FACTORS RELATED TO UNIVERSITY OF ZAMBIA
GRADUATE TEACHER ATTRITION IN ZAMBIAN
SECONDARY SCHOOLS

BY

HERBERT BLACKSON CHAYIMA NYIRENDA

The University of Zambia
School of Education

A dissertation submitted in partial fulfilment of the requirements for the Degree of Master of Education at the University of Zambia.

1994
This dissertation may not be copied or altered in any form, unless
with the exclusive permission of the author.
I, Herbert Blackson Chayima Nyirenda, do hereby solemnly declare that this dissertation represents my own work and that it has not previously been submitted for a degree at the University of Zambia or any other University.

Signature: [Signature]
Date: 20/04/94
This dissertation of Herbert Blackson Chayima Nyirenda is approved as fulfilling part of the requirements for the award of the degree of Master of Education by the University of Zambia.

Signature of Examiners

[Signatures]

Date

18/02/94

15/06/94
This document is dedicated to my father and mother for the sacrifice they made in order to make me have some education.
ACKNOWLEDGEMENTS

Work at this level and of this magnitude could not have been successfully completed without assistance from various individuals and organisations. It is for this reason that I wish to express my profound gratitude to professor M.J. Kelly who helped me formulate the research topic, read the manuscript at various stages of its preparation, and provided helpful suggestions. I equally extend my appreciation to Dr O.C. Chakulimba who willingly accepted to supervise me when professor Kelly fell ill and was away in Ireland for treatment. Without Dr Chakulimba’s consistent and reliable supervision, this document perhaps would not have been produced. I would also like to thank Dr R. F. Zimba who was a co-supervisor for checking my work and giving intellectual guidance and particularly on the part of inferential statistics.

I must also express my sincere gratitude to my employers, the Ministry of General Education, Youth and Sport for granting me a paid study leave. I need to thank the Chief Inspector of Schools, Mr Chelu for giving me permission to use all the relevant and available data in the Ministry of General Education, Youth and Sport. I also have to thank Mr Kabulumu of the statistics section of the Ministry of General Education, Youth and Sport for his cooperation and assistance.
I am indebted to my sponsors, the Directorate of Manpower Development and Training for giving me full sponsorship for two Academic years. It is appropriate to acknowledge assistance of all the relatives and friends and in particular the graduate students of the University of Zambia of 1988/89 Academic year.

I have to thank my wife Violet for looking after the children well during the period I was undertaking the studies and for giving me encouragement regularly that made me finish writing this document. Lastly, I wish to acknowledge my indebtedness to my children, Isaac, Peter, Tambulani, Tatondeka and Bamaile for tolerating my long and continual absence from home for two consecutive years. I am also obliged to thank Mrs Agnes Manda for accepting to type this work on short notice.

H.B.C.N.
Abstract

The intrusion of economists on the educational scene in the 1950's changed people's views about the value and use of education. Education has since been considered as a factor of growth. A teacher, from an economic perspective, is regarded as a valuable human resource in the process of national development. This human resource after receiving advanced education and professional skills, for a country such as Zambia, is normally allocated to the education system. However, the Zambian education system has been losing a significant number of teachers every year. The rate of University graduate teachers in secondary schools has been observed to be higher than the rate of the other categories of teachers.

The purpose of this study was to determine the current rate of attrition among the University graduate teachers and to identify the factors associated with teacher wastage. A tracer study was conducted. One hundred former university graduate secondary school teachers were randomly selected. Initially a stratified random sampling frame was employed and then a systematic random sampling was used.

There were seventy-five male and twenty-five female respondents. Many employers, who included companies and other government departments, were contacted and questionnaires were administered to some of the former university graduate secondary school teachers. Data were categorised and then described by use of
tables and percentages. The chi-square and cochran-Q were used to inferentially analyse the data.

The study succeeded in quantifying the graduation wastage rate, active teaching wastage rate and the total wastage rate from 1971 to 1987. The study also managed to identify the factors associated with attrition in secondary schools.

These factors included low salary and poor conditions of service, frustration due to professional stagnation and poor treatment by some immediate supervisory staff and the declining status of a teacher. It was noted that teaching as a profession is good for many of those who have taught but the monetary reward for the job is daunting. The study foresees a more serious shortage of senior secondary school teachers if the present rate of attrition is unabated.
## CONTENTS

**CHAPTER ONE**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Context of the problem</td>
<td>1</td>
</tr>
<tr>
<td>Statement of the problem</td>
<td>5</td>
</tr>
<tr>
<td>Definition of terms</td>
<td>6</td>
</tr>
<tr>
<td>Objectives of the study</td>
<td>8</td>
</tr>
<tr>
<td>Hypotheses of the study</td>
<td>8</td>
</tr>
<tr>
<td>Significance of the study</td>
<td>9</td>
</tr>
</tbody>
</table>

**CHAPTER TWO**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Literature Review</td>
<td>11</td>
</tr>
<tr>
<td>A summary of literature review</td>
<td>23</td>
</tr>
</tbody>
</table>

**CHAPTER THREE**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Methodology</td>
<td>27</td>
</tr>
<tr>
<td>Population</td>
<td>27</td>
</tr>
<tr>
<td>Sample and Research Design</td>
<td>28</td>
</tr>
<tr>
<td>Research Procedures</td>
<td>28</td>
</tr>
<tr>
<td>Research Instruments</td>
<td>32</td>
</tr>
<tr>
<td>Limitations of the study</td>
<td>34</td>
</tr>
</tbody>
</table>

**CHAPTER FOUR**

<table>
<thead>
<tr>
<th>Topic</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Results</td>
<td>36</td>
</tr>
<tr>
<td>Graduation Wastage</td>
<td>36</td>
</tr>
<tr>
<td>Active Teaching Wastage</td>
<td>37</td>
</tr>
<tr>
<td>Hypothesis 1 Results</td>
<td>43</td>
</tr>
</tbody>
</table>
CHAPTER FIVE

Discussion of Results .................................................. 56
Wastage ................................................................. 56
Hypothesis 1 .............................................................. 58
Hypothesis 2 .............................................................. 61
Hypothesis 3 .............................................................. 64
Economic Positions ....................................................... 64
Conclusion ................................................................. 67
Practical Implications ................................................... 67
Suggestions for future research ................................. 69

LIST OF TABLES

Table 1: Attrition of trained University of Zambia graduate teachers from all secondary school 1975-1987 ............... 40
Table 2: University graduate teachers considered in proportion to the whole secondary school teaching force 1977-1987 ......................................................... 41
Table 3: Output and retention of trained University graduate teachers 1969-1987 ......................................................... 42
Table 4: Responses of the former University graduate teachers on whether or not they were satisfied or dissatisfied with teacher's salary ........................................... 47
Table 5: Responses of University of Zambia trained teachers who had taken up different jobs upon completion of their undergraduate studies on their opinion about their starting salary ........................................... 47
Table 6: A summary of the cochrane-Q test applied to selected participants' responses ........................................... 48
Table 7: Responses of the former University Graduate teachers on job satisfaction and fringe benefits.

Table 8: Responses of the former University graduate teachers on the application and obtaining of loans from the government.

Table 9: Summary of the participants responses on promotions in government and mission schools and on securing loans from their new employers.

Table 10: A summary of how the former University graduate teachers rated the status of a teacher when they worked as teachers.

Appendix 1: A letter (To whom it may concern).

Appendix 2: A letter (To whom it may concern).

Appendix 3: A letter to the respondent.

Appendix 4: University of Zambia Former Graduate Teacher Questionnaire.

Bibliography.
CHAPTER ONE
INTRODUCTION

Context of the problem

The human capital theory became very popular towards the end of the
1950's and in the early 1960's. Underlying the human capital
theory is the belief that the creation of human resources can be
achieved by investing in an individual through education. Some of
the assumptions of the provision of education to an individual are
that the person after, acquiring education will increase his
productive capacity, earn a higher income and increase his
contribution to national development (Coombs, 1970,
Psacharophoulos, 1985).

The majority of the Third World countries attained their political
independence when the human capital theory was gaining popularity.
Having concern for the economic development and mordernisation of
the newly independent states, the United Nations launched the
"First Development Decade" in the early 1960's in order that the
Third World Countries would be assisted to attain economic
development (Lulat, 1980). Schultz and Becker were the pioneers
in advocating assistance to the developing countries by the
developed countries in the field of education.

The response to this appeal was tremendous. The World Bank, the
International Monetary Fund (IMF), and many other organisations
began rendering to the newly independent countries in the form of
aid, loans and personnel. The Third World Countries broadened their education systems. The expansion was particularly greater at the secondary school level which could provide manpower for the economic development. Referring to the Zambian situation Chakulimba (1986) says:

In a few years following independence, Zambia had achieved an impressive record of secondary education expansion. While there were only 13,843 pupils enrolled in secondary schools at all levels in 1964, the total enrolment was 42,388 in 1988, an increase of more than 300 per cent in a period of four years.

However, the broadening of the education system at the secondary school level in Zambia called for the importation of teachers (Mwanakatwe, 1974). Not only has the heavy reliance on foreign manpower been claiming a considerable proportion of the scanty national resources, but it has also retarded the development of true professionalism of the local teachers and has accentuated lack of continuity in some of the subject areas such as Mathematics, the Sciences, and English.

The need for teachers was foreseen in the 1960’s just after independence. In a bid to deal with the problem of teachers for the Secondary Schools, the Government established some teacher training colleges and the School of Education at the University of Zambia to train teachers. There are two secondary school teacher training colleges which train teachers for two years and award secondary school Teacher’s Diploma in conjunction with the
University of Zambia. These are Nkhrumah Teachers' College in Kabwe, and Copperbelt Secondary School Teachers' Training College in Kitwe. Luanshya Technical and Vocational Teachers' College trains Teachers in commercial, technical and industrial subjects.

There are some colleges which do not specifically train teachers but have an educational unit. These include, Natural Resources Development College (NRDC) in Lusaka which trains Agricultural Science Teachers for 3 years and Evelyne Hone College for Applied Art, and Commerce which trains Music, Art and sometimes teachers of English for 3 years.

University graduate teachers in art, and Science subjects are trained at the University of Zambia by the School of Education. The flow of teachers from the colleges and the University of Zambia has been considerably regular and reliable since the inception of these institutions.

However, the achievement of self-sufficiency in the production and supply of teachers seems to be a dream that may not be fulfilled in the near future because of the attrition that the profession has been suffering from the early days of independence (Mooers, 1968, Shaw, 1979). attrition in the profession has been observed at all levels of the education system. At the Secondary level, the average attrition rates range from 0.4 per cent and 33.9 per cent (Jackman, 1977, Kelly, 1988).
It is necessary to note that attrition in the teaching profession has been taking place at two points. The first point is at the end of the training. Some people who train as teachers never enter the teaching profession and this is what Shaw (1979) calls graduation wastage. The loss of some of the trained teachers who never enter the teaching service has been a worrying problem for as many years as the teacher training institutions have been in existence in Zambia.

The second point at which attrition in the teaching profession is experienced is in the teaching service. The loss of some of the trained teachers who enter the profession but resign is what Shaw (1979) calls active teaching wastage. Both graduation and active teaching wastage have been associated with poor conditions of service, low teacher's status, lack of promotion and other factors (Jackman, 1977). The University of Zambia graduate teacher wastage rate has been higher than the diploma holder teacher wastage rate. Only 26.3 per cent out of 585 University of Zambia graduate teachers supplied between 1969 and 1977 had remained in the teaching force in term one of 1978. Whereas 56.6 percent, 50.0 percent, and 54.3 percent of the teachers who had trained at Copperbelt Secondary School Teachers' College, Natural Resources Development College, and Nkrumah Teachers' College respectively were still working as teachers in term one of 1978 (Shaw, 1979).
Some of the problems affecting the teaching profession were born at the time of independence and are as old as the nation. One source of worry is that some of the problems in the education system may be accepted as part of social reality. This notion if allowed to spread will accentuate the loss of good teachers by failing to attract and retain them in the profession because the problem affecting the profession are considered like weather over which human beings have little control. This study will address the problem of University of Zambia trained graduate teacher wastage and the factors associated with the wastage.

Statement of the problem

Despite having the School of Education at the University of Zambia as a regular and reliable major source of senior Secondary School teachers since 1969, the problem of teacher shortage in Secondary Schools has continued. The shortage of teachers in some subjects such as Mathematics, Biology, chemistry, Physics and English Language and Literature in English are as a result of the attrition of some University of Zambia trained teachers both as graduation wastage and active teaching wastage (Shaw, 1979), Kelly, 1988).

Attrition in the teaching profession of the Senior secondary School teachers has not only perpetuated the problem of the shortage of teachers in some subject areas but has also slowed down the process of Zambianising the teaching posts in Secondary Schools (Jackman, 1977).
The purpose of this study is to determine the magnitude of graduation wastage total for the period between 1977 and 1987. The total wastage that is the graduation wastage plus active teaching wastage for the periods between 1970 and 1987 will also be determined. Furthermore, the study will investigate some of the factors which make some teachers get attracted by other organisations. Lastly, the study will investigate some of the factors which make some University of Zambia trained graduate teachers leave teaching in government and grant-aided schools.

**Definition of terms**

Active teaching wastage is what Shaw (1979) defines as losses from teaching due to teachers leaving the teaching force.

Attrition is defined as the loss of trained teachers before they enter teaching, abscond after entering the classroom, move to administration, college and the University or resign from the teaching in Government and grant-aided Schools.

Conditions of service in this study refer to salary, accommodation, all types of allowances and loans and many other benefits in the teaching profession in government and grant-aided schools.

Diplomate is a college trained secondary school teacher who follows a training programme for two or three years depending on the kind of college where a teacher trains.
A Government School is a Government-owned learning institution with regard to admissions, curriculum, staffing and the management of resources. They receive 100 per cent funding from the government for capital developments, school requisites, boarding and operating costs, salary payments for teachers and the ancillary staff as well as the administrative staff.

Grant-aided/Mission Schools are what Kelly (1988, P10) defines as institutions that are assimilated to government-owned establishments in all the concerns admissions and curriculum, but they enjoy some independence of a limited nature in staffing and in the management of resources. They receive from the Government a grant of 75 per cent of the cost of approved capital developments; grants to help pay for school requisites, boarding and operating costs; salary payments for approved teachers and wage payments for approved employees; and grant-in-aid for agency personnel of the teaching and administrative staff of the institution.

Graduation wastage is what Shaw (1979) defines as the wastage of teachers which occurs between graduation from a programme and entry into the classroom (P17).

Status

Gerth and Mills (1946: PP186-7) referring to status state:

In contrast to classes, status groups are normally communities. They are, however, often of an amorphous kind. In contrast to the purely economically determined 'class situation' we wish to designate as 'status situation' every typical component of the life
fate of man that is determined by a specific, positive or negative, social estimation of honour. This honour may be connected with any quality shared by a plurality, and of course, it can be knit to a class situation: class distinction are linked in the most varied ways with status distinctions.

University graduate teachers refer only to University of Zambia trained teachers who have had a Bachelor of Arts or a Bachelor of Science Degree with Education.

Objectives of the Study

1. The study will attempt to quantify;
   a) The graduation wastage which is the wastage of teachers which occur between graduation from a programme and entry into the classroom for the period between 1977 and 1987;
   b) The active teaching wastage which is the loss from teaching due to teachers leaving the teaching force for the period between 1970 and 1987;
   c) The total wastage which is the active and graduation wastage as defined above.

2. The study will try to investigate the factors related to teacher wastage.

Hypotheses of the study

It is hypothesised that:-

1. Poor conditions of service such as low salary, small responsibility allowance, small holiday allowance, lack of and poor accommodation, lack of entertainment allowance, difficult access to loans, small or no transport allowance, and non-
practising allowance for the professionals are some of the factors that significantly contribute to some University of Zambia graduate teachers' resignation from government and grant-aided schools.

2. Frustration due to lack of promotion and professional advancement, unfair and unprofessional treatment by some immediate supervisors greatly contribute to the rate of resignation of University of Zambia trained graduate teachers from government and grant-aided schools.

3. The declining status of a teacher is one of the factors that significantly make some University of Zambia trained graduate teachers either shun or leave the teaching profession in the government and grant-aided schools.

**Significance of the study**

It is hoped that this study will update the existing literature in this field by determining the recent graduation, active teaching and total wastage rates. It is also hoped that the study will extend the frontiers of knowledge in the field by both quantifying the wastage and concentrating more on identifying the factors associated with attrition in the profession where as most of the past studies concentrated more on the quantification of the wastage.
It is also hoped that by using social rates of return approach, the educational planners and economic planners, will on the basis of some of the findings, review the procedures of resource allocation and utilisation not only at different levels of the education system but also between the education system and the national economy.
CHAPTER TWO

Literature Review

Numerous studies relating to secondary school teacher attrition have been undertaken by scholars from different perspectives since the early days of independence in Zambia. The concern of the past researchers in this field does not only reflect the importance, value, and usefulness of the trained manpower but also the persistence of the problem of attrition.

In his study on "Factors related to teacher dropout", Mooers (1968) attempted to identify the factors that were associated with the teachers' opting out of the profession. He covered the period between 1964 and 1967. His sample comprised 65 teachers both former primary and secondary school teachers who had taught for at least 1 year before they resigned and took up jobs with some companies in Kitwe which is the hub of the Copperbelt towns.

Mooers' study revealed that there were three important factors linked to teacher attrition. In the order of importance they are: low salary, lack of promotional opportunity, and the declining teacher's status.

Mooers also observed that in trying to fulfil the policy of Zambianisation, the Government drew heavily on the teaching service which had comparatively more learned personnel than the other
fields. The appointment of some teachers to posts other than teaching greatly contributed to the shortage of trained teachers in the education system.

However, it is important to note that Mooers research methodology shows that he used availability sampling frame to draw his sample. Thus, Mooers sample lacked the quality of representativeness.

The majority of his participants in the sample were former primary school teachers then. The majority of the secondary school teachers were expatriates as the local secondary school teacher training institutions were just being established. Considering the methodology weakness in Mooers study, we can safely say that his generalisation based on the research results is somewhat unreliable, and thus less helpful and useful in the process of finding a solution to the problem of teacher attrition.

In another study, similar to Mooers' study in the sample composition which included both primary and secondary school teachers, Chakulimba (1986) was concerned with the teachers status in the Zambian society from a sociological perspective. The study looked at the teacher's status before and after independence. The sample consisted of 556 participants who included pupils, teachers and members of the public. In part, Chakulimba (1986, P iv) reported that:
The analysis revealed that teachers' present-day status was relatively low compared to other social personalities and that it was lower than it had been in the colonial period. The analysis also revealed that low salaries, lack of and poor accommodation had significantly contributed to the decline of teachers' status and to their dissatisfaction with and resignations from the teaching service.

Although Chakulimba's study (1986) is relatively recent and comprehensive, his generalisation, just like Mooers', appears to be unwarranted on the basis of the sample composition. The primary and secondary school teachers belong to two distinct categories. Though they all work for the Ministry of General Education, Youth and Sport, there are differences in the level of status and conditions of service. In fact we have to recognise the sub-categories within the two categories of teachers. It is the application of the research findings that seem to be problematic with respect to the categories of teachers.

The Manpower reports of 1966 and 1969 emphasise the urgent need to Zambianise most of the posts in all sectors of the economy. Projections had been made for each National Development Plan and the projections continue to be made. Using an economic approach, Sanyal (1976), in his book *Higher Education and the Labour Market in Zambia*, observed that the supply of teachers from the local training institutions between 1972 and 1974 had exceeded the target set for the Second National Development Plan going by the graduate statistics for that period.
This positive indicator of the supply of trained Manpower had raised a lot of hope. It was felt that the process of Zambianisation would be achieved earlier than it was projected in the Second National Development Plan. Nevertheless, he observed that the teaching force suffered from severe attrition during the period under his study. The attrition he identified was in two categories. The first category is graduation wastage which refers to the loss of people who successfully completed a training programme but never enter the teaching profession. There was 25 per cent graduation wastage. The second category is active wastage which refers to the loss of those who train as teachers and enter the teaching profession after completing the training programme but resign. The average attrition was 21 per cent. He linked the loss of teachers to the low pay in the teaching profession compared with the other occupations Sanyal (1976) commented:

Trained teachers currently teaching in Secondary Schools are paid less than their colleagues who have either left teaching or moved out of Secondary School teaching.

Sanyal's study covered all the institutions of higher learning and considered the institutions productive capacity as well as the labour market for the graduates. The study is very illuminating particularly through the comparison of pecuniary rewards that were made only between different sectors but also between teachers who were still in the service and the teachers who had resigned were working elsewhere within the country. A careful analysis of Sanyal's study reveals that he singled out the economic factors as
the sole cause of the teachers' leaving the profession in the Government and Mission Schools.

Although the economic factors are very important in influencing the resignation of teachers, other factors such as poor working relationship with the supervisory staff, low status, and lack of accommodation are equally important.

Most of the teacher training institutions were set up between 1966 and 1973. The School of education at the University of Zambia was established in 1966; Nkrumah Teachers' College opened in 1967; Natural Resources Development College (NRDC) opened in 1967; Copperbelt Teachers' Training College opened in 1973 (Mwanakatwe 1974). The other institutions which have been helping to train teachers had also opened during the same period. It was necessary to start investigating the relationships between institutional production and utilisation of Manpower since almost all teachers in secondary Schools were initially expatriates.

There are other studies whose findings supported the studies that have been already reviewed. Stannard (1968) looked at the supply and retention of secondary school teachers. Eliot (1971) was concerned with the problems of low teacher retention and causes of teacher turn over in Secondary Schools. Both studies confirmed the existence of the problem of teacher shortage in Secondary Schools.
The problem of Zambianisation in secondary schools was addressed by many scholars and almost in the same period. The teaching force especially because of the view of education as an investment in human beings as capital, attracted considerable attention. Jackman (1977) investigated the problem of Zambianisation in Secondary Schools. His period covered the period between 1970 and 1974. He dealt with all the teachers who were in service, and used the postal questionnaire approach through the supervising officers. Jackman reported that the average attrition for that period was 18 per cent.

He warned that if the attrition from the teaching force remained at the observed level, complete Zambianisation in the teaching service would not be realised. He added that a reduction of the attrition rate as a result of conscious effort, or as a result of complete Zambianisation of other sector would decrease the demand for trained teachers and this could result in complete Zambianisation of the teaching service within a decade. We have to note that Jackman's study main objective was to investigate the retention rate which could affect the process of Zambianisation. However, he did not investigate the factors which were linked to the resignation of teachers in Secondary Schools.

Ministry of Education (1977) in the Educational Reform: Proposals and Recommendations, acknowledged the existence of teacher shortage in the profession. Among the several causes of the
teacher shortage, the declining teacher’s status was identified as one of the major ones. Another cause of teacher shortage was that failure of the system to attract sufficient numbers to the profession and retain more of the able teachers. Since the status of the teacher was declining many people were not willing to enter the profession while a good number of those who ever joined left for the same reason.

Furthermore, it was reported that the working environment, conditions of service, and the lack of incentives forced many of the teachers to resign and look for what they considered better opportunities elsewhere. It was commented that the shortage of teachers and the low morale of those teachers who still remained in the system, adversely affected the quality of education offered to pupils.

It was also noted that a substantial number of the teachers in the secondary sector were expatriate and was estimated to total about 1,926, out of 3410. This means that there were 1484 Zambian teachers (this included both diploma and degree holders).

Another study undertaken by Shaw (1979) on teacher wastage among trained Zambian teachers between 1970 and 1977. Shaw used the termly staffing returns at the Ministry Headquarters of General Education, Youth and Sport in Lusaka for his data. He observed that there was a large total wastage of teachers due to both
graduation and active wastage. He noted that the highest wastage percentage in the University of Zambia trained graduates was teachers. The lowest percentage was of Khurumah Teachers' Training College diploma holder teachers. Only 26.3 per cent of University graduate teachers who had graduated between 1969 and 1977 from the University of Zambia had remained in the teaching force (Shaw, 1979, P29).

In addition he observed:

**Taken together, the loss of over 400 teachers who never entered teaching and the loss of just under 600 from active teaching means that, over the period under consideration, just 1000 or almost 55 per cent of the total teacher supply have left the teaching force.**

Shaw's study (1979) was comprehensive and excellently done. However, his result findings were very daunting to the educationist concerned with the future of education in this country. Despite quantifying the wastage very well, Shaw (1979) did not attempt to identify the causes of the wastage which if he had done would have made his findings altogether more helpful and useful.

In the 1980's, the manpower situation in the teaching force appeared to have begun showing signs of improvement. It seems the decline in the economy turned the rosy picture in the other sectors, which used to provide alternative job opportunities to teachers, into a gloomy one. This is confirmed by studies conducted by Bardouille (1982) and Kelly (1988).
Bardouille (1982) carried out a cohort tracer study on the mobility patterns of the University of Zambia trained graduate teachers who graduated in 1974. There were 67 trained University graduate teachers in her sample. She found that 23 per cent of the graduate teachers who were part of the sample never entered teaching. While the majority of those who entered teaching were still in the profession 5 years later, Bardouille attributed the graduation wastage to economic factors. It is important to observe that she conducted a tracer study whose findings cannot be confidently and reliably be generalised to the whole population of the university trained graduate teachers.

Kelly (1988) in a very comprehensive study refuted the claims of some of earlier researchers that the problem of staffing in secondary schools was alarming. Kelly’s study was segmented into levels (i.e. Primary and Secondary) and categorised into university graduate teachers and diploma holder teacher teaching in secondary schools. He observed that there were almost more than enough diploma holder teachers in Secondary Schools.

He, however, acknowledged that there were inadequate University graduate teachers in some of the subject areas particularly in Sciences, Mathematics and English. Kelly’s study was not primarily concerned with the reasons for attrition but he, nevertheless, claimed that the unpleasant economic circumstances and the positive professional attitude which the trained teachers of the 1980’s had
adopted, jointly reduced the rate of attrition of the University graduate teachers.

Kelly’s (1988) observation raises a lot of hope amongst not only the intellectuals but also the planners and administrators. However, the problem of teacher attrition continues to worry the educational planners because the economic crisis that has besieged the country is forcing teachers to seek alternative jobs within the country and some have decided to teach outside the country. The brain-drain which was predicted by Bardouille in 1982 has in fact begun taking place.

The problems of attrition in the teaching profession and teacher shortage are not peculiar to Zambia. These problems are universal. They are common nearly in all countries both developing and developed ones.

In Lesotho, Bam (1974) reported that although there had been improvement in teachers’ qualifications and salaries as well as physical facilities, the wastage rate had not been reduced to the target of 41 per cent and 10 per cent for primary and secondary levels respectively set for the Addis Ababa conference.

He observed that teachers continued to clamour for salary increases because their salaries tended to be lower than salaries paid in the public service for occupations requiring comparable qualifications.
This made it difficult for the government recruit and retain capable teachers. He concluded that, as a result, of low salaries in the teaching profession, there was poor work, lack of inducement to the profession, retention of mediocre performers and this resulted in low public esteem of the teaching profession.

In the United States of America, Wagner (1987) reported that 6 per cent of teachers left the profession every year. He indicated that as the pool of teachers continued to age more attractive job opportunities opened up, the rise of turnover would likely increase. One of the observations he made was that one of the major problems was Maldistribution both geographically and across specialities of the available supply. Besides, he reported that there was evidence of shortages in several subject areas such as Mathematics, Biology and Physical Sciences. He commented that positions in these areas might remain vacant.

Some 60 per cent of former teachers were reported to have left the profession due to low pay and 36 per cent cited working conditions as one of the main reasons they left teaching. Wagner also reported that 1/5 of the former teachers who left for other jobs claimed that lack of respect (17%) and lack of parent or community support (18%) prompted them to leave.

However, Wagner reported that the average teachers', salaries increased some 5 per cent per year in real terms from 1983 to 1985.
and that teacher pay was expected to be 2 per cent above the rate of inflation in 1986-1987. In comparison their new jobs with teaching, almost 4/5 of the former teachers reported salaries to be better in their new occupation.

Orivel and Perrot (1987) referring to France said that there was a possible teacher shortage because teaching had become financially, occupationally and socially less attractive than it was in the past. They added that teacher shortage did not affect all subjects to the same degree. Countries which are members of the Organisation for Economic Cooperation and Development (OECD) which include; Western Europe, North America and Japan, Orivel and Perrot reported that there were not enough Science and Technology teachers but often surfeit of teachers in other subjects.

They argued the magnitude of the teacher shortage problem varied from country to country. The most acute shortage was observed in the United States, the United Kingdom, and France. Not far behind were Italy, Spain, Portugal and Greece.

Regarding the impact of salaries on the teaching profession, they reported that it was evident that if teachers' salaries exhibited a marked drop compared to other salaries many teachers and aspiring teachers tended to seek more lucrative employment elsewhere. In many countries, it was noted, secondary teachers'
salaries had decreased on the basis of GNP per capital, but did not necessarily signify a reduction in buying power. They also observed that the last part of the 20th century saw that declining of the teacher's status because of the broadening of the education and the growth of the middle class in the OECD countries.

Summary of Literature Review

All the previous studies either directly or indirectly reveal and confirm the existence of teacher wastage in the teaching profession. Studies which were conducted comparatively early in this area indicated that there was a staffing problem due to attrition (Mooers, 1968 Stannard, 1968, and Elliot, 1971). Sanyal (1976) reported that the graduation wastage was 25 per cent and the total wastage was 21 per cent. He associated the wastage with the low pay in the teaching profession compared with other occupations. Jackman (1977) investigated the problem of teacher wastage and reported that the highest teacher wastage rate was of the University of Zambia graduate teachers only 26.3 per cent of those who had graduated between 1969 and 1957 had remained in service. A tracer study was conducted by Bardouille (1982) of the 1976 University of Zambia graduate teacher Cohort. She revealed that there was 25 per cent graduation wastage and that the majority of the Cohort members were still in the profession.
Chakulimba (1986) in a sociological study focused on the status of teacher and alluded to the problem of teacher loss. Kelly (1988) analysed the situation in the teaching force. He observed that there were more diploma holder teachers in secondary schools than the required number. Nevertheless, he acknowledged the problem of teacher attrition especially in Sciences, Mathematics and English and that the number of University graduates was still inadequate.

In Lesotho, Bam (1974) observed that despite improvement in teacher qualifications and salaries as well as physical facilities, there was no reduction on the teacher wastage rate. Teachers salaries, he reported, were comparatively lower than the other occupations.

The low salary in the teaching service made it difficult for the government to recruit and retain good teachers. He concluded that the professional credibility was shaken because of the mediocre professionals and poor educational outcome.

In the United States, Wagner (1987) stated that at least 6 per cent of the teachers left teaching every year and the number of these entering and leaving the profession depended on the availability of job opportunities elsewhere. He noted that there was a problem of maldistribution of teachers in terms of geographical location and across specialities of the available supply. He added that shortages were evident in subject areas such as Mathematics, Biology and Physical Sciences.
The majority of the former teachers, he reported attributed their leaving the profession to low pay and that a considerable percentage linked their leaving teaching to poor conditions of service lack of respect and lack of community support. He observed that even though teachers' salaries were expected to be 2 per cent above the inflation rate, salaries in other occupations were better.

In France, Orivel and Perrot (1987) said that there was a possible teacher shortage due to the removal of the exclusive benefits that the profession members used to enjoy in the past. They noted that teacher shortages affected all the countries in Western Europe, North America, and Japan. They observed that science and technology teachers were inadequate but the magnitude of the teacher shortage varied from country to country.

They reported that although secondary teachers' salaries had decreased on the basis of GNP per capita, the purchasing power was not reduced. The further reported that aspiring teachers and those in service sought more lucrative jobs when the salaries in the teaching profession were not as competitive as in other employment, the status of the teacher in the 20th century was reported to have declined due to the broadening of education and the growth of the middle class in the OECD countries.
In view of the differences in the periods when the previous studies were conducted, the nature and focus of the past studies, and the exceptionally high wastage rate of the University of Zambia graduate teachers, it has been found imperative for this study to be undertaken.
CHAPTER THREE
RESEARCH METHODOLOGY

Methodology

The population for this study comprised all the University of Zambia trained former graduate teachers who were awarded either a Bachelor of Arts Education Degree or a Bachelor of Science Education Degree between 1970 and 1987. The study included not only those who entered teaching and taught in grant-aided secondary schools, established (senior) government secondary schools, junior government secondary schools, and Basic schools and later opted out of the profession but also those who never entered teaching upon successful completion of their undergraduate studies and sought jobs in other government Ministries, parastatals, private companies, multinational corporations, were self-employed, and sought jobs in other countries.

The information for those who trained at the University of Zambia between 1970 and 1987 who either or not joined teaching was obtained from University Archives. The information about those who did not join teaching and those who joined but left was obtained from the Ministry of General Education, Youth and Sport.
The Sample and Research Design

The sample was composed of 100 former University graduate teachers trained by the University of Zambia. There were 25 female and 75 male participants. The age range of the participants was between 23 and 40 years.

A tracer study was conducted and the participants were contracted and a questionnaire was served to them with the cooperation and assistance of their new employers. The participants were requested to complete the questionnaire and return it either through the employer or by post.

Research Procedures

Initially, the sources of data included the University of Zambia students' Records Archives, Education in an Economy Under Decline (Kelly, 1988), and the Headquarters of the Ministry of General Education, Youth and Sport in Lusaka. Secondly, data were obtained from the participants through their new employers in Lusaka Province, on the Copperbelt, Central Province, all the Provincial Headquarters and any other town where some of the organisations which employed some of the former University of Zambia graduate teachers had branches.

The names and statistics of the students who had entered the school of Education and graduate from the University of Zambia between 1970 and 1987 were procured from the University of Zambia
students' Records Archives. This enabled the determination of the total number of the University graduate teachers trained by the School of Education between 1970 and 1987. Secondly, the names and statistics of the entrants to the teaching force with a Bachelor's Degree from the University of Zambia were collected from the personnel Department, and the Planning and Statistics Unit of the Ministry of General Education, Youth and Sport. The comparison of the numbers of University graduate teachers from the School of Education at the University of Zambia and the numbers of the entrants to the teaching service for each year and for the period under consideration was then made possible.

Multistage (cluster) sampling frame was used in the process of data collection for this study. The other sampling procedures used included stratified and systematic frames. These sampling procedures were employed at different stages. First, ninety organisations which were considered potential employers of the former University of Zambia trained graduate teachers were listed down. By using systematic sampling, in which every third organisation picked, 30 organisations were in all selected.

The selected organisations included Government Departments, Parastatals, private Companies and Multinational Corporations. Second, the current employers of the former University of Zambia trained teachers were requested to supply the names, sex, degree type, and the year when their former graduate teacher employee
commenced work out of the total of the degree holder from the University of Zambia. A stratified sampling procedure was then employed with respect to sex, degree and year of graduation. By using a stratified sampling frame, 50 per cent of each sex was chosen from the total stock of both Science and Art Education Degree holders. In addition, the percentage of the degree type and year of graduation was determined on the basis of the sample of the population in each organisation. Finally, a systematic proportionate sampling frame was used to select the final sample. All the participants were listed down and a sample was drawn by determining an equal interval on the basis of the size of the available sample. Multistage sample was applied in all the organisations except for the organisations which had an inadequate number of former University of Zambia graduate teachers.

The multistage sampling procedure was chosen as the most convenient technique for this study because it was not possible to get comprehensive and up to date records at the Ministry of General Education, Youth and Sport where the names of the teachers who had resigned from teaching were supposed to be obtained. This rendered the records at the Ministry of general education, Youth and Sport somewhat unreliable, ad thus, less helpful and useful. For this reason, other probability sampling procedures such as random sampling, systematic proportionate frame, stratified random sampling were eliminated as one of them could not be used in isolation. It was observed that some of the names of the teachers
who had left teaching were not immediately recorded in the record book.

It was suspected that some of the teachers who had left teaching could not have been recorded. Therefore, sampling by using systematic and stratified random procedures was considered inappropriate.

Another reason that necessitated the use of multistage sampling procedure was the problem of tracing some if not all the former University of Zambia graduate teachers if a final sample was to be drawn at an early stage. Despite having contemplated a possibility of obtaining contact addresses which some of the former teachers had left at their former stations, the inadequacy of time and financial resources prevented this from being done.

Besides, some of the University of Zambia trained graduate teachers never entered the teaching profession in the Ministry of General Education, Youth and Sport upon successful completion of their first degree studies. This was a source of another problem which could have meant leaving out this group which Shaw (1979) calls graduation wastage if systematic or stratified sampling procedures had been used at the initial stage. Contacting the participants through the media was not possible due to limited financial resources. Since none of the participants in this category had entered teaching, no contact address could be available. In view
of all these problems, multistage sampling frame was considered the most appropriate for this study.

**Research Instruments**

A questionnaire which was designed by the researcher was the only research instrument used in the collection of data. Before, the questionnaire was designed, reference was made to some of the researchers' reports that have been already cited in the literature review such as Mooers (1968) Sanyal (1974) Jackman (1977), (1979) and Chakulimba (1986). The majority of the questionnaire items were drawn up with respect to the three main hypotheses of the study.

The questionnaire was designed for two categories of University of Zambia trained former teachers. One category was composed of what is called graduation wastage. This is the wastage of teachers which occurs between graduation from a programme and entry into the classroom. The second category is what is referred to as active teaching wastage. This is the loss from teaching due to teachers leaving the teaching force.

Some of the questionnaire items included the following:

1. What subjects were you trained to teach?
   a) Your Major________________________
   b) Your Minor________________________
   c) Single-subject______________________

32
d) Double major

2. Did you take the appointment as a teacher immediately you completed your undergraduate studies?

Yes 01  No 00

3. How satisfied were you with a teacher's salary

Very satisfied 04 satisfied 03 dissatisfied 02 very dissatisfied 01

4. If you had taken up a different job after finishing your studies what can you say about your starting salary?

Very Satisfied 04 Satisfied 03 Dissatisfied 02 Very dissatisfied 01

The full questionnaire is in the appendix.

The questionnaire was either administered to the participant(s) through the Personnel Department of every employer of the former University of Zambia graduate teachers or directly by the researcher after arrangements had been made with the personnel department for the researcher to meet the participants. The participants were requested to complete the questionnaire and were advised to answer all the questioned which were relevant to them on the basis of whether they had entered teaching or not.
Although only 100 questionnaires were needed for this research 150 questionnaires were administered so that the loss of some of the questionnaires which was foreseen could be made up for. Altogether, 92 questionnaires were completed and returned to the author either through the personnel department of each employer or the questionnaires were directly posted through mail to the author by the participants.

**Limitations of the Study**

In view of the general transport problem, which made the research exercise somewhat difficult, and also due to the inadequacy of time and financial resources, this study had a sample of 100 participants only. In fact, out of 150 questionnaires that were administered to different participants, only 92 were returned. The teachers who had resigned and sought jobs outside the country were not part of the population sample since they could not be contacted easily.

A pilot survey was planned to be conducted before the actual research was undertaken. However, the delay in releasing the research fund by the sponsors prevented it from being carried out. As a result, the questionnaires were not tested and reformulated. Probably this could have affected, to a certain degree, the nature and quality of the responses that were obtained from the participants.
The research findings may not be generalised to the whole teaching force, let alone the secondary school teaching staff since a sample of the University graduate teachers represents a minority group of teachers in the teaching force.

Another possible limitation of the findings is the reliability of some of the responses of the participants. It was noticed during data processing that some of the participants had answered some of the questions which they were not supposed to answer, particularly those who had not entered teaching. It is hoped that this did not affect significantly the overall research results.

Finally, some of the organisations had a limited number of university teachers and this prevented the use of the multistage sampling procedure which could have yielded more of the desired results.
CHAPTER FOUR

Results

The results for this study are in two parts. The first part deals with the quantification of wastage in two categories, graduation and active wastage. For this part, frequencies, percentages, and means were employed in the analysis of data.

The second deals with the analysis of the responses of the participants. Cross-tabulation, descriptive statistics such as mean, median, standard deviation, percentages, skewness, and variance were used to analyse that data.

To test the significance of the hypotheses, a Chi-square test was applied. The use of the Chi-square was not only warranted by the categorical nature of the information but also by the need to test the strength of the relationship between the independent and dependent variables. For the purpose of testing whether there was a significant difference between the 'yes' and 'no' answers a corhnan Q test was run.

Graduation Wastage

The majority of those who train as university graduate teachers but decline to take up the teaching appointment in preference for other jobs within the education system and other government departments, parastatals, inter-governmental organisations, and multinational corporations, constitute a higher wastage rate which is known as graduation wastage. From (Tables 1 and 3) we notice
that the University of Zambia graduation wastage is between -2.0 per cent and 116.5 per cent on pages 33 and 35 respectively.

The average attrition in relation to output is 65.1 per cent for the period 1975 and 1987. The year 1975 is considered a convenient point of departure because it was when the University of Zambia graduate teacher output had sizably increased up to 140 (Tables 1, 2 and 3). Between 1975 and 1982 the graduation wastage rate fluctuated between 16.8 per cent and 84.0 per cent. The highest graduation wastage rate is 116.5 per cent for 1987 and the lowest graduation wastage rate is -2.0 per cent in 1984.

The average graduation rate (Table 1) from 1976 and 1987 when this period is divided into three parts 1976-1979 and 1980-1983 and 1984-1987 the period 1976-1979 has the highest rate followed by the period 1984 to 1987 and lastly the period between 1980 to 1983 with the rates of 78.5 per cent, 86.4 per cent and 33.1 per cent respectively.

**Active teaching wastage**

From (Tables 1, 2 and 3) we observe that 26 out of 47, university graduate teachers, who were in posts in 1970, were not trained by the University of Zambia. The university graduate teachers who were probably trained abroad made the retention rate for 1970 very high about 223.8 per cent. The lowest retention rate was experienced in 1980 of about 29.0 per cent. Apparently, 1980 had the highest output rate from the University of Zambia. Data in
(Table 3) show that the downward retention rate stopped in 1981 and began rising up to 1984 when the retention rate was at 45.4 per cent. However, the upward retention rate was short lived.

In 1985 the active teaching retention rate dropped to 44.2 per cent. The decline continued and it was 42.9 and 40.3 per cent for 1986 and 1987 respectively.

Between 1975 and 1987, the highest active teaching wastage was observed in 1976 at 32.5 per cent and the lowest in 1983 at -0.4 per cent when the period 1976 to 1987 was segmented into three parts 1976-1979, 1980-1983 and 1984-1987, the average active teaching wastage rates were 29.5 per cent, 10.4 per cent and 13.0 per cent respectively. The total wastage (i.e., active teaching wastage plus graduation wastage) from 1969 to 1987 is about 60.0 per cent.

The proportion of the University of Zambia trained graduate teachers to the entire secondary school teaching force is very small (Table 2). Although it appears there has been a steady increase in the proportion of University of Zambia trained graduate teachers to the who stock of secondary school teachers, from 6.1 per cent in 1977 to 16.1 per cent in 1986 with a small drop in 1987 to 15.4 per cent, the percentage of this group of teachers is somewhat small. In fact, if all University of Zambia trained teachers from 1969 to 1987 had remained in the government and
Mission Schools, only 38.1 per cent would have been the total percentage out of the whole secondary school teaching force. This means that out of 38.1 per cent 22.7 per cent had left teaching in government and mission schools by 1987 and only 15.4 per cent had remained.
Spor?

Ministry of General Education and


<table>
<thead>
<tr>
<th>Year</th>
<th>Enrollment</th>
<th>Average Attainment Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1984</td>
<td>3.4</td>
<td>13.4</td>
</tr>
<tr>
<td>1985</td>
<td>7.8</td>
<td>22.6</td>
</tr>
</tbody>
</table>

\[
\text{Average Attainment Rate} = \frac{\text{Enrollment} \times 100}{\text{Population}}
\]

\[
\text{Population} = \frac{\text{Enrollment} \times 100}{\text{Rate of Attainment}}
\]

\[
\text{Rate of Attainment} = c - d
\]

\[
\text{Enrollment} = a \times d
\]

\[
\text{Actual Number in Year} = \frac{\text{Enrollment}}{\text{Rate of Attainment}}
\]

\[
\text{Maximum number on budget going to follow year} = \text{Max. Number on budget} + b
\]

\[
\text{University output} = 140, 131, 134, 138, 148, 152, 171, 174, 178, 179, 170, 172
\]

\[
\text{University output} = 140, 131, 134, 138, 148, 152, 171, 174, 178, 179, 170, 172
\]
<table>
<thead>
<tr>
<th>Year</th>
<th>UNZA Graduate Teachers</th>
<th>% of Total No. of Teachers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1987</td>
<td>5856</td>
<td>15.4</td>
</tr>
<tr>
<td>1986</td>
<td>5499</td>
<td>16.1</td>
</tr>
<tr>
<td>1985</td>
<td>5504</td>
<td>15.3</td>
</tr>
<tr>
<td>1984</td>
<td>5043</td>
<td>15.9</td>
</tr>
<tr>
<td>1983</td>
<td>4672</td>
<td>13.8</td>
</tr>
<tr>
<td>1982</td>
<td>4584</td>
<td>10.8</td>
</tr>
<tr>
<td>1981</td>
<td>4670</td>
<td>9.6</td>
</tr>
<tr>
<td>1980</td>
<td>4225</td>
<td>7.6</td>
</tr>
<tr>
<td>1979</td>
<td>4297</td>
<td>7.0</td>
</tr>
<tr>
<td>1978</td>
<td>3851</td>
<td>6.7</td>
</tr>
<tr>
<td>1977</td>
<td>2639</td>
<td>5.8</td>
</tr>
<tr>
<td>1976</td>
<td>3755</td>
<td>6.1</td>
</tr>
</tbody>
</table>
Total wastage = 59.7
Average retention = 53.3

| Year | 5.2% | 40.3 | 8.2% | 31.4 | 6.6% | 46.3 | 33.3% | 3.4 | 31.3 % | 2.7% | 23.3 | 28.7 | 22.5 | 16.7 | 11.4% | 2.4 | 12.4 | 1.7% | 0.7% | 19.7% |
|------|------|------|------|------|------|------|-------|----|-------|----|------|------|------|------|----|-----|----|-----|------|
| 1969 | 100  | 112  | 130  | 141  | 155  | 159  | 163   | 165 | 165   | 161| 161  | 163  | 165  | 163  | 165 | 163 | 165 | 161 | 161  |
| 1970 | 142  | 143  | 144  | 145  | 146  | 147  | 148   | 149 | 149   | 149| 149  | 149  | 149  | 149  | 149 | 149 | 149 | 149 | 149  |
| 1972 | 158  | 159  | 160  | 161  | 162  | 163  | 164   | 165 | 165   | 165| 165  | 165  | 165  | 165  | 165 | 165 | 165 | 165 | 165  |
| 1975 | 182  | 183  | 184  | 185  | 186  | 187  | 188   | 189 | 189   | 189| 189  | 189  | 189  | 189  | 189 | 189 | 189 | 189 | 189  |
| 1976 | 190  | 191  | 192  | 193  | 194  | 195  | 196   | 197 | 197   | 197| 197  | 197  | 197  | 197  | 197 | 197 | 197 | 197 | 197  |
| 1977 | 198  | 199  | 200  | 201  | 202  | 203  | 204   | 205 | 205   | 205| 205  | 205  | 205  | 205  | 205 | 205 | 205 | 205 | 205  |

Output and Retention of Trained University Graduate Teachers - 1969 - 1987

Table 3
HYPOTHESIS 1 RESULTS

Poor conditions of service such as low salary, small responsibility allowance, small holiday allowance, lack of entertainment allowance, transport allowance, difficult access to accommodation and poor accommodation are some of the factors which significantly contribute to either teachers' resignation from government schools and grant-aided schools or teachers opting for other jobs within the government.

Hypothesis 1 can be divided into four parts for the purpose of achieving a systematic presentation of data. The constituent parts are: low salary, lack of fringe benefits (which cover all the types of allowances enumerated above), lack of accommodation, and poor accommodation.

Low salary is considered the most important factor, though not the sole factor, which makes some University of Zambia graduate teachers leave teaching in government and grant-aided schools. The Chi-square test was applied and the results were highly significant $X^2 (3, N=92) = 94.52$, $P .05$. The data in Table 4, support the claim. The majority (66.3%) said that they resigned from teaching in government and grant-aided schools because they were dissatisfied with the teachers' salary. A cochrán Q test was run to test the significance of the 'yes' and 'no' answers to the teachers' salary satisfaction. The results were highly significant, $Q(14) = 483.41$, $P.0001$.

In contrast, the majority of people who trained as teachers at the University of Zambia but declined to take up the teaching appointment said that they were satisfied with the salaries which
they were receiving at the time they responded to the questionnaire (23.9%). However, most of the participants (Table 5) appeared to consider pay, particularly their salary as a private and sensitive issue. This explains the insufficiency of information regarding salary satisfaction and dissatisfaction and 6.5 per cent expressed dissatisfaction with their salary.

Lack of accommodation was ranked second as one of the major factors contributed to the resignation of University graduate teachers in government and grant-aided schools. Chi-square test confirmed this hypothesis. The results were very significant, \( \chi^2 (3, N=92) = 54.17, P.05\). In fact 23.9 per cent said they were accommodated but 57.6 per cent reported that they were not accommodated. The cochran Q test results for the 'yes' and 'no' answers were significant, \( Q(14) = 483.4, P.0001\).

The comparison in the provision of accommodation between the Ministry of General Education, Youth and Sport and other organisations shows that the conditions are better in other organisations than in the Ministry of General Education. The majority (84.8%) of 92 participants indicated that they were given accommodation. A small group of 10.9 per cent out of 92 said they were not given accommodation by their new employers but were either given enough housing allowances to enable them to pay rent in a low-density area, or they were given loans to buy their own houses. The inferential test results were significant, \( Q(14) = 483.41, P.\)
Tables 6 and 7 show summaries of the responses.

Lack of fringe benefits which includes holiday allowance, entertainment allowance, car/transport allowance, loans, medical allowance, and education allowance for the children was ranked third as one of the most dominant factors that made some university graduate teachers resign from government and grant-aided schools. The inferential test was very significant, \( X^2 (3, n=92) = 41.13, \ P < .05 \). In order to test the significance of the 'yes' and 'no' answers, a cochrane Q test was run. The results were equally significant, \( Q(14) = 483.41, \ P < .0001 \).

The majority of the participants did not apply for any loans while they were working for government and mission schools. Table 6, had data to support the hypothesis. Only 20.7 per cent out of 92 participants had applied for loans while they were working as teachers in the government and mission schools, and only 7.6 per cent were successful in obtaining the loans.

Tables 6 and 8, have data showing the contrast of how loans are offered between the Ministry of General Education, Youth and Sport and other employers. Ninety two per cent out of 92 participants said they had access to loans and could get them easily in their new employment. The cochrane Q results were significant \( Q(14) = 483.41, \ P < .0001 \). However, 4.3 per cent out of 92 participants reported that they did not have easy access to loans in their new
employment.

Out of 92 participants, 67.4 per cent reported that they were entitled to holiday allowance in their new employment. The cochrann Q test was significant, $Q(14) = 483.41, P < .0001$. Table 6, has summarised data responses. 47.8 per cent out of 92 participants said they were entitled to car/transport allowances in their new employment. The details on the allowances are in Tables 6 and 7.

Poor accommodation was ranked fifth as one of the factors that greatly contributed to the university graduate teachers leaving teaching in the government and mission schools. The Chi-square test was significant, $X^2 (3,N=92) = 30.52, P < .05$. The cochrann Q test was also significant, $Q(14) = 483.41, P < .0001$. The inferential tests confirmed the hypothesis that poor conditions of service contribute significantly to the teachers' leaving teaching in government and mission schools.
Table 4: RESPONSES OF THE FORMER UNIVERSITY GRADUATE TEACHERS ON WHETHER THEY WERE SATISFIED OR DISSATISFIED WITH TEACHER'S SALARY

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>15</td>
<td>16.3</td>
<td>16.3</td>
</tr>
<tr>
<td>Very dissatisfied</td>
<td>26</td>
<td>28.3</td>
<td>66.3</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>35</td>
<td>38.0</td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>14</td>
<td>15.2</td>
<td>17.4</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>02</td>
<td>02.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

MEAN = 1.59  Standard ERR  MEDIAN = 2.0  SKEWNESS = .05
MODE = 2.0  STD DEV = 1.0  VARIANCE = 1.0

Table 5: RESPONSES OF UNIVERSITY TRAINEE TEACHERS WHO HAD TAKEN UP DIFFERENT JOBS UPON COMPLETION OF THEIR UNDERGRADUATE STUDIES ON THEIR OPINIONS ABOUT THEIR STARTING SALARY.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>64</td>
<td>69.6</td>
<td>69.6</td>
</tr>
<tr>
<td>Very dissatisfied</td>
<td>02</td>
<td>02.2</td>
<td>06.5</td>
</tr>
<tr>
<td>Dissatisfied</td>
<td>04</td>
<td>04.3</td>
<td></td>
</tr>
<tr>
<td>Satisfied</td>
<td>20</td>
<td>21.7</td>
<td>23.9</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>02</td>
<td>02.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>92</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>

MEAN = .85  STD ERR = .14  MEDIAN = .00
MODE = .00  STD DEV = 1.34  VARIANCE = 1.80
<table>
<thead>
<tr>
<th>QUESTION</th>
<th>N</th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
<th>CHI SQUARE VALUE</th>
<th>CHI SQUARE PROBABILITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you do postgraduate studies</td>
<td>92</td>
<td>11</td>
<td>12.0</td>
<td>81</td>
<td>88.0</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Were you getting housing allowance</td>
<td>92</td>
<td>08</td>
<td>08.7</td>
<td>84</td>
<td>91.3</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Was there significant difference in salary with allowance</td>
<td>92</td>
<td>10</td>
<td>10.0</td>
<td>82</td>
<td>89.1</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Was housing allowance enough to enable you to pay rent for a 2/3 bedroomed house with electricity.</td>
<td>92</td>
<td>00</td>
<td>00.0</td>
<td>92</td>
<td>100.0</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Did you find job satisfaction in teaching</td>
<td>92</td>
<td>45</td>
<td>46.9</td>
<td>47</td>
<td>51.1</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>What was your marital status when you left teaching in the government or mission school - married</td>
<td>92</td>
<td>53</td>
<td>57.6</td>
<td>39</td>
<td>42.4</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Where you are working now, are you entitled to holiday allowance</td>
<td>92</td>
<td>71</td>
<td>77.2</td>
<td>21</td>
<td>22.8</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Are you entitled to entertainment allowance</td>
<td>92</td>
<td>34</td>
<td>37.0</td>
<td>58</td>
<td>63.0</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Are you entitled to transport/car allowance</td>
<td>92</td>
<td>59</td>
<td>64.1</td>
<td>33</td>
<td>35.9</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Are you entitled to graduate allowance</td>
<td>92</td>
<td>33</td>
<td>35.9</td>
<td>59</td>
<td>64.1</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Are you entitled to loans</td>
<td>92</td>
<td>88</td>
<td>95.7</td>
<td>04</td>
<td>04.3</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Are you trained for the new job</td>
<td>92</td>
<td>67</td>
<td>72.8</td>
<td>25</td>
<td>27.2</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Are you entitled to accommodation</td>
<td>92</td>
<td>83</td>
<td>90.2</td>
<td>09</td>
<td>9.8</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
<tr>
<td>Do you mind working as a teacher again in a government or mission school</td>
<td>92</td>
<td>42</td>
<td>45.6</td>
<td>50</td>
<td>54.4</td>
<td>483.41</td>
<td>0.0001</td>
</tr>
</tbody>
</table>
### TABLE 7: RESPONSES OF THE FORMER UNIVERSITY GRADUATE TEACHERS ON JOB SATISFACTION AND FRINGE BENEFITS.

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>NO</th>
<th>%</th>
<th>YES</th>
<th>%</th>
<th>NO</th>
<th>%</th>
<th>MEAN</th>
<th>STD DEV</th>
<th>MEDIAN</th>
<th>VARIANCE</th>
<th>SKEWNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you find any satisfaction in teaching as a career in government and mission schools</td>
<td>17</td>
<td>18.3</td>
<td>53</td>
<td>48.9</td>
<td>30</td>
<td>32.6</td>
<td>1.14</td>
<td>0.70</td>
<td>1.00</td>
<td>0.50</td>
<td>0.2</td>
</tr>
<tr>
<td>Was there any significant difference between your salary with responsibility allowance and just graduate's salary</td>
<td>40</td>
<td>43.5</td>
<td>10</td>
<td>10.9</td>
<td>42</td>
<td>45.7</td>
<td>1.02</td>
<td>0.95</td>
<td>1.00</td>
<td>0.90</td>
<td>-0.04</td>
</tr>
<tr>
<td>Did you do any postgraduate studies before you resigned</td>
<td>16</td>
<td>17.4</td>
<td>11</td>
<td>12.0</td>
<td>65</td>
<td>70.6</td>
<td>1.53</td>
<td>0.78</td>
<td>2.00</td>
<td>0.60</td>
<td>-1.26</td>
</tr>
<tr>
<td>Have you been trained for your new job by your present employer</td>
<td>10</td>
<td>11.0</td>
<td>56</td>
<td>61.0</td>
<td>26</td>
<td>28.0</td>
<td>1.17</td>
<td>0.60</td>
<td>1.00</td>
<td>0.37</td>
<td>-0.09</td>
</tr>
<tr>
<td>Are you entitled to holiday allowance in your new job</td>
<td>10</td>
<td>10.9</td>
<td>62</td>
<td>67.4</td>
<td>20</td>
<td>21.7</td>
<td>1.11</td>
<td>0.56</td>
<td>1.00</td>
<td>0.32</td>
<td>0.03</td>
</tr>
<tr>
<td>In your new job, are you entitled to transport/car allowance</td>
<td>16</td>
<td>17.4</td>
<td>44</td>
<td>47.8</td>
<td>32</td>
<td>34.8</td>
<td>1.17</td>
<td>0.71</td>
<td>1.00</td>
<td>0.50</td>
<td>-0.26</td>
</tr>
<tr>
<td>Are you entitled to entertainment allowance in your new job</td>
<td>18</td>
<td>19.6</td>
<td>15</td>
<td>16.3</td>
<td>59</td>
<td>64.1</td>
<td>1.45</td>
<td>0.80</td>
<td>2.00</td>
<td>0.65</td>
<td>-0.99</td>
</tr>
<tr>
<td>In your new job, are you entitled to graduate allowance</td>
<td>20</td>
<td>21.8</td>
<td>18</td>
<td>15.2</td>
<td>58</td>
<td>62.0</td>
<td>1.41</td>
<td>0.85</td>
<td>2.00</td>
<td>0.69</td>
<td>-0.91</td>
</tr>
<tr>
<td>Are you given accommodation by the new employer</td>
<td>04</td>
<td>04.3</td>
<td>78</td>
<td>84.8</td>
<td>10</td>
<td>10.9</td>
<td>1.07</td>
<td>0.39</td>
<td>1.00</td>
<td>0.15</td>
<td>0.64</td>
</tr>
</tbody>
</table>

### TABLE 8: RESPONSES OF THE FORMER UNIVERSITY GRADUATE TEACHERS ON THE APPLICATION AND OBTAINING OF LOANS FROM THE GOVERNMENT

<table>
<thead>
<tr>
<th>QUESTION</th>
<th>NO</th>
<th>%</th>
<th>ONCE</th>
<th>%</th>
<th>TWICE</th>
<th>%</th>
<th>THREE</th>
<th>%</th>
<th>FOUR TIMES</th>
<th>%</th>
<th>FIVE TIMES</th>
<th>%</th>
<th>MEAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many times did you apply for a loan when you were at a government or mission school</td>
<td>72</td>
<td>78.3</td>
<td>12</td>
<td>15.0</td>
<td>04</td>
<td>04.3</td>
<td>01</td>
<td>01.1</td>
<td>01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>How many times were you</td>
<td>2.4</td>
<td>05</td>
<td>05.4</td>
<td>--</td>
<td>--</td>
<td>01</td>
<td>01.1</td>
<td>--</td>
<td>01</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

49
HYPOTHESIS 2 RESULTS

Frustration due to lack of promotion and professional development, unfair and unprofessional treatment by some immediate supervisors greatly contribute to the rate of resignations of some of the university graduate teachers on government and mission schools.

Tables 6 and 7, have data supporting this hypothesis. The majority of former university graduate teachers did not have a chance to do post-graduate studies. This hypothesis was on the average ranked eighth as one of the factors that made university graduate teachers leave teaching in government and mission schools. The chi-square test was applied and the results were significant, \( X^2 (3, N = 92) = 12.78, P .05. \)

When the participants were asked whether or not they were trained by their new employers, the majority (61.0) said they had been trained for their jobs. A coxran Q test was run and the results were very significant, \( Q(14) = 483.41, P .0001. \)

Another important factor given by the participants to have contributed to their resignation from teaching in government and mission schools is lack of promotion. This factor was on the average ranked sixth as one of the factors that made some of the university graduate teachers resign from government and mission schools. The data in Table 9, support the prediction. Only 1.1 per cent and 7.7 per cent rose to the positions of Headmaster and Deputy Headmaster of a secondary school respectively. A Chi-square test was run to see the relationship between lack of promotion and
resignation. The results were significant, $X^2(3, N = 92) = 17.48$, .05.

Unfair and unprofessional treatment by some immediate supervisory staff is one of the varis that greatly contributed to the rate of resignation of some of the University graduate teachers in government and mission schools. This factor was on the average ranked fourth as one of the factors that forced some of the university graduate teachers to resign from government and mission schools. The majority (52.3%) said that they never got on well with their Headmasters and Deputy Headmasters. The influential test results obtained were significant, $X^2 (3, N = 92) = 39.48$, .05. This hypothesis was confirmed by the results of the inferential tests.
<table>
<thead>
<tr>
<th>QUESTION</th>
<th>NO</th>
<th>%</th>
<th>NO</th>
<th>%</th>
<th>YES</th>
<th>%</th>
<th>MEAN</th>
<th>STD EV</th>
<th>MEDIAN</th>
<th>VARIANCE</th>
<th>SKEWNESS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Did you rise up to the position of Headmaster of a government or mission school</td>
<td>91</td>
<td>98.9</td>
<td>-</td>
<td>-</td>
<td>01</td>
<td>01.1</td>
<td>0.01</td>
<td>0.10</td>
<td>0.01</td>
<td>9.59</td>
<td></td>
</tr>
<tr>
<td>Did you rise up to the position of Deputy of a government or mission school</td>
<td>85</td>
<td>92.3</td>
<td>-</td>
<td>-</td>
<td>07</td>
<td>07.7</td>
<td>0.11</td>
<td>0.41</td>
<td>0.00</td>
<td>0.16</td>
<td>4.91</td>
</tr>
<tr>
<td>Are you able to get loans from your employer easily.</td>
<td>03</td>
<td>03.3</td>
<td>04</td>
<td>04.3</td>
<td>95</td>
<td>92.4</td>
<td>0.01</td>
<td>0.28</td>
<td>1.00</td>
<td>0.38</td>
<td>0.41</td>
</tr>
</tbody>
</table>
HYPOTHESIS 3 RESULTS

The declining status of a teacher is one of the factors that contributes significantly to the resignation from teaching service or declining to take up posts in government and mission schools.

The majority of the participants, 55.4 per cent out of 92, indicated that they viewed their status as low. When they were asked to rank the factors on the basis of which made a greater impact on their leaving the teaching profession in government and mission schools, low status was on the average ranked seventh out of nine factors. A Chi-square test was run and the results were significant, $X^2 (3, N = 92) = 13.83$, $P < .05$. (Table 10)

Lack of job satisfaction was ranked ninth or was indicated as the least important factor out of the nine factors that participants viewed to have significantly contributed to their leaving the profession in the government and mission schools. Chi-square results were significant $X^2 (3, N = 92) = 9.39$, $P < .05$. and 51.1 per cent said there was no job satisfaction in teaching.

A cochran Q test was run to determine the significance of the responses. The results were quite significant $Q(14) = 483.41$, $P < .0001$. The hypothesis was confirmed by the inferential tests.
Table 10  SURVEY OF HOW THE FORMER UNIVERSITY GRADUATE TEACHERS RATED THE STATUS OF A TEACHER WHEN THEY WORKED AS TEACHERS.

<table>
<thead>
<tr>
<th></th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No response</td>
<td>14</td>
<td>15.2</td>
</tr>
<tr>
<td>Low</td>
<td>51</td>
<td>55.4</td>
</tr>
<tr>
<td>Medium</td>
<td>23</td>
<td>25.0</td>
</tr>
<tr>
<td>High</td>
<td>04</td>
<td>04.3</td>
</tr>
<tr>
<td>MEAN</td>
<td>1.19</td>
<td></td>
</tr>
<tr>
<td>STD ERR</td>
<td>.08</td>
<td></td>
</tr>
<tr>
<td>MEDIAM</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>MODE</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>STD DEV</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>VARIANCE</td>
<td>.55</td>
<td></td>
</tr>
</tbody>
</table>

SKEWNESS .35

It is interesting to observe that despite having several factors militating against the teaching career, the majority of the participants (54.4%), as can be noted from Table 6, said they would not mind working as teachers again. A Cochran Q test was applied and the results were significant, $Q(14) = 483.41, P .0001$.

Marital status appeared to have a considerable influence on university graduate teachers’ leaving the teaching profession in government and grant-aided schools. The majority of the sample 57.6 reported that they were married. For the details on the marital status and the rate of resignation for the period under study, reference can be made to Table 6. The cochran Q test was administered and the results were significant, $Q(14) = 483.41, P .0001$.  

54
Age and the number of children were discovered to be important factors which contributed significantly to university graduate teachers resigning from the teaching profession in government and mission schools. The majority of those who had resigned for the period under study were between 23 and 30 years of age and they constituted 60.1 per cent of the sample. About 23.0 per cent were in the range of 31 and 40. Only 16.1 per cent did not reveal their age.

About 50.0 per cent indicated that they had had no children. While 43.5 per cent had had between 1 and 3 children. Only 6.2 per cent had had between 4 and 5 children at the time they resigned. It seems age above 30 and the number of children above 3 either individually or jointly acted as deterrents for the majority of the university graduate teachers from leaving teaching in government and mission schools.
CHAPTER FIVE

Discussion of results

The findings not only reveal the continuity in the existence of University of Zambia graduate teacher wastage but also identified the factors associated with it.

Wastage

Large investment in the training at the University of Zambia has proved to be both not very rational and not the best option within the education system (which is at micro-level) and also in relation to the other sectors of the national economy (at the macro-level). This is so because when we consider the wastage rates with reference to the Social Rate of Return Approach and particularly with respect to the Human Capital Theory, which is a branch of this major theory, investing in the training of university graduate teachers enormously does not give the highest ratio of costs and benefits in Zambia.

The intention of investing in the training of university graduate teachers is good and is meant to benefit on the one hand the individual in terms of the private benefits such as a high salary, other economic and social benefits. On the other hand, investing in the training of university graduate teachers benefits the Zambian society in terms of the social benefits like getting a high output from an educated individual, Monetary benefits from the earnings through tax of the educated person’s high pay. Besides, there are social and political benefits that accrue to society.
But the high wastage rates or low retention rates, when this investment is compared with the costs and benefits of other levels of the education system and the other sectors of the national economy, reveal to be less beneficial. These findings are similar to those of Psacharopules (1985).

Secondly the graduation and active teaching wastage rates contradict the government's needs and policy for the development of high-level personnel for the secondary school sector which necessitated the introduction of the quote system of admission at the University of Zambia in the early 1970's (Manpower Report, 1989, Shaw, 1980).

Therefore, the high wastage rates do not reflect a rational utilisation of the scanty national resources. The nation which has several developmental options in other components of the national economy and other levels within the educational enterprise could do well to re-channel part of the resources being expended on the training of the university graduate teachers at the University of Zambia. These findings are consistent with those of Shaw (1979, P28) who observed that:

Taken together, the loss of over 400 teaches who never entered teaching and the loss of just under 600 from active teaching means that, over the period under consideration just under 1000 or almost 55 per cent of the total teacher supply have left the teaching force.
HYPOTHESIS 1

Poor conditions of service, such as low salary, small responsibility and holiday allowance, lack and poor accommodation, lack of entertainment allowance, difficult access to loans, small or no transport allowance, and non-practising allowance for the professionals are some of the factors that significantly contribute to the teachers' resignation from government and mission schools.

The salaries for teachers in the Ministry of General Education Youth and Sport are quite low compared with the salaries offered to people of similar or same qualifications in other government departments and companies. In fact the pay differential depends on the entry point of those who have found jobs elsewhere and the majority of them hold key positions in companies and other government departments and for this reason they get higher salaries than the teachers who are in the teaching service. This salary differential tends to demotivate the teachers who are still teaching and eventually make them decide to seek alternative jobs.

The salaries for local teachers are low probably because local teachers are trained by the government and so the government is using the Manpower that it has developed. This could be explained in terms of what the expatriate teachers who have less or similar qualifications get far more than the indigenous teachers. Expatriate teachers receive inducement allowance in hard currency in addition to the normal salary.

Another possibility why local teachers get low salaries is that education is a long term investment. Education is then considered
a service industry which merely refuels the national economy. As a matter of fact, the benefits of the products of the education system are not immediate and do not directly accrue to the teacher.

However, contrary to whatever reasons the government has to justify the low salaries for teachers, Human capital theory postulates that an educated person has a high productive capacity and on this basis should get a high pay. Apart from being more productive, to become a professional requires undergoing training for a long period and during the process of becoming a professional gratification is postponed by foregoing some income. After successfully completing the training, a university graduate is supposed to be rewarded highly to compensate the foregone opportunity.

Despite receiving meagre salaries teachers do not have tangible and reliable allowances which are non-taxable and can ameliorate the cost of living for the teachers and also possibly act as an incentive to attract and retain the majority of professional teachers. These are some of the factors which largely influence the majority of university graduate teachers to shun or leave the teaching service in the government and mission schools and sell their labour elsewhere as Bardouille (1984) commented that:

In the first place, the scarcity of high-level manpower in Zambia means that both the society as well as skilled individuals place a high premium on such skills and the economic expectations of skilled people, and those who feel their private returns from higher education are lower than the social value placed on such skills are likely to seek jobs that will meet their expectations.
Another factor that contributes greatly to resignation of teachers is poor and lack of accommodation. The shortage of housing units in secondary schools is probably caused partly by the increase of classes so that the schools can enrol more pupils. The shortage is partly caused by the introduction of new subjects in some of the schools. These two have either increased or been introduced without a corresponding increase in the teachers' houses. It appears the problem of accommodation has been accepted as part of reality and little is being done to eliminate it as the permanent secretary of the Ministry of Education had observed at Nkruma Teachers' Training College in 1978 quoted in Chakulumba (1986).

How can the status of a teacher be recognised if he has to sleep in a classroom when the abode of his friends the Manager, the Personnel Officer, the Lawyer, the Accountant or indeed the businessman is a mansion?.
HYPOTHESIS 2

Frustration due to lack of promotion and professional advancement, unfair and unprofessional treatment by some immediate supervisors greatly contribute to the rate of resignation of University of Zambia trained graduate teachers from government and grant-aided schools.

Lack of promotion as a factor that significantly contributed to the rate of resignation of some of the university graduate teachers has been one of the long standing problems in teaching. At the school level, there are only two promotional posts that is the post of Headmaster and Deputy Head. Therefore, every teacher who is below the position of deputy head looks forward to becoming deputy head someday and eventually become headmaster. Apart from having a limited number of positions at the school level, competition for such positions is very stiff because these positions are advertised by the Teaching Service Commission throughout the Republic so everybody who qualifies and is interested in the position applies. Rarely do such promotional opportunities avail themselves to the majority of the teachers in good time. For this reason, some of them have to work for a long period before they are considered for promotion. While others are not even promoted after serving for the Ministry for many years. When the hope of those who thought would have a vertical occupational mobility begin to diminish, the majority become frustrated and some in fact decide to look for alternative jobs elsewhere either within or outside the country.
The findings are consistent with those of Chakulimba (1986, P46) who observed that "This lack of promotion opportunities, like the lack of accommodation has been a source of teachers' frustration and has contributed to come teachers leaving teaching service".

Another factor that is a source of frustration is lack of professional advancement. Every committed intellectual has the desire to further his education. However, there are few chances for a university graduate teacher in government and mission schools to do further studies compared with university graduates working elsewhere. Few who have connections go abroad for postgraduate studies but the rest have to go back to the University of Zambia which is the only institution open to the majority for them for further studies at the moment. Even though some of them can be offered places by the University of Zambia, the Ministry of education, Youth and Sport can not readily release them in large numbers. Their services are needed in the schools where there is already a shortage of senior secondary school teachers. Another problem of the Ministry to allow some of the university graduate teachers to do further studies is the financial constraints. In view of this problem some of the teachers have to wait for their chances indefinitely.

Bad supervision by some immediate supervisors has been one of the sources of frustration. The underlying causes seem to be lack of administrative competence since the supervisors are picked from the
teaching staff without any specialised administration course. The majority of these supervisors discharge most of the administrative duties from the intuition. Inferiority complex by some of the administrators who are less qualified than university graduate teachers is a possible source of the bad treatment and Mei (1971) observed that "Some officials are not qualified to handle teachers and are only keen to prove that they are the teachers supervisors and leave them disgusted". He also noted that a term such as "get out of my office" and "you may resign now" is heard too often.
HYPOTHESIS 3

The declining status of a teacher is one of the factors that significantly make some University of Zambia trained graduate teachers either shun or leave the teaching profession in the government and grant-aided schools.

Some of the main factors that appear to affect the status of a teacher negatively include: economic position, poor accommodation, educational qualification and age. Other factors are lack of authority and gender but these seem to be minor. Discussing status in the light of a money economy obviously suggests that status is tied to the possession of finance and goods. The possession of wealth and money may be important when it is viewed in relation to what others possess. A teacher's salary in Zambia as it has been observed earlier is quite low. The situation in Zambia has been made worse for a teacher because of the poor economy which has reduced the even value of the low salary. This reduction of the value of the Zambian Kwacha means that the purchasing power of the teacher has consequently been reduced further. Since a teacher does not have fringe benefits like the other professionals elsewhere, he is not able to compete favourably with others for status. More and Hendry (1986, pp 96-7) looking at status commented that, "In this case end in most cases, there is a coincidence of status and class: the wealthy tend to have high status and the poor to have low status."

Poor accommodation has also significantly contributed to the reduction of a teacher's status. The majority of schools if not
all have a shortage of appropriate housing units. This lack of appropriate housing units has made teachers accept or rent accommodation which is not good enough in comparison with their social standing in society. Poor accommodation has not only reduced the teachers' status but has also caused considerable dissatisfaction which in turn has made some of the teachers leave the teaching service.

Another probable reason which has greatly contributed to the declining of the teachers' status in the secondary school sector is the professional qualification. It has been observed with dismay that the professional qualifications for one to teach in secondary schools have not been adhered to. The secondary school teachers are supposed to have a Diploma, a Degree or better in education in order to qualify to teach in any secondary school in Zambia. However, many primary school teacher certificate holders who are meant to teach in the primary schools have been seconded to the secondary schools. This situation has been caused by a shortage of manpower in the secondary school sector. The secondment of some primary school teachers to the secondary school sector has apparently eroded some prestige of the secondary school sector as it appears as if one does not need to have higher professional qualifications to teach in a secondary school than some one who teaches in the primary school sector as it has been since the time secondary education was introduced in Zambia.
Age is another possible factor that can significantly contribute to the reduction of the teachers' status. In recent years so many young men and women have started entering the profession. The majority of them seem to be quite hedonistic and have not outgrown most fads. Some of the behavioural aspects that are displayed in public tend to negatively affect the teachers' status.

As far as authority is concerned, a teacher was stripped of authority in 1966 by the Educational act (Chakulimba, 1986). Although this loss of authority may not directly affect the teachers' status, the interpretation is that a teacher is only a classroom technician and a school policeman and woman. This loss of authority apart from covering a teacher's status considerably, greatly affects the quality and degree of discipline in the schools.

Finally, the large influx of women into the teaching profession appears to have contributed to the lowering of a teacher's status (Blackmore and Cooksey, 1981). It seems that the majority of the people find it difficult to break with the past. Most people find it difficult to reject the traditional view that a man is superior to a woman. This traditional hegemony makes our teaching profession have a lower status than the other professions because of the large number of women who are entering the teaching profession.
Conclusion

Research evidence suggests that the levels of graduation wastage and the active teaching wastage, even though they fluctuate, are still high and will probably continue to rise. The causes of the wastage point to the poor remuneration, declining status and various types of frustration in the teaching profession. However, as far as the results reveal, teaching is itself not a bad profession. If the employer does not act promptly to correct the problem, the senior secondary school sector is likely to have a more serious teacher shortage as the brain-drain to the other Southern African countries increases and as more alternative jobs are created within the country.

Practical Implications

Considering the fact that teachers do not only give the required knowledge and skills for the national development but also transmit society's culture, they should get adequate pay as salary and fringe benefits (such as easy access to procuring loans, education allowance for the children, medical allowance, entertainment allowance, car/transport allowance and housing allowance for those who are not accommodated) so that they can be decent and respectable representatives of society. The Government, therefore, should ensure that teachers' salaries are always above the inflation rate. This can both motivate teachers and raise and maintain their professional and socio-economic status.
In order to create adequate promotional posts and improve the standards of education in the country, the Inspectorate should be decentralised so that there should be subject inspectors at all the provincial headquarters of every province. These subject Inspectors can effectively supervise the teachers in their respective fields. This would mean separating supervision from administration at both the provincial level and institutional level. The Regional Inspector for secondary schools should be in charge of the provincial Inspectorate and together with the subject Inspectors supervise the teachers in all educational institutions in the province. At all educational institutions there should be a clear separation between supervision and administration by making the post of Head of Department for every subject Department a promotional post. The Head of Department for each subject should be empowered to supervise the teachers in his department and directly communicate with the provincial subject Inspector on matters relating to academic and professional work. The Headmaster of each institution should be the overseer and directly communicate with both the Provincial Inspectorate and the Chief Education Officer.

The Ministry of General Education, Youth and Sport should employ qualified educational planners at district, provincial and national levels who should look into the allocation and utilisation of resources. This can promote efficiency and effectiveness within the education system and significantly reduce the teacher wastage
rates.

Since accommodation has been critical in the teaching force, the Ministry of General Education, Youth and Sport's policy that teachers accommodation at each school should be part of the school plant should be extended so that the expansion of schools through increasing the number of subjects and classes should include teachers' accommodation. No expansion of any form should be allowed which does not make any provision for the putting up of teachers' houses.

**Suggestion for future research**

A survey of how some countries in Southern Africa manage to attract and retain their teaching staff would probably help us to solve some of the problems that contribute to the wastage in our education system. Although the costs in terms of financial resources and time would be enormous for such an undertaking, the results of the research would be of great benefit.

Probably it is the good teachers who opt out of the teaching force. Could the loss of these good teachers negatively affect the educational standards in the system? There are of course several factors at play in the education system that can either positively or negatively affect the educational standards. Research in this area to see whether or not the teacher wastage has had some negative effect on the standards of education would be useful and
helpful.

Poor organisation and management of the education system in Zambia has been one of the factors that contributed to teacher wastage. An examination of the academic qualifications and administrative competence of educational administrators in secondary schools when considering them for administrative positions would possibly be of great help and use in the smooth running of the education system and would probably significantly minimise the loss of teachers.

The problem of teacher wastage has been there for a good number of years. An investigation of the social and economic background of the teachers who decline taking up teaching appointments upon completion of their training and those who opt out of the teaching force would possibly help the Government greatly reduce the loss of teachers.
TO WHOM IT MAY CONCERN

H.B. CHAYIMA NYIRENDA 87400278
The bearer is our student. He is carrying out research on FACTORS RELATED TO GRADUATE TEACHER ATTITUDES IN ZAMBIA.
SECONDARY SCHOOLS

Please help him with sources of research materials. Any information given will be treated as confidential and will be utilized for academic purposes only.

Thank you.

Signature of Lecturer/Tutor: ........................................

Date: 21st November, 1988
TO WHOM IT MAY CONCERN

MR. E.B. NYIRENDA

This serves to introduce Mr. E.B. Nyirenda who is studying for a Master Degree at the University of Zambia.

He is currently undertaking a Research Project on Secondary School Teachers turnover in the Ministry of General Education, Youth and Sport.

This office confirms that Mr. Nyirenda has been permitted to carry out the said research. Please assist him accordingly.

F.R. Chelu

CHIEF INSPECTOR OF SCHOOLS

MINISTRY OF GENERAL EDUCATION, YOUTH & SPORT
APPENDIX 3

THE UNIVERSITY OF ZAMBIA
SCHOOL OF EDUCATION
M.Ed. PROGRAMME
P.O. BOX 32379
LUASAFA

FEBRUARY, 1989

Dear Sir/Madam,

I would like to request you to complete the attached questionnaire. The questionnaire constitutes part of the research undertaken by the School of Education at the University of Zambia on "Factors Related to Graduate Teacher Attrition in Zambian Secondary Schools."

You are asked to complete only the parts of the questionnaire that are applicable to you on the basis of whether you entered or never entered the teaching profession upon successful completion of your under-graduate studies. Strict confidence of the responses will be observed. No individual answers will be linked to a particular respondent, and only the collective research results will be made available for public consumption.

The study attempts to investigate the factors associated with the colossal loss of University of Zambia trained graduate teachers by the Ministry of General Education, Youth and Sport. Your responses will greatly contribute to making this research comprehensive and meaningful. The research findings will not only help the University of Zambia, as one of its functions, to generate knowledge and information for society but also help the Government to attract and retain more high-level personnel. The Government can successfully do this by introducing better conditions of service so that standards in the educational industry, particularly in the secondary school sector, can be sustained and raised for the sake of national development.

Your cooperation in completing the questionnaire will be highly appreciated.

Yours sincerely,

H.B. Chayima Nyirenda
M. Ed. Student
APPENDIX 4
THE UNIVERSITY OF ZAMBIA
SCHOOL OF EDUCATION
UNIVERSITY OF ZAMBIA FORMER GRADUATE TEACHER QUESTIONNAIRE
ALL ANSWERS ARE CONFIDENTIAL.
PLEASE EITHER WRITE YOUR ANSWERS ON THE LINES PROVIDED OR
WRITE/TICK IN THE BOXES

1. SEX: Male □ Female □

2. When did you graduate from the University of Zambia?

3. What subjects were you trained to teach?
   a. Your major ____________________________________________
   b. Your minor __________________________________________
   c. Single-subject major __________________________________
   d. Double major ______________________, __________________

4. Did you take up the appointment as a teacher immediately you completed your undergraduate studies?
   YES □ NO □
   "01" "00"

5. If your answer to question 4 is YES, in which type of school did you teach?
   a. Government Day Co-Education school □
   b. Mission Boarding School □
   c. Government Boarding Co-Education school □
   d. Government Day single sex school □
   e. Government Boarding single sex school □
6. If your answer to question 4 is NO, what job did you take up?

7. If you had taken up the teaching post in the Ministry of General Education, what was your starting salary?
   K__________________ per annum.

8. How satisfied were you with the teacher's salary?
   Very Satisfied  Satisfied  Dissatisfied  Very Dissatisfied
   04  03  02  01

9. If you had not taken up the teaching post but took up a different job, what was your starting salary?
   K__________________ per annum

10. If you had taken up a different job after finishing your studies, what can you say about your starting salary? Were you,
    Very Satisfied  Satisfied  Dissatisfied  Very Dissatisfied
    04  03  02  01

11. If you were a teacher, how many times did you apply for a loan?

12. How many times were you successful in obtaining a loan?
   ______________________

13. If you taught, did you do any post graduate studies after you Bachelors Degree?
    YES   NO
    01  00

14. If the answer to question 13 is YES, which post graduate qualification did you obtain?
   a. Postgraduate certificate
   b. Postgraduate Diploma
c. Masters Degree

d. Any Other

15. If you got postgraduate qualification(s) in teaching, for how many years did you work before you acquired the postgraduate qualification(s)?

16. Apart from being a classroom teacher, which position(s) of responsibility did you hold?

a. Headmaster

b. Deputy Headmaster

c. Head of Department

d. Boarding Master

e. House Master

f. Sports Master

Any Other, specify

17. Did your position(s) of responsibility entitle you to

a salary

An allowance

or both

18. If your position(s) of responsibility was with salary or allowance, or both, was there any significant difference with the graduate teachers' salary?

YES

NO

01

00

19. If you had joined the teaching force in the Ministry of General Education, were you accommodated?

YES

NO

01

00

20. Where were you accommodated if you were given accommodation?

a. In a high-cost house

b. In a medium-cost house

c. In a low-cost house
21. If you were not accommodated by the Ministry of Education as a teacher, were you getting housing allowance?

YES ☐ NO ☐
01 00

22. If you were given housing allowance, was it enough to enable you to pay rent for a 2/3/4 bedroomed house with tap water and electricity?

YES ☐ NO ☐
01 00

23. How many years did it take you as a teacher to be accommodated?

________________________

24. If you worked as a teacher, how was your school organized?

Very well ☐ Well ☐ Poorly ☐ Very poorly ☐
04 03 02 01

25. How did you get along with the Headmaster and his Deputy Head?

Very well ☐ Well ☐ Not so well ☐ Poorly ☐ Very poorly ☐
05 04 03 02 01

26. How did you get along with non-graduate teachers?

Excellent ☐ Well ☐ Not so well ☐ Poorly ☐ Very poorly ☐
05 04 03 02 01

27. How was your relationship with pupils?

Very good ☐ Good ☐ Not so good ☐ Poorly ☐ Very poorly ☐
05 04 03 02 01

28. If you taught, when did you resign?

________________________
29. Looking back, would you say there was job satisfaction in teaching?

YES 01  NO 00

30. How did you perceive your teacher status in Zambia Society?

a. High 03
b. Medium 02
c. Low 01

31. Please rank the following to explain why you left teaching in the Government

a. Lack of accommodation
b. Poor accommodation
c. Low status
d. Low salary
e. Poor work relationship with the Headmaster
f. Lack of fringe benefits
g. Lack of promotion
h. Lack of professional advancement
i. Lack of job satisfaction

32. How old were you when you resigned from teaching in the Government?

33. What was your marital status at the time you left teaching?

Married  Single

34. How many children did you have when you resigned?
35. If you either refused to take up the teaching post or resigned from the teaching profession, what is your present job title?

36. What was your starting salary

K_____________ per annum

37. What is your present salary?

K_____________ per annum

38. Are you entitled to the following in your present job?
   a. Holiday allowance YES □ □ NO □ □
   b. Entertainment allowance YES □ □ NO □ □
   c. Transport/car allowance YES □ □ NO □ □
   d. Graduate allowance YES □ □ NO □ □
   e. Loans YES □ □ NO □ □
   f. Accommodation YES □ □ NO □ □

39. If you are not accommodated, how much is your housing allowance?

K____________________ per annum

40. Have you been trained for your new job?
   YES □ □ NO □ □
   01 00

END OF QUESTIONNAIRE
BIBLIOGRAPHY


Stannard, D.P. (1968) "Factors in the supply and retention of teachers in Zambian Schools, Mineo, University of Zambia.


