THE ECONOMICS OF TEACHER SUPPLY IN NIGERIA

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ABSTRACT

The thesis looks at the Government Bursary Scheme for Higher Education Students in Nigeria and examines two questions relating to the supply of graduate teachers in Nigeria. First, how effective has the Scheme been in augmenting the supply of graduate teachers. Secondly, what is the likelihood that, once trained, the new graduate teachers will leave the profession in favour of better paid alternative employment, thereby defeating the object of the Scheme.

To answer these questions, we have used published time-series data and have also conducted a survey of our own among some 600 education undergraduate students in three representative Nigerian universities.

Our findings are that, contrary to the prediction of human capital theory, which stresses the importance of prospective relative pay in the choice of courses at university, the Bursary Scheme, which, on the contrary, assumes that it is the relative cost of different courses which principally determines this choice, has been very effective, though not so much in persuading 18-year olds to take a B.Ed. instead of a B.A. or B.Sc., as in inducing experienced primary school teachers to upgrade their qualifications so as to augment the supply of (graduate) secondary school teachers. We also show why the fear that B.Ed. graduates will drift into other professions, which would defeat the object of the Scheme, may be unwarranted.

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The successful completion of this thesis has been significantly influenced by very many individuals, that a complete acknowledgement seems virtually impracticable. The few named here, therefore, are in no way exhaustive of the list of the author's benefactors.

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CHAPTER I

INTRODUCTION

> In all likelihood, the human capital research programme will never die, but it will gradually fade away to be swallowed up by the new theory of signalling, the theory of how teachers and students, employers and employees, and indeed all buyers and sellers select each other when their personal attributes matter for the purpose of completing a transaction, but when information about these attributes is subject to uncertainty.
>
> Blaug (1980, pp 238-239)

Background to the Enquiry

Over the years the federal government of Nigeria has applied a discriminatory financial support (Teachers Bursary) Scheme in favour of Bachelor of Education Students in higher institutions in Nigeria. The rationale has been to use the Teachers Bursary Scheme as an economic incentive aimed at inducing students to choose courses in Education thereby enhancing the supply of qualified teachers needed for the nations fast expanding educational system. Most recently, a review of the scheme to involve State and local governments has been proposed. The proposal is clearly stated in the Nigerian National policy on education, 1981, pp 38/39 in the following words:

> Teacher Education will continue to be given major emphasis in all our educational planning ... At the NCE and degree levels of Teacher Education the Federal Government will review the Teachers Bursary Scheme in the context of the constitutional provision in order to involve State and local governments.

Plausible economic argument in favour of State subsidies to higher education students in general abound and is hardly an issue of contest in this study. However, the selective application of a

Student support Scheme to a particular field of specialization will be a welcome measure worth continuing if it achieves Policy objectives. Otherwise, in the event of a failure should necessitate a reconsideration of Policy. On this note the following questions are pertinent. First, how effective has the Scheme been in augmenting the supply of graduate teachers? Secondly, what is the likelihood that, once trained, the new graduate teachers will leave the profession in favour of better paid alternative employment, thereby defeating the object of the Scheme? This study shall attempt to answer these questions.

Scope and Nature of the Problem

Although the Teachers' Bursary Scheme covers teacher education programmes in Nigeria at every level from National Certificate of Education to the PGCE, this study is confined to undergraduates reading for a B.Ed. degree. To this end we have conducted a survey of some 600 undergraduates studying for the B.Ed. at three representative universities, in Nigeria, in order to elicit their background characteristics, so as to provide a basis from which:

(i) To examine the likely effect of the Teachers' bursary incentive scheme on students' choice of education course as a major field of study.

(ii) To assess the value of the Teachers' bursary incentive scheme as an active graduate teachers supply policy.

Significance of the Study

The decisions whether to continue, extend or cease the policy of descriminatory educational subsidy depends on the extent to which the Scheme contributes towards the achievement of Policy objectives. We examine the extent to which the Scheme is successful in steering stu-

dents away from other competing fields of specialization towards a course leading to the B.Ed., and find that it has been more successful in augmenting the supply of graduate teachers, its principal objective, by providing a means for experienced primary school teachers to upgrade their qualification. This has obvious practical implications for manpower planning and educational financing Policies. More generally, the thesis provides empirical evidence for the effect of a discriminatory educational subsidy on the demand for training in the affected discipline.

In principle the Teachers' Bursary Scheme is only one possible way to augment the supply of graduate teachers. Another way might be to raise teachers' pay in order to attract more people into the profession. Graduate teachers in Nigeria, like elsewhere, are relatively lowly paid when compared with graduates in other professions. One is therefore, in a sense, confronting the choice between two alternative Policies for attaining the same objective; to subsidize the cost of acquiring the necessary qualification versus raising graduate teachers pay. Only a moments reflection will make it clear that the second alternative is likely to be very much more costly. A small percentage increase in the pay of the estimated 100,000 qualified graduate teachers in Nigeria is likely to be very much larger than the total cost of financing the roughly 12,000 B.Ed. students in receipt of the Bursary at any one time. It has also to be remembered that if graduate teachers pay is raised, there is likely to be an immediate demand to increase the pay of everyone else in the public sector, which would then, partly, defeat the object, by re-establishing the previous relative pay ratios. An equally strong case against exploring the prospects of raising graduate teachers pay, as a policy tool for attracting people

into the teaching profession is that the teaching service in Nigeria, like elsewhere, is a monopsony market. In a monopsonistic market like the teaching service in Nigeria, where public authorities constitute the sole buyer of teachers' services and teachers' pay is administratively fixed, one would hardly expect teacher supply to be subject to the influence of market force (i.e. pay increase). Hence it has not seemed worthwhile to explore this alternative, instead the emphasis in this study is on the question of how successful the 'cost-reducing' policy of augmenting the supply of graduate teachers has been.

ORGANISATION OF THE THESIS REPORT

The thesis reported in this study is organised into seven chapters. In Chapter One, the problem is formulated and the significance of the study outlined. Chapter Two attempts a survey of the literature on career decision making and course choice. In this chapter various paradigmic approaches are discussed and previous investigations reviewed. Chapter Three describes the research design and methods employed in our survey. Chapter Four covers a descriptive analysis of the background characteristics of Bachelor of Education Students in Nigerian Universities based on our survey data. Chapter Five starts with a history and description of the Teachers' bursary incentive Scheme in Nigeria and goes on to provide a conceptual framework. Chapter Six presents some of the findings from published data and our survey in the light of the model formulated in Chapter Five. The thesis ends with Chapter Seven which discusses the questions whether graduate teachers are likely to remain in the profession or leave for a more highly paid occupation.

CHAPTER 2

REVIEW OF THE RELATED LITERATURE

Approaches to Occupational Choice Study

The literature on occupational choice reveals that there are several approaches to the conceptualisation and analysis of the process. Pavalko (1971, p. 45) assigns three labels; rational decision making, fortuitous and socio-cultural influence approaches. Ford and Box (1967, p. 287) identify two main approaches; "those stressing the 'adventitious' nature of such choices, and those stressing the 'purposive' element". Waddington (1982, p. 203), perceives two most favoured approaches "which may be called ... 'developmental' and 'deliberative'" and concludes that a third approach 'indeterminacy' theory was needed to explain some random occurrences which hitherto favoured approaches overlooked (see Waddington, 1982, pp 215-216). Blau, Gustad, Jessor, Parnes and Wilcock (1956, pp 531-543) analysed three trends which may be labelled as psychological, economic and sociological approaches and suggest a holistic or multi-disciplinary approach to occupational choice study.

To facilitate the review intended here the various labels noted will be subsumed under four broad categories and for purposes of discussion dubbed explanations of career choice. The categorisations are psychological, sociological, stochastic and Human Capital explanations. These categorisations are based on the 'disciplinary matrices' of scholars who have inquired into the field of career choice.

Psychological Explanation

Explanations under this category derive from a psychological conceptualisation of career choice. This approach sees career choice as a dynamic and protracted process rather than a one-shot activity. The contention is that within the career choice continuum, individual career decision is a function of interests, capacities, attitudes, opportunities and values associated with a particular level of development or maturation. Notable explanations of career choice based on a psychological paradigm include the works of Ginzberg, et al (1951) and Super (1957).

Ginzberg et al postulate that career choice decision making is a progressive three-stage process; the fantasy stage corresponding to the ages six to eleven years, the tentative stage which runs through early up to late adolescence: ages twelve to seventeen years, and the realistic stage which begins in early adulthood and stretches into later life: ages eighteen years and above (see Ginzberg, et al, 1951, p. 60). The analytical implications of Ginzberg et al's three stage process is that career decision at any of these stages is a function of psychologically determined maturational characteristics associated with that stage of development (for a full discussion see Ginzberg et al, pp 60-117). Ginzberg, et al's view of career choice has been criticised as being too culture and time bound as to constitute a generalised theory of occupational choice (see Pavalko, 1971, p. 46).

Super (1957) extends the work of Ginzberg et al by proposing a five stage process of 'vocational development' in which a career choice decision at any stage is seen as an attempt to strike a

balance between self-concept and the content of work roles. These stages can be summarised into the following:

1. Growth stage which starts roughly from birth to the age 14 years. This is mainly a period of fantasy choices associated with the child's development of a self-concept. However, as the child progresses into adolescence he becomes increasingly aware of the limitations imposed by his environment and capacities (roughly comparable to Ginzberg's period of fantasy choice).
2. Exploration stage which stretches between the ages of 15-24 years. At this stage individual self examination, role try-outs and occupational exploration take place in the attempt to implement a self-concept (partially comparable to Ginzberg's period of Tentative choice).
3. Establishment stage: roughly ages 25-44 years. This stage is characterised with the modification or implementation of the self-concept (partially comparable to Ginzberg's period of Realistic choice).
4. Maintenance stage: roughly ages 45-64 years. Here the attempt is at preserving or being nagged by self-concept.
5. Decline stage: approximately from ages 65 years to death. The individual adjusts to a new self-concept.

Sociologists have strongly criticised the psychological explanation of career choice. In the words of Musgrave (1967, p. 37):

> Two major attempts by psychologists, Ginzberg et al and Super, have resulted in descriptive, developmental theories.
>
> This pioneering work misses much of sociological relevance ..., Ginzberg's work at least seems more applicable to the U.S.A. than to Britain.

Sociological Explanation

The sociological explanation revolves about a socio-cultural perception of the career decision making process. In this approach, career choice is perceived as a progressive socialization process. Individuals, it is argued, progressively select careers best suited to their socio-cultural characteristics. A major contribution in this field was made by Musgrave (1967).

Musgrave (1967) proposes four stages of career decision process based "on socialisation seen strictly as learning to take roles". These are: pre-work socialisation stage, entry to the labour force stage, socialisation into the job stage, and job changes stage. Musgrave's four-stage model of occupational choice has been criticised by Coulson, Keil, Riddel and Struthers (1967) as lacking in sociological perspective, indicating an excessively individualistic view of society and using such concepts like role and socialisation without reference to social structure (see Coulson, et al, 1967, p. 301). On the theorectical and empirical validity of Musgrave's model, Coulson et al (1967, pp 301-308) conclude that:

> The main theoretical weakness lies in the attempt to explain social behaviour in terms of an oversimplified functionalist theory which rests on a consensus model of society.
>
> ... Musgrave's article by reason of its inadequate theoretical assumptions (naive functionalism), imprecise use of concepts of role and socialisation, and inadequate empirical reference..., cannot be granted the status claimed for it - that of an approach towards a sociological theory of occupational choice.

Stochastic Explanation

The Stochastic explanation borders on either an 'accident' or an 'impulse' theory which postulates that human decisions could be spontaneous at certain times due to either contact with a sudden external factor or the overt physical expression of internal forces. Spontaneous actions, it is contended, could result in random factors like 'accident' or 'impulse' influencing individual career choice. Some classic examples of explanations predicated on an accidental theory include the biographical accounts of how David Ricardo became an economist noted in Ginzberg et al (1951, p. 3). Ginzberg et al (1951, p. 18) recount that Ricardo explained his interest and subsequent occupation as an economist as stemming from the accident of stumbling on a copy of Adam Smith's "The Wealth of Nations", while vacationing at the English sea-side. Hobson and Hayes (1968, p. 3) note that Malinowski explained his shift of interest and occupation from chemistry to anthropology in terms of the accident of reading Frazer's "Golden Bough" during a convalescence from tuberculosis. Instances of 'impulse' theory in the stochastic explanation include the cases of the sadist who becomes a surgeon or butcher, or the micturition-prone child who later became a well-known engineer of bridges and canals all of which are cited by Hobson and Hayes (1968, p. 4).

A most recent and forceful articulation of the Stochastic explanation is embodied in Waddington (1982, p. 215) who argues that:

> The recruitment of AG's was not wholly indeterminate, but indeterminacy played sufficiently important part in the process to warrant serious sociological attention. The wider significance of indeterminacy of AG recruitment is that it suggests that the sources of indeterminacy are themselves socially structured and not just idiosyncracies of particular choice situations.

Ford and Box (1967, p. 287) referring to the works of Katz and Martin (1962) and Caplow (1954) have criticised this approach by asserting that studies stressing the accidental nature of career choice can be readily dismissed as having no relevance to the development of a sociological theory of occupational choice: characterisation of such choices as unique spontaneous behaviours explicable only be reference to the idiosyncracies of particular choice situations is essentially atheoretical (Ford and Box, 1967, p. 287).

Human Capital Explanation

The human capital explanation of career choice is based on the human capital theory as enunciated by Schultz (1963) and Becker (1964). The central thesis of the theory is that the process of acquiring education is a conscious investment activity guided by anticipated future returns. With this theoretical base the human capital explanation of career choice derives its operational impetus from the Marshallian dictum. According to Marshall (1936, p. 216):

> If the advantages of any one occupation ... are above the average there is a quick influx of youth from other occupations.

Thus this approach is predicated on the view of man as a utility maximizer. The contention is that individual career decision makers given their preferences and ability constraints will prima facie choose careers that will maximize their expected life time monetary and non-monetary incomes (Freeman, 1971, p. 3; see also Zabalza, Turnbull and Williams, 1979, p. 9). In this approach a link is perceived to exist between the Labour and Higher Education markets. Skill shortages in the labour market are signalled to individual

career decision makers through 'wage incentives'. Since individuals are utility maximizers they respond to the signals by choosing courses in those fields where the signals emanate from. Alternatively, skill surpluses in the market is signalled to career decision makers through declining wages which discourage students from choosing courses in those fields where wages are depressed.

Career decision and Course choice in the United States

One of the foremost and most detailed application of Human Capital Theory to the explanation of career decisions and students course choice is evident in the works of Freeman (1971, 1975a, 1975b, 1976 and 1981) in the United States of America. Professor Freeman specified his career decision (enrolment) models using starting/average salaries as explanatory variables in the decision to choose careers or courses in Engineering and Scientific fields. Based on his empirical findings he concludes that individual career decision/course choice is mainly influenced by labour market situations measured in terms of either increasing or decreasing wages. The fundamental proposition is that shortages in certain skill requirements in the labour market are signalled to career decision makers through higher wages which induces increased demand for training in the field; and since the Higher Education Market has an infinite skill supply capacity, institutions respond to the increased demand for training by supplying skill places. Thus skill shortages exist in the labour market for only short spells of time due to training lag and thereafter are eliminated and succeeded by skill surpluses in the field due to cobweb dynamics (see Freeman, 1971, pp 28-32, 1976, pp 60-62 and 1981, pp 109-114). Hence persistent and protracted skill shortages or surpluses in the labour market are most unlike-

ly since wage signals will induce or repel massive influx in the case of either shortages or surpluses respectively. This implies that the interaction between education and labour markets is such that there is always a tendency towards dynamic equilibrium. This cobweb model is illustrated in figure 2.1.

The human capital explanation has not escaped the critical pen of skilled programme evaluators. Blaug (1976, p. 836) after pointing out some disconfirming instances, notably Klinov-Malul (1971) and Sloan (1971), concludes:

> As for actual behaviour apart from knowledge and information, we have seen that the empirical evidence for human capital explanation of the demand for schooling is far from unambiguous; it is true that it has never been decisively refuted on its own grounds but on the other hand it has only been corroborated in its weaker versions. Moreover, alternative economic models have yielded equally good or even better results.

And even most recently, Mingat and Eicher (1982), adducing some empirical evidence on enrolments and rates of return by academic discipline in France, have raised some questions which challenge the theoretical premise in human capital explanation of course choice:

(1) if the rate of return guides individual choice, why is there a noticeable increase in the number of students enroled in liberal arts and a decrease in enrolments in sciences, when the return on studies in the liberal arts is less than or equal to the return on scientific studies?

(2) Should not an even greater increase in medicine be expected as compared with law and economics, given the substantial difference in the rate of return (Mingat and Eicher, 1982, p. 215).

This disconfirming instance lead Mingat and Eicher (1982) to

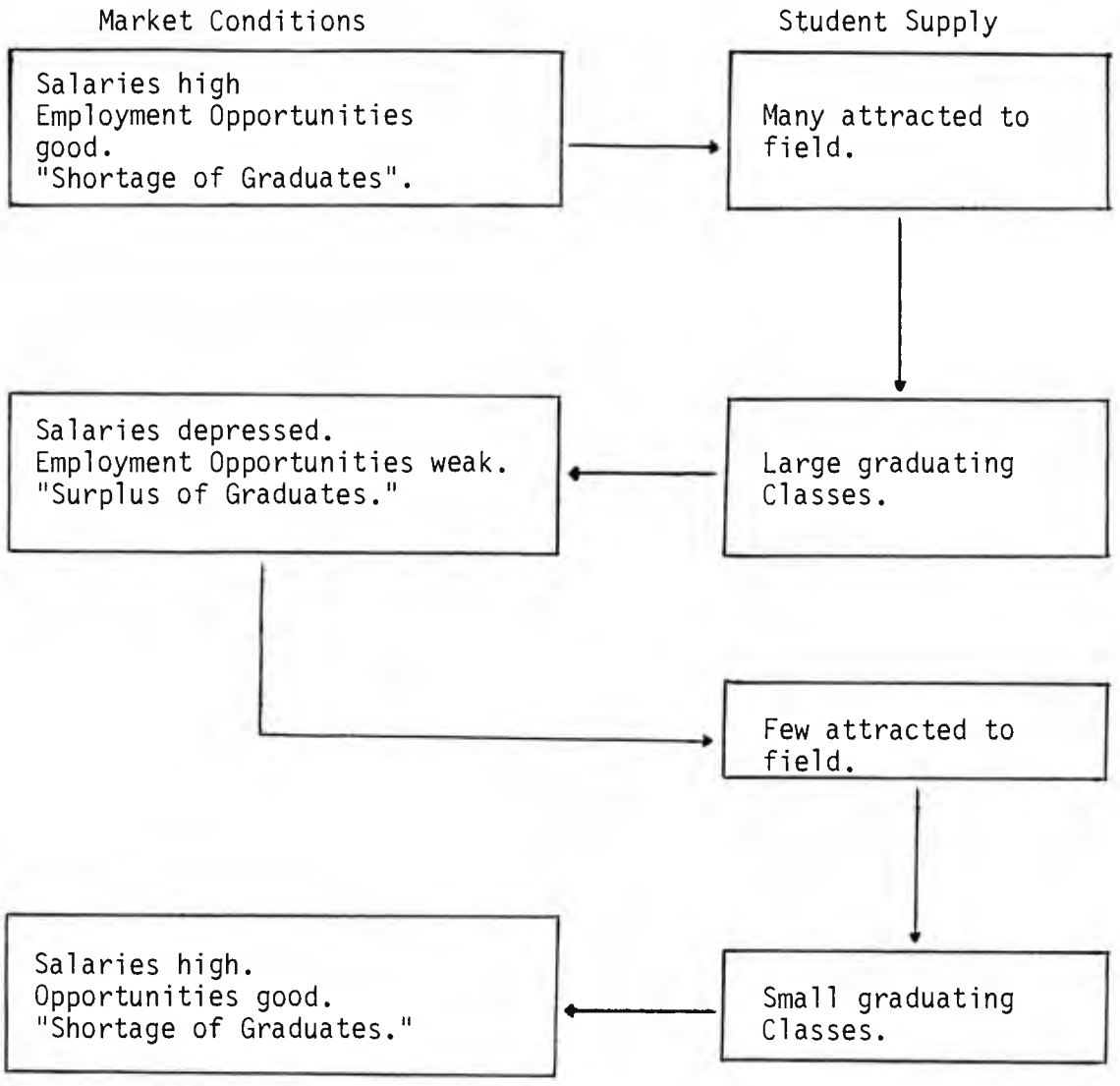


Figure 2.1 : Cobweb dynamics in the college market.

Source: Freeman, 1976, p. 60.

argue that students entering higher education do not have a uniform course choice model based solely on estimates of future returns likely to come from investing in particular disciplines as human capital theory predicts. They contend that individual students entering higher education have different choice models which could be a function of either objective features associated with the present (e.g. relative academic ability in different fields of study/economic and social limitations) or subjective features linked to the future (e.g. preferences/financial profitability on the labour market for particular disciplines). Mingat and Eicher's (1982) model is illustrated in figure 2.2

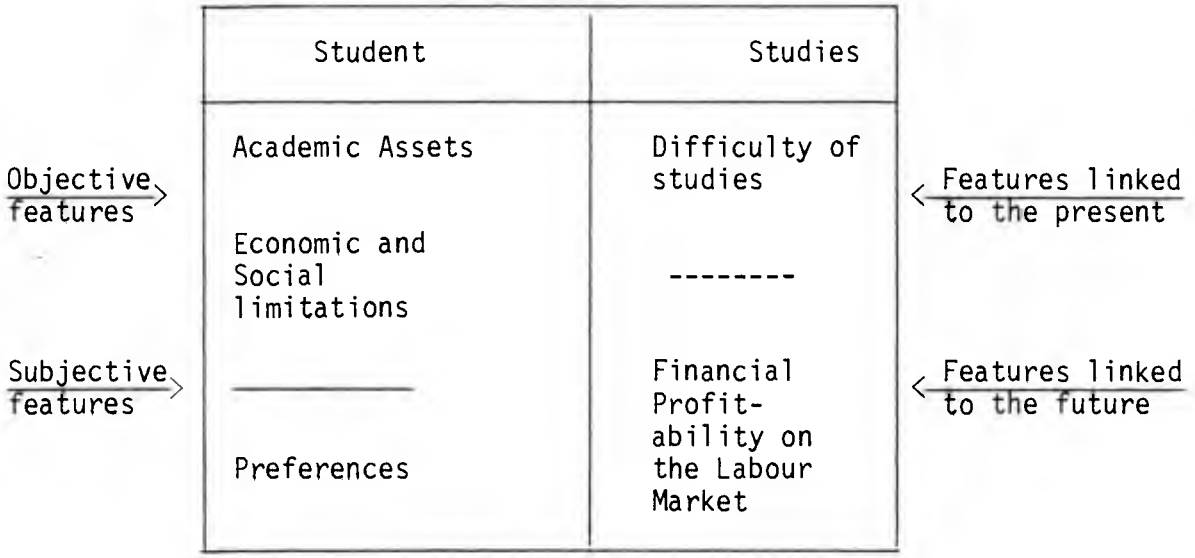


Figure 2.2 : A course choice Model based on alternatives between Returns and Risk.

Source: Mingat and Eicher (1982, p. 216).

Occupational Preference and Course Choice in Nigeria

The literature on the occupational choice of Nigerian youths is still very limited. However, the few available throw some light on the subject. Okeke (1973) has contended that the type of secondary school subjects offered influences subsequent occupational choice of

students in Nigeria. Oyeneye (1980) shows that students occupational preferences/orientation cannot be totally divorced from their socio-economic background characteristics. Olayinka (1973), Nwagwu (1976) and Durojaiye (1973) have observed that the job aspirations of Nigerian youths are considerably influenced by the prestige and high income associated with certain occupations and hardly relate to the students interests and capacity to cope with the training requirements in those occupations. Evident from the studies by Durojaiye (1973) and Nwagwu (1976) is the fact that teaching is ranked low amongst the major professions. Out of 609 secondary school students studied, 71.1 percent of them indicated preference for tertiary institutions outside teacher training colleges (Nwagwu, 1976). And when asked to rank occupations in order of preference the following was evident: medical doctor, nurse, university lecturer, agricultural officer, engineer, secondary school teacher etc (Nwagwu, 1976). This ranking noted by Nwagwu is comparable to that noted by Durojaiye (1973):

> Doctor, dentist, engineer, lawyer, accountant (in that order) were mentioned by most students as having the highest prestige.

Hinchliffe's (1973) case study of 254 students at the Ahmadu Bello University provides a disconfirming instance of the Human Capital explanation of career choice. A life-cycle view of career opportunities and hence sensitivity to wage differentials, which Freeman (1971, 1976 and 1981) adduces to explain students career decisions and course choice in the United States, do not seem to apply significantly in Nigeria. According to Hinchliffe (1973, p. 172):

> It would be reasonable to say that on the whole, as far as wages are concerned the students do have good knowledge, but on the other hand they do not react to economic signals in the form of wage differentials as conventional economic theory would suggest.

Based on his survey findings he concludes that:

> "Reading information is the most important single factor influencing students' choice."

On how to influence students' course choice, Hinchliffe (1973, p. 172)concludes that:

> Through the mixture of more widespread and effective career guidance and further tightening of the bonding system of scholarships, the matching up of supply with projected demand could be more successful.

The Effect of the Teachers Bursary incentive scheme examined

The obvious inference from Hinchliffe's conclusion is his demonstrated preference for a bursary incentive as opposed to a wage incentive as the appropriate signalling device for equating the labour and education market mismatch in a developing country like Nigeria. Since the signalling effect of Bursary incentive is at best speculative, this study hopes to provide empirical evidence on the issue to guide policy.

CHAPTER 3

METHOD OF ENQUIRY

Research Design

The research design employed in the study is what is often referred to in the literature as the "survey design". Surveys typically collect data about a population at a particular point in time with the intention of

(a) describing the nature of existing conditions, or

(b) identifying standards against which existing conditions can be compared, or

(c) determining the relationships that exist between specific events (Cohen and Manion, 1982, p. 71; Selltiz, Wrightsman and Cook, 1976, p. 90; Labovitz and Hagedon, 1981, p. 49).

Surveys, if they are to be successful, usually proceed along well defined logical stages. This logical and systematic stages are schematically presented in figure 3.1, and the framework served as the researcher's methodological guide-post throughout the enquiry.

Description of Survey Sample

(a) Selection of Sample Institutions

Three Universities from the three geographical regions of Nigeria were selected for the data collection and analysis. These institutions are:-

1. Ahmadu Bello University (ABU), Zaria - North
2. University of Ibadan (UI) - West
3. University of Nigeria, Nsukka (UNN) - East.

Figure 3.2 shows the geographical location of the sample in-

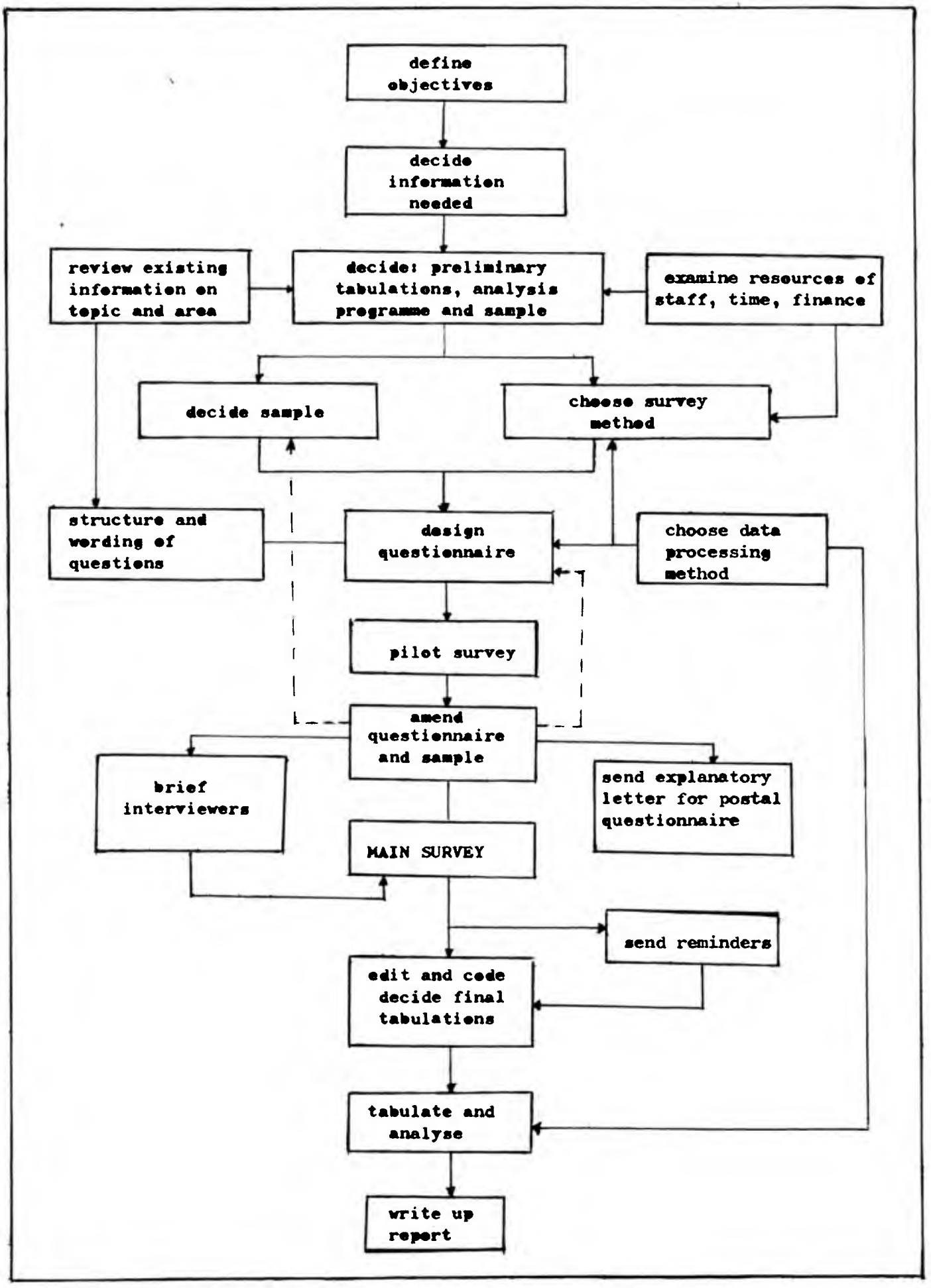


Figure 3.1: A schematic Model showing the stages in the planning of survey.

Source: Adapted from Cohen and Manion, 1982, P.72.

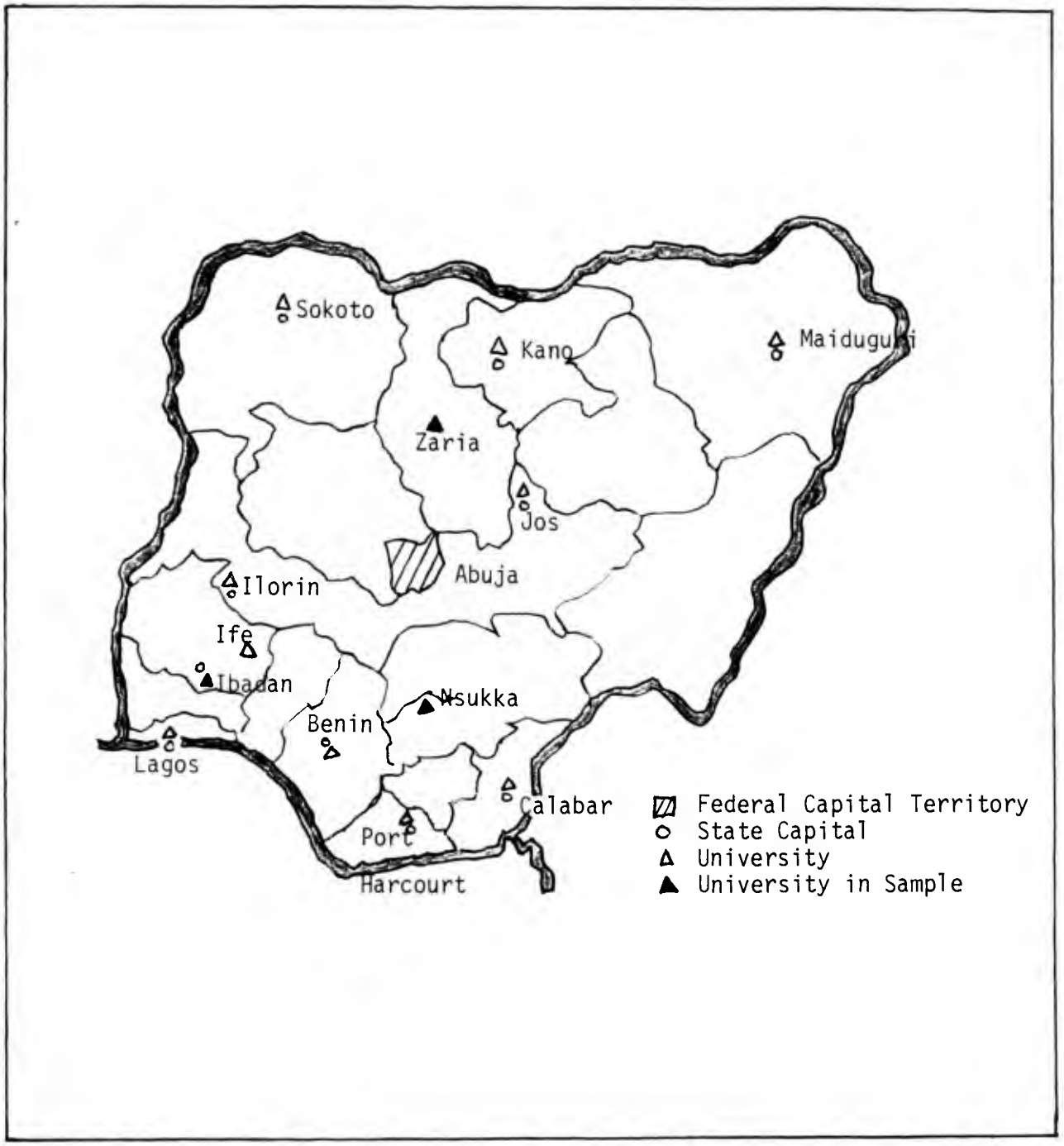


Figure 3.2 : Map of Nigeria showing the geographical location of Universities in the sample.

Source: Adapted from National Universities Joint Admission and Matriculation Brochure, 1980-81 session.

stitutions.

The selection of these institutions for survey was based on practical considerations rather than any rigorous sampling technique. It is common knowledge amongst researchers that, in some cases, there are well defined sub-groups of a population which seem to be representative of the population to be studied. In such cases sub-groups randomly selected from the population, based on probability sampling, are likely to yield a fairly representative sample of the population. In other cases practical considerations seem to preclude the use of probability sampling, and the researcher looks for a representative sample by other means. That is, he looks for a combination of sub-groups which put together becomes typical of the population as a whole. This combination of sub-groups is used as a 'barometer' of the population. Observations are thus restricted to these combination of sub-groups, and conclusions from the data obtained are generalised to the entire population (see Ackoff, 1953).

Figure 3.3 presents a visual impression of Nigerian Education Students enrolment by Universities and region of origin for the 1975/76 session (data is not available for the period beyond 1975/76).

From the figure, we observe the distribution of Education Students in the various Universities in Nigeria in 1976. Ahmadu Bello University has the greatest concentration of students from the North, University of Nigeria, Nsukka has the greatest concentration of students from the East. However, in spite of the fact that the University of Ife has far greater concentration of students from the West, it was excluded from the list of sample institutions in preference to Ibadan because of the researcher's familiarity and close

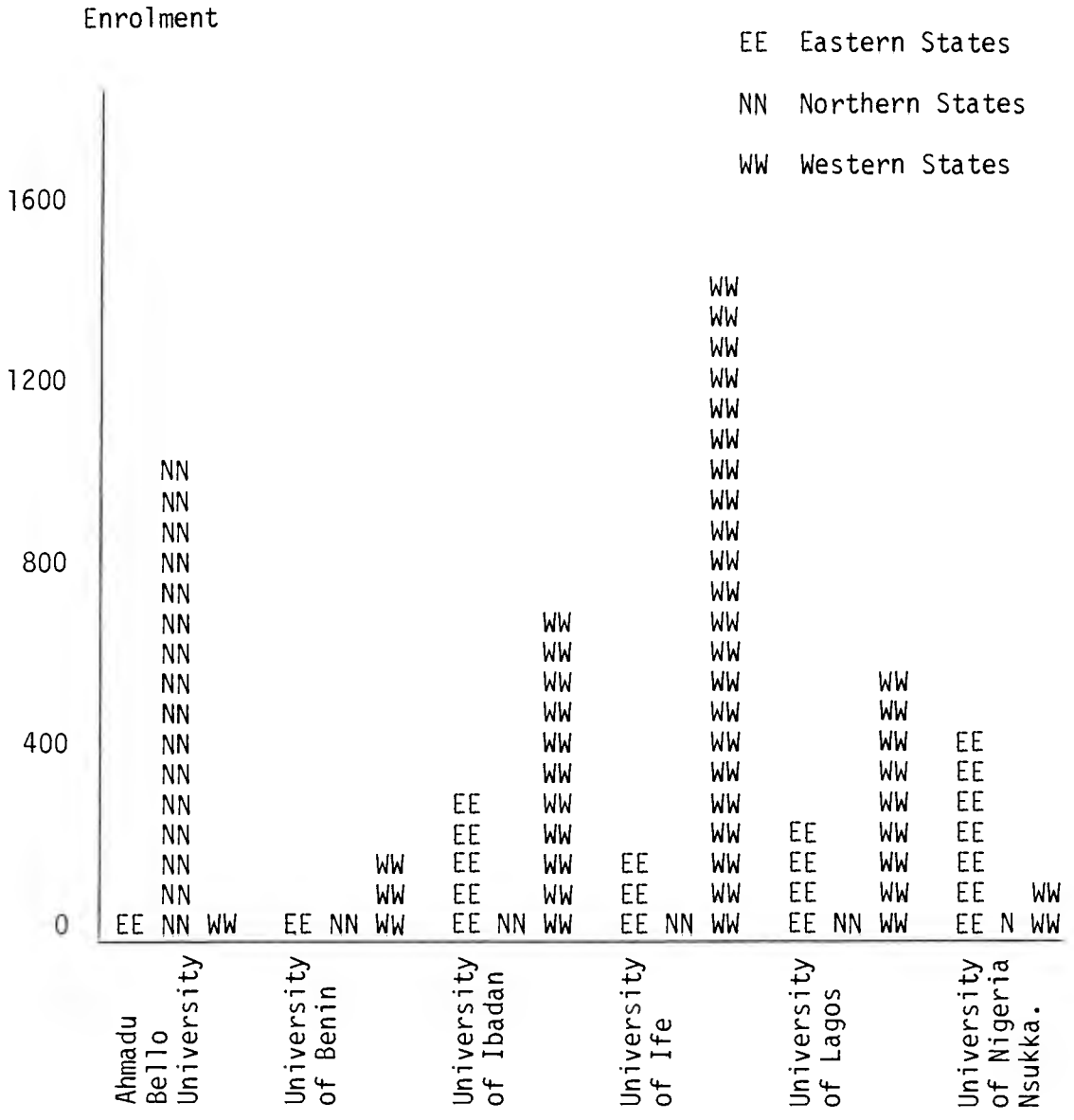


Figure 3.3 : Nigerian Education Students enrolment by University and geographical region of origin of students, 1975-76.

Source: Based on National Universities Commission Annual Review of Nigerian Universities, 1975-76.

association with staff and students of the University of Ibadan for well over six years. The familiarity and close association was seen as an advantage which may enhance the level of staff and students co-operation in that institution during the survey.

Although seven new national universities with faculties of education have been established since 1976, none of them was included in the sample for two obvious reasons:

(i) they have relatively lower population of education students than the older ones. For instance, whereas the six older universities whose statistics is shown in figure 5 accounted for 66% (i.e. 6,977) of the total population of (10,611) bachelor of education student enrolment in Nigerian Universities during the 1981/82 session, the seven new ones represented only 34% (i.e. 3,634) of the total. See Table 3.1 for more information.

(ii) the geographical spread of students in the new institutions is not very much different from what we have observed in figure 3.3 since institutions in Nigeria typically attract the greatest concentration of students from their regional neighbourhood than elsewhere. Table 3.2 presents a state by state/and region by region breakdown of bachelor of education students intake for the 1977/78 session in the three sample institutions.

The table shows that the bulk of students intake come from states within the geographical region in which the Universities are located. As can be further seen from Table 3.3, 94% of students intake into U.N.N. located in the East came from the eastern states, a platry 6% came from the West while none came from the North. A similar pattern is evident in ABU and UI. In ABU located in the North, 90% of the students intake came from the Northern states and a paltry 4 and 6%'s came from the Eastern and Western states respectively. The picture is not too different for UI where 72% of the students intake came from the Western states, 26% came from the East and a bare

TABLE 3.1

Bachelor of Education Students' Enrolment in Nigerian Universities 1981/82 session

Six Older Universities	No. of students enrolled	% of gross total
IBADAN	855	8.1
LAGOS	907	8.6
NSUKKA	946	8.9
ZARIA	1,859	17.5
IFE	1,563	14.6
BENIN	847	8.0
Total:	6,977	65.8
Seven New Universities		
JOS	691	6.5
CALABAR	786	7.4
KANO	603	5.7
MAIDUGURI	383	3.6
SOKOTO	266	2.5
ILORIN	476	4.5
PORT-HARCOURT	429	4.0
Total:	3,634	34.2
Gross Total:	10,611	100.00

Source: Based on statistics obtained from Planning Division, National Universities Commission, Lagos, April 1983.

TABLE 3.2

Admission into First Degree Courses in Education in sample institutions for 1977/78 session by University, State of origin and geographical region.

University by Geogrpahical Location	State of Origin																				
	Eastern States				Northern States										Western States					TOTAL
	ANAMBRA	CROSS RIVER	IMO	RIVERS	BAUCHI	BENUE	BORNO	GONGOLA	KADUNA	KANO	KWARA	NIGER	PLATEAU	SOKOTO	BENDEL	LAGOS	OGUN	ONDO	OYO	
East University of Nigeria, Nsukka (UNN)	82	4	87	1	-	-	-	-	-	-	-	-	-	-	4	-	-	4	3	185
North Ahmadu Bello University, Zaria (ABU)	3	5	2	2	16	21	7	20	72	18	41	12	27	6	3	-	1	2	9	267
West University of Ibadan (UI)	18	8	21	3	-	-	-	-	-	-	3	-	-	-	22	1	30	36	47	189

Source: Based on National Universities Joint Admissions and Matriculation Board, Annual Report, 1st April, 1977 - 30th June, 1978, pp 30, 34 and 40.

2% came from the North.

TABLE 3.3

Percentage distribution of Education Students intake in sample Institutions by Geographical Region, 1977/78

University by geographical location	% intake by geographical region of students origin			
	East	North	West	Total
U.N.N. (East)	94	-	6	100
A.B.U. (North)	4	90	6	100
U.I. (West)	26	2	72	100

Source: Based on Table 3.2.

(b) Selection of sample students

The following sequence of events led to the selection of students for survey in sample institutions:

1. The researcher visited each of the three sample institutions with his University of London Student Identity Card and an introductory letter from his thesis Supervisor - Professor Mark Blaug. At the first stage of the visit, he approached the relevant University Officials in the sample institutions, introduced himself, presented his student identity card and the letter of introduction from his thesis Supervisor. This was followed with a discussion during which the researcher explained in detail the purpose of his visit, the general plan of the study and the level of co-operation required.

2. After permission to carry out the survey was granted, the

researcher obtained the current list of bachelor of education students in each institution and mapped out a strategy for reaching the potential participants in the survey with the full and commendable co-operation of both tutorial and non-tutorial staff in each institution.

Participants

Participants in the survey comprise 578 students currently enrolled in their prelim, Parts - I, II and III of the four years bachelor of education programme.

Sampling

The selection of students was done by first obtaining a roster of all bachelor of education students from the faculty officers in the sample institutions during the initial introductory visit. From this list a random sample of 200 students was selected from each institution using the method of stratified random sampling and the table of random numbers in Bruce, W. Tuckman's book; Conducting Educational Research, pages 226-232 and Appendix B, Table 1. (See also Kidder, Writhsman and Cook's; Research Methods in Social Relations, pages 432-436).

An additional 20% of the sample size for each institution was simultaneously drawn to serve as alternatives if some students were absent, ineligible or did not wish to take part in the survey or technically speaking 'out of scope'. When necessary, selection from alternatives to fill vacancies was done. By so doing the researcher endeavoured to ensure a very high overall participation rate for the survey. This is pertinent in view of the fact that a desired sample

size of 5% or roughly 600 out of the approximately 12,000 bachelor of education students enrolled in Nigeria's National Universities during the 1982/83 session was proposed for the survey.

The stratification parameters which were specified to ensure the representativeness of the sample across the population stratum in each institution were sex and year of study. Tables 3.4 - 3.12 show the sampling plans, desired samples and alternative samples for the various institutions.

TABLE 3.4

Sampling Plan for Selecting Sample Students and alternative sample at the University of Ibadan.

Year of Study	Proportion in the Population by Sex		Total Proportion in the Population by Year of Study	% of total Proportion in the Population
	Male	Female		
Preliminary	36(3%)	21(2%)	57	5
Part I	287(26%)	135(12%)	422	38
Part II	230(21%)	103(9%)	333	30
Part III	209(18%)	100(9%)	309	27
Total	762(68%)	359(32%)	1,121	100

Source: Based on Roster of Education Students at the University of Ibadan, 1982/83 session.

TABLE 3.5

Proportion of the population included in the desired sample size of 200 for University of Ibadan, by year of study and sex.

Year of Study	Sex		Total
	Male	Female	
Preliminary	6	4	10
Part I	52	24	76
Part II	42	18	60
Part III	36	18	54
Total	136	64	200

Source: Based on Table 3.4.

TABLE 3.6

Proportion of the population included in the 20% alternative for University of Ibadan, by year of study.

Year of Study	Sex		Total
	Male	Female	
Preliminary	1	1	2
Part I	10	5	15
Part II	8	4	12
Part III	7	4	11
Total	26	14	40

Source: Based on Table 3.4.

TABLE 3.7

Sampling Plan for Selecting Sample Students and alternative sample at the Ahmadu Bello University.

Year of Study	Proportion in the Population by Sex		Total Proportion in the Population by Year of Study	% of total Proportion in the Population
	Male	Female		
Preliminary	-	-	-	-
Part I	133(13%)	43(5%)	176	18
Part II	289(29%)	103(10%)	392	39
Part III	302(30%)	135(13%)	437	43
Total	724(72%)	281(2(%)	1,005	100

Source: Based on Roster of Education Students at the Ahmadu Bello University, Zaria, 1982/83 session.

TABLE 3.8

Proportion of the population included in the desired sample size of 200 for Ahmadu Bello University, by Year of study and sex.

Year of Study	Sex		Total
	Male	Female	
Preliminary	-	-	-
Part I	26	10	36
Part II	58	20	78
Part III	60	26	86
Total	144	56	200

Source: Based on Table 3.7.

TABLE 3.9

Proportion of the Population included in the 20% alternative for Ahmadu Bello University, by year of study and sex.

Year of Study	Sex		Total
	Male	Female	
Preliminary	-	-	-
Part I	5	2	7
Part II	12	4	16
Part III	12	5	17
Total	29	11	40

Source: Based on Table 3.7.

TABLE 3.10

Sampling Plan for Selecting Sample students and alternative sample at the University of Nigeria, Nsukka.

Year of Study	Proportion in the Population by Sex		Total Proportion in the Population by Year of Study	% of total Proportion in the Population
	Male	Female		
Preliminary	208(16%)	175(14%)	383	30
Part I	146(11%)	132(10%)	278	21
Part II	122(10%)	79(6%)	201	16
Part III	242(19%)	183(14%)	425	33
Total	718(56%)	569(44%)	1,287	100

Source: Based on Roster of Education Students at the University of Nigeria, Nsukka, 1982/83 session.

TABLE 3.11

Proportion of the Population included in the desired sample size of 200 for the University of Nigeria, Nsukka, by year of study and sex.

Year of Study	Sex		Total
	Male	Female	
Preliminary	32	28	60
Part I	22	20	42
Part II	20	12	32
Part III	38	28	66
Total	112	88	200

Source: Based on Table 3.10.

TABLE 3.12

Proportion of the Population included in the 20% alternative for the University of Nigeria, Nsukka, by year of study and sex.

Year of Study	Sex		Total
	Male	Female	
Preliminary	6	6	12
Part I	4	4	8
Part II	4	2	6
Part III	8	6	14
Total	22	18	40

Source: Based on Table 3.10

It is worthwhile to note that the proportions included in both the desired sample and alternative for each institution were based on the relative proportions of the parameters in the sampling plan for each institution.

Research Instrument

The research instrument employed in the study is a survey questionnaire. The questionnaire contains 32 structured pre-coded questions.

Although there was no attempt to split the questionnaire into sub-sections with specific sub-headings, the scope and objectives were quite clear. The instrument was designed to collect data relevant to the problems posed in the study. Such data are on:

(i) background characteristics of bachelor of education students.

(ii) year of study and orientation of course.

(iii) highest previous qualification and when obtained.

(iv) sources of career information available to students.

(v) change of course of study and reason for doing so.

(vi) level and sources of student's income and expenditure.

(vii) the effect of the Teachers Bursary Award vis-a-vis Teachers' Starting Salary.

(viii) students' perception of differential training cost in selected disciplines.

(ix) previous employment and future career plan.

A copy of the questionnaire is included in the Appendix A.

DATA COLLECTION

(i) Pilot Survey

The questionnaire was pilot-tested at the University of Benin between 18th - 20th April, 1983. 20 education students selected by convenience sampling participated in the pilot survey. The time taken to complete a questionnaire ranged from 8 - 14 minutes, with a mean completion time of approximately 11 minutes.

After the questionnaire completion exercise, a post participation conference was held with the students. The objective of the conference was to elicit the views of students on the clarity of the questions raised in the questionnaire to enable the researcher effectively evaluate it.

The general comment of participants was favourable, so there was hardly any need for restructuring or 'debugging' so to say.

(ii) Main Survey

The main survey was conducted consecutively in the three sample institutions between April and June, 1983. The dates were as follows:

University of Ibadan; 22nd April - 6th May

Ahmadu Bell University; 9th - 24th May

University of Nigeria, Nsukka; 26th May - 10th June.

On the average, the survey in each institution lasted for two weeks.

Procedure

The questionnaires were administered directly by the researcher

in lecture halls with the assistance and commendable co-operation of some tutorial staff in sample institutions. The researcher was first introduced to the students concerned in each institution by their lecturers who briefed them on the importance of the study, the time and resources expended to travel from London to Nigeria to conduct the survey and the need for maximum co-operation.

After the briefing exercise, students asked questions on the research topic, the general plan of the study, when the results would be expected and the machinery for communicating the results to them. Students' questions further included admission prospects into higher degree studies in Britain for foreign students especially from Nigeria; admission requirements, foreign students' support schemes, attitude of British Professors/and Supervisors to foreign students, etc. The researcher made frantic effort to answer all students' questions irrespective of whether such questions were relevant or irrelevant to the survey. The intention was to reduce any students anxiety or nervousness as well as satisfy their curiosity thereby enhancing the level of their co-operation in the survey.

The direct administration of the questionnaire by the researcher afforded him ample opportunity to correct faults that were likely to arise from a misunderstanding of the instructions.

The average time taken to conduct a questionnaire filling session during the survey varied from group to group and between institutions depending on such contingency factors as time constraint, number of questions raised by students, and how elaborate the researchers explanations were. On the average the questionnaire filling session lasted

for about 25 minutes in each institution.

Completed questionnaires were immediately collected and packed into 30 x 35cm envelopes by the researcher at the end of each session.

As noted in the selection of students' section, the provision of a 20% alternative sample as a substitute in case some students in the main sample were "out of scope" and the use of the direct researcher - respondents interaction approach in place of the postal approach ensured a very high overall effective participation rate of 96% for the survey.

Table 13 shows the summary statement of the overall participation by institution. We can glean from the table that the desired proportion of the sample in each institution that was effective or more technically speaking 'productive' was 100% for the University of Ibadan, 99% for Ahmadu Bello University and 90% for the University of Nigeria, Nsukka. The overall productivity rate was 96%.

The 1% unproductivity rate associated with the Ahmadu Bello University was due to the fact that one questionnaire was dropped during the checking exercise because its completer did not go beyond providing responses to only the first nine items in the questionnaire, whereas one student who stayed through the questionnaire filling session decided to disappear with his completed questionnaire presumably for his future research use. With regards to the University of Nigeria, Nsukka, the 10% unproductivity rate was largely due to the fact that this institution was the last to be visited by the researcher and the sessional examination 'fever' sweeping through the institu-

TABLE 13

Summary of overall participation by Institution.

Institution	Desired Participants	Effective Participants	% of desired that was effective
University of Ibadan	200	200	100
Ahmadu Bello University	200	198	99
University of Nigeria, Nsukka	200	180	90
Total	600	578	96

Source; Education Students Survey.

tion then hampered the maximum co-operation of students. This notwithstanding the fairly high overall productivity rate of 96% leaves no room for contending the unbiased character of our sample if what Tuckman (1978, p. 234) has observed as the acceptable response rate (i.e. 75-90 percent) is something to go by.

DATA PREPARATION

As indicated in the procedure section, completed questionnaires were collected immediately from students and packed into envelopes at the end of each questionnaire filling session in the sample institutions. The packets of questionnaires were later sent to the researcher's temporary base/office at the Anambra State College of Education, Awka, for Editing/checking and storage.

The checking of the completed questionnaires was done at Awka between 13 - 17th June, 1983 by the researcher with the assistance of a colleague in the sub-department of Measurement and Evaluation, Anambra State College of Education, Awka.

Since pre-codes were assigned to all the provided responses in the questionnaire, the checking exercise mainly involved what may be termed 'scouting' for faulty or double entries or assigning codes to student provided responses which do not fit into those contained in the questionnaire (see the Editing and Coding Guide).

The data were subsequently transferred to 80 - culumn, University of London, Institute of Education general coding form, which the researcher had brought along from London, in readiness for punching using the procedures for data rostering contained in Bruce W. Tuckman's book CONDUCTING EDUCATIONAL RESEARCH, 1978, pp 285-292.

EDUCATION STUDENTS SURVEY: EDITING AND CODING GUIDE

Question No.	Col.	Code	Instructions	Special Notes
			General	
			1. Only one response is acceptable in each of the questions.	
			2. Where students' mark more than one response, print CONFUSED below and assign next highest code.	
			3. Where students' mark more than one response but cancelled or erased others leaving one, accept the uncancelled.	
			4. Where students did not mark any response or provide an alternative; print 'NR' i.e. NO RESPONSE and assign next highest code.	
			5. Where the response to a preceding question implied skipping some consecutively succeeding questions, the skipped questions should each be assigned the code '0' in the data roster form.	
			Data Rostering	
			Leave a blank column between data fields.	All
			Student Serial Number	
	01-03		Three digit entry	All
1	05		Circle one code	All
2	07		-do-	-do-
3	09-10		Circle one code - Two digit entry	-do-
4	12		Circle one code	-do-
5	14		-do-	-do-
6	16		-do-	-do-
7	18		-do-	-do-

Question No.	Col.	Code	Instructions	Special Notes
8	20		Circle one code	All
9	22		-do-	-do-
10	24	0	If skipped because response in Q.9 is NO! enter code 0.	-do-
11	26	0	-Do- if as in Q.10, otherwise circle one code. Any other assign code 4.	
12	28		Circle one code	All
13	30		-do-	-do-
14	32		-do-	-do-
15	34		-do-	
16	36	0	If skipped because response in Q.15 implies so, enter code 0.	
17	38		If skipped because response in Q.4 implies so, enter code 0.	
18	40		Circle one code	All
19	42		-do-	-do-
20	44		-do-	-do-
21	46		-do-	-do-
22	48	0	If skipped because response in Q.21 implies so, enter code 0.	
23	50		Circle one code	All
24	52	0	If skipped because response in Q.23 implies so, enter code 0.	
25	54	3	If no response was made or student inserted NONE assign next highest code 3 and circle, otherwise circle one code.	
26	56	9	If no response or student inserted Dead or Don't Know assign next highest code 9, otherwise circle one code each for either father or mother. Enter response pertaining to father under Q.26, as data field in column 56 of the Data Roster.	

Question No.	Col.	Code	Instructions	Special Notes
	58		Enter response pertaining to mother.	All
27	60	7	As in Q.26 except that the next highest score should be 7, enter response pertaining to father.	
	62		Enter response pertaining to mother.	All
28	64-65	12	If no response or Don't Know assign next highest code 12 and circle, otherwise circle one code - two digit entry.	
29	67	4	If no response or Don't Know assign next highest code 4 and circle, otherwise circle one code.	
30	69		Circle one code	All
31	71	0	If skipped because response to preceding question implies so, enter code 0, otherwise circle one code.	
32	73		Circle one code	All

DATA ANALYSIS

The statistical tools employed in the data analysis include frequency counts, percentages and cross-tabulations. The computer programme used was developed at the University of London Computer Centre.

CHAPTER 4

DEMOGRAPHIC AND SOCIAL-CLASS COMPOSITION OF EDUCATION STUDENTS

> Once again, it seems to me that here is a research area of enormous importance that has gone almost completely neglected. Apart from the Fields study of Kenya, I know of only two or three developing countries where we have any information on the social-class composition of students in higher education. It is only by gathering this information that we can tell what the problems are in identifying the incomes of students' families for devising income-contingent scholarship programmes and student loans schemes.
>
> Mark Blaug, 1981, p. 93.

Introduction

The survey findings reported in this chapter provide a comprehensive picture of the demographic characteristics and social-class background of Bachelor of Education students in Nigerian universities (i.e. trainee teachers in higher education). The subjects comprise 578 male and female undergraduates in their first, second, third and fourth-year; randomly selected from three Nigerian universities during the 1982/83 academic year. The sample institutions from which students were selected are: Ahmadu Bello University (ABU) Zaria, University of Ibadan (UI) and, University of Nigeria, Nsukka (UNN). The locations of these sample institutions correspond to the three main geo-political regions of Nigeria: ABU - North, UI - West and UNN - East. The research design and sampling plan employed has been previously discussed in the method section (see Chapter 3). The survey instrument is contained in Appendix A, while the procedure of data collection and preparation are outlined in the Appendix B.

The theoretical and practical rationale for including a chapter

on the demographic characteristics and, most importantly, the social-class composition of trainee teachers in higher education into an economic analysis of teacher supply in Nigeria which focuses on the application of a bursary incentive scheme with "strings" as an active high level teaching manpower supply policy are threefold. First information on the social class composition of trainee teachers is relevant in evaluating the likely effectiveness of the scheme either in terms of its ability to discourage a segment of potential university entrants from choosing the highly lucrative courses where the risks in surviving the financial requirements are presumably higher relative to education course (due to the incidence of the bursary incentive in education course), or in encouraging those who if unsupported financially would not have had access to higher education: to take advantage of the scheme and train as teachers - see the conceptual framework of the bursary incentive scheme in Chapter 5.

Secondly, any economic argument for or against a subsidy scheme in higher education on the grounds of equity or efficiency, or proposals for an alternative student financing scheme would draw heavily from information on the social-class composition of students. Thirdly, a possible way of looking at the trainee teacher financial support scheme is to examine it within the framework of Becker's (1964) economics of training. Such examination if it is to be thorough and the conclusions and recommendations based on evidence would, to a substantial extent, also be based on information on some characteristics of the beneficiaries. Lastly, in a broader context the chapter provides answers to the fundamental question: What are the general characteristics of Nigeria's potential teacher force? The knowledge gained from the answers to the question will no doubt contri-

bute immensely towards the efficient planning of teacher stock in Nigeria.

Data Analysis and Interpretation of Results

To highlight the practical implications of the characteristics whose discussion is intended here, the data analysis and interpretation of results has been aggregated for the entire sample and the discussions organised under relevant subheadings. For Demographic characteristics these subheadings include (1) Geographical distribution (2) Age composition (3) sex composition and, (4) Marital status. For social-class composition they include (1) Family income (2) Parents' occupation and, (3) parents education. The chapter ends with a brief conclusion.

Demographic Characteristics

Data was collected on the following indices of demographic characteristics (1) Geographical distribution (2) Age composition (3) sex composition (4) Marital status.

1. Geographical Distribution

The most important point on which to start an analysis of the general characteristics of education students in Nigeria based on a survey sample data is the geographical distribution or 'spread' of the sample. This is crucial to the study because it bears directly on the external validity of the research findings. The issue whether or not the results obtained from a survey sample data can be generalised to the entire population of students in question depends to a large extent on the geographical spread or representativeness of the

TABLE 4.1

Proportion of Education Students in Nigerian Universities by States of origin.

Serial No	State of Origin	Survey sample Respondents (%)
1	Anambra	16.8
2	Bauchi	0.5
3	Bendel	7.6
4	Benue	4.3
5	Bornu	1.4
6	Cross River	4.3
7	Gongola	1.7
8	Imo	16.3
9	Kaduna	5.4
10	Kano	1.7
11	Kwara	9.2
12	Lagos	0.9
13	Niger	1.6
14	Ogun	2.8
15	Ondo	7.3
16	Oyo	12.2
17	Plateau	2.4
18	Rivers	2.1
19	Sokoto	1.4

Source: Education students' survey.

of the sample data (see Table 4.1). The table demonstrates that all

the 19 states of Nigeria are represented in the sample. Furthermore, the percentage share of the various states in the sample is virtually consistent with the pattern of the proportion of students from the states in enrolment in Nigerian universities (see also Table 4.2).

The question that immediately arises after establishing the unbiased and representative character of the data base is; How does one analyse and interpret the results of the survey data to bear on the economics of teacher supply? To this I now turn.

2. Age Composition

The data on the age composition of education students is presented in Table 4.3. From the table we observe that two-thirds of education students in Nigeria are over 25 years. Strikingly, roughly one-third are over 30 years. If we accept, and it is common knowledge, that a normal and healthy child from a relatively well-to-do socio-economic background would enter primary school at the age of 5 or 6 years and, assuming no repetition of class, would usually complete bachelor's degree studies by the age of 21 years or with LOSLA (see Psacharapoulos, 1982) should even be able to graduate with bachelor's degree earlier than that age (i.e. 20 years), then the first interpretation that the available evidence, some of which is presented in Table 4.3., lend support to is that the age composition of students at any level of schooling could be a probable indication of their social-class origin ; students who enter higher education at a later than the conventional minimum entry age seem most likely to come from low social-class background, and may have had their schooling career interrupted by a protracted period at work (I shall return to this issue later).

TABLE 4.2

Proportion of Students in Annual Enrolments for First Degree courses in Nigerian Universities by States of Origin 1978/79 to 1982/83.

Serial No	State of Origin	% Share 1978/79 (1)	% Share 1979/80 (2)	% Share 1982/83 (3)	Mean of (1), (2) and (3)
1	Anambra	11.6	10.8	10.7	11.0
2	Bauchi	1.0	1.6	1.4	1.3
3	Bendel	14.6	14.1	13.1	13.9
4	Benue	3.6	4.6	3.6	3.9
5	Bornu	0.9	2.3	1.1	1.4
6	Cross River	4.7	5.4	6.3	5.5
7	Gongola	1.2	2.1	1.6	1.6
8	Imo	14.0	12.2	12.9	13.0
9	Kaduna	3.1	3.3	2.5	3.0
10	Kano	1.6	2.5	1.7	1.9
11	Kwara	6.6	5.4	6.7	6.2
12	Lagos	2.1	1.6	2.7	2.1
13	Niger	1.1	1.3	1.3	1.2
14	Ogun	7.8	6.8	6.9	7.2
15	Ondo	9.2	8.0	9.6	8.9
16	Oyo	11.2	10.6	12.2	11.3
17	Plateau	1.8	2.6	2.0	2.1
18	Rivers	2.8	3.6	2.7	3.0
19	Sokoto	1.1	1.2	1.3	1.2
	Total	100.0	100.0	100.0	100.0

Source: (1) and (2) are based on Nigerian Abstract of Statistics data, 1981, pp 66 and 68 respectively, while (3) is based on Returns from NUC, 1983.

TABLE 4.3

Age Composition of Education Students

Age Category (in years)	Proportion of Students (in %)	Cumulative (in %)
Under 21	4.2	4.2
21-25	28.9	33.1
26-30	36.2	69.3
31-35	19.6	88.9
36-40	6.9	95.8
41-45	3.8	99.6
46 and over	0.3	99.9
No Response	0.2	-
Total	100.0	100.00

Source: Education Students Survey

Age Composition and practical implications:

I have attempted to show how an economist can interpret the age composition of students in higher education. Furthermore, a close examination of the age composition of education students, or in technical terms potential teacher force reveals other plausible interpretations which may have practical implications for both economists and national teaching manpower planners.

(i) Age Composition, Age-Earning profile and Teacher Stock

It is usual for economists to use conventional school leaving age in developed countries, notably Britain and the United States (the

modal school leaving age for the three levels of education in these countries are primary - 11 years, secondary - 16 years and university first degree - 22 years) in the construction of age-earning profiles and the estimation of the profitability of different levels of education or fields of study see Ziderman (1977), Morris (1977) and Woodhall (1977). Since, it appears to me that, education students graduate at a much later age than undergraduates in developed countries or even undergraduates in other fields of study in Nigeria, the age data would suggest that the application of the conventional graduation age of 22 years to the construction of the actual age earning profile for graduate education teachers may not likely reflect the true earning path in the teaching profession for education graduates as it may over state the profitability of the bachelor of education degree. The use of the modal age of education students (i.e. 28 years) is more likely to present a better picture. Also an aggregated age-earning profile for university graduates, say in Nigeria, which does not take into account the probable modal age in the various fields may be misleading and at best serve theoretical rather than practical purposes.

Secondly, the high age of education students or potential teacher force suggests that in planning teacher stock, especially the inflows and outflows, age is one of the important variables to take into consideration. Potential teachers who are likely to enter the teaching profession at a near retirement age are very likely to have a considerably reduced productive cycle due to early obligatory retirement. The inclusion of the age structure of potential teacher force into the teacher supply matrix will tend to adjust for the attrition likely to arise due to early retirement. It is also consistent to argue that

high level teacher demand and supply projection which uses the conventional graduation age disregarding the actual age composition of potential and actual teacher force may end up overstating the supply during the plan period.

(ii) Age Composition and Psychological Theory

A slight digression into the domain of Psychology by invoking Ginzberg et al (1951) and Super (1957) on the career relevance of age composition would suggest that most education students in Nigeria (approximately 67%) fall into the category which Ginzberg et al (1951) describe as the 'realistic' choice stage or what Super (1957) calls the 'establishment stage of vocational development' which roughly corresponds to the age range 25-44 years. The analytical implications of this age attribute is that at this stage an individual's choice tends to be realistic and most likely to be influenced by objective features associated with the present rather than subjective/preference features associated with the future. In short an individual's choice decision would tend to be a direct response to immediate 'satisficing' signals rather than future maximizing signals. A corollary of this 'satisficing' behaviour is that an individual's choice at this stage would tend to be more stable than choice that would have been made at preceding stages because the desired self-concept has either been implemented or modified in the light of objective constraints.

An interpretation of this digression into Psychology in relation to the economics of teacher supply which focuses on the application of bursary incentive (objective feature associated with the present) as a supply signal leads to the inference that the signal may have

been effective and probably efficient. Evidence adduced elsewhere in the thesis tends to support the inference.

3. Sex Composition

The data on the sex composition of education students is shown in Figure 4.1. From the figure it can be seen that two-thirds of the students are males while one-third are females. When female enrolment in education course is compared with the total female enrolment in Nigerian universities, irrespective of field of study, one observes that the proportion of females in education course is much higher than that for total female enrolment in all university courses put together (see Tables 4.4 and 4.5).

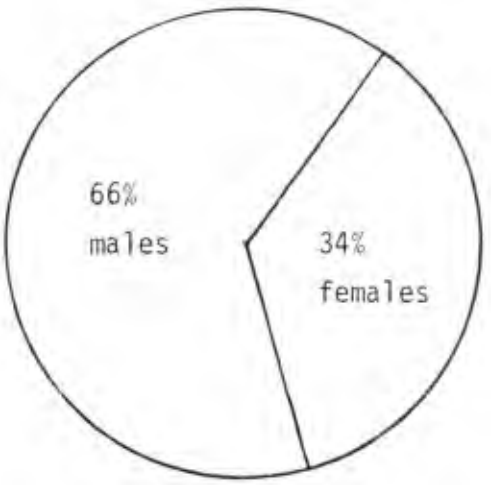


Figure 4.1 : Distribution of education students by sex.

TABLE 4.4

Distribution of total enrolment in Nigerian Universities by sex 1969-1976.

Sex	Academic Year ending June.							
	1969	1970	1971	1972	1973	1974	1975	1976
	(%)	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Male	87	87	86	83	85	84	80	81
Female	13	13	14	17	15	16	20	19
Total	100	100	100	100	100	100	100	100

Source: Based on National Universities Commission annual review of Nigerian Universities, 1969-1976.

This result is open to some economic interpretation. The high proportion of females enrolled in education course relative to the total female proportion in Nigerian universities seems to be due to the enrolment effect of the trainee teacher subsidy scheme in education. This interpretation appears plausible in view of the fact that traditional and economic forces usually constrain many families in Nigeria to invest less in the higher education of females especially in fields of study where the training cost is likely to be enormous. The general impression is that such investments may lead in the end to a transfer of limited family wealth to other families who may marry the female on her graduation. It is usually considered more profitable by many families to invest more in the higher education of males and less in that of females since such investment pattern tends to inhere minimal risk arising due to marriage, except

through natural wastage.

TABLE 4.5

Distribution of education students enrolment by sex 1970-1975.

Sex	Academic year ending June.						
	1970	1971	1972	1973	1974	1975	1983 (survey)
	(%)	(%)	(%)	(%)	(%)	(%)	(%)
Male	76	76	N.a.	74	73	73	66
Female	24	24	N.a.	26	27	27	34
Total	100	100	100	100	100	100	100

Source: Based on National Universities Commission Annual Review of Nigerian Universities, 1969-1976, and Education students survey.

The high proportion of female enrolment in education course, in terms of teacher supply, is both comforting and discomforting. Comforting in the sense that females are less likely to be occupationally mobile and thus less attrition arising from leaving the teaching service sector for other occupational sectors (see Zabalza et al 1979, pp 90-93). The discomfort can be seen from the fact that marriage may lead to early withdrawal of many females from the teaching service to become full-time housewife or mother. Watson et al (1972) based on Canadian evidence estimated annual attrition arising from this source between 1965 and 1970 at 35 percent of all attrition due to resignation (see Williams, 1979, p. 55). However, attrition due

to marriage is less likely to occur in Nigeria because of the prevailing high cost of living and the evidence on the social-class composition of most education students, which would suggest that voluntary unemployment would be a hardly desirable option. (I shall discuss this issue in greater detail in chapter 7).

4. Marital Status

In figure 4.2 the data on the marital status of education students is presented pictorally. The data shows that a very high proportion of education students are married. As high as 53 percent or over one-half of the population are married, 46 percent are single and one percent divorced/widowed. This evidence intuitively corroborates my contention that education students seem likely to be by far older than undergraduates in developed countries or even undergraduates in other fields of study in Nigeria. It also suggests the likely social-class background of many of the students bearing in mind the sociologists contention that people from poor or low social class background tend to marry before planning their career.

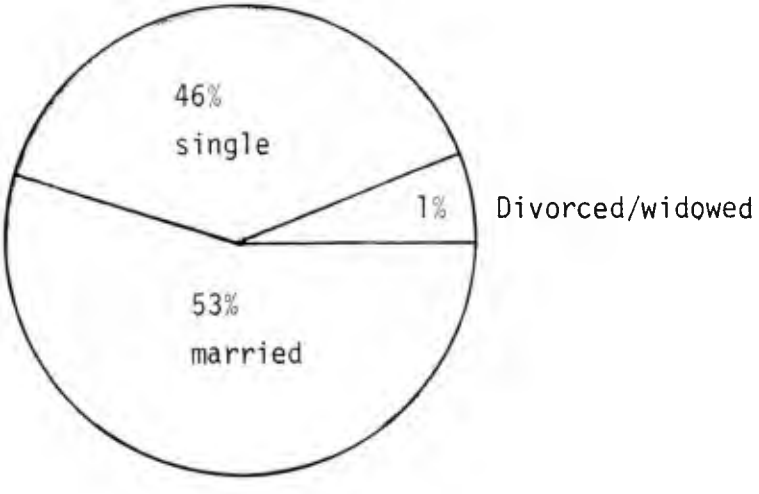


Figure 4.2 : Distribution of education students by marital status.

Social Class Composition

The survey data on three conventional indices of social-class composition are discussed below. These are family income, parents' education and occupation.

1. Family Income

Table 4.6 shows the proportion of education students in different family income categories. The distinct feature evident from the data is the very high proportion of education students in very low family income categories. 36 percent of the students come from backgrounds where the annual income is less than ₦ 1,000. Again roughly 55 percent have families with annual income less than ₦ 2,000 and 67 percent of all the students have families earning less than ₦ 3,000. Only 13 percent come from backgrounds where the annual income is ₦ 5,000 or more.

TABLE 4.6

Education Students by annual family Income.

Income (₦1 = £0.90)	Proportion (%)	Cumulative (%)
Less than ₦ 1,000	35.8	35.8
₦ 1,000 - ₦ 1,999	19.6	55.4
₦ 2,000 - ₦ 2,999	11.7	67.1
₦ 3,000 - ₦ 3,999	5.4	72.5
₦ 4,000 - ₦ 4,999	8.5	81.0
₦ 5,000 and over	13.0	93.0
Dead/uncertain	6.1	100.0

Source: Education Students Survey.

Although abject poverty prevails in Nigeria and national per capita income is estimated at $ 120 (in spite of the illusion of oil wealth); the data suggests that very few education students could be said to possess the family income background that qualify them for inclusion into that small segment of the population usually referred to as well-to-do. The data on parents' education and occupation discussed below further attest to this foregoing inference (see Tables 4.8 and 4.9).

The wider significance of the data on family income is that in a situation where the federal government discontinues the free tuition and bursary scheme for education students and allows universities to charge full-cost annual tuition fees of ₦ 3,860 (see Table 4.7, ₦ 1 = £0.90) and the students have to depend solely on their families for tuition fees and maintenance as full time students, the evidence would suggest that enrolment in education course may drop dramatically. The argument appears plausible in the face of obvious capital market imperfections. I shall return to this issue later in Chapters 5 and 6 under the evaluation of the enrolment effect of the bursary incentive and other income-contingent economic arguments.

2. Parents' Occupation

The evidence on the occupations of education students' parents is presented in Table 4.8. The table demonstrates that a large proportion of the students parents are either subsistence farmers/craftsmen: 40 percent for fathers and 25 percent for mothers or petty traders; 14 percent for fathers and 35 percent for mothers. Also students with unemployed fathers (4%) and mothers (18%) are enrolled in education course. The proportion of education students who

TABLE 4.7

Unit Direct Social Cost of B.Ed Programme University of Ibadan, 1978/79 (₦ per Annum).

Item of Cost			Amount
1.	Salary Costs - Faculty Staff		565
2.	Other goods and services - Faculty level		57
3.	University Services		
	(a) General University Research	164	
	(b) Other academic costs	367	
	(c) Central administration	354	
	(d) Student services	834	
	(e) Other expenditure	1,042	
4.	Imputed rent		477
	Total Cost		3,860

Source: Nigerian Universities Commission, 1980. (Reproduced in Akangbou, 1981, p. 37).

have parents in civil service, private sector or professional occupations seem to be relatively much lower than those from farming, petty trading and unemployed backgrounds.

3 Parents' Education

The data on the level of education of the students' parents is summarised in Table 4.9. The highly significant observation one makes is that a great proportion of the parents of education students had no formal schooling at all. As high as 38 percent for fathers

TABLE 4.8

Proportion of students by Parents' Occupation.

Occupation	Father (%)	Mother (%)
Subsistence farmer/craftsman	40.3	24.7
Self-employed petty businessman/woman	13.5	34.8
Civil Servant	14.7	3.8
Government employee other than Civil Servant (e.g. Teacher, Nurse, Police, Army etc)	6.2	5.2
Private sector employed	3.8	1.6
Self-employed professional/Business Tycoon	6.2	3.3
Unemployed man/housewife	4.2	17.5
Recognised leader, Pastor/Minister of Religion	2.8	0.2
Dead/Uncertain	8.3	9.0
	100.0	100.0

Source: Education Students Survey.

and 53 percent for mothers of education students are illiterates, 21 percent for both parental sexes had only primary education, while a relatively small fraction of the fathers (20%) and mothers (6%) had some form of higher education.

Conclusion

The remarkable lesson that emerges from the analysis of the data on parental education is that it supports the income and occupational

TABLE 4.9

Proportion of students by highest level of parents' education.

Level	Father (%)	Mother (%)
None (illiterate)	38.9	53.1
Primary	21.8	21.1
Vocational training	5.7	6.9
Secondary	6.6	4.5
Higher Education (not university)	12.1	4.3
Higher Education (university)	7.4	1.4
Dead/Uncertain	7.4	8.7
Total	100.0	100.0

Source: Education Students Survey.

distribution patterns in Tables 4.6 and 4.8. Parents who are dominantly illiterates or semi-illiterates are most likely to be engaged in subsistence farming or petty trading with a preponderance of them in extremely low income categories. When the data on education student's family income, parents' occupation and highest level of formal schooling are put together the evidence, it appears to me, seems to amply suggest that - by any known standard of social-class differentiation - most education students seem to have low social-class background characteristics. Furthermore, when the present level of schooling attained, future income and occupation of most education students on graduation (well over 75%) are compared with those of

their parents; the evidence would again point to the fact that most of them seem very likely to be recruited into social-classes whose characteristics differ significantly from that which they originated. Depending on who is looking at this issue and the angle from which he approaches it (as both normative value judgements and positive analysis are implied), to me, it seems to sufficiently indicate an enhanced upward social-class mobility which seems to be facilitated by the increasing access to higher education arising due to the incidence of the teachers bursary incentive scheme: a type of unintended positive 'externality' of higher education subsidy.

The foregoing conclusion, on the social origin of trainee-teachers in Nigeria, is not inconsistent with sociological research findings on recruitment to teaching elsewhere. However, see Floud and Scott (1961) and Wragg (1982, pp. 15-16). Floud and Scott (1961) in a study on the recruitment to teaching in England and Wales; spanning over three generations conclude that a preponderance of teachers have been progressively recruited from low social class background "both between and across the generations". A situation which demonstrates that teaching has, over the years, served as "an important avenue of social mobility" for more able youth of low social origin. Presumably, for the same reason that: "In general, teachers . . . do not pay the direct costs of their education and training" (Wilson, 1983, p. 22).

INTERRELATIONSHIP OF BACKGROUND CHARACTERISTICS

A moments reflection will make it clear that there is some interrelationship between the various background characteristics of Bachelor of Education students. These interrelationships are explored in detail in this sub-section using cross-tabulated data.

Age and Sex

Table 4.10 presents data on the age distribution of education students by sex. The data shows that there is a marked difference in the age distribution of the sexes. On the average the females are much younger than the males. Whereas the modal age of female B.Ed. students is 24 years that of the males is 29 years. This suggests that most female B.Ed. students enter the university at about the age of 20/21 years while most males enter at about the age of 25/26 years. This age distribution data by sex suggests that more male B.Ed. students than females are more likely to have had previous employment record. This highly probable relationship is examined next.

Sex, Previous highest Qualification and Employment

Tables 4.11 and 4.12 show the data on the sex distribution of education students by previous highest qualification and employment record. The data shows that three quarters of the male proportion of B.Ed. students had previous teaching qualification and were engaged in the teaching profession. A similar pattern is equally obvious in the case of the females. Furthermore, between the sexes, males were twice as likely to have obtained a lower teaching qualification and to have been employed as teachers than the females. This sex distribution of previous qualification and employment record has a strong-

TABLE 4.10

Age distribtuion of Education Students by Sex

Age Category (in years)	Proportion of students (in %)	Proportion of students (in %)
	Males	Females
Under 21	1.4	2.8
21-25	15.2	13.7
26-30	28.2	8.0
31-35	12.8	6.7
36-40	5.0	1.9
41-45	2.9	0.9
46 and over	0.3	0.0
No Response	0.0	0.2
Total	65.9	34.1
Gross Total	100	

Source: Education Students Survey.

relationship with the age and sex distribution of B.Ed. students. Since the average age of male B.Ed. students is much higher than that of the females, the males are more likely to be experienced professional teachers, than the females. Also the sex distribution of previous employment record shows that more female B.Ed. students than males were unemployed. This relationship between sex and previous employment record is a further reflection of the relatively low average age of the

TABLE 4.11

Previous highest Qualification of Education Students by Sex

Highest Qualification	Proportion (in %)	
	Male	Female
WASC/GCE 'O' Level	13.0	10.0
HSC/GCE 'A' Level	11.8	4.0
Teachers Certificate	41.2	20.1
Gross Total	100	

Source: Education Students Survey.

TABLE 4.12

Previous Employment of Education Students by Sex

Previous Employment	Proportion (in %)	
	Male	Female
Teaching Service	46.2	22.1
Civil Service	11.6	2.6
Private Sector	1.7	0.9
Unemployed	6.4	8.5
Gross Total	100	

Source: Education Students Survey.

female students vis-a-vis the males. Another important observation that one makes from the employment record data is the insignificant proportion of female B.Ed. students that were previously employed outside the teaching profession. This would tend to suggest that teaching seems to be a favourite occupation for females.

Age Composition and Previous (highest) Qualification

Data on the relationship between age and the previous highest qualification of Education Students is shown in Table 4.13. An important feature that emerges in the data is the relationship between the ages of B.Ed. students and their previous highest qualification. The younger age groups who comprise the unemployed (at entry) had only the General School Certificate (GCE 'O' or 'A' Level). Virtually, all the high age groups had a teachers' qualification prior to entry into a B.Ed. course. This suggests that the B.Ed. course is hardly a preferred course option amongst the 18-year olds with School Certificate. It seems to be an obvious attraction for old and experienced practising non-graduate teachers.

Age Composition and Previous Employment Status

Cross tabulated data on the relationship between age and employment status of education students is shown in Table 4.14. The Table shows that the bulk of unemployed education students (12.1%) are in the lower age category (ie. below 25 years of age). Invariably this evidence shows that the minority of unemployed B.Ed. students are youths comprised mostly, of the females who are much younger than the males. A cross tabulation of age and the previous employment of B.Ed. students reveals some interesting results. This is discussed below.

TABLE 4.13

Age Distribution of Education Students by Previous (highest) Qualifications

Age Category	Previous (highest) Qualification		
	WASC/GCE 'O' Level	HSC/GCE 'A' Level	Teachers Qualification
Under 20	3.3	0.7	0.2
21-25	11.4	5.7	11.8
26-30	6.2	4.3	25.6
31-35	1.4	2.6	15.6
36-40	0.7	1.2	5.0
41-45	0.0	1.2	2.6
46 and above	0.0	0.0	0.3
No indication	0.0	0.0	0.2
Gross Total		100	

Source: Education Students Survey.

TABLE 4.14

The Distribution of Education Students by Age and Employment Status

Age Group (in years)	Proportion (in %)	
	Employed	Unemployed
Under 20	0.9	3.3
21-25	20.1	8.8
26-30	33.2	2.8
31-35	19.6	0.0
36-40	6.9	0.0
41-45	3.8	0.0
46 and over	0.3	0.0
No indication	0.2	0.0
Gross Total	100	

Source: Education Students Survey.

Age Composition and previous Employment Sector

The data on the distribution of education students by age and previous employment is summarised in Table 4.15. It is evident from the Table that a preponderance of the students attracted to the B.Ed. degree programme, who have very high average age, were previously employed in the teaching profession. As high as 70 percent of all B.Ed. students, prior to entry into the university, were already employed as teachers. And of this 70 percent over 60 percent had already obtained lower level teachers qualification (see Table 4.11). This suggests that, in general, the B.Ed. programme has been an avenue for experienced

TABLE 4.15

Age distribution of Education Students by previous Employment Sector

Age Category	Pre-entry Employment Sector			
	Teaching	Civil Service	Private	Un-employed
Under 20	0.9	0.0	0.0	3.3
21-25	14.7	4.5	1.0	8.7
26-30	27.9	4.0	1.4	2.9
31-35	15.4	4.0	0.2	0.0
36-40	5.5	1.4	0.0	0.0
41-45	3.6	0.2	0.0	0.0
46 and above	0.2	0.2	0.0	0.0
No Indication	0.2	0.0	0.0	0.0
Gross Total	100			

Source: Education Students Survey.

practising non-graduate teachers to upgrade their qualification thus enhancing their prospects within the teaching profession. This opportunity to upgrade could be seen as a direct consequence of the Teachers' Bursary Scheme. This, it seems to me, arises from the fact that without the Scheme practicing teachers with lower teaching qualification could not possibly afford the cost of taking a B.Ed. degree to qualify themselves to become graduate secondary school teachers. It could thus be argued that the scheme has been very successful in inducing old and experienced primary school teachers to upgrade their teaching qualifications to become graduate secondary school teachers rather than persuading 18-year olds to take a B.Ed rather than a B.A. or B.Sc.

Age and Marital Status

The data on the age distribution of Education Students by marital status is shown in Table 4.16. From the Table one observes that the bulk of the single students are under 25 years of age while the bulk of the married students are 30 years and above. One obvious inference from the proportion of Education Students that are married is that it reflects the relatively high average age of the students in Education course. The proportion that is divorced/widowed is equally distributed

TABLE 4.16

Age Distribution of Education Students by Marital Status

Age Category (in years)	Proportion of students (in %)		
	Single	Married	Divorced/Widowed
Under 21	4.0	2.0	0.0
21-25	24.0	4.3	0.0
26-30	15.4	20.2	0.5
31-35	1.9	17.6	0.0
36-40	0.2	6.6	0.2
41-45	0.0	3.6	0.2
46 and over	0.0	0.3	0.0
No Response	0.0	0.2	0.0
Gross Total		100	

Source: Education Students Survey.

between those who are less than 30 years and those that are above. Since the female B.Ed. students are much younger than the males, they seem more likely to constitute the bulk of the single students. The data on the sex distribution of marital status examined below supports the inference.

Sex and Marital Status

Data on the distribution of Education Students by sex and marital status is summarised in Table 4.17. A significant observation from the data that is summarised in the Table is that the proportion of female and male B.Ed. students that are married is unequally distributed within the sexes. Well over half the male population of education students are married while only roughly half of the female population are married. The high proportion of the males that are married is a re-

TABLE 4.17

The Distribution of Education Students by Sex and Marital Status

Marital Status	Proportion (in %)	
	Male	Female
Single	29	16
Married	35	17
Divorced/Widowed	0.5	0.3
No Response	0.0	0.2
Gross Total	100	

Source: Education Students Survey.

flection of the large proportion of male education students that are in high age brackets (see Table 4.10). Since the female students are relatively younger there is the likelihood that a lesser proportion of them would be married before entering the University quite unlike the males.

Sex and Parental Income

Table 4.18 presents cross-tabulated data on the annual family income of education students by sex. A notable observation is the very large proportion of male Education Students that have parents in extremely lower income categories when compared with the females. The proportion of male B.Ed. students whose parents are in extremely lower income category is roughly four times that of females. On the other hand the proportion of females whose parents

TABLE 4.18

Annual Family (Parents') Income by Students Sex.

Income (₦1 = £0.90	Proportion (in %)	
	Male	Female
Less than ₦ 1,000	31.7	7.3
₦ 1,000 - ₦ 1,999	13.7	8.1
₦ 2,000 - ₦ 2,999	3.5	2.2
₦ 3,000 - ₦ 3,999	3.8	2.8
₦ 4,000 - ₦ 4,999	5.5	6.6
₦ 5,000 and over	2.9	4.5
Dead/uncertain	4.8	2.6
Gross Total	100	

Source: Education Students Survey.

are in the relatively high income category is almost twice that of the males. On the average, the parents of male B.Ed. students have much lower income than those of the females. The data on the sex distribution of parents' highest educational level and occupation, analysed below, supports the parental income distribution pattern between the sexes.

Sex and Parental Education

The data on the highest educational level attained by the parents of Education Students is shown in Tables 4.19 and 4.20. A consistent finding from the Tables is that a far greater proportion of male Education Students than females have parents who have little or no education (i.e. illiterates/semi-illiterates). Whereas roughly 45 percent of the male students have parents who are illiterates/semi-illiterates only roughly 15 percent of the females have such parents.

TABLE 4.19

Highest level of Parents (Fathers') Education by Sex

Level of Fathers' Education	Proportion (in %)	
	Male	Female
None	31.7	7.3
Primary	13.7	8.1
Vocational Training	3.5	2.2
Secondary	3.8	2.8
Higher Education (not University)	5.5	6.6
Higher Education (University)	2.9	4.5
Dead/uncertain	4.8	2.6
Gross Total	100	

Source: Education Students Survey.

TABLE 4.20

Highest Level of Parents (Mothers') Education by Sex.

Level of Mothers' Education	Proportion (in %)	
	Male	Female
None	40.1	13.0
Primary	12.8	8.3
Vocational Training	4.0	2.9
Secondary	2.2	2.2
Higher Education (not University)	1.4	2.9
Higher Education (University)	0.3	1.0
Dead/uncertain	5.0	3.7
Gross Total	100	

Source: Education Students Survey.

Generally the parents of the female students have higher levels of education. The proportion of female B.Ed. students whose parents had some form of higher education is roughly twice that of the males.

Sex and Parental Occupation

Tables 4.21 and 4.22 summarize data on the distribution of male and female education students by parents occupation. Evident from both Tables is the fact that the parents of the male students are clustered in farming and semi-skilled occupations. On the average more female B.Ed. students than males have parents in professional or skilled occupations. The relatively higher proportion of male students with parents in farming and semi-skilled occupations (who are mostly illiterates or semi-illiterates) supports the lower income of the parents of male education students. This finding suggests that in spite of the fact that education students in general have low social-class origin; the female students, on the average, seem to have higher social-class background characteristics relative to the males. This relative-

TABLE 4.21

Parental (Fathers') Occupation by Education by Sex.

Parental (Fathers') Occupation	Proportion (in %)	
	Male	Female
Subsistence farmer/craftsman	33.9	6.4
Self-employed petty business man/woman	7.6	5.9
Civil Servant	6.7	8.0
Government employer other than Civil Service (eg. Teacher, Nurse, Police, Army etc)	3.3	2.9
Private Sector Employee	1.7	2.1
Self-employed professional/Business Tycoon	3.8	2.4
Unemployed man/housewife	2.1	2.1
Recognised Leader, Pastor/Minister of Religion	1.6	1.2
Dead/uncertain	5.2	3.1
Gross Total	100	

Source: Education Students Survey.

TABLE 4.22

Parental (Mothers') Occupation by Education by Sex.

Parental (Mothers') Occupation	Proportion (in %)	
	Male	Female
Subsistence farmer/craftswoman	20.1	4.7
Self-employed petty business man/woman	22.0	12.8
Civil Servant	1.2	2.6
Government employer other than Civil Service (eg. Teacher, Nurse, Police, Army etc.)	2.1	3.1
Self-employed professional/Business Tycoon	0.9	0.7
Unemployed man/housewife	2.1	1.2
Recognised Leader, Pastor/Minister of Religion	11.6	5.9
Dead/uncertain	0.2	0.0
Gross Total	5.9	3.1
	100	

Source: Education Students Survey.

ly higher social origin of the female B.Ed. students vis-a-vis the males seems consistent with the relatively lower average age of the females. It also seems to explain why most female B.Ed. students were unemployed before entering University and had not previously obtained a lower teaching qualification since their relatively advantaged socio-economic background provides them facility to enter the University at a much younger age than their male counterparts.

Summary and Conclusion

The most interesting and significant empirical findings of the survey are, first, the high average age (28 years) of B.Ed. students compared with the age of other undergraduates and the high proportion, approximately 70 percent, who were practicing teachers before they entered University. When these two findings are combined they seem to indicate that the Teachers' Bursary Scheme (whose effect is analysed in Chapter 6) has not really to any considerable extent had the effect of inducing 18-year olds (youth) to take a B.Ed. rather than a B.A. or B.Sc. (and this should be seen as a major finding) but it has nevertheless been very successful in augmenting the supply of graduate teachers by providing non-graduate members of the teaching profession with the opportunity to upgrade their qualifications. Without the Scheme non-graduate practising teachers could not possibly afford to take a degree and qualify themselves to become secondary school teachers. On this ground, it could of course be argued that the Scheme augments the supply of qualified (graduate) secondary school teachers, mainly, by reducing the stock of primary school teachers. But this is not a serious consideration because it is very much easier to replenish the stock of primary school teachers and, Nigeria is in any case rapidly approaching the situation where there will be no longer any shortage of primary school teachers.

CHAPTER 5

HISTORY, DESCRIPTION AND CONCEPTUAL FRAMEWORK OF THE TEACHERS BURSARY SCHEME

This Chapter begins with the history and description of the Teachers' bursary scheme and goes on to suggest a conceptual framework for analysing the effect of the scheme. This historical account is based on information obtained from the Teachers' Bursary section of the Federal Ministry of Education during my fieldwork.

Historical Perspective

One of the problems arising from the outbreak of Civil hostilities in Nigeria during the period 1966-1970 was the mass exodus of expatriate staff working in different sectors of the economy. The teaching service was one of the hard-hit sectors on two grounds: (a) post primary educational Institutions in Nigeria as at then were mostly owned and run by expatriate missionary staff some of whom voluntarily fled the country at the outbreak of Civil war in 1967 or were forced to leave the country due to their ambiguous and questionable roles. (b) Qualified indigenous teaching manpower was inadequate and in acute short supply relative to the demand. As at 1966 there were only 4,512 University graduates teaching in Nigerian secondary schools. Of these, more than fifty percent were without teaching qualification. Again of the total number, 2,223 were Nigerians and 2,289 were expatriates. So roughly fifty percent of Nigeria's high level teaching manpower was comprised of expatriates (Fafunwa, 1970, p. 23). This situation led to a series of interministerial meetings aimed at exploring ways and means of enhancing the rapid and massive local supply of qualified post-primary school teachers needed to off-set the attrition due to the exodus of expatriate teaching staff as well as provide for the fast expanding school system

in the country. The obvious outcome of the incessant deliberation was the launching of a momentous crash financial inducement scheme for the training of teachers for post-primary educational institutions in Nigeria late in 1968/69 academic year subsequently assigned the official lable Teachers' special Bursary Scheme.

Objectives of the Scheme

The Teachers' Bursary Scheme in Nigeria which provides to Education Students with free maintenance in addition to the Free Tuition which is available to all university students, irrespective of their disciplines has two main objectives:

1. "to use all incentives to mobilize Nigerians to take up teaching".
2. "to subsidize heavily the cost for the training of teachers in the country."

With these objectives it is hoped that the scheme would influence students course choice in favour of education course thus enhancing the rapid and massive local supply of qualified teachers needed to off-set the attrition due to the exodus of expatriate teaching staff, minimize Nigeria's over-dependence on the services of expatriate teachers as well as meet the teacher requirements for the nations fast expanding educational system.

Administration of the Scheme

At its inception the scheme was administered directly by an official at the Federal Ministry of Education who was charged with the responsibility of overseeing the execution of the scheme in addition to the officer's prescribed routine official duties. However, as the scheme became more complex to handle due to its popularity amongs students and the subsequent rapid increase in the number of applicants, a separate

unit known as Teachers' Training special Bursary unit was established within the framework of the Federal Ministry of Education to take charge of all administrative duties and financial disbursements relating to the scheme.

Eligibility for Award

Selection of students for the Teachers' special bursary award is based solely on the decision of the applicant to make a career in professional teaching by electing to pursue a course of study in education at the tertiary level. Thus to qualify for an award the applicant must secure an admission to study for a teaching qualification in education at the bachelors degree level i.e. B.Ed., BA/BSc. education or any other teaching qualification approved by the National Joint Consultative Committee on Education. Such other qualifications include:

1. Postgraduate Certificate/Diploma in Education.
2. Non-degree Diploma in Education.
3. Associateship Certificate in Education.
4. Nigerian Certificate in Education.

All applicants are expected to obtain and complete appropriate application forms and submit same to the Teachers' Training Bursary Unit, Federal Ministry of Education through their respective institutions. The Unit does not deal directly with students. The award is open only to Nigerians and is only tenable in local institutions. The award is made to students irrespective of whether they have received bursaries for lower level teachers course.

Value and Disbursement of the Award

The value of the award per student recipient per annum is fixed for universities in the country. The award provides for the cost of the board and lodging, books and teaching practice allowance. The breakdown of the value of the award per student beneficiary by items per annum is shown in Table 5.1.

The disbursement of money to beneficiaries is done through the accounts department of universities as soon as stipulated administrative procedures have been fully completed. To check the incidence of abuse, students are expected to submit a fresh application every year and cause their sessional examination results to be sent to the Teachers' Bursary unit for determination as to suitability for subsequent Award. Repeaters usually get their bursaries extended provided they apply for extension early enough.

TABLE 5.1

Breakdown of the value of the Teachers' Bursary Award per beneficiary by items per annum.

ITEMS	VALUE (in ₦)
Tuition	Free
Board	378.00
Lodging	90.00
Book allowance	60.00
Teaching practice allowance	100.00
Total	628.00

Source: Teachers' Training Bursary Unit, 1983.

Since the inception of the scheme in the late 1968/69 academic year beneficiaries were expected to enter into Bond with the Federal Government or the Ministry of Education acting as its agent, to teach anywhere in Nigeria for a minimum period of two (2) years.

A beneficiary of the scheme ceases to benefit from it as soon as he withdraws from the university or changes from education to another field of study.

Publicity

The Federal Ministry of Education disseminates all information on the scheme through advertisements in National newspapers, magazines and Federal Government Gazettes. Advertisement for application usually appear between June and September each year. Copies of the advert are sent to all the State Ministries of Education, Universities, Advanced Teachers Colleges/Colleges of Education, and Education departments of Technical Colleges and Polytechnics.

Application forms are usually made available to universities and similar institutions by the Teachers' Training Bursary unit at the beginning of every academic year for distribution to eligible students. The forms are free and obtainable from the appropriate officers of the various institutions. Completed application forms are expected to be submitted by 15th November of every year to the appropriate institutional authorities who forward them en-bloc to the Teachers' Training Special Bursary unit for processing and compilation of a roster of award recipients. Although formal application is only made after students have already begun their course, the award of a

Bursary is in fact automatic for any student who is registered for a B.Ed. degree.

Background to the Conceptual Framework

In this sub-section I present in explicit propositional and schematic form an economic model of discriminatory subsidy effect which, I believe, has been the rationale behind the economics of teacher supply in Nigeria and most students' choice of education course in preference to other fields of study. The particular approach, adopted, offers a contrasting theoretical viewpoint from what is prevalent in some leading economic works on the subject of course choice, notably Freeman (1971) and Zabalza, Turnbull and Williams (1979), which see the economics of course choice mainly from the conceptual lens of human capital theory where the wage signal is advanced as the propelling force. This paradigm case of human capital theory applied to the economics of teacher supply is evident in the Zabalza, Turnbull and Williams (1979, p.2) thesis in the following words:

> out of any group of potential teachers, a given teacher wage, relative to the wage paid in other occupations, will attract a certain proportion into the profession.

Much as I do not totally dispute the contentions of the human capital thesis, I feel more comfortable with the thesis of Mingat and Eicher (1982) that entrants to the Credential Market do not have a uniform course choice model as human capital theory predicts. To a large extent the human capital paradigm implicitly discounts, rather, heavily the cost of acquiring training in higher education. The ac-

quisition of training - irrespective of the field of study - is not totally free be it in the developed countries across the Atlantic or in the developing countries. Even if we allow for free tuition in higher education, which Blaug (1981, p. 88) observes has been prevalent in most developing countries, there are also out of pocket costs for books, practical equipment - in science, engineering, medicine and other technical courses - maintenance costs plus the indirect costs of earnings foregone which are uncompensated while studying (see Blaug, 1966, p. 166; 1973, p. 23). There is also the fact that capital markets are not perfectly competitive and freely accessible to individuals for loans to finance additional education. As Blaug (1966, p. 168) has argued, the human capital version of educational choice would appear more convincing if capital markets were perfectly competitive and freely accessible to individuals for loans to finance additional education. Blaug's view is consistent with Friedman's (1962, p. 102) earlier observation which points out the peculiar nature of capital market imperfections as they affect human capital investors. According to Friedman (1962, p. 102):

> Investment in human beings cannot be financed on the same terms or with the same ease as investment in physical capital. It is easy to see why. If a fixed money loan is made to finance investment in physical capital, the lender can get some security for his loan in the form of a mortgage or residual to the physical asset itself, and he can count on realizing at least part of his investment in case of default by selling the physical asset. If he makes a comparable loan to increase the earning power of a human being, he clearly cannot get any comparable security. In a non-slave state, the individual embodying the investment cannot be bought and sold ... A loan to finance the training of an individual who has no security to offer other than his future earnings is therefore a much less attractive proposition than a loan to finance the erection of a building: the security is less, and the cost of subsequent collection of interest and principal very much greater.

Thus the overwhelming influence of the uncompensated direct and in-

direct costs, as well as imperfect and relatively inaccessible capital markets, will undoubtedly scare the most optimistic socio-economically disadvantaged labour market speculator who may wish to predicate his course choice solely on the expected high "future returns" of a particular discipline, especially in developing countries where abysmal poverty exists and access to higher education is increasingly becoming a right of the priviledged few from well-to-do families.

Furthermore, there is the over-emphasised issue of labour market imperfections. The labour market in the event of shortages in certain required skills may not deliver the appropriate signals, and even if it does, individuals may not respond in the appropriate way (see Hinchliffe, 1973, p. 165; Cohn, 1979, pp 315-316). Hence, in the light of these inherent imperfections of: the credential, capital and labour markets, the predictive value of the Human Capital paradigm as a unique economic model of course choice seems untenable and thus has been strongly objected to by some economists who have reacted to the theory; see Hinchliffe (1973), Blaug (1976), Mingat and Eicher (1982) and Bowles and Gintis (1975) for a more general critique based, not only on the market imperfections but also, on a set of profound ideological objections to the concept of "human capital". Blaug (1976) revealed his scepticism in his fairly detailed critical appraisal of the empirical status of Human Capital theory when he subtly opined that the hypothesis that individuals take a life-cycle view of career opportunities is yet to be properly tested.

While I do not intend to discount some corroborating empirical evidence on the human capital theory; I shall, for the purpose of this study, presume the human capital paradigm of course choice gross-

ly inadequate to fully account for most of the course choice decisions of some category of higher education students in Nigeria, and shall therefore explore new grounds on the subject as the evidence moves me. Seen in this light the study complements rather than competes with previous attempts by economists to formulate and test explanatory economic models of course choice within the traditional ceteris paribus framework (see Freeman, 1971, pp 14-15). The only distinct feature between this study and previous efforts (Freeman, 1971; Zabalza et al, 1979) is the shift in the locus of emphasis from: a wage incentive paradigm case of the human capital theory of course choice to a bursary incentive paradigm case of the job signalling theory of course choice taking into account, in particular, the potency of socio-economic disadvantages and capital market imperfections which seem to have been heavily discounted by the human capital theory.

Here, therefore, the theoretical application of a bursary incentive scheme as an economic policy course choice variable is explored. Given this emphasis, the chapter is concerned with, among other things, the theoretical analysis of the course choice decision of students majoring in education at the bachelors degree level in Nigerian universities. Does the Teachers' bursary incentive scheme - an economic course choice policy variable aimed at attracting individuals to the teaching profession, and, through a system of bonding, to ensure that trained teachers stayed in the profession for which they have been trained at public expense - exert any considerable influence on some students course choice? Which category of students are influenced and to what extent? Precisely how effective and efficient is the teachers bursary incentive scheme as an active graduate teacher supply policy. In the attempt to answer this question, I now present the conceptual framework for analysing the Bursary incentive effect.

A CONCEPTUAL FRAMEWORK OF THE BURSARY INCENTIVE EFFECT

> Let us suppose that education is available as a potential signal ... There are costs, both monetary and psychic, to acquiring an education and good educational record. The problem for the individual who faces wage, salary, and job schedules that may depend on education is to select an optimal level of education keeping in mind both the costs and potential benefits in terms of his future job and salary level.
>
> Spence (1974, pp 14-15)

Does the acquisition of a potential signal involve costs? If the acquisition of a potential signal involve costs, do costs vary between competing courses? If costs vary, how does a bursary incentive scheme in a particular course - by a central authority - further affect the variations in costs between the affected course and other competing courses? Finally, how are some job signalers, particularly the socio-economically disadvantaged, likely to react to the course with a bursary incentive scheme in the face of Capital Market imperfections?

In the attempt to provide plausible economic answers to these questions, I put forward in this section both in theoretical and schematic forms two corollaries of a bursary incentive paradigm case of the job signalling theory of course choice. In the sub-section A, I apply a simplified and empirically testable job signalling model to some category of students' course choice decision in the process of acquiring a potential signal, while in section B, I use the price theory to explain also in a testable form how aggregate individual course choice decision in the process of acquiring a potential signal at cheaper costs could lead to an increase in the effective demand

for training and consequently labour supply in the field where a potential signal is much cheaper to acquire.

A. Cost dimensions in the acquisition of a potential signal

For the purpose of terminological simplicity, the process of acquiring a potential signal is seen, here, as being synonymous with the process of acquiring training in competing courses, while the costs of acquiring a potential signal is the same thing as training costs.

Now turning to the questions, I have raised in the introductory section: there is ample reason to believe that the acquisition of training is not costless even if we allow for free tuition in higher education. There are also direct costs which include: pocket costs for books, practical equipment costs for students in medicine, engineering and other technical courses, board and lodging costs, travels and other incidental costs plus the indirect cost of earnings foregone which are uncompensated while acquiring training. No doubt the magnitude of training costs vary between competing courses. Courses that involve the use of expensive personal practical equipments/and of fairly long duration like the health profession (6-7 years), engineering and other technical courses (5-6 years) invariably have higher incidence of training costs. While courses involving little or no use of personal practical equipments/and of relative lower durations like the Arts, social sciences, Natural Sciences and Education - all of which are of 4 years duration for GCE O Level entrants tend to be characterised by relatively lower training costs. Furthermore, the incidence of a bursary incentive scheme in a particular course, say Education, will further reduce significantly the

training costs in that course relative to other courses of higher or even equivalent training costs: thus making it much cheaper for many job signalers, particularly those from socio-economically disadvantaged background, to acquire a potential signal in the face of capital market imperfections ('cheap' job signalling).

All that I have said on costs can be summarily presented using simple mathematical jargon. If for instance, we assume that the training costs (TC) in any particular discipline is a function of the direct costs (dc) plus the indirect costs (Idc), we can express costs in a functional relationship given by

$$TC = f(dc_t, Idc_t, \leq t)$$

Thus the total training cost in a particular year (t) may be given by:

$$TC_t = \sum(dc_t + Idc_t)$$

where t = year of study

$\leq t$ = duration of training

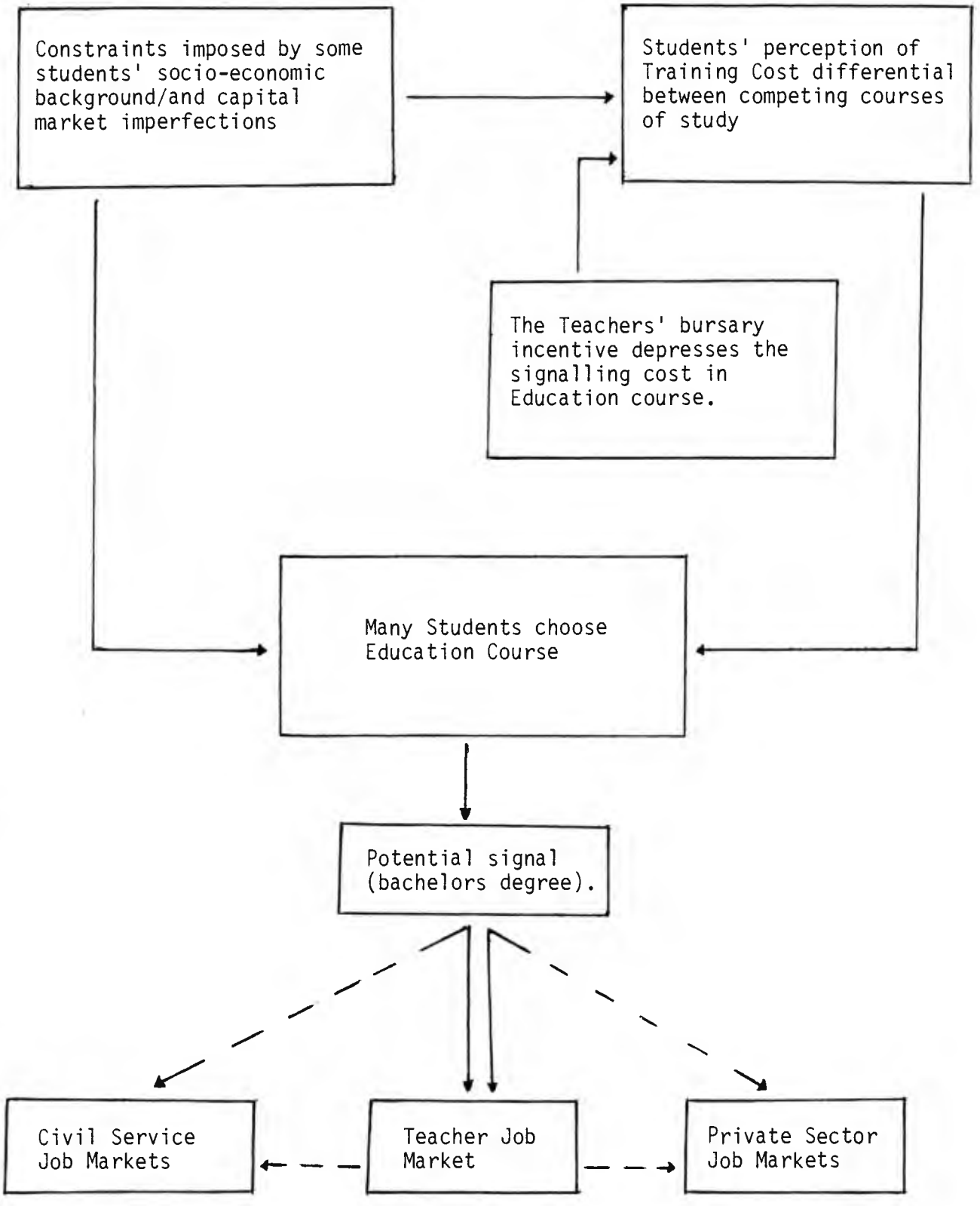
t = 1, 2, 3, 4 .... n, for $n \leq 7$

Tc_t would vary between competing fields of study depending on dc_t, Idc_t and $\leq t$ characteristic of that field of study.

With a discriminatory subsidy (S) in Education course the magnitude of the training cost in education (TC_e) relative to other fields will be significantly reduced to the extent of the magnitude of the subsidy. The subsidized cost of acquiring a 'cheap' potential signal is given by:

$$TC_e = \sum_{t=1}^{t=n} (dc_t + Idc_t - S_t)$$

The foregoing formulation is behaviourally illustrated in Figure 5.1.



NOTE: the dotted lines denote signalling/screening illusion.

Figure 5.1 ; A job Signalling Model of Education Students Course choice.

Enrolment effect of 'cheap' job signalling

The enrolment effect of the cheap job signalling model of course choice discussed above is illustrated here, using the price theory on the effect of a reduction in price on the demand for non-inferior goods in a commodity market. If we assume that B_E represents the effective demand for a potential signal in Education course, and B_o for "all other courses" (see Figure 5.2), the teachers' bursary incentive scheme (a subsidy) will have a price reduction effect: it will rotate the budget line BL to the right from its originally unsubsidized tangency optimum point OP_1 on indifference curve E_1 to a new position BL^1 and tangency optimum point OP_2 on indifference curve E_2. This price reduction in B_E relative to B_o will lead to an increase in B_E and consequently an increase in the output of job signalers who have acquired a potential signal in Education course.

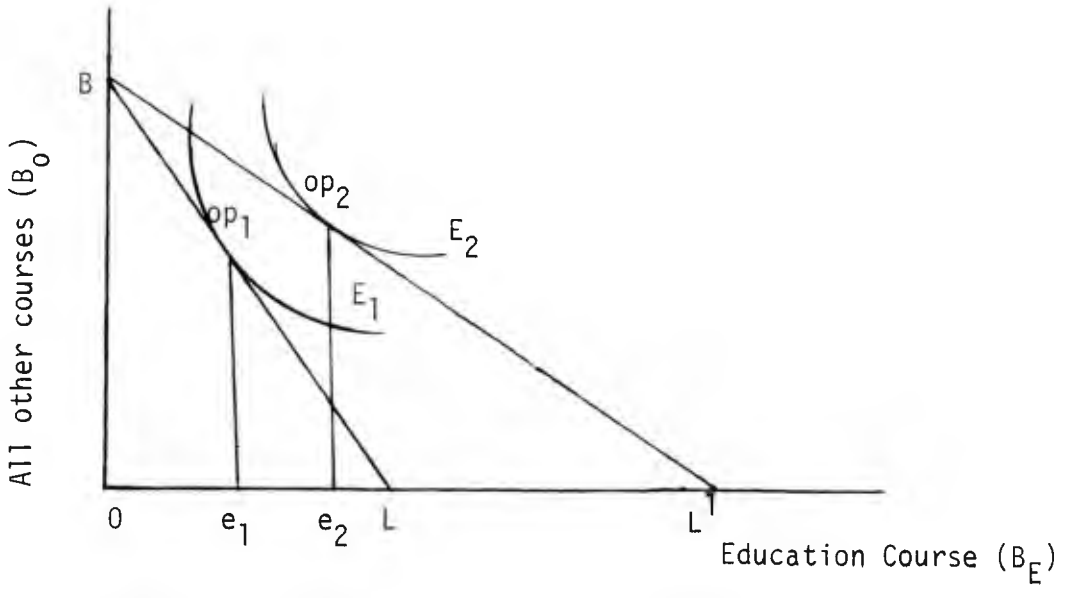


Figure 5.2 : The price effect of a bursary incentive (subsidy) scheme.

It is pertinent to add the caveat that: the overall effectiveness of the bursary incentive scheme, in terms of actual enrolment and graduate output response in education relative to other courses would be significantly influenced by distortions in the credential market arising due to price reductions in the other competing courses or a temporary easing in the level of capital market imperfections. Furthermore, like any other economic model, the traditional - ceteris paribus - assumption also holds.

The model presented above, it appears to me, is the theoretical rationale behind the Federal Government's teacher supply policy seen purely from the use of bursary incentive to alter most students course choice in favour of education (and most students choice of education course), and thereafter retain them in the teaching profession through a system of bonding. Whether or not this has been successful we shall see shortly in the next chapter, so I now turn to Chapter 6 to examine some available evidence.

CHAPTER 6

SOME EVIDENCE ON THE BURSARY INCENTIVE EFFECT

A. Empirical Historical Evidence: enrolment and output response

In this chapter, I examine the pattern of structural changes in enrolment and bachelors degree output by fields of study, over the years in Nigerian universities, to see the extent to which the model formulated in the previous chapter explains the changes in enrolment and bachelors degree output in education when compared with other fields of study. I concentrate on the period 1968 (the year preceding the introduction of the teachers' special bursary incentive scheme (a subsidy scheme) to present date i.e. 1983. Whereas enrolment data is available for the period 1968-1983, graduate output data is only available for the period 1971-1977. The enrolment data is based on returns from the Nigerian Universities Commission (NUC) obtained during my field-work, while the graduate output data is based on Nigerian abstract of statistics data. The various sources are included in the Appendix D.

Enrolment Response 1968-1983

The empirical historical evidence that some students' course choice decision seem to have been sensitive to the bursary incentive in education course appears impressive. Enrolment statistics by fields of study between the period 1968 (the year preceding the introduction of the teachers' bursary incentive scheme in education course) to the present time i.e. 1983 depict a stupendous increase in enrolment in education course relative to other fields of study as one would reasonably expect. Most fields of study lost significantly to education and thus experienced marked decline over the period. Table 6.1

summarises data on changes in enrolment pattern by fields of study between 1968 and 1983. While Figure 6.1 presents trend data on the enrolment behaviour of students during the same period.

TABLE 6.1

Changes in student enrolment in Nigerian Federal Universities by field of study 1968-1983.

Field of Study	Academic Year ending June.				
	1968		1983		1968-1983
	No.	%	No.	%	% change
Administration	N.a.	-	5,211	5.8	-
Arts	1,540	22.7	14,113	15.7	-7.0
Education	743	11.0	15,554	17.3	+6.3
Law	349	5.2	4,935	5.5	+0.3
Social Science	1,210	17.9	13,024	14.5	-3.4
Health profession	870	12.8	9,720	10.8	-2.0
Engineering and Technology	465	6.9	9,358	10.4	+3.5
Natural Science	1,091	16.1	13,529	15.0	-1.1
Agricultural Studies	505	7.5	4,475	5.0	-2.5
TOTAL	6,773	100	89,919	100	

Source: Based on returns from NUC, 1968-1983 (see Appendix 'D' Table 2)

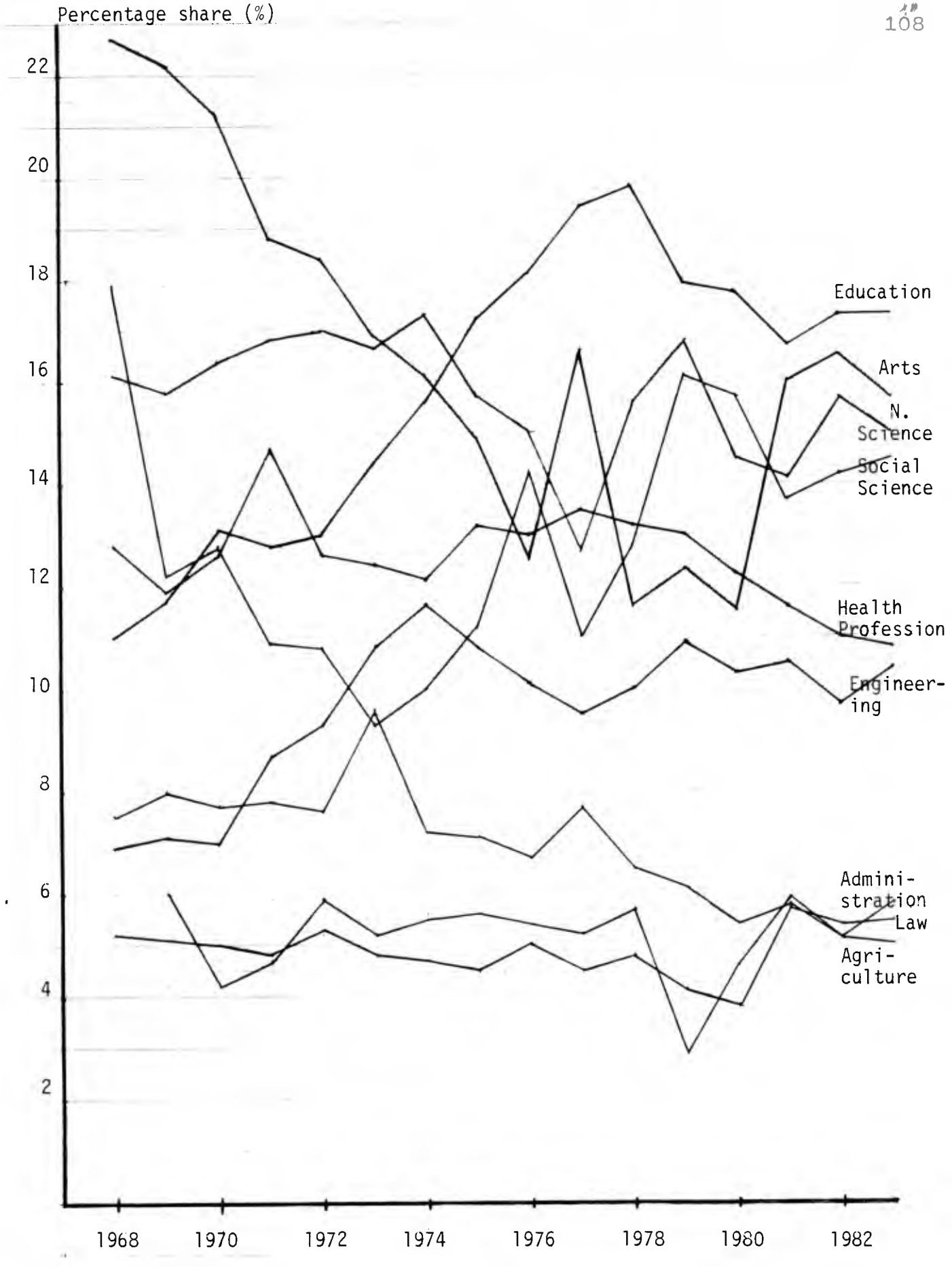


Figure 6.1 : Enrolment behaviour in Nigerian universities by field of study 1968-1983.

Source: Based on Table 2, Appendix 'D'.

From Table 6.1 we observe that Arts which accounted for the highest percentage share of total enrolment in 1968 dropped sharply from 22.7 percent in that year to 15.7 percent in 1983 representing a net loss of 7.0 percent. Education rose stupendously from 11.0 percent in 1968 to 17.3 in 1983 showing a stupendous increase of 6.3 percent. Law increased marginally from 5.2 percent in 1968 to 5.5 percent in 1983 showing a marginal net increase of 0.3 percent. Social Sciences declined significantly from 17.9 percent in 1968 to 14.5 percent in 1983 experiencing a net loss of 3.4 percent. Health profession did not fare any better either. It dropped from 12.8 percent in 1968 to 10.8 percent in 1983 with a net decline of 2.0 percent. Engineering was the only field outside education that had an appreciable increase. It increased from 6.9 percent in 1968 to 10.4 percent in 1983 showing a significant net gain of 3.5 percent. Natural Science and Agricultural Studies are also in the category of net losers. Natural Science dropped from 16.1 percent to 15.0 percent while Agricultural Studies declined from 7.5 percent to 5.0 percent representing net losses of 1.1 percent and 2.5 percent respectively.

Even though engineering and law increased during the period the increase in their percentage share of total enrolment hardly compare with that for education which is roughly two times as much as that for engineering and twenty one times as for Law.

Output Response 1971-1977

Evidence on graduate output during the period 1971-1977 is consistent with what we have observed on enrolment statistics between 1968-1983. A similar outstanding feature in the data is the stupendous increase in graduate output in education relative to other

fields of study. Table 6.2 documents the different pattern of change in percentage share of graduate output by field of study between the period 1971 and 1977, while Figure 6.2 provides trend data showing the striking consistency in the growth pattern of bachelor of education output relative to other fields within the same period.

TABLE 6.2

Changes in Bachelors Degree output in Nigerian Universities by field of study 1971 and 1977.

Field of Study	Academic Year ending June				
	1971		1977		1971-77
	No.	%	No.	%	% change
Administration	157	6.3	295	4.8	-2.5
Arts	614	24.8	1,061	17.3	-7.5
Education	174	7.0	1,133	18.5	+11.5
Law	130	5.3	277	4.5	-0.8
Social Science	406	16.4	740	12.1	-4.3
Health profession	176	7.1	726	11.8	+4.7
Engineering and Technology	224	9.5	719	11.7	+2.2
Natural Science	448	18.1	800	13.0	-5.1
Agricultural Studies	128	5.2	326	5.3	+0.1
Mass Communications	16	0.1	62	1.0	+0.9
TOTAL	2,473	100	6,139	100	0.0

Source: Based on Nigerian abstract of statistics data, 1981, p. 69, Table 5.13 (see Appendix 'D' Table 3).

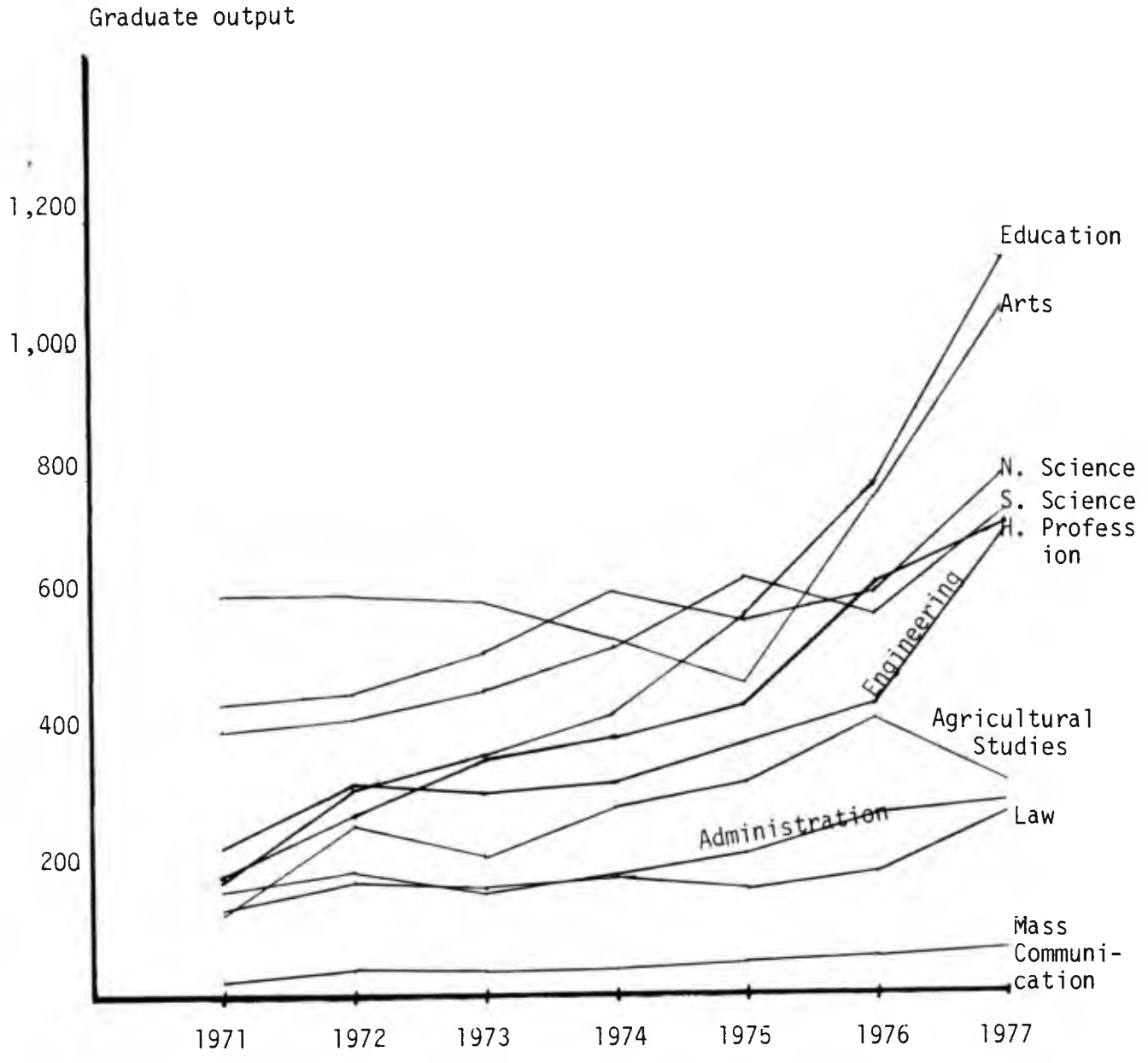


Figure 6.2 : Graduate output trend in Nigerian universities by field of study 1971-1977.

Source: Based on Table 3, Appendix 'D'.

It is evident from Table 6.2 that education which accounted for only 7 percent of the total graduate output in 1971 rose stupendously to 18.5 percent in 1977 showing a huge gain of 11.5 percent, the highest relative to other fields. Whereas health profession, Engineering and Technology associated with relatively high rates of return only experienced marginal increases, relative to education, of 4.7 and 2.2 percent respectively. Administration decreased by 2.5 percent, Mass Communication studies increased by 0.1 percent accounting for the least growth rate. Fields of study like Arts, Law, Social Sciences and Natural Sciences lost ground by 7.5, 0.8, 4.3 and 5.1 percent respectively. No doubt education picked up most of these losses.

Response Lag

In spite of the fact that education gained considerably from the losses by most other fields and hence the stupendous growth in enrolment and graduate output over the years, two factors may have contributed significantly in reducing the full impact-effect (in terms of enrolment and output response) of the discriminatory subsidy in education course. First is the introduction of a university students loan scheme at the end of the Civil War in 1970 (the loan has been discontinued locally and is now only available for Nigerian students studying overseas who are in their penultimate or final year and could produce evidence that they would not be able to complete their studies without additional financial assistance) to assist students from war affected areas and majority of socio-economically disadvantaged students who were in dire need of financial assistance to either take-up their offers of admission or complete their studies. Secondly, sequel to the discontinuation of the Federal Government univer-

sity students loan scheme, some state governments introduced a small scale intermittent grant to assist most students who would otherwise have withdrawn from university or declined offers of admission due to financial constraints. Although the loan scheme has been discontinued and the financial grant by State governments has been intermittent and relatively small compared with the teachers' special bursary award and thus constitute an unreliable means of student finance, their probable threat to the total effectiveness of the discriminatory subsidy cannot be wholly ignored. However, as noted earlier this probable threat notwithstanding, enrolment and graduate output in education has grown stupendously, ever since, relative to other fields of study.

Interpretation of Empirical Historical results

What is the economic explanation of the observed stupendous change in enrolment and graduate output in education relative to other fields of study, in the light of the human capital paradigm of course choice on the one hand and the job signalling paradigm of course choice on the other: ceteris paribus?

To a large extent, the empirical historical evidence analysed above hardly support the human capital paradigm of course choice and it's ambitious claim to predict enrolment in specific fields of study in higher education based on differential earnings. If rational student behaviour is, in all cases, consistent with the predictions of the human capital paradigm of course choice one would hardly expect enrolment and graduate output in education to grow as stupendously as it has over the period under consideration, relative to other fields of study. A more consistent structural pattern within the framework

of human capital theory would be for Health profession, Engineering and other lucrative fields to exhibit a more stupendous growth trend.

In terms of profitiability, both, in the short and long run the teaching profession (i.e. teacher job market) is far from being the pace-setter. According to Sheehan (1973, p. 110);

> Turning to salaries which are directly measurable, we find that in the United Kingdom (and in most developed countries) teachers rank above most manual and unskilled jobs but below most professional and managerial jobs. Also teaching tends to be one of the lowest paid occupations in the market for university or other third-level graduates.

Sheehan, (1973, p. 111) goes on to conclude that when compared with other competing occupations in the labour market especially in terms of prospective life time, or long run earnings, the teacher seems to be "relatively lowly paid."

Sheehan's (1973, p. 110) observation on the relatively low pay received by teachers in the United Kingdom and in most developed countries is not inconsistent with observations based on findings from African (underdeveloped) countries. Fafunwa (1967, p. 84) in his discussion of the problems faced by African teachers notes inter-alia;

> The African teacher, like his counter-part in most parts of the world, is one of the most poorely paid of all professional workers. In many parts of Africa, the labouring class enjoys greater security than the teacher."

To further substantiate his case Fafunwa quotes from a survey report on 'the status of the Teaching Profession in Africa' conducted by the World Confederation of Organisations of the Teaching Profession (W.C.O.T.P.). According to the report (see Fafunwa , 1967, p. 84):

> The status of the teaching profession in Africa is low... The teacher often does not get a salary which keeps him contented or enables him to maintain a standard of life comparable to that of others having the same qualification. He often has to work in conditions which would daunt the bravest of spirits.... For a long time the teaching profession has been for many Africans a means to an end, rather than end in itself: it provided an avenue to higher education. The African teacher joined the profession not out of any exalted sense of vocation but rather out of necessity.

Williams (1979, pp 24-25), as if to explain why the teacher seems to be relatively lowly paid when compared with equally qualified people, contends that the role of market forces in the teaching service is somewhat limited in all countries; public authorities constitute a monopsonistic buyer of teachers' services, they fix or negotiate teachers' salaries and in such situations wages will not be self-adjusting to reflect changed supply-demand relationships, nor could one expect teacher supply and demand to be responsive to changes in wages.

The weight of the informed opinions of Sheehan (1973) and Williams (1979) is strengthened by the empirical evidence provided by Wilson (1983) in his article on "The Declining Return to becoming a Teacher". Wilson (1983) illustrates the rates of return in teaching compared with other professions using time-series data (see Figure 6.3). In the figure a most interesting and important pattern is clearly evident. Teachers, excluding university lecturers, ranked least in the rates of return hierarchy when compared with other professions. Furthermore, the decline in rates of return over the years

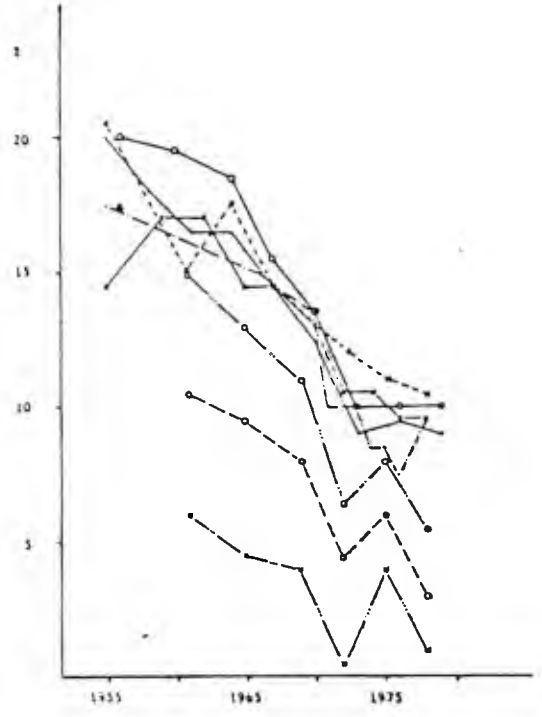
is steeper for teachers than for other professions.

Even in the United States where market forces play a significant role in wage determination, teachers pay is not too encouraging either. Peter David reporting in the Times Educational Supplement (TES) of 21 October 1983 notes inter alia:

> virtually every report on the woes of education published this year has drawn attention to the low salaries offered to teachers ... In calling for a rise in basic teacher pay, the committee pointed out that teachers are paid well below the average rates given to other white collar workers.

The comparative statistics on teachers' salaries in the United States vis-a-vis other qualified professionals adduced by David (1983) is shown in Table 6.3.

Although rates of return studies by specific fields of study are not available on Nigeria (I have not seen and do not know of any in existence so far), the picture presented by Sheehan (1973), David (1983), Williams (1979) and Wilson (1983) is not different from what obtains in Nigeria. One of the lenses through which the appaling and unenviable plight of the teaching service sector practitioners in Nigeria can be seen is evident in a conclusion by the Nigerian Union of Teachers (NUT) in a memorandum on a recent salary review commission



Key:

x—...—x Primary non graduate teacher
o-------o Secondary graduate teacher
o—··—o Graduate teacher in further education
x------x University lecturer
——·——· All graduates
o———o Physicist
——————— Chemist
x———x Engineer

Sources and notes:

(a) The estimates for teachers are for males. Source Table 1.

(b) The estimate for University lecturers is from Table 5.

(c) The estimates for scientists, engineers and all graduates are taken from Wilson (1983) and some unpublished notes.

Figure 6.3 : Rates of return in teaching compared with other professions.

Source: Wilson (1983) Figure 1.

TABLE 6.3

White Collar salaries in the United States

Occupation	Average Annual Salary (in dollars)	Range: entry pay to top level (in dollars)
Lawyer	43,249	25,162 to 76,202
Engineer	34,745	23,622 to 62,494
Accountant	26,306	18,260 to 48,549
Programmer/ Analyst	24,809	15,535 to 35,430
Teacher	18,945	12,966 to 23,437
Secretary	16,539	14,000 to 21,546
Typist	11,915	10,893 to 13,723

Source: Peter David "Trying to turn the salary tables" in TES 21 October 1983, page 16.

report quoted in Adaralegbe (1979, pp 68):

> The increase in salaries except possibly with two small groups representing some 2½ percent of the teaching force have not kept pace with the rise in prices. With many, this has meant a decrease in the standard of living, and with the remainder an increasing struggle to maintain the 1959 standard which, itself, was far below that which the proper status of the teacher requires. It is quite obvious that the combined result of salary increases and price increases has not enhanced the status of teachers but in many cases depressed it.

After assessing the salary structure and promotional prospects of Teachers in Nigeria, Professor Adaralegbe (1979) concludes that the teaching service will still be faced with the age-long problem of

recruiting and retaining the best teachers into the service since, as in the past, these teachers will continue to seek greater opportunities outside of the teaching service where they can get better advancement.

One important conclusion that the argument presented above invariably leads to is that, within the framework of economic analysis of course choice (see Freeman, 1971), students' enrolment in education course do not seem to be a function of 'expected future returns' in the teaching profession as human capital theory would naturally explain by linking relatively high enrolments with relatively high rate of returns in the affected discipline. Rather, the facts suggest, it appears to me that most students enrolment decision in education course can best be explained by linking it to the incidence of the teachers' bursary incentive scheme. These interpretations are consistent with the conclusion and also reinforce the predictions of Hinchliffe (1973) based on survey evidence.

Hinchliffe (1973) concluded that students in the process of their course choice do not in all cases react to economic signals in the form of wage differentials as conventional economic theory would suggest and predicted that one of the potentially strongest controls through which Federal or State authorities can use to influence student's course choice along the lines of estimated manpower requirements is through the use of bursary incentive accompanied with a period of bonded service.

However, this is only half the picture and thus would not warrant forceful arguments and conclusions yet: one must also examine

the survey evidence that is part of this study to see the extent to which it corroborates the two different sets of evidence adduced so far. I now turn to the survey evidence.

B. Empirical Survey Evidence

In the preceding section I tried to show how the changes in enrolment by fields of study over the years, in favour of education, can be explained within the framework of a job signalling paradigm of course choice predicated on bursary incentive. I indicated that the evidence in spite of it's plausibility was still inconclusive, since the survey evidence that complements the historical results also needed to be examined to see the extent to which it corroborates the theory.

The relevant survey evidence has been presented here. In all 578 male and female education students in their first, second, third and fourth - year of the bachelor of education course in three Nigerian universities participated in the survey. The criteria for establishing the unbiased and representative character of the sample has been discussed both in Chapters 3 and 4. Also the research design and procedure for data collection are discussed in Chapter 3, while the research instrument and procedure for data preparation are contained in the Appendices A-D.

As has been previously noted in Chapter 4, the emphasis on the practical applications of the research findings (as a guide to teaching manpower supply policy) still dictates the presentation of results in this section. Thus the analysis and interpretation of this aspect of the survey results has, also, been aggregated for the entire sa-

mple and organised under relevant sub-headings. These sub-headings include (1) career information, (2) subject bias, (3) previous qualification and employment, (4) Bursary and Finance; and (5) objective significance of bursary incentive.

1. Career Information

Table 6.4 presents the data on the sources of education students career information. A remarkable feature evident from the table is that mass media based sources constitute a major source of the students career information. Majority of the students (approximately 60%) indicated that publications, newspapers, posters, pamphlets etc. were the major source of career information available to them. Home and school-based sources played relatively small roles. 21 percent indicated home based sources, while only 18 percent indicated school based sources. This response pattern seems to confirm Hinchliffe's (1973) findings. Hinchliffe (1973, p. 167) observes that "reading information" was the "most important" source of career information which help to shape students career choice.

The relatively small role played by home based source is consistent with the low social-class background of most of the students. The influence of home based sources of career information is, to a large extent, dependent on students social-class composition. Since the parents of education students seem to be dominantly illiterates or semi-illiterates (i.e. only 20% of the fathers and 6% of mothers had some form of higher education), it is less likely that most of them would know/and advise their children about career/course options available at the University.

TABLE 6.4

Proportion of Education Students by sources of career information.

Sources	Proportion (5)
Home based:	
(i.e. parents, friends, relatives, wife/husband, fiance)	21.3
School based: (i.e. Teachers/school career advisers)	17.8
Mass Media based: (i.e. Publications, newspapers, poster, pamphlets etc.)	59.7
Uncertain	1.2

Source: Education Students Survey.

The minority role played by school based sources seems to indicate the low level of career guidance in Nigerian schools, in spite of the Federal and State governments increasing emphasis on career guidance and the training and posting of professional career guidance counsellors to post-primary schools. The evidence would suggest that Federal and State governments still need to do much in the area of using the services of professional guidance counsellors in post-primary schools. The present situation in which most post-primary schools do not seem to employ the services of professional guidance counsellors may militate against the effective channelling of students to courses/careers which national manpower planners deem necessary for national development.

The dominance of mass media based sources, as a source of career information available to education students seems plausible in view of the fact that print material would be more readily available and also accessible to a literate population like potential university entrants. The evidence on the large proportion of students whose major source of career information is mass media based has some practical significance for manpower planning. In a developing country like Nigeria where home based sources of career information is likely to be grossly inefficient (due to high adult illiteracy rate - estimated at 70%) and school based sources seem grossly inadequate (due to shortage/absence of professional career guidance counsellors), mass media based sources may prove to be the most effective and readily available source of career information that can be used by Government agencies to disseminate career information, especially in the areas of manpower shortage. The teaching service and the publicity of the teachers' bursary scheme is a case in point.

2. Subject bias

The data on the major teaching subject of education students is shown in Table 6.5. From the table one observes that most education students' teaching subjects are biased towards the Arts and Humanities. 53.3 percent have their teaching subjects in the Arts and Humanities while those in the Science subject area represent only 42.2 percent.

This pattern of distribution has a significant implication in view of the persistent shortage of science teachers in Nigerian schools and the excessive reliance on the services of expatriate science teachers; with its contributory effect on Nigeria's invisible

TABLE 6.5

Distribution of Education Students by major teaching subject area.

Teaching Subject Area	Proportion of Students (%)
Natural and Applied science biased: (Chemistry, Physics, Biology, Maths, Agricultural Science, etc.)	42.2
Arts and Humanities biased: (History, Languages, Religion, Economics, Geography, Sociology, etc)	53.3
No indication	4.5

Source: Education Students Survey.

trade deficits. The evidence seems to suggest that in spite of the Federal Government's intention to cut down drastically on the recruitment of expatriate teachers in science, the local supply does not seem to be responsive enough in keeping with the Federal Government desired ratio of 60 : 40 in terms of enrolment in science based subject area vis-a-vis Arts and Humanities based. (See Nigerian National Policy on Education, 1981, p. 25). This should be a source of concern that ought to require prompt positive action by government if the pattern is to be off-set towards the desired direction. A possible approach to the problem could be to operate a differential bursary incentive policy between Science based and Arts cum Humanities based education students. This could be achieved by increasing the value of the teachers' bursary award in favour of Science based students. Such a policy could be used to further influence students course choice in favour of science based teaching subjects.

> Whilst seeking private business enterprises for themselves, the subjects in this study preferred prestigious "brainy" jobs such as medical profession, engineering, and lecturing for their male children. The subjects similarly preferred medical work as first choice for their daughters but thereafter shifted to 'female-type' professions: secretarial work, civil servant, banker etc. for their daughter.

The remarkable observation in this conclusion by Atolagbe is that primary or secondary school teaching hardly featured in the career preferences noted.

Secondly, the evidence on the extremely high proportion of the students that were previously employed before entering the university (85.1%), would suggest that the opportunity cost (in terms of earnings foregone) of acquiring university training would be very high for most education students. Thus, if the low social-class background of most of the students and capital market imperfections are integrated into the economics of training matrix, the joint evidence would suggest that majority of education students seem most likely to have been attracted to education course because of the teachers' bursary award which in part compensates for the foregone income during training in addition to the free tuition (a type of in-service training with reduced earnings during training, where training seems to be general/non-specific within the framework of Beckers (1964) model).

4. Bursary and Finance

An outstanding feature in the financing of education students in Nigerian universities is that the trainee financial support scheme is a major source of eduction students' income. In addition to free tuition, virtually all education students benefit from the Federal

3. Previous Qualification and Employment

Table 6.6 presents data on the previous qualification and employment of education students. An important observation is that majority of education students have previously obtained some teaching qualification (61.2%), and have previously been employed as teachers (68.3%). Only a sizeable minority have not previously trained as teachers (38.7%), have not worked as teachers (16.8%) and unemployed before entering the university (14.9%).

TABLE 6.6

Previous Qualification and Employment of Education Students.

	Proportion (%)
Highest previous qualifications:	
WASC/GCE O'Level	23.0
HSC/GCE A'Level	15.7
NCE/Diploma/Certificate in Education	61.3
Total	100.0
Previous employment:	
Private Sector	2.6
Civil Service	14.2
Teaching Service	68.3
Unemployed	14.9
Total	100.0

Source: Education Students Survey.

The data lends itself to some plausible interpretations. First, the high proportion of those with previous teaching qualification suggests that most education students have previously benefited from

the Federal Governments' teacher training financial support scheme. Since all levels of teacher training programme in Nigeria are heavily subsidised relative to non-teacher training aspects of formal schooling, the evidence would lead to the inference that the sociologists 'social selection theory' or what I call 'cheap job signalling' has been at work much earlier than most of the students' university career. Again this seems consistent with most of the students social-class background as I have previously tried to demonstrate. To the best of my knowledge, early teacher training as a career path seems hardly an attractive option to that segment of the society usually referred to as well-to-do (in sociological terms middle/and upper-class). The available sociological evidence (Pavalko, 1971, p. 51; Atolagbe, 1982, p. 39) support my contention.

According to Pavalko (1971, p. 51):

> The social class milieu in which a person is reared, where measured by family income, parental occupation, or parental education, represents a major constraint upon occupational aspirations. Numerous studies done in various parts of the country have consistently concluded that the social class levels of the family is directly related to the level of occupational aspirations. The higher the social class level of a young person's family, the more likely he is to aspire to the most prestigious and rewarding occupational positions.

Pavalko's conclusion is consistent with most sociological findings in Nigeria. A classic example is a recent study by Atolagbe (1982). Atolagbe (1982, p. 39) based on survey results obtained from Nigerian university youths who are dominantly of middle and upper-class background (67% of a sample of 486) and all of potential middle/upper class destination concludes:

Government's special bursary incentive scheme for the training of high level teaching manpower. The data on the beneficiaries of the scheme is shown in Figure 6.4. As can be seen from the figure 95.8 percent of education students benefit from the Federal Government's teachers' bursary scheme.

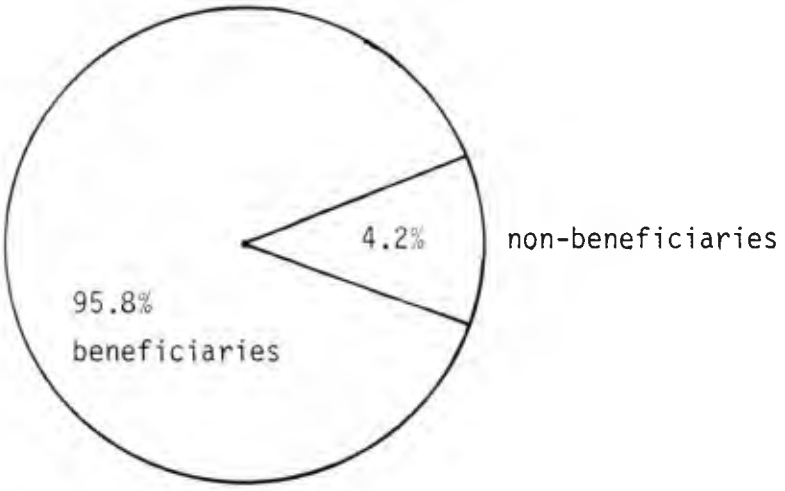


Figure 6.4 : Proportion of Education Students that are beneficiaries and non-beneficiaries of the teachers' bursary scheme.

This dominance in Federal Government financing of the students evident from the data is consistent with the findings of Akangbou (1981), as documented in his articale, "Teaching as a career: is it economically profitable?". See also Hinchliffe (1973). Akangbou (1981, pp 36-47), based on a case study of fifty (50) education students at the University of Ibadan notes inter alia:

> Most of the students who filled the questionnaire on private costs of university education at Ibadan claimed to be financed by the Federal Government bursary programme. These students were about 90% of the respondents.

In addition to the teachers' bursary a significant proportion of education students also depend on meagre contributions from other

sources to supplement the bursary income. Tables 6.7 and 6.8 show the data on the proportion of students by the major source of supplementary income and the levels of estimated income respectively.

TABLE 6.7

Proportion of Education Students by other sources of income excluding Teachers' bursary.

Sources	Proportion (%)
Parents and relatives	51.9
Friends and acquaintances	4.8
Wife/Husband	19.9
Previous saving	6.7
Salary and allowances	7.3
Vacation employment	2.6
Any other	1.9
Dependent on bursary alone	4.8
Total	100.0

Source: Education Students Survey.

A salient inference that can be drawn from the data in Table 6.8 is that the size of supplementary income available to education students is extremely limited. Approximately one-third of education students get supplementary income less than ₦ 300 per annum. Again slightly under two-thirds get supplementary income less than ₦ 600 per annum. While only roughly one-third get supplementary income of ₦ 600 and above. This supplementary income size pattern seems to be consistent

TABLE 6.8

Proportion of Education Students by level of estimated annual income from other sources outside bursary.

Income Level (₦ = £0.90)	Proportion (%)	Cummulative (%)
Less than ₦ 100	17.3	17.3
₦ 100 - ₦ 199	7.1	24.4
₦ 200 - ₦ 299	8.3	32.7
₦ 300 - ₦ 399	9.7	42.4
₦ 400 - ₦ 499	10.7	52.4
₦ 500 - ₦ 599	9.2	61.6
₦ 600 and over	36.2	97.8
Uncertain	2.2	100.0

Source: Education Students Survey.

with the low social-class background of most of the students. Without any risk of exaggeration, the supplementary income size pattern seems to indicate the extremely low standard of living of most education students. Even when the value of the teachers' bursary (excluding the free tuition) is added, the picture painted by the evidence is hardly altered. The wider significance of the limited supplementary income of most education students, due to their low-social class background, is that it tends to suggest the potency of bursary incentive scheme in channelling students into a low cost course like education (i.e. teacher training). This contention seems plausible in view of the fact that maintenance cost (even where tuition is free)

is undoubtedly one of the most critical input into the decision matrix of potential university students; on whether or not to enter the university in the first place and which course of study to follow on entry (the highly lucrative but expensive or the least lucrative but cheap?). The cost aspect of the decision problem for most socio-economically disadvantaged students would seem resolved, I believe, by the incidence of the teachers bursary in that for those students who choose to major in education (i.e. train as teachers) inadequate financing from family sources as the data demonstrates could be easily compensated by the teachers bursary award.

This evidential framework seems consistent with the theoretical formulation on the bursary incentive effect, in Chapter 5, which I presume is the rationale behind the Federal Governments application of bursary incentive scheme with 'strings' as a high level teacher supply policy variable and most students choice of education course. It seems, to me also, that it could be the theorectical basis of Hinchliffe's (1973) contention that the use of bursary incentive with 'strings' is the potentially strongest control through which government can influence students course choice along the line of estimated manpower requirement. The additional evidence adduced below further attest to this contention.

Objective significance of bursary incentive

The survey evidence on the objective role of the teachers' bursary scheme in education students course choice is presented here. Table 6.9 presents the data on students perception of the training cost differential between education and other competing courses. Virtually all the students perceive education as the least costly uni-

versity course when compared with other competing lucrative courses like medicine and engineering.

TABLE 6.9

Education Students perception of training costs in competing university courses.

Course	Proportion of students indicating that the course is least costly (%)
Medicine	3.8
Engineering	2.6
Education	91.5
Uncertain	2.1

Source: Education Students Survey.

An extremely high proportion of the students (91.5%) indicated that education is the least costly course, while very insignificant proportions indicated medicine (3.8%), engineering (2.6%) as least costly. Another insignificant proportion of students (2.1%) were uncertain. This response pattern is consistent with the formulation in the conceptual framework in Chapter 5, and sufficiently suggests that students are fully aware of the training costs in competing university courses. In spite of the fact that courses like medicine and engineering are both highly lucrative as well as prestigious courses, their enormous training cost requirements seem obvious to virtually all the students and could probably account for why most of the students gravitated towards education. The evidence on the students per-

ception of the effect of a probable decision to discontinue the teachers' bursary scheme and their assessment of the course choice effect of the teachers' bursary incentive in education course vis-a-vis salary in the teaching profession seems to further attest to the foregoing inference.

The data on education students perception of the effect, on their continued study at the university, of a probable decision to discontinue the teachers' bursary scheme is shown in Figure 6.5. It can be seen from the figure that a significant majority of the students (73.5%) indicated they would be seriously affected while a sizeable minority (24.2%) indicated they will not be affected at all. For the remaining insignificant proportion (2.3%) the issue was irrelevant. Although the issue of a probable discontinuation of the free tuition and introduction of full cost tuition fees (₦ 3,860) was not raised, the evidence on the students' family income would seem to suggest that a much higher significant majority of students would find their study at the university seriously threatened. I have previously argued this position under parental income in Chapter 4.

So far, the thesis that the teachers' bursary scheme seems most likely to have influenced most students' choice of education course has been argued, based on inference that can be drawn from circumstantial historical and survey evidence. I shall now present the direct survey evidence on education students assessment of the course choice effect of the teachers' bursary award vis-a-vis salary in the teaching profession. The evidence is shown in Figure 6.6.

Figure 6.5 : Education Students perception of the effect of a discontinuation of the teachers' bursary scheme on their stay at the university.

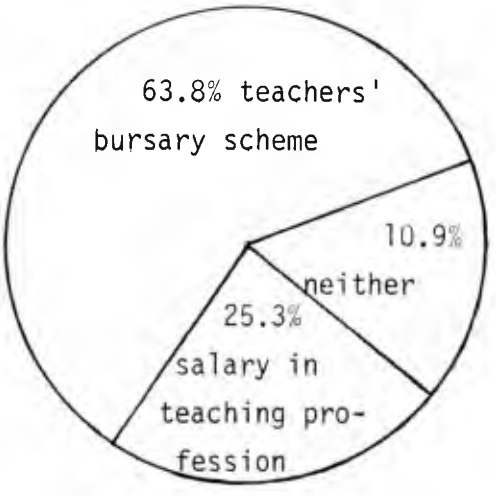


Figure 6.6 : Education Students assessment of the course choice effect of some competing variables.

From the figure one observes that roughly two-thirds (63.8%) of education students assess the teachers' bursary incentive scheme as likely to influence a student to major in education. Far less than one third (25.3%) assess salary in the teaching profession as likely, while a sizeable minority (10.9%) assess non-economic factors (i.e. neither bursary nor salary) as likely to influence a student's decision to major in education. In probabilistic terms this evidence (whether examined independently or in conjunction with the circumstantial evidence hitherto adduced) would amply suggest that the teachers' bursary scheme seems most likely to have influenced most students choice of education course - i.e. the decision to train as a teacher. This inference - in the absence of what Blaug (1982, p. 22) calls "Stodgy conservatism" - is consistent with the predictions of the bursary theory and also justified within the framework of "normative methodological principles". As Blaug (1980, p. 22) brilliantly argues:

> Whenever the predictions of a theory are probabilistic in nature (and what predictions are not - any laboratory experiment designed to confirm even so simple a relationship as Boyle's law will never find the product of pressure and volume an exact constant), the notion of assessing evidence without invoking normative methodological principles is an absurdity.

Summary and Conclusion

To provide a basis for evaluating the analysis so far as well as a guide post for the rest of the thesis, I shall at this point recap the central problem of the enquiry. The central problem which my enquiry deals with is: Does the teachers' bursary scheme in Nigeria exert any considerable influence on most students choice of education course (i.e. decision to train as teachers)? Which category of stu-

dents are influenced; why and to what extent? Precisely, how effective and efficient is the teachers' bursary scheme in Nigeria as an active high level teaching manpower supply policy?

The analysis so far leaves no one in doubt that a substantial part of the question that is central to the research has been attempted, if not answered, by now. I have tried to argue both with longitudinal and cross-sectional evidence that the teachers' bursary scheme seems most likely to have influenced most students choice of education course. I have also tried to argue based on cross-sectional evidence that students from low social-class background seem most likely to be more susceptible to the manipulation of their course choice with the use of bursary incentive. By concluding as I have, I do not wish to be understood as misleadingly saying that "relative wage" or "mere interest" in competing courses/career do not play roles in students course choice, as it would be naive to argue such a position. Rather my central thesis is that as far as education students in Nigeria are concerned, available evidence amply suggests that the roles of such factors like "relative wage" or "mere interest" in the teaching profession seem peripheral as course choice variables, the dominant influential factor seems to be the teachers' bursary incentive scheme. Although, not so much in persuading 18 year-olds to take a B.Ed rather than a B.A. or B.Sc, as in inducing experienced practising non-graduate (primary) teachers to upgrade their qualifications to become graduate (secondary) teachers (see p. 90).

At the risk of being repetitive, I shall recap the logical premise of the thesis by stating that "relative wage" or "mere interest" in competing courses/career are superstructural in nature. Their effectiveness as course choice variables is predicated on the untenable assumption that social-class origin does not matter in course choice and that capital markets are perfect and accessible to individ-

uals to finance additional education. Thus within such a theoretical framework (human capital), individuals like excited atoms will gravitate towards the direction where monetary and non-monetary returns seem relatively high by choosing courses in that area. However as objective evidence has shown, social-class origin is far from being homogenous and capital markets hardly perfect. Whether or not individuals will choose their course along the lines which promise high monetary and non-monetary returns would depend substantially on social class origin and the level of access to capital markets. Where such structural rigidities are pronounced the course choice effect of subjective superstructural artifacts like "relative wage" or "mere interest" would be peripheral in the face of an objective policy tool like a 'subsidy scheme' (teachers' bursary incentive scheme) which eases the constraints imposed by structural rigidities on access to higher education (i.e. the acquisition of a potential signal), as the evidence suggests.

I strongly believe I have a case and have therefore laboured to establish it in this aspect of the thesis. The issue whether or not the case has been argued on logical grounds, I leave to the reader who has followed the argument from the onset to judge for himself.

The next logical stage in the thesis after having attempted to establish that the available evidence amply suggests that the teachers' bursary scheme seems to have been effective in influencing most students course choice decision in favour of education is the efficiency aspect of the scheme as an active teaching manpower supply policy. In a question form the efficiency problem, I hope to approach is: What are the chances of recruitment and retention of education grad-

uates in the teaching profession after training them at public expense, without losing them to other competing employment sectors?

To answer this question, I now examine the survey evidence on the expected post-training employment sector of education students.

CHAPTER 7

POST-TRAINING EMPLOYMENT SECTOR

> A major problem of democratic society is inconsistency between encouragement to achieve and the realities of limited opportunity. Democracy asks individuals to act as if social mobility were universally possible; status is to be won by individual effort, and rewards are to accrue to those who try. But democratic societies also need selective training institutions, and hierarchical work organisations permit increasingly fewer persons to succeed at ascending levels. Situations of opportunity are also situations of denial and failure. Thus democratic society need not only to motivate achievement but also to mollify those denied it in order to sustain motivation in the face of disappointment and to deflect resentment. In modern mass democracy, with it's large organisations elaborated ideologies of equal access and participation, and minimal commitment to social origins as a basis for status the task becomes critical.
>
> CLARK (1961, p. 513)

In the preceding chapter, I ended up with the question: What are the chances of recruitment and retention of education graduates in the teaching profession after training them at public expense, without losing them to other competing prospective employment sectors? To provide plausible answers to the question, I shall use two apparent proxy measures of the allocative efficiency of the high level teacher supply market. They could also be considered as the apparent efficiency indicators of the teachers' bursary scheme as an active high level teaching manpower supply policy. These are (i) probably recruitment rate (ii) probable retention rate.

I shall examine the survey evidence on the expected post-training employment sector of education students under these apparent efficiency indicators and subsequently argue, without any intention of appearing to mislead, that in spite of the picture painted by some

'aspects' of the evidence which seems to be consistent with popular impressions, the allocative efficiency of the high level teacher supply market in Nigeria is hardly contestable on the grounds of sound economic logic. My position on the issue may seem paradoxical, if not controversial, but theoretically or logically consistent as I shall demonstrate later in the argument.

(i) Probable Primary recruitment rate

A major obligation (bonding) of student beneficiaries of the teachers' bursary scheme is to teach anywhere in Nigeria for a minimum period of two (2) years. Thus without making education students conscious of the bonding implications of their sponsorship, data was collected on education students expected primary post-training employment sector to ascertain the proportion that will honour their bond by electing to enter into the teaching service immediately on completion of training without external pressure from the government. The data is presented in Table 7.1.

The table shows that the proportion of the students that expect to start their primary employment in the teaching service (honour their bond) after completion of training is substantially high. As high as 81.8 percent of the students expect to start their primary employment in the teaching service. A small proportion (14.4%) expect to enter the civil service, while a very low proportion (3.5%) expect to enter the private sector. An insignificant minority (0.2%) seem uncertain. This result is consistent with the findings of Hinchliffe (1973, p. 166), in which he observes that "For all three student year groups, teaching and civil service are the dominant occupations",

which students expect to enter on completion of training.

TABLE 7.1

Proportion of Education Students by expected post-training employment sector.

Expected Employment Sector	Proportion of Students (%)
Civil Service	14.4
Teaching Service	81.8
Private Sector	3.5
Uncertain	0.2

Source: Education Students Survey.

The evidence would suggest that without external pressure from the Government the allocative efficiency of the teachers' bursary incentive scheme (in terms of primary recruitment) seems to be substantially high. On this note it can be inferred that the teachers' bursary scheme seems to be a profitable alternative to the Government on the economics of high level teacher supply (in terms of the policy objective), if not in the long-run at least in the short-run. There is ample theoretical justification or plausible economic logic to support the foregoing inference, however, I shall withold advancing them until I have examined the evidence on the second efficiency indicator (i.e. retention rate) to see the apparent paradox that it seems to pose for the foregoing inference.

(ii) Probable retention rate

To ascertain the proportion of those education students that will be willing to remain in the teaching service after fulfilling their bonding obligation, data was also collected discreetly on how long the students hoped to be in teaching employment on completion of their training. The relevant data is presented in Table 7.2. It is evident from the table that, in spite of the fact that most education students expect to enter the teaching service (i.e. serve their bond) on completion of training, not many of them expect to remain in the teaching service for a long time.

TABLE 7.2

Proportion of Education Students by expected duration of employment in the teaching service.

Expected duration of employment (in years)	Proportion of students (%)
1 - 5	36.5
6 - 10	14.2
11 - 15	5.9
16 - 20	4.2
21 - 25	3.5
Uncertain	0.5

Source: Education Students Survey.

Only 35.3 percent of the students expect to remain in the teaching service for up to 5 years. A far less proportion (14.2%) expect to remain for up to 10 years, while a far less proportion (5.9%) expect

to remain for up to 15 years etc.

A major inference that can be drawn from the retention data is that it seems to indicate the low profitability of the teaching profession and therefore tends to suggest that 'relative wage' and hence a life-cycle view of career opportunities in the teaching profession is hardly a plausible explanation of education students course choice/the stupendous increase in enrolment in education course over the years as I have previously argued. It rather supports my contention that students investment decision in the choice of education course seems to be largely dictated by the desire to gain access to higher education which tends to be facilitated by the teachers' bursary scheme in education course. Put differently, most education students course choice is geared primarily towards the acquisition of a potential signal at cheap cost (i.e. cheap job signalling) rather than making a permanent career in teaching. In a layman's term this would mean that students merely intend to use teacher training as a springboard into other more lucrative careers. It is this apparent paradox that I hope to resolve later on, but before then I wish to examine the survey evidence on education students expected permanent employment sector which further reinforces the apparent paradox over the use of bursary incentive as a teaching manpower supply policy and students view of it as a springboard into lucrative careers other than teaching.

The survey evidence on the expected post training permanent employment sector of education students is presented in Table 7.3. From the table it can be seen that most education students expect to be permanently employed in the private sector. As high as 40.3 per-

TABLE 7.3

Proportion of Education Students by expected permanent employment sector.

Permanent employment sector	Proportion of students (%)
Teaching Service	38.4
Civil Service	20.9
Private Sector	40.3
Uncertain	0.4

Source: Education Students Survey.

cent expect permanent employment in the private sector. 20.9 percent expect to make a permanent employment in the Civil Service, while only 38.4 percent expect to be permanently employed in the teaching service sector where they have been specifically trained for. The high proportion of education students who indicated preference for the private sector as permanent employment sector reflects the relatively high profitability of the private sector in Nigeria since the petroleum oil boom of the mid-1970's and the desire of most Nigerians to get rich through private business practice or employment in the private sector since the oil boom years.

Now the question arises: does the situation not seem contradictory or paradoxical that while the Government is spending public funds training people to be teachers, those being trained see their training as a way of acquiring higher education credentials at a cheap cost to gain them access into other job markets where the monetary returns are

presumably higher?

This apparent paradox is probably the most exciting aspect of the signalling game. I shall argue in the rest of this chapter, that the apparent paradox which seems to be created by education students expected post-training employment sector although consistent with popular impressions, is to a large extent illusory and for anybody to hold tenaciously to it or see it as a threat to the efficiency of the teachers' bursary incentive scheme as an active teaching manpower supply policy will be tantamount to naive economic and sociological fallacy.

To establish my case, I shall abstract by adopting a stand point that is contrary to held notions about the economics of training within the human capital framework. As human capital theory would probably put it: provide a prospective employee with a 'general training' at full or partial cost to the sponsoring prospective employer and you lose him to rival prospective employers through 'poaching'. I shall obdurately argue, with particular reference to the economics of teacher supply in Nigeria, that such a mechanistic view of the situation is again as untenable in all training and employment relations as the human capital theory of course choice.

By adopting this posture I am not saying that there may not be losses of trained graduate education majors or that education students do not view their training and acquisition of a higher education credential, at a relatively cheaper cost, as a springboard into other occupational sectors outside teaching. This is both theoretically consistent as well as consistent with popular impression as I have demon-

strated in Figure 1 in Chapter 5. It is also consistent with the data on education students expected permanent employment sector. Rather my contention is that in spite of the fact that most education students (as evident from the data on expected future employment sector) would wish to enter other employment sectors, the forces that will work against them and the 'poaching' firms are enormous as to make such a proposition unattractive to most education students. On this ground I shall argue that the loss of trained education graduates that seem likely to occur will not be substantial enough to defeat the policy objective of the teachers' bursary incentive scheme as an active teaching manpower supply policy, if not in the long-run at least in the short-run.

I must admit that this aspect of the thesis may seem apparently misleading both as a theoretical framework as well as a guide to policy, but nevertheless paradoxically plausible on both grounds. I shall argue my case from several standpoints. As a preamble I shall begin with the straightforward legal standpoint and later settle for economic logic.

Legal Standpoint

The major condition for the award of the teachers' bursary scheme as stipulated by the Federal Government is that:

> Every candidate who is successful in getting an Award of Scholarship will be expected to enter into bond with the Federal Government or the Federal Ministry of Education acting on its behalf, to teach anywhere in Nigeria for a minimum period of 2 (two) years.

As can be inferred from the evidence on education students expected primary employment sector, only roughly 82 percent of the students

expect to discharge their bond obligation by entering the teaching service on completion of their training. The remaining 18 percent expect to enter into other employment sectors. Although the proportion of those who seem likely to enter teaching is substantially high it can be further improved by tightening the bonding system of the teachers' bursary scheme or "scholarship" as Hinchliffe (1973, p. 172) has previously observed.

There are two ways in which this could be achieved (1) through the institution of a bond discharge certificate and following it up with a national legislation which would prohibit employers of labour from employing ('poaching') education graduates who have not discharged their two (2) years bond obligation. To ensure the effectiveness of the law, employers who contravene the 'anti-poaching' act could be prosecuted and the cost of training the employee in question could be chargeable to the employer. (ii) by requesting the Universities to withold the Degree certificate of successful beneficiary graduates and all reference on them to prospective employers, until they have discharged their two (2) years obligation to the Government.

This approach to the problem may seem morally wrong, no doubt, but there is also the rider that: What is morally wrong may not be legally wrong. In the law of contract, parties to a contract (bond agreement) are expected to fulfil the terms of the agreement. In the event of a breach by either party, the injured party has a legal right to seek redress for damages arising due to the breach of contract. Repugnant as this approach to the efficiency problem may appear, in some quarters, it seems to me the most feasible direct policy option open to Government.

The issue of loss of freedom to choose post-training employment sector without constraints hardly arises. Otherwise the genesis of freedom to choose should be: whether to accept the teachers' bursary and be bonded for a given period of service or reject it and retain one's freedom to choose which could also mean not gaining access to higher education for many, as available evidence suggests.

When seen in this light (i.e. tightening the bonding system of the teachers' bursary scheme), the efficiency of the teachers' bursary incentive scheme as an active teaching manpower supply policy, if not in the long-run at least in the short-run, would be hardly contestable and thus economically justified on the grounds of the implied policy condition of two (2) years bonded service.

I shall add some words of caution in this regard. The legal proposition to the efficiency problem (although part of the signalling game: "the employee sells his labour services, usually for a specified period of time" (Spence, 1974, p. 6), and the Government has the legislative facility to extract the labour from the contracting party), it's application should only be seen as a last resort by a panicky Government which feels that it's high level teaching manpower supply policy is seriously threatened by 'graduate deserters' and 'poaching' firms which encourage the 'desertion'. However, as I shall argue shortly, the panicky approach is hardly necessary as far as the economics of high level teacher supply in Nigeria is concerned, on the grounds of sound economic and sociological logic which are consistent with the signalling paradigm on which this study is predicated.

In the rest of this chapter, I shall argue that just as social

and economic forces constrained most education students course choice to be susceptible to manipulation with the use of bursary incentive scheme, to that extent will identical social and economic forces constrain most of them to enter and remain in the teaching profession (despite their high expections about the signalling/screening ability of their credential), if not in the long-run at least in the short-run; irrespective of the fact that the teaching profession is one of the least lucrative and least desired graduate job markets. This paradox is what I call the signalling/screening illusion - arising, in part, due to the fact that "there are several qualitatively distinct potential sources of economic discrimination implicit in the market's informational structure" (Spence, 1974, pp 5-6).

In this regard I shall, in part, re-echo the view of Spence (1974, pp 3-4) by saying that: Without serious risk of exaggeration, I believe the reader will find some of the answers surprising and perhaps a little disquieting from the point of view of the allocative efficiency of the teacher supply market in Nigeria, in spite of popular impressions.

CONSTRAINTS ON 'DESERTION'/'POACHING'

In the human capital paradigm of training (Becker, 1964, see also Ziderman, 1979, pp 13-18; for a concise formulation, and Blaug, 1983, p. 20; for a succinct interpretation), a domain-distinction argument is presented on the economics of training which tends to draw an 'iron curtain' between 'specific training' and 'general training' with particular emphasis on their financing implications. In the argument 'specific training' is said to be an archetype of training in which the productivity of the trainee is firm-specific. That is to say, that, the human capital embodied in the prospective employee undergoing specific training is only usable in the firm which is providing/sponsoring the training. In this case the prospective employee undergoing training has a limited job market in which he can transact his newly acquired human capital - a sort of Hobson's choice. In such a situation a sponsoring firm stands to gain and therefore has the incentive to finance the training, since the chances of losing the trainee to other competing firms after training is either zero or very slim. Outstanding examples of this archetype of training are "induction programmes for newly hired workers coupled with probationary periods of supervision" (Blaug, 1983, p. 20).

On the polar extreme of the domain-distinction argument on the economics of training is 'general training', which is said to be a non-firm specific training. That is to say, that, the human capital embodied in the prospective employee undergoing training is usable both in the firm which is providing/sponsoring the training as well as any other firm. In such a case the prospective employee undergoing

training has a vast array of job markets in which he can transact his newly acquired human capital. In this type of training: a sponsoring firm may stand to lose and therefore there is a dis-incentive to finance the training, since the chances of losing the trainee to other competing firms after training seem extremely high. A notable example of general training is "apprenticeship training, not just in industry but also in the professions." (Blaug, 1983, p. 20).

Within the human capital framework it is possible to include, at least by extension, undergraduate teacher training in the category of 'general training'. By analogy this would imply that it is a less profitable option for any establishment (firm/government) to sponsor such a training. I would want to make it clear from the onset that my concern here is not with the question: So why does a sensible establishment (Government) embark on sponsoring 'general training' when the cost-benefit implications are very glaring? To waste time on such a question, to me, will amount to 'duplication'. Duplication in this context, means having to regurgitate the textbook answer to the question: What is the rationale for Government provision of training? I believe that Ziderman (1978, pp 34-37, 50-54) provides some standard argument under the headings: market failure, stabilization and equity considerations; which any interested reader can browse through in 5-10 minutes. The arguments advanced by Ziderman (1978) coupled with the positive externalities of the teachers' bursary scheme, one of which I have earlier noted in Chapter 4, and the fact that Government owned parastatals constitute the largest graduate job market (over 70%) in Nigeria: are sufficient to defeat any myopic cost-benefit argument aimed at discouraging the

Federal Government financing of undergraduate teacher training based on a naive economic conceptualization of the issues involved. So I don't intend to waste time on that either.

I hope to settle on a more concrete argument (controversial? It depends ...) whose thesis I have earlier stated but shall recap here, to provide the reader a guide-post for evaluating the argument. The thesis that will be argued in the rest of this chapter is that: just as social and economic forces constrained most education students in Nigeria to choose to train as teachers (i.e. an undergraduate career path in education course), to that extent will identical social and economic forces constrain most of them to enter and remain in the teacher job market (despite their high expectations about the signalling/screening ability of their credential), if not in the long-run at least in the short-run: irrespective of the fact that the teacher job market is one of the least lucrative and least desired graduate job markets. I earlier indicated that this paradox is what I call signalling/screening illusion: arising, in part, due to the fact that "there are several qualitatively distinct potential sources of economic discrimination implicit in the market's informational structure" (Spence, 1974, pp 5-6). I must admit that it is not unlikely that the parties to the signalling game in the high level teacher supply market (education students on the one hand and the Government on the other, or even those observers wearing conceptual lenses borrowed from the human capital theory) may not be fully aware of this aspect of the intricacies of the signalling paradigm and that is why the illusion probably exists and the naive economic fallacy over the allocative efficiency of the teacher supply market tends to persist.

To establish my case on logical economic grounds in this part of the thesis I shall muster arguments that expose the 'self inflicted injuries' (i.e. weakness) in the human capital domain-distinction argument on the economics of training as well as other 'unanticipated injuries'.

Weakness in the domain-distinction argument

Underlying the domain-distinction argument in the human capital paradigm of training is the concept of 'poaching' or 'bidding off' of trained manpower whose training embodies non-firm-specific human capital. As we shall see shortly there are many constraints (beside the legal constraint which could be invoked if not already in operation) which militate against 'desertion' or 'poaching' thereby making the 'poaching' syndrome underlying the domain-distinction argument irrelevant, with particular reference to the high level teacher supply market in Nigeria.

'Search-cost' and Capital Market imperfections

In the first instance 'poaching' or 'bidding off' of trained high level manpower which is often assumed to take place (within the human capital framework) because some firms consider it more economical to 'poach' what could be called 'ready-made-stuff' rather than engage in staff training to the detriment of the training firm usually involves a long process of 'search' with high costs to both parties (i.e. the prospective employee and the 'poaching' firm). Even if we assume that the 'poaching' firm can afford the costs, the evidence on the social-class composition of most education students would suggest that most of them cannot bear the 'search-cost' over a

protracted period of time without frustration to them and members of their family who would expect to recoup the benefits of their higher education at the shortest possible time taking into account the economics of short and unpredictable productive human life span evident in Adam Smith's 'Wealth of Nations' (Smith, 1977, Bk. 1, Ch. 10, Pt. 1), quoted in Blaug (1970, p. 2):

> When any expensive machine is erected, the extraordinary work to be performed by it before it is worn out, it must be expected, will replace the capital laid out upon it, with at least the ordinary profits. A man educated at the expense of much labour and time to any of those employments which require extraordinary dexterity and skill, may be compared to one of those expensive machines. The work which he learns to perform, it must be expected, over and above the usual wages of common labour, will replace to him the whole expense of his education, with at least the ordinary profits of an equally valuable capital. It must do this too in a reasonable time, regard being had to the very uncertain duration of human life, in the same manner as the more certain duration of the machine. The difference between the wages of skilled labour and those of common labour is founded upon this principle.

Capital market imperfections equally aggravate the problem of 'job search' financing. We can easily see why it is so by extending Friedman's (1962, p. 102) argument on the nature of capital market imperfections as they affect individuals who wish to invest in their training. Investment in further training and investment in job search are all aspects of investment in human capital. Thus, just as it is difficult to obtain a loan to finance the training of an individual who has no security to offer except his future earnings, it would also be as difficult for a prospective employee (in a non-slave State), who has no security to offer except his future earnings, to obtain a loan to finance a protracted job-search. Such investment

financing equally inheres a higher risk component (arising from the low security and high cost of subsequent collection of interest and principal) than a proposition to finance a physical asset, like the erection of a building, where the risk and cost of recovering the loan are much lower (because the lender can get some security for his loan in the form of a mortgage or residual to the physical asset - building - itself, and can count on realizing at least part of his investment in case of a default by selling the building). This is an extension of the Friedman (1962, p. 102) argument to the economics of job search which is also an aspect of investment in human capital by analogy.

Thus it can be infered that the same economic forces that makes the human capital paradigm of course choice untenable as a unique economic model of course choice also adds to defeat the theory's paradigm of training i.e. domain-distinction argument: by reducing what appears to be a 'general training' to a 'specific training' due to capital market imperfections which militate against investment in job search which conduces 'desertion'/'poaching'. It is important to observe that the purpose of destroying the domain-distinction argument is to establish the argument that 'desertion' or 'poaching' of trained staff is not as easy as those who view it from the conceptual lens of human capital theory would compel us to believe. In which case there is no logical justification for the naive economic fallacy over the allocative efficiency of the high level teacher supply market in Nigeria.

There are several other potent forces that destroy the simplistic elegance of the human capital domain-distinction argument. These in-

clude: (1) labour market imperfections, (2) Inertia, (3) signalling/screening illusion and (4) internal labour markets. I shall discuss this briefly in turn.

1. Labour Market imperfections

There are certain constraints imposed by labour market imperfections which militate against the 'poaching' of trained high level manpower. Prominent amongst these is imperfect information flow between prospective employer and employee. Quite often most prospective employees do not know the establishments or firms where vacancies exist (adverts? I shall come to it later), and also most prospective employers who may wish to 'poach' trained labour may not know where to find them (annual 'milk round' in institutions? I shall also come to it). I shall approach this issue systematically.

In the case of prospective employees, they may in such a circumstance have to travel from one place to another inquiring about vacancies; a situation that could be expensive in terms of time, money and energy, and above all a very harrowing experience. The opportunity cost of voluntary unemployment for graduate teachers (unsaturated teacher job market) entailed during the period of protracted job search coupled with the evidence on the low social-class background of most education students would suggest that job search could hardly be an attractive option even if it is desired. Looking up advertisements for job vacancies, while feasible, is equally expensive since it implies high investment costs in job information search. Particularly noteworthy, in this regard, is the evidence on most education students social-class origin which would suggest that most of them may not be able to bear the high cost of job information search,

which entails investing in most available newsprints and attending interviews here and there. This would suggest that job information search, while feasible, could also be an unattractive option for many, if not in the long-run at least in the short-run.

What about prospective 'poaching' firms? The hurdles are equally enormous. They may have to invest very heavily in their 'poaching' venture which may make poaching reasonably unattractive. 'Poaching' firms may have to invest heavily on advertisements and organising routine interviews for prospective employees scattered all over the country. Organising annual 'milk round' tours to institutions while economical, because it entails limited visits to a few institutions to organise group interviews for undergraduates in their final year, inheres some element of risk since there is no guarantee that all successful applicants at interviews will pass their degree examination in the desired grades. This may make annual 'milk round' unreliable and wasteful to a substantially discouraging extent. There is also, another component of 'poaching-cost' which is wage bidding. If we assume that many firms are too keen on 'poaching', there would be the danger of bidding up graduate labour wage beyond it's marginal productivity thus making 'poaching' a less profitable option.

2. Inertia

Inertia within the context of 'poaching' could be seen as the tendency of a prospective employee who has undergone some level of 'general training' to remain in the job market sector for which his training was financed by a prospective employer. How does inertia seem from this perspective act as a constraint to 'desertion' or 'poaching' of graduate teachers? This can be approached from a close

examination of the demographic characteristics of education students which I had previously discussed in Chapter 4. These include (i) Age, (ii) Sex, (iii) Marital status.

(i) Age

The psychological theory on the role of inertia on job market changes can be infered from the works of Ginzberg et al (1951) and Super (1957) on the career relevance of age composition of a potential labour force. Ginzberg et al (1951) and Super (1957) describe the age range 25-44 years as the period of 'realistic' choice and 'establishment stage of vocational development' respectively. The inertia implication of this age attribute, as I see it, is that up the age range, 'job market changes' or 'job shopping' seem less likely to occur because an individual's career choice at this stage tends to be more stable than choice that would have been made at preceding stages. This is a type of 'satisficing' behaviour explicable by the fact that an individual's desired self-concept has either been implemented or modified in the light of objective constraints. This may seem to be a generalised inference but nevertheless has been rationalised by economists. To make my case here I shall quote Zabalza et al (1979) very extensively and later extend the argument to graduate teachers in Nigeria. Zabalza et al (1979, pp 85-86) argue:

> A negative relationship between worker mobility and age has been clearly established across very different occupations. Reynolds (1951) explains this regularity in terms of the concept of 'job shopping'. In a world in which information is imperfect, younger workers find a satisfactory job only by a process of trial and error. At any moment, therefore, younger people are more likely than older people to be changing jobs. Becker (1964), on the other hand, provides an explanation placing the emphasis on investment element involved in the decision to move. If

> changing job is interpreted as an investment in human capital, then younger people have a greater incentive to move, in as much as they will be able to collect the return over a longer period of time.

The findings of Zabalza et al (1979) shows that 'job market changing' is a function of age. With reference to the 'teacher job market' (i.e. teaching profession), Zabalza et al (1979, pp 86-87) note that the peak leaving age of trained graduates in the teacher job market is the age of 25-29. They further note that above the age of 30, the tendency to leave is considerably reduced. How relevant is this finding to the argument on inertia as a constraint to 'desertion' by trained graduate teachers in Nigeria? The findings of this study shows that the modal age of education students is 28 years and roughly one-third are above the age of 30. This would suggest that the tendency towards 'job shopping' will be considerably reduced for many, if not most, education students on graduation.

(ii) Sex

There is a consensus between sociologists and economists that sex (depending on the angle from which it is viewed), conduces inertia. The sociologist's position can be infered from the words of Pavalko (1971, p. 58):

> In general, women tend to have lower occupational aspirations than men. In large measure this is a consequence of general cultural norms and expectations regarding sex and work roles.

This lower occupational aspiration characteristics of some labour force categories is discussed by economists under 'Segmented Labour Market' (SLM) theories. With particular reference to sex composition, it is referred to as 'Segmentation by Sex' (see Reich, Gordon and

Edward, 1979). One would think that in spite of the male domination of the teacher job market, teaching is one of the 'serving mentality' jobs where wages are relatively low and females are favourably disposed towards. Zabalza et al (1970, pp 91-92) observe that women teachers show in general a much lower tendency to leave the teacher job market because of relative career prospects elsewhere. The significance of this finding is that it suggests that there will be less 'desertion' by the female population of education students on graduation thereby reducing the apparent 'general training' to 'specific training' after all. This is comforting for the high level teacher supply market in Nigeria taking into account the fairly high proportion of female education students (34%).

(iii)Marital Status

Marriage poses as much, if not greater constraints on 'job shopping' amongst prospective employees and thus conduces inertia. This is intuitively obvious. The impact of 'job-search' costs will be more pronounced for a married couple than for a spinster or bachelor and thus would discourage most education students from embarking on a costly venture like 'job shopping' when a teaching job is readily available. When seen in this light, and taking into account capital market imperfections for investors in 'job-search' and the low social-class background of most of the students the tendency towards 'desertion' will be considerably reduced. The significance of marriage induced inertia for the economics of high level teacher supply will be more appreciated in view of the fact that over half of the education student population in Nigerian universities are married (see Chapter 4).

The excursion into psychology and sociology coupled with the confirming economic findings points to the fact that inertia variables such as age, sex and marital status, to a large extent, weaken the strength in the domain-distinction argument in the human capital paradigm of training.

3. Signalling/screening illusion

Although a University Degree serves as a visa (screen or potential signal) into the labour market, there is a signalling/screening illusion arising due to what I shall call 'screening within screening' or 'tacit statistical discrimination' in several job markets which would constrain most education graduates to enter into the teacher job market (may be against their wish - having acquired a potential signal which they believe will gain them entry into any job market), thus making the teachers' bursary scheme an efficient high level teaching manpower supply policy, if not in the long-run at least in the short-run. This 'screening within screening' can be infered from a recent unpublished study, based on a survey of 150 major employers, conducted by a team of researchers at the University of Brunel, reported in the Times Educational Supplement of Friday, November 11, 1983, p. 3 under the title. "Polys Losing out in graduates' jobs race". According to the report:

> In general ... employers were less interested in the subject of a graduate's degree than the personal qualities he or she showed. These included 'initiative, brightness, interests, adaptability, social skills, flexibility, potential and flair.

The reporter went on to add that although the researchers:

> found that employers rarely mentioned the type of secondary school, social class, or family background as factors in recruitment. But some factors such as "communication skills" or "con-

> fidence at interview" might stand as proxy for these. "We are not asserting here that employers do select by family background and perceptions of social status, but that the evidence suggests that they may do so," they conclude.

What conclusion does this extensively quoted report lead us to? In my opinion, education graduates, no doubt, have acquired a visa into the labour market but the fact still remains that it seems to be a visa with a limited 'port of entry' irrespective of the domain-distinction argument in the human capital paradigm of training. As the evidence suggests most education students come from low social-class background, their degree certificate no doubt will enhance their upward social-class mobility but the stigma of social-class origin will still hang around them on the grounds of which they seem most likely to face 'tacit statistical discrimination' in most job markets outside the teacher job market: a situation which will constrain most education graduates to enter the teacher job market whether they expect to do so or not. This is a type of labour market segmentation within the primary segment, in which case higher education credential matters but social-class origin may matter more (i.e. relegation to the 'subordinate' Primary segment).

There is still another type of 'tacit statistical discrimination' that may still work against most education students due to their social-class background. This is what I shall call 'links' or 'connections'. This is a type of 'screening within screening' (i.e. social-class background effect in job markets) which arises when, in spite of the fact that university graduates have the same level of degree certificate or even grades, some get easily fixed into top paying jobs by either 'daddy' or 'mummy' picking up the phone/writing

to a highly placed one-time class-mate at the university or colleague in a previously employed firm asking him/her to do what best he can to fix his child who has just graduated out of university into a job. Hard empirical evidence may not exist to support the 'connection' theory but that does not mean it does not operate. In a nutshell, when 'screening within screening' is seriously taken into account (with particular reference to education students in Nigeria) what appears to be a 'general-training' could be reduced to a 'teacher job market specific training', to a considerable extent.

4. Internal Labour Market

The evidence on education students previous training and employment shows that most of them had previously obtained a lower teaching qualification and were previously employed in the teaching profession. Precisely 68.3 percent were previously employed in the teacher job market. This suggests that most education students already belong to an internal labour market within the professional job market matrice. Each internal job/labour market, whether demarcated by professions or establishment (firms/Government service sectors) has its own reward and punishment mechanisms that helps to attest to either its fairness to its long serving employees or punishment for inconsistent and disloyal employees such as 'deserters'.

For most Government job markets (e.g. teaching service) part of the reward system is pension gratuities for long and consistent serving employees who have an unbroken service record over a stipulated number of years (usually 10-15 years). This mechanism would discourage most education students from deserting to other job markets

on graduation since they would lose part, if not all of their pension rights if they do not complete the stipulated number of years. Thus the further training of most education students (68.3%) could be seen as 'a fringe benefit' in the internal teacher job market since the period of training (3-4 years) is counted as part of service years (i.e. in-service training without pay) with full privileges and promotional prospects, and the enhanced chances of assignment to new and higher responsibilities within the organisational hierarchy on 're-entry' after completion of training. This situation will constrain most education students on graduation to 're-enter' and remain in the teaching profession. The opportunity cost of 'deserting' (i.e. in terms of loss of privileges and promotional prospects in the internal teacher job market) would make 'deserting' a less profitable option.

Even if most are willing to sacrifice this right, there is another internal labour market mechanism that would discourage many from doing so. This is the 'entry-level' in the 'job ladder' in other internal labour markets outside the teacher job market. Those who risk entering other internal job markets may have to join at lower levels of the job ladder in those markets which implies a loss of seniority (i.e. beginning afresh). This would equally be a hardly attractive option for most.

When all these internal labour market phenomena are put together with a particular reference to the teacher job market in Nigeria, what is supposed to be a 'general training' of most education students would be significantly reduced to a 'specific training' since the domain-distinction argument is based on ease of mobility which for most

education students seems constrained, as the evidence suggests.

5. Attrition Rates

The case made above would, of course, have been greatly strengthened if, in addition to what has been essentially a apriori argument, we could have presented figures on attrition rates, over the years, to show what had happened to past graduates who had benefited from Teachers Bursaries. Unfortunately, these figures have never been compiled by the Ministry of Education, nor is there any previous academic study on which we might have drawn. To have compiled these figures ourselves would have been a major undertaking in view of the state of the Ministry's records, and would have greatly lengthened the period of study necessary for the completion of this thesis. However, we hope that future researchers, on the subject, will fill the missing gap by endeavouring to collect and compile data on qualified graduate teacher attrition rates, over the years, to show the extent to which the apriori argument presented here is supported by the empirical evidence.

SUMMARY AND CONCLUSION

The thesis that was argued in this chapter is that the loss of B.Ed. graduates in Nigeria that seem likely to occur due to 'desertion'/'poaching' because of the supposedly 'general training' they have undergone at public expense will not be substantial enough to defeat the policy objective of the teachers bursary scheme in Nigeria as an active graduate teacher supply policy, if not in the long-run at least in the short-run. To establish the thesis the domain-distinction argument in the human capital paradigm of training, whose underlying thesis is the 'desertion'/'poaching' syndrome, was critically reviewed with particular reference to undergraduate trainee teachers (i.e. B.Ed. students) in Nigeria. The review showed that although tightening the bonding system of bursaries could be a way to improve the allocative efficiency of the graduate teacher supply market in Nigeria, the fear that B.Ed. graduates will drift into other professions, which would defeat the object of the scheme, may be unwarranted.

APPENDIX 'A'

Documents:

1. Cover Letter
2. Sample Questionnaire

University of London Institute of Education
Director: William Taylor CBE, BScEcon, PhD, DCL, DSc, Litt.D, FCCEA, FCP
Deputy Director: Professor Denis Lawton, BA, PhD

Department of Economic, Administrative and Policy Studies in Education
56/59 Gordon Square, London WC1H 0NT Telephone: 01-636 1500

Professor T. Blackstone
Professor M. Blaug

24 March 1983.

TO WHOM IT MAY CONCERN

The bearer, Mr. Emmanuel Obasi, is a Ph.D. research student in the Department of the Economics of Education at the University of London Institute of Education.

As part of his thesis requirement, he is carrying out a students survey in Nigerian universities during the period April - September, 1983. For this purpose, he requires some information/data from your institution.

I shall be extremely grateful if you give him all the necessary assistance he may require.

Yours sincerely,

Mark Blaug

Mark Blaug.

EDUCATION STUDENT'S SURVEY: 1982/83 SESSION

February, 1983

Dear Education Student,

I am a Ph.D research student in the University of London, and my research interest focuses on the career decision of higher education students in Nigeria.

Experience and interaction with students have revealed that in spite of the fact that Education students are the future builders of our great Nation, not much attempt has been made to understand the career decision and problems of Education students in Nigeria. My present effort is a modest attempt in this direction and I am very optimistic that you will give me your fullest co-operation, for your own present benefit and that of thousands of students coming after you.

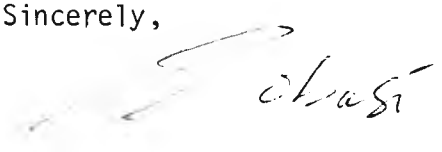
Enclosed along with this letter is a 32 item pre-coded structured questionnaire for your completion. You will find the format not only very easy to understand and simple to complete, but also very instructive as you may benefit from the experience in the design of your own research questionnaire. On the average it will take 10 minutes to complete.

You are assured that the information obtained from you will be treated as confidential and anonymously presented in the analysis.

Above all every participant in this survey is guaranteed a free copy of the research abstract on request.

Thank you in advance for your co-operation.

Sincerely,



E. Obasi
Department of Economics of Education
Institute of Education
University of London.

Note: Your inclusion in this survey is based on a simple random sampling from the population of Education Students in your University.

EDUCATION STUDENTS SURVEY QUESTIONNAIRE: 1983

Instruction

Please indicate (by marking X) which of the provided answers that best describe you in the light of a particular question. (e.g., What country do you come from?)
X Nigeria

_ Ghana

Serial No		Col/ Code	Skip To
1	What is your sex?		
	_____Male	1	
	_____Female	2	
2	Indicate which of this age range you belong to?		
	_____16-20	1	
	_____21-25	2	
	_____26-30	3	
	_____31-35	4	
	_____36-40	5	
	_____41-45	6	
	_____46-50	7	
3	Which of these states is your home state?		
	_____Anambra	01	
	_____Bauchi	02	
	_____Bendel	03	
	_____Benue	04	
	_____Borno	05	
	_____Cross River	06	
	_____Gongola	07	
	_____Imo	08	
	_____Kaduna	09	
	_____Kano	10	

Serial No		Col/ Code	Skip To
	____Kwara	11	
	____Lagos	12	
	____Niger	13	
	____Ogun	14	
	____Ondo	15	
	____Oyo	16	
	____Plateau	17	
	____Rivers	18	
	____Sokoto	19	
4	What is your marital status?		
	____Single	1	
	____Married	2	
	____Divorced/Widowed	3	
5	In which of these universities are you a student?		
	____ABU	1	
	____UI	2	
	____UNN	3	
6	What course are you majoring in?		
	____ BSc Education (Chemistry, Physics, Biology, Agriculture, etc)	1	
	____ B A Education (History, Languages, Arts, Religious Studies, etc)	2	
	____ BSc Education (Economics, Sociology, Geography, Business Studies, etc)	3	
7	What is your present year at the University?		
	____Preliminary	1	
	____Part I	2	
	____Part II	3	
	____Part III	4	

Serial No		Col/ Code	Skip To
8	Which of the following was your major source of information about the availability of your course/career at University?		
	_____ Parents, friends, relatives, Wife/ Husband, fiance.	1	
	_____ Teachers/School career adviser.	2	
	_____ Publications, Newspapers, Posters, Pamphlets etc	3	
9	Have you effected any change of major course of study since entering the University?		
	_____ Yes	1	
	_____ No	2	
10	If Yes what was your previous major?		
	_____ Medicine, dentistry and Health Sciences	1	
	_____ Engineering, Technology and Computer Science	2	
	_____ Agriculture, forestry and veterinary science	3	
	_____ Pure Sciences - Chemistry, Physics, Maths, Zoology etc	4	
	_____ Social Sciences - Economics, Geography, Admin, Business etc	5	
	_____ Architecture, town and country planning. Enviromental design	6	
	_____ Arts, Languages, Literature etc	7	
11	If you have effected a change of major course which of the following reasons apply most?		
	_____ Long period of training and no financial support?	1	
	_____ Inability to cope with the demands of the course?	2	
	_____ No financial support only?	3	

Serial No		Col/ Code	Skip To
12	Indicate the maximum qualification obtained before entering the University.		
	____WASC/GCE 'O' LEVEL	1	
	____HSC/GCE 'A' LEVEL	2	
	____NCE or Diploma/Certificate in Education	3	
13	When did you obtain your last highest qualification?		
	____Before 1970	1	
	____1971-1973	2	
	____1974-1976	3	
	____1977-1979	4	
	____1980-1982	5	
14	Are you a beneficiary of the Federal Governments Teachers' Bursary Award?		
	____Yes		
	____No		
15	If yes in Q 14, did you know about the Award before or after entering the University?		
	____Before entering	1	
	____After entering	2	
16	If you knew about the Award before entering the University, what was the source of your information?		
	____Parents, friends, relatives, wife/ husband, fiance	1	
	____Teachers/School career, advisers	2	
	____Publications, Newspapers, Posters, Pamphlets etc	3	

Serial No		Col/ Code	Skip To
17	If you are a beneficiary of the Award which of these categories best describe the range of the Award per Student <u>including</u> teaching practice allowance?		
	_____ Less than ₦ 300	1	
	_____ ₦ 300 - ₦ 399	2	
	_____ ₦ 400 - ₦ 499	3	
	_____ ₦ 500 - ₦ 599	4	
	_____ ₦ 600 - ₦ 699	5	
	_____ ₦ 700 - ₦ 799	6	
	_____ More than ₦ 800	7	
18	How would a decision to discontinue the Teachers' Bursary Award affect you financially?		
	_____ I will be seriously affected financially	1	
	_____ I will not be affected financially at all	2	
19	What is your major source of income as a student <u>excluding</u> the Teachers' Bursary Award?		
	_____ Parents and relatives	1	
	_____ Friends and acquaintances	2	
	_____ Wife/husband	3	
	_____ Previous Savings	4	
	_____ Salaries and allowances due from study leave with pay	5	
	_____ Vacation employment	6	
	_____ Any other outside these	7	
20	Estimate your average annual income as a student <u>excluding the Bursary</u>.		
	_____ Less than ₦ 100	1	
	_____ ₦ 100 - ₦ 199	2	
	_____ ₦ 200 - ₦ 299	3	
	_____ ₦ 300 - ₦ 399	4	
	_____ ₦ 400 - ₦ 499	5	

Serial No		Col/ Code	Skip To
	____ ₦ 500 - ₦ 599	6	
	____ More than ₦ 600	7	
21	Now put together the values of your bursary in Q 17 and your average income in Q 20; do you spend the whole of the total amount in a year or you save some of it?		
	____ I spend the whole of the total amount	1	
	____ I save some of the total amount	2	
22	If you save some of the total amount, what proportion is saved?		
	____ Less than 5%	1	
	____ 5% - 9%	2	
	____ 10% - 14%	3	
	____ 15% - 19%	4	
	____ 20% - 24%	5	
	____ 25% - 29%	6	
	____ More than 30%	7	
23	Were you previously employed before entering the University?		
	____ Yes	1	
	____ No	2	
24	If yes, where were you employed?		
	____ Teaching Service	1	
	____ Civil Service	2	
	____ Private Sector	3	
25	Which of these economic conditions in Nigeria today is most likely to influence a student to major in Education?		
	____ The relatively high salary/earnings in the teaching profession when compared with other professions like Medicine, Law, Engineering etc	1	
	____ The Teachers' Bursary Award	2	

Serial No		Col/ Code	Skip To
26	What are your parents' occupations? Mark X in the appropriate box. Father Mother Subsistence farmer/craftsman 1 Self-employed petty business-man/woman 2 Civil Servant 3 Government employer other than Civil Service (e.g. Teacher, Nurse, Police, Army, etc) 4 Private Sector employee 5 Self-employed professional/ Business Tycoon 6 Unemployed man/housewife 7 Recognised leader, pastor/ minister of Religion 8		
27	What is the highest level of your parents' education? Mark X in the appropriate box. Father Mother None 1 Primary 2 Vocational Training 3 Secondary 4 Higher Education (not University) 5 Higher Education (University) 6		
28	Which of these ranges best describe your parents' annual income range? ____ Less than ₦ 500 01 ____ ₦ 500 - ₦ 999 02 ____ ₦ 1,000 - ₦ 1,499 03 ____ ₦ 1,500 - ₦ 1,999 04 ____ ₦ 2,000 - ₦ 2,499 05 ____ ₦ 2,500 - ₦ 2,999 06		

Serial No		Col/ Code	Skip To
	_____ ₦ 3,000 - ₦ 3,499	07	
	_____ ₦ 3,500 - ₦ 3,999	08	
	_____ ₦ 4,000 - ₦ 4,449	09	
	_____ ₦ 4,500 - ₦ 4,999	10	
	_____ More than ₦ 5,000	11	
29	Which of these major courses is the least costly financially in terms of the number of years required to graduate?		
	_____ Medicine (MB, BS)	1	
	_____ Engineering (Bs, Engineering)	2	
	_____ Education (B Ed)	3	
30	On the completion of your study where are you most likely to start your first employment?		
	_____ Civil Service	1	
	_____ Teaching Service	2	
	_____ Private Sector	3	
31	If Teaching, how long do you hope to be in this employment?		
	_____ 1 - 5 years	1	
	_____ 6 - 10 years	2	
	_____ 11 - 15 years	3	
	_____ 16 - 20 years	4	
	_____ 21 - 25 years	5	
	_____ beyond 25 years	6	
32	Which of these sectors is likely to be your permanent employment in the far future?		
	_____ Teaching Service	1	
	_____ Civil Service	2	
	_____ Private Sector	3	

Thank you very much for sparing your precious time.

APPENDIX 'C'

Documents:

Education Students Survey Data Roster

UNIVERSITY OF LONDON INSTITUTE OF EDUCATION

DEPARTMENT OF STATISTICS AND COMPUTING 01-636 1500

General Coding Form

NAME	PROGRAM	DATE
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APPENDIX 'D'

Documents:

1. University Enrolment Statistics
2. University Graduate output Statistics

APPENDIX 'D'

TABLE 1

Enrolment in Nigerian Federal Universities by field of study 1968-1983.

Field of study	Academic year ending June															
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Administration	n.a.	511	406	702	1008	1087	1269	1475	1757	2058	2433	1335	2593	3963	4162	5211
Arts	1540	1907	2059	2800	3148	3530	3744	3934	4050	6576	4923	5560	6482	10774	13510	14113
Education	743	1010	1265	1916	2224	2998	3612	4543	5839	7713	8406	8128	9978	11274	14170	15554
Law	349	438	488	712	910	1003	1092	1176	1615	1781	2032	1842	2157	3865	4467	4935
Social Science	1210	1049	1243	1623	1844	1944	2315	2959	4581	4378	5444	7290	8822	9207	11640	13024
Health Profession	870	1022	1221	2196	2155	2598	2803	3496	4195	5377	5608	5893	6882	7828	9037	9720
Engineering & Technology	465	609	675	1302	1594	2264	2702	2852	3249	3768	4294	4956	5775	7045	7990	9358
Natural Science	1091	1357	1594	2512	2913	3465	4022	4148	4853	5041	6649	7633	8159	9503	12900	13529
Agricultural Studies	505	685	744	1172	1297	2000	1669	1865	2147	3040	2744	2764	3030	3930	4161	4475
TOTAL	6773	8588	9695	14935	17093	20889	23228	26448	32286	39732	42533	45401	54329	67389	82037	89919

Source: Based on National Universities Commission (NUC) Statistics, 1983.

APPENDIX 'D'

TABLE 2

Percentage share (%) of total enrolment in Nigerian Federal Universities by field of study 1968-1983.

Field of study	Academic year ending June.															
	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983
Administration	n.a.	6.0	4.2	4.7	5.9	5.2	5.5	5.6	5.4	5.2	5.7	2.9	4.6	5.9	5.1	5.8
Arts	22.7	22.2	21.2	18.8	18.4	16.9	16.1	14.9	12.5	16.6	11.6	12.3	11.5	16.0	16.5	15.7
Education	11.0	11.7	13.1	12.8	13.0	14.4	15.6	17.2	18.1	19.4	19.8	17.9	17.7	16.7	17.3	17.3
Law	5.2	5.1	5.0	4.8	5.3	4.8	4.7	4.5	5.0	4.5	4.8	4.1	3.8	5.7	5.4	5.5
Social Science	17.9	12.2	12.8	10.9	10.8	9.3	10.0	11.2	14.2	11.0	12.8	16.1	15.7	13.7	14.2	14.5
Health Profession	12.8	11.9	12.6	14.7	12.6	12.4	12.1	13.2	13.0	13.5	13.2	13.0	12.2	11.6	11.0	10.8
Enginnering & Technology	6.9	7.1	7.0	8.7	9.3	10.8	11.6	10.8	10.1	9.5	10.0	10.9	10.3	10.5	9.7	10.4
Natural Science	16.1	15.8	16.4	16.8	17.0	16.6	17.3	15.7	15.0	12.7	15.6	16.8	14.5	14.1	15.7	15.0
Agricultural Studies	7.5	8.0	7.7	7.8	7.6	9.6	7.2	7.1	6.7	7.7	6.5	6.1	5.4	5.8	5.1	5.0
TOTAL	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: Based on Table 1, Appendix 'D'.

APPENDIX 'D'

TABLE 3

First degree award by Nigerian Universities 1971-1977.

Field of Study	Academic year ending June.						
	1971	1972	1973	1974	1975	1976	1977
Administration	157	190	153	185	217	277	295
Arts	614	615	606	547	480	762	1061
Education	174	311	367	431	586	787	1133
Law	130	174	171	183	162	188	277
Social Science	406	424	467	538	640	581	740
Health Profession	176	273	364	299	448	635	726
Engineering & Technology	224	317	307	321	387	442	719
Natural Science	448	461	525	620	585	621	800
Agricultural Studies	128	260	214	285	326	421	326
Mass communication	16	34	31	36	47	56	62
TOTAL	2473	3059	3205	3445	3878	4770	6139

Source: Nigerian abstract of Statistics, 1981, p. 69, Table 5.13.

APPLICATION FOR TEACHERS BURSARY AWARD UNDER THE
FEDERAL GOVERNMENT TEACHER TRAINING SCHEME FOR
POST-PRIMARY EDUCATIONAL INSTITUTIONS

Part 1 - To be filled in by the applicant

1. Name in full .....
SURNAME (in block letters) OTHER NAMES (Rev/Mr/Mrs/ Miss/Alhaji)

2. Maiden Name ..... (Miss)
(Where applicable)

3.(a) School Address .....

.....

(b) Permanent Home Address .....
(Post Office box please)

.....

.....

4. State of Origin ..... Age .....

5. (a) Proposed course of study (Tick (✓) whichever is appropriate)
(i) B.A. (Ed/B.Ed.)(Art).
(ii) B.Sc. (Ed/B.Ed.)(Science)
(iii) P.G.D.E.
(iv) N.C.E
(v) .....

(b) Subjects (i) .....(ii) .....

(iii) .....(iv) .....

6. For P.G.D.E. and post N.C.E. students.
(i) Length of service after graduation.
Check (✓) for the appropriate item.
(ii) (a) On study leave with pay and course allowance. ( )
(b) On study leave with pay only. ( )
(c) On study leave without pay and without course allowance. ( )
(iii) Name and address of last employer:

.....

.....

.....
(iv) Address of last station and date:

.....

.....

Evidence should be produced to substantiate 6 (ii) above.

For Non-P.G.D.E. only.

7. Last School attended .....

.....

8. Date and year of admission .....

Length of Course .....

Date of Graduation .....

Certificate obtained and year awarded .....
(Attach photocopy of all credentials)

Employment since leaving school .....

Name of Employer .....

Address and Place of Work .....

.....

9. (a) Have you obtained admission to any college or University?

Yes/No .....

(b) If Yes state name of Institution .....

.....
(Attach photocopy of admission letter)

(c) If already in an Institution, state:

(i) Year of Admission .....

(ii) Year of Course .....

(iii)Anticipated year of completion .....

Date ..... Applicant's Signature .....

Part II-To be signed by appropriate University or College Authority
(Where applicable)

I certify that the applicant is a student of/has been granted admission into this University/Department/College of Education/ in the Faculty of ..... and that the particulars he/she has given above are true and accurate.

Signature .....

Rank of Officer .....

.....
Official Stamp

Part III-For Official use in Federal Ministry of Education only.

Conditions of Award:-

1. (a) Every candidate who is successful in getting an Award of Scholarship will be expected to enter into Bond with the Federal Government or the Federal Ministry of Education acting on its behalf, to teach anywhere in Nigeria for a minimum period of 2 (two) years.

(b) Where a successful candidate is under twenty-one years of age, his parents or other close relatives will be expected to guarantee that the candidate will teach for the stipulated number of years.

2. Change of course and or extension of the period of award MUST be approved in writing by the Federal Ministry of Education. Application for such approval should be passed through the Head of Department and reach this Ministry not later than October of the academic session.

3. Completion of application forms is not a guarantee for the Award.

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