	100	100	100
Total Number	194,039	11,938	459	3,001	492	1,348	779	316	499	5,624

Source: CSO, 2000 Census of Population and Housing

Figure 9.4: Distribution of the Disabled Persons, 12 years and Older by Economic Activity, North-Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

9.10 Occupation of the Disabled

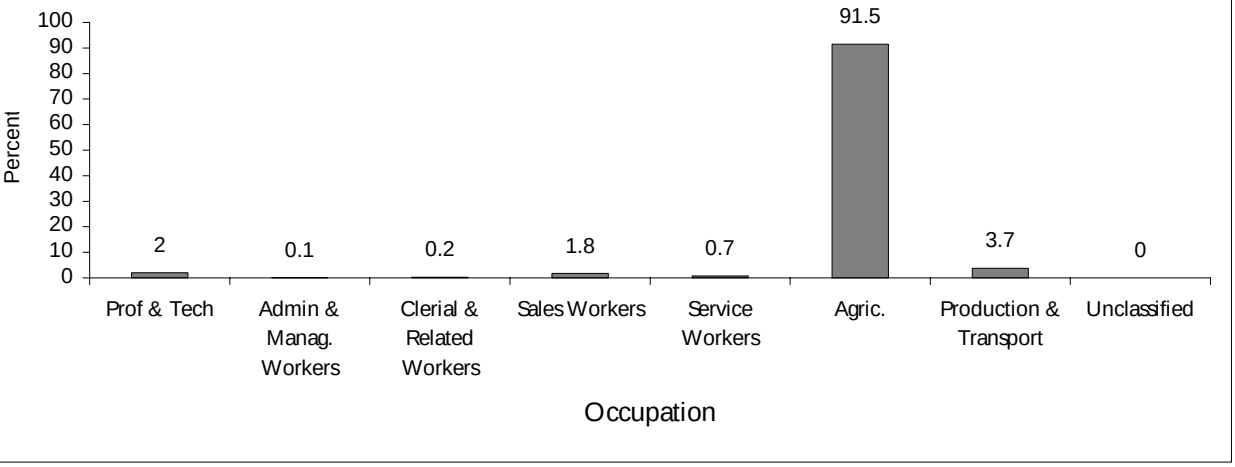
ta on occupation of the disabled persons was also collected during the 2000 census. Table 9.9 and Figure 9.5 show that the most common occupation among the disabled is agriculture, husbandry, forestry and fishing (91.5 percent). The rest of the occupation categories are not common.

Table 9.9: Percent Distribution of the Usually Working Disabled Persons by Type of Disability and Occupation, North-Western, 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	120	100.0	1.7	0.8	0.8	0.8	0.0	94.2	1.7	0.0
Partially Sighted	1,692	100.0	3.3	0.2	0.2	2.2	0.6	89.8	3.6	0.1
Deaf/Dumb	219	100.0	0.0	0.0	0.0	0.9	0.0	96.3	2.7	0.0
Hard Hearing	721	100.0	0.7	0.0	0.0	1.0	0.6	94.9	2.9	0.0
Mentally ill	234	100.0	0.4	0.0	0.0	3.4	0.9	92.7	2.6	0.0
Ex Mental	163	100.0	1.2	0.0	0.0	2.5	0.6	92.6	3.1	0.0
Mentally Retarded	183	100.0	0.0	0.0	0.0	2.2	1.1	93.4	3.3	0.0
Physically Handicapped	2,951	100.0	2.1	0.0	0.3	1.6	0.8	90.9	4.2	0.0
Total	6,283	100.0	2.0	0.1	0.2	1.8	0.7	91.5	3.7	0.0

rce: CSO, 2000 Census of Population and Housing

Figure 9.5: Distribution of the Usually Working Disabled Persons by Occupation, North-Western Province, 2000



rce: CSO, 2000 Census of Population and Housing

1 Employment Status of the Disabled Household Heads

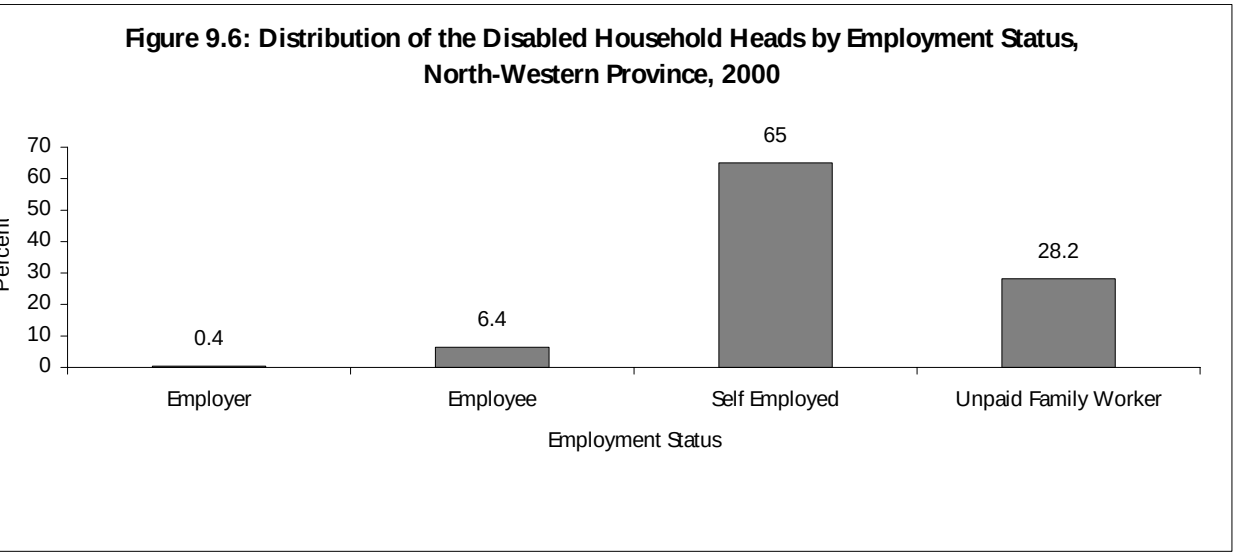
Table 9.9 and Figure 9.6 show the percent distribution of the disabled household heads by type of disability and employment status. About two thirds of the household heads are self employed and just over a quarter are family workers. Amongst all categories of disability, the largest proportions of the disabled are self-employed and the least proportion is among the employers. None of the mentally ill, ex mental and retarded is an employer.

Table 9.10: Percent Distribution of the Disabled Household Heads by Type of Disability and Employment Status, North-Western Province, 2000

Disability	Total Number	Percent Total	Employer	Employee	Self Employed	Family Worker
Blind	95	100	0.5	7.7	65.1	26.7
Partially Sighted	1,262	100	0.2	2.1	65.0	32.8
Deaf/Dumb	104	100	0.0	1.9	64.4	33.7
Hard of Hearing	382	100	0.3	2.4	68.6	28.8
Mentally Ill	111	100	0.0	4.5	68.5	27.0
Ex-Mental	165	100	0.0	4.5	68.5	27.0
Mentally Retarded	114	100	0.0	1.8	64.9	33.3
Physically Handicapped	1,974	100	0.4	7.4	65.3	27.0
Total	4,216	100	0.4	6.4	65.0	28.2

Source: CSO, 2000 Census of Population and Housing

Figure 9.6: Distribution of the Disabled Household Heads by Employment Status, North-Western Province, 2000



Source: CSO, 2000 Census of Population and Housing

9.12 Summary

Out of the total population of North-western province of 539,822, 2.8 percent is disabled. The proportion of the disabled is higher in rural than urban areas. There are more disabled male (56 percent) than female (44 percent).

Physical disability is the most common type of disability affecting about 46.6 percent of the disabled population while the ex mental forms the smallest proportion of 2.7 percent.

ease is the most common cause of disability reported by about 40.0 percent of the disabled population. Prenatal causes were reported by 11.2 percent, injury by 20.0 percent, and other causes by 8.4 percent while 18.5 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.

garding education, 49 percent of disabled persons age 5 years and over, have never been to school and 36.2 percent have completed primary education. Of all the disabled household heads 12 years and over, about two thirds are self-employed while the least proportion in this group is of employers. The most common occupation among the disabled is agriculture, which takes up about 91.5 percent.

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Appendix A

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