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THE EMPLOYMENT POTENTIAL OF MATURE STUDENTS

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ABSTRACT

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The aim of the research was to assess the significance of higher education qualifications in the determination of the employment potential of mature students, having regard to other factors which may influence employment potential. The mature student was defined as being aged 25 and over on entry, attending a higher education establishment in pursuit of a qualification, within the parameters of the Department of Education and Science's definition of advanced further education.

The research was based on the assumption that adults, in re-assessing their career development, sought to increase their stock of human capital and portfolio of educational credentials via the pursuit of a higher education qualification, in order to move upwards in the occupational hierarchy and across the boundary between the secondary and primary labour markets, whilst at the same time reducing the likelihood, and duration, of unemployment occurring.

An initial survey of mature students indicated that 65% of respondents entered higher education for career purposes, with the percentage lower for females and declining with age. All students anticipated more problems than were actually experienced, whilst females anticipated more problems than males but actually experienced fewer. Furthermore, all students received greater benefits than they had anticipated and this was especially true of females.

A follow-up survey produced results that showed some 65% of all students achieved employment and nearly 17% continued their studies, with more males achieving employment and more females continuing their studies. Such results formed the basis of the construction of a statistical model which enabled an indicator of the employment potential of mature students, given various characteristics, to be produced. The results indicated that employment potential declined after the age of 40 was reached, was much higher with six years of relevant experience, was very dependent on mobility and was highest for diplomates amongst the qualification category. Finally, the model was developed to incorporate local labour market conditions and highlighted the different probabilities of employment between regions and the 'general' probability of mature students with higher education qualifications achieving employment within Great Britain.

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CHAPTER ONE

INTRODUCTION

"It was a major sacrifice undertaking the course, particularly financial, but I now have no regrets and only wish I had had the opportunity to do the course and change career ten years ago". (40 year old married male student)."

"In the present economic climate a degree may be helpful in acquiring a job. Although it was not a strictly necessary qualification, I discovered it was the deciding factor in my appointment." (30 year old divorced female).

The views offered in the quotations above would appear to indicate that higher education qualifications are very important in securing employment and assisting career development. The aim of the research was to determine the extent to which this actually is the case i.e. to assess the significance of higher education qualifications in the determination of the employment potential of mature students. However, other factors, such as age, sex, family circumstances, mobility and previous experience, are also likely to have an influence upon the employment potential of mature students and therefore need to be considered alongside higher education qualifications. Furthermore, the likelihood of a mature student actually obtaining employment would also depend upon the prevailing labour market conditions and economic climate.

Therefore, in attempting to assess the relative significance of higher education qualifications a series of objectives were formulated:

- (1) to identify the characteristics of mature students;
- (2) to discover the origins of mature students and analyse their reasons for entering higher education and their particular course of study;
- (3) to assess the experience of mature students within higher education;
- (4) to determine the destinations of mature students on completion of their studies;

- (5) to construct a statistical model to identify the relationship between the employment potential of mature students' higher education qualifications and other relevant factors;
- (6) to develop the statistical model to allow for labour market trends and prevailing economic climate and thereby arrive at an indicator of the probability of employment.

The fulfilment of these objectives constitutes the focus of attention of the research but, prior to describing the stages involved in the process, it is necessary to place the research within context.

At the outset the concept of the 'mature student' must be examined. It may be argued that the adjective, mature, is not altogether appropriate when compared with the entrant to higher education directly from school. Evans (1984) suggested the term 'non-standard' as an alternative. However, Evans' study referred to students not holding the normal minimum entry qualifications for admission to higher education courses, whilst this research is concerned with those students who may well possess the prerequisite qualifications, but are not entering higher education at the normal age of entry, rather they are entering either after a period in the labour market,⁽¹⁾ or after domestic responsibilities have ceased to be a constraint. The Association of University Teachers (A.U.T.) (1983) reported that 'the major of mature students are not simply postponed qualified leavers: many are well into their twenties and bring to their studies maturity and depth which often may be lacking in the first-year eighteen year old'. Evans (1984) also quoted from the Council for National Academic Awards (C.N.A.A.) regulations regarding admission of students who do not meet normal entry requirements and the regulation applying to mature students is worthy of repetition here:

"An institution may admit a mature student provided that the institution is first satisfied that the student has the necessary motivation, potential and knowledge to follow the course successfully."(2)

Within the literature the 'mature student' has been subject to a variety of other definitions. Jones and Williams (1979) took as their guidelines that 'an adult student should be over twenty-one and have stepped out of education for at least a year and with some sense of finality'. However, they recognised that in order to qualify for a maintenance grant in higher education 'mature students must be over twenty-five and have been in full time employment for at least three years.' It could be that Jones and Williams used this age differential to distinguish between adult and mature students. An earlier study by Nisbet and Welsh (1973) regarded mature students as those who had had a break of at least two-years between leaving school and re-entering full-time education, either as an undergraduate or in order to gain university entrance qualifications. Squires (1981) presented a series of reasons why the mature student should be defined as those aged twenty-one, rather than twenty-five, on entry to higher education but it could be argued that he is in fact defining adult, rather than mature, students in comparison with the conventional eighteen-year old entrant.

However, since the intention of this research is to emphasise the age differential between the mature student and the conventional age student, mature students are regarded as those who are twenty-five years old or over. This view is supported by Hopper and Osborn (1975) who regarded the typical full-time student as being aged between twenty-five and twenty-nine. Interestingly, however, in a survey of teachers in their first year of service Hopper and Osborn discovered that the largest proportion of males was in the twenty-five to twenty-nine age bracket whilst the largest proportion of females was in the forty plus age bracket! Jones and Williams (1979) highlighted similar results in an examination of the ages of females in universities: at ages between twenty-one and twenty-four one entrant in four was a female, at ages between twenty-five and twenty-nine the ratio became one in three; over thirty the ratio was almost one in two.

Furthermore, the recent division by the Department of Education and Science⁽³⁾ of 'mature entrants' into two categories: those who are 21-24 years old and those aged over 25, would serve to emphasise what has been termed the younger mature and older mature student by Lucas and Ward (1985) i.e. the adult and mature student as indicated above.

It is therefore, considered appropriate to adopt as a definition of the mature student 'one who enters higher education aged twenty-five years and over'

In order to facilitate the development of the model in objective (6) above, it is necessary to clarify the distinction between employment potential and employment probability.

Employment potential is defined as the likelihood of mature students acquiring employment given their particular profile of characteristics. Employment probability is defined as the likelihood of mature students acquiring employment, given their profile of characteristics, but also incorporating a measure of local labour market trends and the prevailing economic climate.

This distinction is made partly as a result of the observation made by O'Connor (1981) that the 'most important single factor affecting probabilities of employment on leaving work experience schemes was the recession.' In addition it is considered important to consider the relative ranking⁽⁴⁾ of a mature entrant within the graduate labour market without, at least initially, bringing demand factors into consideration.

O'Connor's (1981) definition of employment probability serves as a useful starting point for a discussion on employment potential and employment probability. He used 'the proportion of trainees entering employment immediately on leaving their schemes' as dependent variable. In the context of the 'graduate labour market,' the achievement of employment within twenty weeks of completion of the course of study would be a better indicator, as this would allow mature students to be compared with all students. This also has the advantage of being one time period of unemployment duration adopted by the Department of Employment,⁽⁵⁾ so it allows comparisons with Department of Employment statistics.

At the outset it is worth emphasising that the climate within which the research was undertaken did not afford much in the way of a conducive atmosphere. The education world, and in particular higher

education, has been forced to radically alter its aims and objectives in the light of government economic policy and uncertainty of future demands etc. Although the number of students within higher education has increased dramatically over the last twenty years or so, evidence exists of diminishing marginal utility being present i.e. a decline in client satisfaction with the output of the higher education system. In addition, graduates are being forced to accept jobs previously requiring lower level entry qualifications, and it is the case that a higher education qualification no longer carries with it a guarantee of an employment post of reasonable status.

On the other hand the changing structure of the economy has brought with it increased demands for graduates in certain strategic areas, a void, which it has been suggested may be filled by mature graduates.

However, the true picture would seem to indicate that there is discrimination against 'older' recruits,⁽⁶⁾ a factor which is not widely recognised as being the case. Thus, the mature student entering higher education, full of good intentions of improving career prospects, is likely to face severe constraints in the fulfilment of his or her aims. Although while evidence exists of factors which influence a mature student's entry to higher education, and also of the problems faced in acquiring employment, no studies have attempted to bridge the gap between the decision to enter higher education and the 'return' into the labour market. This research aims to fill the gap.

However, there are difficulties in undertaking such a task. Whatever cohort of mature students is the source of investigation it would be impossible to achieve homogeneity within such a group. Mature students enter higher education from a wide variety of differing backgrounds, with a range of previous experience and with a diversity of attitudes and perceptions. Nevertheless, by adopting a 'macro' perspective it is anticipated that the effects of differences within the sample group can be minimised. The definition of mature students adopted at least seeks to emphasise the time difference between completion of secondary education and the commencement of higher education, and the concept of a higher education qualification is standardised by adoption of the Department of Education and Science's

(D.E.S.) definition of advanced further education:

"Courses followed by students undertaking post-graduate, post-diploma or research work; courses in preparation for university first and higher degrees; CNAAs first and higher degrees; the HND or HNC; the Diploma in Management Studies; or a final professional examination or college diploma or associateship if above the standard of instruction required for the ordinary national certificate or general certificate of education (advanced level); or any course of study of equivalent standard."

Furthermore, one must recognise the criticisms that could rightly be made of such a definition of employment potential. Bourner and Frost (1985) warned against taking employment/unemployment rates in isolation as a guide to 'value in the labour market' and argue that earnings, for example, should be included in the indicator of the labour market value for graduates. This research assumes, however, that one of the prime intentions of mature students is to achieve suitable employment at the completion of their studies.⁽⁷⁾ It could thus be argued that earnings may not be as important a factor as they would be in the case of the conventional student.⁽⁸⁾ One must also recognise that any generalisations made from the results of this research should be treated with some caution. However, the development of the measure employment potential into employment probability is one step in making such generalisations more acceptable.

In order to arrive at a measure of the employment potential of a mature student with a higher education qualification the research therefore proceeds through a series of stages.

Initially, the research is put into context in relation to the existing literature in this and other related fields via a critical examination of studies in the areas of occupational choice, human capital, credentialism, labour market segmentation and unemployment dynamics. In addition, as a background, an analysis is made of studies relating to the graduate labour market, and the chapter is concluded by a review of studies undertaken on mature students, the relationship between education and employment and the factors which determine the duration of unemployment.

Chapter three provides a statistical background of the numbers of students within higher education on both sides of the binary line, the numbers of mature students (as defined earlier), the unemployment trends within the graduate labour market and Department of Employment statistics, relating to median duration of unemployment and likelihood of ceasing to be unemployed, at the time the study was undertaken.

Chapter four describes the methodologies adopted in collecting and analysing the data on mature students. It indicates how the original sample group was chosen and the problems involved in undertaking a survey of such a group e.g. fluctuating addresses, most appropriate time of academic year, confidentiality of college records etc. The mechanics of the follow-up survey are described as well as the objectives of the survey of employers' views of mature students and methods used to collect and analyse such responses. Finally, the statistical model of employment potential was constructed, having described the range of techniques available and identified why the particular model was chosen.

Chapter five presents the findings of the initial survey of mature students and highlights their characteristics i.e. their age and sex distribution, their marital status and family size; the level of study within higher education i.e. diploma, professional, degree and postgraduate levels; their employment history and entry qualifications; and their reasons for entering higher education and choosing their course of study.

Chapter six provides an analysis of the difficulties and problems anticipated on entry and the extent to which they were encountered during their studies; the expected benefits to be derived from the course and the extent to which they were fulfilled; and the current views of mature students with regard to their course of study and their perceptions of their futures.

The results of the follow-up survey of mature students are analysed in chapter seven. The destination of the sample group are examined in terms of sex, age, family requirements, academic sector and level of study, employment history and their reasons for entering higher

education. Finally a comparison is made between the findings of the survey and the nearest comparable data made available by Universities Statistical Record.

Chapter eight discusses the determinant of employment potential prior to an investigation of the views of employers on mature recruits. The chapter subsequently utilises the statistical model constructed in chapter four to analyse the data on the destinations of mature students, in order to arrive at an indicator of the employment potential of a mature student, given his/her portfolio of characteristics, and to assess the relative importance of higher education qualifications in the determination of the employment potential of mature students.

Chapter nine describes how the model can be extended to take into consideration the economic climate within each region of the Great Britain as to highlight the likelihood of a mature student actually achieving employment.

The final chapter provides a summary of the main findings and the conclusions to be derived and indicates areas with scope for further investigation.

Therefore, at the end of this research the reader should be aware of the diversity of characters who come under the umbrella of mature students; their objectives in undertaking a course of higher education; their anticipated difficulties in undertaking such a course and their actual experiences; their destinations on completing their studies; the views of prospective employers of this sector of higher education output; and, in addition be able to comprehend the relative significance of the determinants of employment potential, their interactions and the extent to which regional differentials in employment prospects can affect the likelihood of a mature student achieving employment.

Notes

1. In a state of employment or unemployment.
2. CNAA (1979) Principles and Regulations.
3. D.E.S. (1984) Demand for Higher Education 1984-2000.
4. In terms of the requirements of potential employers.
5. See for example: Department of Employment Employment Gazette (monthly)
6. See: Charnley et.al (1980) and Ward (1986) discussed on page 19.
7. This would especially be the case with students who were unemployed prior to their course of study.
8. The median salary of mature students achieving employment is indicated on page 141.

CHAPTER TWO

REVIEW OF THE RELATED LITERATURE

2.1 Background to the Research

2.2 Theoretical Framework

- Theories of Occupational Choice
- Human Capital Theory
- Theory of Credentialism (The Screening Hypothesis)
- Theory of Labour Market Segmentation
- Theory of Unemployment Dynamics and Employment Probability
- Relationship between the Theories and Significance for Research

2.3 Specific Issues

- Mature Students and Their Origins
- Unemployment Duration
- Education and Employment

The research will involve discussion of the labour market for manpower with a higher education qualification and it is therefore useful at the outset to present a background to the research and a review of the related literature.

2.1 Background to the Research

The graduate labour market⁽¹⁾ has been much discussed in recent years. The guiding principle of policy, at least up until the early 1980's, was based on the Robbins Report⁽²⁾ which considered that 'all young persons qualified by ability and attainment to pursue a full-time course in higher education should have the opportunity to do so'. However, recent reports by bodies such as the University Grants Committee⁽³⁾, suggest that 'ability to benefit' should be the guiding principle, although such an underlying principle, and the consequences of government economic policy on higher education may well exacerbate the problems anticipated by Pearson (1985). He argued that 'unless the right priorities are chosen and implemented soon, the country will face a long term decline in the availability of suitably qualified graduate manpower'.

The Robbins principle resulted in a higher education system which responded to changes in the pattern of student demand for courses and witnessed a substantial increase in the number of new graduates. Currently the system produces over 100,000 graduates a year, a figure that has trebled since the time of the Robbins Report. However, in recent years the effects of the recession throughout the economy have affected the graduate labour market and there has been an increase in the unemployment rate of new graduates.⁽⁴⁾ This is relatively less than in the rest of the population, and of late the trend has been reversed, with 9.2% of new graduates being unemployed in December 1985 compared with the peak of 13.5% of new graduates in 1982.⁽⁵⁾ The unemployment rate for all graduates is, of course, much lower.

The increase in graduate output over the last twenty years, (referred to above) or so has been accompanied by a number of investigations into the rates of return on investment in higher education⁽⁶⁾, which have tended to show a decline in both private and social rates of return over the last ten years⁽⁷⁾, although Catto et.al(1981) took pains to stress that such results did not indicate that higher education

should become an obvious candidate for contraction. In addition, data on the relative earnings of graduates and non-graduates led Butler (1978) to suggest that the differentials had generally declined since 1966, although this may well be attributed to the 'filtering down process' i.e. graduates now accepting jobs that would previously have been performed by non-graduates, as a consequence of the increase in supply of graduates. However, if this process were continued one would find 'non-qualified' personnel moving down the job spectrum to lower level jobs and so the effect on relative pay to highly qualified people would be uncertain and may well be neutralised. For example, it is not uncommon for graduates to enter the Civil Service at the executive officer grade, although twelve years ago this would have been regarded as non-graduate employment. Furthermore, many of the professional bodies are increasingly adopting a graduate-only entry. The corollary of this is that when employers encounter an excess of qualified manpower the hiring standards are raised rather than earnings depressed. Butler (1978) argued that there was evidence of a feed-back effect of graduate labour market signals on demand and salary levels, not only to students on higher education courses but also, to a lesser extent, to young people still at school illustrated by the upsurge in demand in the 1970's for vocationally orientated courses. Gordon (1983) also subscribed to such a view but was concerned that in a number of instances changes in demand were based on out-of-date information or on misplaced perceptions of the state of the labour market.

From the perspective of potential mature students, whilst it is reasonable to assume that similar labour market signals are received, the question must be asked as to whether additional information should be available. The demand for mature graduates does not necessarily coincide with demand for graduates in general and there is evidence of discrimination against such a group, to which reference will be made later. Nevertheless, the assumption is made that potential mature students receive the signals to a similar degree.

A further problem arising out of the expansion of higher education is the mismatch between the demand for graduates and the actual supply coming on to the market. Indeed, some studies have tended to support a prediction made during the late 1960's by Kingsley Amis who stated that 'more students will mean worse graduates'.⁽⁸⁾ The Confederation

of British Industry (CBI) (1980) was particularly critical of the way in which student demand for courses, rather than the likely demand for graduate employment in the economy as a whole, tended to shape the expansion. Hunter (1981) discovered that there was some disquiet amongst employers regarding the quality of graduates (especially amongst industrial and commercial employers) whilst the CBI was particularly critical of the lack of motivation, flexibility and creativity amongst technological graduates and the lack of numerical skills amongst art graduates. Gordon (1983) reported the concern expressed by employers at the paucity of industrial and commercial experience amongst graduate recruits, and at their unrealistic and over-optimistic career expectations.

However, it could be correctly argued that there is some inconsistency between what the CBI advocated and what its members actually practised. (9) The polytechnic sector was established on the basis of providing a more vocationally orientated course, which the CBI advocated, and yet Bacon et.al.(1979) for example, discovered that employers placed very little importance on vocational training and that 83% of employers felt that universities produced better students, both academically and intellectually. It is likely however, that such findings do not reflect the relative quality of institutions on either side of the binary line, but rather highlight the difference in academic standards at the point of entry to the institutions. This may well be such that the 'value-added' by polytechnics is greater than that of universities, a potential subject for further investigation. Nevertheless, Gordon (1983) found that a significant proportion of employers adopted a hierarchical system of distinguishing between institutions, the discrimination being against the more vocationally orientated polytechnics and higher education colleges. In addition, he identified similar discrimination within the university sector against the 'modern technological' type institution.

However, not all studies reveal general dissatisfaction amongst graduate employers. Reid (1980) found that whilst there was some dissatisfaction, educational standards were not the main cause of complaint. However, this study was not specifically directed towards graduates, but rather education in general.

Nevertheless, the mismatch between the demand and the supply, and the somewhat subjective criticism of graduate performance, have fuelled the arguments in favour of cutbacks in the higher education sector. Pearson (1983) sought to repudiate such arguments claiming that a major determinant of the excesses, as well as the shortages, within the graduate labour market had been the erratic recruitment policies adopted by employers. Pearson found it surprising that there was 'under-production' in key discipline areas and Pearson and Baker (1984) highlighted a severe shortfall of graduates in the electronics field within two to three years. In a recent article Pearson (1986) concluded that 'more girls and *mature entrants*'⁽¹⁰⁾ need to be encouraged to study I.T. subjects if the expanded number of I.T. places are to be filled. Action is needed now on many fronts if I.T. skill shortages are not to act as a constraint on economic growth into the 1990's.

Such statistics were utilised by the A.U.T. (1983) who indicated errors in the methodology of the D.E.S.'s. projections of student numbers in the 1990's and advocated that the government should give 'serious attention to meeting the further demands of the high technology economy of the 1990's and beyond with a skilled and educated workforce'. The D.E.S. has made a positive move in this direction with its proposals to attract more mathematics and physics graduates into teacher training. However, on the same day that the proposals were outlined by the then Education Secretary Sir Keith Joseph, the Association of Graduate Careers Advisory Services Annual Survey indicated that in order to make up the shortage of mathematics teachers by the 1990's, 35% of all mathematics graduates would have to go into teaching!!

However, the availability of data on graduate employment, and the attitude of employers towards graduates in the literature is a fairly recent phenomenon. In 1973 the lack of adequate information on the relationship between education and employment was identified by a joint working party of the Department of Employment and the Manpower Society. They recommended the strengthening of the link between education and employment, which led to the Department of Employment's Unit for Manpower Studies commencing work on a survey of the early careers of 1970 graduates (Williamson (1981)). The problem of such a

survey, was the time lag between the actual employment (or otherwise) of graduates and the publication of the report. Despite the fact that some interesting results were revealed one must question the applicability of findings regarding a cohort of students who graduated a decade previously.⁽¹¹⁾ Indeed, Bourner and Frost (1985) pointed out the dangers of assuming that generalisations made in an earlier study by Bourner (1981) were necessarily applicable, given the movements of the economy and the dramatic changes within the employment structure of the economy. According to Cross (1984), the recession caused such a change in employers' needs, that 'success in a course of higher education may no longer guarantee every graduate a top job but it is still a very good starter'. He continued by stating that any attempt to assess the future demand for graduates was fraught with difficulty, whilst forecasting the demand for graduates within specific disciplines was even more hazardous. Models of the demand and supply of graduates have been constructed⁽¹²⁾ but they must be treated with considerable caution due to the unrealism of some of the assumptions made. In addition, it is the case that the supply of graduates from the educational system is the result of one set of factors, while the extent and nature of the demand for services flows from quite different influences. Indeed, Pearson and Baker (1984) indicated that the cyclical movements of the economy tend to be reflected in the demand for graduates as a whole whilst structural factors were more relevant in determining the demand for specific disciplines.

Reference was made earlier to the unemployment rate amongst new graduates⁽¹³⁾. However, one has to recognise that the unemployment rate of new graduates is quite different from the official unemployment rate of the registered working population, and indeed from the unemployment rate amongst graduates in general. It is widely recognised that unemployment amongst the 'highly-qualified' is lower than in the population as a whole. The official unemployment rate is constructed from data collected on a consistent basis at local unemployment benefit offices and consists of all persons registering as unemployed in order to claim the benefits to which they are entitled. In contrast to the official unemployment figures, the unemployment rate of new graduates is computed from data collected on an ad hoc basis and depends very

largely on the initiative of individual universities and colleges. An additional reason why it does not really make much sense to compare the new graduate unemployment rate with the general unemployment rate is that unemployment amongst new graduates, to a large extent, can be attributed to the fact that they are entrants to the labour market and therefore commence from a position where none has a job. It has been suggested that a more reasonable comparison would be with the percentage of school leavers still unemployed at the end of the year in which they left school, or with young people in general⁽¹⁴⁾. A comparison on this basis does clearly show the differential between the unemployment rates of the qualified and non-qualified⁽¹⁵⁾.

However, it has become increasingly popular⁽¹⁶⁾ to utilise graduate unemployment rates from all universities to 'show how graduates from different universities are valued by the employment market' (Dixon 1982). Taylor (1984) argued that such 'league tables' are unreliable indicators of the position of individual universities over the longer term. He argued that changes from one year to the next in the position of any individual university are as likely to result from random error in the data as from any underlying causal factors and should therefore be ignored. Furthermore, graduate unemployment rates may not be sufficient as indicators of the labour market facing graduates in general nor comparative rates sufficient 'as indices of the value of different types of graduates' as Tarsh (1982) suggested. A simple illustration made by Bourner and Frost (1985) serves to illustrate the point. They discovered that the unemployment rates on a BA Business Studies Sandwich Degree course and a BEC HND Business Studies course in December 1983 were 20% and 14.6% respectively. It could be inferred erroneously, they argued, that the HND graduate 'was of greater value in the labour market' than the Business Studies graduate. They then examined the median starting salary for both groups and the results of £6,100 and £4,785 for the degree and HND respectively, at least restored the balance, and they argued that graduate unemployment rates 'is a reflection of their aspiration levels in addition to their value in the labour market'.

In fairness to Tarsh (1982) he did indicate that earnings provide a further measure of the value placed on graduates by the labour market

but both studies highlighted that the lack of centralised data on graduate earnings makes the interpretation of first destination statistics⁽¹⁷⁾ somewhat one-sided, and they warned against simplistic interpretation.

In a more recent study Taylor (1985) sought to focus attention not on the proportion of graduates who failed to achieve employment but on some of the more positive aspects of the first destination statistics⁽¹⁸⁾. He constructed indicators which reflected the success, rather than failure, of each university's new crop of graduates in their search for a suitable placement. The two indicators he used were the proportion of graduates who obtained a permanent job and the proportion proceeding to further education or training. He discovered that universities which performed well on one indicator performed badly on the other but no university performed badly on both. He therefore concluded that there was no simple answer to the question of which universities performed well and which badly as far as the first destination of their graduates was concerned.

Relevance to the Research

The value of an examination of comparative rates of unemployment between graduates and people of similar age is that it does point to a significant difference, in favour of graduates, amongst all age groups which serves to highlight the benefit of acquiring a qualification. This view is substantiated by Nickell (1979a), who argued that 'educational attainment contributes to a reduction in the number of unemployment spells an individual can expect to experience'.

From the 'employment potential' viewpoint, the choice of course of study is very important to the mature student, with business studies, computer science, electronics, applied science and mathematics appearing the most beneficial in job prospects. What is surprising is the virtual non-existence of any consideration given to the employment prospects of mature graduates within the literature. This is especially difficult to understand as Gothard (1982) discovered that a considerable proportion of mature entrants to higher education had pre-determined views as to what they wanted to do at the conclusion

of their studies. This contrasts with the finding of Gordon (1983) who discovered that 'companies were concerned with the lack of careful thought that so many undergraduates put into their choice of career!'

However, it is evident that the mature graduate soon discovers barriers erected to prohibit him from certain employment avenues. An illuminating article by Jenny Ward (1986) served to highlight such barriers:

".... Ageism is everywhere. It's much more prevalent than sexism in the job market, or that's how it seems from where I'm standing. Even the BBC is a culprit. Their appointments brochure says in part: 'The BBC's personnel policies are based on equal opportunities for all This applies to opportunity for training and promotion, irrespective of sex, marital status, creed, colour, race or ethnic origin and the BBC is committed to the development and promotion of such equality of opportunity. Traineeships are available to suitably qualified candidates under the age of 25'. The armed services and police have an upper limit on entrance which is arbitrarily and variously fixed between 28 and 33 The administrative grade of the Civil Service, likewise, assumes the rot sets in at 28".

Similarly British Rail has an age ceiling of 24 for graduates, which Charnley et.al. (1980) regarded as being 'ludicrously low'.

This research, therefore, will focus on students as a group within the highly complex market for qualified manpower, which compete against one another, against younger students, against people with different types of training and education and even against, what would appear to be discrimination against them within the labour market.

2.2 Theoretical Framework

The purpose of this section is to discuss the theoretical aspects underlying the research. Initially attention is focussed on the various theories of occupational choice; secondly, on the human capital theory; thirdly, on the theory of credentialism⁽¹⁹⁾; fourthly, on the concept of labour market segmentation and, finally on an examination of unemployment dynamics.

Theories of Occupational Choice

The objective of this particular section is to review the literature on career and occupational choice and the particular role played by higher education in determining such a choice. It is necessary at this juncture to indicate that, since the choice of occupation is one aspect of career choice and the volume of literature on the subject is so large, the focus of attention will primarily be on the occupational choice aspect of career development.

Theories of occupational choice have offered a wide variety of explanations;⁽²⁰⁾ those deriving from psychology and social psychology tending to place more emphasis on the choice of a particular occupation from all those available. They argued that the choice is the one that is most consonant with the individual's self-perception and that best satisfies the ambitions and aspirations of the individual. On the other hand, those deriving from sociology tend to be most concerned with how that choice is limited by structural factors, how ambitions and aspirations are themselves socially structured and hence how the resulting choice is effected.

It is psychology⁽²¹⁾ and sociology⁽²²⁾ that formed the basis for models of occupational choice. The psychological influence can be seen, for example, in the developmental theories, which originated in the 1950's with the studies of Ginzberg (1951) and Super (1957). Ginzberg's framework was based upon the factors which influence choice, namely 'the self' (capacities, interests, goals and values and the individual's time perspective), 'reality' (socio-economic familial factors, evaluation of the world of work, education, life plan) and 'key persons' (parents, teachers) and involve three main stages in the determination of occupational choice, namely the 'fantasy period', the 'tentative choice period'⁽²³⁾ and the 'period of realistic choice'.⁽²⁴⁾ However, the problem with such a view, and something which Ginzberg himself recognised, is the difficulty in applying the theory across the board to non-college students.

The same difficulty arose in the work of Super (1957), who whilst adopting similar developmental stages to those of Ginzberg placed more emphasis on the social environment and thus derived a 'self-concept' which emerged from the interaction between the individual's

capacities and his social environment. The major difference between Ginzberg and Super, is that the latter accepted that ambitions may change after starting work and that careers may change direction. These two theories were therefore placed into two different categories by Hall (1976), Ginzberg's theory being placed in the group of models, classified as the 'process theories', which describe the manner in which people gradually arrive at a choice of occupation, and Super's being classified in the group of 'matching theories', which describe what kind of people enter what kind of occupations, based upon some measure of compatibility between the person and the chosen occupation.

However, these theories have been the subject of much criticism. For example, Roberts (1975) argued that the theories could only aspire to reality in the case of the 'more privileged individuals who are able to make genuine career decisions'. Further, Hayes (1971) argued that the school-leaver does not have a crystallised or comprehensive occupational self-concept, but rather that material factors were primary determinants in making occupational choice, with his occupational self-concept being crystallised in psycho-social terms when the individual actually experiences work at first hand.

The alternative model proposed by the sociologists⁽²⁵⁾ suggested that all the major determinants of occupational choice lie outside the individual and that, in many cases, the individual may simply have to take whatever work is available. Indeed, the contraction of the economy in the 1970's caused many people to rethink the relationship between people and society. Speakman (1980) lent support to this model by suggesting that social class plays a considerable role in affecting occupational choice through the influence of the family, both through the orientation towards certain categories of work and the access afforded to educational opportunity. This may well be true for the majority of young people about to enter the world of work. However, it should be remembered that the focus of attention of this research is not on such people, but rather those who have either been forced to leave the world of work or have done so of their own volition in order to advance themselves in terms of career development.

The 1970's and early 1980's literature on occupational choice was basically a debate, cast in terms of a discussion, concerning the relative importance of accounts offered by sociology and psychology in explaining and predicting occupational choice (e.g. Super, 1976; Speakman, 1986, Law, 1976, Daws, 1977; Herriott and Ecob, 1979; Super, 1980; Roberts, 1981; Daws, 1981).

More recently, however, an alternative view was advocated by Law (1981a), who argued that the practical implications of the theories arising from developmental psychology and sociology are somewhat problematic. He considered, that the psychological theories resulted in the careers guidance practitioner being cast in the role of applied psychologist, whilst sociological theories suggested a virtually non-existent role for the practitioner.

His view, therefore, was that the focus of attention of theories on occupational choice and career development should 'neither be upon the "big-picture" trends identified by the telescopes of functionalist sociology, nor upon the "small-picture" refinements afforded by the microscopes of differential, developmental and counselling psychology'. He argued that the significant influences on occupational choice are not necessarily 'self-concept' nor 'structure-opportunity', but rather the 'exchanges occurring between the individual and the groups, of which he or she is a member', notably the family, neighbourhood, peer group, ethnic group and teachers at school. He considered that the strength of the theory of occupational choice from a 'community-interaction' approach was that its attention was focussed on 'that part of the external world which is proximately in a process of exchange with the individual i.e. with the courses of expectation, feedback, support, modelling and information which form part of the warp and weft of the client's day-to-day experience'. He further considered that the implication of the theory for career guidance practitioners is that they should see themselves both as 'applied psychologists and as applied sociologists'.

The contribution of Hall (1976) to the discussion on occupational choice was to present an extensive review of the literature up to that point in time. He then attempted to summarise his findings and presented a succinct statement regarding the process of occupational

choice as being 'the attempt by the person to obtain a good fit between himself and his career work'. However, he did not attempt to bridge the dichotomy between the psychological and sociological approaches, although what is interesting is his suggestion that 'research is needed to shed more light on how the process of occupational choice changes over time by, for example, research on adult careers and on the contrast between adult and adolescent career decision making'.

One aim of this research is to consider the reasons underlying the mature student's decision to return to education at the higher level and the factors which influence the choice of course of study. Therefore, the theoretical foundations underlying occupational choice are of significance to the research with the suggestion made by Hall above of particular relevance'. However, it is considered that the 'mid-range' theory of Law (1981a) has a greater significance than the theories originating from within psychology or sociology, in the sense that the individual has made the decision to pursue a full-time higher education qualification having regard to both individual and wider considerations. For example, personal desires, domestic circumstances, the problems of adjustment etc. obviously are factors which have to be borne in mind, and, in addition, the decision has been made in the light of conditions prevailing within the labour market and the economy in general, together with such sociological factors as 'community status', 'a return to adolescence' etc. One has to remember that mature entrants to higher education have had some real experience of a work situation and, therefore the decision to return to education is a very different one from that made by school leavers, who decide to continue with their education rather than enter the labour market. Indeed, it could be argued that the very existence of mature students, and their clearly defined objectives seem to contradict the view that the major determinants of occupational choice lie outside the individual⁽²⁶⁾, at least for adult career decision making. Gothard (1982) argued that age was certainly a differentiating factor in terms of occupational choice. His study revealed that 68% of mature students⁽²⁷⁾ have a reasonable idea as to what their expectations were in comparison with 52% of all students.

It is worth at this stage paying some attention to the work of Boys (1984a), who attempted to identify the reasons undergraduates had for being in higher education. He discovered that a high proportion of undergraduates considered that their main reason for being in higher education was to learn more about a subject which they found interesting. The study of Hopper and Osborn (1975) revealed that this desire was more prevalent amongst adult students than conventional age students. They also showed that a higher proportion of adult students wished to enter a specific job requiring a degree than conventional age students. Boys discovered that there were broad variations between subject areas in the extent to which undergraduates had been motivated to enter higher education because of the prospect of enhanced earnings, ranging from 54% of university historians to 95% of polytechnic engineers. This result could be attributed to the fact that engineers and others with high earnings' motivations have specific occupations in mind at the time of entry to higher education.

Amongst the non-academic and non-vocational motivations, Boys discovered that 50% of undergraduates felt that fulfilling parental expectations was a motive, although only 10% felt this strongly. Obviously such a motive would not be as significant for mature students. In addition, whilst Boys discovered that over half of undergraduates considered that the attraction of student life had been amongst their reasons for entering higher education, Hopper and Osborn revealed that very few adult students considered this feature to be important. Furthermore, Gothard (1982) commented that many mature students found 'much of student social life trivial and adolescent' and a number of interviewees commented on the difficulties they had experienced in integrating with conventional age students on a social level.

Boys (1984a) then proceeded to assess the long term career preferences of undergraduates and discovered that generally they appeared to be ambitious. His study revealed that most undergraduates attached some importance to careers which would provide them with the opportunity for rapid promotion, good, long-term career prospects and the prospect of responsible positions. In addition high future salaries and good fringe benefits were considered to be important, although fewer felt that the level of starting salary was important, with long term

security being considered more important by the majority.

Most undergraduates attached some degree of importance to careers which would give them the opportunity to deploy skills and knowledge they had acquired during their courses of study, although this feature was more prevalent amongst public sector undergraduates than those on the university side of the binary line. Boys also discovered that long-term career preferences were more likely to be associated with subjects studied and course characteristics than with other variables such as age.

Valuable though the study undertaken by Boys is, it should be remembered that his population is undergraduates as a whole, whereas the focus of attention of this research is on mature students. It is worth referring again to the study of Hopper and Osborn (1975), who identified the characteristics that influence the decision to return to formal education, amongst which are what might be regarded as unsatisfactory experiences of the work situation⁽²⁸⁾, a feature also referred to by Gothard (1982). In addition it is worth emphasising the observation of Gothard⁽²⁹⁾ that mature students' expectations are much more apparent than those of conventional age students and therefore it is considered that mature students will be more concerned to achieve the objectives set on entry to higher education, that is, movement upwards in terms of career development whereas conventional age students, as highlighted by Boys, may have additional aspirations, for example overseas work and/or travel.

The Human Capital Theory

The traditional, pre-1960, view amongst economists was that education was a consumption good and hence the quantity and form of education undertaken depended upon tastes, incomes, relative prices etc. However, such an approach, which assumed that the benefits of education were immediately exhausted, neglected the impact of education upon labour rewards and produced what has commonly been regarded as a very unsatisfactory model of occupational choice.⁽³⁰⁾ In the 1960's therefore, an alternative hypothesis was developed, namely the concept of investment

in human capital, which propounded the view that people spend on themselves in diverse ways, not only for the sake of present enjoyments, but for the sake of future pecuniary and non-pecuniary returns. Human capital theory can now be seen to encompass the fields of education, health, job-search, migration, training and the economics of the family.

In the field of education, which is of concern to this research, the theoretical implication of the human capital model according to Blaug (1976) is that 'the demand for upper secondary and higher education is responsive both to variations in the direct and indirect private costs of schooling and to variations in the earnings differentials associated with additional years of schooling.' It is likely therefore that educational choice will take place more or less alongside occupational choice and the long-run supply curve to a particular occupational labour market will increase with the wage rate offered, because of the corresponding rise in marginal net return to the associated education path. In addition, a decrease in education costs will also increase the marginal net return on educational investment and increase the supply of labour, but the effects will be greatest in those occupations which require the longest educational investment.

The mature entrant in contemplating whether or not to make such an investment will consider the likely returns of employment and higher remuneration in comparison with the state benefits, if unemployed, or the wider occupational choice and development available if employed. The 'human capital' view however, claims that individuals will normally choose to acquire their education while relatively young, because indirect costs increase with age, and any delay in returning to higher education would reduce the length of time over which the outlays on education could be recouped by higher earnings. Accordingly this would account for the distribution of students within higher education being very much weighted towards the 18-20 age bracket. This point was made by Joll et.al. (1983), but they offered as an exception those whose participation in the labour market is intermittent e.g. married women.

Hence, it is widely regarded that those who postpone entry into higher

education are either acting irrationally or consider education primarily as a consumption good, yielding immediate but transitory utility, rather than a long term investment

This is not the view which is held by this author and Corman (1983), also, did not subscribe to such an interpretation. He showed that adults aged between 25 and 44 do respond to the same economic variables in making educational choices as do conventional-age students. However, he was able to utilise the U.S. Education Department 1975 Survey on Adult Education, which was a special education questionnaire attached to the Current Population Survey of 90,000 individuals aged seventeen and over. No such data is available in the U.K.

Corman argued quite forcibly that the human capital model can be extended to consider, not only the demand for higher education from the eighteen plus age bracket, but also from what he terms 'older adults'. Such an extension would be extremely interesting as the question of whether the investment is worthwhile may be more difficult to answer positively, given that for mature students the costs of education are much greater than those for conventional-age students, as advocated by Challis (1976), but also the length of time over which the benefits are derived is of shorter duration. Such factors constitute the reasons why participation rates within higher education decline with age.

The additional costs which confront the mature student may not necessarily be earnings foregone, as the student may enter higher education from a state of unemployment, but rather the psychological pressures imposed as a result of sacrifices made in terms of family, leisure etc., the readjustment required in order to study and the knowledge that 'there may be no further opportunity to succeed.' In fact an impressive body of literature on mature students and the problems they encounter during study has been built up recently, much of it under the auspices of the National Institute of Adult Education. For example, Charnley et.al. (1980) provided an exhaustive review of research concerned with mature students, paying particular attention to motivation, demand, access problems, needs and effects on life styles. However, the literature tends to concentrate on the problems encountered by mature students, which are not of prime importance to this research, or on mature students in one particular institution. (31).

Given the additional costs faced by mature students and the shorter period of time over which educational outlays can be recouped the rate of return on a mature student's investment is likely to be significantly less than the rate of return generally. However, given the extent of government intervention in higher education in the U.K. it makes sense to determine the social rate of return in addition to the private rate of return on human capital investment, thereby providing a basis for determining the relative efficiency of resources allocated to higher education and whether incentives should be given to potential mature entrants.⁽³²⁾ Human capital theory, as originally formulated by Schultz (1963), Becker (1964) and Mincer (1958) was characterised by what Blaug (1976) called 'methodological individualism,' but more recent studies have attempted to assess the social rates of return, despite the difficulties involved in the identification and qualification of the wider social benefits, a problem facing most public sector investment appraisal schemes. Nevertheless, this relative failure to quantify all of the social costs and benefits may well have resulted in an underestimate of the benefits to be derived from investment in education. On a similar theme, Duncan (1976) argued that 'when pecuniary and nonpecuniary variables are combined into a single composite earnings measure, the estimated coefficient on education is considerably greater than when earnings are measured by the wage rate alone. This added importance of education persists even when cognitive ability, achievement motivation and socio-economic background are taken into account. 'However, the majority of human capital studies in the U.K. have revolved around the rate of return to investment in formal education by examining lifetime earnings as a result of education⁽³³⁾ and using the earnings of all workers by age as a proxy for the control i.e. the unqualified lifetime earnings profile. Indeed, reference has already been made to some recent studies⁽³⁴⁾ but the primary focus of this research is not to undertake a similar analysis but rather encompass the broader aspects of investment in human capital, i.e. to examine the decision of adults to return to formal education in order to acquire qualifications which would lead them on an upward pattern

in terms of career development, enable them to move into the primary labour market⁽³⁵⁾ and, in some cases, move out of the unemployed state, as well as the potential to earn higher earnings over their lifetime⁽³⁶⁾.

The emphasis of the research on the acquisition of qualifications rather than merely acquiring extra years of education, appears to support the theory of credentialism⁽³⁷⁾ but this need not necessary be the case. Psacharopoulos and Layard (1979) certainly did not subscribe to such a view and argued that 'earnings are rather better explained by educational qualifications than by years of full-time education, but this is not evidence in favour of the screening hypothesis'. Earlier research by the author, Phillips (1977) showed that there were substantial benefits in terms of lifetime earnings to be gained from acquiring an initial degree or higher national award in terms of lifetime earnings⁽³⁸⁾ but the benefits were not as great for postgraduate qualifications. This view is substantiated by Goodman (1979), who discovered that the rate of return for each 'complete year of schooling varied considerably depending upon the level; at the postgraduate level there was a depressing influence on earnings'. Butler (1978) used data provided by the University of Leeds Careers Advisory Service to show that in the ten years up to 1976, the starting salaries of Ph.D's had risen by 134%, for Masters 158% and for Degrees between 189% and 225%. Nickell (1982), holding all relevant personal characteristics constant, discovered that qualifications at a high level only⁽³⁹⁾, 'are of considerable importance to an individual's occupational position, measured in terms of average hourly pay raising the occupational position between eight and fourteen per cent'. Nickell also found that unemployment spells of three months or more had a downward effect of over four per cent on occupational position.

Human capital theory also provides the basis for a more reasonable model of occupational choice, than that offered by the pre-1960 view of education as a consumption good⁽⁴⁰⁾. In choosing between alternative educational paths according to their marginal net returns investors are also choosing between occupations. Of more relevance to the research is the relationship between human capital acquisitions and occupational mobility. As Joll et.al. (1983) indicated 'upward occupational mobility almost always requires some

form of training' and whilst one has to accept that the costs of education are inevitably higher for the mature student their perceived career development could not proceed without investing in further human capital via the acquisition of a qualification.

Thus human capital theory is considered to be very important as background to this research, although Blaug (1976) was not convinced that the theory had 'lived up to the high expectations of its founders'. Indeed, due to what he called 'the steadfast refusal to exploit anomalies' thrown up by human capital studies he questioned whether in fact the theory had started to degenerate.

However, whilst recognising many of the shortcomings e.g. the bias in coefficient relating education to earnings; the problems of definitions which cause particular difficulties for international comparisons; the tendency to use cross-section and time series data rather than the more appropriate longitudinal data sources; this research draws heavily on the human capital theory in the sense that the major assumption on which it is based is that mature students undertake a course of higher education in order to provide them with occupational, employment or earnings benefits within the medium-long term - which in essence could be a direct quotation from any of the numerous human capital studies relating to higher education.

The Theory of Credentialism (The Screening Hypothesis)

This research not only relies on human capital theory but also draws on the theory of credentialism. This particular theory originated as an alternative to the predictions of the human capital approach in that it implies that the value of education programmes to the economy lie in their 'signalling properties' not in their educational content per se. Arrow (1973) argued that higher education served solely as a 'screening device', in that it sorted out individuals of differing abilities, thereby conveying information to potential employers⁽⁴¹⁾. The theory would therefore lead us to expect a sequence of labour market behaviour as follows: Initially, firms would advertise job vacancies indicating both the skill classification and the educational requirements. Secondly, the firm would engage in screening, that is the collection, synthesis and verification of educational qualifications

rather than the most costly conventional screening involving the identification of factors which convey information about quality. Finally, firms would devote resources to familiarising themselves with the educational value of different courses, attempt to establish stable, continuous relationships with educational establishments and focus their advertising, signalling and screening upon such establishments

This tendency to adopt the 'credentialist' approach has increased alongside the increase in graduate output of recent years. According to Hunger (1981) this was the result of the increased proportion of qualified school leavers undertaking degree courses, which reduced the chances of recruiting suitably candidates direct from school, and firms therefore directed their attention towards the graduate labour market. Work by the Brunel University Expectations of Higher Education Project (1984) supported this view, in that evidence collected from employers seemed to back the 'screening hypothesis' and its increased use, as a consequence of the expansion of higher education. It may be argued that the observation made by Hirsch (1977) has been confirmed. Hirsch argued that an expansion in the material economy resulted in an expansion in education and of qualified manpower, which would not be matched by a corresponding increase in 'leadership jobs' i.e. jobs requiring degree level entry requirements such as graduate management trainee posts.

It is therefore considered that the increased use of qualifications as necessary credentials for certain jobs has resulted in mature students returning to higher education to acquire such credentials. The Employment Think Tank Report (1979) identified the flow of redundant workers returning to education in order to acquire new skills and knowledge and Finemann (1983) considered the relationship which exists between educational institutions and employers as being especially relevant to the redundant worker undertaking a course of study. He argued that 'an educational institution provides a respectable home from which to approach potential employers'.

Although this respectability may well prove to be psychological, rather than providing any significant advantage in terms of job opportunities, it does place such redundant workers within the context of the graduate labour market, rather than the general pool of

unemployed seeking employment and affords them access to employers during the annual recruitment visits.

The theory of credentialism is not without its opponents however. Werneke and Bradfield (1979) argued that overemphasis on qualifications 'may well result in boredom and dissatisfaction arising from the underutilisation of an individual's skill capacity, the implications of which are low incomes and low productivity'. One American study by Hamilton and Roessner (1972) found that in service and some white collar occupational categories, 'dead end jobs' (as defined by employers) appear to have higher entry requirements than those from which promotion is possible. Whilst allowing for a desire to 'cream the market' this would seem to point to requirements which are set too high, hence creating a barrier for those without the required qualifications, excluding them from employment - not because they were incapable of performing the work, but simply because they fell outside the employer's hiring standards. On a slightly different slant, Tsang and Levin (1985) argued that 'overeducation can adversely affect individual productivity by increasing job dissatisfaction, adverse workplace behaviour and health deterioration'.

It can therefore be argued, that whereas qualifications give their owners the credentials to apply for jobs, they are of little value in actually performing the job. It may also be questioned whether it is of benefit to society to provide an education service, which has the basic function of providing information for employers regarding potential employees' credentials. Stiglitz (1975) countered this however, by arguing that attempts to curtail educational screening may switch the focus to, for example, on-the-job screening which would probably result in a reduction in output without a commensurate gain in equality.

Whatever the rights and wrongs of educational screening it is widely recognised as being practised by employers. Reference has already been made to the Brunel study (1984) which presented evidence to back the 'screening hypothesis', although it should be made clear that some employers recognised that using higher education as a screen is somewhat of a 'blunt instrument'. It is also apparent that in addition to qualifications, the type of institution attended is important in any

initial screening of potential recruits. It is evident that many employers remain deeply conservative in their recruitment policies and consider that universities yield more able recruits than the institutions on the other side of the binary line despite the attempts by such institutions to provide courses more relevant to the requirements of employers. One of the main reasons for such behaviour on the part of employers offered by Boys (1984b) is the lower entry qualifications of non-university undergraduates, which would support the view, already presented, that employers utilise education as a cost-effective screening device without consideration of the objectives and content of the course being studied and the ability of the graduates to actually perform the job⁽⁴²⁾. Boys concluded that 'there appears to be room for improvement in their understanding and knowledge of the higher education system. Above all there is a need to test the assumptions on which they base recruitment, and, in particular, how far academic qualifications and the type of higher education institution attended influence career performance'.

At first sight, therefore, it would appear that there are fundamental differences between the human capital model and the theory of credentialism, notably in that the theory of credentialism appears only to explain starting salaries and does not explain why the correlation between earnings and educational qualifications increases in the first ten to fifteen years of work experience. Rawlins and Ulman (1974) argue that departments operated their own internal labour market allowing sufficient manpower slack to ensure every new recruit a well-defined sequence of promotions throughout his working life. In so doing, they extended the 'screening hypothesis' some way towards explaining lifetime earnings. There is certainly evidence to support this 'revised screening hypothesis', that an increased flow of graduates will not have much impact on earnings differentials, but rather that 'hiring standards' will be increased. For example, Wilson (1986) concluded that 'it is clear that the private rate of return to undertaking degree level courses in all scientific disciplines has declined significantly, especially between the mid-1960's and mid-1970's most likely cause is that supply has outpaced demand over the period'. It may also result from many professions moving towards graduate only entry.

This does not mean, however, that the human capital model has been made redundant by the developments which attempt to substantiate the theory of credentialism. One of the major advocates of the human capital model is Psacharopoulos (1980) and it is worth quoting his view on the 'screening hypothesis':

'The screening hypothesis has been very controversial and various researchers have tried to validate it or reject it. In my view the issue has now been more or less settled by distinguishing between the 'strong' and the 'weak' versions of the screening hypothesis. According to the weak version, employers do in fact offer higher starting salaries to people with degrees because they do not have any other information about the new employees' productivity. The strong version says that employers will continue to offer higher salaries to people with degrees *after* the employee has been with them for some years. I find the strong version of the screening hypothesis hard to believe. If it were true then employers should be irrational in not adjusting downwards the earnings of the more educated (and allegedly less productive) relative to the less educated. However, this is not what is observed in practice. The fact that in all empirical work wage-earnings profiles diverge over time means that profit-maximising employers recognise the productive value of education *after* the employee has been with them for some time.

However, the entry-point screening seems to be valid on the grounds of uncertainty about a prospective employee's productive qualities'.

Blaug (1976) also felt that the two theories of credentialism and human capital may be complementary and it is considered here that screening by employers, by using educational qualifications, creates an incentive on the part of prospective employees to produce the signal that maximises the probability of selection, namely the attainment of an appropriate qualification, and this signalling incentive is in fact conveyed by the private rate of return to educational investment. In other words the two theories concentrate on different sides of the labour market, the theory of credentialism going some way to explaining demand for labour whilst the human capital theory endeavours to explain the supply of qualified manpower.

The research will draw on both the human capital model and the screening hypothesis in that it is assumed that adults enter higher education to acquire the appropriate credentials to promote their upward mobility

and, with reference to the former, invest in higher education so as to reap the benefits of an enhanced stock of human capital.

The Theory of Labour Market Segmentation

An increasing body of literature has developed in recent years around the theory of labour market segmentation or the dual labour market. This theory was developed during the late 1960's and early 1970's by a community of scholars, who had shared the experiences of having engaged in research and community work in the inner city ghettos of their respective cities.⁽⁴³⁾ Proponents of this theory argued that the labour market can be split into two, namely a primary and a secondary market with the primary market consisting of jobs with high rates of pay; extensive on-the-job training, which equipped staff to do their own job and to move higher up the ladder when vacancies occur; low turnover rates and job security. The secondary market, on the other hand, consisted of jobs with low wage levels; poor working conditions; job instability; little training provision and high staff turnover. Pond (1980) suggested that the primary and secondary market may exist alongside within any sector of industry or even within the same firm.

It is therefore reasonable to conclude that firms who invest in the training of staff will wish to reap a reasonable return on such investment, discouraging turnover and encouraging a commitment to the organisation by providing good wages and working conditions as well as good prospects for promotion within the organisation. In addition, firms will be wary when recruiting new staff, and not wish to adopt novel techniques of recruitment, but rely on 'trusted' methods, which may well account for the conservatism of employers when undertaking graduate recruitment, as identified by Roizen and Jepson (1984).

On the other hand, workers in the secondary market receive no investment through training, and thus there are no costs involved in high staff turnover. They are generally regarded as being 'disposable', acting as 'buffers' against the extremes of excessive and insufficient demand. As a consequence, certain groups of workers are more likely to experience spells of unemployment, and as Nickell (1980) indicated with reference to unskilled workers, they remain out of work for longer

periods than average. In addition, frequent job changing is a characteristic of the secondary market and this merely serves to reinforce the 'polarisation of the two markets since such workers are unlikely to be regarded as "suitable recruits" to primary jobs', according to Pond (1980). Bosanquet and Doeringer (1973) compared the results of job-changing between the two groups and argued that among what they called, adult, advantaged workers, 'job-changing is mainly related to training and to increases in income whilst the disadvantaged, despite frequent job-changing, receive no training nor achieve upward economic mobility.'

The concept of labour market segmentation has relevance for this research since it highlights the struggle of a worker to achieve upward mobility from the secondary to the primary labour market. Reference was made to a number of studies⁽⁴⁴⁾ to arrive at a suitable description of the primary market as consisting of the relatively well educated, white, adult, male workers whereas the secondary market is viewed as the unskilled, coloured, uneducated, young, male and female workers. Obviously this is not to say that no female, for example, will ever find herself in the primary market but as a generalisation this description will be utilised within the research.

However, one should be aware of the difficulty in testing the existence of a dual labour market, as noted by McNabb and Psacharopoulos (1981), who argued that the lack of a 'cut-off' point made it impossible to distinguish between segments.

It can be seen, in addition, that the theory of a dual or segmented labour market relates closely to the theory of human capital, previously discussed⁽⁴⁵⁾. For example, Jain and Sloane (1980) reviewed a large number of studies on earnings and concluded that 'these results provide considerable support for the human capital theory since low earnings can at least partly be explained by low levels of human capital investment.' However, they also recognised the possibility that the lower rates of return achieved by females and coloured workers may well be a result of discrimination. Nevertheless, it is widely accepted that those workers with low specific human capital are more likely to find themselves in the secondary market.

McNabb (1985) agreed that the role of education is both direct, enhancing an individual's earning potential within a particular occupational segment and indirect, enabling mobility into occupations characterised by higher annual earnings. However, he also emphasised that the differential impact of schooling is closely associated with an individual's position in the occupational hierarchy. He discovered that 'workers at the lower end of the job hierarchy are disadvantaged in the sense that additional years of schooling do not improve earnings potential within their current employment opportunities. This is due to the modest requirements in terms of skills and abilities of such jobs!'

The theory of credentialism also overlaps with the theory of labour market segmentation via the required 'credentials' of the 'primary labour market'. However, proponents of labour market segmentation have criticised the use of screening. Bosanquet and Doeringer (1973) argued 'there has also been an increased use of educational qualifications as a recruitment standard and a widespread reliance upon "paper qualifications" as credentials to sort primary from secondary workers. This has tended to aggravate the employment disadvantages of immigrants and older workers, who have not benefited from recent educational advances'.

It is the intention of this research, therefore, to assess the impact of qualifications upon the mature student's desire to initiate the upward economic mobility from the secondary to the primary labour market, acquiring the appropriate credentials for primary market status. Support for this hypothesis came from a study of adult students by Hopper and Osborn (1975). They concluded that such students were likely 'to have a history of intense but unsuccessful competition for jobs which they deem desirable'. In addition Swift (1982) found that, in a survey of Open University graduates, the factors governing the return to formal education are related to goals of self-development and career prospects although a recent survey of Open University graduates discovered that some 57% believe that job performance or career prospects have been enhanced as a result of their studies. However, this survey only has indirect relevance to this research since the vast majority of the sample were in full-time employment.

This concept of labour market segmentation has been one of the most

influential ideas in discussions of labour markets within recent years, although it should be recognised that there are still questions which have to be answered. Firstly, what size barrier should there be before a dual rather than a single market is said to exist and at what point in the occupational hierarchy should it be drawn? Secondly, is it the case that secondary market workers are of inferior quality or people with different aspirations and opportunities? Thirdly, why should there be only two sectors rather than many, relatively disconnected sectors?

The answer to such questions does not come within the parameters of this research and therefore it is necessary only to emphasise once again the relevance of such concepts to this research. It is argued that workers in the secondary labour market will avail themselves of the benefits to be derived from a course of higher education and the acquisition of a recognised qualification in seeking upward mobility to the primary market.

Theory of Unemployment Dynamics and Employment Probability

Joll et.al.(1983) presented an interesting picture of unemployment. They argued that if the economy generated four million or so new unemployment spells each year from a labour force of twenty-four million, and if every spell were to be experienced by a different worker, everyone would have a spell of unemployment once every six years. In a working life of forty-two years this would mean that every worker would experience approximately seven spells of unemployment.

However, the fact is that some workers never experience unemployment and some groups of workers experience several spells of unemployment in a year. Nickell (1980) indicated that the latter group would have at least one of the following characteristics: young, old, unskilled, with a large family, living in a council house in the northern half of the country.

Cripps and Tarling (1974) argued that an understanding of such a theme is important both for judging policies designed to mitigate the evils of prolonged unemployment and for interpreting the unemployment statistics as a measure of demand pressure in the labour market. However, in more recent times there has been a shift in emphasis in empirical studies towards the direct effects of the duration of unemployment on re-employment probability. The study of Cripps and Tarling, therefore, was criticised by Disney (1979) for neglecting to analyse the distribution across individuals of the probability of acquiring employment. This is a consequence of analysing unemployment duration entirely in terms of the distribution of spells by the length of spell. McGregor (1978) demonstrated that the 'speed and likelihood of re-employment are significantly related to the total time spent out of work' and proceeded to show that the 'disadvantage associated with increasing time out of work manifests itself at an early stage relative to the conventional British definition of long-term unemployment i.e. six months and beyond.' However, McGregor also recognised that the speed and likelihood of re-employment is also partly a function of personal characteristics. Garside (1980) was less convinced about the impact of unemployment duration, stating that the probabilities of re-employment were independent of the times spent on the register but dependent upon personal characteristics such as age, skill, sex and race. Lancaster and Nickell (1980) categorised the variables which affect the 'probability of an individual leaving unemployment' into personal characteristics, family composition, local labour demand, income variables and unemployment duration'. McNabb and Woodward's study (1982) tended to raise question marks against Garside's results since they discovered that, within the West Cornwall labour market, males with previous spells of unemployment tend to be unemployed for over three weeks longer than those with no previous spell of unemployment. Bowers and Harkess (1979) also demonstrated that previous unemployment is significant but showed that the greatest impact is on the duration of unemployment of older

workers, although in an updated version, Bowers (1982), argued that there is evidence to suggest that in the 16-18 age bracket expected duration increased in comparison with other groups, and that the unemployment experience of workers in their late-middle years is moving closer to that of older workers. Heckmann and Borjas (1980) argued, however, that the duration and number of previous spells may have acted as a proxy variable for 'certain unobserved variables' in determining re-employment probability. Other studies have sought to examine the significance of unemployment benefit levels. Nickell (1979b) determined that the impact of benefit levels on the probability of re-employment is significant for the first twenty weeks or so of any given unemployment spell but negligible thereafter. Atkinson (1981) concluded that 'there does however, seem to be little ground to suppose that the introduction of the earnings-related supplement led to an avalanche of claims or that its abolition will dramatically reduce the level of unemployment.'

Nickell (1979c) also found that the re-employment probability of married men declines with each additional dependent child. Similar results were identified by Smeets and Stern (1978), although they discovered that the impact is exacerbated as one moves down the socio-economic groupings. They argued that one of the causes of such a relationship is that within each socio-economic group the men with the least education and skills tended to have the largest families.

However, despite the advance of sophisticated econometric techniques employed by Lancaster (1979) and Nickell (1979c), it is still extremely difficult to be very precise as to the variations over time in the probabilities of an unemployed person returning to work. More disaggregated data of the demographic, occupational and industrial characteristics of those persons flowing on to the unemployment register would be welcome, but perhaps more important is the need to study the work experience of a cohort of individuals weekly, because of its value in charting the frequency and duration of unemployment spells. Current information regarding spell recurrence relies largely on sample surveys of the unemployed at a particular date, and therefore no account is taken of the varying characteristics of those on the unemployment register in terms of the probability of their leaving

and finding employment.

What Atkinson (1981) advocated, however, was that studies on re-employment probability should consider such factors⁽⁴⁶⁾ as age, previous work career, family circumstances, local labour market conditions and, of direct relevance to this research, *qualifications*. He cited the studies of Mackay and Reid (1972), who used a sample of redundant workers between 1966-68; Lancaster (1979), who used a national sample of unskilled unemployed workers in 1973; Nickell (1979b) and Nickell (1979c), who used the 1972 General Household Survey, as being examples of good practice.

No research has yet sought to specifically examine the effects of educational qualifications on re-employment probability although it could be argued that given the lower unemployment rates amongst qualified manpower it is assumed that the acquisition of a qualification would certainly speed up the process and likelihood of returning to employment. Another problem is that most of the studies examine only one change of state within the labour market, namely the rate at which individuals leave the unemployment register to rejoin employment. There have been a few studies⁽⁴⁷⁾ which analyse the flow out of the unemployment state into another state, but these concentrate on the 'disability state' caused by ill-health and none focus attention on the consequence of leaving the labour force in order to pursue a course of higher education and acquire a qualification in order to improve the probability of re-employment. Probably the nearest study is that of O'Connor (1981), who analysed the proportion of Youth Opportunities Programme trainees that obtained employment on completion of their training, although, even in that study there were a number of major differences - e.g. in terms of the age group in question - from this research and therefore any parallels have to be drawn very carefully. But, of some significance is the fact that O'Connor discovered that qualifications are a significant factor in determining probabilities of employment for all types of scheme.

Relationship between the Theories and Significance for Research

In concluding this section it is worth emphasising the degree of overlap between the theories referred to and the relevance they have for this

research. One should note that the relationships have been discussed in part within each particular section but here the 'threads are drawn together'.

Drawing on the theories of occupational choice, it may be argued that mature students, given their experiences within the labour market, are either revising earlier decisions made regarding career choice or have been forced into re-assessing career development by the impact of the economy on the labour market. Their decision to enter higher education can thus be seen as an attempt to acquire a higher education qualification to 'improve their credentials' and to increase their stock of human capital so as to broaden the range of careers and occupations available to them, to enhance their upward mobility in the 'occupational hierarchy', and to move 'out of the secondary labour market' thereby reducing their risk of facing a spell of unemployment.

Human capital theory can provide an explanation of the distribution of flows into unemployment. One would expect the workers with least specific skills to experience the highest proportion of unemployment spells and greater than average length of spell.

The existence of labour market segmentation helps to explain why certain groups of workers e.g. females, minority group workers and those with limited human capital skills, are more prone to spells of unemployment, which are greater than the average duration, together with a lower probability of leaving the ranks of the unemployed.

The probability of leaving a 'non-employed state' within the labour market will be lower for those with few qualifications since firms use qualifications as signals in recruitment and, in addition, workers with previous spells of unemployment will have lower current probabilities of re-entering employment since firms may use employment stability as a signal, as well as qualifications. However, this is given the state of the labour market and the aspirations and perceptions of people in general.

Thus the research is based on the premises that adults in re-assessing their career development seek to increase their stock of human capital

and educational credentials by pursuing a higher education qualification with a view to their moving upwards in the occupational hierarchy, whilst at the same time moving across the 'boundary' between the secondary and primary labour markets and thereby reducing the risk of unemployment (both the incidence and the expected duration).

2.3 Specific Issues

The intention of this final section within the review of the related literature is to pay more attention to some of the aspects previously discussed within this literature review. Initially, a further look will be taken at mature students and in particular their origins and reasons for entering higher education. Secondly, a more detailed examination will be made of the concept of unemployment duration and its impact upon employment probability and finally a review of the interface between education and employment.

Mature Students and their Origins

At the outset of this section it is important to recognise that the consideration of mature students as a group, and particularly the origins of mature students, is an exceedingly difficult task. Elsey (1978) stated that mature students could not be regarded as a homogeneous group as they differed both in terms of social and educational background. Squires (1981) recognised that mature students could not be discussed as a 'homogeneous group' due to the differences of age, sex, family circumstances, requirements and expectations of higher education. As an illustration of the difficulty, he identified the background of five mature students and their needs in terms of higher education and stressed the importance of retaining a pluralistic view of mature students and their respective needs, in spite of the tendency within the literature and published statistics to lump them together as a group.

Therefore any generalisations made within the research should be treated with caution owing to the problems of arrive at homogeneity within the experimental group. Nevertheless the objectives of the research tend to be focussed on the macro level rather than the personal

micro level. In addition, Elsey (1978) stated that a major advantage of dealing with full time mature students was that 'it provides a ready made parameter, for it marks a definite state in an educational career and the potential beginning of a new career and pattern of upward mobility'.

In terms of the factors influencing mature entry into higher education the work of Squires (1981) provides a useful commencing point. He adopted a classification system of personal factors, occupational factors, financial factors, vocational factors and institutional factors influencing the decision of mature students to enter higher education. With regard to personal factors he argued that, in the past, a person's own view of himself had been a constraint, but the advent of the Open University and a shift in emphasis of the role of females had led to an increase in the number of mature entrants into some form of post-school education. In terms of occupational factors, Squires identified the encouragement or otherwise given by employers for the advancement of individuals whilst financial factors would be a major constraint on the number of mature entrants in future years. Vocational factors would probably lead to an individual looking for employment plus education rather than education as an alternative to employment. However, his treatment of institutional factors seems to be the most interesting feature of Squires work. He viewed institutions using mature students as an 'insurance policy' against cuts imposed directly, or indirectly, as a consequence of any decline in participation rates amongst eighteen-year olds. (48)

However, there are some issues which should be commented upon. Firstly, if there is positive encouragement given by employers, this is likely to have a much greater impact on the number of part-time enrolments, which is not within the parameters of this research. On the other hand, it could be argued that any encouragement given by employers will be focussed on the younger employees in anticipation of a relatively long period of return on their investment since with mature employees the length of the returns is likely to be significantly reduced. Hence the likelihood is that mature employees will see themselves as being 'blocked' in terms of career development thereby removing themselves from employment to pursue a full time course of study. The financial

factors being a constraint again may be questioned, especially in terms of the tendency he cited towards part-time study. Bourner (1979) demonstrated that a mature student may increase his net income by completing a part-time degree on a full-time basis. In addition the opportunity cost for a mature student, who has been unemployed or on relatively low earnings, of undertaking a course of higher education may be relatively small especially if there is another source of income being earned by a spouse to supplement any grant awarded. In addition Corman (1983) also argued that financial factors need not necessarily be a constraint.

Hopper and Osborn (1975) discussed the personality characteristics which influenced an adult's decision to return to formal education, The two most significant are the intensity of achievement motivation (i.e. the feeling that having 'failed once' they were desperate not to fail again) and the intensity of economic and status orientations in particular. Interestingly, however, they pointed out that personality characteristics alone do not provide a sufficient explanation of the decision to return since many who valued economic and social status never left the labour market. They concluded that adults who made the decision to re-enter the education field do so because they had been exposed to, what has been called, 'bridging factors' e.g. family influences, sponsorship or chance encounters with people who put ideas into their head.⁽⁴⁹⁾.

In recent times the recession has caused a 'shake-out' of labour which has brought with it suggestions that education and training can lead to an improvement in employment prospects for the unemployed. Powell (1973) discovered that unemployed engineers and scientists benefited in terms of self-esteem and made more positive and fewer negative statements about themselves as a consequence of seminars designed to assist the unemployed, and Finemann (1983) argued that educational institutions provided an appropriate base for redundant white collar workers seeking new opportunities. Hayes (1982), however, was not as convinced of the benefits that education and training can bring. He argued that, whereas training was useful for a wide range of redundant people, it should seriously be questioned if there are no employment prospects at the end. Chakravarty et.al.(1981), in a study of the

impact of major redundancies, suggested that whilst new skills needed to be acquired, very little guidance is given on 'the forms of investment which can yield an acceptable return'. Indeed there is evidence to support such a view when the British Steel Corporation's slimdown is analysed. There were benefits available to those who wished to undertake an 'approved' training course'.⁽⁵⁰⁾ However, discussions with some of those made redundant, has raised question marks regarding the quality of counselling given and advice offered to those seeking to utilise higher education as a means of a change in career path, or to enhance progression within a chosen career path.

The intention of this research, therefore, is to discover whether the acquisition of higher education qualifications does improve employment prospects, for both white collar workers and workers found in the secondary labour market.

Another interesting aspect of the literature of relevance to this research is the attention paid to married women returning to higher education. There is a relatively long history of articles on married women as students⁽⁵¹⁾, which outline the particular problems and pressures they encounter. However, they are out of date. It is more appropriate therefore, to consider the work of Buswell (1983), who in a somewhat penetrative article, identified the fact that women in general were in low paid occupations, were underqualified educationally and were more likely to attend evening classes than be given the 'luxury' of day release courses. She argued quite forcibly that cutbacks in teacher training etc. had 'blocked the avenues that girls have traditionally followed' and considered that educational planning had focussed on the concept of a 'normal student' being a 'clean-limbed eighteen year old ex-sixth form white male'. She concluded that any improvements would have to be introduced by the male oriented society, although the AUT (1983) argued that the government should encourage more married women to become mature students by offering financial incentives. Further, an interesting study by Woodley (1984) sought to answer the question whether mature students performed better or worse than younger students. His findings were that as a group 'they perform as well as younger students, and women'⁽⁵²⁾ and those aged 26 to 30 are particularly successful. The only problem area would

seem to be science subjects, where mature students are more likely to fail and less likely to gain a good degree'. Nevertheless, of fifty-five first class honours degrees awarded at Manchester Polytechnic in 1985, twenty were awarded to mature students. Similarly Bourner and Hamed (1987) discovered that degree performance generally improved with students' age until about 40.

Interestingly, however, Squires (1981) had found that there has been a significant increase in the number of mature women entering undergraduate courses, although it should be made clear that this does not necessarily nullify Buswell's views regarding the difficulties confronting females contemplating the pursuit of a higher education qualification.

Unemployment Duration

The concept of employment probability has already been discussed (53) and it is apparent that unemployment duration, both the length and number of spells, is a significant determinant of the likelihood of an individual returning to employment. The abundance of literature on this theme has its origin in the work of Fowler (1968) and Kaitz (1970) although in subsequent studies the attention has been focussed on measures to estimate the average length of spell of unemployment (54) primarily utilising demographic techniques. Main (1981) however, argued against the use of such techniques to measure the average length of spell of unemployment, in that they failed to reflect how the typical week of unemployment was actually spent, and thereby weighted all spells equally. Main's alternative measure gives more weight to the longer duration spells and as a result he indicated that the average duration of unemployment in the late 1970's was around eighty weeks, compared with around seventeen weeks using the traditional measure. He argued that although there may be many short spells of unemployment, the majority of unemployment fell in very long spells. Similarly, he demonstrated that although there were many short-term jobs in the economy the bulk of employment was spent in jobs of considerable length. Such results support the arguments in favour of the theory of labour market segmentation, the significance of which has already been identified.

Education and Employment

The interface between education and employment is widely documented but generally it concentrates on the employment (or unemployment) of school leavers⁽⁵⁵⁾. In recent years there has been an increase in the literature on the graduate labour market⁽⁵⁶⁾ and there have been many studies and discussions relating to industry's requirements of education⁽⁵⁷⁾. However, even there the discussions have been far too general and there has been a noticeable lack of material on the way in which education, and particularly higher education, can ameliorate the consequences of unemployment and employment stagnation.

The way forward is, therefore, to formulate hypotheses on mature students based on studies which have examined the relationship between qualifications and the incidence of unemployment and then analyse the employment trends amongst graduates. It is well known that the well-qualified are less likely to be unemployed or to be made redundant or dismissed and more likely to be economically active⁽⁵⁸⁾. Further Nickell (1979a) showed that each year of schooling up to twelve years reduces the probability of entering unemployment at any age by twenty-five per cent and reduced the expected duration of unemployment by over four per cent. Ashenfelter and Ham (1979) quoted similar results from the USA but even these studies do not comment upon the impact that actual qualifications have, concentrating on years of education, in improving the employment potential of individuals.

Notes

1. A general term to describe those who successfully complete a course of study in higher education.
2. Committee on Higher Education (1963). The Robbins Report 2154 p49, HMSO, London.
3. University Grants Committee (1984). A Strategy for Higher Education into the 1990's.
4. See chart 3.5.
5. University Statistical Record (annual). First Destination of University Graduates.
6. See page 28.
7. See for example D.E.S.(1980); Wilson (1980); Wilson (1985); Wilson (1986).
8. Amis K. (1968) Lucky Jim's Politics. Conservative Political Centre.
9. See Roizen J. and Jepson M. (1984) An Employer's Perspective. Paper No. 3 in Brunel University. Expectations of Higher Education Project.
10. Own italics.
11. A survey of 1980 graduates is currently being undertaken.
12. See for example Hill C. I. and Mar Molinero C. (1981); Pearson R, and Baker F. (198) and Catto G. et.al.(1981).
13. See chart 3.5.
14. See for example Tarsh J. (1982); Bournier T. and Frost P. (1985).
15. See Department of Employment (1983) Employment Gazette. April

16. Michael Dixon has reported regularly in the Financial Times the estimated graduate unemployment rates from each university since the early 1970's.
17. See Universities Statistical Record (U.S.R.) (annual) First Destination of University Graduates and Committee of Polytechnic Directors (C.P.D.) (annual) First Destination of Polytechnic Graduates.
18. See U.S.R. and C.P.D. op.cit.
19. Also referred to as the screening hypothesis.
20. Human capital theory provides the basis for a model of occupational choice which is discussed on page 25.
21. Referred to by Speakman M. A. (1980) as the individual-ambition model.
22. Referred to as the structure-opportunity model.
23. Where the individual's interests, capacities and personal values are taken into consideration together with the transition from subjective considerations to a greater awareness of external reality when the individual is about to leave school.
24. For Ginzberg E. et.al. (1951) this typified the student at about eighteen years of age.
25. See note 22.
26. As advocated by the sociological based theories.
27. The size of Gothard's sample was rather small however (n = 61).
28. e.g. no apparent future benefits; feeling of 'being in a rut'.
29. See page 23.

30. See for example Joll et.al. (1983).
31. See for example Nisbet J. and Welsh J. (1977); Walker P. (1975).
32. For example redundant BSC employees were offered reasonably attractive terms in order to pursue higher education courses.
33. See for example Blaug M. (1965); Morris V. and Ziderman A. (1971); Ziderman (1973).
34. See note 7.
35. See page 35 for a discussion of labour market segmentation.
36. Williams G. and Gordon A. (1981) discovered that by the end of their compulsory education English pupils in general are aware of the relationship between educational qualifications and average earnings. Within the research it is assumed that mature students have at least the same level of awareness.
37. See page 30.
38. Therefore probably an understatement.
39. At degree level rather than above.
40. See page 25.
41. It should be recognised, however, that Arrow did not personally subscribe to the view that higher education performed only a screening function. He considered it appropriate at the time, however, to make what he called a dramatic and one-sided presentation of the screening model.
42. It may be argued that employers dissatisfaction with graduate recruits may well lie in their recruitment policies rather than any failure of the higher education sector.

43. See for example Doeringer B. P. et.al.(1972); Harrison B. (1972).
44. See for example Gordon D. M. (1972); Bosanquet and Doeringer (1973); Harrison and Sum (1979); Nickell S. (1980); Pond C. (1980); Jain H. C. and Sloane P. J. (1980).
45. See page 25.
46. These will form the basis of the employment potential model in Chapter 8.
47. See for example Creedy and Disney (1981); Doherty N. (1979); Thomas R. B. (1980).
48. One questions D.E.S. projections on demand and female participation rate.
49. They quoted the experience of one returner:

"One chap who worked in the factory, on a summer course, was from London University. I got talking to him and got on with him very well. I found him a stimulating person to be with, and he persuaded me to try something further and get out of the rut I was in. Just luck really. If I hadn't met him, I'd probably still be there."
50. B.S.C. (1981).
51. See for example Pickering S. (1966), Barnard D. (1967); Gibson and Pococke (1968).
52. Own italics.
53. See pages 5 and 38.
54. See for example Cripps and Tarling (1974); Bowers and Harkers (1979) Bowers (1982); Lancaster A. (1979); Leciester C. (1976), Nickell S. (1979b)

55. See for example Clarke L. (1980); Main and Raffe (1983); Pollock and Nicholson (1980).
56. See page 12 and D.E.S. and D.E. (1984).
57. See for example Forrest A. (1983); O'Brien R. (1977); Barker E. G. (1977); McKenna E. (1983); D. of I. (1977); Roizen and Jepson (1984).
58. Department of Employment (1983) Employment Gazette. April.

CHAPTER THREE

STATISTICAL BACKGROUND

- Higher Education in Great Britain
- Employment and Unemployment Flows
- The Graduate Labour Market

This chapter aims to present a picture of the areas in which the research is concentrated. Initially trends within higher education over the last two decades or so will be examined, paying particular attention to the numbers of adult and mature entrants into higher education.

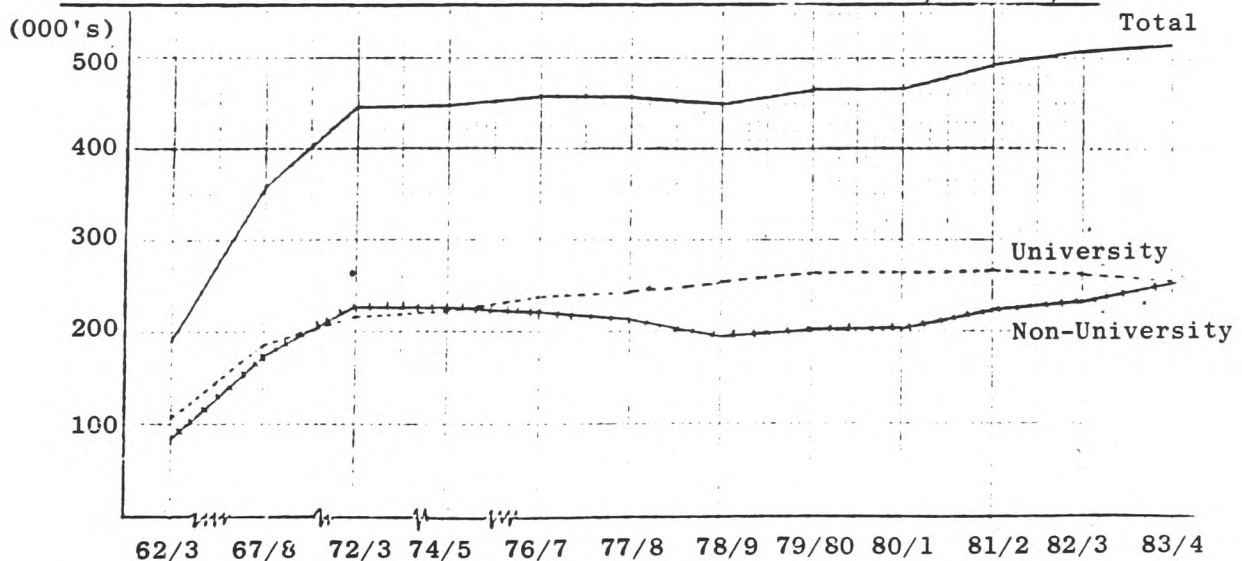
The next section will examine the trends in employment and unemployment flows by age, sex and region. Utilising Department of Employment data it is possible to assess labour market conditions existing within each region and facing mature students on their re-entry into the labour market. It also serves as an introduction to the development of the model in chapter nine.

Finally, it is intended to survey briefly the state of the graduate labour market⁽¹⁾ in preparation for chapter seven where a comparison of destinations of the mature students included in the research will be made with the graduate destinations in general.

Higher Education in Great Britain

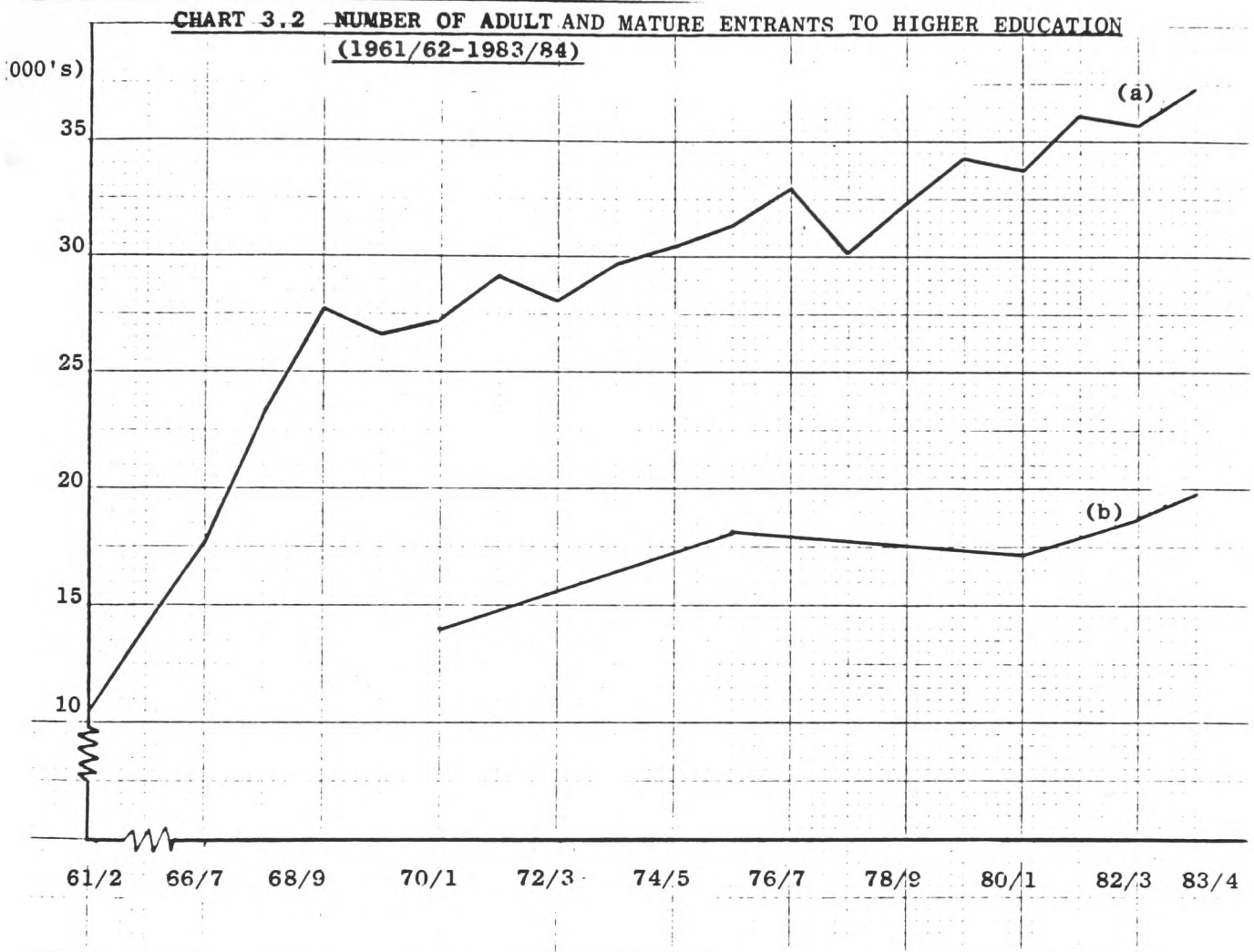
Chart 3.1 illustrates the increase in number of full time home students attending courses of higher education within Great Britain from 190,000 in 1962-63 to 519,500 in 1983-84, an increase of some 173% in twenty years. In addition, the growth in the non-university sector has been even more marked, a 210% increase from 84,000 twenty years ago to nearly 260,000 in 1983-84. Whilst the university sector has not seen such dramatic growth, it nevertheless has witnessed growth of nearly 150% over the twenty-one year period and still maintains its dominance, in more senses than one⁽²⁾, within higher education provisions in this country.

CHART 3.1 FULL-TIME STUDENTS IN HIGHER EDUCATION 1962/63-1983/84



Source: Statistics of Education (various editions) and D.E.S. Statistical Bulletin (various)

Over the period of time there has been a marked upward trend in the number of adult entrants⁽³⁾ into higher education, a 250% increase during the twenty-one years between 1961-63 and 1983-84. Data on mature entrants⁽⁴⁾ is somewhat more recent but nevertheless the trend has been upwards with a 41% increase in the number of entrants aged 25 and over between 1970-71 and 1983-84. These trends can be seen in Chart 3.2 below.



Sources: DFS Statistical Bulletins (various)

(a) 21 and over - Adult Entrants

(b) 25 and over - Mature Entrants

Table 3.(i) below, highlights the percentage change in the numbers of

21-24 year old and 25+ entrants by sex and the obvious point for discussion is that amongst males the major impact has been in the mature category, whilst for females the 21-24 age group has seen the significant upward trend.

Table 3(i) Percentage Increase in Entrants Between 1970-71 and 1983-84		
	Age Group 21 - 24	Age Group 25 and Over
Male	19	62
Female	72	24

Source: D.E.S. Statistical Bulletin 9/85. July 1985.

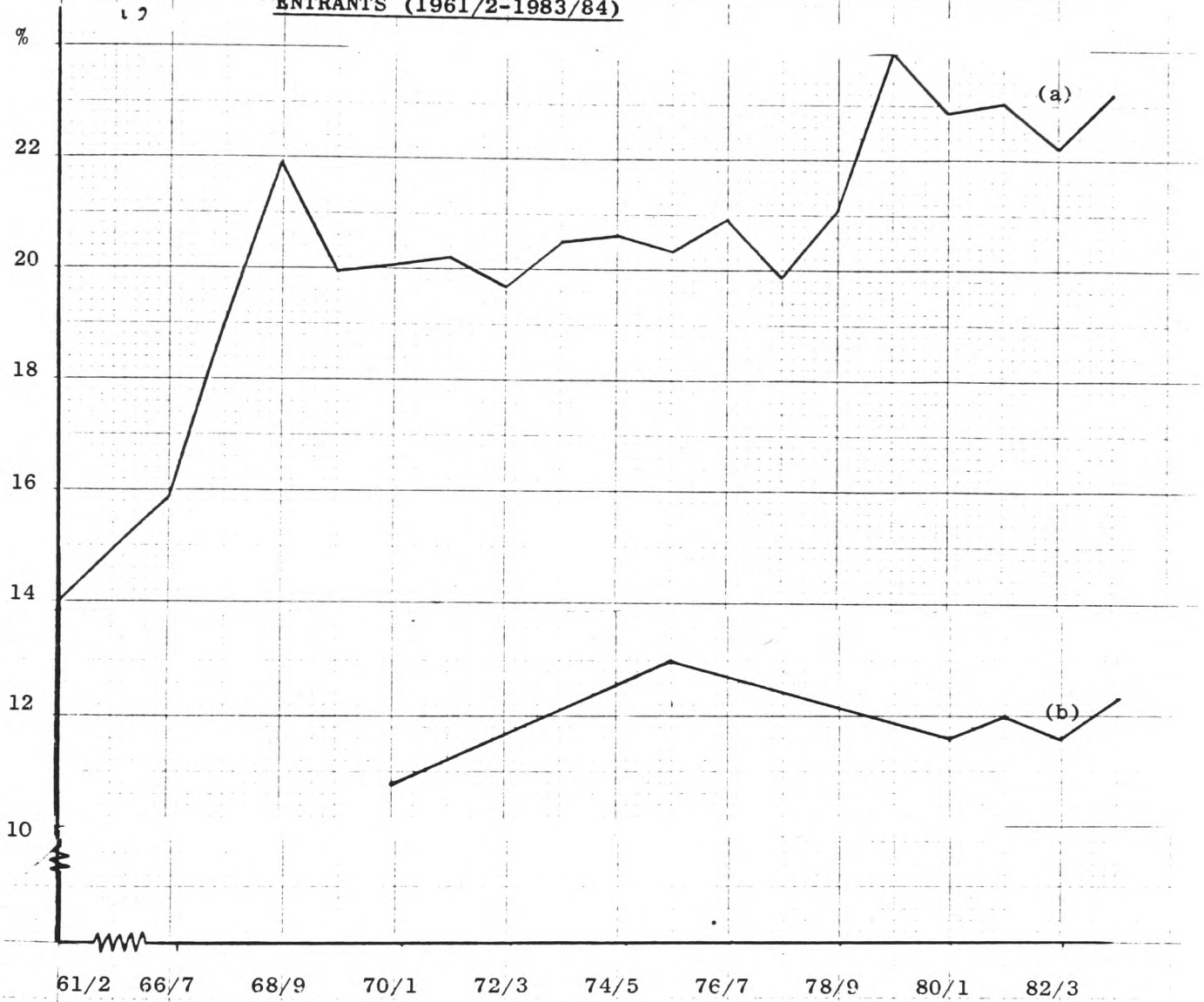
A possible explanation for the difference between male and female trends may well be that once females encounter greater domestic responsibilities their access to higher education courses is constrained e.g. the times for collection of children from school does not coincide with the typical timetable on a higher education course, and therefore the size of the female 21-24 year old take up could be the result of 'acquiring qualifications prior to starting families'. These statistics would provide an interesting foundation for further work.

In general terms it is difficult to provide any systematic explanation for the overall increasing trend in both age categories within full time courses. Although maintenance grants have been available of late, to an extent previously unknown, this has been countered by a fall in the rates of return to higher education,⁽⁵⁾ which applies to mature students in addition to students in general. Farrant (1981) had suggested that it may be that there has long been an unsatisfied demand, and that a crucial factor has been a more liberal attitude towards entrance requirements on the part of universities, colleges and the C.N.A.A. - an attitude perhaps in part induced by the unexpected stagnation in demand from school-leavers'. Whilst this may indeed be a relevant factor one also has to recognise the greater awareness within society of the benefits of qualifications and the role played by the Open University, with regard to higher education for adults, as recognised by Squires (1981)

Chart 3.3 indicates the proportion of new entrants into higher education

regarded as being adult and mature and here it is again noticeable that there is an upward trend, despite the decline in 1977-78, reflected both in numerical terms⁽⁶⁾ and proportionate terms⁽⁷⁾. The decline in 1977-78 can be attributed to the large increase in fees which occurred in that academic session because the upward trend was again evident by the following session.

CHART 3.3 ADULT + MATURE ENTRANTS AS A PERCENTAGE OF FULL-TIME HOME ENTRANTS (1961/2-1983/84)



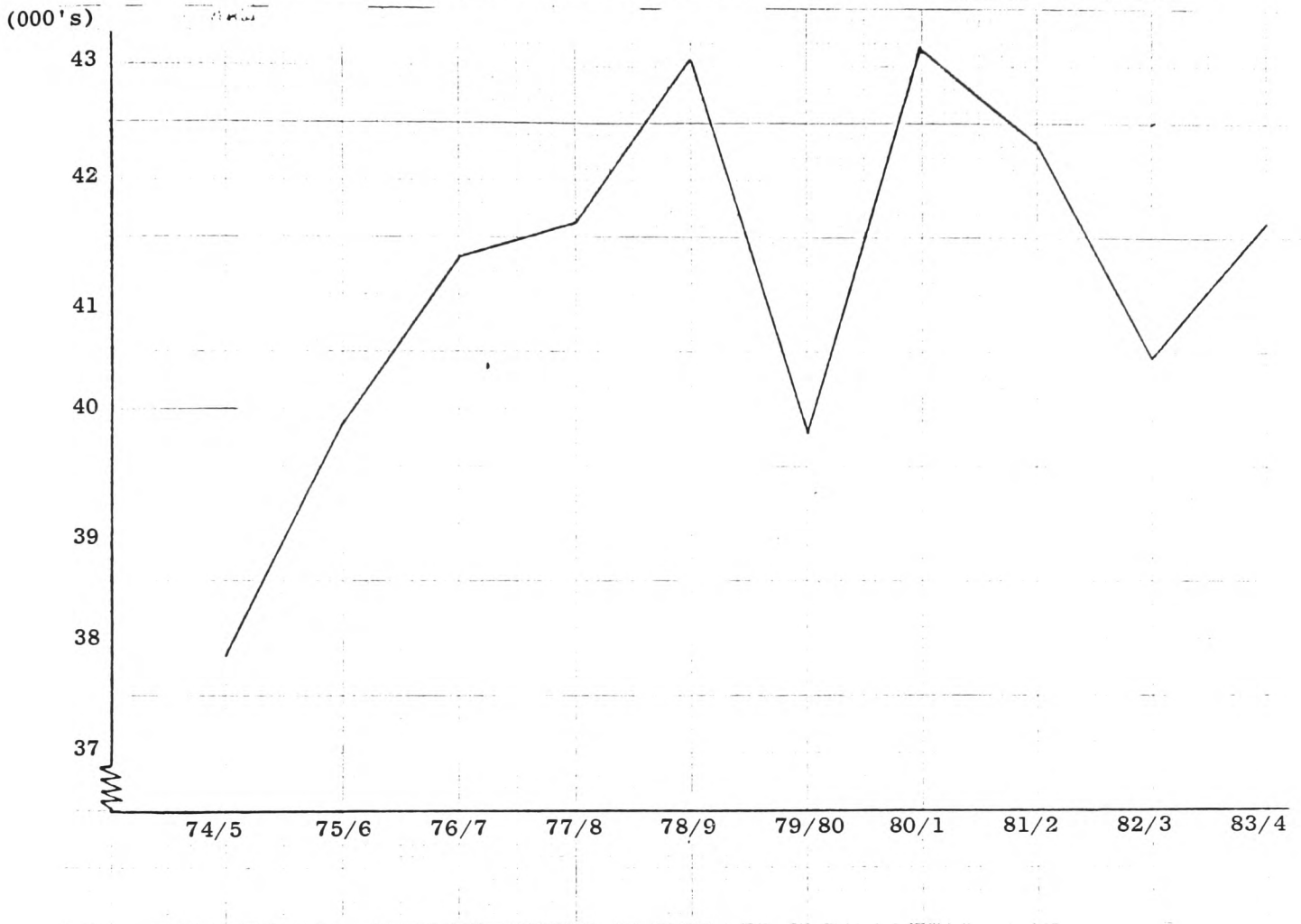
Source: D.E.S. Statistical Bulletins (various)

(a) 21 and over

(b) 35 and over

However, within the university sector the upward trend has not been as marked, to say the least. Chart 3.4 highlights the growth of mature students within the university sector.

CHART 3.4 MATURE STUDENTS AT UNIVERSITY (FULL-TIME) 1974/75-1983/84 (8)



Source: Universities Statistical Record

In proportionate terms there has been a fall in the percentage of mature students within universities from 17.4% in 1976-77 to 15.9% in 1983-84. Given the policies with regard to higher education of late it is quite likely that such a downward trend will continue as the number of places in universities decline and admissions are concentrated on 18 year olds because of the socio-political pressure to admit them, as they are perceived to be 'less risky'. (9)

Employment and Unemployment Flows

The sample of mature students for this research was chosen from educational institutions in South Wales⁽¹⁰⁾. However, it is assumed that the likelihood of a mature student obtaining employment depends to some extent on the conditions prevailing within the local labour markets. In order to illustrate the difference between regions, employment and unemployment flows in Wales and G.B. are utilised.

It would appear to be the case that the Welsh 'worker' is prone to longer spells of unemployment than is generally the case in Great Britain. Table 3(ii) below provides a comparison of the median duration of unemployment spells⁽¹¹⁾ in both Wales and G.B.

Table 3(ii) Median Duration (in weeks) of Unemployment Spell (as at June 1984)

	Wales	Percentage Change Over Previous Year	G.B.	Percentage Change Over Previous Year
Males				
Completed spells	19.9	+ 0.5	16.9	- 3.4
Uncompleted spells	46.2	+ 6.9	43.4	+ 10.7
Females				
Completed spells	18.1	+10.4	16.8	+ 11.3
Uncomplete spells	30.4	+ 8.2	28.9	+ 12.0
Males and Females				
Completed spells	19.3	+ 3.2	16.9	+ 1.2
Uncompleted spells	41.0	+ 7.3	38.1	+ 9.2

Source: Employment Gazette October 1984

A male becoming employed in Wales is likely to remain unemployed for three weeks longer than the average in G.B. However, for females the differential is not as large, just over one week for both completed and uncompleted spells.

These differentials are reflected in the likelihood of becoming unemployed⁽¹²⁾ shown in Table 3(iii) below. It can be seen that the likelihood of becoming unemployed at any time in Wales is

Table 3(iii) Likelihood of Becoming Unemployed in Wales and G.B.
(as at June 1984)

	<u>Males</u>	<u>Percentage Change Over Previous Year</u>
Wales	6.0	+ 9.1
G.B.	5.2	+ 6.1
	<u>Females</u>	
Wales	4.8	+ 11.6
G.B.	4.1	+ 10.8
	<u>Males and Females</u>	
Wales	5.5	+ 7.8
G.B.	4.7	+ 6.8

Source: Employment Gazette October 1984.

higher than in Great Britain, and more significantly, there has been a higher increase in likelihood in Wales than in Great Britain as a whole, with the exception of the North of England and Scotland.

From this, it can be argued that the condition of the labour market within Wales makes it more difficult for all classes of labour in terms of employment and that mature students graduating from Welsh institutions are likely to find it more difficult to acquire employment than mature students in general, not because of any educational factors,⁽¹³⁾ but rather due to mobility constraints and the conditions prevailing within the local labour market. Hence, the intention to distinguish between employment potential, which will be a general measure, and employment probability, which will be determined by the climate of the indigenous economy.

To substantiate the above distinction it is worth examining Table 3(iv) below, which indicates the likelihood of leaving the unemployment register.⁽¹⁴⁾

Table 3(iv) Likelihood of Ceasing to be Unemployed in Wales and G.B.
(as at June 1984)

	<u>Males</u>	<u>Percentage Change in Likelihood Over Previous Year</u>
Wales	33.7	+ 3.7
G.B.	35.3	+ 6.0
	<u>Females</u>	
Wales	43.3	+ 0.5
G.B.	41.7	+ 0.2
	<u>Males and Females</u>	
Wales	36.4	+ 2.8
G.B.	37.3	+ 4.8

Source: Employment Gazette October 1984.

One can see that for males the likelihood of leaving the register is much less than that in Great Britain, but the opposite is true of females and therefore, there is not a large margin in general terms, except that there has been a larger increase in likelihood in Great Britain. The probable reason is that the jobs that are becoming available in Wales are with services and light manufacturing, which are more attractive to females than males.

What should be remembered, however, is that mature students on graduation at least, do not find themselves on the unemployment register and therefore the likelihood of becoming employed (or ceasing to be unemployed) is a more appropriate measure.

Table 3(v) below, highlights the tendency for the likelihood of becoming unemployed⁽¹⁵⁾ to decline with age.

Table 3(v) Likelihood of Becoming Unemployed by Age* in G. B. (as at July 1984

	<u>Males</u>	<u>Females</u>	<u>Males and Females</u>
<u>Age Group</u>			
Under 18	16.4 (+2.1)	12.2 (+1.3)	14.8 (+1.4)
18-19	10.7 (+0.7)	8.8 (0.0)	9.9 (+0.4)
20-24	9.6 (+0.9)	8.5 (+0.8)	9.1 (+0.8)
25-29	5.5 (+0.4)	5.8 (+0.9)	5.6 (+0.6)
30-34	3.9 (+0.1)	3.1 (+0.5)	3.6 (+0.3)
35-44	3.6 (+0.1)	2.1 (+0.4)	2.9 (+0.2)
45-54	2.9 (+0.1)	1.4 (+0.1)	2.2 (+0.1)
55-59	2.8 (-0.2)	((
60+	2.9 (-0.4)	(0.7 (0.0)	(2.1 (-0.1)

Source: Employment Gazette October 1984.

*Figures in parenthesis refer to percentage change over previous year.

However, the likelihood of ceasing to be unemployed⁽¹⁶⁾ also tends to reduce with age - except for claimants approaching retirement age - as can be seen in Table 3(vi) below.

Table 3(vi) Likelihood of Ceasing to be Unemployed by Age* in G.B. (as at July 1984)

	<u>Males</u>	<u>Females</u>	<u>Males and Females</u>
<u>Age Group</u>			
Under 18	51.2 (+4.0)	52.6 (+1.7)	51.8 (+3.0)
18-19	41.3 (+5.5)	45.8 (+3.2)	43.2 (+4.6)
20-24	39.1 (+1.6)	45.0 (+0.4)	41.2 (+1.2)
25-29	36.9 (+0.7)	43.3 (-0.8)	39.1 (+0.5)
30-34	34.3 (-0.3)	44.7 (-0.6)	36.9 (-0.1)
35-44	33.3 (-0.3)	42.8 (+0.7)	35.4 (0.0)
45-54	26.6 (+0.7)	27.3 (-1.0)	26.8 (-0.7)
55-59	20.9 (+2.3)	((
60+	56.2 (+22.3)	(22.6 (-2.8)	(29.7 (+0.9)

Source: Employment Gazette October 1984.

*Figures in parenthesis refer to percentage change over previous year.

Furthermore, the unemployed in the older age groups tend to experience comparatively long spells of unemployment whereas those under 18 experience relatively short spells, see Table 3(vii) below.

Table 3(vii) Median Duration (in weeks) of Unemployment by Age⁽¹⁷⁾
in G.B. (as at July 1984)

	Under 18	18-19	20-24	25-29	30-34	35-44	45-54	55-59	60+
<u>Males</u>									
Completed spells	7.6	21.1	18.0	17.1	16.8	16.0	15.5	17.6	28.7
Uncompleted spells	12.8	33.3	34.4	44.7	50.8	56.1	65.7	69.2	30.4
<u>Females</u>									
Completed spells	8.3	19.6	18.3	21.0	17.4	12.8	14.5	18.5	
Uncompleted spells	13.1	31.8	24.1	25.2	25.6	28.9	48.4	75.4	
<u>Males and Females</u>									
Completed spells	7.8	20.4	18.1	18.5	17.0	15.2	15.3	17.8	29.0
Uncompleted spells	12.9	32.7	29.9	35.5	41.1	47.0	60.0	70.7	30.7

Source: Employment Gazette October 1984.

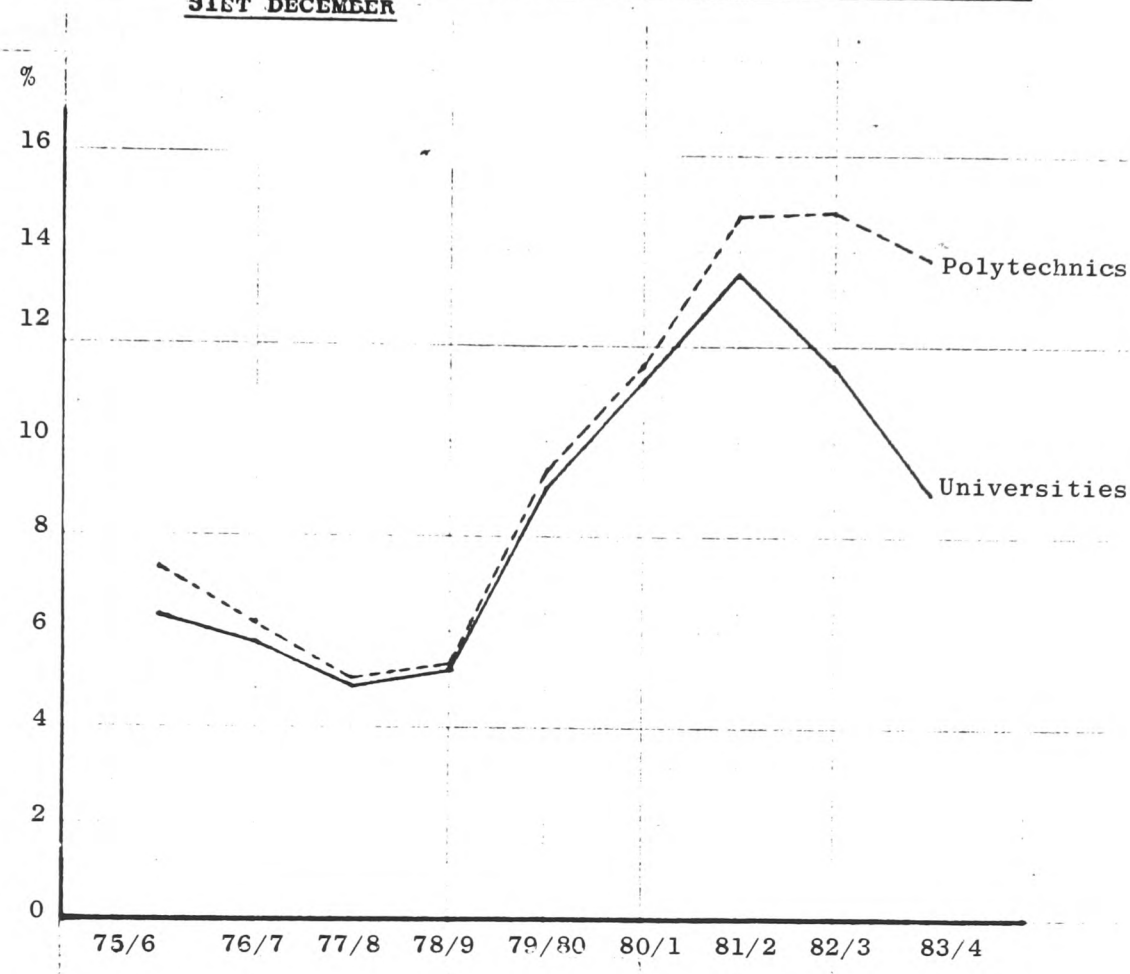
The Graduate Labour Market

Reference has already been made⁽¹⁸⁾ to some of the trends within the graduate labour market and some recent work has sought to analyse trends in terms of employment and the new areas of demand for graduates⁽¹⁹⁾.

The major sources of information on the graduate labour market are the First Destination Statistics⁽²⁰⁾ of first degree graduates from universities and polytechnics and it has become popular to construct 'league tables' on the basis of unemployment rates⁽²¹⁾.

Chart 3.5 highlights the overall graduate unemployment rates for universities and polytechnics.

**CHART 3.5 HOME FIRST DEGREE GRADUATES BELIEVED UNEMPLOYED AS AT
31ST DECEMBER**



Source: U.S.R. and C.P.D. (annual)

On the basis of Chart 3.5 it could be argued that university graduates are more attractive in terms of the labour market than their polytechnic counterparts⁽²²⁾. However, the larger differential between universities and polytechnics since 1981/82 may also be attributed to the constraints imposed upon universities in terms of numbers of students. Such limits of numbers affected polytechnics more recently, and it may be that the differential will close with time. What it is not possible to do however, is to identify the relative attractiveness⁽²³⁾ of graduates in terms of age within the labour market. This research aims to rectify the problem by examining the destination of mature graduates in terms of employment, unemployment and further studies and comparing them with conventional graduates. Such comparison will yield results which can enable the testing of such hypotheses as

formulated by Gothard (1982), for example, and whether or not the counselling and advice, if any, offered to mature students has been profitable.

Notes

1. See page 12.
2. See page 14.
3. That is aged 21 and over.
4. Aged 25 and over.
5. See page 12.
6. See Chart 3.2.
7. See Chart 3.3.
8. Total number of students rather than entrants as in Charts 3.1-3.3.
9. See page 15 for an alternative viewpoint.
10. See page 70 for methods adopted.
11. The length of time spent unemployed, which has been exceeded by 50% of the unemployed.
12. The inflow into unemployment expressed as a percentage of employees in employment and unemployment.
13. Except in the sense that some employers discriminate between institutions, although it is unlikely that this discrimination is in any way geographic.
14. Defined as the outflow from unemployment expressed as a percentage of employees in employment and unemployment.
15. See note 12.
16. See note 14.

17. See note 11.
18. See page 12.
19. See for example Tarsh (1985) and Adams and Meadows (1985).
20. Published annually by Universities Statistical Record and
Committee of Polytechnic Directors
21. See page 17.
22. See page 14.
23. Whilst recognising that there are other indicators of labour-
market valuation e.g. salary levels.

CHAPTER FOUR

RESEARCH METHODS

- 4.1 The Initial Survey
- 4.2 The Follow-up Survey
- 4.3 The Survey of Employers
- 4.4 The Statistical Model

This chapter describes the methods adopted in collecting and analysing the data, the results of which are described in the chapters following.

4.1 The Initial Survey

As indicated on page two the aim of the research led to the formulation of a series of objectives, the first three of which were as follows:

- (i) to identify the characteristics of mature students;
- (ii) to discover their origins and analyse their reason for entering higher education and their particular course of study;
- (iii) to assess their experiences within higher education.

The question of what methodology to employ in order to fulfil such objectives required an investigation as to whether information pertaining to mature students, their characteristics, origins etc. was already in existence. It was obviously the case that college records would contain details on age, gender, previous education, marital status etc. which would probably cover the first, and possibly the first half of the second objective. However, information on reasons for entering higher education, choice of course of study and mature students' perceptions and experiences within higher education would be impossible to collect from college records. Thus, as no secondary data was available some technique of collection would have to be employed. Furthermore, access to college records would also be problematic, if not impossible, on grounds of confidentiality, and, even if this were not the case, one would be confronted by the different systems adopted by different institutions. It was therefore decided to 'standardize' the gathering of information required by undertaking a survey

Following the advice of Moser and Kalton(1977) that the first task of planning a survey is to lay down the survey's objectives precisely, it made sense to incorporate the stated objectives, above, as those relevant for the initial survey of mature students. In order to fulfil such objectives, the decision had to be made as to what methods to employ to collect the information and also from whom to collect it.

The question of from whom to collect it at first sight seemed obvious, namely from mature students. However, the difficulties involved in arriving at a definition of mature students have already been discussed⁽¹⁾ and therefore, to restrict the differences which might exist, it was decided to concentrate on full-time mature students at institutions of higher education i.e. universities, polytechnics and colleges of higher education. By concentrating on such a group it made possible comparison with other age students in terms of destinations after completion of their studies⁽²⁾. Further, by adopting the 25 year old and over as the 'mature student', in comparison to the 21 year old and over 'adult student', it emphasised the likely time spent outside the educational environment and, for the vast majority, within the labour market. At this stage it was also considered whether or not to impose geographical limits upon the sample of mature students. Given that mature students are less likely to be mobile than other students, the numbers of mature students in employment is likely to underestimate the 'employment potential' of such a group compared to students in general. Obviously, those who are relatively mobile and can move to areas where their skills are in demand are more likely to find employment than those with exactly the same qualifications and other attributes, who due to domestic commitments are unable to move from 'relatively depressed regions'. Thus it was decided to restrict the survey to a small geographical area and then examine the conditions prevailing within the indigenous economy as compared with national trends to ultimately arrive at an indicator of the likelihood of a mature student achieving employment.

Practicalities dictated the use of higher education institutions within South East Wales viz. University College, Cardiff; University of Wales Institute of Science and Technology, Cardiff; Polytechnic of Wales; Gwent College of Higher Education and South Glamorgan Institute of Higher Education and undertake a survey of all students aged 25 and over on commencement of their studies⁽³⁾ pursuing a course recognised as being within the range of the Department of Education and Science's definition of advanced further education⁽⁴⁾. It was recognised that this geographical concentration would make it difficult to generalise specific results. However, the model of employment potential developed in chapter nine should be of general applicability.

The choice of method for collecting data on the characteristics of mature students, their origins, their reasons for entering Higher Education and experiences lay between personal interviews and a postal questionnaire. It is widely advocated in the survey method literature that the choice of method should be governed by the subject matter, the unit of enquiry and the scale of the survey. In this context the first two refer to the characteristics, experiences etc. of mature students whilst the latter refers to the number of students to be included in the sample.

It could correctly be argued that the necessary information to fulfil adequately the objectives laid down on page 70 be collected by a series of personal interviews. This, in fact, was the methodology adopted by Elsey (1978) in his study of mature entrants to Liverpool University. However, unstructured and informal pilot interviews, with a number of mature students at Gwent College of Higher Education substantiated the view that in no way could mature students be regarded as a homogeneous group. It was apparent that their origins were varied. They came from differing social and occupational backgrounds. Their perception of higher education ranged from "fear of the unknown" to "I know what to expect ... my children have been through it". Some came with considerable support from family and friends, others came struggling to re-build their lives as a result of matrimonial breakdown etc. Their objectives in pursuing higher educational qualifications ranged from views such as "nothing else to do" through to "I have always wanted to do it". A pilot study, involving the use of a questionnaire, was undertaken of fifty mature students at Gwent College. The pilot indicated the need to refine and alter questions relating to their experiences and expectations of higher education and also to provide a 'limited range' of answers rather than allow the respondent to simply state his/her views.

Given such pre-survey trials it became apparent that larger numbers of mature students were necessary in the survey if the results were to be generalisable at even a regional level. Therefore the scale of the operation excluded the formal interviews as a method of collection and a postal questionnaire was designed on the basis of the pilot questionnaire. It was recognised, however, that the pilot survey could not, and in fact did not, identify all potential problems relating

to the main survey. (5)

At the same time it was recognised that in using postal questionnaires one was subject to criticism due to the many disadvantages and problems involved in using such a method to collect information. Obviously one had to accept the answer given by the respondent and it would be extremely difficult to probe beyond the 'tick'. However, in a reasonable size sample, any 'errors' became insignificant. The major problem of postal questionnaires however, is that of non-response in that it produces potential bias in the estimates based on the responses. In the survey undertaken of mature students within higher education establishments in South Wales the problem of non-response certainly did exist. But, prior to a discussion of the problem, it is worth describing the 'mechanics' of the survey.

The institutions agreed to assist in the survey on condition that students' names and addresses would not be divulged, thereby maintaining confidentiality. Each institution therefore was given envelopes containing a letter, questionnaire⁽⁶⁾ and a reply envelope. Names and addresses were added by each institution's administrative staff, who forwarded them to their mature students. The impact of this however, was to exacerbate the problem of non-response. One way of reducing non-response would be to have sent reminder letters and questionnaires. But this would have meant producing a system whereby questionnaires were allocated numbers prior to their issue to the institutions; the institutions keeping a record of which questionnaire went to which student; the non-respondents identified by process of elimination; returning to the institutions with the non-respondent's numbers and going through the mechanics of distribution again. It was decided that it would be unwise to exploit the goodwill of the institutions in this way and therefore no reminders were sent.

It was recognised at the outset that the addresses of students tend to change over time and so it was expected that a proportion of questionnaires would fail to reach the appropriate person. To counter this the institutions were requested to send the questionnaires to the 'home' address of the students so as to minimise the 'lack of delivery'⁽⁷⁾. However, this in and of itself may have caused non-response due to lack of frequent communication between the student and his/her home.

Another problem arose from the timing of the survey. The questionnaires were sent out in April 1984 and replies received over the next few months. It was recognised that the proximity of examinations could act as a deterrent in completing and returning the questionnaires⁽⁸⁾ but it was decided to go ahead at this time rather than wait until after the examinations, when it would probably be even more difficult to 'reach' the 'correct address'. A further postponement until the Autumn term would have meant that new entrants would not have had sufficient time to settle down and be able to deal with some of the questions.

Thus the survey did suffer to a marked extent from non-response and it has to be recognised that there may be a 'biased sample'. In particular the respondents are likely to have more positive views on higher education and their expectations on completion of their studies than non-respondents. However, it has also to be said that some comments offered did indicate that some mature students were very disillusioned with their situations, hence the bias, if present, would seem to be rather slight.

Two thousand, one hundred questionnaires were distributed, equally divided between the university sector and the public sector, and eight hundred and thirty-three were returned of which seven hundred and fifty-seven were utilised in the analysis.⁽⁹⁾ The response rate of 39.7% was considered reasonable given the problems indicated above, whilst for each sector the response rate⁽¹⁰⁾ was 41.4% for the university sector and 37.1% for the public sector⁽¹¹⁾.

The response rate for this survey compares favourably with a similar exercise undertaken to survey the experiences of some of the first graduates who pursued non-teaching degree programmes in Colleges of Higher Education. (Harland and Gibbs 1986). The response rate in this survey was 50% after one reminder had been sent.

The analysis was undertaken mainly by utilizing the SPSS⁽¹²⁾ package available on U.C. Cardiff's Multics Operating System using a Honeywell DPS-8/70M mainframe computer.⁽¹³⁾

The results of this initial survey can be seen in chapters five and six.

4.2 The Follow-Up Survey

The identification of students suitable for the second stage of the analysis was made possible by requesting respondents to indicate whether or not they were prepared to participate in a follow-up by inserting their name and address at the beginning of the questionnaire. Those completing their course of study in June/July 1984 or 1985 were then selected and sent a further postal questionnaire. ⁽¹⁴⁾

Those students who completed their studies in June/July 1984 were sent the questionnaire in July 1985 whilst those who completed in June/July 1985 received theirs in January 1986. The objectives underlying the follow-up were (a) to determine the percentage of mature students in employment, unemployment or undertaking further studies six months after completing their course of study i.e. at 31:12:1984 and 31:12:1985; (b) to assess the factors which determine the employment potential of mature students. These are closely related to the initial objectives 4 and 5 staged on page 2.

In this case it was, therefore, possible to send out a reminder given the addresses were known. However, the number of questionnaires returned as 'gone away' or 'address unknown' also increased ⁽¹⁵⁾, a feature which was not surprising for a variety of reasons, such as moving away to employment and the acquisition of a better property as a result of employment.

The questionnaire design was based on that used by Williamson (1981) in his National Survey of 1970 Graduates on behalf of the Department of Employment Unit for Manpower Studies and his coding frame was also adapted for use in this study.

Two hundred and fifty-three questionnaires were sent to those completing their studies in July 1984 and one hundred and eighty nine were returned, fourteen of which were returned as 'gone away'. After one reminder, the response rate of 75% was considered acceptable for a postal questionnaire follow-up survey. One hundred and twenty-five questionnaires were sent for those completing in July 1985, and eighty-nine returned,

thirteen of which were returned as gone away. The response rate of 71% was also considered appropriate.

For the statistical model of chapter eight the 1984/85 responses were amalgamated and, therefore, of three hundred and seventy-eight questionnaires delivered in the follow-up survey, two hundred and seventy-nine were returned, of which two hundred and fifty were used for analysis. The data for the statistical analysis was thus based on a sample survey with a 74% response rate.

Analysis was again undertaken by using SPSS and also by its successor SPSS-X⁽¹⁶⁾, available at the South West Universities Regional Computer Centre via the Multics system at U.C. Cardiff. In addition comparison was made with the overall mature student population within the university sector, from data supplied by Universities Statistical Record based on their First Destination of University Graduates as at 31st December 1984⁽¹⁷⁾.

4.3 The Survey of Employers

In order to examine the employment potential of mature students from all perspectives it was considered necessary to analyse the demand for such through an inspection of the attitudes of employers towards mature students and their experiences of such recruits.

The survey of employers was based on five objectives:

- (a) to determine the attitudes of employers towards mature students;
- (b) to examine whether employers exercise discrimination, positive or negative, towards mature students;
- (c) to discover whether different selection criteria are employed in considering mature students as opposed to conventional-age students;
- (d) to determine whether discrimination is exercised towards mature students in terms of age, sex, mobility, previous work experience, institution attended and course of study;
- (e) to assess the response of employers with regard to previous experiences of recruiting mature students.

In order to undertake the survey one was confronted with a choice of whether to carry out a series of interviews with employers, to engage in another postal questionnaire survey, or a combination of both methods. Another issue requiring choice was the person(s), within each organisation to be contacted, who would adequately represent the 'view' of that particular organisation. It was decided to utilise the various directories of employers of graduates published annually, prior to the 'milk round', so as to identify the 'contact person'.

Given the geographical dispersion of potential employers it was considered impractical to carry out interviews to any large extent and therefore the methodology employed was based on that adopted by Gordon (1983) in his survey of employer attitudes towards graduates in general.

One hundred organisations listed in 'GO 85' were randomly selected to receive a postal questionnaire.⁽¹⁸⁾ This was done by allocating each organisation a number and then selecting by means of random number tables. Thus a hundred organisations were sent the questionnaires and reply envelopes together with an assurance that no information would be published which would make identification possible. Of the hundred questionnaires distributed in July 1986, sixty were returned completed⁽¹⁹⁾ - a reasonable response for a postal survey, given that Gordon (1983) had a response rate of 53%.

The sixty respondent organisations employed some two million employees, so that large companies were disproportionately represented. However, it would also be true to state that there were organisations not listed in 'GO 85' and therefore not included in the survey, who were likely to employ a larger proportion of mature students e.g. education authorities and local authority social services departments, as well as organisations who did not take an active role in the recruitment of graduates but restricted their recruitment to the local labour market.

The results do, therefore, give an indication of the views of employers towards the recruitment of mature students, although one has to accept that employers, in the same way as mature students, cannot be regarded as a homogeneous group.

4.4 The Statistical Model

The advantages of statistical models that summarise data and test hypotheses are well recognised. Regression analysis, for example, examines the relationship between a dependent variable and a set of independent variables, whilst analysis of variance techniques provide tools for the effects of various factors on a dependent variable.

However, in seeking to construct an appropriate statistical model to summarise the data on the employment status of mature students a problem arises at the outset in that the dependent variable, employment status, is not continuous. More specifically the dependent variable is binary i.e. the student will either be employed or unemployed (other destinations are ignored as they fall outside what may be termed 'labour market status'.)

The tools of linear regression can be extended to accommodate functions where the dependent variable is binary. There are three potential models which may be utilised, viz. the linear probability model, the probit model and the logit model.

The multiple regression form of the linear probability model for employment status would be

$$E = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + u \quad - \quad (1)$$

where

E = Employment Status

X_1, \dots, X_5 = Explanatory variables i.e. age, sex, previous work experience, family needs⁽²⁰⁾ and qualifications

β_0 = intercept term

β_1, \dots, β_5 = Coefficients of explanatory variables

u = disturbance (error) term

The dependent variable E would thus be a 'dummy variable' and assigned the value 1 for a student in employment and 0 for a student not in employment. Thus it would be possible to interpret the calculated value of E, for any given X, as an estimate of the conditional probability of E, given X, hence its name the linear probability model.

The function which traces this type of curve is the cumulative probability function, as cumulative probability is represented by the area below the probability function curve itself at successive points along the x - axis and does not go outside the range (0, 1). Whilst there are, in theory at least, numerous cumulative probability functions available, because of the problem of finding an expression for asymmetrical functions and getting it into estimatable form the choice is usually narrowed to two symmetrical cumulative probability functions, the *normal* and the *logistic*.

The cumulative normal probability function gives rise to the probit model, this is so non-linear in its parameters and therefore so difficult computationally that it is often substituted by the logit model.

The *logit model* is based on the cumulative logistic probability function where the dependent variable is the logarithm of the odds of an event occurring. One important appeal of this model is that it transforms the problem of predicting probabilities in the range (0, 1) into the problem of predicting the odds of an event occurring, on the range of the entire real line from $-\infty$ to ∞ .

However, prior to specification of the model itself, another potential problem should be dealt with. The explanatory variables of age, sex, previous work experience, family needs and qualifications have been formulated in categorical terms and, therefore, the observations are not from populations that are normally distributed with constant variance. It is, therefore, necessary to utilise a special class of statistical techniques, called log-linear models (see Haberman 1978; Bishop Feinberg and Holland 1975), to analyse the categorical data. Such models are useful for uncovering the potentially complex relationships among variables in a multiway crosstabulation, and, therefore, will be utilised to analyse the permutations within this research as seen in Table 4(i) below.

Table 4(i) Categories of the Dependent Variable and the Independent Explanatory Variables

<u>Variable</u>	<u>Categories</u>
<u>Employed</u>	1 Yes 0 No
<u>Age</u>	A1 29 and under A2 30-39 A3 40-49 A4 50 and over
<u>Sex</u>	S1 Male S2 Female
<u>Work Experience</u>	X1 Up to three years X2 Three to six years X3 More than six years
<u>Family Needs</u>	F1 No domestic responsibilities F2 Some domestic responsibilities F3 Considerable domestic responsibilities
<u>Qualification</u>	Q1 Postgraduate or equivalent Q2 Degree or equivalent Q3 Higher National Diploma or equivalent

Thus the model to be adopted for the statistical analysis of the employment potential of mature students is the logit model, within the class of log-linear models, with computation being undertaken by SPSS-X; the dependent variable being employment status and the independent explanatory variables age, sex, relevant work experience, family needs and qualifications.

The employment potential for category A_i, S_j, X_k, F_l, Q_m can thus be defined as

$$EP(A_i, S_j, X_k, F_l, Q_m) = e_{ijklm} = \frac{E_{ijklm}}{E_{ijklm} + U_{ijklm}} \quad - (2)$$

where E_{ijklm} is the number in employment, U_{ijklm} the number not in employment i.e. unemployed and i, j, k, l, m are the categories of age, sex, experience, family needs and qualifications.

This could be re-written as

$$e_{ijklm} = \frac{E_{ijklm}}{N_{ijklm}} \quad - (3)$$

where N_{ijklm} is the number of mature students entering the labour market and thus taking on one of the two labour market states, namely employed or unemployed.

This can be regarded as the observed rate and, corresponding to this, we assume there are odds of employment which can be denoted by p_{ijklm} . Such odds correspond to the conceptual probability of employment (henceforth referred to an employment potential) of a student in cell $(ijklm)$ and assumes that all students within this cell would have the same odds.

The logit model can therefore be specified as

$$\ln p_{ijklm} = \ln \left(\frac{e_{ijklm}}{u_{ijklm}} \right) = \ln e_{ijklm} - \ln u_{ijklm} \quad - (4)$$

where $\ln e_{ijklm}$ is the log of the number employed in age category i , sex category j , experience category k , family needs category l and qualification category m

with $i = 1,2,3,4; j = 1,2; k = 1,2,3; l = 1,2,3; m = 1,2,3$

and \ln representing logarithms to the base e .

Similarly

${}^1_n u_{ijklm}$ is the log of the number unemployed in age category i, sex category j, experience category k, family needs category l and qualification category m.

The logit model is in fact the log of the ratio of the two frequencies and since $u_{ijklm} = 1 - e_{ijklm}$ equation (4) could be written as

$${}^1_n p_{ijklm} = {}^1_n \left(\frac{e_{ijklm}}{1 - e_{ijklm}} \right) = {}^1_n e_{ijklm} - {}^1_n (1 - e_{ijklm}) \quad - (5)$$

This model, however, is extremely complicated and, in terms of SPSS-X, the saturated model i.e. all row effects, all column effects and their interactions, results in four hundred and thirty one logits being produced and involves very high order interaction terms.

To illustrate, a saturated model with two variables e.g. employment status and age, contain terms for the row effects, the column effects and their interaction. Hence, for example, if we were to examine the relationship between employment and the first age category i.e. under 30 then

$${}^1_n e_1 = \mu + \lambda^{\text{employed}} + \lambda^{\text{age}} + \lambda^{\text{employed/age}}$$

and

$${}^1_n (1 - e_1) = \mu + \lambda^{\text{unemployed}} + \lambda^{\text{age}} + \lambda^{\text{unemployed/age}}$$

Therefore

$$\begin{aligned} {}^1_n p_1 &= (\mu - \mu) + (\lambda^{\text{employed}} - \lambda^{\text{unemployed}}) + (\lambda^{\text{age}} - \lambda^{\text{age}}) \\ &+ (\lambda^{\text{employed/age}} - \lambda^{\text{unemployed/age}}) \end{aligned}$$

which reduces to

$${}^1_n p_1 = 2 (\lambda^{\text{employed}} + \lambda^{\text{employed/age}}) \quad - (6)$$

since

$$\lambda_{\text{employed}} = - \lambda_{\text{unemployed}}$$

and

$$\lambda_{\text{employed/age}} = - \lambda_{\text{unemployed/age}}$$

Thus

$$p_1 = e^{2(\lambda_{\text{employed}} + \lambda_{\text{employed/age}})} \quad - (7)$$

Equation (7) gives the odds of being employed in age category 1 i.e. the odds of a mature graduate under 30 achieving employment.

It can therefore be deduced that it would be possible to identify the odds of being employed in other cells, e.g. the odds of being employed in age category 2 and sex category 1 i.e. males aged between 30 and 39 would be

$$p_{21} = e^{2(\lambda_{\text{employed}} + \lambda_{2\text{employed/age}} + \lambda_{1\text{employed/sex}} + \lambda_{21\text{employed/age/sex}})}$$

and so on with increasing degrees of complexity. The saturated log-linear model for the potential of employment as specified in (4) above would be

$$\begin{aligned} \ln p_{ijklm} = & \lambda^E + \lambda_i^A + \lambda_j^S + \lambda_k^X + \lambda_l^F + \lambda_m^Q + \lambda_{ij}^{E/A} + \lambda_{jk}^{E/S} + \lambda_{kl}^{E/X} \\ & + \lambda_{ij}^{E/F} + \lambda_{jk}^{E/Q} + \lambda_{ij}^{A/S} + \lambda_{jk}^{A/X} + \lambda_{ij}^{A/F} + \lambda_{jk}^{A/Q} \\ & + \lambda_{jk}^{S/X} + \lambda_{il}^{S/F} + \lambda_{jm}^{S/Q} + \lambda_{kl}^{X/F} + \lambda_{km}^{X/Q} + \lambda_{lm}^{F/Q} \\ & + \lambda_{ij}^{E/A/S} + \lambda_{il}^{E/A/X} + \lambda_{il}^{E/A/F} + \lambda_{im}^{E/A/Q} + \lambda_{jk}^{E/S/X} \\ & + \lambda_{jl}^{E/S/F} + \lambda_{jm}^{E/S/Q} + \lambda_{kl}^{E/X/F} + \lambda_{km}^{E/Z/W} + \lambda_{lm}^{E/F/Q} \\ & + \dots + \lambda_{ijklm}^{E/A/S/X/F/Q} \quad - (8) \end{aligned}$$

However, it is widely recognised that a model should fit the data, be substantively interpretable and as simple as possible. Equation (8), the saturated model, contains high-order interaction terms, which are extremely difficult, if not impossible, to interpret. It is necessary, therefore, to find a model suitable for interpretation and yet which does not adversely effect its efficiency in fitting the data.

A first step in determining a suitable model might be to test systematically the contribution to a model made by terms of a particular order e.g. a model may be fitted with interaction terms and the main effects only. The change in the chi-square value between the two models would thus be attributable to the interaction effects. In general then, by constructing different models and comparing the change in chi-square, it is possible to arrive at a 'best' model.

The likelihood-ratio chi-square is the log-linear statistic comparable to R^2 in regression analysis, where the change in multiple R^2 when a variable is added to a model indicates the additional 'information' conveyed by the variable. Similarly, the decrease in the value of the likelihood-ratio chi-square when terms are added signals their contribution to the model. ⁽²¹⁾

However, an alternative method would be to adapt the technique of backward elimination. Such a method starts with all effects in a model and then removes those that do not satisfy the criterion for remaining in the model. SPSS-X enables the 'best' log-linear model to be arrived at using backward elimination. At each step, the effect whose removal results in the least-significant change in the likelihood-ratio chi-square is eligible for backward elimination, provided that the significance level is larger than the criterion for remaining in the model (i.e. 0.05).

The 'best' model thus arrived at could be utilised to arrive at an indication of the likely odds of being employed according to the various categories of explanatory variables. The results obtained are discussed in chapter eight.

In concluding this chapter on the research methods utilised within the research, it is worth summarising the stages involved in the collection and analysis of the data. Following some informal interviews with mature students, a pilot survey was undertaken prior to the postal survey of over two thousand students aged 25 and above attending higher education courses at institutions within South Wales. Although the response rate was rather low it was considered reasonable given the difficulties involved in such a method of data collection, and in particular the problems pertinent to the population being surveyed in this research. Those students completing their studies in 1984 and 1985 (378) formed the basis of the follow-up survey in order to determine the destinations of mature graduates six months after completion of their studies. A reasonable response rate of 74% was achieved, which meant that the statistical model would be analysed utilising data collected from two hundred and seventy-nine mature students. The statistical model utilised is the *logit model*, based on the cumulative logistic probability function, where the dependent variable is the log of the odds of an event occurring. However, the saturated *logit model* was too involved given the number of records, and therefore a model which was more manageable for interpretation was constructed. This model, referred to as the 'best model', was able to provide indicators of the potential of a mature student achieving employment, given his/her portfolio of characteristics, including qualification.

Notes

1. See pages 3 and 43.
2. Via an examination of First Destination Statistics of University and Polytechnic graduates.
3. See page 5.
4. See page 7.
5. There were large differences in response rate. The pilot survey had a response rate of over 80% as follow-up was possible, whilst the main survey had a response rate of just under 40%.
6. See Appendix 2.
7. 3% of questionnaires were returned as 'gone away' or 'not known at this address'.
8. A significant proportion (slightly under 12%) were returned in the period July-September 1984 i.e. after the examination period.
9. Seventy-six questionnaires were returned incomplete and therefore not utilised in the analysis.
10. Of those analysed only. Others did not specify institutions.
11. Assuming equal distribution of uncompleted returns.
12. See Nie N.H. et.al. (1975).
13. See acknowledgements.
14. See Appendix 3.
15. 7% were returned as 'gone away' or 'not known at this address'.

- 16 See SPSS Inc.(1986).
- 17 See acknowledgements.
- 18 See Appendix 4.
- 19 4 were returned not completed with apologies offered for lack of time etc.; 3 were returned after the analysis was undertaken.
- 20 Constructed on the basis of marital status and number of children, similar to the variable adopted by Nickell (1979c).
- 21 Note, however that chi-square decreases, compared to R^2 increasing, when terms are added, since small values of chi-square are associated with good models.

CHAPTER FIVE

THE CHARACTERISTICS AND ORIGINS OF MATURE STUDENTS

5.1 The Characteristics of Mature Students

- Sex and Age Distribution
- Marital Status and the Number of Children
- Sector of Higher Education Attended and
Level of Study
- Employment History
- Entry Qualifications

5.2 Reasons for Entering Higher Education and Choice of Course of Study

5.3 The Preparation Undertaken for Higher Education

This chapter, and the following one, present the findings of the initial survey⁽¹⁾ of mature students attending higher education establishments within South Wales⁽²⁾.

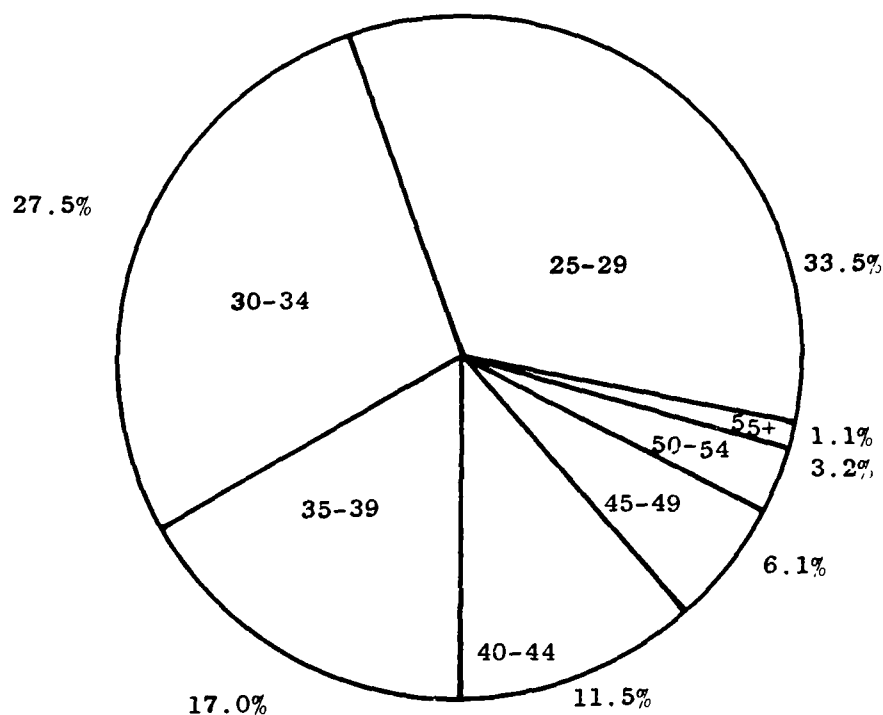
The chapter is divided into three sections; the first describes the characteristics of mature students in terms of sex, age, qualifications, marital status, number of children and previous employment; the second examines their reasons for entering higher education, when convention would suggest that individuals acquire their qualifications whilst they are young⁽³⁾, and their course of study; whilst the third section investigates the extent to which mature entrants undertook preparatory steps prior to commencement of their course.

5.1 The Characteristics of Mature Students

Sex and Age Distribution

Of the 757 respondents 456 (60.2%) were male and 301 (39.8%) were female. The age distribution is shown in Fig. 5.1. below, and it can be seen that there is a bias towards the lower end of the age structure, although this is more prevalent amongst males, where 66.4% were under thirty-five while for females aged under thirty-five the percentage was 52.7%.⁽⁴⁾

Fig. 5.1. Age Distribution



Marital Status and the Number of Children

Table 5(i) illustrates the marital status of the respondents and as one can see over 60% of the respondents are married.

Table 5(i). Marital Status by Sex

<u>Marital Status</u>	<u>Male</u>		<u>Female</u>		<u>Total</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Single	151	33.1	76	25.2	227	30.0
Married	287	62.9	168	55.8	455	60.1
Divorced	14	3.1	49	16.3	63	8.3
Separated	3	0.7	8	2.7	11	1.5
Widowed	1	0.2			1	0.1

The second largest category is the single student with 30% of the total. Amongst males the single and married students accounted for 96% of the total but for female respondents 19% of the total are either divorced or separated, a group for which higher education may be the initial step in rebuilding their life and/or career.

The number of children of mature students can be seen in Table 5.(ii) below.

Table 5(ii) Number of Children of Respondents

<u>Number of Children</u>	<u>Male Students</u>		<u>Female Students</u>		<u>Total</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
0	222	48.7	122	40.8	344	45.6
1	59	12.9	39	13.0	98	13.0
2	119	26.1	81	27.1	200	26.5
3	42	9.2	44	14.7	86	11.4
4 or more	14	3.1	13	4.3	27	3.6

This shows that female students tend to have larger families than males although, in both categories, the highest percentage is of for those with no children - a characteristic similar to that identified by Elsey (1978) ⁽⁵⁾.

In terms of the ages of mature students, it is noticeable that older students tend to have larger families as can be seen in Table 5(iii) below.

Table 5(iii) Number of Children by Age of Respondents

<u>Number of Children</u>	<u>Age of Respondents (%)</u>						
	25-29	30-34	35-39	40-44	45-49	50-54	55 and Over
0	81.6	42.4	18.1	16.3	15.2	4.2	33.3
1	9.6	16.6	15.0	14.0	8.7	16.7	11.1
2	6.4	29.8	37.2	37.2	47.8	37.5	11.1
3	2.4	8.8	25.6	25.6	19.6	20.8	33.3
4 or more	-	0.7	3.9	7.0	8.7	20.8	11.1
	n=254	n=208	n=109	n=87	n=46	n=24	n= 9

In chapter 8 marital status and number of children together form a variable, family needs, which is used as a proxy for mobility in arriving at an indicator of employment. Therefore, Table 5(iv) below shows the number of children by the marital status of mature students.

Table 5(iv) Number of Children by Marital Status of Mature Student

<u>Number of Children</u>	<u>Marital Status (%)</u>		
	Married (inc. Widowed)	Divorced/Separated	Single
0	22.1	25.7	100
1	17.8	23.0	
2	38.8	31.1	
3	16.0	16.2	
4 or more	5.3	4.0	
	n=456	n= 74	n=227

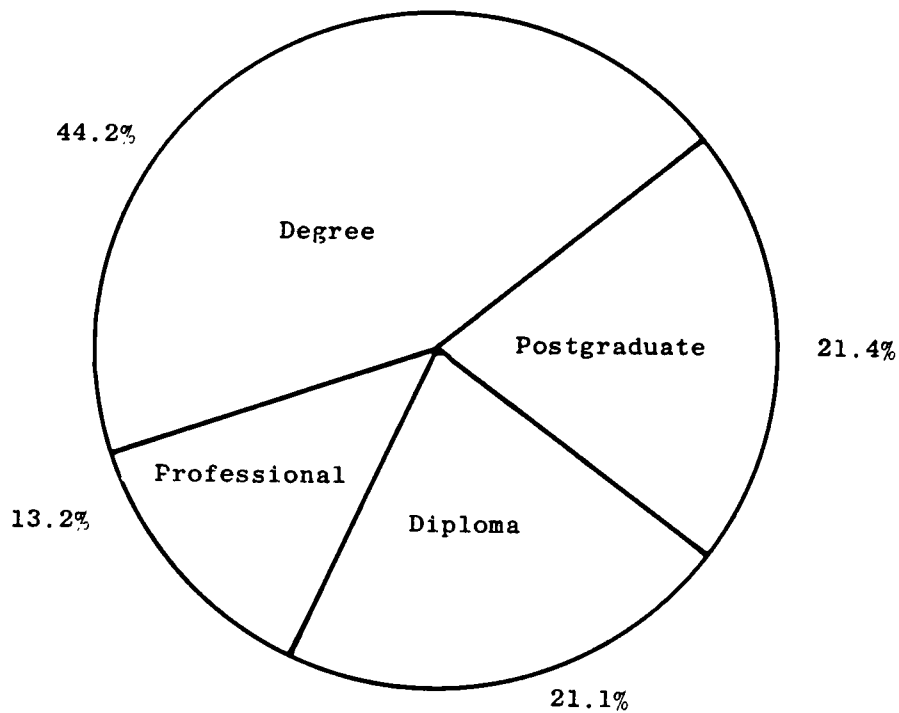
Sector of Higher Education Attended and Level of Study

Of the respondents 401 (53.0%) attended university courses and 356 (47.0%) attended the public sector side of the binary line (27.0% attended the Polytechnic of Wales and 20% colleges of higher education). Given the initial distribution of questionnaires such a division would seem to indicate that there is negligible bias in terms of sector of

institution attended.

Figure. 5.2., below illustrates the level of study undertaken by mature students. The conventional definitions apply to each

Fig. 5.2. Level of Study



level of study i.e. *postgraduate* refers to all courses and research programmes, with initial degrees as the pre-requisite entry qualification; *degree courses* referring to all university and C.N.A.A. first degree programmes; *professional courses* refer to all full time courses leading to a qualification recognised by the professional bodies e.g. Institute of Personnel Management, Chartered Association of Certified Accountants etc., usually requiring a degree or higher diploma as entry requirements;

diploma meaning all courses of higher national level or equivalent for which at least one 'A' level would be required.

Employment History

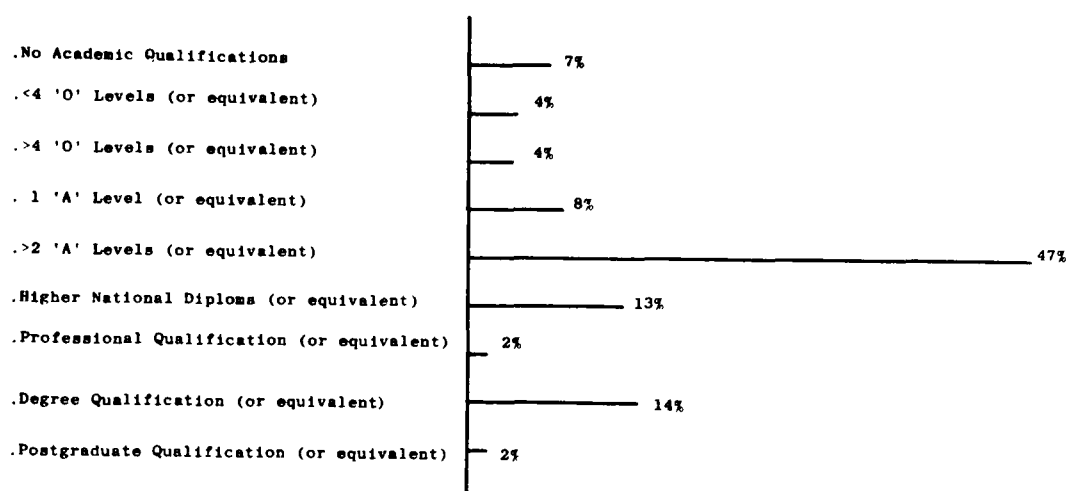
The vast majority of respondents had been employed at some stage prior to their entry into higher education, although for a few it was of very limited duration.

However, further analysis of the responses was undertaken to determine the extent to which mature students had experienced any spells of unemployment prior to entering higher education. The results revealed that 33.3% of mature students had suffered at least one spell of unemployment during their pre-higher education experience, with 7.1% experiencing more than one unemployment spell. The median duration of unemployment spell of the 252 who had experienced unemployment was 47.2% weeks, compared with 19.3 weeks for all completed unemployment spells in Wales⁽⁶⁾. Of these 252, 77 (i.e. 9.5% of the total respondents) were unemployed immediately prior to the commencement of their studies and had a median duration of 62.0 weeks. Such results would seem to indicate that either their aspirations were too high, and they were unwilling to accept certain jobs, or that higher education was in fact the last resort!! Indeed, Hopper and Osborn (1975) found that adult students are likely to 'have a history of intense but unsuccessful competition for jobs which they deem desirable.'⁽⁷⁾

Entry Qualifications

Fig. 5.3. below, indicates the academic qualifications held by mature students on entry (or re-entry for some) to higher education.

Fig. 5.3 Academic Qualifications Held by Mature Students on Entry



It can be seen that 15% of mature entrants did not possess the prerequisite qualifications for conventional entry to higher education i.e. at least one GCE 'A' level or equivalent⁽⁸⁾. For degree level courses, where the entry requirement is at least two GCE 'A' levels or equivalent the percentage is 23%. Furthermore, there are relatively more males, 16% and 26%, than females, 14% and 19%, without the prerequisite qualifications, with the percentages increasing with age.

Further analysis was undertaken to determine the extent to which the normal entry requirements for each level of study were satisfied by mature students. It was assumed that in order to undertake a postgraduate course it would have been necessary to have successfully completed an initial degree course, which in turn would have required at least two GCE 'A' levels or equivalent, e.g. BTEC National. It was, therefore, assumed that two GCE 'A' levels or equivalent were the normal entry requirements for both degree level and postgraduate level courses.

For professional level courses it was considered that students would require at least a diploma level course, which in turn necessitated at least one GCE 'A' level or equivalent and hence it was assumed that one GCE 'A' level was the normal entry requirement for professional and diploma level courses.

Table 5(v), below, indicates the percentage of mature students commencing courses without what might be termed the normal minimum entry qualifications.

Table 5(v) Percentage of Mature Entrants not Possessing the Normal Minimum Entry Qualifications

<u>Level of Course</u>	<u>Percentage*</u>
Postgraduate	15.1
Degree	24.3
Professional	16.7
Diploma	17.0

*Excluding those who did not specify the number of GCE 'A' levels.

The percentage of mature entrants not possessing four or more GCE 'O' levels is highlighted in Table 5(vi) below. It can be seen that the percentages bear close resemblance to the pattern established in Table 5(v), above, with the postgraduate level having the 'best qualified entrants'.

Table 5(vi) Percentage of Mature entrants Possessing less Than Four GCE 'O' Levels

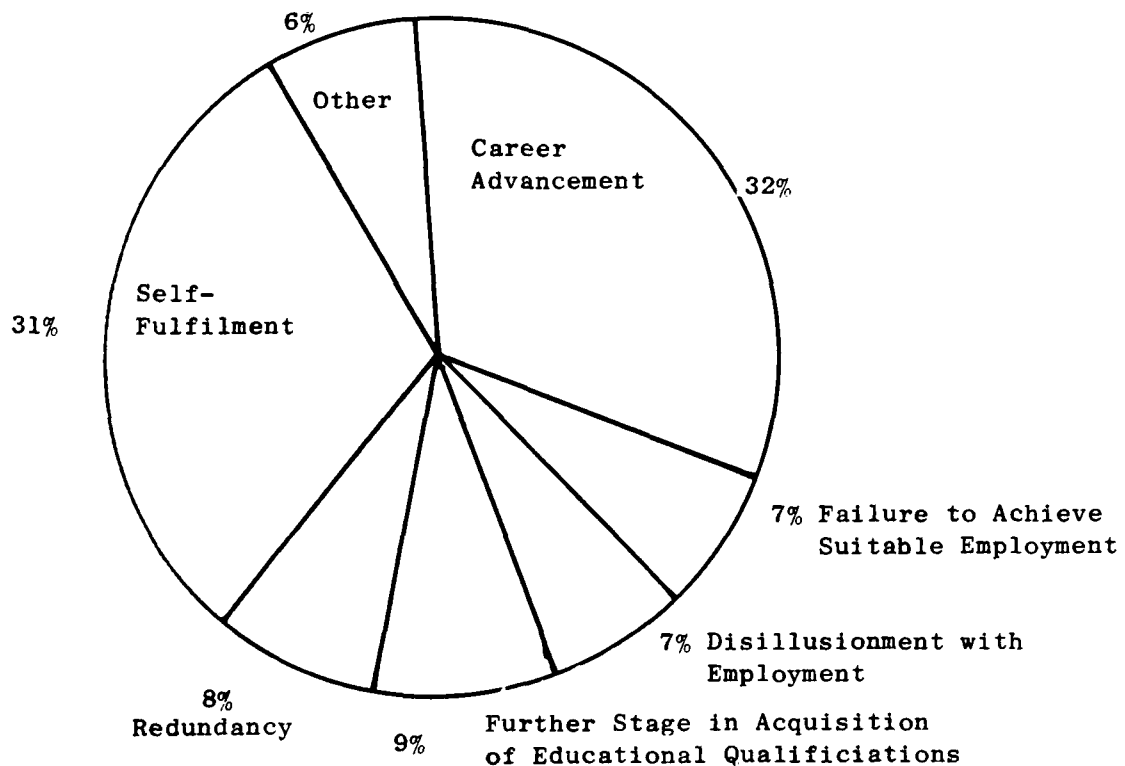
<u>Level of Course</u>	<u>Percentage</u>
Postgraduate	7.2
Degree	11.6
Professional	12.3
Diploma	12.5

However, despite the apparent 'lack of qualifications' there is no evidence to suggest that such 'non-standard entrants' experience problems to a larger extent than those with the appropriate entry qualifications⁽⁹⁾. Further, Woodley (1984) demonstrated that mature graduates with or without entry requirements perform as well, if not better, than conventional age entrants.⁽¹⁰⁾

5.2 Reasons for Entering Higher Education and Choice of Course of Study

The possible factors influencing mature entry to higher education have been discussed earlier⁽¹¹⁾ and one of the sub-objectives of this particular study was to identify the motivating factors amongst this cohort of mature entrants. They were thus asked to identify their main reason for entering higher education. Fig. 5.4. below, indicates that by far the most important were career advancement and self-fulfilment.

Fig. 5.4. Reasons for Entering Higher Education

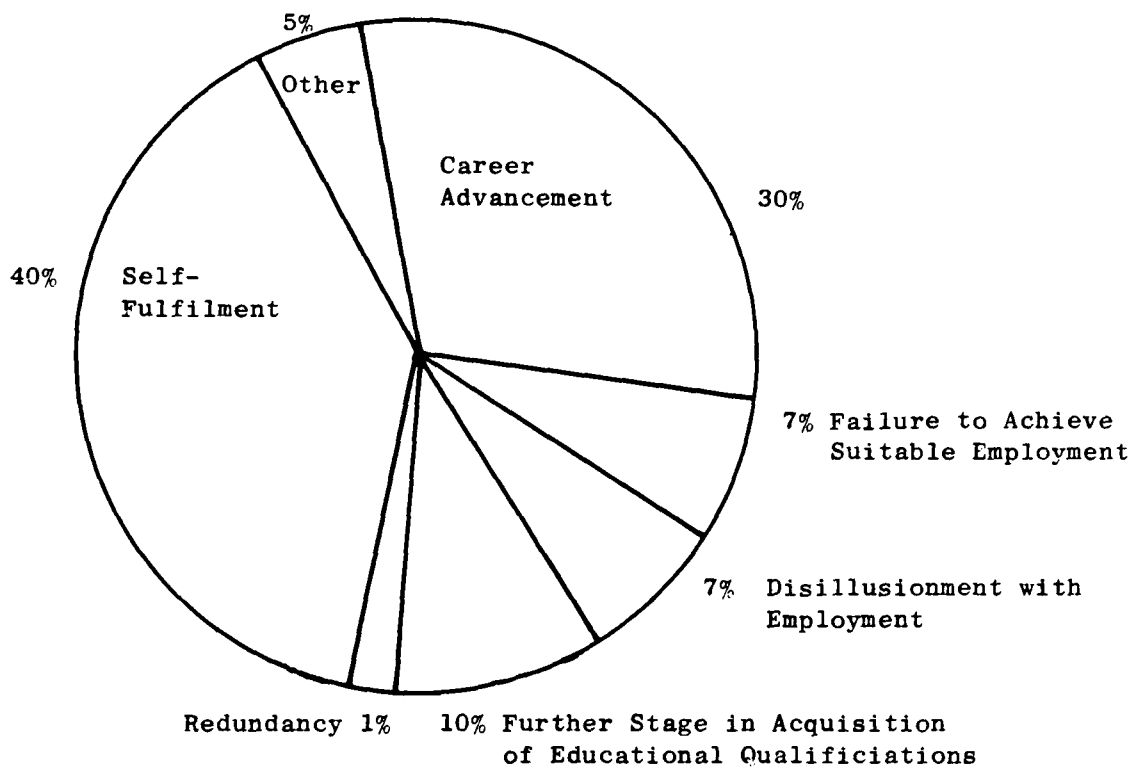


At this stage, it is interesting to compare these results with those obtained by a survey undertaken of Open University graduates⁽¹²⁾, which discovered that 56% of all Open University graduates attach more value to greater benefits for themselves as individuals than to the career benefits etc. associated with improved qualifications. From Fig. 5.4 above, if the factors career advancement, failure to achieve suitable employment, disillusionment with employment (a feature noted by Hopper and Osborn (1975)), further stage in acquisition of educational qualifications and a reasonable proportion of those who indicated other reasons, were regarded as career benefits, whilst the factors self-fulfilment and the remainder of others regarded as 'individual benefits', as classified by Swift⁽¹³⁾, then one could conclude that 65% of mature entrants to full-time higher education do so for career benefits whilst 35% compared with Swift's 56% do so for individual benefits.

However, it should be remembered that the Open University caters for part-time students whilst this cohort of students have removed themselves from the labour market for the duration of their course and it is therefore to be expected that they attach greater importance to the potential career benefits. Of interest also are the findings of a study of part-time CNAA degree students where career benefits were the motivating force in their decision to pursue such a course.⁽¹⁴⁾

Nevertheless, there is more of a similarity between Swift's results and this survey if the responses for females entering full-time higher education are isolated as illustrated in Fig. 5.5. below. Furthermore, a recent survey of Open University graduates found that 57% considered that their job performance or career prospects had been enhanced as a result of their qualification.

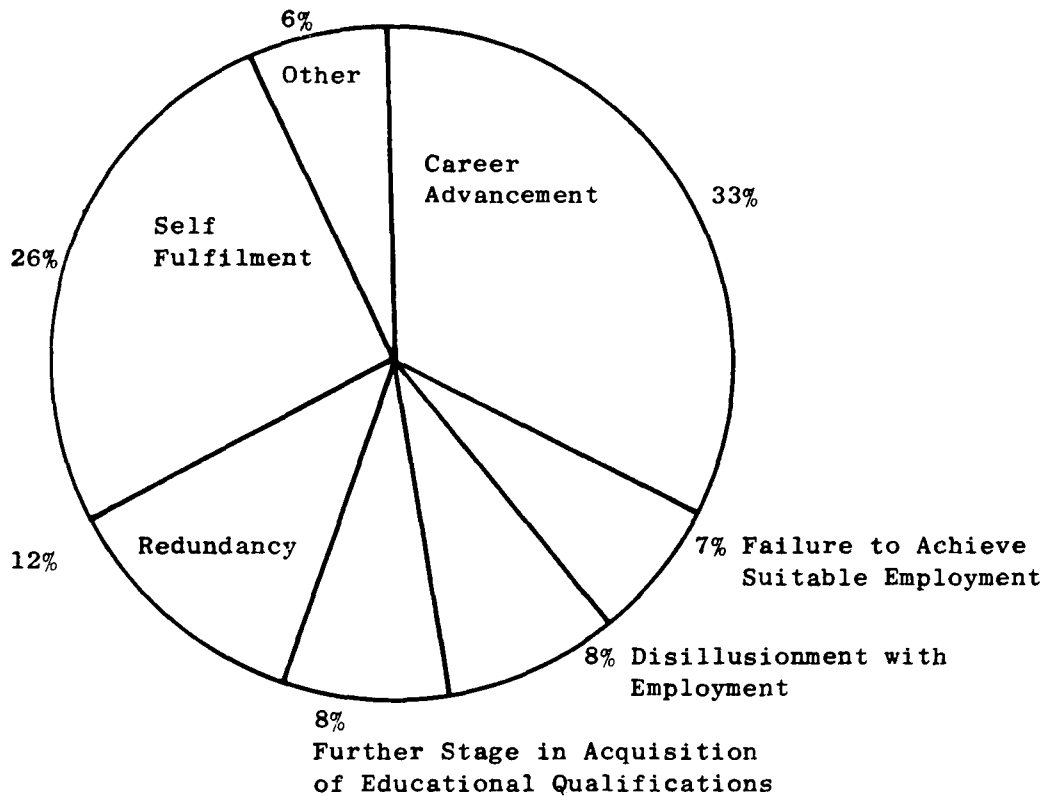
Fig. 5.5 Reasons for Entering Higher Education - Females



By far the most important single factor is 'self-fulfilment' and if the 'other reasons' are added - the majority of which tended to emphasise personal factors, then for female mature entrants the percentage entering higher education for individual benefits is 44%, with 56% entering for career benefits.

However, the picture is very different for males, as shown in Fig. 5.6 below.

Fig. 5.6. Reasons for Entering Higher Education - Males



Here, the self-fulfilment factor is specified by 30% compared to 40% of females, whilst 12% of males indicate redundancy as the main reason compared to 1% of females. This particular feature may well be attributed to the rundown of major employers within the region and should not be regarded as a general feature. Nevertheless, it is probably true to say that approximately 70% of males enter higher education for the career benefits, with the remainder entering for individual benefits.

What is noticeable about the percentage specifying individual benefits

as the main reason is that it increases with age, as can be seen in Table 5(vii) below.

Table 5(vii) Main Reason for Entering Higher Education by Age

<u>Main Reason</u>	<u>Age Bracket (%)</u>					
	<u>25-29</u>	<u>30-34</u>	<u>35-39</u>	<u>40-44</u>	<u>45-49</u>	<u>50+</u>
Career advancement	36.8	31.2	38.8	26.2	20.5	6.3
Disillusionment with employment	8.9	10.9	4.1	3.6	-	6.3
Failure to achieve suitable employment	8.1	6.9	7.4	7.1	4.5	9.4
Further stage in acquisition of educational qualifications	10.9	7.9	9.9	6.0	6.8	6.3
Redundancy	1.6	8.9	5.8	13.1	22.7	18.8
Self-fulfilment	29.6	31.2	29.8	32.1	38.6	40.6
Other	4.0	4.5	4.1	11.9	6.8	12.5

As can be seen in the 40-44 age bracket the percentage specifying career benefits is approximately 58%, in the 45-49 age bracket the percentage decreases to 56% and decreases even further to 49% for the 50 and over age bracket.

Whilst it could be argued that such results lend support to one of the general principles of human capital theory, which states that individuals normally choose to acquire their education while they were young, it seems more likely that these results substantiate the findings of an American study undertaken by Corman (1983)⁽¹⁵⁾, which shows that adults aged between 25 and 44 do respond to the same variables as conventional age students in making educational choices. Furthermore, since in all age brackets up to 50 and over, the majority of mature entrants are interested primarily in the career benefits of qualifications, it seems to contradict the view that mature entrants are acting irrationally in 'postponing' entry to higher education.⁽¹⁶⁾

It is also particularly noticeable that redundancy is a more important factor as one moves up the age spectrum - in fact over 31% of males in the 35-54 age bracket entered higher education as a direct consequence of redundancy. Whilst recognising that this may be a localised problem, as indicated earlier, it also would lend support to the view of Finemann (1983)⁽¹⁷⁾ who stated that 'educational institutions provided an appropriate base for redundant white collar workers seeking new opportunities.'

The reasons indicated for entering higher education were reflected in the area of study as can be seen in Table 5(viii) below.

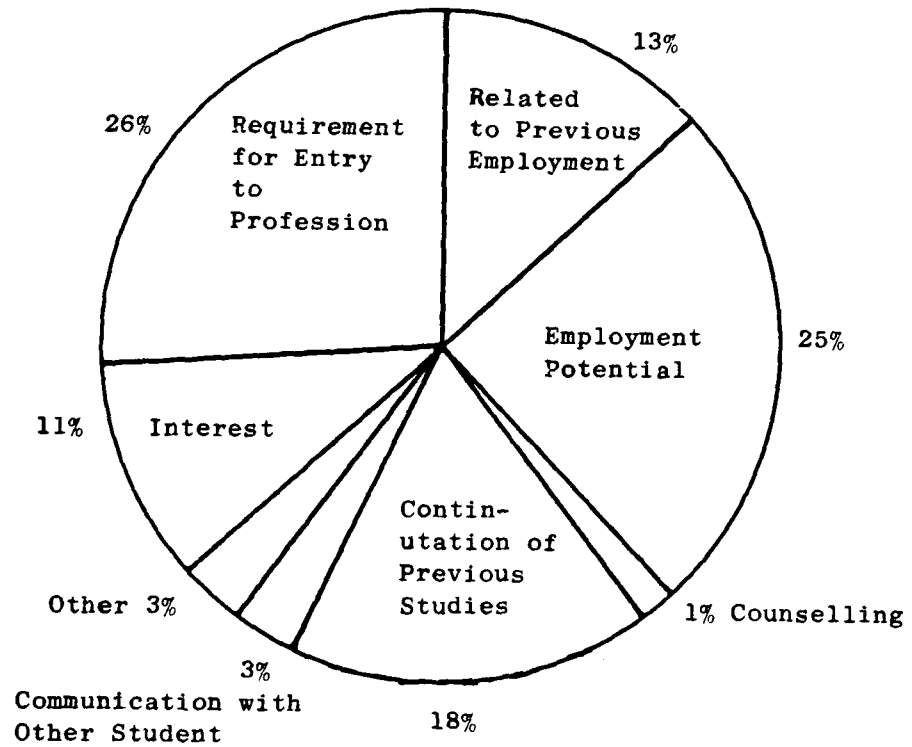
Table 5(viii) Main Reason for Entering Higher Education by Area of Study

<u>Area of Study</u>	<u>Percentage of Respondents Specifying</u>	
	<u>Career Benefits</u>	<u>Individual Benefits</u>
Engineering	79	21
Computing and Electronics	76	24
Administrative, business and management studies	69	31
Education	68	32
Social Studies	68	32
Humanities	53	47
Other	51	49
Mathematics and Science	50	50
Languages	33	67
Medicine, dentistry and Health	28	72

These results tend to reflect the findings regarding males' and females' reasons for entry, discussed earlier. Those areas of study having large percentages specifying career benefits as the main reason tended to have a large proportion of males e.g. engineering had 98% of males; computing and electronics had 85% of males; administrative, business and management studies had 65% of males.

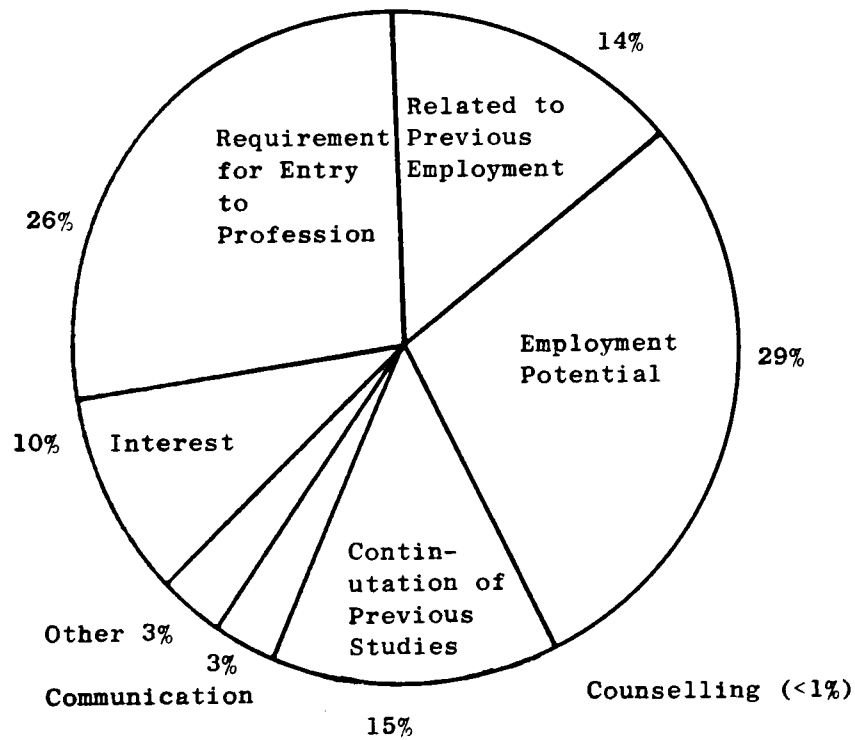
The main factors determining choice of course of study can be seen in Fig. 5.7. below. The two, closely related factors of employment

Fig. 5.7. Main Reason for Course of Study



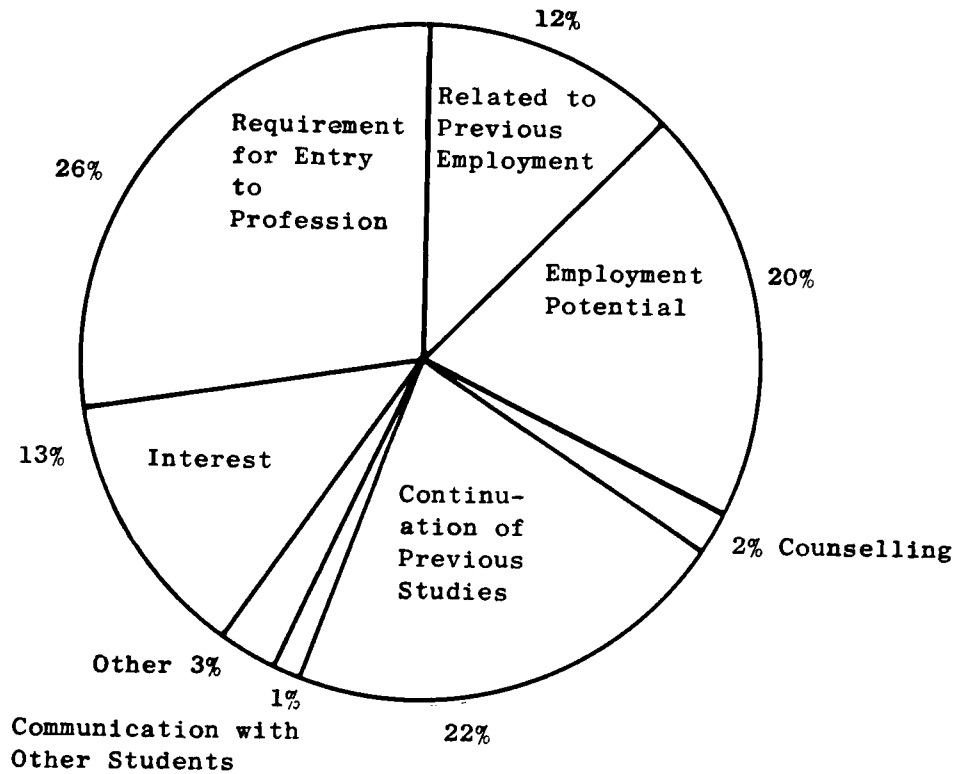
potential and the educational requirement for entry to a profession head the list, which is not altogether surprising. For males the emphasis tends to be on employment potential as illustrated in Fig. 5.8 below,

Fig. 5.8. Main Reason for Course of Study - Males



while females consider that requirements for entry to a profession is the most important, as shown in Fig. 5.9. below.

Fig. 5.9. Main Reason for Course of Study - Females



There also appears to be a strong relationship between the choices of course and reasons for entering higher education, since the main factors influencing the choice of a course of study are closely linked to career prospects. This also ties in with the male/female distinction, discussed above, since in engineering, in computing and electronics and in administrative, business and management studies, where large proportions of males are employed, employment potential is specified as the main reason. Of those choosing medicine, 46% specified interest as the

main reason, while this also applied to humanities. Of those studying languages, 73% indicate that 'continuation of previous studies' is the main reason, as was the case with mathematics and science. In the case of education and social studies 'requirement for entry to profession' is the primary reason given.

With reference to age, the noticeable feature of Table 5(ix) below, is the consistency of employment potential as an influencing factor. Whereas the requirement for entry to a profession has a higher overall percentage, it is very much biased towards the lower age brackets.

Table 5(ix) Main Reason for Course of Study by Age

Reason	Age Bracket (%)					
	25-29	30-34	35-39	40-44	45-49	50+
Requirement for entry to profession	31.0	21.7	26.4	30.2	17.8	15.6
Employment Potential	24.5	24.1	32.0	19.8	20.0	31.3
Continuation of Previous Studies	17.1	19.7	17.6	16.3	22.2	6.3
Related to Previous Employment	14.3	14.3	10.4	10.5	15.6	9.4
Interest in Subject Area	8.2	11.8	10.4	15.1	11.1	21.9
Communication with Other Students	2.4	3.9	1.6	2.3	-	6.3
Counselling	-	1.5	0.8	2.3	6.7	-
Other	2.4	3.0	0.8	3.5	6.7	9.4

5.3 The Preparation Undertaken for Higher Education

It is apparent that the vast majority of entrants undertake some preparation prior to entry on to a course. 83% admitted to having considered the likely employment resulting from the course, with no major deviation between males and females, although in the fifty plus age bracket there was a significant majority who had not

considered this particular factor, which is not altogether surprising.

A significant majority (71%) were also satisfied that they were familiar with the contents of the course prior to commencing their studies. In this again, there was no major deviation between males and females, with all age groups indicating a significant majority of 'yes' responses.

However, with regard to other preparatory steps, a majority of respondents indicated that they did not read material identified on a book list nor speak to other mature students prior to the commencement of their studies. With reference to the former, there was a difference between male and female responses. The female respondents admitting to having undertaken preparatory reading was 50.4% of all female respondents, while only 45% of male respondents admitted to having undertaken such work. Only 40% of males and 46% of females had spoken to other mature students, possibly indicating that the problems they anticipated were not seen as peculiar to mature students.

Table 5(x) below indicates the percentage of mature students who undertook preparatory steps before commencing their studies.

Table 5(x) Percentage of Respondents Who Undertook Preparatory Steps before Commencing their Studies

<u>Preparatory Step</u>	<u>%</u>	
At least one step	91	(86)

Considered possible employment resulting from the course	83	(78)
Familiarity with the content of the course	71	(66)
Read relevant material	47	(43)
Spoke to other mature students	42	(39)
(Percentages in brackets indicate the percentage if all missing values were assigned to the 'no' category.)		

The survey enabled a profile of mature students to be constructed. 60% of respondents are male and the median age of the cohort was just over 33, although slightly higher for females at just under 35. Over 60% of students are married and 54% have at least one child. The vast majority of respondents (90.5%) were employed prior to their entry into higher education, although one-third had experienced at least one unemployment spell during their careers. In addition, some 15% do not possess the pre-requisite entry qualifications and this percentage increased with age. 65% of respondents entered higher education because of the potential career benefits although more males than females specified career benefits as the motivating factor. Finally, nearly all (91%) mature students indicate that they had carried out some degree of preparation prior to their entry. The experiences of such students within higher education is analysed in chapter 6.

Notes

1. See page 70 for discussion of methodology employed.
2. See Appendix 2 for questionnaire and coding frame.
3. This issue was discussed on page 26ff.
4. Jones and Williams (1979) also found that the ratio of female entrants to university increased with age.
5. He viewed the mature entrant as being single or married with no children.
6. See Table 3(ii).
7. See page 37.
8. Regarded as 'non-standard entrant' by Evans (1984) - see page 4.
9. See page 122.
10. See page 46.
11. See page 43.
12. See Swift (1982) p.2-3.
13. Op.Cit.
14. See Bourner (1987)
15. See page 27.
16. Op.Cit.
17. See page 45.

CHAPTER SIX

THE EXPERIENCES OF MATURE STUDENTS WITHIN HIGHER EDUCATION

- 6.1 The Difficulties and Problems Anticipated
and the Extent to Which They Were
Encountered.
- 6.2 The Benefits Anticipated and the Extent to
Which They Were Experienced.

This chapter deals with the remainder of the analysis of the initial survey of mature students and is divided into three sections:

- (i) The difficulties and problems anticipated and the extent to which they were encountered.
- (ii) The benefits anticipated and the degree to which they were experienced.
- (iii) The current views of mature students with regard to their course of study.

6.1 The Difficulties and Problems Anticipated and the Extent to Which they were Encountered

Mature students were asked to what extent they expected to encounter (a) problems in adapting to the requirements of a higher education course and (b) problems of an academic nature. Under (a) six areas were considered, namely, the quantity of work required, readjusting to the relative freedom of studying full time, identifying the standard of performance required, studying alongside younger people, settling into the routine of college life, dealing with additional pressures imposed by family commitments. Fig. 6.1, below illustrates the extent to which such problems were anticipated.

Fig. 6.1

THE EXTENT TO WHICH PROBLEMS WERE ANTICIPATED

	20%	40%	60%	80%
The quantity of work required	Not at all	Limited degree		Greater degree Considerable
Readjusting to the relative freedom of studying	Not at all		Limited degree	Greater degree Considerable
Identifying the standard of performance required	Not at all	Limited degree	Greater degree	Considerable
Studying alongside younger people	Not at all		Limited degree	Greater degree C
Settling into the routine of college life	Not at all		Limited degree	Greater degree C
Dealing with additional pressures imposed by family commitments	Not at all	Limited degree	Greater degree	Considerable

Students aged over thirty were particularly concerned with the quantity of work required e.g. over 26% of those in the 45-49 age group anticipated considerable problems in this area. In terms of re-adjusting to the relative freedom of studying full time over 57% in the 30-44 age group anticipated at least some difficulties in this area.

Within the 35-49 age bracket there was a propensity to anticipate problems in identifying the required standard of performance, with over 54% anticipating problems at least to a greater degree. Whilst there were no major difficulties anticipated in terms of studying alongside younger people within any age group the settling into college routine was a cause of concern for over 63% of those in the 40-44 age bracket. This age group were also concerned about the pressures imposed by family commitments, as were those in the 35-39 age group, with over 26% anticipating considerable problems.

In all areas, except readjusting to the relative freedom of studying, there was a tendency for females to anticipate problems more than males and this was especially true of the pressures imposed by family commitments, as one would expect. Here only 28% did not anticipate such problems, 32% anticipated problems to a limited degree, 19% to a greater degree and 21% anticipated considerable problems.

Under (b) four areas of potential academic problems were identified i.e. understanding lectures, comprehending textbooks, handouts and other materials, successful completion of assignments and inhibition because of lack of recent study.

Fig. 6.2, below highlights the extent to which such problems were anticipated.

Fig. 6.2 THE EXTENT TO WHICH ACADEMIC PROBLEMS WERE ANTICIPATED

	20%	40%	60%	80%
Understanding Lectures	Not at all	Limited degree		Greater degree C
Comprehending Textbooks and Other Material	Not at all	Limited degree		Greater degree C
Completing Assignments Successfully	Not at all	Limited degree	Greater degree	Considerable
Inhibition Because of Lack of Recent Study	Not at all	Limited degree	Greater degree	Considerable

Of note here are the difficulties anticipated by the 45-49 age group. Fig. 6.3 below, highlights the extent to which academic problems were anticipated by this particular group.

Fig. 6.3 THE EXTENT TO WHICH ACADEMIC PROBLEMS WERE ANTICIPATED (45-49 AGE GROUP)

	20%	40%	60%	80%
Understanding Lectures	Not at all	Limited degree		Greater degree Considerable
Comprehending Textbooks and Other Material	Not at all	Limited degree		Greater degree Considerable
Completing Assignments Successfully	Not at all	Limited degree	Greater degree	Considerable
Inhibition Because of Lack of Recent Study	Not at all	Limited degree	Greater degree	Considerable

In making a comparison it is worth noting the difference between this particular age group and the overall numbers of those anticipating problems to a greater degree or to a considerable extent as shown in Table 6(i), below.

Table 6(i) Percentage Anticipating Academic Problems
To a Greater Degree/Considerable Extent

	45-49 Age Group	All Age Groups
Inhibition because of lack of recent study	48.9	31.1
Successful completion of assignments	31.6	29.7
Comprehending textbooks etc.	23.9	19.8
Understanding lectures	21.8	13.7

As can be seen nearly one half of this particular age group were greatly concerned at their lack of recent study. Within the surrounding age groups (40-44 and 50+) 36.5% anticipated problems to a similar extent. Of interest there was very little deviation between males and females in any of the four areas under consideration.

The extent to which problems in adapting to the requirements of a higher education course were experienced can be seen in Fig. 6.4, below.

Fig. 6.4 THE EXTENT TO WHICH PROBLEMS WERE EXPERIENCED

	20%	40%	60%	80%	
The Quantity of Work Required	Not at all	Limited degree	Greater degree	Considerable	
Readjusting to the Relative Freedom of Studying	Not at all		Limited degree	Greater degree	C
Identifying the Standard of Performance Required	Not at all	Limited degree	Greater degree	Considerable	
Studying Alongside Younger People	Not at all			Limited degree	G. D. C
Settling into Routine of College Life	Not at all		Limited degree	Greater degree	C
Dealing with Additional Pressures etc.	Not at all	Limited degree	Greater degree	Considerable	

The work quantity problem was particularly evident amongst the 35-44 age group reflecting their expectations. It should be noted however, that whereas 83.4% of students in the 30+ age bracket anticipated problems in this area it was 70.1% who actually encountered difficulties. The readjustment problem was not particularly evident and only 36.2% encountered serious difficulties in identifying the standard of performance required. Nearly 82% of those who responded did not have any problems studying alongside younger people and in fact the percentage increased with age i.e. the difficulties tended to be concentrated in the under 25 age bracket, whilst 86.5% of females did not have any problems in this particular area. Similarly the settling into college life did not really present too many difficulties but this cannot be said of the pressures caused by family commitments. This was particularly evident within the 35-49 age bracket where 25% admitted having faced considerable problems whilst nearly 65% of females experienced the problem to some degree.

It is to be noted that females tended to anticipate problems more

than males did, but actually encountered fewer problems as is shown in Table 6(ii) below.

Table 6(ii) Percentage of Females who Anticipated and Encountered Problems

	<u>Anticipated</u>	<u>Encountered</u>
Quantity of work required	83.9	73.8
Identifying standard of performance	83.3	69.6
Dealing with additional pressures because of family commitment	71.4	64.6
Settling into college life	55.9	29.8
Readjusting to relative freedom of studying	51.7	37.8
Studying alongside younger people	42.1	13.5

Fig. 6.5, below highlights the extent to which the problems of adapting to the requirements of a higher education course were anticipated and encountered. It can be seen that in each of the six categories the problems were experienced to a lesser extent than had been anticipated. However, as previously mentioned, some serious difficulties arose as a result of dealing with the additional pressures imposed by family commitments.

Fig. 6.5

THE EXTENT TO WHICH PROBLEMS WERE ANTICIPATED AND EXPERIENCED

	20%	40%	60%	80%
The quantity of work required	Not at all	Limited degree	Greater degree	Considerable
	Not at all	Limited degree	Greater degree	Considerable
Readjusting to the relative freedom of studying	Not at all	Limited degree	G.D.	C.
	Not at all	Limited degree	G.D.	C.
Identifying the standard of performance required	Not at all	Limited degree	Greater degree	Considerable
	Not at all	Limited degree	Greater degree	Considerable
Studying alongside younger people	Not at all	Limited degree	G.D.	C.
	Not at all	Limited degree	Limited Degree	G.D. C.
Settling into routine of college life	Not at all	Limited degree	Greater Degree	C.
	Not at all	Limited degree	G.D.	C.
Dealing with additional pressures imposed by family commitments	Not at all	Limited degree	Greater degree	Considerable
	Not at all	Limited degree	Greater degree	Considerable

With regard to academic problems the situation was that such difficulties were experienced to a lesser degree than the problems of adapting to the requirements of a higher education course. Fig. 6.6, below indicates the extent to which academic problems were actually experienced.

Fig. 6.6 THE EXTENT TO WHICH ACADEMIC PROBLEMS WERE EXPERIENCED

	20%	40%	60%	80%
Understanding Lecture	Not at all	Limited degree	G.D.	C.
	Not at all	Limited degree	G.D.	C.
Comprehending Textbooks and Other Materials	Not at all	Limited degree	Greater degree	C.
	Not at all	Limited degree	Greater degree	C.
Inhibition Because of Lack of Recent Study	Not at all	Limited degree	Greater degree	C.
	Not at all	Limited degree	Greater degree	C.

Attention was drawn earlier⁽¹⁾ to the 45-49 age group as being one particularly concerned about potential academic difficulties especially due to lack of recent study and although the evidence suggests that the problems were more apparent in this age bracket, the extent of the problems was considerably less than anticipated as seen in Table 6(iii) below.

Table 6(iii) Percentage Anticipating and Encountering Academic Problems to a Greater Degree/Considerable Extent in the 45-49 Age Bracket

	<u>Anticipated</u>	<u>Encountered</u>
Inhibition because of lack of recent study	21.8	17.8
Successfully completing assignments	31.6	15.2
Comprehending textbooks, handouts and other materials	23.9	2.2
Understanding lectures	21.8	8.7

Again, females encountered fewer academic problems than males, i.e. apart from inhibition due to lack of recent study, although they anticipated more problems as shown in Table 6(iv) below except for understanding lectures.

Table 6(iv) Percentage Anticipating and Encountering Academic Problems - Males and Females

	<u>Anticipated</u>		<u>Encountered</u>	
	<u>Male</u>	<u>Female</u>	<u>Male</u>	<u>Female</u>
Successfully completing assignments	71.3	79.7	51.9	47.0
Comprehending textbooks, handouts and other materials	62.6	63.3	57.3	49.7
Inhibition because of lack of recent study	60.4	66.7	42.5	44.8
Understanding lectures	59.7	57.7	54.6	43.3

Fig. 6.7, below illustrates the problems anticipated and problems encountered of an academic nature and here again, it is clearly evident that the difficulties did not arise to the extent envisaged at the outset of the course.

6.7 THE EXTENT TO WHICH ACADEMIC PROBLEMS WERE ANTICIPATED AND EXPERIENCED

	20%	40%	60%	80%		
Understanding Lectures	Not at all		Limited degree		Greater degree	C
	Not at all		Limited degree		G.D.	C
Comprehending Textbooks and Other Material	Not at all		Limited degree		Greater degree	C
	Not at all		Limited degree		G.D.	C
Completing Assignments successfully	Not at all		Limited degree		Greater degree	C
	Not at all		Limited degree		G.D.	C
Inhibition Because of Lack of Recent Study	Not at all		Limited degree		Greater degree	Considerable
	Not at all		Limited degree		G.D.	C

A further question sought to identify the extent to which mature students considered that they had overcome the problems of adapting to a higher education course and the academic problems. At the time of response only 1% felt that they had not overcome the problems at all, whilst 36% were of the opinion that they had been overcome to some degree and a vast majority, 63%, considered that such problems no longer existed.

Given that mature students encountered problems in adapting to the requirements of a higher education course an additional question sought to identify the extent to which initial motivation had been eroded to the point of considering whether or not to continue with the course.

Table 6(v), below indicates the percentage of those who encountered problems in adapting and the percentage of those who considered leaving the course as a consequence.

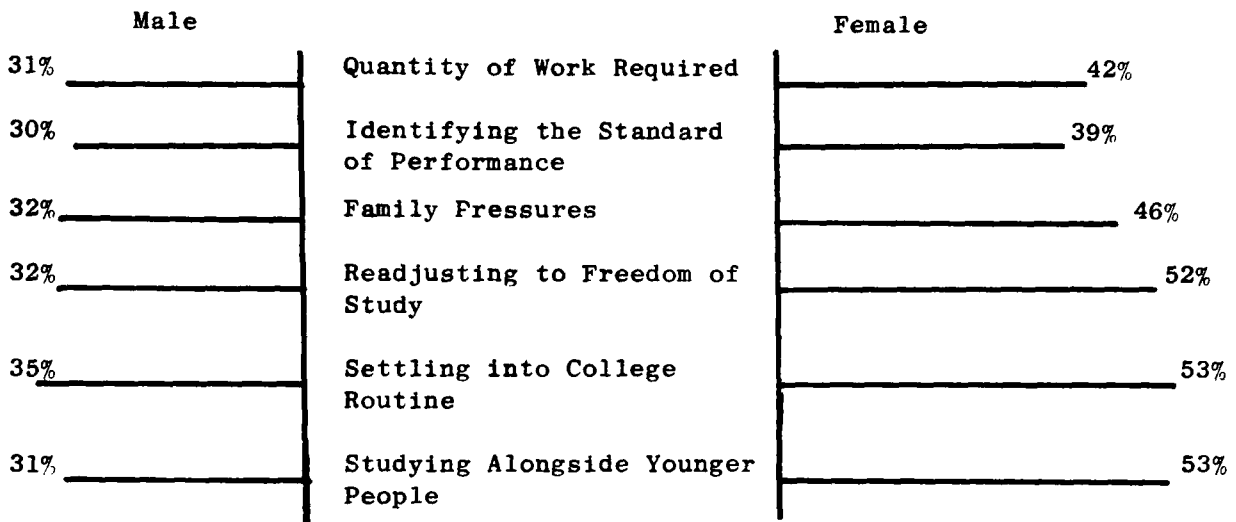
Table 6(v) Percentage Who Encountered Problems in Adapting to the Requirements of a Higher Education Course and % of those who Considered Leaving

	<u>Encountered</u>	<u>Considered Leaving</u>
Quantity of work required	70.9	35
Identifying the standard of performance required	70.1	34
Dealing with additional pressures imposed by family commitment	60.3	38

As can be seen from this table, despite the high number who encountered problems, in each case the percentage of those who actually considered leaving was relatively low. In fact, a higher percentage of those who encountered problems in the other areas considered leaving (40% of those who encountered problems readjusting to the relative freedom of studying full time considered leaving, 42% of those who had problems in settling into college routine and 38% of those who had problems in studying

alongside younger people). However, analysis of those who considered leaving indicated that the tendency was far more prevalent amongst women than men as can be seen in Fig. 6.8, below.

Fig. 6.8 Analysis of Those Who Considered Leaving
The Course



This sex differential held for all ages of women and was especially evident amongst the 30-39 age bracket. Amongst males it was the 30-34 age group which raised the most question marks about their future, especially in terms of studying alongside younger people.

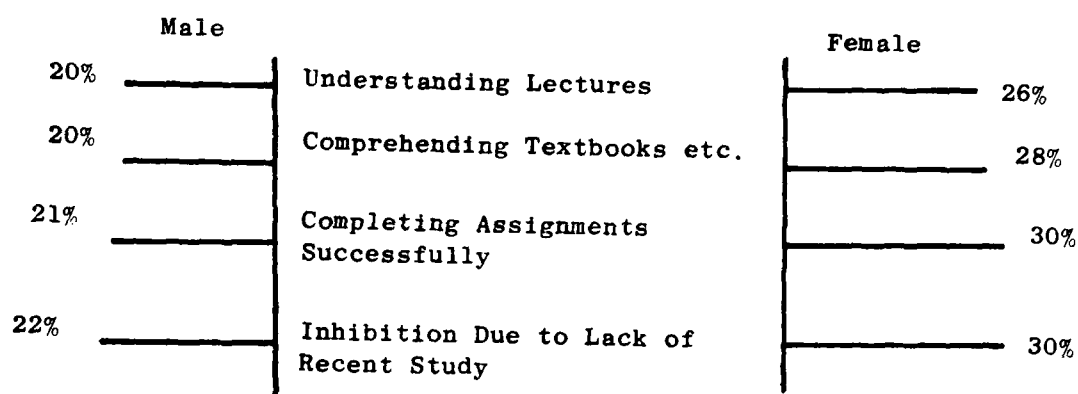
The extent to which mature students considered leaving their courses as a result of encountering academic problems is shown in Table 6(vi) below.

Table 6(vi) Percentage Who Encountered Academic Problems and
Percentage of Those Who Considered Leaving

	<u>Encountered</u>	<u>Considered Leaving</u>
Comprehending textbooks, handouts, other materials	54.2	23
Understanding lectures	50.2	22
Completing assignments successfully	49.9	25
Inhibition because of lack of recent study	43.5	25

Here only a small fraction (25% or less) of those who encountered academic problems contemplated leaving but here again there was a marked difference between males and females as highlighted in Fig. 6.9, below.

Fig. 6.9. Analysis of Those Who Considered Leaving the Course Due to Academic Problems



The question as to which factors were the greatest influence in making them stay was deliberately left open-ended so as to enable peculiarities to be displayed. However, three particular factors were highlighted in addition to a number of other less important factors as can be seen in Table 6(vii) and 6(viii) below.

Table 6(vii) Factors Influencing Decisions to Continue Course Despite Problems of Adapting

<u>Factor</u>	<u>Male</u>	<u>Female</u>	<u>Overall</u>
Educational and Professional advice	37.5	26.4	32.3
Determination	25.8	34.0	29.6
Personal Factors (e.g. easing of financial problem)	19.2	17.0	18.1
Other	17.5	22.6	20.0

The 'other' category above included such factors as job prospects, necessity of obtaining qualification, no desire to return to unemployment etc. which tend to lend support to the underlying hypothesis of this

research.

Of interest in the above table is that determination tends to be more important to females whilst educational and professional advice is the major influence in making males continue their studies.

Table 6(viii) Factors Influencing Decision to Continue Course Despite Academic Problems

<u>Factor</u>	<u>Male</u>	<u>Female</u>	<u>Overall</u>
Educational and Professional advice	30.9	30.6	30.8
Determination	30.9	33.9	32.3
Personal Factors (e.g. easing of financial problems)	16.2	4.8	10.8
Other	22.1	30.7	26.1

In Table 6.8, above, the high 'other' percentage can be attributed to the same factors as under Table 6.7. However, there is also another feature of relevance to the decision to stay despite academic problems, i.e. once there is evidence that the student is performing reasonably well this tends to remove any uncertainty. This was particularly noticeable in the female respondents where over 21% identified this as the major factor.

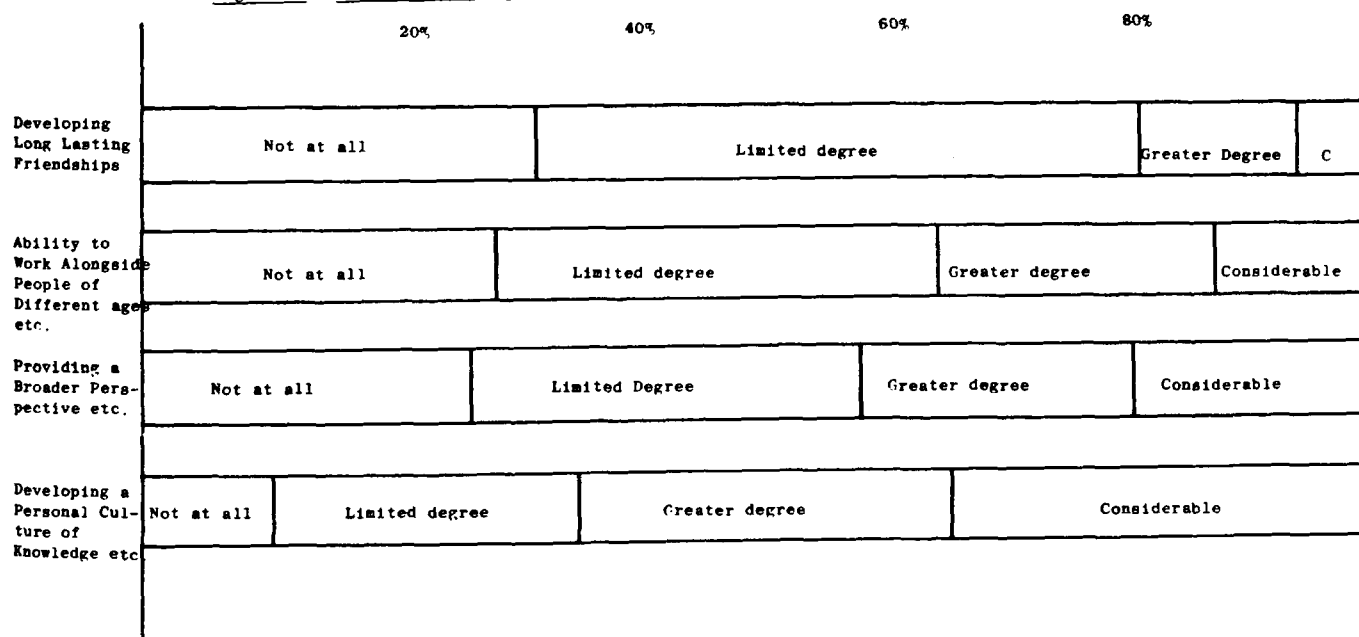
It is also to be noted that 'non-standard entrants' did not anticipate nor experience greater difficulties than those with the pre-requisite qualifications.

6.2. The Benefits Anticipated and the Extent to Which they were Experienced

Mature students were asked the extent to which they anticipated experiencing a wider stream of benefits than those directly associated with the acquisition of a qualification. Four areas were examined, namely, developing long lasting friendships, acquiring the ability to work alongside people of different ages and backgrounds, having a broader perspective of their local community and society in general and developing a personal culture of knowledge acquisition and learning which would be applied to other aspects of their lives.

Diagram 6.10, below indicates the extent to which these benefits were anticipated.

Fig. 6.10. THE EXTENT TO WHICH BENEFITS WERE ANTICIPATED



The surprising element is the high percentage (42.9%) of those in the 35-39 age bracket who did not anticipate developing long lasting friendships. Within this age group 44.4% anticipated deriving limited benefit from the course leaving a relatively small percentage of 12.7% anticipating significant benefits. One possible reason for the result lies in the fact that over 26% of those in this age group anticipated considerable pressures imposed by family commitments, which would have ruled out the socialising etc. associated with the development of long lasting friendships. Furthermore, a relatively high percentage (54.6%) of students aged 50 and above did not anticipate making long lasting friendships but this could be explained by the fact that long lasting friendships tend to be formed before the age of 50 is reached.

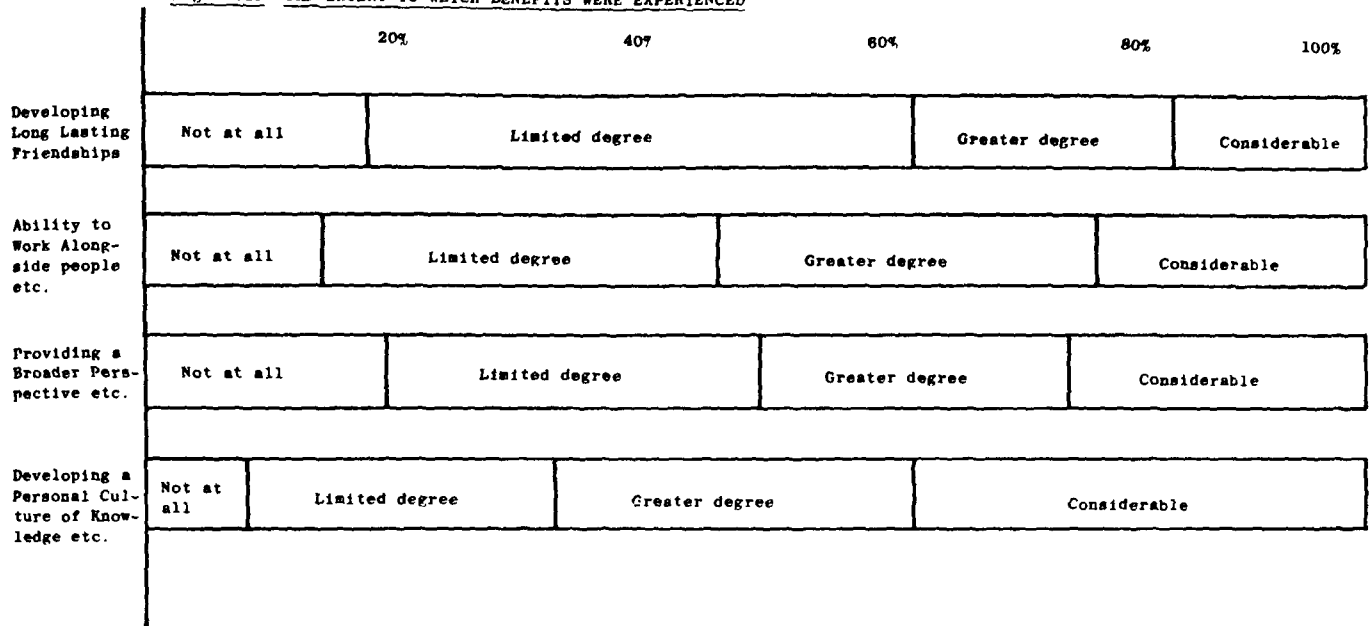
The benefit of working alongside those of different ages and different backgrounds was anticipated in particular by those in the 40-44 age group where over 80% anticipated receiving some benefit and by 65% of the 45-49 age group.

Nearly 82% of those aged 35 and over anticipated that the course would provide a broader perspective of the local community and society in general with there being a tendency for females to anticipate greater benefits than males. This probably could be attributed to the diversity of backgrounds and experiences of students on a course of higher education.

Within the area of developing the culture for knowledge acquisition and learning this was particularly anticipated by those in the 35+ age bracket with only 5% not anticipating any benefit whatsoever from their studies and 39% anticipating considerable benefits in this particular area. There was also greater anticipation of benefit amongst the females with 40% of females anticipating considerable benefits - a reflection of the factors motivating the decision to enter higher education, with fewer females entering for 'career purposes'.

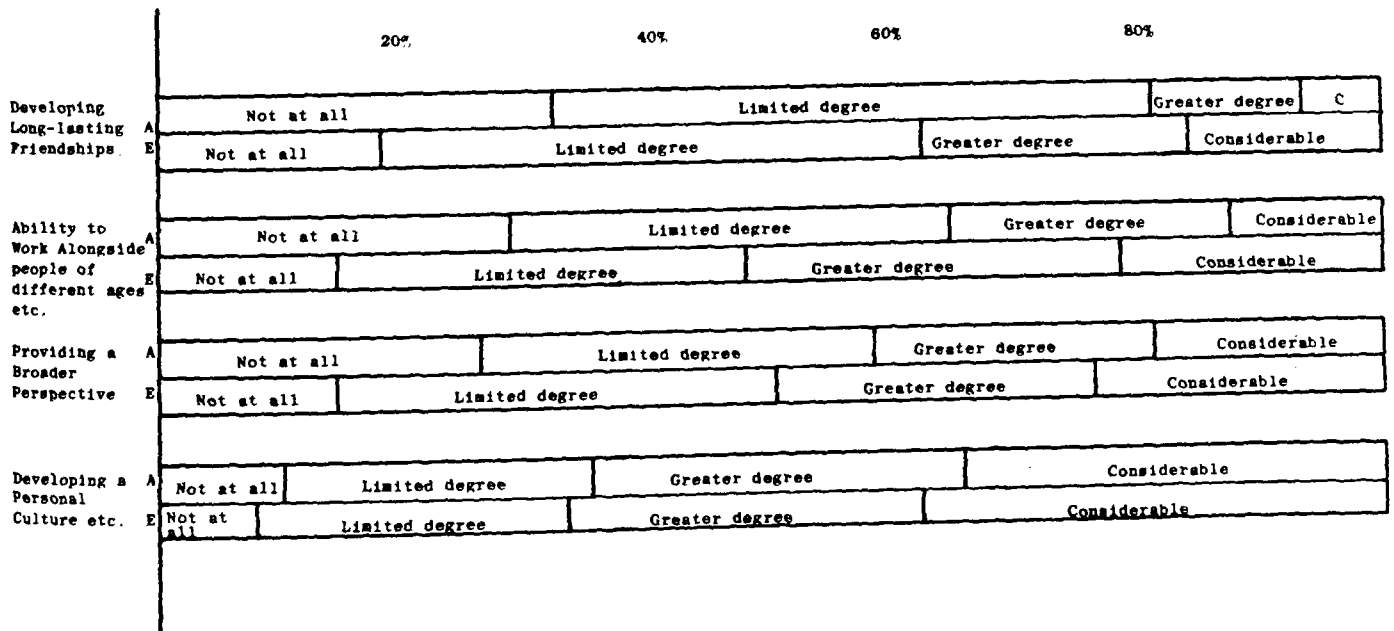
Diagram 6.11, below indicates the extent to which such benefits were experienced.

Fig. 6.11 THE EXTENT TO WHICH BENEFITS WERE EXPERIENCED



In all of the areas the extent of benefit experienced was greater than expected, considerably greater in the first three areas. There was also a significant difference between the percentages who anticipated considerable benefits and those who experienced considerable benefits as seen in Diagram 6.12, below.

FIG. 6.12 THE EXTENT TO WHICH BENEFITS WERE ANTICIPATED AND EXPERIENCED



There were marked differences between the extent of benefits received by females and those received by males as revealed in Table 6.9, below.

Table 6(ix) Percentage of Mature Students who Received Benefits to Some Degree

	<u>Male</u>	<u>Female</u>
Personal culture of knowledge acquisition and learning	89.4	95.2
Ability to work alongside people of different ages and backgrounds	83.7	89.1
Developing long lasting friendships	79.3	85.6
Broader perspective of local community and society in general	78.7	82.9

Similarly, there was a significant difference between males and females, as to the number who experienced considerable benefits, illustrated in Table 6(x), below.

Table 6(x) Percentage of Mature Students who Received Considerable Benefits

	<u>Male</u>	<u>Female</u>
Personal culture of knowlege acquisition and learning	31.2	46.8
Broader perspective of local community and society in general	22.1	32.1
Ability to work alongside people of different ages and backgrounds	20.2	27.0
Developing long lasting friendships	14.6	17.8

On page 124 reference was made to the percentage of those within the 35-39 age bracket who did not anticipate developing long lasting friendships. However, their experiences exceeded their expectations as 77% did consider they had established durable friendships and the same is true of the 50+ age group. Whereas 54.6% did not anticipate any benefits

in this age group it was only 30.3% who did not experience any benefit at all. In addition, whilst only 9.1% anticipated considerable benefits the actual result was that 18.2% experienced such benefits.

The benefits of working together were experienced by 85.7% of the respondents compared with 71.3% who anticipated receiving such benefits. The experience of such benefits was widespread amongst the 35-39 age group (89.8%), the 40-44 age group (90.4%) and the 50-54 age group (91.7%). It was females in these age ranges who gained most benefit as can be seen in Table 6(xi) below.

Table 6(xi) Percentage of Females Who Experienced Benefits of Working Together with People of Different Ages and Backgrounds

<u>Age Bracket</u>	<u>% Who Experienced Benefit</u>	<u>% Who Experienced Considerable Benefit</u>
35-39	92.9	27.1
40-44	88.9	42.2
45-49	93.3	46.7
50+	77.7	55.5

With regard to the third benefit area i.e. providing a broader perspective of the local community and society in general, the differences between expectation and experience was not as marked (80.4% experienced the benefit compared to 73.5% who anticipated receiving the benefit). However, in the 35+ age category 90.3% experienced some benefit compared with the 81.6% overall who anticipated some benefit. In the 40-49 age group 41.4% received considerable benefit, for females the percentage was higher at 55%.

The fourth benefit area, that of developing a personal culture of knowledge acquisition and learning, was anticipated by a large number of respondents (89.8%). This was in fact reflected in their experiences with 91.7% receiving some degree of benefit with over 55% of respondents in the 40-49 age bracket receiving considerable benefits and some 47% of females enjoying considerable benefits compared to 31% of males.

A further question was asked to determine what other benefits had been/were being enjoyed and the two most significant responses (in magnitude terms) were improved self-confidence and improved market-ability - a feature which although perceived to some extent at the outset of the course became more apparent and continued to develop as their studies progressed.

6.3. The Current Views of Mature Students with Regard to their Course of Study

The final series of questions aimed at discovering the views of mature students as they approached the end of their studies, in the majority of cases. Reference has already been made⁽²⁾ to the initial question regarding whether or not the student had overcome the problems of readjustment.

The second question sought to discover the extent to which the course had lived up to the academic expectations of mature students and showed that whilst 6% felt that the course was not up to the standards expected, a significant number (38%) considered that academically, the course had totally lived up to their expectations. It was also noticeable that more of the 'older' students, 43% of those aged 35 and over, considered that the course had totally lived up to expectations, as opposed to 36% of the under 35 age group.

A very small percentage considered that their course of study had been irrelevant and inappropriate whilst 47% considered that their course had been relevant and appropriate with 49% expressing the view that their course had gone some way to meet their expectations. It was noticeable that more males considered their courses to have been totally relevant (49%), compared with females (44%), and that again more older students considered their course to be totally relevant (52% of those aged 35+).

Table 6(xii) below indicates the expectation of mature students with regard to their employment potential.

Table 6(xii) Percentage of Mature Students Expecting that Successful Completion of the Course would lead to Employment

	<u>Male</u>	<u>Female</u>	<u>Total</u>
Definitely	38.9	31.4	36.0
Probably	31.4	34.5	32.7
Possibly	22.4	28.3	24.9
No	6.9	5.8	6.5

It was noticeable that females were more reluctant to be definite in answering this question but even so a greater percentage of females than males considered that the course had given them some hope.

In terms of an age breakdown Table 6(xiii) below identifies the difference between those aged under 45 and those aged over 45.

Table 6(xiii) Percentage of Mature Students Expecting that Successful Completion of the Course Would Lead to Employment - Age Breakdown

	<u>Under 45</u>	<u>Over 45</u>	<u>Total</u>
Definitely	36.6	30.1	36.0
Probably	33.9	21.9	32.7
Possibly	23.7	35.6	24.9
No	5.8	12.3	6.5

The results are as one might have expected although over 30% of those aged 45+ confidently expected employment.

A further question sought to identify the views of mature students if they had failed to find suitable employment within six months of terminating their studies. Only 2% of the respondents considered that their studies would have been a waste of time and 4% of limited benefit

The vast majority therefore considered the course to have been a useful experience in itself as can be seen in Table 6(xiv) below.

Table 6(xiv) Views Regarding Course if Unemployed at Six Months

	<u>Under 45</u>	<u>Over 45</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
A relevant and important addition to employment potential	76.0	53.4	69.9	68.2	69.2
A means of improving oneself without much contribution to employment potential	24.0	41.1	23.3	25.8	24.4

The final question sought to discover whether students would again seek to return to higher education should it not be possible for them to find employment. The results are illustrated in Table 6(xv), below.

Table 6(xv) Percentage of Students Who Would Return to Higher Education if Unsuccessful in Finding Employment

	<u>Under 45</u>	<u>Over 45</u>	<u>Male</u>	<u>Female</u>	<u>Total</u>
Yes	31.1	50.7	33.8	31.1	33.1
Probably	12.0	5.3	10.5	12.1	11.3
Possibly	41.3	32.0	40.9	38.4	40.3
Definitely Not	15.8	10.7	13.7	17.3	15.3

It can be seen that over 50% of those aged 45 and over would definitely return to higher education rather than be unemployed whilst the younger age groups are obviously more reluctant to do so. There is not any significant difference between males and females in this regard.

In conclusion, therefore, it is worth emphasising the findings that problems, academics and non-academic, were experienced to a lesser extent than had been anticipated. This was especially the case amongst females. If potential mature female entrants could be made aware of

this fact, it would result in an increase in participation rates amongst such a group. In addition the wider benefits of higher education were experienced to a greater extent than anticipated and the problems were fewer and experienced to a lesser degree amongst those who had undertaken some preparation.

Notes

1. See page 112.
2. See page 116.

CHAPTER SEVEN

THE DESTINATIONS OF MATURE STUDENTS

- 7.1 Employment Situation by Sex.
- 7.2 Employment Situation by Age.
- 7.3 Employment Situation by Family Needs.
- 7.4 Employment Situation by Academic Sector and
Level of Study
- 7.5 Employment Situation by Previous Experience.
- 7.6 Employment Situation by Reason for Entering
Higher Education
- 7.7 Comparison with First Destination Statistics.

The objectives underlying the follow-up survey were discussed on page 75. In this section the findings of the survey are analysed in order to fulfil the initial objective i.e. to determine the percentage of mature students employed, unemployed or undertaking further studies six months after completing their course of study i.e. at 31st December of the year in which they 'graduated'.⁽¹⁾ The reason why such a date is utilised is to bring it into line with the convention of the 'first destination statistics', this data being collected between the date of graduation and the following 31st December.

However, it should be recognised that this survey, and indeed the first destination statistics themselves, are in essence, only a 'snapshot' of the destinations of mature students, covering firm arrangements actually made and expected to become effective in the first six months following their graduation. It is recognised that some students take longer than others to make up their minds about the sort of employment or training they would like to enter, some encounter more difficulty than others in activating their initial plans, while others will change, possibly, both their employers and the type of work they are doing during the early years after graduation. It is probable, however, that such features are pertinent to the graduate labour market in general, rather than to the mature graduate labour market in particular.

In what follows therefore, the destinations of mature students are analysed in terms of age, gender, family needs, academic institution, qualification, subject of study, previous experience and reasons for entering higher education. Finally, the results obtained in the survey are compared with data produced by the Universities Statistical Record⁽²⁾, on the destinations of all graduates aged 25 and above, to try and establish whether any significant differences exist between the results of the survey and the nearest available population data.

7.1 Employment Situation by Sex

Students were asked to indicate their employment situation and the results obtained are illustrated in Table 7(i) below.

Table 7(i) Employment Situation as at 31st December of Year of Successful Completion of Qualification

Category	Male		Female		Total	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	100	67.6	60	59.4	160	64.3
Self-employed	2	1.4	0	-	2	0.8
Student	23	15.5	18	17.8	41	16.5
Unemployed (seeking a job)	20	13.5	14	13.9	34	13.7
Unemployed (due to illness)	1	0.7	0	-	1	0.4
Unemployed (due to domestic circumstances)	0	-	3	3.0	3	1.2
Other	<u>2</u>	<u>1.4</u>	<u>6</u>	<u>5.9</u>	<u>8</u>	<u>3.2</u>
	<u>148</u>	<u>100</u>	<u>101</u>	<u>100</u>	<u>249</u>	<u>100</u>

Given some of the percentages in Table 7(i) were very small, it made sense to amalgamate some of the categories. The self-employed were included in the 'employed' category, and the unemployed due to ill health and domestic circumstances were included in the 'other' category.

Table 7(ii) below, is therefore a condensed version of Table 7(i) and one which provides a useful starting point for discussion.

Table 7(ii) Employment Situation by Sex

Category	Male		Female		Total	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	102	68.0	60	59.4	162	65.1
Unemployed	20	13.5	14	13.9	34	13.7
Student	23	15.5	18	17.8	41	16.5
Other	<u>3</u>	<u>2.0</u>	<u>9</u>	<u>8.9</u>	<u>12</u>	<u>4.7</u>
	<u>148</u>	<u>100</u>	<u>101</u>	<u>100</u>	<u>249</u>	<u>100</u>

It can be seen that fewer females find themselves in the 'employed' category, but there is virtually no difference, in terms of unemployment. What is evident, however, is that more females continue their studies and are in the 'other' category, which represents those who were unavailable for employment for a variety of reasons.

Whilst there may be a number of possible reasons for such differences, it is probable that one of the major factors lies in the different cultures which exist between higher education establishments and the 'work place'. Higher education institutions often have facilities, such as creches, to help students and staff alike and, to a certain extent, offer some flexibility in the way students are able to organise their time, features which go some way to removing potential constraints on mature females entering higher education. Such features do not normally exist in employment situations and consequently females with domestic responsibilities etc. may find it extremely difficult to 'make themselves available for employment'. Therefore such females would either continue their studies, where there are less constraints, or postpone their entry into the labour market until their domestic circumstances had altered.

7.2 Employment Situation by Age

Table 7(iii) indicates the destination of mature students according to the various age categories. From this, it can be seen

Table 7(iii) Employment Situation by Age

<u>Category</u>	<u>Under 29</u>		<u>30-39</u>		<u>40-49</u>		<u>50+</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	45	75.0	76	61.8	33	66.0	10	62.5
Unemployed	6	10.0	17	13.8	7	14.0	4	25.0
Student	7	11.7	23	18.7	9	18.0	2	12.5
Other	2	3.3	7	5.7	1	2.0	0	-
	60	100	123	100	50	100	16	100

that the percentage unemployed does tend to increase with age, a feature which is not surprising. What is noticeable, however, is that the percentage continuing their studies also increases, at least up to the 50+ age category. This may be attributed to the lack of employment available to them and as a consequence, they desire to increase their portfolio of qualifications rather than 'spend time on the dole'.

However, what is not apparent from the results is the type of employment acquired by mature students, and whether in fact the jobs that such students accept do in fact require their qualification as a pre-requisite condition for employment. It could well be that mature students are more likely to accept lower level jobs or accept 'temporary' employment with little, or no, security. Their greater domestic responsibilities would seem to suggest the need for employment of any type rather than await the 'right job', but further research is needed to establish what actually happens. In addition, they are less likely to be mobile, and therefore accept 'non-graduate' jobs within their locality, rather than move to graduate posts in other parts of the country. The next section aims to shed some light on this area by considering family needs as a proxy for mobility.

7.3 Employment Situation by Family Needs

The variable 'family needs' is one which has been utilized in other studies⁽³⁾ attempting to analyse employment potential. Here it is constructed by examining the marital status of mature students and the number of children they have. Table 7(iv) below illustrates that a higher percentage of single students are employed than their married counterparts, but that there is only a small differential in terms of those unemployed. Again such results are not surprising bearing in mind the relative mobility of each group.

Table 7(iv) Employment Situation by Marital Status

<u>Category</u>	<u>Married</u>		<u>Single</u>		<u>Separated/Divorced</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	107	66.5	48	70.6	7	35.0
Unemployed	20	12.4	8	11.8	6	30.0
Student	26	16.1	9	13.2	6	30.0
Other	8	5.0	3	4.4	1	5.0
	161	100	68	100	20	100

From Table 7(v) below, it can be seen that those with children do have greater problems in securing employment than those without, again suggesting that lack of mobility arising out of domestic circumstances would act as a constraint in terms of employment potential.

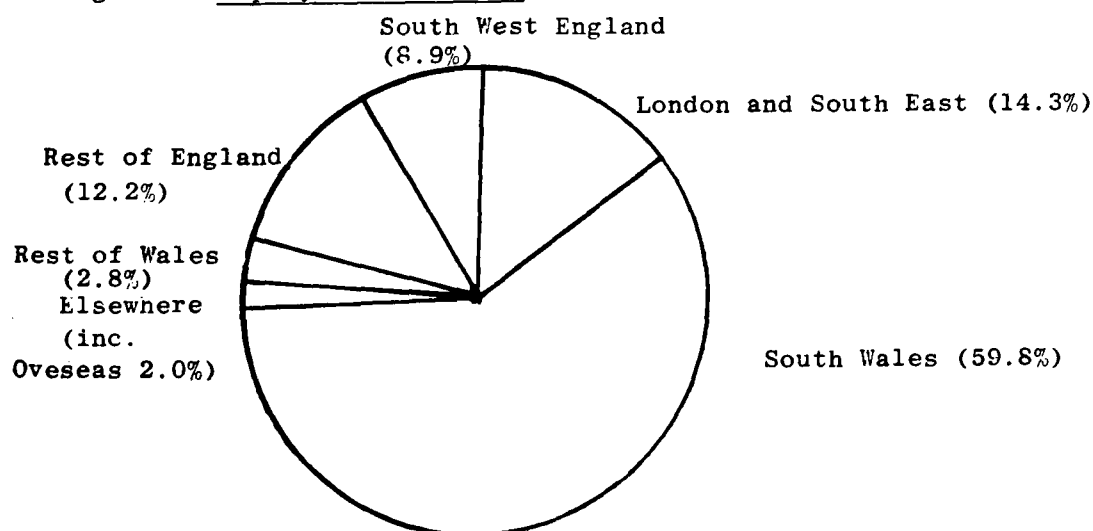
Table 7(v) Employment Situation by Number of Children

Category	Number of Children									
	0		1		2		3		4 or more	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	78	75.0	18	60.0	39	59.1	23	65.7	4	44.4
Unemployed	11	10.6	5	16.7	10	15.2	5	14.3	0	-
Student	17	16.3	6	20.0	11	16.7	5	14.3	5	55.6
Other	<u>3</u>	<u>2.9</u>	<u>1</u>	<u>3.3</u>	<u>6</u>	<u>9.0</u>	<u>2</u>	<u>5.7</u>	<u>0</u>	<u>-</u>
	104	100	30	100	66	100	35	100	9	100

Obviously one has to recognise the difficulties in making percentage comparisons when such small numbers are involved but nevertheless it is apparent that those who are virtually immobile do suffer in terms of acquiring employment. This view is substantiated by the findings of the employer survey ⁽⁴⁾.

Interestingly, the location of those who were in employment at the end of the year of their graduation can be seen in Fig. 7.1 below. As one would expect the large majority are employed in South Wales but of the total in employment, 24.7% moved from their homes to acquire employment, thereby emphasising the need to be relatively mobile.

Fig. 7.1 Employment Location



In chapter 8, the variable 'family needs', a proxy for mobility, is constructed on the basis of marital status, number of children and gender. It is considered that married women with families are less mobile than their male counterparts and therefore at a disadvantage. What is in fact revealed is that married men with small families do not suffer to any great extent, but are at an advantage, a result which is similar to that obtained in other studies⁽⁵⁾.

7.4 Employment Situation by Academic Sector and Level of Study

Much work has been done on the ranking of institutions by employers⁽⁶⁾ and therefore it is worth considering whether there are any substantial differences between institutions in terms of the employment opportunities of mature students.

Table 7(vi) below, indicates the employment status of graduates from each type of institution surveyed.

Table 7(vi) Employment Situation by Academic Sector

<u>Category</u>	<u>University</u>		<u>Polytechnic</u>		<u>College of Higher Education</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	77	62.6	43	67.2	37	75.5
Unemployed	14	11.4	11	17.2	7	16.3
Student	25	20.3	9	14.1	2	4.1
Other	7	5.7	1	1.5	3	6.1
	123	100	64	100	49	100

The results would suggest that students from colleges of higher education fared better, in terms of employment, than their university and polytechnic counterparts. However, one should also examine the relative unemployment position, and it is noticeable that in this respect, university students perform much better.

One can also see that the relatively low percentage of university graduates achieving employment is 'compensated' by the relatively large

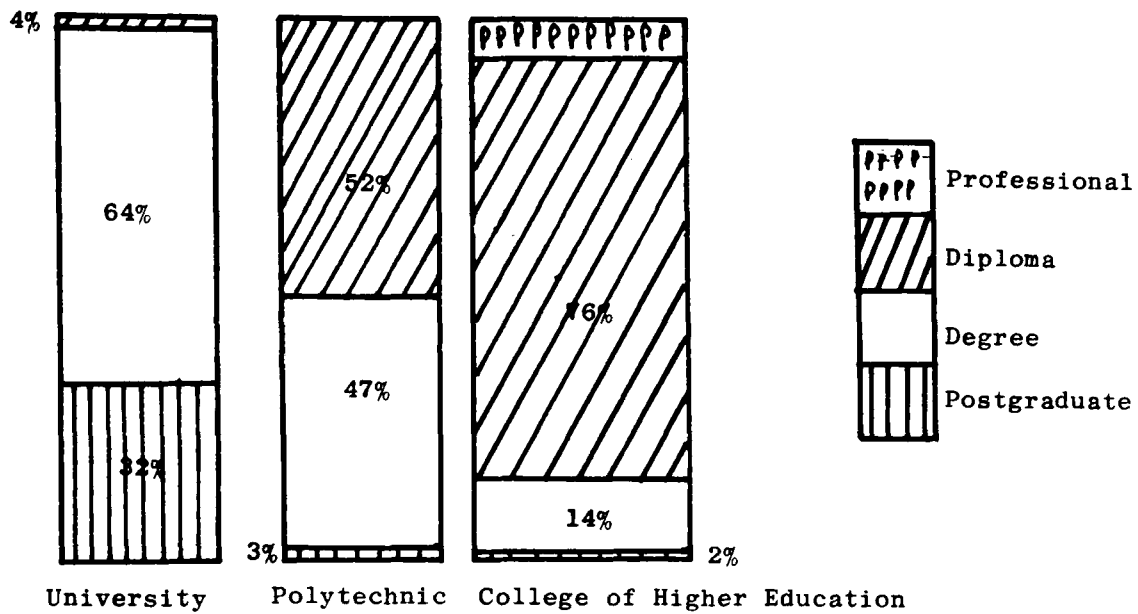
number continuing their studies, compared especially with those from colleges of higher education. It is also highly likely that there is a marked difference in the type of employment secured by university graduates compared with mature students leaving colleges of higher education whose expectations, in terms of jobs, is much lower. By examining Table 7(vii) below, such a view is confirmed. It can be seen that more mature students with higher diplomas and equivalent achieve employment than the other categories and also have lower unemployment rates. (The professional category has been excluded from the following analysis as only four students are contained within this level of study).

Table 7(vii) Employment Situation by Level of Study

Category	Postgraduate		Graduate		Higher Diploma	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	29	69.0	67	57.8	62	82.7
Unemployed	7	16.7	17	14.7	7	9.3
Student	3	7.1	28	24.1	4	5.3
Other	<u>3</u>	<u>7.1</u>	<u>4</u>	<u>3.4</u>	<u>2</u>	<u>2.7</u>
	42	100	116	100	75	100
	—	—	—	—	—	—

It is apparent from Table 7(vii) that the higher diploma or equivalent offers a very attractive reward in terms of employment for the mature student. The results from Tables 7(vi) and 7(vii) are closely related when the level of study and academic institutions are considered. Fig. 7.2 below indicates the proportion of each institution's students studying at postgraduate, degree and diploma level.

Fig. 7.2 Level of Study by Academic Sector



Therefore, when one considers that 76% of mature students within colleges of higher education are studying at diploma level, it is not surprising that the employment situation of each academic sector is as seen in Table 7(vi). However, as intimated earlier, the type of employment is not likely to be as 'high-powered' nor as financially attractive, as can be seen from Table 7(viii) below.

Table 7(viii) Median Commencing Salary by Level of Study

<u>Level of Study</u>	<u>Median Salary</u>	
	£	
Postgraduate	9,100	(n = 42)
Graduate	9,750	(n = 116)
Diploma	7,800	(n = 75)

Such results confirm those of Bourner and Frost (1985)⁽⁷⁾ and substantiate the views offered that the first destination statistics, in isolation, do not provide 'true' indicators of labour market status. Although relatively more higher diplomates achieve employment and less unemployment than other 'graduates', their commencing salary is some 14% lower than postgraduates and 20% lower than graduates. If such differentials were to continue over 'lifetime earnings' it would mean that the rate

of return on investment in higher education, to increase their stock of human capital, would be significantly lower for higher diplomates than others, assuming other things remain equal. Obviously, such results would not be peculiar to mature students but would apply across all age ranges within higher education.

Table 7(ix) below, highlights those disciplines where employment potential was highest.

Table 7(ix) Employment Situation by Academic Discipline

Category	Education		Engineering		Science		Social & Business Studies		Arts and Humanities		Other	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	37	84.1	19	90.5	14	77.8	67	65.7	12	41.4	11	68.8
Unemployed	3	6.8	1	4.8	2	11.1	18	17.6	8	27.6	0	-
Student	1	2.3	1	4.8	2	11.1	16	15.7	8	27.6	5	31.2
Others	<u>3</u>	<u>6.8</u>	<u>0</u>	<u>-</u>	<u>0</u>	<u>-</u>	<u>1</u>	<u>1.0</u>	<u>1</u>	<u>3.4</u>	<u>0</u>	<u>-</u>
	44	100	21	100	18	100	102	100	29	100	16	100

It can be seen that the first three disciplines i.e. education, engineering and science produce more graduates in employment and less in unemployment but comparison is somewhat difficult owing to the small numbers involved in some disciplines.

However, it is not at all surprising that education is an important discipline as far as mature students are concerned, as traditionally people change careers and move into the education sector. On the other hand it is not altogether surprising that higher unemployment rates are to be found in the arts and humanities and social and business studies areas. Here, the overall graduate unemployment rate is higher than average and as graduates tend to enter positions of trainee management, trainee accountants etc., i.e. employment positions unlikely to be suitable, or indeed open to mature students,⁽⁸⁾ it is not surprising to find above average rates of unemployment within the mature graduate sector.

7.5 Employment Situation by Previous Experience

Other studies have indicated that previous experience is an important influence upon employment potential⁽⁹⁾. Table 7(x) below, therefore indicates the employment situation according to the number of jobs that each student had prior to entering higher education.

Table 7(x) Employment Situation by Number of Previous Jobs

<u>Category</u>	<u>Number of Previous Jobs</u>							
	<u>1</u>		<u>2</u>		<u>3</u>		<u>4+</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	91	69.2	15	71.4	25	67.6	28	65.1
Unemployed	16	12.1	3	14.3	6	16.2	8	18.0
Student	20	15.0	2	9.5	4	10.8	6	14.0
Other	<u>5</u>	<u>3.7</u>	<u>1</u>	<u>4.8</u>	<u>2</u>	<u>5.4</u>	<u>1</u>	<u>2.3</u>
	131	100	21	100	37	100	43	100

It can be seen that there is limited deviation in terms of employment but that there is an upward trend in unemployment rates the larger the number of previous jobs, some evidence to support, possibly, the hypothesis of a dual labour market where one of the characteristics of the secondary labour market was high job turnover.

However, the number of previous jobs is not necessarily a good indicator of previous experience. More importantly is the number of months/years spent in a particular post. Therefore, Table 7(xi) below, indicates the employment situation by the median duration of employment spell.

Table 7(xi) Employment Situation by Median Duration of Employment Spell

<u>Category</u>	<u>Median Duration</u>			
	<u><12 months.</u>	<u>1-3 yrs.</u>	<u>3-6 yrs.</u>	<u>6 yrs. and over</u>
	<u>%</u>	<u>%</u>	<u>%</u>	<u>%</u>
Employed	62.5	65.5	67.4	71.4
Unemployed	15.1	14.2	12.4	9.3
Student	18.3	17.4	16.4	13.6
Other	<u>4.1</u>	<u>2.9</u>	<u>3.8</u>	<u>5.7</u>
	n=56	n=46	n=70	n=41

It can be seen that there is a marked difference both in terms of employment and unemployment as the median duration of previous employment spells increased. It therefore appears that those who previously have held a number of jobs of relatively short duration are at a disadvantage in the labour market after graduation compared to those with fewer jobs of longer duration. There are also higher employment rates (and lower unemployment rates) amongst those who opt to return to the same field as their previous employment and whose course of study reflects such experience.

Further analysis was undertaken to examine the effects of previous unemployment spells upon employment situation and the results can be seen in Table 7(xii) below.

Table 7(xii) Employment Situation by Previous Employment History

<u>Category</u>	<u>Always in Employment</u>	<u>Intermittent Employment</u>	<u>Long Periods of Unemployment</u>
	<u>%</u>	<u>%</u>	<u>%</u>
Employed	72.7	47.4	56.8
Unemployed	11.3	22.8	23.2
Student	12.1	26.3	12.6
Other	<u>3.9</u>	<u>3.7</u>	<u>7.4</u>
	n=168	n=27	n=17

It can be clearly seen that those who have experienced previous spells of unemployment are at a considerable disadvantage in terms of their labour market potential and such a result is substantiated in Table 7(xiii) below.

7.6 Employment Situation by Reason for Entering Higher Education

Students were asked in the original questionnaire their reasons for entering higher education. Table 7(xiii) highlights the employment situation of mature students at the end of their course of study according to the factors which influenced them to enter higher education in the first place.

Table 7(xiii) Employment Situation by Reason for Entering Higher Education

Category	<u>Career Advancement</u>		<u>Disillusionment with previous Employment/ Failure to find Suitable Employment</u>		<u>Further Stage in Acquisition of Qualifications</u>		<u>Re- dundancy</u>		<u>Self Ful- fillment</u>	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	56	76.7	21	58.3	6	50.0	13	59.1	60	61.9
Unemployed	5	6.8	9	25.0	1	8.3	4	22.7	13	13.4
Student	11	15.1	5	13.9	4	33.3	5	18.2	15	15.5
Other	<u>1</u>	<u>1.4</u>	<u>1</u>	<u>2.8</u>	<u>1</u>	<u>8.3</u>	<u>0</u>	<u>-</u>	<u>9</u>	<u>9.2</u>
	73	100	36	100	12	200	22	100	97	100

This shows that those who suffered unemployment spells during their employment history are at a disadvantage after completing their studies, and from Table 7(xiii) one can see that those who entered higher education from an unemployed state (redundancy), those who were dissilusioned with their previous employment and those who failed to find suitable employment have unemployment rates of 22.7% and 25% respectively whereas those who entered for the specific purposes of advancement in career terms have relatively low unemployment rates.

It may be argued, therefore, that personality problems which result in their being disillusioned with previous employment or finding it difficult to achieve suitable employment were not removed during the course of study and remain in existence, causing further difficulties on seeking to re-enter the labour market with a qualification.

Interestingly, amongst those who entered for self-fulfilment purposes a relatively high percentage is found in the 'other' category, i.e. those not available for employment nor wishing to continue their studies. Such people may either not be able to enter the labour market because of domestic commitments or, having satisfied their needs in undertaking a course of higher education, do not wish to enter the labour market. However, those who do enter the labour market find that they do not perform as well as those with the specific objective of career advancement but not as badly as those who had previous problems in the labour market.

7.7 Comparison with First Destination Statistics

Table 7(xiv) is constructed from tables provided by the Universities Statistical Record and is classified as per Table 7(ii) on page 135.

Table 7(xiv) First Destination of U.K. University Graduates Aged 25+ as a Percentage of all known Destinations as at 31st December 1984.

Category	Male		Female		Total	
	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>	<u>n</u>	<u>%</u>
Employed	2326	67.0	1323	55.3	3649	62.2
Unemployed	311	9.0	236	9.9	547	9.3
Student	769	22.1	680	28.4	1449	24.7
Other	<u>66</u>	<u>1.9</u>	<u>153</u>	<u>6.4</u>	<u>219</u>	<u>3.7</u>
	<u>3472</u>	<u>100</u>	<u>2392</u>	<u>100</u>	<u>5864</u>	<u>100</u>

Source: Universities Statistical Record (unpublished table)

Three points should be borne in mind in making comparisons:

- (a) Table 7(xiv) includes all graduates aged 25+ whilst Table 7(ii) includes students aged 25+ on entry to higher education;
- (b) Table 7(xiv) is restricted to university graduates whilst Table 7(ii) includes polytechnic and colleges of higher education graduates and diplomates.
- (c) Table 7(xiv) also includes those students, the length of whose course of study might mean that they were below 21 on commencement e.g. medicine or architecture.

Therefore, one should recognise that the comparison is not of like with like but nevertheless, it does show that relatively more of the sample are in employed and unemployed states, with fewer taking further studies. This could be accounted for by the probability that the age differential between the two groups would result in more of the sample group entering the labour market, because as age increases, domestic responsibilities require employment of all types rather than 'continuing the student life' and postponing entry to the labour market even further. However, the differences between the employed and unemployed categories of the two groups are not statistically significant. (10).

The similarities are even closer when comparison is made with Table 7(vi) in particular, the university sector of the sample, where the highest proportion of graduates are to be found. There are only very slight differentials occurring, which could be attributed to the age difference between the survey data and the Universities Statistical Record data.

Therefore, there is strong evidence to support the reliability and validity of the survey data, which is to be utilised in the construction of the statistical model of employment potential in chapter eight.

The results of the survey have revealed that some 65% of mature students achieve employment, a higher percentage of employment being recorded for males than females. However, it is very noticeable that more

females continue their studies and are 'not available for employment'. As one would have expected, the percentage of mature students in employment declines with age. It is also apparent that lack of mobility, arising from family needs, does act as a severe hindrance. Colleges of higher education provide a good base for securing employment for mature students, although this is attributed mainly to the high proportion of students within such institutions studying at the diploma level. At this level there is a higher percentage achieving employment than at other levels of study, although questions are raised regarding the 'type of employment' achieved, and commencing salaries are significantly lower than other levels of study.

The results also indicate that the percentage in unemployment is higher the greater the number of previous jobs, and in particular amongst those who have held a number of short duration posts. In addition, those who have experienced previous unemployment spells are at a considerable disadvantage in attempting to achieve employment.

Of those who entered higher education to advance their career prospects a very high proportion achieved employment, whilst those who encountered previous difficulties in achieving employment or finding suitable employment continue to do so.

Notes

1. Used to refer to successful completion of qualification.
2. See acknowledgements.
3. See, for example, Nickell S. J. (1979c).
4. See page 154.
5. See Nickell S. J. (1979c).
6. See, for example, Gordon (1983).
7. See page 16.
8. See Survey of employers on page 154.
9. See for example, Atkinson (1981).
10. Using test of differences of proportions results are not significant at 5% nor 1% significance level.

CHAPTER EIGHT

THE EMPLOYMENT POTENTIAL OF MATURE STUDENTS

- 8.1 Factors Determining Employment Potential
- 8.2 Employers' Views of Mature Students
- 8.3 Statistical Model of Employment Potential

This chapter is divided into three distinct sections. Initially, the factors determining employment potential will be examined in the light of the findings of chapter seven and also the findings of other models of employment potential.⁽¹⁾ Secondly, the views of employers on mature graduates⁽²⁾ are discussed in order to examine the demand side of the labour market as well as the supply side. Finally, the results of the statistical model constructed in chapter four will be discussed and analysed in order to quantify the employment potential of a mature student in the labour market.

8.1 Factors Determining Employment Potential

The focus of the majority of models reviewed earlier has tended to be upon the determinants of variations in unemployment duration. It is more relevant to the issue of employment potential that discussion be concentrated upon those models which consider, not only the length of time out of work, but also the likelihood of returning to employment and the factors which affect such a likelihood.

Bowers (1982), in an update of an earlier study,⁽³⁾ stated quite clearly that exit rates, (i.e. movements off the unemployment register), decrease with age for any duration of unemployment. Similarly McGregor (1989) found that there was a significant inverse relationship between increasing age and re-employment probability, whilst Nickell (1979b) demonstrated that the expected duration of unemployment (hence 'inverse' of re-employment probability) ranged from 7.1 weeks at 20 through to 16.9 weeks at 60.

Reference was made earlier⁽⁴⁾ to studies which highlight discrimination against 'older' workers, whilst Jolly et.al. (1980) specifically stated that one group who may suffer quite markedly from age limits in employment are mature graduates. "People who do not start at university until they are aged 25 or over may find the career they wish to follow on graduation closed to them".

Thus mature students are faced by two potential problems in terms of their age. On the one hand, as they get older, they face the traditional problem of getting back into employment having been either unemployed

or out of the labour market, a problem exacerbated by the current high levels of unemployment, as noted by Bowers (1982); whilst on the other hand they confront age barriers, explicit and otherwise, which restrict entry to certain professions. These problems are further discussed on page 156.

In terms of the sample of mature students, the results would seem to confirm past trends and evidence. as the employment rate declined with age, from 75% for the 29 and under age group to 62.5% for the 50 and over age group, whilst the unemployment rate moved in the opposite direction from 10% to 25%⁽⁵⁾ although care should be taken in discussing the oldest group as there are only 16 in this age group. However, a parallel study⁽⁶⁾, found that there was evidence to suggest that the mature graduate was not at a disadvantage within the labour-market compared with the conventional-age graduate. Fewer mature graduates found themselves in the unemployed category than conventional-age graduates and whilst further work is needed to discover the type of employment and the earnings differentials between mature graduates and their conventional-age counterparts, it may be that mature students do enjoy some enhancement as a result of their studies as shown in Table 7(iii).

It has been mentioned earlier that females are more likely to appear in the secondary labour market than males⁽⁷⁾ thereby finding it difficult to progress upwards in terms of occupational status. However, very few studies indicate the effect of gender on employment probability. Bowers and Harkess (1979) discovered that females experienced in general lower durations of unemployment, and by implication greater re-employment likelihood than men although in the updated version Bowers (1982) indicated that labour market prospects for females declined in the late 1970's in comparison with the decade between 1963 and 1973. Lancaster and Nickell (1980) stated that family composition is an important determinant of likelihood of re-employment but pay no attention to gender in particular. Garside (1980) offers sex as one explanatory factor of re-employment likelihood, with similar effects to those of Bowers and Harkess (1979) being offered.

From Table 7(ii) on page 135, it can be seen that fewer females enter employment but more are unavailable for employment⁽⁸⁾, possibly as a result of greater domestic responsibilities which constrain the employment opportunities available. There is certainly 'ammunition' here for those who advocate 'job-sharing' and more part-time opportunities for females.

Nickell (1979c) considered that family composition is an important determinant. He discovered that unmarried men have very much longer expected unemployment durations than their married counterparts and that the expected duration of married men increases with the number of their dependent children. However, such results were not new. Smee and Stern (1978) highlighted similar features and on the basis of the 1971 Census indicated that the unemployment rate for all family heads with five or more children was three times the national average. However for Socio-economic group V (the unskilled) the rate was more than six times the average whereas in Socio-economic group I the unemployment rate amongst family heads with five or more children was 36% of the average!!

In the context of this study family composition - and by implication family needs - has been used as a proxy, albeit a somewhat imperfect one, for mobility. The results obtained in Table 7(iv) and 7(v) again substantiate previous work, married students fare reasonably well but employment declines as family size increases.

Another determinant of the employment potential of any product of the higher education system is undoubtedly the type of institution at which the student has pursued the course. There have been a number of studies⁽⁹⁾ which clearly indicate that employers adopt a 'ranking procedure' according to institution and chart 3.5⁽¹⁰⁾ clearly shows the difference in the unemployment rates amongst graduates according to which side of the binary line they studied.

However, Table 7(vi) indicates that the products of the colleges of higher education fare better in terms of proportions employed. This can be accounted for by the fact that they have a higher proportion of diplomates⁽¹¹⁾, who are more prepared to accept non-graduate jobs and 'filter down' the labour market, compared to graduates of

universities and polytechnics. This is substantiated by reference to Table 7(vii) and 7(viii), where it is seen that mature students with higher national diplomas perform very well in the labour market in terms of employment but, the financial rewards are not as lucrative for those who achieve employment.

The effect of level of study is an interesting one to consider, as previous work has indicated that postgraduates do not enjoy the same benefits as do those with degrees or higher national diplomas. Reference was made earlier⁽¹²⁾ to Goodman (1979), Nickell (1982) and Phillips (1977), who all showed that whilst graduates enjoyed considerable benefits, in the form of lifetime earnings, postgraduates tend to lag behind, a view which is substantiated by the results of this research.

The theory of credentialism has been widely discussed in the literature and reviewed on page 30 and it is clear that to some extent at least, employers use qualifications as a 'signal'. Thus mature students enter higher education in order to acquire qualifications, which portray to employers that they have the 'necessary criteria' which employers seek, in addition to a number of years of experience of work. Obviously relevant experience is an important asset to have, but qualifications are viewed as the necessary boost to career progression, which many years of experience do not necessarily provide. This matter is discussed further within the context of the views of employers, to which attention is now turned, prior to an analysis of the statistical effects of the variables, discussed above, on employment potential.

8.2 Employers' views of Mature Students

The objectives and methodology underlying this section of the study are indicated on page 76. It is worth reiterating that whilst the respondent firms had some two million employees, employers such as Education Authorities and Social Service Departments, were not surveyed as they did not appear in G085. However, it was considered that the survey covered a reasonable cross-section of industry, as can be seen in Table 8(i) below.

Table 8(i) Employers Participating in Study by Industrial and Commercial Classification

	<u>%</u>
Manufacturing	32
Services	21
Engineering	17
Banking and Insurance	9
Oil and Chemicals	9
Retailing	9
Mining	3

Employers were first asked whether they employed mature students - 32 employers (53%) indicated that they recruited mature graduates whilst 33 employers (55%) stated that they had recruited mature students in the past⁽¹³⁾. The difference arise out of the fact that two employers no longer recruit mature graduates and one had recently started to recruit mature graduates. Both the employers who no longer recruited mature students stated that their graduate training programmes were of such a length that it was only practical to recruit conventional age graduates. One employer indicated that "a high degree of mobility is required by our graduates and this is often a problem with mature graduates who tend to have more domestic commitments". It is apparent therefore, that mature graduates face a more limited market (in terms of potential employers) than their younger counterparts and this problem is exacerbated by the age limits imposed by some employers. Interestingly, mature students were identified by Jolly et.al⁽¹⁴⁾ as one group who might suffer markedly from age limits in employment.

Participants were asked to specify the maximum age of their graduate recruits and the results are summarised in Table 8(ii) below.

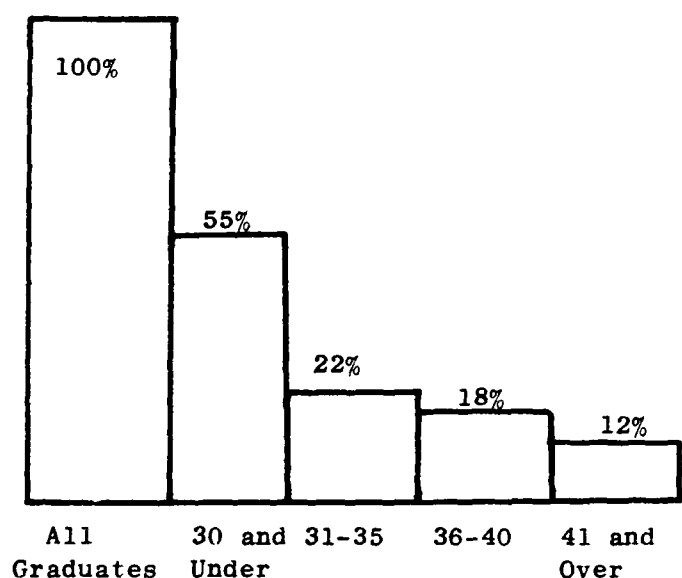
Table 8(ii) The Maximum Age for Graduate Recruits Specified by Employers of Mature Graduates

Age Bracket	Percentage of Employers
30 and under	61
31-35	6
36-40	12
41 and over	3
No specific maximum age	<u>18</u>
	100
	—

n = 33

It would appear therefore, that the demand for those aged 31 and over on completion of their studies would be rather small as a proportion of the total demand for graduate recruits. On those employers who specified age limits, only 13 out of 33 would be prepared to offer them employment. In addition it should be remembered that the results in Table 8(ii) are percentage of employers who recruit mature graduates. Fig. 8.1 below demonstrates the size of the graduate labour market available to mature graduates. It can be seen that, as age increases, the proportion of the market available declines considerably.

Fig. 8.1. Proportion of Graduate Labour Market Available to Mature Graduates



However, although there is evidence to suggest discrimination in terms of age, it would not be true to say that mature graduates are discriminated against in terms of selection methods employed during recruitment. Of those employers who recruited mature graduates 94% indicated that there is absolutely no difference in selection methods adopted between mature and conventional age graduates.

Nevertheless, a further problem facing mature graduates is the extent to which employers expected their mature graduates to be geographically mobile. One would expect mature graduates to have greater family and other commitments than conventional graduates but 67% of employers required their mature recruits to be totally mobile and only 10% did not have a mobility requirement.

In addition, there was a tendency amongst employers to be more concerned with the subject studied by mature graduates, compared with conventional graduate recruiting, for which it has been estimated that for one third of graduate vacancies the subject of study is formally irrelevant⁽¹⁵⁾. An example of this is found amongst employers who only recruit mature graduates with a qualification in certain disciplines e.g. M.B.A.'s. Table 8(iii) below indicates the degree to which employers were concerned about the subject studied and it can be seen that only 6% regarded the subject as being totally irrelevant.

Table 8(iii) The Relevance of Subjects Studied by Mature Graduates

	<u>% of Employers</u>
Subject of study absolutely fundamental	31
Subject of study very important	38
Subject of study of some importance	25
Subject of study irrelevant	6
<u>n = 32</u>	
1 respondent did not specify	

The fact that many mature students study courses other than first degree level was taken into consideration in the survey and employers were asked the importance they attached to other qualifications. Interestingly 25% intimated that postgraduate courses were less important than a degree, and 19% indicated that they were more important; for professional level study 21% were of the opinion that such a level was less important than a degree and 41% more important; for higher national diplomas and the like the percentages were 56% and 6% respectively.

The institutional preference of employers was examined by requesting employers to rank the institutions in order of preference and a scoring system of five to one adopted according to the highest to lowest ranked institutions. The results are shown in Table 8(iv) below.

Table 8(iv) The Institutional Preferences of Employers of Mature Graduates

	<u>Points*</u>
New/Technological Universities	93
Redbrick Universities	85
Oxford and Cambridge	71
Polytechnics	69
Colleges of Higher Education	29
*Points allocated on the basis of 5 points for a first place, 4 points for a second place, etc.	

It should be noted however that 12 respondents stated that they did not discriminate between institutions. Nevertheless, it is interesting to compare the results given here with those of other studies, which indicate that Oxbridge still firmly remains the number one academic institution as far as graduate employers in general are concerned. However one has to recognise the more limited labour market available to mature graduates identified earlier.

Given their experiences the views of employers of mature graduates may well provide to be illuminating to those employers who, deliberately or not, have not undertaken such recruitment. The study sought to determine whether mature graduates were perceived as more or less productive than their younger counterparts. The results are summarised in Table 8(v) below.

Table 8(v) The Productivity of Mature Graduates compared with Conventional Age Graduates

	<u>% of Employers</u>
Mature Graduates much more productive	14
Mature Graduates little more productive	24
About the same	55
Conventional Graduates a little more productive	0
Conventional Graduates much more productive	<u>7</u>
	100
<u>n = 29</u>	
4 respondents did not indicate	

Those few employers who stated that they considered conventional age graduates were more productive suggested that mature graduates take longer to adapt to their surroundings and are more inflexible. However, many of the employers who indicated that mature graduates are more productive gave as the main reason the very fact that they are mature. Although this was spelt out in many ways, the following are indicative of the responses received:

"maturity of approach - less inclined to be distracted, not seeking to re-design the world overnight".

"They know what work means, they tend to be quite practical and more mature in outlook".

"Maturity brings a greater sense of responsibility and loyalty to the company".

In addition, given that mature graduates have had some experience within the labour market, it was considered interesting to examine employers'

views on such experience. Table 8(vi) and 8(vii) summarise the findings.

Table 8(vi) The Relative Advantages of the Previous Work Experience of Mature Graduates as Opposed to Conventional Age Graduates

	<u>% of Employers</u>
Considerable advantage	6
Slight advantage	75
No advantage or disadvantage	6
Slight disadvantage	9
Considerable disadvantage	<u>3</u>
	100
	<u> </u>
<u>n = 32</u>	
1 respondent did not specify	

Table 8(vii) The Relative Advantages of the Previous Work Experience (Directly Relevant to Post) of Mature Graduates as Opposed to Conventional Age Graduates

	<u>% of Employers</u>
Considerable advantage	55
Slight advantage	39
No advantage	3
Slight disadvantage	3
Considerable disadvantage	<u>0</u>
	100
	<u> </u>
<u>n = 33</u>	

It can be clearly seen that employers hold previous work experience in high regard, especially if it is directly relevant to the post being recruited. Those employers who held the view that such experience is not advantageous did so because of the nature of their training programmes and their opinions that mature graduates tend to be somewhat inflexible. However, as Table 8(vii) shows those are a very small minority, and the fact that 81% of employers of mature graduates consider work experience, whether relevant or not, of some advantage, can be taken as an indication that whilst there is no difference

in the methods used to select their mature and conventional recruits, work experience can be a benefit to mature graduates. However, whether or not this offsets the age disadvantage, discussed earlier, is open to further investigation.

In concluding this section, therefore, it is clear that the age factor is a very important limitation on employment potential, although this is offset by advantages of work experience gained by mature graduates prior to their course of study. The extent to which employers require mobility from their graduate recruits also presents serious problems for many mature graduates.

However, it may be re-assuring for mature graduates to note that of those employers who employ such people the vast majority are commendatory of mature recruits and indicate that the problems which non-employers give as the reason why they do not take on such persons are not insurmountable.

The views of employers would seem to indicate that there is a positive return on mature student investment both in private and social terms, thus supporting the human capital model as suggested by Corman (1983), for example.

8.3 Statistical Model of Employment Potential

In chapter four discussion took place as to which model was most appropriate to analyse the relationship between employment status of mature students and their characteristics. Given the inadequacies of the basic regression model for dealing with a binary dependent variable and the complexities of the probit model the logit model was considered most appropriate and was specified as

$$\ln p_{ijklm} = \ln \left(\frac{e_{ijklm}}{1 - e_{ijklm}} \right) = \ln e_{ijklm} - \ln (1 - e_{ijklm}) \quad (1)$$

where $\ln e_{ijklm}$ is the log of the number employed in age category i , sex category j , work experience category k , family needs category e and qualification category m

with $i = 1, \dots, 4$
 $j = 1, 2$
 $k = 1, \dots, 3$
 $e = 1, \dots, 3$
 $m = 1, \dots, 3$

and

\ln representing logarithms to the base e .

However, given the number of explanatory variables, the saturated model i.e. all row effects, all column effects and all their interactions would result in a very large number of parameters involving high order interaction terms, which would be virtually impossible to interpret. ⁽¹⁶⁾

Thus the *hiloglinear* technique within SPSS-X was utilised to arrive at the 'best' model, which would be interpretable and not reduce the efficiency of the model in fitting the data.

The best model was specified as

$$\begin{aligned} \ln p_{ijklm} = & \lambda^E + \lambda^A + \lambda^S + \lambda^F + \lambda^Q \\ & + \lambda^{E/A} + \lambda^{E/S} + \lambda^{E/X} + \lambda^{E/Q} \\ & + \lambda^{E/A/X} + \lambda^{E/X/F} + \lambda^{E/Q/F} \end{aligned} \quad - (2)$$

However, the logit model was intended to represent a model with dependent and explanatory variables, and therefore equation (2) was amended so as to omit the mean values of age, sex, experience, family needs and qualification and having an expression in terms of the mean value of employment and its interactions with the explanatory variables i.e.

$$\begin{aligned} \ln p_{ijklm} = & \lambda^E \\ & + \lambda^{E/A} + \lambda^{E/S} + \lambda^{E/X} + \lambda^{E/Q} \\ & + \lambda^{E/A/X} + \lambda^{E/X/F} + \lambda^{E/Q/F} \end{aligned} \quad - (3)$$

If this model were the saturated model the mean value of employment, λ^E , would be the same as the proportion of mature students in the 'employed' category of employment status after completion of their qualification. However, equation (3) is not the saturated model and

therefore λ^E does not correspond to the value expressed in chapter seven⁽¹⁷⁾. Nevertheless, whilst recognising this, it is the case however, that the effects of the explanatory variables do correspond in relative terms to the crosstabulations of chapter seven.

It was stated on page 79 that the dependent variable in the logit model represents the logarithm of the odds of an event occurring i.e. the logarithm of the odds of a mature student achieving employment. The parameters produced by *spss-x loglinear analysis* are therefore the logarithm of the odds of achieving employment within the categories of the explanatory variables.

The parameter estimates then have to be transformed initially from log odds to odds i.e. (from (6) + (7) pages 82 and 83) if, for example,

$$\ln p_1 = 2(\lambda^E + \lambda^{E/A})$$

then

$$p_1 = e^{2(\lambda^E + \lambda^{E/A})} \quad - (4)$$

In order to transform the model from odds achieving employment to employment potential the following procedure is adopted.

$$\beta_{ijklm} = \frac{p_{ijklm}}{1+p_{ijklm}} \quad - (5)$$

where

β_{ijklm} is the employment potential of a student in cell (ijklm).

The table of results Table 8(viii) below, indicates the effect of the categories of the explanatory variables on employment potential and contains the parameters produced by *loglinear analysis* using *spss-x*, the odds of achieving employment and the employment potential.

e.g.

$$\begin{aligned} \ln p_1 &= 2(0.1455 + 0.05745) \quad \text{i.e. effect of aged 29 and under} \\ p_1 &= e^{2(0.20295)} \\ &= 1.5007 \\ \beta_1 &= \frac{1.5007}{1+1.5007} = \underline{\underline{60.01\%}} \end{aligned}$$

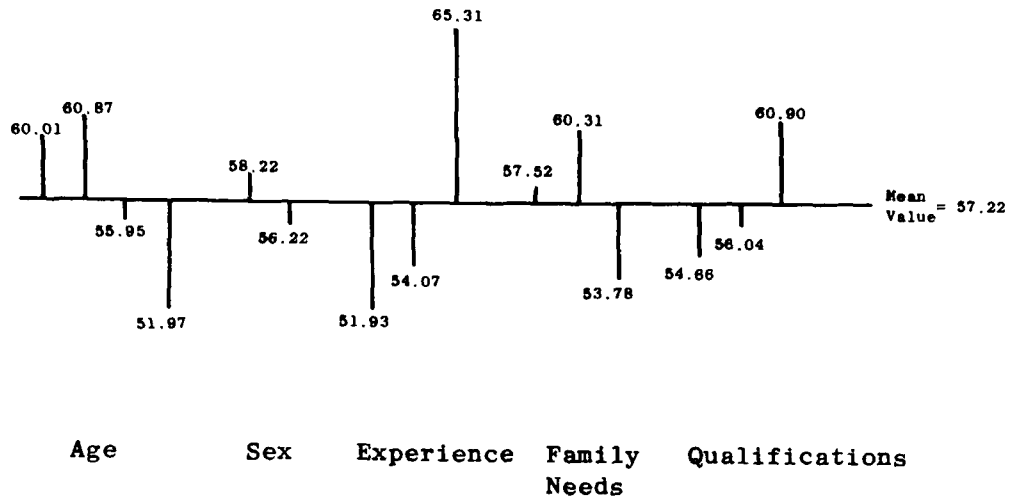
Table 8 (viii) Employment Potential of Mature Students - Effects of Explanatory Variables and Interactions

		<u>Parameter</u> <u>Estimate</u>	<u>Odds</u>	<u>Employment</u> <u>Potential (%)</u>
(I)	λ^E	0.1455	1.3378	57.22
(II)	$\lambda^{E/A}$			
	29 and Under	0.05745	1.5007	60.01
	30-39	0.07542	1.5556	60.87
	40-49	-0.02600	1.2700	55.95
	50 and over	-0.10687	1.0822	51.97
(III)	$\lambda^{E/S}$			
	Male	0.02037	1.3935	58.22
	Female	-0.02037	1.2843	56.22
(IV)	$\lambda^{E/X}$			
	Under 3 years	-0.10700	1.0802	51.93
	3-6 years	-0.05397	1.1770	54.07
	6 years and over	0.17097	1.8828	65.31
(V)	$\lambda^{E/F}$			
	No domestic responsibilities	0.00601*	1.3539	57.52
	Some domestic responsibilities	0.06370	1.5195	60.31
	Considerable domestic responsibilities	-0.06971	1.1637	53.78
(VI)	$\lambda^{E/Q}$			
	Postgraduate	-0.05197	1.2056	54.66
	Degree	-0.02414	1.2748	56.04
	Diploma	0.07611	1.5573	60.90
(VII)	$\lambda^{E/Q/F}$			
	Postgraduate with no domestic responsibilities	-0.04705	1.2203	54.96
	Postgraduate with some domestic responsibilities	0.04817	1.4782	59.64
	Postgraduate with considerable domestic responsibilities	0.01888	1.0892	52.13
	Degree with no domestic responsibilities	0.01532	1.3303	57.09
	Degree with some domestic responsibilities	0.06565	1.6511	62.29
	Degree with considerable domestic responsibilities	-0.08097	0.9430	48.53

	<u>Parameter</u>	<u>Odds</u>	<u>Employment</u>
	<u>Estimate</u>		<u>Potential (%)</u>
(VIII) λ <u>E/A/X</u>			
29 and under with less than 3 years experience	0.003647*	1.2202	54.96
29 and under with 3-6 years experience	0.07156	1.5236	60.37
29 and under with over 6 years experience	-0.07521	1.8174	64.51
30-39 with less than 3 years experience	-0.05610	1.1226	52.89
30-39 with 3-6 years experience	-0.09915	1.1226	52.89
30-39 with over 6 years experience	0.15525	2.9870	74.92
40-49 with less than 3 years experience	-0.01298	0.9990	49.97
40-49 with 3-6 years experience	0.00186*	1.1216	52.87
40-49 with over 6 years experience	0.01112*	1.8279	64.64
(IX) λ <u>E/X/F</u>			
Less than 3 years experience/ no domestic responsibility	0.01234*	1.0665	52.85
Less than 3 years experience/ some domestic responsibilities	-0.00587*	1.2125	54.80
Less than 3 years experience/ considerable domestic responsibility	0.01821	0.9743	49.35
3-6 years experience/no domestic respnsibilities	0.00418*	1.1876	54.29
3-6 years experience/some domestic responsibilities	-0.04418	1.2240	55.04
3-6 years experience/consid- erable domestic respons.	0.00242*	1.0289	50.71

(*May not be significantly different from 0 - however effect is so marginal, it does not make a substantial difference if it is in fact equal to 0).

Fig. 8.2 Employment Potential of Mature Students - Effects of Explanatory Variables Only



From Table 8(viii) and Fig. 8.2 it can be seen that age has a positive effect on employment potential initially. For those aged 29 and under their employment potential is 60.01%. However, although potential increases slightly in the next age category there is a sharp downward trend after 40 years of age reaching 51.97% for those aged 50 and over.

Although males have a slightly better employment potential than females the differential is small and confirms what was implied earlier that there is very little difference between male and female except that males are more likely to be mobile, a factor which is evident from an examination of family needs.

As one would expect the quantity of relevant experience is a positive factor in determining employment potential increasing from 51.93% for those with limited experience to 65.31% for those with considerable experience, which is the highest potential when only the main effects are concerned, as seen in Fig. 8.2.

'Family needs' is an adaptation of a variable constructed by Nickell (1979c) and is utilised here as a proxy for mobility. The initial category is the single person with no domestic responsibilities and therefore highly mobile; the second category is married men with very small families and married women with no children. Although not completely mobile, the composition of the family is such that it would be possible for some degree of mobility and also, prove attractive in the sense that marriage is considered important by employers and implies security⁽¹⁸⁾. The third category contains married men with large families and married women (or separated/divorced) with children, a group who would be virtually immobile. From Table 8(viii) and Fig. 8.2 it can be seen that the second category has the highest employment potential at 60.31%, whilst those who are virtually immobile have the lowest at 53.78%. These results are very similar to those of Nickell (1979c), who found that the expected duration of unemployment of single men is much higher than their married counterparts and that the expected unemployment duration of married men increases with the number of dependent children.

The effect of qualification on employment potential has already been discussed⁽¹⁹⁾. From Table 8(viii) and Fig. 8.2 it can be seen that those students holding higher national diplomas have the highest potential at 60.9% with graduates at 56.04% and postgraduates at 54.66%. What such percentages do not indicate, however, is the type of employment and salary levels acquired, and therefore can only be regarded as one 'indicator' of labour market status.

Sections (VII) to (IX) in Table 8(viii) deal, in addition, with the effects of interactions between the explanatory variables. The interaction effect incorporates the possible combinations of variables e.g. we have seen that males have a higher employment potential than females and that those aged between 30-39 also have the highest employment potential amongst age categories, and therefore the interaction effect of all possible groupings of age and sex can be incorporated into the measure of employment potential as well as the individual (or main) effects so as to give the analysis a wider perspective.

The *loglinear* output of *spss-x* excludes the last category of each variable i.e. when the effect of age on employment potential was considered, the last category of employment, namely unemployed, was excluded from the output. Thus when the effect of an interaction term on employment potential is considered the resulting output does not include the last category of qualification in (VII), age in (VIII) and experience in (IX).

From Table 8(viii) section (VIII) it can be seen that mobility does improve employment potential of postgraduates and graduates, and by implication, diplomates. However, those who are immobile face a sharp deterioration in employment potential, especially graduates who decline from 56.04% to 48.53%.

From section (VIII), when age and experience are considered together the effect of limited experience is evident, as employment potential for the 29 and under age category falls from 60.01% to 54.96% and in the 30-39 age category it falls considerably from 60.87% to 52.89%. In this age category the employment potential remains at 52.89% even with between three and six years experience, and only increases with considerable previous experience, but then to 74.92%, the highest recorded potential. Similarly, for those aged 40-49 their employment potential is significantly enhanced by considerable experience, from 55.95% to 64.64%.

The interaction effect of experience and family needs in section (IX), indicates that a mature student with very limited experience, but with no domestic responsibilities, and therefore by implication, being highly mobile, has an employment potential of 52.85% compared with the main effect of limited experience of 51.93%. It would appear in this case that the lack of experience has been more than compensated for by the mobility factor. Similarly, a mature student who has very limited experience and some domestic responsibilities, and is therefore relatively mobile, has an employment potential of 54.80% compared with the main effect of 51.93%. However, the mature student with very limited experience, but who is immobile as a result of considerable domestic responsibilities, has an employment potential of 49.53%

compared with the main effect of 51.93%.

From this, it can be seen that the interaction effects do provide a more thorough picture of employment potential, but difficulties in interpreting higher order interaction terms precludes further analysis. Suffice it to say that the student with the highest employment potential is male, aged between 30 and 39, with considerable experience and some domestic responsibilities and who has successfully completed his higher national diploma.

However, one of the objectives of the study was to determine the relative importance of the qualification in arriving at a measure of employment potential.

Therefore the 'best' model, as expressed in (3) was adjusted to include the interaction effects of qualification with the other explanatory variables.

i.e.

$$\ln P_{ijklm} = \lambda^E + \lambda^{E/A} + \lambda^{E/S} + \lambda^{E/X} + \lambda^{E/F} + \lambda^{E/Q} + \lambda^{E/A/Q} + \lambda^{E/S/Q} + \lambda^{E/X/Q} + \lambda^{E/F/Q} \quad - (6)$$

Table 8(ix), below indicates the interaction effects between qualifications and other explanatory variables.

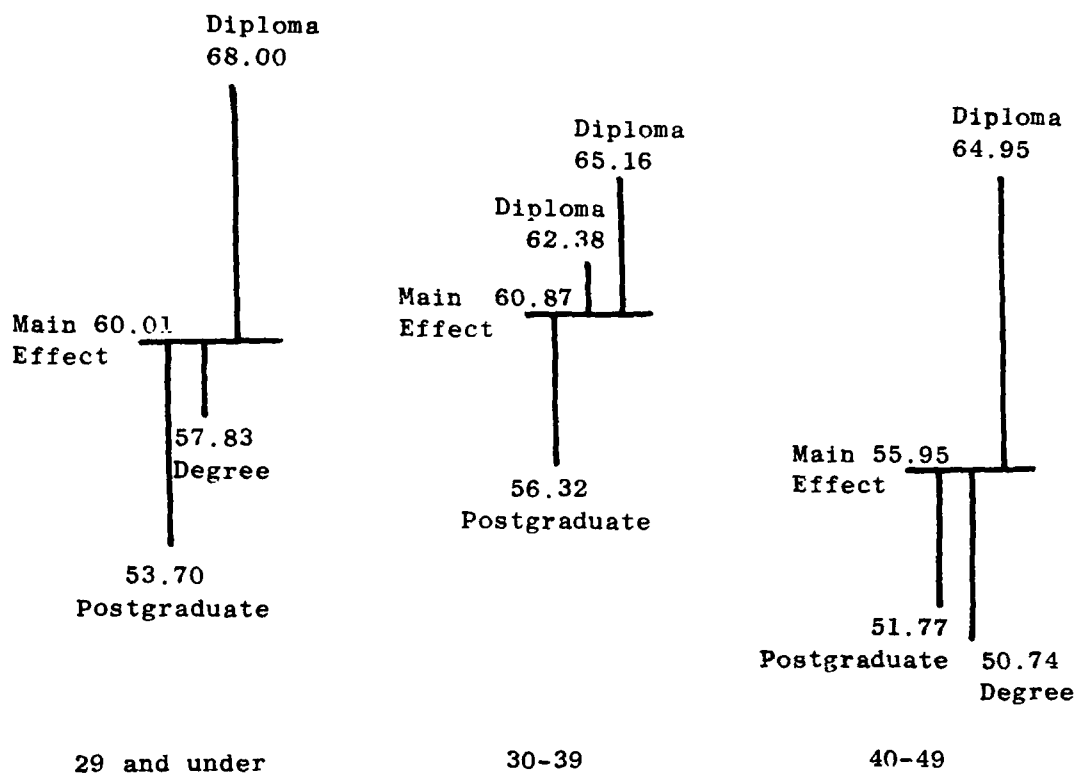
Table 8(ix) Employment Potential of Mature Students - Effect of Interaction between Qualification and other Explanatory Variable

		<u>Parameter</u>	<u>Odds</u>	<u>Employment</u>
		<u>Estimate</u>		<u>Potential (%)</u>
(I)	λ^E	0.1455	1.3378	57.22
(II)	$\lambda^{E/A/Q}$			
	29 and under with postgraduate qualifications	-0.07689	1.1597	53.70
	29 and under with degree qualifications	-0.02100	1.3711	57.83
	29 and under with diploma qualifications	0.09789	2.1253	68.00
	30-39 with postgraduate qualifications	-0.06577	1.2892	56.32
	30-39 with degree qualification	0.04976	1.6374	62.08
	30-39 with diploma qualification	0.01601	1.8703	65.16
	40-49 with postgraduate qualification	-0.03218	1.0733	51.77
	40-49 with degree qualification	-0.08052	1.0301	50.74
	40-49 with diploma qualification	0.11270	1.8527	64.95
(III)	$\lambda^{E/S/Q}$			
	Male with postgraduate qualification	-0.00164*	1.2517	55.59
	Male with degree qualification	0.04646	1.4570	59.30
	Male with diploma qualification	-0.03009	1.5277	60.44
(IV)	$\lambda^{E/X/Q}$			
	Under 3 years experience/post graduate qualification	0.02711	1.0277	50.68
	Under 3 years experience/degree qualification	0.01291*	1.0561	51.36
	Under 3 years experience/diploma qualification	-0.04002	1.1609	53.72
	3-6 years experience/postgraduate qualification	0.04348	1.1573	53.65
	3-6 years experience/degree qualification	-0.03037	1.0555	51.35
	3-6 years experience/diploma qualification	-0.01311*	1.3352	57.18

(V)	<u>E/F/Q</u>	<u>Parameter</u>	<u>Odds</u>	<u>Employment</u>
		<u>Estimate</u>		<u>Potential (%)</u>
	No domestic responsibilities/ postgraduate qualification	-0.02794	1.1540	53.57
	No domestic responsibilities/ degree qualification	0.01921	1.3407	57.28
	No domestic responsibilities/ diploma qualification	0.00873*	1.6043	61.60
	Some domestic responsibilities/ postgraduate qualification	0.01659	1.4157	58.60
	Some domestic responsibilities/ degree qualification	0.01314*	1.4865	59.78
	Some domestic responsibilities/ diploma qualification	-0.02973	1.6672	62.51

It can be seen from Table 8(ix) and Fig. 8.3 below, that when the interaction effect of age and qualification is examined one can observe that for both postgraduates and graduates aged 29 and under their employment potential is reduced. This can probably be accounted for by the fact that this age group is probably the nearest to conventional age students and therefore are more prepared to wait for 'appropriate' employment with a 'graduate-level' salary etc. than older students. However, for diplomates aged 29 and under the employment potential is considerably enhanced, as they are not as likely to require 'graduate type' employment but are more likely to 'filter-down' the labour market into 'non-graduate' jobs.

Fig. 8.3 Employment Potential of Mature Students - Effect of Interaction between Age and Qualification



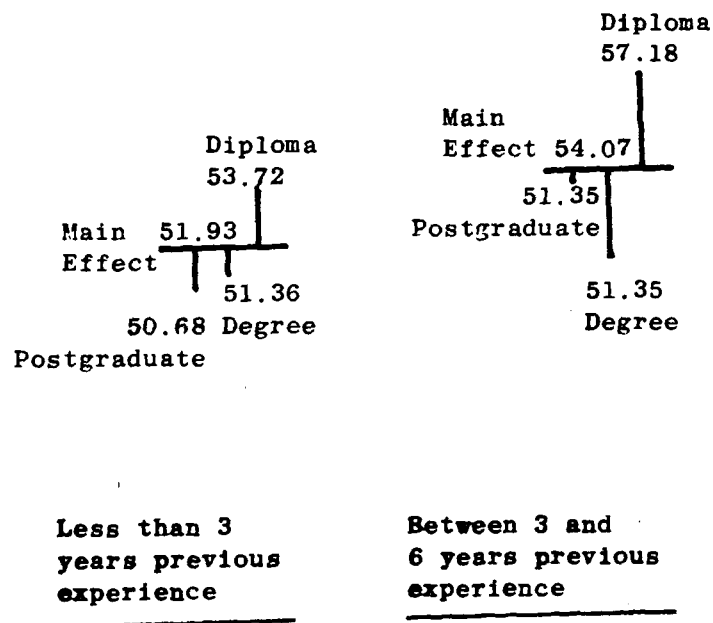
For those aged between 30-39 it is only the postgraduate student whose employment potential is reduced. This may be attributed to the reluctance of those with postgraduate qualification to 'filter down' the labour market. Graduates, and especially diplomates, are less likely to display such reluctance as age increases. In addition, questions have already been asked regarding the economic benefits of acquiring a postgraduate qualification⁽²⁰⁾. However, the results in the 40-49 age category would counter such a claim, as for both postgraduates and graduates the employment potential is reduced quite significantly. From the employers' perspective the returns from training 40+ year old graduates are likely to be very short-term and therefore they are unlikely to employ a person of that age. Diplomates on the other hand, are 'less choosy' in the type of employment they accept in all age categories.

The effect of qualification on employment potential by sex is to boost

it for both graduates and diplomates from 58.22% to 59.30% and 60.44% respectively.

With regard to relevant work experience the interaction effect with qualification does appear to have quite a depressive effect with only diplomates demonstrating any improvement.

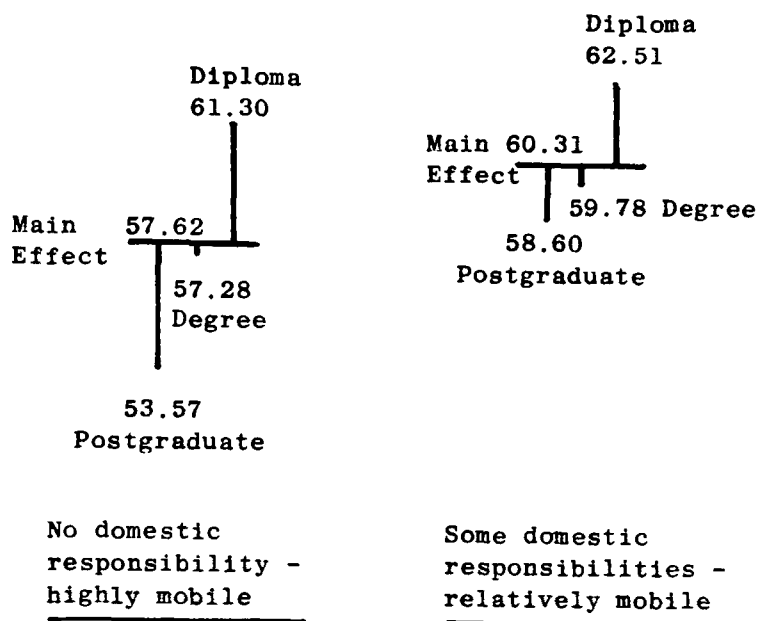
Fig. 8.4 Employment Potential of Mature Students - Effect of Interaction between Experience and Qualification



However, the situation is not as severe when the interaction effect between family needs and qualification is considered. For the completely mobile postgraduate their employment potential is 53.57%, for graduates it is 57.28% and for diplomates it is 61.60% compared

to 57.52% for a student with no domestic responsibilities, and a similar range of results exist for those who are relatively mobile.

Fig. 8.5 Employment Potential of Mature Students - Effect of Interaction between Family Needs and Qualification



In general it would appear that the employment potential of postgraduates is lower than one would have expected. It may well be that they are 'overqualified' and even at a mature age they still find it difficult to accept 'lower status employment'.

There is also some evidence (though not as marked as for postgraduates), of graduates not wishing to 'filter-down' the labour market, a situation which certainly is not the case with diplomates.

One is left with the impression that the enhancement of employment potential depends upon the type of qualification acquired. In all cases it was seen that higher national diplomas are a positive aid

to all mature students, irrespective of age, sex, mobility and experience, as can be seen in Table 8(x) below. However, it should be remembered that the median commencing salary for diplomates is considerably lower than that of the mature students achieving degree or postgraduate level qualifications. Furthermore, it also has been hypothesised that there is a marked difference in the type of employment secured by university graduates compared with students leaving colleges of higher education, where the expectations of employment status of students, and their advisers, is likely to be much lower since the proportion of college of higher education students participating in the annual 'milk round' of graduate recruitment is considerably less than with universities and polytechnics. Thus the willingness to 'filter-down' the labour market by diplomates may not be a conscious decision on their part, but a function of the environment in which they study. However, further work is required to confirm or refute such a view.

Table 8(x) Effect of Higher Diploma Qualification on other Determinants of Employment Potential

<u>Category</u>	<u>Employment Potential (%)</u>	<u>Employment Potential with Higher Diploma (%)</u>
Age: 29 and under	60.01	68.00
30-39	60.87	65.16
40-49	55.95	64.95
Male	58.22	60.44
Experience: Under 3 years	51.93	53.72
3-6 years	54.07	57.18
Mobility: Total	57.52	61.60
Relative	60.31	62.51

The effect of acquiring a degree is more mixed with positive benefits in two areas only, namely, aged 30-39 and male but negative in all others as seen in Table 8(xi) below.

Table 8(xi) Effect of Degree Qualification on Other Determinants of Employment Potential

<u>Category</u>	<u>Employment Potential (%)</u>	<u>Employment Potential with Degree (%)</u>
Age: 29 and under	60.01	57.83
30-39	60.87	62.08
40-49	55.95	50.74
Male	58.22	59.30
Experience: Under 3 years	51.93	51.36
3-6 years	54.07	51.35
Mobility: Total	57.52	57.28
Relative	60.31	59.78

For postgraduate qualifications the effects are all downward, as seen in Table 8(xii) below, a feature which should provide advisers etc. with evidence in guiding potential mature students into levels of study.

Table 8(xii) Effect of Postgraduate Qualification on Other Determinants of Employment Potential

<u>Category</u>	<u>Employment Potential (%)</u>	<u>Employment Potential with Postgraduate Qualification (%)</u>
Age: 29 and under	60.01	53.70
30-39	60.87	56.32
40-49	55.95	51.77
Male	58.22	55.59
Experience: Under 3 years	51.93	50.68
3-6 years	54.07	53.65
Mobility: Total	57.52	53.57
Relative	60.31	58.60

The results from the statistical model would suggest therefore that employment potential would increase initially with age but then decline after the age of 40 is reached; that males have a slightly greater potential than females; whilst experience does considerably enhance potential. For those students with little or no domestic responsibilities, the employment potential is increased but for those with considerable responsibilities the potential is lower. Since family needs were taken as a proxy for mobility it could be said that mobility is an important determinant of employment potential, which substantiates the findings of the employer survey⁽²¹⁾. The main effect of qualification on employment potential revealed that diplomates had the highest potential followed by graduates, with postgraduates having the lowest potential.

The model also incorporated the effects of interactions between the explanatory variables and it indicated that lack of mobility and lack of experience were damaging in terms of employment potential.

The interactions between qualifications and the other explanatory variables pointed to the positive effect that holding a diploma or equivalent had upon employment potential, the virtually neutral effect of degrees and the negative effects of postgraduate qualifications. Whilst some explanations were offered earlier, as to why this was the case, further work is needed to confirm such findings, and views, but nevertheless, if the major aim of a mature student entering higher education is to achieve employment, irrespective of other aspects of labour market status, a higher diploma would seem the most appropriate route.

However, the results, as a whole, should prove useful in the hands of advisers and counsellors of potential entrants, of a mature age, to full-time study in higher education.

Notes

1. See page 38 for review of such models
2. See appendix 4 for questionnaire utilised.
3. See Bowers and Harkess (1979)
4. See page 19.
5. See Table 7(iii) page 136.
6. See Phillips, C. J. (1987)
7. See page 36.
8. See also Phillips, C. J. (1987)
9. See, for example, Bacon et.al(1979); Gordon (1983)
- 10 See page 65.
- 11 See Fig. 7.2
- 12 See page 29.
- 13 The succeeding results relate to those who stated that they either had or did employ mature graduates.
- 14 See Jolly, J., et.al. (1980)
- 15 See Gordon, A. (1983)
- 16 See equation (8) on page 83.
- 17 See page 135.

18 See, for example, Nickell (1979c)

19 See Table 7(vi), Table 7(vii) and page 154.

20 See page 154.

21 See page 157.

CHAPTER NINE

THE EMPLOYMENT PROBABILITY OF MATURE STUDENTS

9.1 - The Index of Indigenous Economic Climate

9.2 - The Employment Probability of Mature Students

In chapter eight the results of the statistical model of employment potential were analysed to determine the likelihood of an individual mature student acquiring employment given their particular profile of characteristics in terms of age, sex, mobility, previous experience, family circumstances and their recently acquired qualifications.

However, one cannot fail to consider the general climate surrounding the demand for labour of all types. The recession has had an effect on recruitment of graduates and reference was made earlier⁽¹⁾ to the unemployment rate amongst graduates. In addition mention was made of O'Connor (1981) who argued that the most influential factor affecting probability of employment on completion of work experience schemes was the recession. Although this research is dealing with different types of qualifications and so a different sector of the labour market, the implications are nevertheless similar. It has to be the case, therefore, that the statistical model constructed in chapter four and analysed in chapter eight is somewhat incomplete in that no account is taken of the prevailing economic climate.

This chapter seeks to rectify the deficiency and develop the model to focus some attention on the economic climate surrounding the labour market for mature graduates, thereby arriving at an indicator of employment probability. The intention is to arrive at an index of the economic climate prevailing in each region of the country and its implication for the labour market. This intention arises out of the likelihood that mature graduates will not respond to labour market signals as one would expect conventional-age graduates to do. Thus, as the sample of mature students was taken from higher education institutions within South Wales and as only 24.7% of those who obtained employment actually moved elsewhere to an employment situation, the likelihood of mature students in other parts of the country obtaining employment would be different, and thus the 'index of indigenous economic climate' would adjust the measure of employment potential accordingly.

The 'indigenous economic climate' can be defined as the conditions existing within local labour markets at a particular point in time i.e. the demand for labour within the region and the availability of an

appropriate pool of workers. It was seen in chapter three⁽²⁾ that a person is less likely to leave the unemployment register in Wales than nationally and it is this measure, the likelihood of ceasing to be unemployed, which is to form the basis of the index to be constructed. This measure is defined as the outflow from unemployment expressed as a percentage of employees in employment and unemployment i.e. as a percentage of the total work force. One accepts the fact that such a measure may be inappropriate for dealing with students who enter from outside the labour market rather than from within and also for whom the perceived requirements of employers are different. Nevertheless, in the absence of a more appropriate measure, and given the need to incorporate the effects of labour market trends, the index is to be constructed on the basis of this measure.

The Index of Indigenous Economic Climate

As the model utilised students who completed their studies in 1984/85 it was decided to take data on employment trends within this period as the basis for the index and Table 9(i) below indicates the likelihood of ceasing to be unemployed by region within Great Britain.

Table 9(i) Likelihood of Ceasing to be Unemployed by Region (July-October 1985)

<u>Region</u>	<u>%</u>
South East	45.9
East Anglia	50.6
South West	47.4
West Midlands	34.2
East Midlands	43.2
Yorkshire and Humberside	41.2
North West	36.9
North	37.7
Scotland	40.3
Wales	40.5
Great Britain	41.3

Source: Employment Gazette January 1986.

A simple index was therefore constructed taking Wales as the base and the relative weightings can be seen in Table 9(ii) below.

Table 9(ii) Index of Regions - Likelihood of Ceasing to be Unemployed

<u>Region</u>	
South East	113.3
East Anglia	124.9
South West	117.0
West Midlands	84.4
East Midlands	106.7
Yorkshire and Humberside	101.7
North West	91.1
North	93.1
Scotland	99.5
<i>Wales</i>	100.0
Great Britain	102.0

It thus follows that the 'indigenous economic climate' is least conducive in the West Midlands and most conducive in East Anglia.

Therefore the results contained in Table 8(viii) on page 164 can be adjusted by using such weightings to give an indicator of the probability of employment of a mature student, nationally in terms of Great Britain, and for each region.

The adjusted results are shown in Table 9(iii) below.

It can be seen that there are substantial differences between regions in terms of the probability of employment. To take the two extremes in order to illustrate, consider a male mature student. In East Anglia his probability of employment is 72.72% whereas in the West Midlands it is 49.14%, some 32% lower. Similarly a student aged between 40-49 with considerable experience has a probability of employment in East Anglia of 80.74% compared with 54.56% in the West Midlands.

Obviously there are a number of problems associated with such an indicator. The weightings reflect trends within the labour market as a whole within each region rather than the market for educated manpower, but on the assumption that there is some association between them and on the evidence that mature students are less mobile than graduates in general, it is reasonable to utilise such weightings.

Therefore, potential entrants to higher education can assess the probability of employment on completion of their course of study and if situated in a region with low weightings, can either decide to move to areas of higher weighting or consider whether an investment in higher education would be worthwhile.

Notes

1. See page 12.
2. See page 62.

CHAPTER TEN

SUMMARY AND CONCLUSIONS

The intention of the research was to assess the significance of higher education qualifications in the determination of the employment potential of mature students (defined as being aged 25 and over on entry to their course of study).

Previous studies in the areas of human capital and credentialism had not directed attention towards mature students, except that is, for the study of Corman (1983), who suggested that older students respond to similar variables as conventional-age students in making decisions about higher education. Similarly, there was very little evidence of the consequences of age and qualifications within the literature on labour market segmentation. However, Hopper and Osborn (1975) considered that adult students 'may have had a history of intense but unsuccessful competition for jobs' and there is evidence to show that age may well act as a constraint upon upward mobility within the labour market, whilst lack of qualifications most definitely does act as a constraint. Furthermore, the literature on unemployment dynamics indicated that there was an inverse relationship between educational attainment and the number, and duration, of unemployment spells.

The research was thus based on the assumption that adults, in re-assessing their career development, sought to increase their stock of human capital and portfolio of educational credentials by pursuing a higher education qualification, with a view to moving upwards in the occupational hierarchy, and across the 'boundary' between the secondary and primary labour markets, whilst at the same time reducing the likelihood of an unemployment spell occurring and, the expected duration of such an event.

Therefore, the research activity initially involved a survey of mature students in order to arrive at a 'profile' of their characteristics and determine their reasons for entering higher education. At the same time it was possible to compare their experiences within higher education with their original expectations. A further survey was carried out on a sub-sample of mature students, to determine their destinations on completion of their studies, the results of which were utilised in the construction of a statistical model to arrive at an indicator of the employment potential of mature students. At the same

time, a sample of employers was chosen to participate in a postal survey, in order to examine the views and attitudes of employers regarding mature recruits. Thus the research sought to discuss employment potential from both the supply and demand sides of the labour market and furthermore, to develop the model so as to incorporate the economic climate prevailing within each region of the country.

The findings of the original survey justified the assumption being made above, since 65% of mature students who responded stated that career benefits were the most important factor in influencing their decision to enter higher education, results which lend support to the view that education is an investment good, and also to Corman's view, that the same or similar variables influence all age students in their decision whether or not to increase their stock of human capital.

The survey also showed that of the respondents 60% were male and 40% were female, with a bias towards the lower end of the age structure. This was more prevalent amongst males, where 66% were under thirty-five whilst 53% of females came within this category. As one would expect, the majority of mature students were married (60%) with single students accounting for virtually all of the remainder. However, amongst females 20% of respondents were either divorced or separated and mature female students tended to have larger families than males - 59% of females had at least one child compared with 52% of males. The vast majority of respondents had been employed at some stage prior to their entry into higher education, although for a few it was of very limited duration. Of the respondents 33% had suffered at least one spell of unemployment during their pre-higher education experience, with 7% experiencing more than one spell. Furthermore, 15% of respondents did not possess the prerequisite qualifications for entry to higher education courses.

The extent to which problems and pressures were experienced during the period of education concerned was generally lower than anticipated. Some mature students had entered higher education anticipating considerable problems because of the quantity of work required, whilst over 72% of

females were concerned about the pressures imposed by family commitments. However, the problems did not materialise to the extent anticipated, and females, who, in general, had anticipated more problems than males, in fact experienced them to a lesser extent.

Similarly, fewer academic problems were encountered than anticipated, and whilst there was very little deviation between males and females in the extent to which problems were anticipated, in general fewer academic problems were encountered by females than males. The vast majority (63%) of respondents considered that such problems were totally overcome, and only 1% felt that they had not overcome the problems at all. The extent to which students considered leaving their course as a result of encountering problems was generally limited, although there was a greater propensity amongst females to consider that particular option, especially as a result of family pressures. They identified 'determination' as being the major factor in making them stay, whilst for males it was 'educational and professional advice' which helped them overcome their problems and remain on their course.

Finally, it was evident that from the results of the original survey in addition to the problems being less than anticipated, mature students experienced benefits over and above their expectations at the outset of their course with very few not deriving any benefits. Furthermore, benefits were experienced to a larger extent by females than males.

The follow-up survey produced findings on the destinations of the cohort of mature students who completed their studies in July 1984 and July 1985. The initial response to the unemployment rate of 13.7% may be one of surprise, compared to the unemployment rate of 9.2% amongst new graduates. However, it should be remembered that a much higher percentage of graduates in general progress to further studies than of this group of mature students. As anticipated, the unemployment rate amongst mature students increased with age, and the percentage of those continuing their studies also increased as age increased, indicating the difficulties associated with achieving employment in the higher age brackets.

The survey produced results on employment by family needs in line with other studies. Employment was highest amongst the category of single students and married men with no children or very small families and also in the category of married women with no children. Employment was lowest amongst those students with considerable family responsibilities, and therefore virtually immobile.

The employment rate according to institution of study produced results, which may be thought of, at least initially, as being rather surprising. The highest rate was found amongst higher education college students, followed by polytechnic students and university students, which does not correspond to the findings of the survey on employers' views, nor to previous work in the area of 'attractiveness of different types of graduates to employers'. Some reasons offered for this were the higher proportion of diplomates found in colleges of higher education and of postgraduates found in universities, levels of study which had a high employment rate and low one, respectively. Amongst diplomates, it was suggested that they were more likely to accept 'non-graduate' type employment and thereby 'filter-down' the labour market, compared to other students. Harland and Gibbs (1986) had indicated that a notable proportion of graduates from colleges of higher education were 'filtering-down' the labour market to jobs unaccustomed to graduate entry, such as secretarial and clerical work, routine administration and retailing. Furthermore, it was felt that diplomates would be willing to accept lower starting salaries, as confirmed by the results.

The results also indicated that there was evidence to support the theory of labour market segmentation since those who had a large number of previous jobs found it more difficult to acquire employment. Furthermore, those who had jobs of short duration found themselves in unemployment more than those who had jobs of longer duration. Similarly, those whose employment history included periods of unemployment found it very difficult to obtain employment, in comparison with those whose employment history is one of continuous employment.

The evidence also suggested that those who entered higher education as a 'last resort' struggle to find employment, whilst those who had specific career aims seemed to have them fulfilled, at least to the extent of acquiring employment.

The survey of employer views on market graduates also pointed to some important conclusions: the age factor was obviously a very important limitation on employment potential, although this is offset in certain cases, by advantages of work experience gained by mature graduates before their course of study. The extent to which employers required mobility from their graduate recruits also present serious problems for many mature graduates.

However, those employers who did recruit mature graduates were commendatory of such recruits and indicated that the problems given by non-employers as the reasons why they did not recruit such people were not insurmountable. The views of employers also seem to contradict those who argued that people who postponed their entry into higher education were acting irrationally, as it would certainly appear that a positive return on a mature student's investment existed both in private and social terms, reinforcing what has been already stated regarding the decision of mature entrants to enter higher education in order to increase their holdings of human capital.

The statistical model, when reduced to interpretable proportions, produced findings which were reasonable and, came within the parameters of 'common sense'. As expected employment potential declined after the age of 40 was reached and males had a higher employment potential than females, although this may be due to the higher tendency amongst females to be unavailable for employment. Previous work experience was a very important factor, with those students having more than six years relevant experience being in a very advantageous position. Conversely, those with considerable domestic responsibilities had a relatively low employment potential, although not as low as those with limited previous experience, as did those aged 50 and over. In terms of qualifications, the model produced results which revealed that diplomates had the highest employment potential with graduates

and postgraduates some way below.

The model also examined the interaction effects of qualifications and family needs. The results indicated that those with some domestic responsibilities and yet relatively mobile improved the effect of qualification considerably, but those with considerable domestic responsibilities, and therefore immobile, faced reduced employment potentials irrespective of qualification.

The interaction effect of age and experience produced results that indicated that previous experience of over six years considerably enhanced employment potential irrespective of age, producing potentials of 64.51% for those aged 29 and under, 74.92% for those aged between 30 and 39 and 64.64% for those aged between 40 and 49. On the other hand, limited experience tended to reduce the employment potential of all ages quite considerably, whilst experience of between 3 and 6 years tended to have negligible effect within the age ranges.

When the interaction effect of experience and family needs were considered it was seen that mobility had a positive effect whilst immobility had a considerable negative impact upon employment potential, emphasising what employers had said regarding the need for mature students to be mobile and confirming previous work in this area.

An adapted form of the model was utilised to assess the interactions between qualifications and the other explanatory variables. Each interaction demonstrated the danger of becoming 'over-qualified' as postgraduate qualifications reduced the employment potential measure for each category of the other explanatory variables. On the other hand diplomates had the opposite effect, whilst degrees tended to have basically a neutral effect. Possible reasons have already been given for such results e.g. greater willingness amongst diplomates to 'filter-down' the labour market, but such results do correspond with the findings of earlier studies, which showed that postgraduates do experience difficulties within the labour market.

The development of the model in chapter nine produced results which emphasised the regional differentials in achieving employment as

well as standardising the likelihood of achieving employment in Great Britain as a whole. The regions where mature students were likely to fare the best were East Anglia and the South West whilst the worst regions were West Midlands and the North West.

One of the intentions in undertaking this research was to plug the gap in the literature between the expectations of mature students on entry to higher education, their experiences during their courses of study and their destinations and re-entry to the labour market. It is considered that this has been achieved and at the same time raised some implications for decision makers within higher education, advisers and counsellors of potential mature entrants and the potential entrants themselves.

The findings of the initial survey indicated that problems were experienced to a lesser extent than had been anticipated, and that the wider benefits of higher education were experienced to a greater extent than anticipated. Such results should be a stimulus to those who, when considering whether or not to seek a qualification, are anxious as to whether or not they would cope. It should also be noted that those who undertook some preparatory steps did encounter fewer problems and to a lesser degree than those who did not undertake such preparation.

Although problems were anticipated by mature entrants, the great majority of them could be attributed to the length of time spent out of the education process. These could be alleviated, to some extent at least, at the interview stage of the application for entry, by a more sympathetic and sensitive attitude towards mature students and their fears and anxieties.

Despite the fact that the problems confronting women viz-a-viz education, are well documented, the study highlights the need for action to be implemented to alter attitudes and systems within education to accommodate mature female students. For example, it indicates the greater propensity amongst females to anticipate the existence of problems and that these would be experienced to a greater degree. It could be argued that the

participation rates amongst such females from this is unnecessarily low, just because of their preconceived views on the likely difficulties. It would appear that advisers and counsellors have an important role in pointing out to such females that the problems experienced by other students are in reality far less than they had anticipated, and that the benefits experienced were much greater than anticipated. Furthermore, the arrangements existing with higher education may also inhibit participation rates amongst mature female students, and in particular married women, e.g. the extent to which creche facilities are available; the times of lectures and tutorials may restrict those who have to deliver and collect children from school. It is probably the case that, whilst technological advances have reduced the domestic workload of females and allow them to undertake courses, until the education system can be adapted to make allowance for the other demands placed upon such a group, it is likely that participation rates of mature females will continue to be lower than that of males. On the other hand, there is scope for increasing the awareness amongst the female population of the opportunities available within higher education and one would welcome the recent Government moves aimed at encouraging more mature students to enter higher education.

In both the employer survey and the follow-up survey the need for mature students to be relatively mobile was emphasised. However, from the follow-up survey it was apparent that under 25% of those who obtained employment actually moved location to achieve their posts. Since 67% of employers required potential mature recruits to be mobile, it would appear that the biggest constraint on the employment potential of mature students is the apparent lack of mobility. If mature students were more mobile, then it would probably be the case that the employment probability indicator for Great Britain would be nearer to those currently in relation to East Anglia.

Another aspect which should be considered by both advisers and potential mature entrants is the decline in employment potential after the age of 40 is reached, and the proportion of those who continue their studies increasing with age. Whilst this may be attributed to the reduced family pressures within such age brackets compared to the lower age brackets, a more likely reason lies in the fewer opportunities offered from within the labour market for such a group. Reference

was made in the findings of the employer survey to the restricted size of the labour market available for those aged 40 and over, a feature which is reflected in the reduced employment potential for this age bracket.

In addition, it was noticeable that the factor influencing the decision to enter higher education continued to be important during the course of study, and was reflected in the unemployment rate. For example amongst those who had entered higher education because they were 'disillusioned with previous employment' or because they had 'failed to find suitable employment' there existed an unemployment rate of 25%, whilst amongst those who had entered for 'career advancement' purposes the unemployment rate was 6.8%. Mature students should therefore consider their motives prior to entry and examine whether or not higher education was but a temporary alleviation from their feeling of disillusionment. It would certainly appear to be the case that such an attitude, if not altered, would manifest itself again during the period of searching for employment thereby reducing the potential returns from their investment in higher education.

However, the research findings have demonstrated that for a significant proportion, the investment in higher education was worthwhile, the achievement of employment and at starting salaries, for the majority, equal to or greater than average earnings within the economy, enhanced career prospects and opportunities and, for some, the transition from a situation of redundancy to a period of new opportunities and challenges. It would therefore be reasonable to conclude that qualifications are important determinants of employment potential for mature students within the portfolio of attributes that the individual possesses. In addition, the evidence produced would confirm the view that whether or not the mature student actually acquires employment depends considerably on the economic climate prevailing within the local labour market.

The research has therefore, more or less, fulfilled the objectives stated at the outset. However, whilst it is the case that many questions have been answered, a number remain unanswered and further questions have been raised.

The statistical model on employment potential identified the relative importance of the categories of the explanatory variables. From the results it would be possible to conclude that age, mobility, previous experience are equally, if not more important determinants of employment potential than qualifications. However, it may be hypothesised that qualifications act as an initial signalling device to employers, who then view the other qualities of the applicants. Further research is needed to shed light on the actual selection methods adopted by employers of mature students.

Similarly, reasons were offered for the apparent anomaly between the employment potential of diplomates in comparison with that of graduates and postgraduates. The findings indicated that starting salaries between the groups were significantly different, and previous work had indicated that postgraduates may be 'over-qualified' in terms of labour market requirements. Nevertheless, further work is required to determine the type of employment accepted by diplomates, in comparison to graduates and postgraduates, to confirm whether or not they are more likely to 'filter-down' the labour market.

Further, additional work could confirm or nullify the view that the increased propensity to continue studies after the age of 40 had been reached was attributable to a reduction in family responsibilities or whether the limited number of opportunities within the labour market resulted in the continuation of studies rather than a period of time 'on the dole'. As an alternative hypothesis, since the percentage entering higher education for career purposes declined with age, it may be that the achievement of employment was not as important a factor in the higher age brackets as in younger age groups. Further study is required to answer these questions.

The encouraging aspect of the findings of the initial survey was that the problems were not experienced to the extent that they had been anticipated and that the benefits were experienced to a greater extent than anticipated. In addition, the problems were experienced more acutely amongst males than females. This may be attributed to the type of course studied by females and their original intentions and

it may be hypothesised that they gave greater thought to the type of course that suited them academically and/or which suited their domestic circumstances, rather than choose the course which maximised their employment prospects. Alternatively, as more females entered higher education for the purpose of self-fulfillment, it may be that there was less 'pressure' on them during their studies. Whether these are the reasons, or whether there may be other factors, only further investigation would confirm.

Finally, as with the sample group, the personal benefits that have accrued from this investigation have far exceeded those anticipated at the outset. The exercise has been a most valuable learning experience, and one which has improved one's awareness of the pitfalls and problems involved in any research. Nevertheless, one is confident that the lessons learned, and experience gained from the exercise will be put to effective use in the future, in offering advice and assistance to those commencing on the 'research road'. Similarly one would expect that those students, who formed the basis of this investigation, would be able and willing to advise, sympathise, encourage and assist those mature students about to commence, or considering commencing, a new chapter in their lives - the entry to higher education.

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2. Kogan, M. & Boys, C. J. A Synopsis and Commentary on Its Main Findings
3. Roizen, J. & Jepson, M. An Employers Perspective
4. Boys, C. J. & Keegan, M. Commentary on Three Studies of Higher Education Institutions (The Providers)
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APPENDICES

APPENDIX 1

For Official Use
Date Rec.
Item No.

Application to register for CNAА's Research Degree

Submitted by... **Gwent College of Higher Educ...** (Sponsoring Establishment)

for the degree of (delete as appropriate): (i) ~~Master of Philosophy (MPhil)~~
(ii) ~~Master of Philosophy with transfer possibility to Doctor of Philosophy (MPhil/PhD)~~
(iii) Doctor of Philosophy (PhD)

1 The Applicant

Name: **Ceri James PHILLIPS** Male/~~Female~~* Date of Birth: **31.10.54**Private address: **26 Launcelot Crescent,
Thornhill,
Cardiff CF4 9AQ**

Present post and place of work:

Senior Lecturer in Economics, Gwent College of Higher Education.

Particulars of any scholarship or other award held in connection with the proposed research programme:

Qualifications gained (Regulation 2 refers) (include places(s) of higher education, courses completed, main subjects, classification of award, date and name of awarding body):

B.Sc. (Econ.) University of Wales 1976 Class II Division I
University of Wales Institute of Science and Technology.

M.Sc. (Econ.) University of Wales 1978
University College, Swansea.

Training and experience (include details of activities (with dates) relevant to this application, and of any research or other relevant papers, books, etc. which have been published):

Lecturer at Gwent College of Higher Education (September 1977 -)
Part-time secondment to Economic and Statistical Services Division, Welsh Office, Cardiff
(April-August 1982) - Research Report on Economics of Waste Disposal for use internally
by Department of Environment and Welsh Office.

2 Academic Referees (see Note (a)):

3 Name of Collaborating Establishment (see Note (b)):

Colleges of Higher Education and Universities in South Wales - see Appendix I.

4 The Programme of Research

4.1 Title of the proposed investigation:

THE EMPLOYMENT POTENTIAL OF MATURE STUDENTS.

*delete as appropriate

4.2 Aim of the investigation:

Determine the relationship between employment potential of mature students with higher education qualifications and compare with models which examine the relationship between employment potential and unemployment duration.

4.3 Proposed plan of work, including its relationship to previous work, with references (See Note (c)):

See Appendix II.

4.4 Details of facilities available for the investigation (including funding and location):

See Appendix III.

4.5 Relationship between work to be undertaken in the collaborating establishment and that to be undertaken at the sponsoring establishment or elsewhere (Regulation 3.6 refers):

The collaborating institutions will be utilised in the delivery of the questionnaires to the population of mature students identified through consultation with the Welsh Office and collaborating institutions (See Appendix I). The remaining aspects of the research will be undertaken at the sponsoring establishment.

5 The Programme of Related Studies (Complete *either 5.1 or 5.2*)

5.1 Details of programme of related studies to be undertaken (Regulations 3.8 and 3.9 refer):

Research programme already undertaken as part of M.Sc. (Econ) at University College, Swansea.

Attendance at conferences, seminars etc. held by relevant bodies such as National Institute for Adult Education, Institute of Manpower Studies etc.

5.2 Where an integrated programme of study is proposed, details of the course of postgraduate study on which candidate's performance is to be formally assessed (Regulation 3.10 refers) are required:

6 Supervision of Programme of Work (Regulation 6 refers)

6.1 Director of Studies (see Note (d)) (*include name, qualifications, post held and place of work*):

Professor R. Mansfield - see Appendix IV

Experience of supervision of *registered* research degree candidates:

Currently supervising **4** *CNAA and UK university candidates*

Previously supervised **5** *CNAA and UK university candidates*
(*successfully completed supervision*)

6.2 Second Supervisor(s) (see Note (d)) (*include name, qualifications, post held and place of work*):

T. Bourner

Brighton Polytechnic

G. Wyn Davies

Gwent College of Higher Education

- see Appendix IV

Experience of supervision of *registered* research degree candidates:

Currently supervising *CNAA and UK university candidates*

Previously supervised *CNAA and UK university candidates*
(*successfully completed supervision*)

6.3 Details of any other person(s) who will act in an advisory capacity (*name, qualifications, post held and place of employment*):

**Mr. Richard Pearson,
Assistant Director,
Institute of Manpower Studies,
University of Sussex.**

7 Period of Time for Completion of Programme of Work (Regulation 4 refers)

7.1 Expected starting date for registration purposes (Appendix 1 of the Regulations refers): **September 1983**

7.2 Mode of study (full-time or part-time): **Part-time**

7.3 Amount of time (hours per week average) allowed for programme: **16**

Expected duration of programme (in years) on the above basis to MPhil:

and additionally to PhD:

8 Statement by the Applicant

I wish to apply for registration for **Ph.D.** on the basis of the proposals given in this application.

I confirm that the particulars given in Section 1 are correct.

I understand that, except with the specific permission of CNAAC, I may not, during the period of my registration, be a candidate for another award of CNAAC or of a university.

I understand that, except with the specific permission of CNAAC, I must prepare and defend my thesis in English.

Signed **C.J. Phillips** Date **20th February 1984**

9 Recommendation by the Supervisors

We support this application and believe that has the potential to complete successfully the programme of work proposed.

We recommend that this applicant be registered as a candidate for CNAAC's research degree.

Signed Date

Signed Date

10 Recommendation by the Sponsoring Establishment (unless Section 11 below is completed)

I support this application for registration of as a candidate for a research degree of CNAAC

Signed Date
(Head/Principal Officer of the Establishment or authorised deputy or Chairman/Secretary of approved college Research Degrees Committee)

11 Notification of Registration on behalf of CNAAC

Note: This section may be completed only by a college which has a Research Degrees Committee approved by CNAAC.

I confirm that the candidate was registered by this college for the degree of MPhil or MPhil/PhD.*

on with effect from

Signed Date
(Chairman/Secretary of approved college Research Degrees Committee; *delete as appropriate)

The sponsoring establishment should send the completed form and any attachments together with the appropriate application fee to CNAAC's Assistant Registrar for Research Degrees at: 344-354 Gray's Inn Road, London WC1X 8BP.

A STUDY TO DETERMINE THE EMPLOYMENT POTENTIAL OF MATURE STUDENTS

The Statement of the Problem

This research proposes to determine the relationship between employment potential of mature students and higher education qualifications and compare with models which examine the relationship between employment potential and unemployment duration.

The Objectives

1. The construction of a model to identify the relationship between higher education qualifications and employment potential.
2. The determination of the relative significance of qualifications in comparison with other influencing factors of employment potential, (e.g. age, duration of unemployment etc.).
3. The evaluation of existing models which analyse the relationship between unemployment duration and employment potential.
4. The consideration of whether the pursuit of a qualification offsets the impact of duration on employment potential.

The Hypotheses

1. A higher education qualification is a significant determinant of employment potential of mature students ceteris paribus.
2. Employment potential is determined by age, duration of unemployment, family circumstances, mobility, attitudes, previous experience in addition to 'recently acquired qualifications'.
3. Employment potential is affected by the route and course of study.
4. Employment probability is constrained by the prevailing economic climate and indigenous labour market conditions.

Theoretical Framework

1. Unemployment dynamics
2. Economics of labour markets
3. Economics of education.

Definition of Terms

1. The mature student will be regarded as being aged 25 and over at commencement of course of study and who are returning to their studies after an interval of at least three years; (a) has been made redundant (i.e. involuntarily unemployed); (b) has been out of employment for voluntary reasons (e.g. raising of family); (c) has voluntarily removed himself/herself from employment in order to pursue qualification so as to improve career development; (d) has not previously been employed.
2. Employment potential is defined as the suitability of the mature student from the view point of prospective employers.

3. Employment probability is the likelihood of the mature student returning to appropriate employment (including self employment) within twenty weeks of completion of the course of study.
4. Unemployment duration refers to the period of time out of employment whilst within the labour market.
5. Higher education qualification is regarded as courses followed by students undertaking post-graduate, post-diploma or research work; courses in preparation for university first and higher degrees, CNAAs first and higher degrees, the Higher National Diploma or Certificate, the Diploma in Management Studies, or a final professional examination or College Diploma or Associateship if above the standard of instruction required for the Ordinary National Certificate or General Certificate of Education (Advanced level); or any course of study of equivalent standard.

The Relevance of the Research

1. Training agencies, careers advisers etc. would be provided with more objective criteria in guiding prospective mature students.
2. Education establishments would be better informed in the recruitment and counselling of mature students.
3. Mature students would have greater insight in seeking to formulate career paths.
4. Given unemployment problem the research has macro-economic-political-educational-sociological implications.

RELATIONSHIP TO PREVIOUS WORK IN THE SAME FIELD

In the last few years, with unemployment increasing, it has become more difficult for students of all ages to find employment. However, during the same period the number of mature students returning to formal education has also increased. The factors governing the return to formal education are related to goals of self-development and career prospects (Swift 1982, Hopper and Osborn 1975) but it is also apparent that the problem of unemployment has had a significant effect in a number of directions. Firstly, people made redundant are returning to education in an attempt to increase their levels of attainment and consequently improve their 'marketability' to prospective future employers. Secondly, the problem of unemployment had led to 'job seekers' deciding to increase the level of their education so as to improve their attractiveness in a 'buyer's market' and to acquire relevant qualifications for specific occupations. Thirdly, those seeking to improve their promotional prospects and those seeking improved career prospects are experiencing great difficulty in achieving such ambitions, given the state of the labour market, without additional qualifications. Such deductions are based on personal observation and discussion with mature students over a number of years and led to the posing of the question: Is the employment potential of a mature student significantly enhanced by the achievement of a higher education qualification?

The view that mature students have specific objectives and destinations in mind when entering higher education is reinforced by a study which shows that 67% of mature students have very good ideas as to what they want to do at the termination of their education compared with 52% of all students (Gothard 1982). Furthermore, a recent publication states that an educational setting can open job opportunities in addition to providing "a respectable 'home' from which to approach potential employers". (Finemann 1983).

However, in the same publication, Finemann asks whether education does really help the unemployed. It is recognised that educational attainment contributes to a reduction in the number of unemployment spells an individual can expect to experience (Nickell 1979a) and that education does relax the constraints on choice that workers face in the labour market (Ashenfelter and Ham 1979). In a survey of Open University graduates, 40% attributed occupational benefits solely to their O.U. qualification (Swift 1982) and interestingly 18% of graduates in the 51-60 age bracket felt that their qualification played a crucial role in securing occupational benefits. Of this group 30% report that their qualification assisted them. It was relatively popular in the 1960s and 1970s to publish studies which showed that, from an individual's point of view, the return on investment in higher education was worthwhile (e.g. Blaug 1965, Morris and Zideman 1971, Zideman 1973) and indeed previous personal research showed that there were substantial benefits to be gained from acquiring a higher education qualification in terms of lifetime earnings (Phillips 1977). However, a more recent study shows that the rate of return from undertaking degree courses in scientific areas declined significantly from the mid 1960s, although from the viewpoint of this proposal, it is interesting to note that the rate of return is improved when weighted by employment probability (Wilson 1980), illustrating the lower probability of unemployment amongst those with higher education qualifications.

In addition, given that mature students are more aware of their perceived destination and the increased number of mature students recently entering the business studies areas of higher education, it is worth noting the findings of a study the employment destinations of business graduates from polytechnics and universities in Britain which shows that "there are clear indications that business graduates enjoy favourable employment prospects". (Bourner 1981).

An impressive body of literature of mature students has been built up recently much of it under the auspices of the National Institute of Adult Education. For example, in the first volume of the NIAE's Review of Existing Research in Adult Education, Charnley, A. et al (1980) provide an exhaustive review of research concerned with mature students, paying particular attention to motivation, demand, access problems, needs and effects on life styles.

Much of the literature on mature students however, concentrates on the problems encountered by mature students on their return to education although Hopper and Osborn (1975) comment:

"Although adult education was regarded as an effective and efficient form of instrumental adjustment, only further research will show whether, as a result of certification, adult students will benefit in the labour market (p.152)."

Another important factor determining employment potential is the duration of unemployment. This area is well documented in the literatures (e.g. Bowers and Harkness 1979, Cripps and Tarling 1974, Lancaster 1979, Leicester 1976, McAuley 1975, McGregor 1978, Mackay and Reid 1972, Main 1981) together with the employment probability for the unemployed (Lancaster and Nickell 1980, Nickell 1979b). It is widely argued that there is a causal link between duration of unemployment and the probability of employment. McGregor, for example, finds that the disadvantage associated with increasing time out of work manifests itself at a relatively early stage and the likelihood of employment is significantly related to the total time spent out of work. However, he suggests that further research is necessary to determine whether "men who have not worked for some time do constitute a less productive class of labour". Atkinson (1981) argues that duration and employment studies should seek to explain the differential probabilities of different individuals remaining unemployed, taking into consideration such factors as age, family circumstances, local labour market conditions, previous work career and qualifications. Although some studies (E.G. MacKay and Reid 1972, Lancaster 1979, Nickell 1979b) went some way along such lines none has attempted to incorporate qualifications.

The interface between education and employment is widely documented (e.g. Main and Raffe 1983, Pollock and Nicholson 1981, Clarke 1980) but is restricted to the employment (or unemployment) of school leavers (young people). This is not altogether surprising, given the increase of unemployment amongst the younger age group and the concern expressed over the effects of unemployment on work and social attitudes (e.g. Department of Employment 1980). With the advent of programmes designed to assist unemployed young people there has been an increase in the literature on the subject (MSC 1979, MSC 1981, Main and Raffe 1983, Stares 1982) but unfortunately, attention is not focused on the mature student age group. For the purpose of this proposal, the main interest lies with the attempt by O'Connor (1981) to discover what the main factors which cause variations in the proportion of trainees obtaining employment on leaving their training

Principal
M I Harris MA DipEd

Allt-yr-yn Avenue
Newport, Gwent NPT 5XA

Telephone Newport 0633 51525-8

Assistant Principal
G H Williams BSc(Econ) DipEd FBIM

23rd June, 1983

Registrar for Research Degrees,
Council for National Academic Awards,
344-354 Gray's Inn Road,
LONDON. WC1X 8BP.

Gwent college of higher education
coleg addysc uwch Gwent

Dear Sir,

C. J. Phillips: Registration for Ph.D

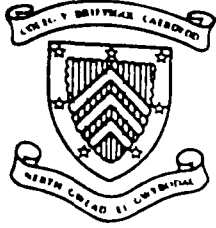
I am very pleased, in my capacity as co-ordinator of Research and Staff Development, to support the application being made by Mr. Phillips and to inform you that it is part of a Staff Development and Research Programme approved by the Academic Board and Board of Governors. As a result Mr. Phillips will enjoy the following benefits:

- a) Financial support for course fees and travelling expenses.
- b) Personal encouragement from the Dean of Faculty and myself.
- c) Comprehensive library and computing facilities.

Yours faithfully,



GETHIN WILLIAMS
Assistant Principal



University College, Cardiff

Postal Address: University College, P.O. Box 78, Cardiff CF1 1XL
Telephone Cardiff 44211 Telegrams: Coleg Cardiff Telex: 498635Ulibcf g
Ext.No.2005

Vice-Principal (Administration) and Registrar: L.A. Moritz, M.A., D.Phil.
Deputy Registrar (Academic) : A. G. Robson, B.Sc.Econ.

BD/JMB

January 5, 1984.

Mr. C. J. Phillips,
Senior Lecturer in Economics,
Gwent College of Higher Education,
Faculty of Management & Professional Studies,
Allt-yr-Yn Avenue,
Newport,
Gwent, NPT 5XA.

Dear Mr. Phillips,

The Vice-Principal has passed your letter of December 13 to me. The College would be prepared to forward questionnaires to the relevant students provided that you include a covering letter which makes it clear that this College is sending the questionnaires out and a list of names has not been sent to you, and that participation in the survey is entirely voluntary.

I have asked our Data Processing Officer to let me have a list of students aged 25 and over who have enrolled at this College since the 1981-82 session and I will let you know how many there are together with the fee which the College will charge for this service as soon as possible.

Yours sincerely,

Deputy Registrar (Academic)

Academic Registrar A.J.W. B.Sc., Ph.D.

Post Office
Box 100
Gwent
NP23 5XX
Tel: 0493 2220

Mr C J Phillips
Faculty of Management & Administration
Gwent College of Higher Education
Allt-yr-yn Avenue
NEWPORT
Gwent
NPT 5XA

R1/926

21 November 1983

Dear Mr Phillips

Thank you for your letter dated 15 November 1983 about your research into the expectations and actual destinations (employment) of mature students in South Wales.

It is our policy not to give the addresses of students who are enrolled at UWIST. We are anxious, however, to help you with your research and would be willing to send the students any query or questionnaire that you may wish sent to them. We will expect you to pay any postage costs.

If this arrangement meets with your approval then please let me know and I will let you know how many students we have over 24 who have enrolled at UWIST since session 1981-82.

Yours sincerely



Dr A J White
Academic Registrar

A1.11

Principal
Harris MA DipEd

Faculty of Management & Professional Studies
Dean of Faculty
G Wyn Davies BA MSc CIPM MBIM

Allt-yr-yn Avenue
Newport, Gwent NPT 5XA
Telephone Newport 0633 51525-8

Gwent college of higher education
coleg addysg uwch Gwent

I have also received agreement from two of the Colleges of Higher Education that they are prepared to co-operate in the study. They have indicated their willingness to assist in communication with Mr. John Sexton, Principal Administrative Officer of this College, who is currently Chairman of the Committee of Registrars of Welsh Colleges of Higher Education.

C.J. Phillips

C. J. Phillips
March 1984

APPENDIX 2

Principal
M I Harris MA DipEd

Faculty of Management & Professional Studies
Dean of Faculty
G Wyn Davies BA MSc CIPM MBIM

Allt-yr-yn Avenue
Newport, Gwent NPT 5XA
Telephone Newport 0633 51525-8

CJP/JPD

2nd April, 1984.

Gwent coleg
college of addysg
higher uwch
education Gwent

Dear Student,

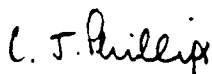
I am undertaking a survey of mature students in South Wales to examine the difficulties faced in the pursuit of qualifications and assess the relevance of such qualifications in terms of employment potential. I should therefore be grateful if you would assist me in this study by completing the enclosed questionnaire and returning it to me (a reply paid label is provided for this purpose).

As you have probably realised you have received this letter from your appropriate college. This is because the college has not divulged to me any information regarding you and therefore has not broken any confidentiality. I can assure you that in no way do I intend to break this confidentiality and I emphasise that your returned questionnaire will be treated in the strictest confidence and in no way will any personal details be divulged when the results of the survey are produced.

I anticipate that well over five thousand questionnaires will be involved in this study and it would be difficult to send a copy of the results to all participants. However, if you wish to receive such a copy perhaps you would indicate this on the questionnaire.

May I offer my sincere thanks in anticipation of your co-operation.

Yours sincerely,



C.J. Phillips,
Senior Lecturer in Economics.

If you are prepared to participate in a further study would you please
insert your name and address below:

1. Name: _____

2. Address: _____

Tel: _____

Question Number

1				
---	--	--	--	--

3. Sex: (Please tick)

Male	<input type="checkbox"/>
Female	<input type="checkbox"/>

5 1 = MALE
2 = FEMALE

4. What age are you? (Please specify) _____

b

--	--

5. What is your marital status?
(Please tick)

Married	<input type="checkbox"/>
Widow/ Widower	<input type="checkbox"/>
Separated	<input type="checkbox"/>
Divorced	<input type="checkbox"/>
Single	<input type="checkbox"/>

6
1-5

6. How many children do you have?
(Please tick)

0	<input type="checkbox"/>
1	<input type="checkbox"/>
2	<input type="checkbox"/>
3	<input type="checkbox"/>
4+	<input type="checkbox"/>

7
0-4

7. What is your current course title? _____

10

--	--

At which college? _____

11
1-6

When do you complete
your course? _____

(Please state month
and year)

12

--	--	--	--

MM/YY

10. Other people have identified the following reasons for entering higher education. Would you please indicate your MAIN reason.

(Please tick one)

Career Advancement	
Disillusioned with employment	
Failure to achieve suitable employment	
Further stage in acquisition of educational qualifications	
Redundancy	
Self-Fulfilment	
Other (Please specify)	

4

1-7

11. The following have been identified as some of the most important influences in choosing an individual's course of study. Please indicate your MAIN reason.

(Please tick one)

Communication with other students	
Continuation of previous studies	
Counselling	
Employment Potential	
Related to Previous Employment	
Requirement for entry to Profession	
Other (Please specify)	

5

1-7

12. Some people have stated that they have undertaken preparatory steps before commencing their studies. Have you:

- (i) Sought out other mature students and spoken to them.
- (ii) Read material identified on a particular book list.
- (iii) Satisfied yourself that you were familiar with the contents of the course.
- (iv) Considered possible employment resulting from the course.

Yes	No

6

7

8

9

13. The following questions relate to your situation at the commencement of your studies in higher education:

(a) To what extent did you expect to encounter problems in adapting to the requirements of a higher education course?

	Not at all	To a limited degree	To a greater degree	Considerable
(i) The quantity of work required (Please tick one)				
(ii) Readjusting to the relative freedom of studying full time (as opposed to/in addition to a full time job). (Please tick one)				
(iii) Identifying the standard of performance (Please tick one)				
(iv) Studying alongside younger people (Please tick one)				
(v) Settling into the routine of college life (Please tick one)				
(vi) Deal with the additional pressures imposed by family commitments. (Please tick one)				

54
□
1-4

56
□
1-4

59
□
1-4

63
□
1-4

67
□
1-4

70
□
1-4

13 (b) To what extent were these problems actually encountered?
Cont.

	Not at all	To a limited degree	To a greater degree	Considerable
(i) The quantity of work required (Please tick one)				
(ii) Readjusting to the relative freedom of studying full time (as opposed to/in addition to a full time job) (Please tick one)				
(iii) Identifying the standard of performance required (Please tick one)				
(iv) Studying alongside younger people (Please tick one)				
(v) Settling into the routine of College life (Please tick one)				
(vi) Deal with the additional pressure imposed by family commitments. (Please tick one)				

5
1-4
5
1-4
5
1-4
5
1-4
5
1-4

(c) As a consequence, did you consider leaving the course?

(Please tick one)

Not at all	Once or Twice	Several Times

5
1-4
5
1-4

If you did consider leaving the course what was the greatest influence in making you stay?

(Please specify)

13
Cont.

(d) To what extent did you anticipate experiencing academic problems?

	Not at all	To a limited degree	To a greater degree	Considerable
(i) Understanding lecturers (Please tick one)				
(ii) Comprehending textbooks, handouts and other materials (Please tick one)				
(iii) Completing assignments successfully (Please tick one)				
(iv) Inhibition because of lack of recent study (Please tick one)				

(e) To what extent did these problems actually exist?

	Not at all	To a limited degree	To a greater degree	Considerable
(i) Understanding lecturers (Please tick one)				
(ii) Comprehending textbooks, handouts and other materials (Please tick one)				
(iii) Completing assignments successfully (Please tick one)				
(iv) Inhibition because of lack of recent study. (Please tick one)				



13
Cont.

(f) As a consequence, did you consider leaving the course.

(Please tick one)

Not at all	Once or Twice	Several Times
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

If you did consider leaving the course what was the greatest influence in making you stay?

(Please specify) _____

(g) It has been suggested that studying for a higher education qualification brings with it various benefits. To what extent did you anticipate receiving the following benefits?

	Not at all	To a limited degree	To a greater degree	Considerable
(i) Developing long-lasting friendships (Please tick one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(ii) Ability to work alongside people of different age and different backgrounds (Please tick one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iii) Providing a broader perspective of the local community and society in general (Please tick one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(iv) Developing a personal culture of knowledge acquisition and learning which is applied to other aspects of one's life (Please tick one)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(v) Other (Please specify)	<input type="checkbox"/>			

13
Cont.

(h) To what extent have such benefits been experienced?

	Not at all	To a limited degree	To a greater degree	Considerable
(i) Developing long-lasting friendships (Please tick one)				
(ii) Ability to work alongside people of different ages and different backgrounds (Please tick one)				
(iii) Providing a broader perspective of the local community and society in general (Please tick one)				
(iv) Developing a personal culture of knowledge acquisition and learning which is applied to other aspects of one's life (Please tick one)				
(v) Other (Please specify)				

14. The following questions relate to your situation at the present:

	Not at all	To a limited degree	Totally
(a) Do you consider that you have successfully overcome the problems of readjusting to studying at higher education. (Please tick one)			
(b) To what extent has the course, academically, lived up to your expectations? (Please tick one)			
(c) Do you consider that your course is relevant and appropriate to the expectations you held at the commencement of your study? (Please tick one)			



14 Cont.

- (d) Do you now expect that successful completion of a course will enable you to achieve employment?

(Please tick one)

No	
Possibly	
Probably	
Definitely	

91

1-4

- (e) If within six months of the conclusion of this course you have not found appropriate employment would you consider your studies to have been:

(Please tick one)

A waste of time	
Of limited benefit	
A means of improving one-self without much contribution to employment potential	
A relevant and important addition to any employment potential	

92

1-4

- (f) If, after a period of unemployment at the conclusion of your course of study, would you consider pursuing another course?

(Please tick one)

Definitely not	
Possibly	
Probably	
Yes	

93

1-4

Many thanks for your co-operation in completing this questionnaire.

94

APPENDIX 3

Principal
M I Harris MA DipEd

Allt-yr-yn Avenue
Newport, Gwent NP9 5XA

Telephone Newport 0633 51525-8

Assistant Principal
G H Williams BSc(Econ) DipEd FBIM

CJP/BB
2nd January, 1986

Gwent college of higher education
coleg addysg uwch Gwent

Dear Sir/Madam,

My sincere thanks for your co-operation in completing the questionnaire you were sent just over eighteen months ago. You agreed to assist me in a further study and hence I request your assistance again in completing another questionnaire (enclosed) and returning it to me in the reply paid envelope provided.

I am now interested in what you have done subsequent to completing your qualification and what methods you used and found helpful in seeking employment. Other objectives become apparent as you read the questionnaire.

The success of the survey depends upon everyone replying. Your answers will be treated in absolute confidence and any report will give results as summary tables only and will contain nothing which could identify you. The reference number at the top of the questionnaire is only to help check who has replied. Should you require a copy of the results, please indicate by placing an in the top left-hand corner of the questionnaire.

Yours sincerely,

C. J. Phillips

C.J. Phillips
SENIOR LECTURER IN ECONOMICS

Enc.

SURVEY OF MATURE STUDENTS - Stage 2

Ref No:

--	--	--

1. Please give your

(a) Date of Birth

Day	Month	Year

(b) Marital Status

Married	
Widow/Widowed	
Separated	
Divorced	
Single	

(c) Sex

Male	
Female	

Please indicate the number of children you have _____

2. The following relate to the qualification you obtained in July 1985

(a) What was the qualification you obtained?

(please specify in full -
e.g. B.Sc. in Mathematics (Upper Second))

(b) At which institution did you study for it?

3. The following questions relate to your position as at 31st December 1985.

(a) Were you

Employed	
Self-Employed	
A student	
Not in paid employment (seeking a job)	
Not in paid employment (due to ill health)	
Not in paid employment (because of domestic circumstances)	
Other (please specify)	

(b) For how many months were you:-

Seeking employment	
Not seeking employment	

If you had no job at all up to 31st December 1985, please turn to Q7. Otherwise, please answer all remaining questions first.

4. The following questions relate to your first job after completing your studies.

a) Were you:

employed	
self-employed	

full-time	
part-time	

b) What was your job title? e.g. school teacher, trainee chartered accountant?

c) Type of work e.g. clerical work, medical research?

d) Field of employment e.g. retail trade, civil service?

e) Where were you located? e.g. London

f) Did this involve you moving your home?

YES	
NO	

g) What month in 1985 did you start the job?

h) What was your starting salary per annum?

i) If you have left the job when did you leave?

j) Why did you leave?

6. What qualifications were (i) necessary requirements and (ii) not necessary but helped you to obtain the job? Tick the relevant box to describe the requirements for your first job.

Qualifications	(i) Necessary	(ii) Helpful
A Levels or equivalent		
Higher National Diploma or equivalent		
Any First degree		
A degree in a particular subject		
A higher degree		
A professional qualification		
Others (please specify)		

TO BE ANSWERED BY EVERYONE.

7. At this point in time, how beneficial do you consider your course to study to have been?

Not at all beneficial	
Of limited benefit	
Of considerable benefit	

8. Have your attitudes towards your career been altered as a result of your studies?

YES	
NO	

If YES, in what way?

9. If there is anything you wish to add or any comments you consider necessary, please write below.

Many thanks for your co-operation.

APPENDIX 4

Principal
M I Harris MA DipEd

Allt-yr-yn Avenue
Newport, Gwent NP9 5XA

Telephone Newport 0633 51525-8

Assistant Principal
G H Williams BSc(Econ) DipEd FBIM

Our Ref. CJP/WAJ
2nd July, 1985

Gwent college of higher education
coleg addysg uwch Gwent

Dear Sir/Madam,

I am undertaking a study of mature students i.e. students aged 27 and over, studying full-time for higher educational qualifications in order to assess whether the acquisition of a qualification does serve to provide them with benefit in terms of career advancement as preliminary findings seem to suggest.

Your company has been randomly selected from the employers listed in G085 to receive a postal questionnaire. I should, therefore appreciate your co-operation in completing the attached questionnaire and returning it to me using the reply-paid envelope. I guarantee that no information will be published that would make identification of individual employers possible. The serial number at the top of the questionnaire is only to help check who has replied.

May I take this opportunity of thanking you in anticipation of your co-operation.

Yours faithfully,

C. J. Phillips

C. J. PHILLIPS
Senior Lecturer in Economics

Enc.



Survey of Employer Attitudes Towards Mature Students

Note: Mature graduates, for the purpose of this study, are aged 27 and over on completion of their studies.

- 1. Do you recruit mature graduates? YES/NO
- 2. Have you recruited mature graduates in the past? YES/NO
- 3. What is the maximum age you have for graduate recruits? _____

IF YOU HAVE ANSWERED NO TO Q1 AND Q2 PLEASE GO TO PAGE 6

4c. To what extent do you consider that mature graduates are more or less productive than conventional age graduates? (please tick one)

Mature graduates much more productive

Mature graduates a little more productive

About the same

Conventional age graduates a little more productive

Conventional age graduates much more productive

Comments:

4b. Why do you consider this to be the case?

5a. Given that mature graduates have had some experience of the labour market, would you consider that they have

(please tick one)

A considerable advantage

A slight advantage

No advantage or disadvantage

A slight disadvantage

A considerable disadvantage

over conventional age graduates?

5b. If their previous experience was directly relevant to the post they had been recruited into, would you consider that they have

(please tick one)

A considerable advantage

A slight advantage

No advantage or disadvantage

A slight disadvantage

A considerable disadvantage

over conventional age graduates?

5c. Would you consider that females entering (or re-entering) the labour market via higher education have:

(please tick one)

A considerable advantage

A slight advantage

No advantage or disadvantage

A slight disadvantage

A considerable disadvantage

Comments:

6. Do you employ exactly the same selection processes in considering mature graduates?

YES/NO

If NO please indicate what the differences are:

7. To what extent do you expect your mature graduates to be geographically mobile?
(please tick one)

Totally

Within a large region

Within a smaller region

Not at all

Comments:

8. It has been estimated that for one-third of graduate vacancies the subject of study is formally irrelevant. To what extent does this apply to mature applicants?

Subject of study totally irrelevant

(please tick one)

Subject of study of some importance

Subject of study very important

Subject of study absolutely fundamental

Comments:

Comments:

- 4b -

A4.6

9. Given that many mature students are studying courses other than at undergraduate level what importance do you attach to other levels of study?

(a) Postgraduate

(please tick one)

Greater importance than degree

Equal importance

Less importance than degree

(b) Professional qualification

Greater importance than degree

Equal importance

Less importance

(c) Higher National Diploma (or equivalent)

Greater importance than degree

Equal importance

Less importance than degree

Comments:

10. Please will you place the following higher education institutions in order of preference; assuming that potential mature graduate recruits from these institutions have identical social backgrounds, abilities, personalities and other attributes

Oxford and Cambridge

Redbrick Universities

New/Technological Universities

Polytechnics

Colleges of Higher Education

11. What, if any, problems has the recruitment of mature graduates caused you?

12. Finally, would you please indicate the extent to which your view with regard to mature applicants has been influenced by previous experience of mature recruits and their performance.

Many thanks for your co-operation.

A4.8

As you do not/have not recruited mature applicants, would you please indicate some of the reasons why this is the case.

Many thanks for your co-operation.

A4.9

APPENDIX 5

Full-time Mature Students in Higher Education: a survey of their characteristics, experiences and expectations

C. J. PHILLIPS

Gwent College of Higher Education

ABSTRACT *A questionnaire was sent to full-time mature students studying within higher education so as to identify their characteristics and examine their expectations and experiences. The results showed that sixty-five per cent of respondents entered higher education for career purposes, although the percentage was lower for females and declined with age. All mature students anticipated encountering more problems adapting to higher education and of an academic nature prior to their studies than were actually experienced whilst females anticipated more problems than males but actually experienced fewer. Further all students received greater benefits than they had anticipated and this was especially true of females. Only seven per cent of respondents indicated that successful completion of their course of study would not lead to employment whilst only fifteen per cent stated that they would definitely not return to undertake further qualifications should they not find employment.*

Introduction

The increase in the number of mature students within higher education over the last ten years or so [1] has not been accompanied by any significant attempts to deal with the difficulties they encounter during their studies. The literature has sought to identify the problems and requirements of such a group of students and yet the response from within the education system has been minimal. This study seeks to produce further evidence to prompt the system into undertaking any necessary changes by examining the characteristics of mature students studying within higher education, their expectations on entering their chosen course of study, their actual experiences within higher education and their expectations toward the end of their studies.

It has to be recognised at the outset, however, that mature students cannot be regarded as a homogeneous group owing to differing backgrounds and circum-

stances, features which have already been examined in previous studies [2]. Nevertheless, by focussing attention on full-time mature students studying within higher education it does enable analysis to be made at the 'macro' level rather than the more personal 'micro' level. Elsey (1978) stated that the major advantage of dealing with full-time mature students is that "it provides a ready made parameter, for it marks a definite state in an educational career and the potential beginning of a new career and pattern of upward mobility".

A further difficulty arises out of the number of definitions of mature students which exist [3]. However, within the context of this study attention is concentrated on those students aged 25 and over, thereby emphasising the likely time spent outside the education system and within the labour market state.

Method

Two thousand one hundred questionnaires were delivered to five institutions of higher education and distributed to full time students aged twenty-five and over by the institutions themselves, so as to maintain confidentiality of students' records. However, this meant that it was virtually impossible to undertake any follow-up of non-respondents. Fifty three per cent were sent to university students and forty seven per cent to students studying in institutions on the other side of the binary line. The response rate was slightly under forty per cent ($n=757$). (833 questionnaires were returned although 76 were incomplete).

The Characteristics of Mature Students

Of the respondents 60% were male and 40% were female. The age distribution is shown in Figure 1 and it can be seen that there is a bias towards the lower end of the age structure, this being more prevalent amongst males where 66% were under thirty-five whilst only 53% of females came within this category [4]. As one would expect the majority of mature students were married (60%) with single students accounting for virtually all of the remainder. However, amongst females 20% of respondents were either divorced or separated. Mature female students tended to have larger families than males—59% of females had at least one child compared with 52% of males. These characteristics would seem to contrast with those identified by Elsey in his study of mature entrants to the University of Liverpool. He identified the mature student as being "single young (or married with no children) adults (usually male) in their middle to late twenties". The vast majority of respondents had been employed at some stage prior to their entry into higher education, although for a few it was of very limited duration prior to their return to higher education to acquire further qualifications. However, 33% of the respondents had suffered at least one spell of unemployment during their pre-higher education experience, with 7% experiencing more than one spell. The median duration of unemployment spell for all of the respondents who had suffered unemployment was 47.2 weeks, which was much higher than the median duration of 16.9 weeks for all completed spells [5]. Of those respondents who entered higher education from the unemployment state (10%) their median duration was 62 weeks. Such results would seem to indicate that either their aspirations were too high and they were unwilling to accept certain jobs or that higher education was in fact the last resort! Indeed,

Hopper and Osborn found that adult students were likely “to have a history of intense but unsuccessful competition for jobs which they deem desirable”.

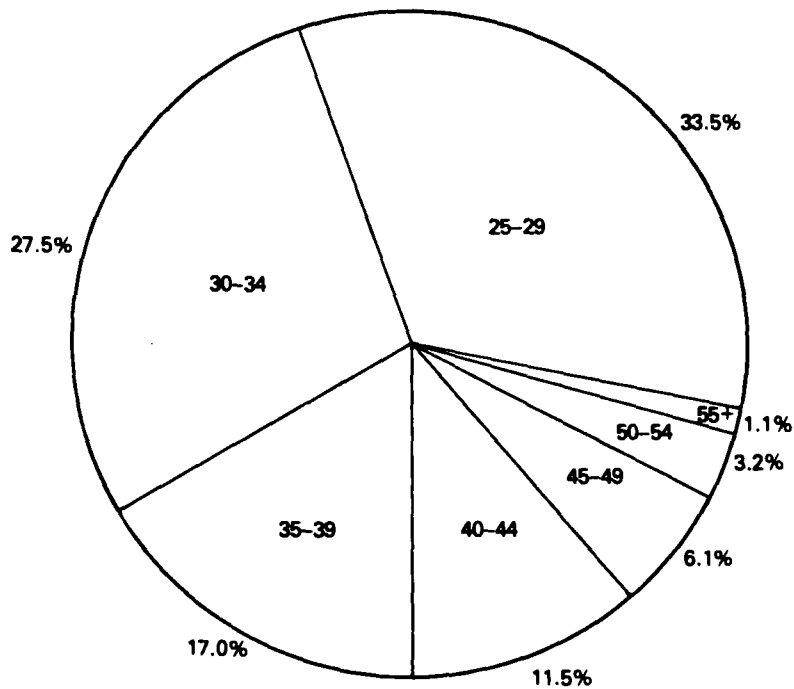


FIG. 1. Age distribution.

Figure 2 indicates the academic qualifications held by mature students on entry (or re-entry for some) to higher education. It can be seen that some 15% of mature students do not possess the pre-requisite qualifications for conventional entry to higher education i.e. at least one GCE ‘A’ level or equivalent (the percentage is 23% for degree level courses) [6] although it was not apparent that such ‘non-standard’ entrants anticipated or experienced greater difficulties than those with the pre-requisite qualification.

Mature Students’ Reasons for Entering Higher Education and their Choice of Course of Study

The factors influencing mature entry to higher education have been widely discussed. For example, Squires classified the determinants of mature entry into personal factors, occupational factors, vocational factors and institutional factors whilst Hopper and Osborn regarded what they referred to as the exposition to the ‘bridging factors’ [7] as being the over-riding factor in determining the return to higher education. In addition the effects of the recession have resulted in arguments such as that propounded by Finemann, that educational institutions provided an appropriate base for redundant white collar workers seeking new opportunities [8].

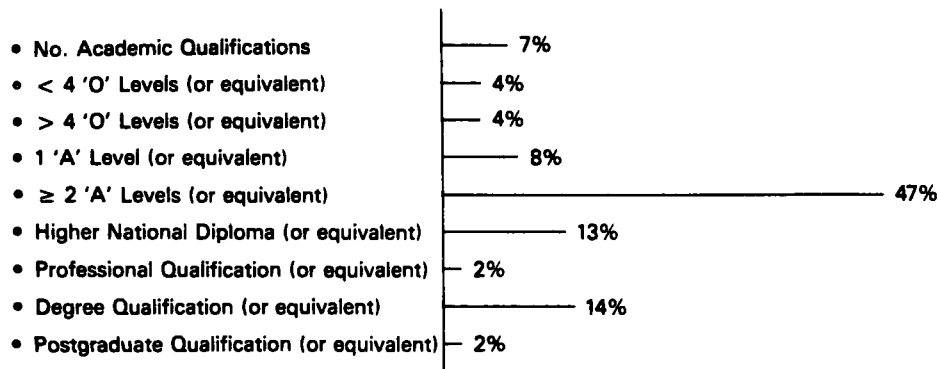


FIG. 2. Academic qualifications held by mature students on entry.

One of the objectives of this study was to identify whether or not mature students were motivated by career benefits or individual self-fulfilment purposes in their decision to enter higher education (see Appendix Q1). The results can be seen in Figure 3. If one were to aggregate career advancement, failure to achieve suitable employment, disillusioned with employment, (a feature noted by Hopper and Osborn), further stage in acquisition of educational qualifications and redundancy under the heading of 'career benefits' than it would be true to say that 65% of mature students [9] entered full-time higher education for career purposes whilst 35% entered for what might be regarded as 'individual purposes'. However, amongst females the percentage entering higher education for career purposes was 56% compared with 70% of males. As one would expect there was also a tendency for the proportion to specify career benefits to decrease with age—in the 40–44 age bracket 58% specified career benefits, in the 45–49 age bracket the percentage decreased to 56% whilst for the 50 and over age bracket the percentage was under 49% who specified career benefits.

Whilst it could be argued that such results would lend support to one of the general principles of human capital theory, which states that individuals will normally choose to acquire their education while they are young, it is more apparent that these results substantiate the findings of a recent American study [10], which showed that adults aged between 25 and 44 do respond to the same variables as conventional age students in making educational choices. In this survey it is the case that in all age brackets up to 50 and over, the majority of mature entrants are interested primarily in the career benefits of qualifications, which runs counter to the proposition that those who postpone entry to higher education are either acting irrationally or merely consider education as a consumption good.

Despite the fact that 33% of respondents had suffered unemployment at some stage, redundancy was not identified as a very important factor in general. However, it was the case that 12% of males identified redundancy as the main reason and the percentage increased considerably with age—over 31% of males aged 35 and over entered higher education as a direct consequence of redundancy, evidence which would support Finemann's view referred to earlier.

The reasons for entering higher education were reflected in the area of study as can be seen in Table 1.

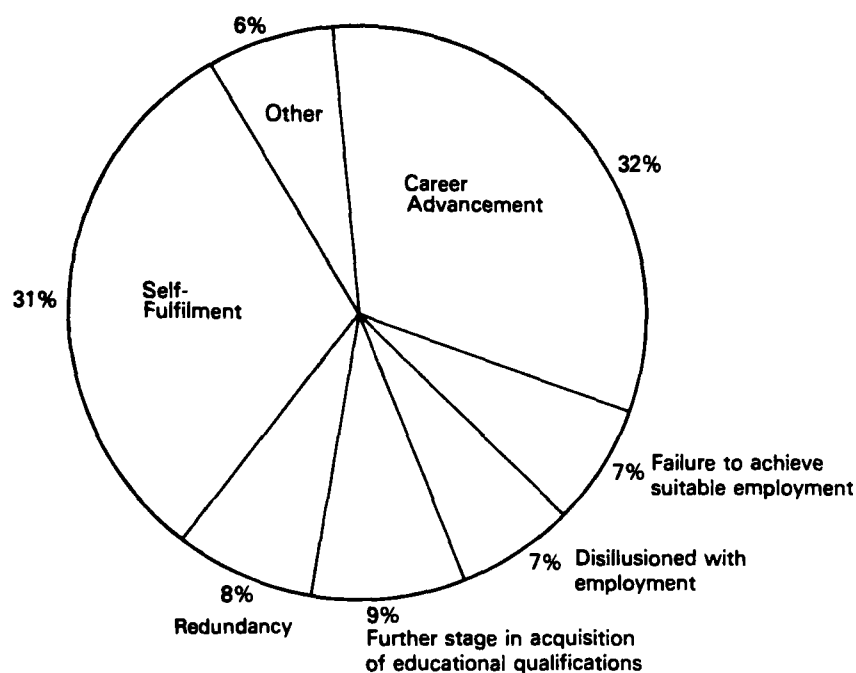


FIG. 3. Reasons for entering higher education.

TABLE 1. Reasons for entering higher education by area of study

Area of study	Percentage of respondents specifying	
	Career benefits	Individual benefits
Medicine, Dentistry and Health	28	72
Engineering	79	21
Computing and Electronics	76	24
Mathematics and Science	50	50
Languages	33	67
Humanities	53	47
Social Studies	68	32
Administrative, Business and Management Studies	69	31
Education	68	32
Other	51	49

The results reflect the findings regarding males and females discussed above. Those areas of study having large percentages specifying career benefits as the main reason tended to have a large proportion of male students e.g. engineering had 98% of males; computing and electronics had 85% of males; administrative, business

and management studies had 65% of males. The main influencing factors in determining course of study (see Appendix Q2), for both males and females is shown in Table II. The two closely related factors of employment potential and requirement for entry to a profession head the list although for females continuation of previous studies is also a major factor. Of those choosing medicine 46% specified interest as the main reason, whilst 73% of those specifying languages specified 'continuation of previous studies' as being the main reason. This was also the primary reason for those studying mathematics and science, whilst for humanities interest was the primary reason specified. For both education and social studies 'requirement for entry to profession' headed the list whilst employment potential was the primary reason for administrative, business and management studies and for engineering and computing and electronics.

TABLE II. Main reason for course of study

	Male (%)	Female (%)	Total (%)
Requirement for entry to profession	26	26	26
Employment potential	29	20	25
Continuation of previous studies	15	22	18
Related to previous employment	14	12	13
Interest	10	13	11
Other	7	6	7
	100	100	100

Preparation Undertaken for Higher Education

Some degree of preparation was undertaken by the majority of entrants (see Appendix Q3) as can be seen in Table III, with over 61% undertaking at least one of the preparatory steps.

TABLE III. Percentage of entrants who undertook preparatory steps before commencing their studies

Considered possible employment resulting from the course	83%
Familiarity with the content of the course	71%
Read relevant material	47%
Spoke to other mature students	42%

The great majority of entrants had considered the possible employment resulting from the course and were satisfied that they were familiar with the contents of their chosen course of study. However, in terms of reading material identified on a book list or speaking to other mature students the majority of students did not take such preparatory steps, although for females the percentages were 51% and 46% respec-

tively which could be regarded as indicative of the fact that females anticipated greater problems than males.

The Experiences of Mature Students

Given the duration of time spent outside the education field mature students were asked to what extent they expected to encounter problems (a) in adapting to the requirements of a higher education course and (b) of an academic nature and to what extent such problems were encountered (see Appendix Q4 and Q5). Figure 4 illustrates the extent to which problems in adapting to the requirements of a higher education course were anticipated.

Fig. (iv) THE EXTENT TO WHICH PROBLEMS WERE ANTICIPATED

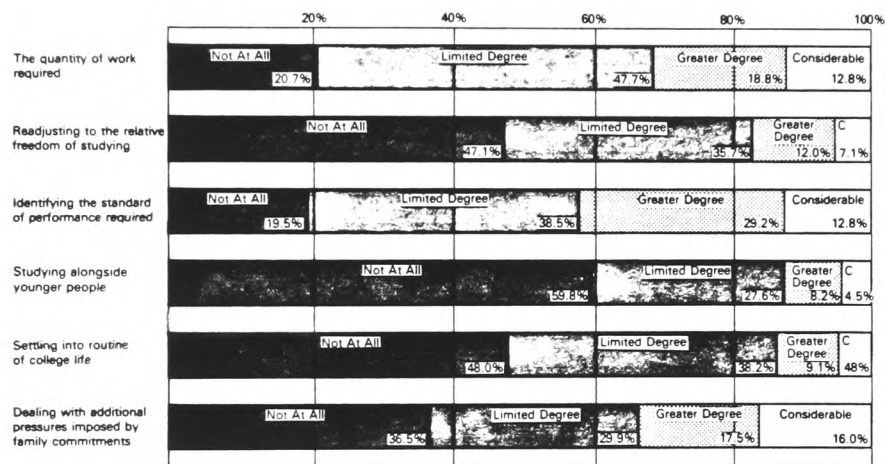


FIG. 4. The extent to which problems were anticipated.

Students aged over thirty were particularly concerned with the quantity of work required e.g. over 26% of those in the 45–49 age bracket anticipated considerable problems in this area. In readjusting to the relative freedom of studying over 57% in the 30–44 age bracket anticipated at least some difficulties. Within the 35–49 age bracket there was a tendency to anticipate problems in identifying the required standard of performance with over 54% anticipating problems to at least a greater degree. Whilst there were no major difficulties anticipated in studying alongside younger people within any age group the settling into college routine was a cause of concern to over 63% of those in the 40–44 age bracket. This particular age group were also concerned at the pressures imposed by family commitments as were those in the 35–39 age group where over 26% anticipated considerable problems. In all areas, except readjusting to the relative freedom of studying, there was a tendency for females to anticipate such problems more than males. This was particularly evident in the pressures imposed by family commitments with over 72% anticipating problems.

In Figure 5 the extent to which the problems were actually encountered is placed alongside the extent to which they were anticipated (Appendix Q6). It can be seen that in all areas the extent to which problems were encountered was less than the

extent to which they were anticipated. The problem of work quantity was experienced by 70% whereas of those aged 30 and over over 83% of this age bracket anticipated problems with the vast majority only experiencing limited difficulties. The readjusting to the relative freedom of studying was not particularly evident and only 36% encountered serious difficulties in identifying the standard of performance required. Nearly 82% of students did not have any problems studying alongside younger people, in fact the percentage increased with age i.e. the difficulties tended to be concentrated in the under 35 age bracket. Similarly the settling into the routine of college life did not really present too many difficulties but this cannot be said of the pressures imposed by family commitments. In the 35-49 age bracket 25% admitted having faced considerable problems whilst nearly 65% of females experienced this problem to some degree although even those percentages were lower than those who anticipated problems.

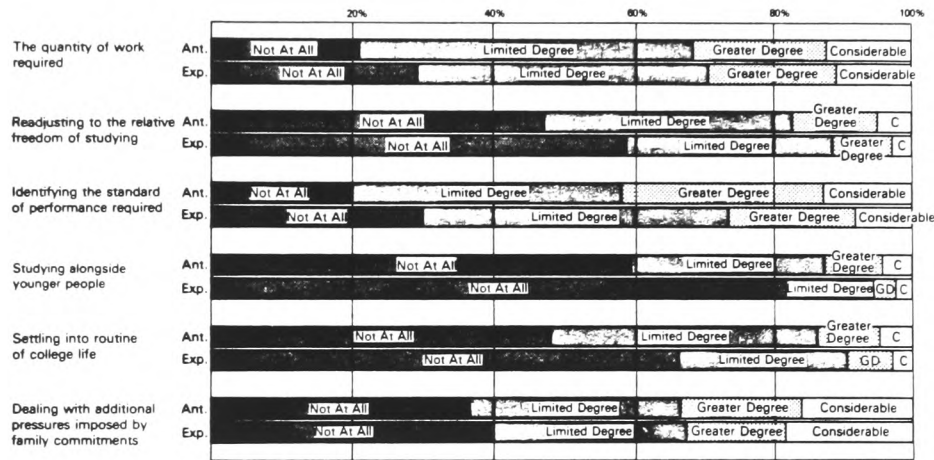


FIG. 5. The extent to which problems were anticipated and experienced.

In terms of actual experience of higher education Table IV indicates that females encountered fewer difficulties than anticipated and in addition encountered fewer problems than males. This may well be the result of differing reasons for entering higher education given that a higher percentage of females enter for self fulfilment purposes. It would be the case that such objectives are achieved during the course of study whilst career benefits would only be received after completion of qualifications.

In examining the extent to which problems were encountered and the reason for entering higher education one of the features was the fact that more of those who had entered higher education as a result of redundancy encountered serious problems than other entrants. This could be attributed to the lack of serious thought on the part of the student as to all possible alternatives resulting from redundancy and also a lack of appropriate counselling. The other reasons for entering higher education would have been made as a result of contemplation and consideration of the implications which may not have been the case with someone made redundant. Figure 6, indicates the extent to which academic problems were anticipated and encountered (Appendix Q7). It was age that provided the only

TABLE IV. Percentage of females who anticipated and encountered problems

	Anticipated	Encountered
Quantity of work required	84	74
Readjusting to the relative freedom of studying	52	38
Identifying the standard of performance required	83	70
Studying alongside younger people	42	13
Settling into the routine of college life	56	30
Dealing with additional pressures imposed by family commitments	71	65

noticeable deviation from the norm in anticipating academic problems with those aged 45–49 in particular, anticipating serious problems. In terms of sex there was very little deviation between males and females. In terms of encountering academic problems they were most noticeable in the 45–49 age bracket although they were considerably less than anticipated.

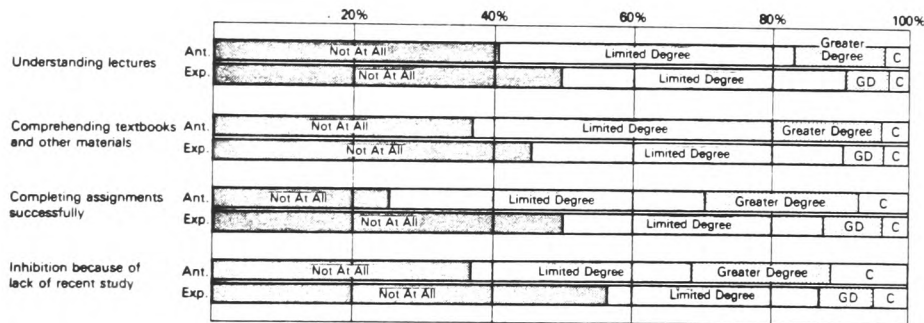


FIG. 6. The extent to which academic problems were anticipated and experienced.

However, apart from the problem of inhibition because of lack of recent study fewer females encountered academic problems than males. Whether or not this could be attributed to the type of course studied by females [11] or whether females gave greater thought to the type of course they were academically suited for and which suited their domestic circumstances [12] rather than choose the course which maximised their employment prospects is subject to further investigations.

A further question sought to identify (see Appendix Q8) the extent to which mature students considered that they had overcome such problems of adapting to a higher education course and of an academic nature. The vast majority (63%) considered that such problems had been totally overcome and only 1% felt that they had not overcome the problem at all.

The extent to which students considered leaving their course as a result of encountering problems was generally limited although there was a greater propensity amongst females to consider that particular option especially as a result of

family pressures and it was determination which was the major factor in making them stay. For males it was educational and professional advice which helped them overcome their problems and not leave the course.

The Wider Benefits of Higher Education

Mature students were asked the extent to which they anticipated enjoying a wider stream of benefits than those directly associated with the acquisition of a qualification and the degree to which their experiences lived up to their expectations at the outset of their studies (see Appendix Q9 and Q10). Figure 7 highlights the results.

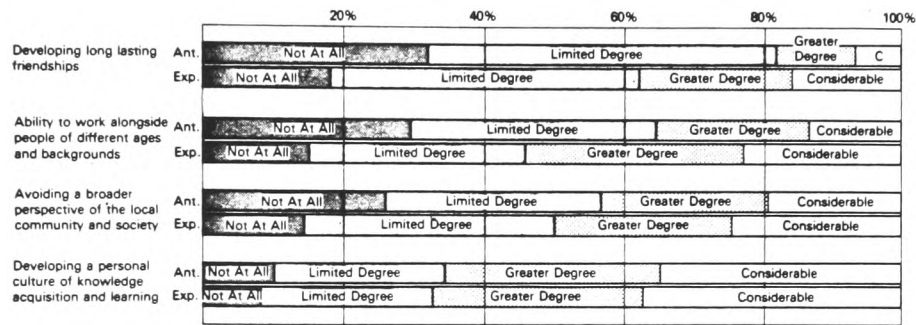


FIG. 7. The extent to which benefits were anticipated and experienced.

It can be seen the degree to which benefits were actually experienced were greater than anticipated in all areas with very few students not enjoying any benefit. Further there were marked differences between the benefits received by males and females as shown in Table V, a result which substantiates the need for greater assistance being offered to mature females and also making them aware of such opportunities.

TABLE V. Percentage of students who received benefits

	To Some Degree		Considerable	
	Male	Female	Male	Female
Developing long lasting friendships	79	86	15	18
Ability to work alongside people of different ages and backgrounds	84	89	20	27
Broader perspective of local community and society in general	79	83	22	32
Personal culture of knowledge acquisition and learning	89	95	31	47

Mature Students' Expectations

An earlier study [13] observed that more mature students had pre-determined views as to what they wanted to do at the termination of their education as compared with conventional age students. This study sought to extend this by identifying mature students' expectation with regard to their employment potential (see Appendix Q11). The results can be seen in Table VI. It was noticeable that females were more reluctant to be definite in answering this question, although this may be attributed to the courses of study they engaged in. In terms of age whilst there was a difference between the under 45 and over 45 age categories over 30% of those aged 45 and over definitely expected employment. In addition over 69% considered their course of study to have been 'a relevant and important addition to employment potential' even if they were still unemployed six months after successfully completing their qualification and only 15% stated that they would definitely not return to undertake further qualifications should they not find employment.

TABLE VI. Percentage of mature students expecting that successful completion of the course would lead to employment

	Male	Female	Total
No	7	6	7
Possibly	22	28	25
Probably	31	35	33
Definitely	39	31	36

Conclusion

The survey points to some important features of higher education of relevance both to mature students and advisers, despite the difficulties in treating mature students generally as a 'homogeneous group' given differences in age, gender, family circumstances, experiences etc. It was assumed that in considering full-time mature students there was some degree of commonality in that their pursuit of a qualification was the first step in the process of upward mobility, especially so in the case of the 20% of females who were either divorced or separated. This proved to be justified as sixty-five per cent of respondents entered full-time higher education for the purpose of achieving career benefits.

The fact that problems were experienced to a lesser extent than had been anticipated and that the wider benefits of higher education were experienced to a greater extent than anticipated should be a stimulus to those considering whether or not to undertake a qualification but whose anxiety as to whether or not they would cope is proving to be an inhibition. It should also be noted that those who undertook some preparatory steps did encounter fewer problems and to a lesser degree than those who did not undertake such steps.

Although mature entrants did anticipate problems, the great majority of them could be attributed to the length of time spent out of the education process. These could be alleviated, to some extent at least, at the interview stage of application for

entry by a more sympathetic and sensitive attitude towards mature students and their fears.

Despite the fact that the problems confronting women viz-a-viz education, are well documented [14] the study highlights the need for action to be implemented to alter attitudes and systems within education with regard to mature female students. For example, as the study highlights the greater propensity amongst females to anticipate problems and to a greater degree, it could be correctly argued that the participation rates amongst such females is unnecessarily low given their preconceived views on the likely difficulties. It would appear that advisers and counsellors have an important role in pointing out to such females that the problems experienced were far less than anticipated. In addition the attitudes prevailing within higher education towards mature female students and in particular married women are called into question e.g. the extent to which creche facilities are available; the times of lectures and tutorials may well inhibit those who have to deliver and collect children from school. It is probably the case that whilst technological advances have reduced the domestic responsibilities of females and allow them to undertake courses, until the education system can be adapted to accommodate other responsibilities and pressures, participation rates amongst mature females will be lower than amongst males.

Correspondence: C. J. Phillips, 26 Launcelot Crescent, Thornhill, Cardiff CF4 9AQ, Wales.

NOTES

- [1] The number of male entrants aged 25 and over to full-time and sandwich courses increased by 62% between 1970 and 1983 and for females in this age category the percentage was 24%. (There was a 72% increase for female entrants aged between 21 and 24).
- [2] See, for example, ELSEY (1978) and SQUIRES (1981).
- [3] See, for example, SQUIRES (1981), JONES & WILLIAMS (1979), HOPPER & OSBORN (1975).
- [4] JONES & WILLIAMS (1979) also found that the ratio of female entrants to university increased with age.
- [5] Department of Employment *Employment Gazette*, October 1984.
- [6] A strong case is made for these 'non-standard' entrants to higher education in EVANS (1984).
- [7] For example, family influences, sponsorship, or chance encounters with people who put ideas in their head.
- [8] See FINEMANN (1983).
- [9] Including a proportion of those who specified 'other' reasons.
- [10] See CORMAN (1983).
- [11] Those study areas which had a majority of females were social studies; humanities; languages; medicine; dentistry and health.
- [12] LOVELL (1979) discovered that some women had settled for courses which suited their domestic commitments rather than their interests.
- [13] See GOTHARD (1982).
- [14] See CHARNLEY, *et al.* (1980) pp. 72-75, 81-82.

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APPENDIX Relevant questions from questionnaire distributed

1. Other people have identified the following reasons for entering higher education. Would you please indicate your *MAIN* reason.

(Please tick one)

	Career Advancement
	Disillusioned with employment
	Failure to achieve suitable employment
	Further stage in acquisition of educational qualifications
	Redundancy
	Self-Fulfilment
	Other (Please specify)

2. The following have been identified as some of the most important influences in choosing an individual's course of study. Please indicate your *MAIN* reason.

(Please tick one)

	Communication with other students
	Continuation of previous studies
	Counselling
	Employment Potential
	Related to Previous Employment
	Requirement for entry to Profession
	Other (Please specify)

3. Some people have stated that they have undertaken preparatory steps before commencing their studies. Have you:

	Yes	No
(i) Sought out other mature students and spoken to them.	_____	_____
(ii) Read material identified on a particular book list.	_____	_____
(iii) Satisfied yourself that you were familiar with the contents of the course.	_____	_____
(iv) Considered possible employment resulting from the course.	_____	_____

4. To what extent did you expect to encounter problems in adapting to the requirements of a higher education course?

	Not at all	To a limited degree	To a greater degree	Considerable
(i) The quantity of work required (Please tick one)	_____	_____	_____	_____
(ii) Readjusting to the relative freedom of studying full time (as opposed to a full time job). (Please tick one)	_____	_____	_____	_____
(iii) Identifying the standard of performance (Please tick one)	_____	_____	_____	_____
(iv) Studying alongside younger people (Please tick one)	_____	_____	_____	_____

(v) Settling into the routine of college life
(Please tick one)

(vi) Deal with the additional pressures imposed by family commitments.
(Please tick one)

5. To what extent did you anticipate experiencing academic problems?

	Not at all	To a limited degree	To a greater degree	Considerable
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(i) Understanding lectures
(Please tick one)

(ii) Comprehending textbooks, handouts and other materials
(Please tick one)

(iii) Completing assignments successfully
(Please tick one)

(iv) Inhibition because of lack of recent study
(Please tick one)

6. To what extent were problems in adapting to the requirements of a higher education course actually encountered?

	Not at all	To a limited degree	To a greater degree	Consider- able
(i) The quantity of work required (Please tick one)				
(ii) Readjusting to the relative freedom of studying full time (as opposed to a full time job). (Please tick one)				
(iii) Identifying the standard of performance required (Please tick one)				
(iv) Studying alongside younger people (Please tick one)				
(v) Settling into the routine of college life (Please tick one)				
(vi) Deal with the additional pressure imposed by family commitments. (Please tick one)				

7. To what extent did academic problems actually exist?

	Not at all	To a limited degree	To a greater degree	Considerable
(i) Understanding lectures (Please tick one)				
(ii) Comprehending textbooks, handouts and other materials (Please tick one)				
(iii) Completing assignments successfully (Please tick one)				
(iv) Inhibition because of lack of recent study (Please tick one)				

	Not at all	To a limited degree	Totally
8. Do you consider that you have successfully overcome the problems of readjusting to studying at higher education. (Please tick one)			

9. It has been suggested that studying for a higher education qualification brings with it various benefits. To what extent did you anticipate receiving the following benefits?

	Not at all	To a limited degree	To a greater degree	Consider- able
(i) Developing long-lasting friendships (Please tick one)				
(ii) Ability to work alongside people of different ages and different backgrounds (Please tick one)				
(iii) Providing a broader perspective of the local community and society in general (Please tick one)				
(iv) Developing a personal culture of knowledge acquisition and learning which is applied to other aspects of one's life (Please tick one)				
(v) Other (Please specify)				

10. To what extent have such benefits been experienced?

	Not at all	To a limited degree	To a greater degree	Consider- able
(i) Developing long-lasting friendships (Please tick one)				

- (ii) Ability to work alongside people of different age and different backgrounds
(Please tick one) _____
- (iii) Providing a broader perspective of the local community and society in general
(Please tick one) _____
- (iv) Developing a personal culture of knowledge acquisition and learning which is applied to other aspects of one's life
(Please tick one) _____
- (v) Other (Please specify) _____

11. Do you now expect that successful completion of a course will enable you to achieve employment?

- _____ No
 - _____ Possibly
 - _____ Probably
 - _____ Definitely
- (Please tick one)

If within six months of the conclusion of this course you have not found appropriate employment would you consider your studies to have been:

- _____ A waste of time
 - _____ Of limited benefit
 - _____ A means of improving oneself without much contribution to employment potential
 - _____ A relevant and important addition to any employment potential
- (Please tick one)

If, after a period of unemployment at the conclusion of your course of study, would you consider pursuing another course?

- (Please tick one)
- Definitely not
 - Possibly
 - Probably
 - Yes