

EDUCATION CHARACTERISTICS

5.0. Introduction

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

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

The embracement and implementation of these largely over ambitious policies of economic liberalization and privatization as blueprints for socio-economic transformation under Structural Adjustment Programme (SAP), adversely affected all sectors of the economy including education. These new economic measures resulted in increased poverty levels, which manifested themselves in high unemployment, poor performance of the agriculture, education and health sectors, 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.

5.1. Census undertaking and Education

There are four main sources of education statistics in Zambia:

- Annual school censuses (sometimes supplemented by school surveys) conducted by the Ministry of Education
- 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 such as districts and constituencies. For any conscious policy target setting, there is need to identify areas where primary, secondary or tertiary school attendance is particularly poor.

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

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

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

5.2. 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, by an individual. The term "Education" is understood to comprise all deliberate, systematic and organized communication designed to bring about learning.

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

- Level 0: Early childhood Education programmes
- Level 1: Primary education programmes
- Level 2: Junior Secondary Education programmes (Also referred to as Upper Basic education)
- Level 3: Upper Secondary Education programmes (Also referred to as High School education)
- Level 4: "A" Level Education programmes (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 formal education system in Zambia. According to the 1996 education policy, the government of Zambia intends to abolish grade 7 examinations by 2015 in order to achieve universal education up to grade 9.

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

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

School Attendance

School attendance in population censuses is defined as attendance at any accredited educational institution or programme, public or private, for organized learning at any level of education. The primary school entry age in Zambia is seven years.

Taking the admission age to grade 1 as 7 years, the following age-grade match applies for a given educational level:

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

However, there are in most cases age-grade mismatches arising from either early or late entries in 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 above attending a specified education level to the applicable official school-age population. In some instances where there is rampant under-age and over-age enrolment, the ratio can be over 100 percent. This indicator is mainly used to measure the absorption capacity of an education system at any designated level.

Net School Attendance Rate

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

Academic Education Completed

This is the highest level of formal education that an individual has attained or completed regardless of duration in school. Education qualifications acquired such as certificate, diploma, 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.

5.3. Literacy

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

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

It is a well-known fact that a literate nation is more likely to develop than an illiterate one since the former is much more knowledgeable about realities of life. Table 5.1 shows that in the year 2000 the literacy rate for the population aged 5 years and above still remained at the 1990 level of 55.3 percent. Results further show that the problem of illiteracy has still remained more common among females than males since 1990. The table reveals that one in every two females (49.8 percent) was illiterate compared to almost two in every five males (39 percent).

The problem of illiteracy was more pervasive among the rural population, particularly among the females than the urban population. In rural areas, the proportion of the population that could read and write in any language stagnated at about 45 percent between 1990 and 2000. More than half of the rural population aged 5 years and above were illiterate compared to only a third of the urban population. Whilst there was no improvement in literacy levels in rural areas, the urban population registered a slight increase from 71 percent in 1990 to 73 percent in 2000.

Regional analysis of literacy rates reveals that Eastern province still has the lowest literacy rate followed by North-western province since 1990. The highest rates have been observed in Copperbelt and Lusaka provinces. Only four provinces namely, Copperbelt, Lusaka, North-western and Western provinces have revealed slight increases in the proportions of the literate population between 1990 and 2000. With the exception of Luapula province, which has shown a slight decline, the remaining provinces have more or less stagnated in terms of literacy levels since 1990 (Refer to Table 5.1).

5.3.2. Literacy Levels for the Population Aged 15 - 24 years (Youth Literacy)

Youth literacy rate declined from 74.9 percent in 1990 to 70.1 percent in 2000. The drop in the proportion of the population aged 15 to 24 years was more drastic among females than the males. In 2000, only one quarter of the male as opposed to one third 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 phenomenon. For instance in 2000, 41 percent of the youths in rural areas compared to 14 percent in urban areas were illiterate. In rural areas, about 47 percent of the female youths were illiterate compared to only 16 percent of female youths in urban areas. The youth literacy rate in rural areas declined from 64.7 percent to 59.5 percent between 1990 and 2000. The rate also dropped in urban areas by almost 3-percentage points, from 88.7 percent in 1990 to 86.3 percent in 2000.

During the 1990 and 2000 intercensal period, Eastern province still had the lowest youth literacy rate followed by North-western, Luapula and Northern province. The provinces with the highest proportion of literate youths were Copperbelt and Lusaka provinces. In 1990, youth literacy rates ranged from 54.2 percent in Eastern province to 88.2 percent in Copperbelt province. In 2000, the rate varied from 49.9 percent in Eastern province to 84.6 in Copperbelt province. However, all the 9 provinces registered declines in youth literacy rate between 1990 and 2000 (Refer to table 5.1).

5.3.3. Literacy Levels for the Population Aged 15 years and above (Adult literacy rates)

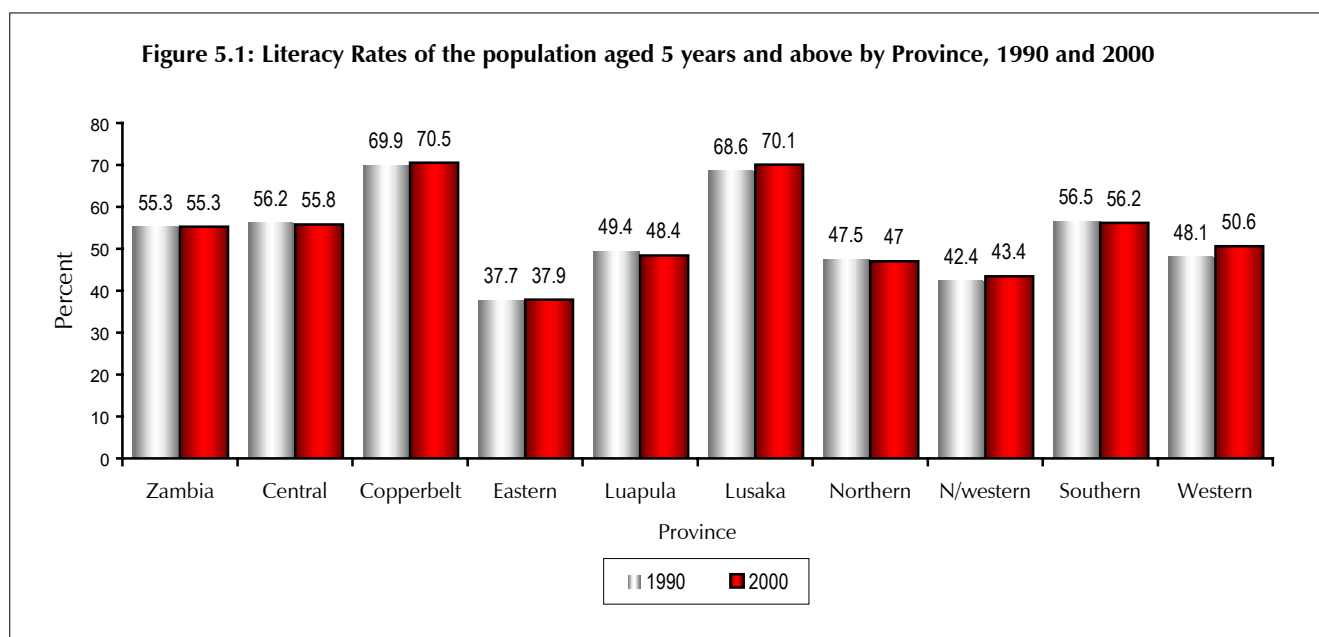
Adult literacy rate slightly increased from 66.0 percent to 67.2 percent between 1990 and 2000. The proportion of female adults who were literate increased by 2 percentage points, from 56.3 to 58.3 percent while the male rate marginally increased by less than 1 percentage point, from 76.2 to 76.6 percent. In rural and urban areas, the rates increased by about 3 and 1 percentage points over the 1990 levels of 54.4 and 83.6 percent respectively. By 2000, more than half of the female adults in rural areas were illiterate compared to about 1 fifth of the females in urban areas.

Copperbelt and Lusaka provinces had the highest rates of adult literacy of more than 80 percent, while Eastern followed by North-western provinces had the lowest rates of 47.6 and 53.4 percent by 2000, respectively. All provinces recorded slight increases in adult literacy rates except for Luapula province (Refer to Table 5.1).

Table 5.1: Literacy Rate by Age Group, Sex, Residence and Province, 1990 and 2000

Residence	1990				2000			
	5+	15 – 24	15+	Population	5+	15 – 24	15+	Population
Zambia - Total								
Both Sexes	55.3	74.9	66.0	6,181,285	55.3	70.1	67.2	7,680,705
Male	61.6	78.9	76.2	3,020,157	61.1	75.4	76.6	3,768,501
Female	49.2	71.2	56.3	3,161,128	49.8	65.5	58.3	3,912,204
Rural								
Both Sexes	44.7	64.7	54.4	3,735,912	45.0	59.5	56.7	4,889,359
Male	52.0	70.3	66.7	1,795,668	51.7	66.5	68.1	2,382,948
Female	38.0	59.6	43.7	1,940,244	38.5	53.3	46.4	2,506,411
Urban								
Both Sexes	71.5	88.7	83.6	2,445,373	73.5	86.3	84.8	2,791,346
Male	75.7	90.7	89.7	1,224,684	77.2	89.1	90.3	1,385,553
Female	67.3	86.9	77.5	1,220,689	69.8	83.9	79.3	1,405,793
Province								
Central	56.2	74.8	66.4	605,237	55.8	71.1	68.5	785,123
Copperbelt	69.9	88.2	82.1	1,206,682	70.5	84.6	82.4	1,287,161
Eastern	37.7	54.2	46.4	806,940	37.9	49.9	47.6	994,607
Luapula	49.4	69.5	61.6	439,397	48.4	62.3	61.5	590,464
Lusaka	68.6	85.5	80.7	827,425	70.1	82.0	81.1	1,125,985
Northern	47.5	68.0	59.1	707,424	47.0	62.3	60.1	952,185
N/western	42.4	64.5	49.2	324,605	43.4	59.3	53.4	436,354
Southern	56.5	77.1	68.6	748,779	56.2	73.4	70.2	921,109
Western	48.1	70.4	54.9	514,796	50.6	66.8	59.6	587,717

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



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

5.4. 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 shows the population aged 5 years and above presently attending school. Overall, the proportion of the population presently attending school slightly increased from 25.8 percent in 1990 to 26.7 percent in 2000. Since 1990, there have been proportionately more males attending school than females. However, the percentage of both males and females attending school marginally increased between 1990 and 2000 from 28.1 and 23.6 percent to 28.7 and 24.9 percent, respectively.

During the same period under review, there was an increase in the proportion of children aged 5 to 14 years presently attending school between 1990 and 2000. This population cohort almost befits the official primary school age population. Marginal declines were recorded for the secondary and tertiary school age population (15 – 29 years).

Table 5.2: Percentage of the Population age 5 years and above Presently Attending School by Sex and Age Group, Zambia, 1990 and 2000

Age	1990				2000			
	Both Sexes	Male	Female	Population	Both Sexes	Male	Female	Population
Zambia - Total	25.8	28.1	23.6	6,181,285	26.7	28.7	24.9	7,680,705
5 – 9	28.8	27.9	29.6	1,119,610	35.7	34.7	36.7	1,461,082
10 – 14	66.4	66.8	66.0	1,029,829	71.7	72.0	70.6	1,205,646
15 – 19	47.3	56.3	38.8	940,741	46.1	54.9	37.9	1,069,996
20 – 24	13.3	19.4	8.1	711,462	10.8	15.1	7.1	908,672
25 – 29	4.0	5.1	3.0	533,240	3.8	4.6	3.1	741,148
30 – 44	2.4	2.9	1.8	992,521	2.9	3.5	2.2	1,313,636
45+	1.0	1.2	1.0	853,883	1.6	2.2	1.0	980,525

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

The 1990 and 2000 census results further reveals that almost one in every five persons in rural areas of Zambia was attending school, as opposed to one in every three in urban parts of the country. However, there was some increase in the proportion of the rural population attending school from 20.9 percent in 1990 to 22.6 percent by 2000. In urban areas, school attendance remained more or less at the 1990 levels.

Table 5.3: Percentage of the Population age 5 years and above Presently Attending School by Residence and Age Group, 1990 and 2000

Age	1990				2000			
	Total	Rural	Urban	Population	Total	Rural	Urban	Population
Zambia - Total	25.8	20.9	33.3	6,181,285	26.7	22.6	33.9	7,680,705
5 – 9	28.8	21.0	41.1	1,119,610	35.7	27.1	52.4	1,461,082
10 – 14	66.4	56.0	82.0	1,029,829	71.7	64.6	83.5	1,205,646
15 – 19	47.3	39.7	58.1	940,741	46.1	39.1	57.2	1,069,996
20 – 24	13.3	11.2	16.1	711,462	10.8	7.6	15.2	908,672
25 – 29	4.0	3.6	4.4	533,240	3.8	2.8	5.3	741,148
30 – 44	2.4	2.4	2.4	992,521	2.9	2.4	3.6	1,313,636
45+	1.0	1.0	1.0	853,883	1.6	1.4	2.1	980,525

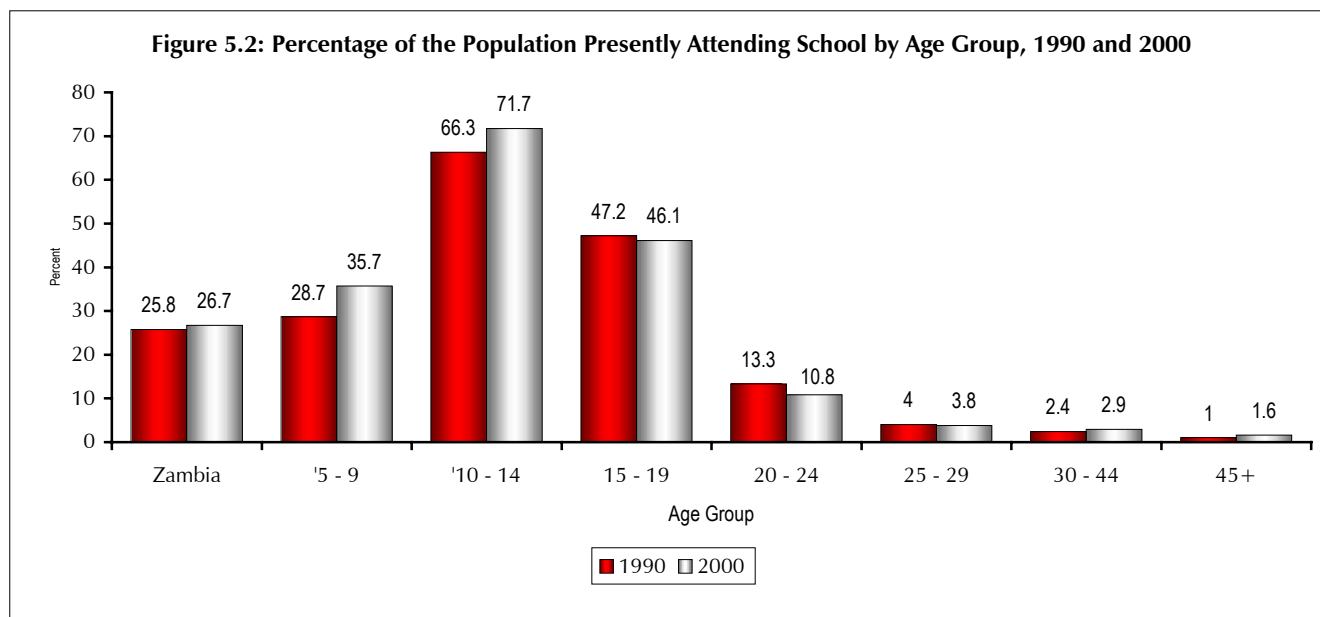
Source: CSO, 1990 and 2000 Census of Population and Housing

Furthermore, variations in the proportion of the population presently attending school in all the nine provinces have been observed. Almost one in every three persons aged five years and above attended school in Copperbelt and Lusaka provinces compared to one in every five in Eastern, Luapula and Western provinces. With the exception of Copperbelt province, the rest of the provinces recorded some increase in the proportion of the population attending school (Refer to table 5.4).

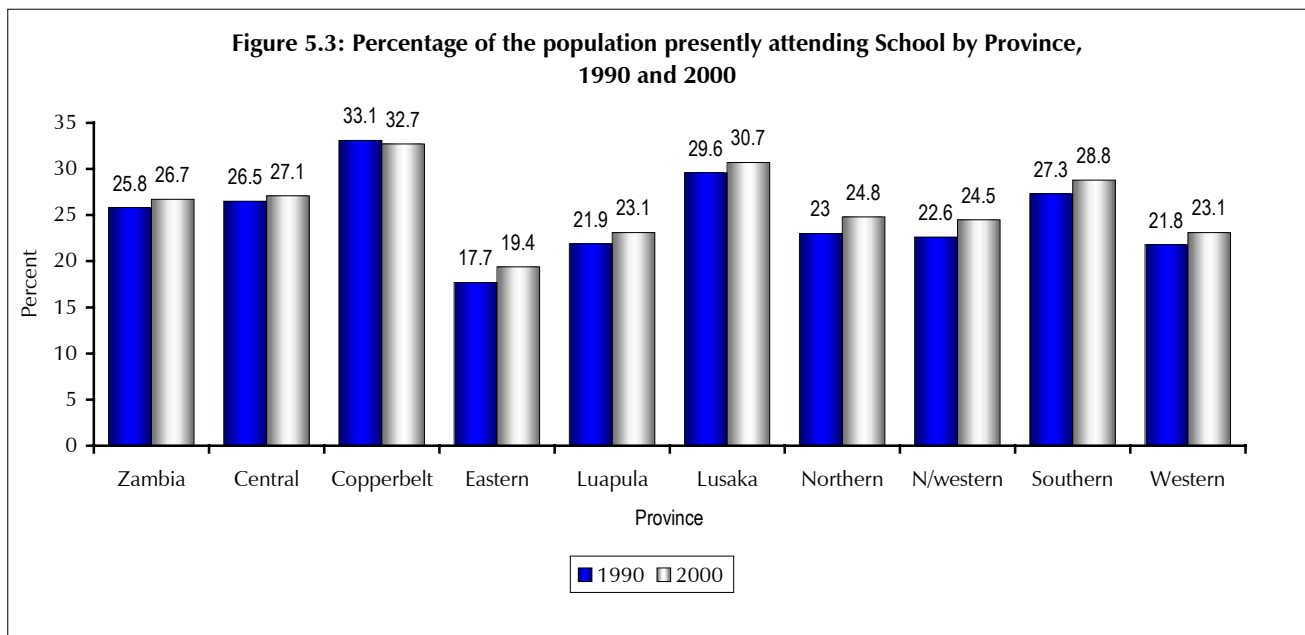
Table 5.4: Percentage of the Population age 5 years and above Presently Attending School by Sex, Residence and Province, 1990 and 2000

Residence and Province	School Attendance Rates							
	1990				2000			
	Both Sexes	Male	Female	Population	Both Boxes	Male	Female	Population
Zambia - Total	25.8	28.1	23.6	6,181,285	26.7	28.7	24.9	7,680,705
Rural	20.9	23.8	18.2	3,735,912	22.6	25.2	20.3	4,856,170
Urban	33.3	34.3	32.3	2,445,373	33.7	34.7	33.1	2,824,535
Province								
Central	26.5	28.2	24.7	605,237	27.1	28.7	25.5	785,123
Copperbelt	33.1	34.0	32.3	1,206,682	32.7	33.5	32.0	1,287,161
Eastern	17.7	20.7	15.0	806,940	19.4	21.9	17.1	994,607
Luapula	21.9	25.0	19.0	439,397	23.1	26.1	20.2	590,464
Lusaka	29.6	30.6	28.6	827,425	30.7	31.1	30.3	1,125,985
Northern	23.0	26.5	19.6	707,424	24.8	28.2	21.5	952,185
North-Western	22.6	25.9	19.6	324,605	24.5	27.3	21.7	436,354
Southern	27.3	29.4	25.2	748,779	28.8	30.7	27.0	921,109
Western	21.8	24.7	19.3	514,796	23.1	25.5	21.0	587,717

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



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



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

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

Analysis of school attendance becomes more meaningful when the data relates to the official school age population. In Zambia the official primary school age range is 7 to 13 years. This population cohort constitutes the target population for offering primary education. However, some of the members of this cohort may not be attending exact primary grades (Grades 1 to 7). Table 5.5 shows that school attendance by the population aged 7 to 13 years had increased from 55.8 percent in 1990 to 62.2 percent in 2000. Both the male and female attendance rates reflected in 2000 increased by more than 5 percentage points over the 1990 levels, which were at 55.4 and 56.2 percent, respectively. For this age cohort, females were more likely to be attending school than their male counterpart (Refer to figure 4).

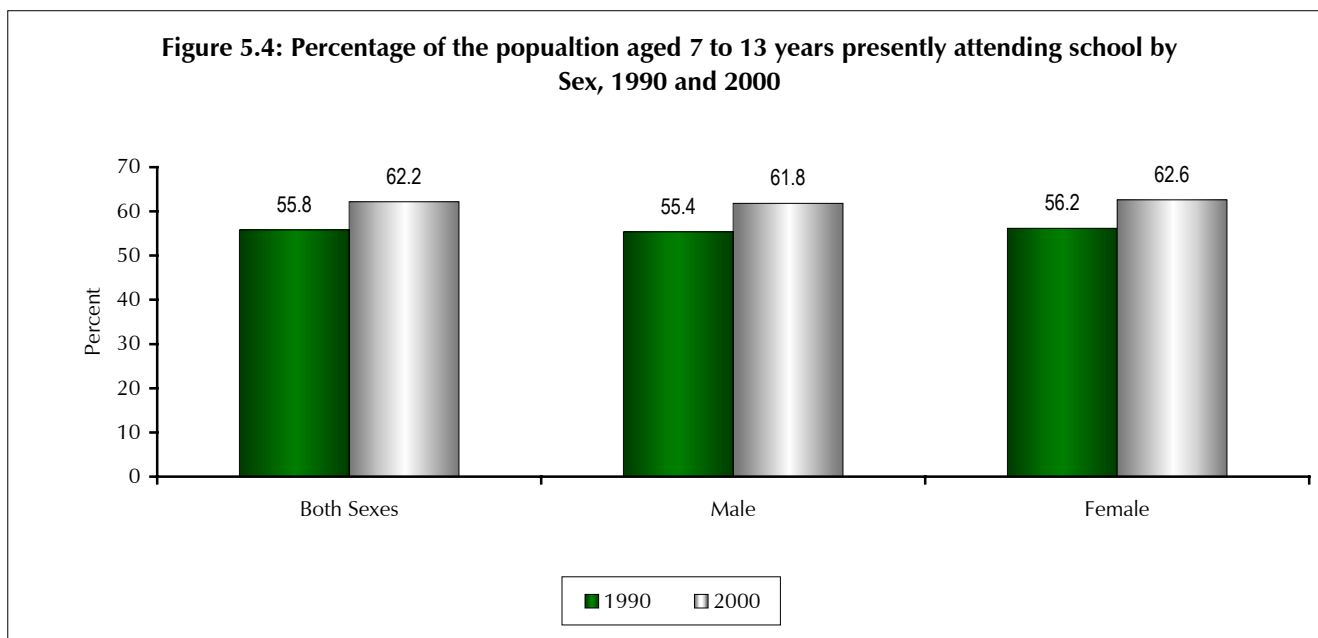
Table 5.5 further shows that in 1990, 44.8 percent of the children aged 7 to 13 years were attending school in rural areas, compared to 72.8 percent in urban areas. The school attendance rates increased to 53.7 and 77.9 percent for rural and urban areas by 2000, respectively. School attendance among rural girls rose by 9 percentage points from about 45 percent in 1990 to 54 percent by 2000. In urban areas, female school attendance rate increased by 5 percent from 73 percent to 78 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 counterparts.

Table 5.5 further reveals that in 1990, Eastern Province (36.1 percent) followed by Northern (46.9 percent) and North-Western Provinces (47.7 percent) recorded the lowest school attendance rates. Copperbelt and Lusaka had the highest rates of 72.3 and 67.5 percent, respectively. By the year 2000, Eastern Province (44.7 percent) followed by North-Western Province (52.3 percent) still registered the least in terms of school attendance of the primary school age children. Conversely, Copperbelt (75.4 percent) and Lusaka Provinces (75.1 percent) recorded the highest rates in 2000. There were increases in school attendance rates in all the nine provinces, with the predominantly rural ones recording significant improvements. In Zambia, all the provinces except Lusaka and the Copperbelt Provinces are predominantly rural. Southern, Northern, Lusaka and Western Provinces revealed significant increases in school attendance between 1990 and 2000. No major sex differences were observed during the 1990-2000 intercensal period, although girls were more likely to be attending school than boys with the exception of Luapula and Northern Provinces. (Refer to Table 5.5 and Figure 5.5).

Table 5.5: Percentage of the Population aged 7 to 13 years Presently Attending School by Sex and Province, 1990 and 2000

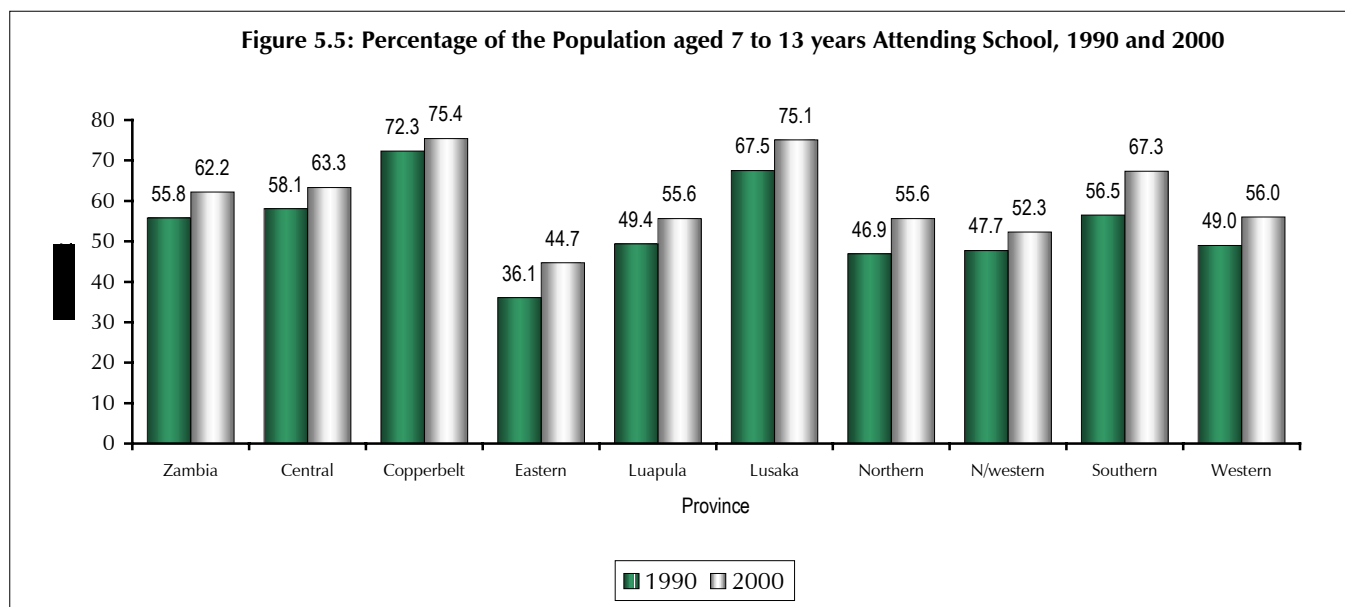
Residence and Province	School Attendance Rates							
	1990				2000			
	Both Sexes	Male	Female	Population	Both Sexes	Male	Female	Population
Zambia - Total	55.8	55.4	56.2	1,486,062	62.2	61.8	62.6	1,826,590
Rural	44.8	44.5	45.0	900,311	53.8	53.6	54.0	1,186,964
Urban	72.8	72.8	72.8	585,751	78.0	77.9	78.2	639,626
Province								
Central	58.1	57.4	58.8	146,430	63.3	62.6	63.9	194,108
Copperbelt	72.3	72.0	72.5	292,138	75.4	74.8	75.9	298,762
Eastern	36.1	35.8	36.4	193,337	44.7	44.1	45.3	239,682
Luapula	49.4	50.0	48.8	104,867	55.6	56.3	54.8	141,123
Lusaka	67.5	67.8	67.3	190,154	75.1	74.9	75.3	244,665
Northern	46.9	47.4	46.3	174,679	55.6	56.8	54.5	234,802
North-Western	47.7	47.3	48.1	76,741	52.3	52.2	52.5	103,855
Southern	56.5	55.7	57.3	189,069	67.3	66.2	68.3	233,378
Western	49.0	47.8	50.1	118,647	56.0	54.9	57.2	136,215

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



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

Figure 5.5: Percentage of the Population aged 7 to 13 years Attending School, 1990 and 2000



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

5.6. 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 for that level. Due to school enrolment and attendance of under and over aged children in primary schools, the ratio is sometimes more than 100 percent. Table 5.6 shows a decline in gross primary school attendance ratio from 82.3 percent in 1990 to 79.1 percent in 2000. The decline was more pronounced among boys, from 85.7 to 81.4 percent, than among girls from 78.9 to 76.8 percent, respectively. Since 1990, children in urban parts of Zambia are more likely to be attending primary school than their rural counterpart. In rural areas, the gross rate barely increased from 70.6 to 71.8 percent between 1990 and 2000. The rate for boys in rural areas stagnated at the 1990 level of about 75 percent, whereas the rate for girls slightly increased from 66.4 percent to 68.7 percent during the same intercensal period. In urban areas, the ratio declined from 100.3 to 92.7 percent between 1990 and 2000. The drop in gross school attendance rate was more pronounced among boys (9.3 percent) than girls (5.8 percent). Since 1990 there has been greater participation in primary education among boys than girls. In 1990 the ratio for boys was much higher than that of girls, 85.7 percent compared to 78.9 percent. This scenario persisted into 2000 with males recording the highest gross ratio of 81.4 compared to 76.8 percent for females. The Gender Parity Index (GPI) based on gross rates increased from 0.92 in 1990 to 0.94 in 2000, an indication of diminishing inequality in terms of participation of girls and boys in primary education.

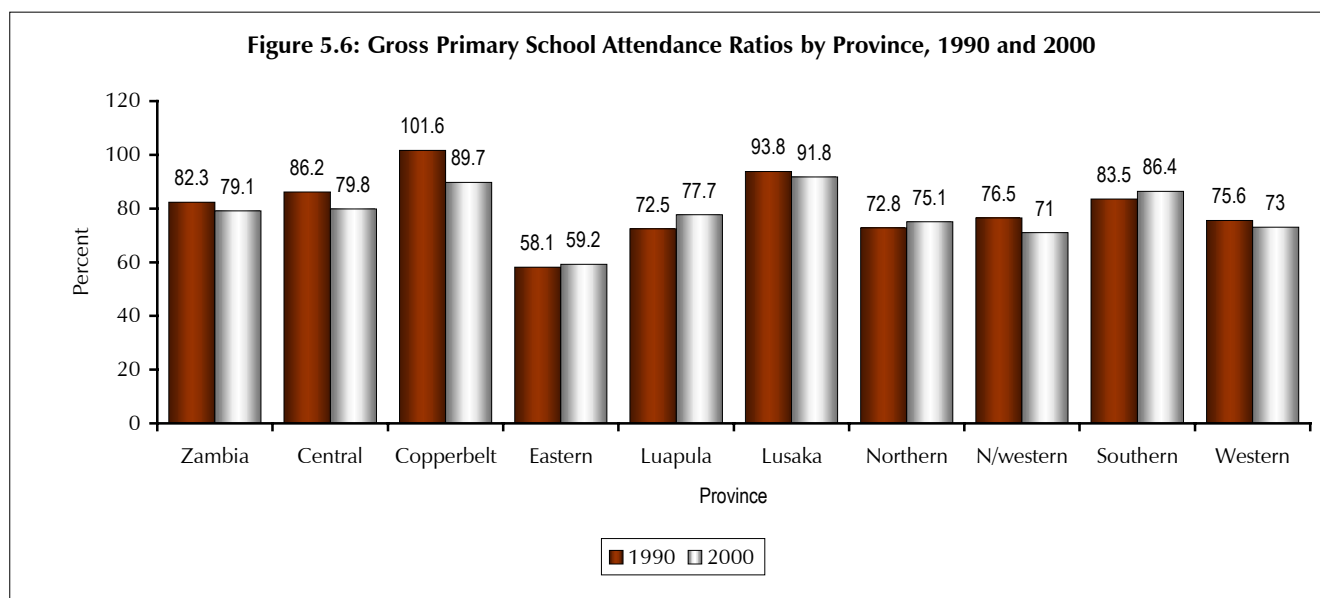
By the year 2000, the Gross Primary Attendance ratios for urban population remained above those obtaining in rural areas. The GPI for 2000 results show gross inequality in rural (0.92) than in urban areas, 0.97. Therefore, gender equality in terms of education participation is more attainable in urban than in rural parts of Zambia.

Provincial analysis of gross primary school attendance rates reveals that Eastern province had the lowest ratios of 58.1 and 59.2 percent in 1990 and 2000 respectively. On the other hand, Copperbelt and Lusaka provinces had the highest ratios of 101.6 and 93.8 percent in 1990 and, 89.8 and 91.8 percent in 2000, respectively. Southern and Central provinces equally recorded high rates, which were above the 1990 and 2000 national average of 82.3 and 79.1 percent. During the 1990-2000 intercensal period, only Eastern, Luapula, Northern and Southern provinces recorded some increases in gross primary attendance rates while the rest of the provinces, particularly the urbanized ones, revealed declines in the rates. Since 1990, there have been major sex-differences in gross attendance rates between boys and girls especially in remote provinces such as Northern and Eastern provinces. By the year 2000, the gross primary school attendance rates still remained higher for boys than girls.

Table 5.6: Gross Primary School Attendance Ratio by Sex, Residence and Province, 1990 and 2000

Residence and Province	Gross Primary School Attendance Rates							
	1990				2000			
	Both Sexes	Male	Female	Population Size	Both Sexes	Male	Female	Population Size
Zambia - Total	82.3	85.7	78.9	1,486,062	79.1	81.4	76.8	1,826,590
Rural	70.6	74.6	66.4	900,311	71.8	74.9	68.7	1,186,964
Urban	100.3	103.5	97.3	585,751	92.7	94.2	91.5	639,626
Province								
Central	86.2	89.8	82.7	146,430	79.8	81.8	77.9	194,108
Copperbelt	101.6	104.7	98.6	292,138	89.7	90.9	88.5	298,762
Eastern	58.1	62.1	53.9	193,337	59.2	61.7	56.7	239,682
Luapula	72.5	77.0	68.1	104,867	73.8	77.7	69.8	141,123
Lusaka	93.8	97.4	90.4	190,154	91.8	93.3	90.3	244,665
Northern	72.8	77.9	67.5	174,679	75.1	80.1	70.0	234,802
North-Western	76.5	80.9	72.2	76,741	71.0	73.9	68.0	103,855
Southern	83.5	86.4	80.6	189,069	86.4	88.6	84.2	233,378
Western	75.6	77.8	73.4	118,647	73.0	74.4	71.7	136,215

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



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

5.7. 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 (7 to 13 years) currently attending 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 55 percent in 1990 to 60 percent in 2000. The proportions of boys and girls attending primary education increased from 54.6 and 55.3 percent to 59.8 and 60.2 percent respectively. Since 1990, no major sex differences were revealed in terms of net school attendance rates between boys and girls although the percentages of girls were slightly higher than those of boys. In 2000, there was near equality in primary education participation by both boys and girls of the official age. During the 1990-2000 intercensal period, the percentage of eligible primary school age children not in school declined from 45 to 40 percent.

Since 1990, net primary school attendance rates have been higher in urban than in rural areas, clearly indicating a higher likelihood of more urban children to be in school than their rural counterpart. In 1990, more than half of the rural children aged 7 to 13 years were not attending primary education, compared to nearly one third of their urban counterpart. By 2000, the proportion of children attending school in rural areas increased by about 8 percentage points, from 44.3 to 52.6 percent. These results imply that at least 5 out of every 10 children aged 7 to 13 years in rural areas were attending primary education in 2000 as opposed to almost 4 in every 10 children in 1990. In urban areas, net school attendance rate barely increased by about 3 percentage points, from 71.3 percent in 1990 to 73.9

percent in 2000. Results of the 2000 census show that nearly a quarter of urban children were out of primary school compared to almost half of the rural children. No major sex differences were noticed in both the rural and urban areas since 1990, an indication of near gender parity in net school attendance at primary level.

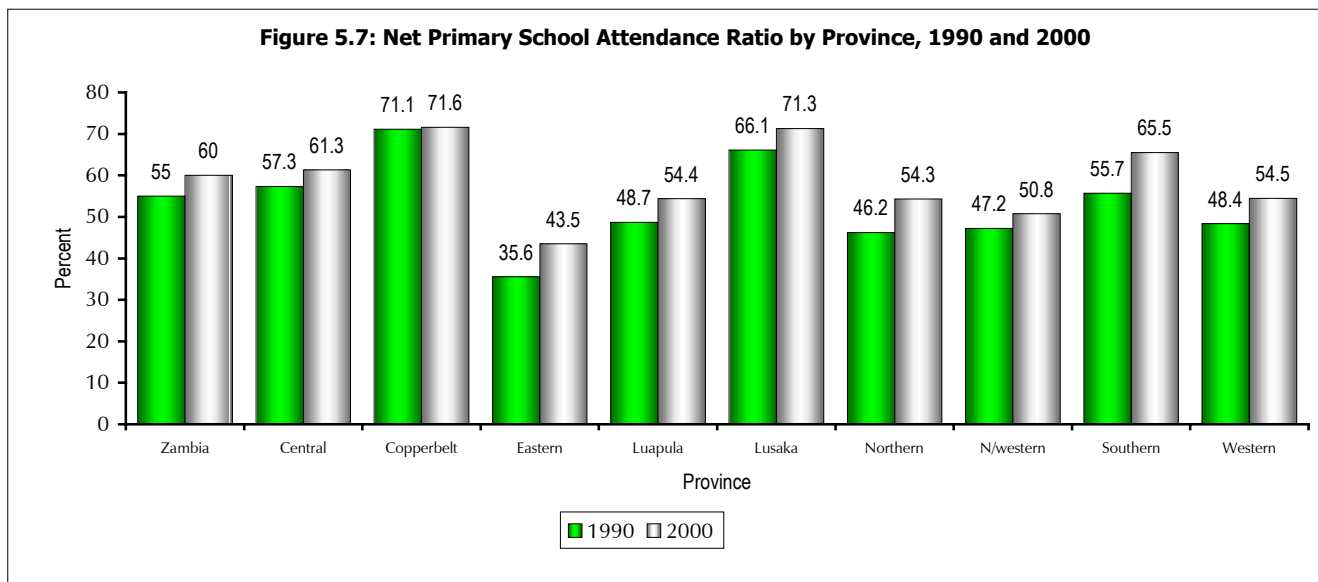
The urban-rural differences are mainly as a result of existing disparities in resource allocation and availability of accessible amenities such as schools, health facilities, recreational facilities and pre-schools. The Living Conditions Monitoring Surveys have shown that long distance to schools inhibits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

Regional analysis of net primary school attendance rates reveals huge differences in primary school education participation rates by the eligible children aged 7 to 13 years. In 1990, school attendance rates for the primary school age children ranged from 71.1 and 66.1 percent in Copperbelt and Lusaka provinces to as low as 35.6 and 46.2 percent in Eastern and Northern provinces. By the year 2000, all provinces had recorded some increases in net school attendance rates at primary level. However, there were still provincial disparities in the proportions of the eligible children attending school. Besides having the lowest attendance rates, education participation by the primary school age children in Eastern, followed by North-Western, Northern, Luapula and Western provinces remained below the national rate of 60 percent. For instance, in Eastern province more than 50 percent of the eligible children were not attending school. Alternatively, Copperbelt and Lusaka provinces had the highest rates of 71.6 and 71.3 percent respectively. With the exception of Luapula and Northern provinces, girls were more likely to be attending school than boys, though the sex differences were insignificant.

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

Residence and Province	Net Primary School Attendance Rates							
	1990				2000			
	Both Sexes	Male	Female	Population Size	Both Sexes	Male	Female	Population Size
Zambia - Total	55.0	54.6	55.3	1,486,062	60.0	59.8	60.2	1,826,590
Rural	44.3	44.1	44.6	900,311	52.6	52.5	52.8	1,186,964
Urban	71.3	71.4	71.1	585,751	73.9	74.0	73.7	639,626
Province								
Central	57.3	56.6	57.9	146,430	61.3	60.8	61.7	194,108
Copperbelt	71.1	70.9	71.2	292,138	71.6	71.4	71.7	298,762
Eastern	35.6	35.3	35.9	193,337	43.5	43.0	44.0	239,682
Luapula	48.7	49.4	48.1	104,867	54.4	55.1	53.6	141,123
Lusaka	66.1	66.4	65.7	190,154	71.3	71.4	71.2	244,665
Northern	46.2	46.8	45.6	174,679	54.3	55.5	53.1	234,802
North-Western	47.2	46.7	47.6	76,741	50.8	50.7	50.9	103,855
Southern	55.7	54.9	56.5	189,069	65.5	64.7	66.3	233,378
Western	48.4	47.3	49.4	118,647	54.5	53.5	55.5	136,215

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



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

5.8. School Attendance by the Secondary School Age Population (14 to 18 years)

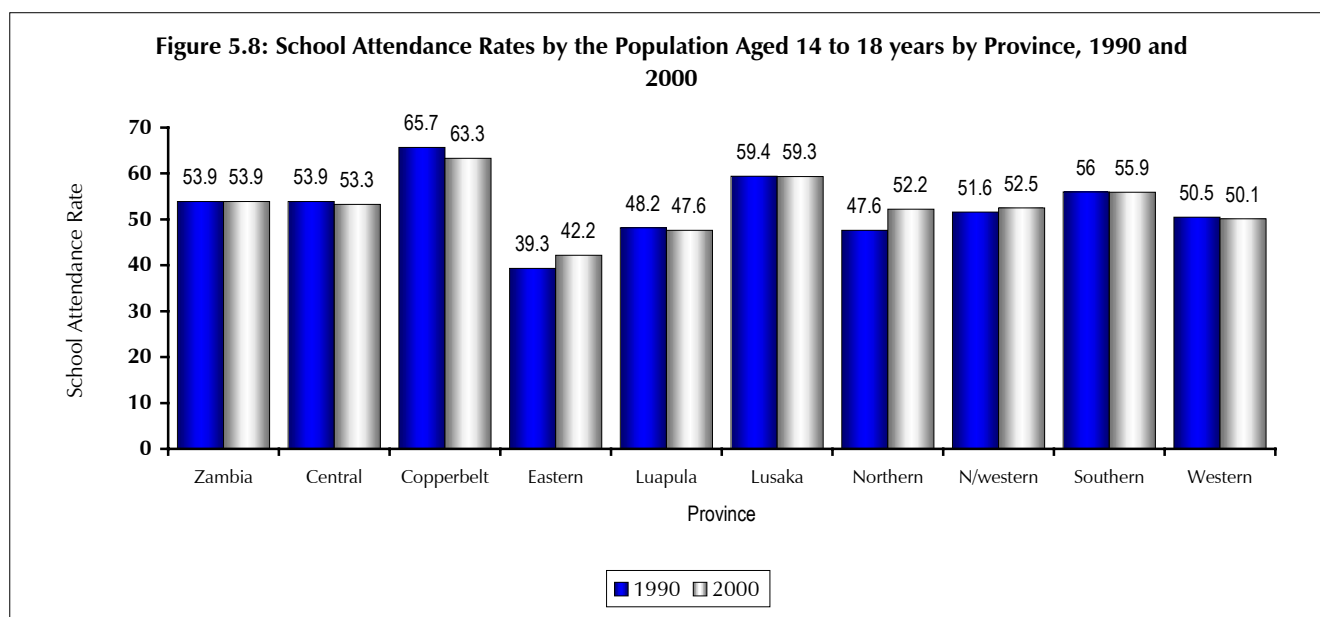
Table 5.8 shows the proportion of children aged 14 to 18 attending school. Overall, the percentage of children attending school remained static at about 54 percent between 1990 and 2000. Since 1990, there were proportionately more boys (61 percent) than girls (47 percent) attending school. A slight increase was observed in the rate of school attendance in rural areas from 45.6 to 47.2 percent, whereas in urban areas the rate declined from 65.9 to 65 percent by 2000. Once again, the proportions of boys attending school remained higher than those of girls in both rural and urban areas of Zambia during the 1990 and 2000 intercensal period. In rural areas, more than half of the girls aged 14 to 18 years were not attending school compared to about a third of their urban counterpart. These results clearly indicate that the problem of the girl child in education is more pervasive among older (14 to 18 years) than younger children (7 to 13 years), particularly among rural females. At primary level there is normally near equality in terms of school attendance between boys and girls.

Regional differences in school attendance by eligible secondary school age population have been in existence since 1990. In 1990 the lowest rate of school attendance was recorded in Eastern province (39.3 percent), followed by Northern (47.6 percent) and Luapula provinces (48.2 percent). The most urbanized provinces, Copperbelt (65.7 percent) and Lusaka provinces (59.4 percent), exhibited high rates of school attendance. This pattern was replicated during the year 2000 when the rate ranged from 42.2 percent in Eastern province to 63.3 percent in the Copperbelt province. Apart from Copperbelt, Central, Luapula and western provinces, which recorded minor declines in school attendance rates, the remaining provinces either recorded marginal increases in school attendance rates or remained at 1990 levels (Refer to Table 5.8 and Figure 5.6).

Table 5.8: Percentage of the Population aged 14 to 18 years Presently Attending School by Sex, Residence and Province, 1990 and 2000

Residence and Province	Secondary School Attendance Rates							
	1990				2000			
	Both Sexes	Male	Female	Population	Both Sexes	Male	Female	Population
Zambia - Total	53.9	61.1	47.1	996,450	53.9	61.3	47.0	1,105,484
Rural	45.6	53.2	38.0	588,411	47.2	55.9	38.8	684,012
Urban	65.9	72.9	59.5	408,039	65.0	70.6	60.0	421,472
Province								
Central	53.9	60.3	47.6	99,320	53.3	60.2	46.5	114,930
Copperbelt	65.7	72.3	59.5	202,268	63.3	68.5	58.5	189,300
Eastern	39.3	46.2	32.2	125,684	42.2	50.2	34.3	135,231
Luapula	48.2	57.3	39.7	68,723	47.6	57.3	38.5	86,036
Lusaka	59.4	67.3	52.4	130,919	59.3	65.8	53.7	153,236
Northern	47.6	57.7	38.1	117,626	52.2	63.1	41.8	142,785
North-Western	51.6	59.7	43.5	50,823	52.5	61.2	44.2	62,724
Southern	56.0	61.9	50.2	122,313	55.9	62.5	49.4	135,684
Western	50.5	56.0	45.2	78,774	50.1	55.9	44.6	85,558

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



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

5.9. Gross Secondary School Attendance Rates

Table 5.9 shows gross secondary school attendance rates as crude measures of participation in secondary education. Results in the table reveal that sizeable proportions of children particularly those of secondary school age have had no access to secondary education since 1990. At national level, the proportion of children attending secondary education expressed as a percentage of the eligible secondary school age population increased from 34.6 percent in 1990 to 44.5 percent by 2000. Both the male and female rates increased by 10 percentage points over and above the 1990 levels of 40.4 and 39.1 percent respectively.

However, participation at secondary school level remained dominated by the male than female population. Since 1990, there have been proportionately more boys than girls attending secondary education, a difference of about 10 percentage points. The gross ratios, as measures of education participation, have remained higher in urban than in rural areas. By 2000, the ratio for urban areas (69.6 percent) was more than twice the ratio obtaining in rural areas, at only 29.3 percent. Whilst the ratio in rural areas increased only by about 5 percent from about 24 percent to 29 percent between 1990 and 2000, it rose by 20 percent in urban areas, from 50 to about 70 percent during the same period. This development illuminates the growing imbalance in secondary education provision between the rural and urban areas.

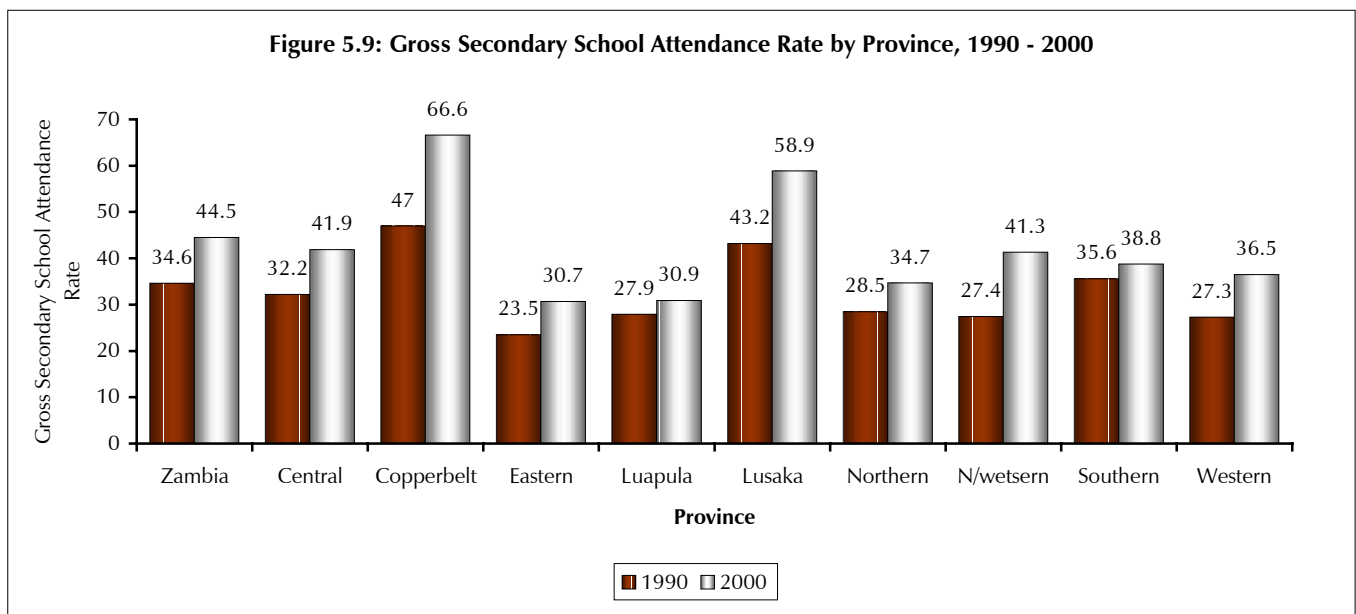
Regional analysis of the 1990 gross secondary school attendance rates reveals that the gross secondary school ratio was lowest in Eastern province, at 23.5 percent and highest in Copperbelt province, at 47 percent. Nearly all the remote provinces namely Eastern, North-Western, Western, Luapula, northern and central provinces had gross attendance rates below the national average of 34.6 percent in 1990. On the other hand the urbanized provinces including Copperbelt and Lusaka recorded ratios in excess of 40 percent. By 2000, Eastern and Luapula province had the least ratios of about 31 percent, while Copperbelt and Lusaka provinces recorded the highest ratios about 67 and 59 percent respectively. All the provinces particularly those along the line of rail, registered considerable increases in secondary school attendance in gross terms between 1990 and 2000.

These results explicitly indicate the inaccessibility of secondary education to the majority of the school going population in rural parts of Zambia. The observed low level of participation in secondary education among the rural populace could be attributed to inadequate facilities and the prevailing high levels of poverty in these areas. The increase in the number of private secondary schools in addition to the existing government schools in urban areas may account for more degree of participation in secondary education.

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

Residence and Province	Gross Secondary School Attendance Rates							
	1990				2000			
	Both Sexes	Male	Female	Population	Both Sexes	Male	Female	Population
Zambia - Total	34.6	40.4	29.0	996,450	44.5	50.2	39.1	1,105,484
Rural	23.8	29.0	18.7	588,411	29.3	35.0	23.8	685,535
Urban	50.2	57.8	43.3	408,039	69.6	76.5	63.4	416,949
Province								
Central	32.2	37.0	27.4	99,320	41.9	46.9	37.1	114,930
Copperbelt	47.0	54.0	40.5	202,268	66.6	72.2	61.5	189,300
Eastern	23.5	28.7	18.3	125,684	30.7	37.0	24.5	135,231
Luapula	27.9	34.5	21.9	68,723	30.9	37.7	24.6	86,036
Lusaka	43.2	50.8	36.5	130,919	58.9	65.3	53.3	153,236
Northern	28.5	35.4	22.0	117,626	34.7	42.3	27.5	142,785
North-Western	27.4	33.5	21.5	50,823	41.3	49.2	33.7	62,724
Southern	35.6	40.1	31.2	122,313	38.8	42.7	35.0	135,684
Western	27.3	31.1	23.7	78,774	36.5	40.6	32.6	85,558

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



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

5.10. Net Secondary School Attendance Rates by Children aged 14 to 18 Years

Table 5.10 shows the percentage of the eligible children attending secondary education. Results in table 5.10 indicate that a significant proportion of the secondary school age population has no access to education. In 1990, only about one fifth of the children aged 14 to 18 years (21.4 percent) were attending secondary education. This proportion increased to approximately 31 percent in 2000. Since 1990 there were proportionately more boys than girls attending secondary school. In 1990 and 2000, the net secondary school rates for males were about 3 and 4 percent higher than the female rates.

Notable differences in net secondary school attendance rates have existed between rural and urban areas since 1990. In 1990, the proportion of urban eligible children attending secondary education (32.7 percent) was almost three times that of their rural counterpart (13.4 percent). However, net secondary school attendance rate for rural areas nearly doubled from about 14 percent in 1990 to 20.0 percent in 2000. In urban areas, the proportion of eligible children attending secondary education rose from about 33 to 49 percent during the same period. By 2000, secondary school participation by urban eligible children (48.6 percent) was more than twice that of their rural counterpart (20.0 percent). Major gender differences in net secondary school attendance remained notable by 2000 with more than half of the boys (51.6 percent) attending school compared to only 46 percent of the girls.

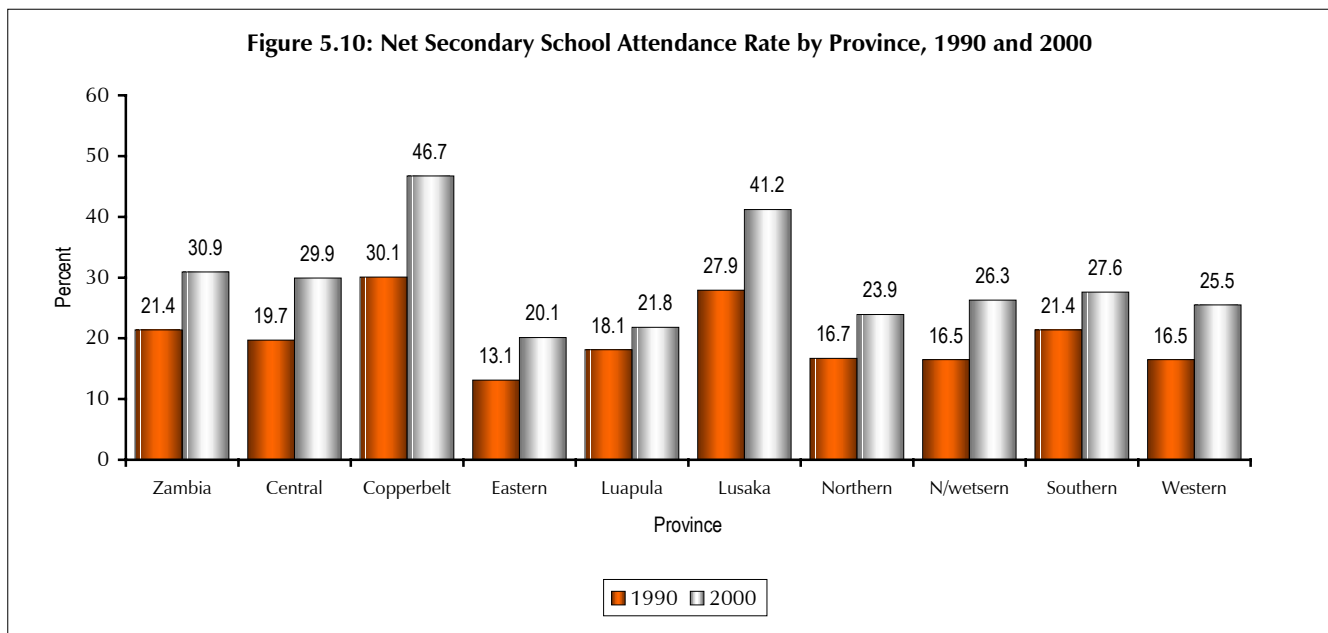
Analysis of 1990 census results by provinces shows that Eastern province had the least net secondary school rate of 13.1 percent, followed by Western and Northwestern (16.5 percent each), Northern (16.7 percent) and Luapula province (18.1 percent). During the same year, Copperbelt and Lusaka provinces recorded the highest rates of 30.1 and 27.9 percent respectively. The school attendance rates were equally high in Southern (21.4 percent) and Central province (19.7 percent). By 2000, all the provinces recorded marked increases in school attendance of the eligible children more so in urbanized provinces. However, eastern province followed by Luapula province had the lowest rates while Copperbelt and Lusaka provinces had more children participating in secondary education by 2000.

The high increase in secondary school attendance in all the regions could be attributed to the increase in basic schools, which have provided additional school space for grades 8 and 9 pupils. As for urban areas there have been marked increases in the number of private schools offering secondary education. The 1996 education policy has championed the need to promote private participation in education delivery system. Despite the improvements in secondary school rates during the period under review, female participation still remains low relative to that of their male counterpart.

Table 5.10: Net Secondary School Attendance Rate by Sex, Residence and Province, 1990 and 2000

Residence and Province	Secondary School Net Attendance Rates							
	1990				2000			
	Both Sexes	Male	Female	Population	Both Sexes	Male	Female	Population
Zambia - Total	21.4	22.8	20.0	996,450	30.9	33.3	28.7	1,105,484
Rural	13.5	14.9	12.2	588,411	20.0	22.6	17.6	684,012
Urban	32.7	34.9	30.7	408,039	48.6	51.6	46.0	421,472
Province								
Central	19.7	20.5	18.9	99,320	29.9	32.1	27.7	114,930
Copperbelt	30.1	31.9	28.4	202,268	46.7	48.9	44.8	189,300
Eastern	13.1	14.1	12.1	125,684	20.1	22.5	17.8	135,231
Luapula	18.1	20.2	16.0	68,723	21.8	25.2	18.6	86,036
Lusaka	27.9	30.5	25.7	130,919	41.2	44.4	38.5	153,236
Northern	16.7	19.0	14.6	117,626	23.9	27.4	20.5	142,785
North-Western	16.5	18.5	14.4	50,823	26.3	29.5	23.2	62,724
Southern	21.4	22.0	20.8	122,313	27.6	29.0	26.4	135,684
Western	16.5	17.2	15.8	78,774	25.5	27.1	24.0	85,558

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



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

5.11. Population Distribution by Fields of Study

Table 5.11 shows the distribution of the population by some selected fields of study and sex. The table only includes those fields of study, which had at least 1 thousand observations. The table reveals that the most popular fields of study in 1990 was Teacher training (24.5 percent), followed by Accountancy (9.2 percent), mechanics and mechanical engineering (7.6 percent), Nursing (6.8 percent), Business administration (5.3 percent), Secretarial training (5.1 percent) and Agricultural and forestry related fields at 5 percent. During the year 2000, teacher training still accounted for the larger share of the population at 21.4 percent, followed by nursing (16.4 percent). Accountancy, Mechanics/engineering, Business Administration and Secretarial training accounted for 10.4, 7.1, 5.6 and 5.3 percent respectively.

Notable from table 5.11 is the decline in the proportion of the population specializing in engineering programmes, particularly among females. The percentage of the population in engineering and sciences declined from about 24 to 18 percent between 1990 and 2000. The percentage of females specializing in engineering programmes dropped from about 9 to 3 percent during the same period.

The results also clearly indicate that males have had 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. In order to enhance the participation of females in sciences and mathematics, the Ministry of Education started a program aimed at enhancing pupils' performance in English, mathematics and Sciences called AIEMS at primary level in 1994.

Table 5.11: Percentage distribution of the Population by Sex and Selected Fields of Study, 1990 and 2000

Fields of Study	1990			2000		
	Both Sexes	Male	Female	Both Sexes	Male	Female
All Fields	155,338	107,202	48,136	239,192	157,535	81,657
Percent Total	100.0	100.0	100.0	100.0	100.0	100.0
Natural science	1.8	2.0	1.5	0.9	1.1	0.5
Civil engineering	1.3	1.8	0.2	1.1	1.5	0.2
Electrical/electronics	4.2	5.8	0.5	4.5	6.4	0.9
Mechanical engineering	7.6	10.8	0.4	7.1	10.5	0.6
Mining engineering	1.4	1.9	0.2	1.1	1.6	0.0
Industrial engineering	2.4	2.4	2.5	0.6	0.7	0.2
Metallurgical Engineering	1.3	1.2	1.5	0.4	0.6	0.0
Architectural/Town Planning	1.2	1.3	1.0	0.4	0.6	0.1
Other Engineering	2.5	3.3	0.8	1.4	2.1	0.1
Medicine and surgery	1.6	2.0	0.9	1.0	1.2	0.6
Pharmacy	1.5	1.7	1.2	0.6	0.6	0.4
Nursing	6.8	1.0	19.8	16.4	13.6	21.8
Medical technology	1.4	1.8	0.7	1.2	1.5	0.5
Computer science	0.7	0.7	0.7	2.6	2.0	3.6
Economics	1.4	1.2	2.0	1.2	1.3	1.2
Accountancy	9.2	11.1	5.1	10.4	12.1	7.1
Teacher training	24.5	21.5	31.3	21.4	17.6	28.6
Law and jurisprudence	2.0	2.6	0.7	1.7	2.3	0.7
Fine arts	0.7	0.8	0.5	0.7	0.8	0.4
Social welfare	1.1	1.1	1.3	0.8	0.8	0.8
Criminology	1.8	2.5	0.3	1.6	2.3	0.4
Business administration	5.3	6.5	2.6	5.6	6.4	4.1
Secretarial training	5.1	0.5	15.4	5.3	0.8	13.9
Operating of office machines	1.1	1.2	0.7	0.5	0.7	0.3
Service trade (e.g. cooking,)	1.6	1.3	2.3	2.0	1.3	3.3
Agriculture/Forestry/Fishery	4.8	6.4	1.5	3.7	4.8	1.5
Wood working	3.2	4.5	0.3	2.6	3.8	0.2
Textile trades	2.2	1.2	4.5	3.2	1.0	7.6

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

Table 5.12a and 5.12b show the distribution of the population by various fields of study and education level completed in 1990 and 2000. The table reveals the type of restrictions education attainment imposes on fields of study. Results clearly indicate that the minimum education level required for most of the fields of study is grades 10 – 12. This is more of the case for those in the fields 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 (see Table 5.12a and 5.12b).

Table 5.12a: Education level completed by Field of Study (Percent), Zambia, 2000

Field of Study	Population Size	Total Percent	Level of Education Completed				
			1-7	8-9	10-12	'A' Level	Degree
Natural Science	2,201	100	2.4	1.5	44.9	1.6	49.5
Civil Engineering	2,543	100	5.6	4.8	50.2	1.4	38.0
Electronics/Engineering	10,830	100	4.4	4.2	52.7	2.5	36.1
Mechanics/Engineering	17,030	100	5.1	6.8	53.5	2.1	32.5
Chemical Engineering	803	100	5.2	4.5	48.9	1.9	39.5
Mining Engineering	2,590	100	11.3	5.6	58.1	1.5	23.5
Industrial Engineering	1,330	100	18.1	13.8	41.8	1.5	24.8
Metallurgical Engineering	906	100	3.9	4.9	59.3	1.2	30.8
Architecture	1,009	100	8	12.8	38.5	1.1	39.6
Other Engineering	3,365	100	5.9	5.9	49.7	1.1	37.4
Medicine/Surgery	2,362	100	3	2.4	43.5	1.6	49.5
Pharmacy	1,340	100	4.2	4.3	59.4	1.6	30.4
Dentistry	1,043	100	5.2	5.6	60.8	4	24.4
Nursing	39,268	100	9.7	9.3	60	1.4	19.6
Medical Technology	2,803	100	3.2	2.9	61.4	1.8	30.7
Veterinary	1,005	100	8.5	6.7	56.9	1.7	26.3
Computer Science	6,159	100	1.2	1.2	39.9	3.2	54.5
Economics	2,977	100	5.4	5.2	34.6	1.5	53.3
Accountancy	24,830	100	1.3	1.8	45.3	2	49.5
Teacher Training	51,087	100	3.2	4.4	60.3	1.9	30.2
Law/jurisprudence	4,138	100	4.4	4.4	40.1	1.3	49.8
Journalism	1,677	100	2	1.8	37.7	2.5	55.9
Fine arts	1,686	100	8.8	10.1	42.9	2	36.2
Social Welfare	1,971	100	8.3	10.6	47.3	1.1	32.7
Criminology	3,873	100	5.7	7.4	55.4	0.8	30.7
Business Administration	13,392	100	1.8	2.3	41.4	2.3	52.2
Secretarial Training	12,613	100	1.5	3.7	46.2	2.5	46.1
Shorthand Typing	3,800	100	5.3	13.7	49.2	1.8	30
Clerical typing	4,296	100	5.5	15.4	49	1.4	28.7
Office Machine	1,305	100	8.4	9.5	46.9	1.5	33.7
Service Trade	4,795	100	15.2	14.7	34.8	1.4	34
Agriculture/Forestry/Fisheries	8,866	100	8.3	8.1	53.2	1.7	28.7
Food/Drink Production	1,951	100	9.5	11.4	37.6	2.2	39.4
Wood Working	6,215	100	21.3	20.3	38.4	0.8	19.2
Textile Trade	7,678	100	14.8	27.5	30.9	1.6	25.2

Source: CSO, 2000 Census of Population and Housing

Table 5.12b: Education level completed by Field of Study (Percent), Zambia, 1990

Field of Study	Population Size	Total Percent	Level of Education Completed				
			1-7	8-9	10-12	'A' Level	Degree
Natural Science	2,849	100	13.7	8.2	58.1	6.6	13.4
Civil Engineering	2,020	100	18.5	5.9	62.3	4.1	9.2
Electronics/Engineering	6,509	100	14.1	6.1	73.6	2.0	4.2
Mechanics/Engineering+	11,728	100	17.9	8.5	68.1	1.8	3.6
	738	100	25.9	4.6	53.4	5.1	11.0
Chemical Engineering	2,155	100	31.4	5.4	52.2	3.4	7.7
Mining Engineering	3,796	100	60.8	13.2	21.2	0.7	4.2
Industrial Engineering	2,009	100	30.7	12	27.4	1.8	28.1
Metallurgical Engineering	1,882	100	10.9	41.8	37.1	2.4	7.8
Architecture	3,887	100	11.9	5.5	75.5	2.2	4.8
Other Engineering	2,544	100	13.6	6.1	63.8	6.0	10.5
Medicine/Surgery	2,381	100	6.6	2.6	84.7	1.2	4.9
Pharmacy	729	100	11.4	4.7	70.0	8.9	5.1
Dentistry	10,574	100	8.1	8.0	79.9	1.6	2.3
Nursing	2,211	100	12.3	7.2	71.6	2.8	6.1
Medical Technology	845	100	20.5	10.9	62.5	2.1	4.0
Veterinary	1,114	100	4.0	3.1	81.5	4.6	6.8
Computer Science	2,241	100	13.2	8.3	60.2	6.6	11.7
Economics	14,346	100	5.9	4.7	83.7	2.7	3.0
Accountancy	38,111	100	10.5	11.4	73.8	1.7	2.7
Teacher Training	3,068	100	17.4	9.2	63.2	4.7	5.4
Law/jurisprudence	859	100	6.4	3.5	81.4	4.9	3.8
Journalism	1,097	100	19.8	6.0	60.7	4.8	8.7
Fine arts	1,785	100	21.6	12.0	57.0	3.0	6.4
Social Welfare	2,814	100	23.7	13.7	60.3	0.3	2.0
Criminology	8,262	100	10.4	7.3	74.1	3.8	4.3
Business Administration	7,995	100	4.1	6.7	86.2	1.2	1.8
Secretarial Training	5,897	100	10.0	13.1	74.7	0.6	1.6
Shorthand Typing	6,596	100	10.6	16.1	71.8	0.2	1.4
Clerical typing	1,674	100	21.1	10.3	65.0	0.4	3.1
Office Machine	2,433	100	38.2	12.8	44.5	0.9	3.6
Service Trade	7,511	100	20.5	10.0	63.3	2.3	3.9
Agriculture/Forestry/Fisheries	1,010	100	32.6	11.8	51.1	1.2	3.4
Food/Drink Production	4,934	100	47.8	13.1	35.0	0.2	3.8
Wood Working	3,409	100	29.6	19.8	46.8	0.7	3.1
Textile Trade							

Source: CSO, 1990 Census of Population and Housing

5.12. Certificate and Diploma Holders by Level of Education Completed

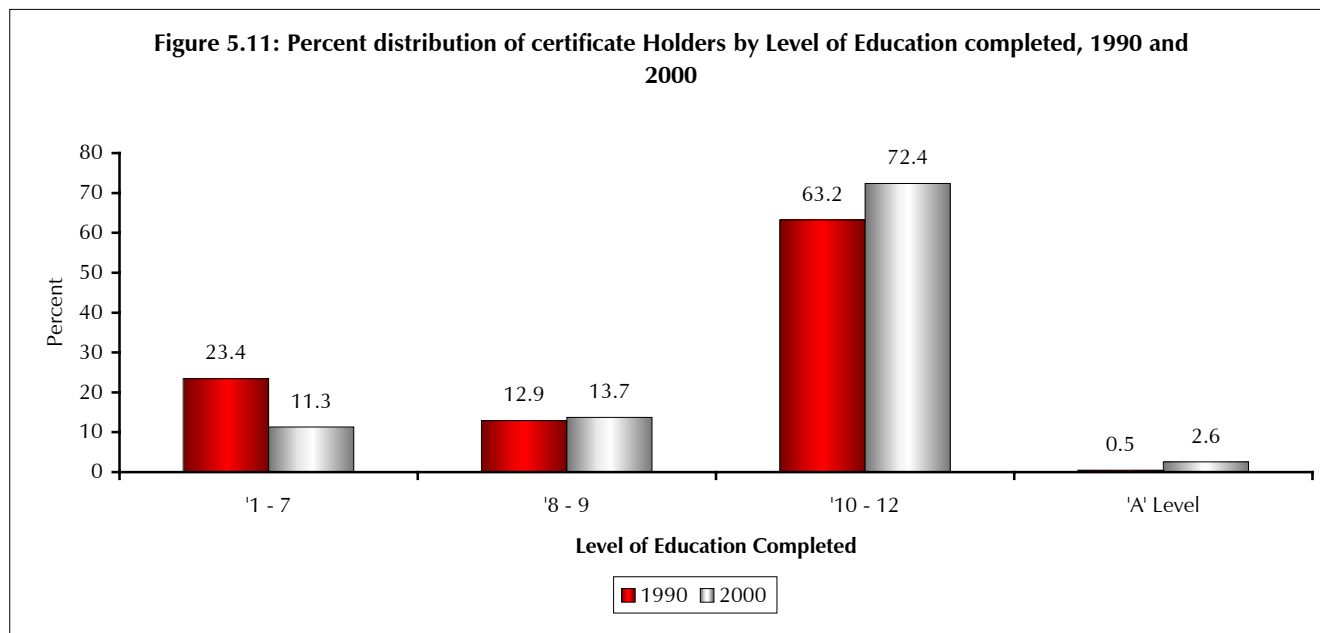
Table 5.13 shows the education level completed by certificate and diploma holders. It is important to note that certification referred to here relates to the one conferred after grade 12 and A-level of education. Overall, the number of certificate holders rose by 23.4 percent between 1990 and 2000 from 178,824 to 220,594. The percent increase was more pronounced amongst females (41.4 percent) than their male counterpart (14.4 percent). The proportion of persons with certificates who had attained grades 1 to 7 declined from 23.4 percent in 1990 to 11.3 percent in 2000, whilst the proportions attaining higher grades increased drastically. In 1990, 63 percent of the certificate holders as opposed to 72 percent in the year 2000 had completed not less than grades 10 to 12.

These findings explicitly demonstrate how difficult it has become to get certification with limited education background especially among the female population. The number of diploma holders increased by 25.4 percent from 42,755 in 1990 to 53,607 in 2000. Further analysis of diploma holders by level of education completed shows diminishing chances of getting a diploma for persons with very basic education between 1990 and 2000. Once again there was a decline in the proportions of diploma holders with up to grade 7 and 9 education from 5.1 and 3.6 percent to 2.7 and 2.7 percent respectively. No major sex-differences have existed since 1990 although females with middle basic and upper secondary education attainment are less likely to get diplomas than their male counterpart. Specifically, the percentage of both male and female diploma holders significantly rose from about 84 percent to 92 percent during the intercensal period under review (Refer to Table 5.13).

Table 5.13: Percentage Distribution of Certificates and Diplomas by Level of Education and Sex, 1990 and 2000

Certificates	Population Size	Education Level Completed				Total Percent
		1-7	8-9	10-12	'A' Level	
Certificates						
Zambia 1990						
Both Sexes	178,824	23.4	12.9	63.2	0.5	100
Male	119,361	26.6	12.4	60.5	0.5	100
Female	59,463	16.8	14.0	68.7	0.5	100
Zambia 2000						
Both Sexes	220,594	11.3	13.7	72.4	2.6	100
Male	136,529	12.3	12.5	73.0	2.2	100
Female	84,065	9.5	16.0	71.3	3.2	100
Diploma						
Zambia 1990						
Both Sexes	42,749	5.1	3.6	83.5	7.8	100
Male	34,283	5.3	3.6	83.5	7.5	100
Female	8,466	4.0	3.9	83.5	8.7	100
Zambia 2000						
Both Sexes	53,625	2.8	2.7	91.6	2.9	100
Male	40,674	2.9	2.6	91.9	2.5	100
Female	12,951	2.1	2.9	90.6	4.3	100

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



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

5.13. Summary

A large segment of the Zambian Population remains uneducated and illiterate. Since 1990, 45 percent of the population aged 5 years and above remained illiterate. The level of illiteracy remained higher among female than male population. The problem of illiteracy is more common in rural than in urban parts of Zambia. More than half of the rural population aged 5 years and above has been identified with illiteracy since 1990. Provincial analysis of literacy rates show that Eastern Province has the highest proportion of illiterate population aged 5 years and above, while Copperbelt and Lusaka have the lowest. Nearly all provinces registered very marginal changes in the proportion of the population that can read and write in any language between 1990 and 2000. In general, the problem of illiteracy was more associated to remote provinces than highly urbanized provinces.

On the other hand, the proportion of youths who could read and write in any language declined from about 75 percent in 1990 to 70 percent by 2000. Female youths are more likely to be illiterate than their male counterpart. It is noted that the problem of illiteracy among the youths has been more pronounced in rural than urban areas since 1990. Eastern Province had the highest proportion of illiterate youths since 1990 while Copperbelt had the lowest. All the provinces recorded declines in youth literacy rates. However adult literacy rate increased marginally from 66 percent to 67 percent between 1990 and 2000. The problem of adult illiteracy remained much more marked among females than males since 1990. Despite marginal increases in adult literacy levels, nearly half of the rural adults could still not read and write since 1990.

School attendance among the population aged 5 years and above marginally increased from about 26 to 27 percent between 1990 and 2000. There were proportionately more males than females attending school since 1990. Since 1990 the young population is more likely to be attending school than the older one. During the period 1990 to 2000 almost one in every 5 persons in rural areas of Zambia was attending school compared to 1 in every 3 in urban areas. There were proportionately more males than females attending school, especially in rural areas of Zambia. Eastern Province recorded the lowest proportion of the population attending school since 1990 whilst Copperbelt and Lusaka had the highest.

The proportion of the primary school-age population (7 to 13 years) attending school increased drastically from 56 percent in 1990 to 62 percent by 2000. No major sex differences were observed in school attendance rates by the population aged 7 to 13 years. Children in urban areas are more likely to attend school than their rural counterpart. The rate of attendance has been poorer in remote provinces, namely Eastern province and superior in predominantly urban provinces such as Copperbelt and Lusaka Provinces since 1990. All provinces recorded increases in the proportions of the population aged 7 to 13 attending school.

The gross primary school attendance rates declined from 82.3 to 79.1 percent between 1990 and 2000. By 2000, the rates remained higher among boys (74.9) than girls (68.7 percent). The rates also indicate a high likelihood of urban children aged 7 to 13 years to be attending primary education compared to their rural counterpart. Once again, Eastern Province recorded the lowest rate of primary school attendance in gross terms, while Copperbelt and Lusaka Provinces registered the highest rates. Net primary school attendance rates increased from 55 percent to 60 percent between 1990 and 2000. By 2000, the rate remained higher in urban (73.9 percent) than in rural areas of Zambia (52.6 percent). During the year 2000, Eastern and North-Western Provinces recorded the lowest net primary school attendance rates of 43.5 and 50.7 percent respectively. Copperbelt and Lusaka Provinces had the highest rates of about 72 and 71 percent, respectively.

During the 1990-2000 intercensal period, school attendance by the secondary school-age population (14 to 18 years) stagnated at the 1990 level of about 54 percent. More males than females of the same age cohort have had access to education since 1990. Children in urban areas are more likely to attend school, particularly at the secondary level, than those in rural areas. With the exception of Eastern and Northern Provinces, which recorded some increases, the rest of the provinces either experienced minor declines in the rate of attendance or stagnated at the 1990 level.

Crude measures of participation in secondary education reveal marked improvements in secondary school attendance especially in urban areas. The gross secondary school attendance rate increased from about 35 to 45 percent between 1990 and 2000. However, gross school attendance rates for rural areas show low levels of education participation compared to urban areas. Net secondary school attendance rate equally increased from about 21 percent in 1990 to 31 percent by 2000. In fact the net secondary school attendance rates clearly show that by 2000, almost two thirds of the eligible children had no access to secondary school education. The problem of inaccessibility to secondary education has been more pervasive in rural than urban areas, where only one fifth of children had access to school.

Teacher training, Secretarial training, accountancy, nursing and Mechanics have remained among the most popular fields of study in Zambia. However, more males than females have had varied occupational fields of study since independence. Analysis of fields of study by level of education completed explicitly illuminates the restrictions education background imposes on the choice of the field of study. Secondary education has of late become the minimum requirement for most of the fields of study. Indeed certification at any level has become heavily dependant on the level of education that an individual has completed. It has now become much more difficult to obtain a certificate than it was ten years ago.