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ABSTRACT

This study examined first employment experiences of graduates from South African universities, highlighting educational and noneducational factors that affected their ability to secure employment in their fields of study, as well as graduates' perceptions of their studies in relation to their jobs. Researchers sent surveys to 8,000 graduates listed in the Human Sciences Research Council registry who had graduated between 1991-95 (1,806 were returned). The study relied on graduates' work histories and their perceptions about their work experiences. The sample was stratified according to the size of two variables: historically black and historically white universities and broad fields of study. The study found that 59 percent of graduates secured employment immediately after obtaining their degrees; 84 percent found employment within their first year of searching. The report concludes that the labor market still reflects the apartheid system, with nonwhite graduates and graduates from historically black colleges disadvantaged in their employment search. About half the graduates believed that they were in jobs requiring graduate level ability; most perceived considerable benefits from higher education; and only a few had received career guidance at any point. Twenty-two data tables are included. Appended is the survey methodology, a biographical profile of the respondent group, and a description of occupations held. (Contains 33 references.) (SM)

First Employment Experiences of Graduates

Labour Market Analysis

Human Sciences Research Council

FIRST EMPLOYMENT EXPERIENCES OF GRADUATES

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CHAPTER 1
GRADUATES IN THE SOUTH AFRICAN LABOUR MARKET: AN OVERVIEW

1.1 INTRODUCTION

Graduate employment is a subject that brings together macro-social policy considerations and the interests of individual students. Both are concerned with the returns on a substantial investment in education, and unemployment and underemployment are considered to represent a waste of the time and money invested in education.

In many less developed countries, the supply of university graduates often exceeds the demand for people with tertiary qualifications. These countries are thus faced with the problem of graduate unemployment and underemployment.

Studies of the employment experiences of new graduates are important as they indicate the demand for and supply of graduates in the labour market. It is argued that the first employment experiences of graduates are an excellent barometer of the graduate labour market. If the demand for certain skills is declining, employers will not necessarily lay off existing employees, but they will not employ new ones. Similarly, when there is an oversupply of certain skills, employers will tend to prefer experienced workers to new graduates. In both instances, the supply and demand situation will immediately be reflected in the rate at which new graduates are employed.

This study looks at the first employment experiences of graduates in South Africa. It focuses in the first instance on graduates' ability to find employment. It intends to highlight the educational as well as the non-educational factors that affect graduates' ability to secure employment in their fields of study. It also intends to highlight graduates perceptions of their studies in relation to their jobs. The study relies not only on graduates' work histories, but also on their perceptions with regard to their work situations. (See Annexure A for a detailed description of the research design).

The employment experiences (in terms of getting a job) of graduates in the labour market should be seen in the context of the South African labour market as a whole. It is generally held that graduates have a competitive edge in the labour market. Although they are not entirely untouched by weaknesses in the market, their higher qualifications confer a relative advantage on them. This chapter will briefly look at the trends in the South African labour market in general and the market for graduates in particular.

Chapter 2 to 5 presents the results of the study. Chapter 2 looks at the graduates` success in securing employment after obtaining their degrees, and the period it took to find employment for those who did not do so immediately. Chapter 3 looks at the graduates first interaction with the labour market, their search for employment, the way they accessed their first jobs and their perceptions of their first jobs in relation to their studies. Chapter 4 looks at career guidance received by graduates and its value, and graduates' perceptions with regard to the correspondence between their jobs and occupational expectations they held while studying, and satisfaction with their career progress. Chapter 5 looks at graduates' involvement in further studies. Chapter 6 gives the summary of the results and a conclusion.

1.2 THE SOUTH AFRICAN LABOUR MARKET

The performance of the South African economy was relatively poor in the mid-eighties, but has improved since 1993. The real gross domestic product increased by about 1,5% in 1993, 2,5% in 1994 and 3,5% in 1995. This economic recovery was however not matched by growth in total employment. Between 1990 and 1994 total employment declined at an annual rate of 2,2% (SARB, 1996).

Private sector employment has fallen in recent times while employment in the public sector has grown. Between 1989 and 1994 private sector employment declined by 12% or at an annual average rate of 2,5%, before increasing by 0,7% in 1995. By contrast, employment in the public sector of the economy increased by an average annual rate of 1,5% from 1989 to 1992, then fell back by 1,2% in 1993, increasing again by 0,5% and 0,6% in 1994 and 1995 respectively (SARB, 1996).

In 1995 the Central Statistical Service (CSS) estimated a 1% growth in formal employment (CSS, 1995). This was however too small to have a significant impact on the number of people unemployed. While employment stagnated, between 1982 and 1995 the economically active population grew by an average of 2,8% a year, leading inevitably to a rise in unemployment (SARB, 1996). Statistics South Africa duly estimated an unemployment rate of 37% among the economically active population in 1997 (Stats S.A., 1998).

Industrialization and progress in technology have transformed production and distribution methods in all sectors of the economy. This in turn has brought about changes in occupational patterns. Although total employment has been declining, the demand for highly skilled human resources has been increasing. Estimates based on Manpower Survey data indicate that high-level occupations grew at more than double the annual compound rate of growth in total employment over the period 1965 to 1994. These occupations not only grew at a rate exceeding growth in total employment, they also continued to grow even during periods of low economic growth when total employment was declining. Between 1990 and 1994 the demand for workers in professional occupations rose at an annual rate of 2,1%. It is estimated that if the observed trend between 1987 and 1994 were to continue, the proportion of high-level occupations to total occupations would rise from 17,7% in 1994 to 22,1% in 2002 (HSRC, work in progress).

The increased demand for more skilled people is also evident in unemployment statistics, which reveal that the percentage of unemployed people with a post-secondary school qualification is much lower than the percentage of unemployed people with no post-secondary school qualification. According to the 1995 October Household Survey only about three percent of university graduates were unemployed. Therefore more years of advanced education translates into a higher probability of finding a job.

However, the low unemployment rate of people with advanced qualifications is not necessarily true for all segments of the graduate population. Even with technological progress, which implies an increasing demand for highly qualified personnel, there is a surplus of labour in certain categories. The disequilibrium in the labour market is therefore essentially qualitative. This is in part the result of the fact that the higher education system traditionally paid little attention to the needs of the labour market. The output of these institutions was mainly driven by the social demand for education. The disequilibrium can also be traced to the faulty guidance of students and sometimes the restrictive attitudes of professional bodies, leading to the production of graduates with no prospects in fields other than those for which they were trained. At the same time shortages in certain occupations persist.

The South African labour market is furthermore characterised by poor overall skills levels. This is mainly due to racial discrimination in education and access to employment. The state in the past intervened to assist in the shaping of a racially defined labour market. Job reservation, which was one factor that brought about racial inequality, has had a negative effect on the supply of skilled workers. Jobs were reserved for white people in the secondary and tertiary sectors while black people were employed mainly in the primary sector, e.g. agriculture and mining, and in low-wage occupations. These patterns of occupational segregation are difficult to overcome.

According to the 1995 October Household Survey, 57,8% of managers were white, 31% were black, 6,8% were Indian and 4,1% were coloured. Similarly, 54% of professionals were white, 34% were black, 6,9% were Indian and 5,6% were coloured. Of the workers in low-skill positions, 82,6% were black, 15,4% were coloured, 1,2% were white and 0,7% were Indian (OHS, 1995).

The inequalities in the labour market are aggravated by the shortcomings of the education system. The quality and standard of education given to large sections of the population is not adequate to ensure a satisfactory supply of potentially productive members of the labour force. There are still disparities between the pupils of different population groups in the fields of mathematics and science. Although the matric results of black pupils improved in 1995, in 1993 less than 20% of black pupils who passed matric did mathematics or physical science, and of those who did, less than 20% passed the subjects on the higher grade. In contrast, 61% of white pupils passed matric with mathematics, a third of whom on the higher grade, and 44% with physical science, half of whom on the higher grade (FRD, 1996).

1.3 HIGHER EDUCATION AND THE SUPPLY OF GRADUATES

Higher education in South Africa consists of three subsystems: universities, technikons, and colleges. The colleges are made up of teacher training colleges, nursing colleges and agricultural colleges. There are at present 21 universities, 15 technikons and about 140 colleges (education, nursing and agricultural) in South Africa. Universities and technikons have the majority of students in the higher education sector. In 1995, university enrolments constituted 43,7% of the higher education sector while technikon enrolments constituted 20,7% (NCHE, 1996).

In the past the boundaries between these institutions were defined according to their differing functions, which led to these institutions having different qualification structures. Technikons, in the course of their development, have adopted traditional university symbols and practices to combat the status differentiation that has accompanied the institutional division, for example since 1993 the technikons have started to award B.Tech degrees.

Although the division of the higher education sector into different types of institutions is not unique to South Africa, South Africa's higher education is a legacy of apartheid ideology, which provided the framework for the structuring of the whole education system. In the past, education in South Africa was divided along racial/ethnic lines. The Universities Act established racially based universities and legislated access to universities according to race. The roles of higher learning institutions were clearly articulated to serve different purposes for different sections of society. This system of education has generated many racial inequalities in institutions of higher learning (NCHE, 1996).

The student composition - reflecting the apartheid legacy - was skewed towards white students (especially males). In 1986, of the total student enrolments at technikons 7% were black while 83% were white. In the university sector, in 1986 23% of the total student enrolment were black while 64% were white. The situation is gradually changing: in 1995, 53% of the total number of enrolled students at universities and technikons were black and 35% were white (NCHE, 1996).

The largest increase in student enrolments was in the number of black students registered at historically black institutions (HBIs). As a group they doubled their numbers between 1986 and 1995. The concentration of black students at HBIs impacted on the type and level of programmes these students had access to. There are also racial inequalities in access across disciplines, which are more prevalent at the higher levels of study. In 1991, of the students enrolled for professional degrees in the fields of business, computer science, engineering and agriculture, less than 35% were black, while more than 70% were white. In 1993 about 20% of full-time students enrolled in courses in the broadly defined area of natural sciences were registered at HBIs (NCHE, 1996).

There are also racial disparities in student throughput in higher education. Historically white institutions have a better throughput rate, while the historically black institutions have high dropout and/or failure rates. This disparity increases with study level and is most prevalent at Honours and Doctoral level at universities. The average throughput rates[1] at historically white technikons (HWTs) were 21% in 1990 for a three-year diploma compared to a throughput rate of 9% at historically black technikons (HBTs). Throughput rates for historically white universities in 1990 were 21% for a three-year B-degree. For historically black universities, this figure was 12%. At Honours level at HWUs the throughput rates were 60%, and at historically black universities 30%. At Master's level the respective rates were 18% and 8% and at Doctoral level 17% and 6% (Bunting, 1995).

[1] A throughput rate is the measurement of the proportion of graduate enrolments in any given year. A low throughput rate indicates a high dropout rate, and/or a high failure rate, or a high proportion of part-time students.

Whereas females historically have also been disadvantaged regarding access to education, during the period 1988 to 1995 the percentage of males decreased from 55,3% to 48,8% while that of females increased from 44,7% to 51,2% (Verwey, 1995). However, females are still underrepresented in the fields of science and technology. During the above period less than 30% of female students were enrolled for natural science degrees and diplomas at universities and technikons. At the technikons' engineering schools 97% of white students enrolled for a three-year engineering diploma in 1991 were males. The percentage of males was as high for the other racial groups as well: 95% of coloured students, 97% of Indian and 94% of black students. For the other science schools of architecture/building science, agriculture and computer science, approximately 66% or higher of enrolments were males for all racial groups (Cooper, 1994).

The technikons, though they were set up as post-secondary-education technical institutions, have in the 1990s shifted away somewhat from science and technology diplomas to more non-technical diplomas. The enrolments in distance technikons in non-technical subjects increased from 88% to 92%, and in contact technikons they increased from 49% to 55% in the period 1988 to 1994 (Verwey, 1995). From 1988 to 1991 there was a noticeable decline in the percentage of three-year diploma graduates in the engineering/science field. The Northern Gauteng Technikon showed the largest percentage decline from 90% to 38% during this period, while the Wits Technikon showed a decline from 60% to 54% and the Vaal Technikon dropped from 73% to 59% (Cooper, 1994).

The total number of degrees and diplomas awarded from universities increased from 50 234 in 1991 to 61 819 in 1995. If the growth rates observed from 1991 to 1995 continue through to the year 2000, it is expected that approximately 33 200 first degrees will be awarded in 2000. The total number of qualifications awarded by technikons increased from 9 826 in 1991 to 14 545 in 1995. If the observed growth rate continues through to the year 2000, the number of qualifications awarded will increase to approximately 21 200 in 2000 (FRD, 1998).

1.4 GRADUATE EMPLOYMENT

Graduates are a prominent part of the labour market and their difficulties reflect to some degree the wider economic scene. To the extent that higher education is subsidised, unemployment of graduates - and particularly the dissatisfaction that accompanies it - signifies a misallocation of society's resources. As graduates are having difficulty in finding suitable jobs, unemployment in general is a matter of increasing national concern.

Two factors that influence the employment outlook for graduates are the growth in the number of jobs requiring graduate level education and the number of new graduates. Increases in the number of jobs requiring a degree stem from the growth in occupations requiring a degree and from the upgrading of jobs as employers employ graduates for positions previously filled by persons with lower education. Upgrading occurs when the skills required to perform jobs become more complex because of technological changes or new business practices, thereby requiring workers with a higher level of education. Graduates may also be hired for some jobs that do not require a degree merely because they are available for those jobs (Shelley, 1992). The need to replace workers who leave existing graduate-level jobs provides additional openings for graduates. Workers leave posts because of retirement, disability, emigration and voluntary withdrawal from the labour market.

There are other employment dynamics and competitive forces in the labour market that affect the efforts of the newly graduated to secure employment. A relatively large percentage of those in the age group 37-47 years of age tend to consider a more fundamental change in their occupational career. Others find themselves in (un)expected or (un)planned job change situations. This results in a large number of "renewed" labour market entrants (Thomas, 1991).

A shift from traditional organisations with a detailed division of labour to ones that have less hierarchy and more worker participation in decision making, increases the skill and educational requirements of workers even in the absence of technological change. Changes in the technical and organisational structure of firms have raised the standards required of new recruits.

The number of jobs, including vacancies, in an economy measures the demand for labour. The main source of information on vacancy rates is the surveys undertaken by the CSS to determine the number of workers and the vacancies in all occupations. Vacancy rate can be used as a proxy for shortages of trained people in an occupation. From the data set out in *Table 1,* it is apparent that there are higher levels of vacancies in skilled occupations, which suggests a shortage of personnel in these occupations.

TABLE 1.1: VACANCY RATES BY OCCUPATIONAL LEVEL, SOUTH AFRICA

Occupational group	Years					
	1983	1985	1987	1989	1991	1993
Professional, semi-professional and technical						
Personnel	523 937	541 957	595 613	663 645	717 258	741 462
Vacancies	30 865	28 338	32 789	40 510	29 558	28 948
Vacancy rate	5,6%	5,0%	5,2%	5,8%	4,0%	3,9%
Managerial , executive and administrative						
Personnel	180 111	174 428	217 942	201 973	218 717	211 905
Vacancies	4 113	6 186	7 247	3 382	2 468	2 407
Vacancy rate	2,2%	3,4%	3,2%	1,6%	1,1%	1,1%
Mining, operators and supervisors						
Personnel	1546 557	1585 411	1466 397	1612 562	1585 538	1334 911
Vacancies	22631	37 831	20 356	14 808	11 141	6 763
Vacancy rate	1,5%	2,4%	1,4%	0,9%	0,7%	0,5%

Notes: Manpower Survey figures exclude workers in agriculture, private households and the former TBVC states.

Source: Central Statistical Service, Manpower Surveys, 1987, 1991, 1992, 1993 (Pretoria, Government Printers); National Manpower Commission, "High Level Manpower in South Africa: Recent Developments" (Pretoria, Government Printers, 1987).

The shortages of skilled person-power occur in a specific range of occupations. The National Manpower Commission (NMC) survey indicated that in 1991 there was an oversupply of humanities graduates and a shortage of people such as engineers, technicians, technologists, computer analysts, chemists, veterinarians, registered accountants, metallurgists and artisans (NMC, 1992). This situation has not changed since then. In the National Research and Technology Audit in 1996, it was again found that there was an oversupply of graduates in the field of the humanities and a shortage in the fields of the natural sciences and management (FRD, 1998).

South Africa has in the past relied on immigrants to fill the gaps in skilled labour occupations. In 1992 the NMC estimated that 48% of immigrant workers were in professional, technical, managerial and administration jobs (NMC, 1992). The flow of immigrants is however sensitive to factors such as political instability, violence and unrest. In 1995 it was estimated that there was a drop in the number of immigrants in all occupational categories. South Africa experienced a net loss of some 2 764 economically active people, 32% of whom were in professional occupations (OHS 1995).

CHAPTER 2
SEARCH FOR FULL-TIME EMPLOYMENT

2.1 INTRODUCTION

The process of finding work in which one's skills and abilities are used and in which commitment and energy are rewarded with job satisfaction is often not quickly accomplished. However, it is during this period that the process is most active and transparent. This chapter looks at graduates' success in securing employment after obtaining a degree and the period it took to find employment for those who did not do so immediately.

2.2 IMMEDIATE EMPLOYMENT

More than half (59%) of those respondents who tried to find employment after obtaining a degree did so immediately. However, as could be expected, not all groups were equally successful in their search for a first job. Hence, an analysis is made here of the success in finding immediate employment according to certain variables:

2.2.1 IMMEDIATE EMPLOYMENT BY FIELD OF STUDY[1]

The respondents who were most successful in securing employment immediately had graduated in medical sciences (91% success rate) and engineering (77%) (see Table 2.1). Graduates in humanities and arts (34%), law (40%) and natural sciences (48%) were less successful in finding employment immediately after graduation.

[1]See Annexure A for the description of fields of study

1.5 CONCLUSION

In many countries it has been shown that the highly educated are becoming increasingly vulnerable to economic fluctuations. Segments of the labour market that have traditionally offered job security to graduates, such as the public sector and the large company sector, are being subjected to structural changes that limit their employment capacity. But despite this, graduates still have a competitive edge in the labour market. They are more likely to find employment than those with less education.

Recently there has been an increase in the number of people entering higher education, and particularly those obtaining postgraduate qualifications. It can be asked whether this is a voluntary trend or if graduates use further study as a constructive but temporary alternative to unemployment.

Studies on South African graduate employment destinations are limited to a few South African universities that conduct follow-up studies on their own graduates. These surveys provide a snapshot of what is happening to graduates, for example the number of employed as opposed to the unemployed and those engaged in further study, a short time, usually within a year after graduation. Sometimes they also give an indication of the type of employment entered into. However, these studies provide no information on graduates' perceptions of their work situation, the extent to which their employment matches their expectations and to which their education has prepared them to undertake their work tasks. It can also be argued that less than a year after graduation is too early to be asking these questions. This study was an attempt to identify and describe these trends in the South African graduate labour market over a longer period of time.

2.2.2 IMMEDIATE EMPLOYMENT BY INSTITUTION ATTENDED AND FIELD OF STUDY

TABLE 2.1: IMMEDIATE EMPLOYMENT BY INSTITUTION AND FIELD OF STUDY

	HISTORICALLY BLACK UNIVERSITIES (HBU)					HISTORICALLY WHITE UNIVERSITIES (HWU)					TOTAL				
Field of study	Immediate employment				Total	Immediate employment				Total	Immediate employment				Total
	Yes		No			Yes		No			Yes		No		
	n	%	n	%	n	n	%	n	%	n	n	%	n	%	n
Agriculture	0	0	1	100	1	34	67	17	33	51	34	65	18	35	52
Economic & management science	14	29	34	71	48	277	69	122	31	399	291	65	156	35	447
Education	14	25	43	75	57	86	72	34	28	120	100	56	77	44	177
Engineering	2	40	3	60	5	127	78	35	22	162	129	77	38	23	167
Humanities and arts	13	17	64	83	77	97	40	147	60	244	110	34	211	66	321
Law	3	9	31	91	34	40	55	33	45	73	43	40	64	60	107
Medical science	23	82	5	18	28	118	93	9	7	127	141	91	14	9	155
Natural sciences	8	31	18	69	26	51	53	45	47	96	59	48	63	52	122
Other[2]											15	75	5	25	20
TOTAL	**77**	**28**	**199**	**72**	**276**	**830**	**65**	**442**	**35**	**1 272**	**922**	**59**	**646**	**41**	**1 568**

More than double the respondents graduating from the historically white universities (HWU) found employment immediately (65%) as opposed to 28% of the respondents from the historically black universities (HBU). With the exception of the Medical University of South Africa (immediate employment = 80%), all the individual HBUs fared worse in terms of immediate employment than the HWUs, particularly so in education (HBU=25% vs HWU=72%), law (HBU=9% vs HWU=55%) and the humanities and arts (HBU=17% vs HWU=40%). (see Table 2.1).

[2] Other represents people who graduated from other universities outside South Africa in unspecified fields of study.

2.2.2 IMMEDIATE EMPLOYMENT BY GENDER

No major gender differences were found as 55% of the female respondents found employment immediately, as opposed to 63% of the males (see table 2.2). However, in the field of agriculture, only 42% of the females were successful in securing immediate employment, compared to 83% of the male respondents. Although there was no substantial difference, it is interesting to note that more females (83%) than males (77%), in engineering, found immediate employment.

TABLE 2.2: IMMEDIATE EMPLOYMENT BY GENDER AND FIELD OF STUDY

	FEMALE					MALE						
Field of study	Immediate employment				Total	Immediate employment				Total	Total	
	Yes		No			Yes		No				
	n	%	n	%	n	n	%	n	%	n	n	%
Agriculture	10	42	14	58	24	24	83	5	17	29	53	100
Economic & management science	115	58	82	42	197	182	70	77	30	259	456	100
Education	77	60	51	40	128	28	52	26	48	54	182	100
Engineering	19	83	4	17	23	111	77	34	23	145	168	100
Humanities and arts	81	35	148	65	229	30	32	63	68	93	322	100
Law	17	36	30	64	47	26	43	34	57	60	107	100
Medicine	103	89	13	11	116	40	98	1	2	41	157	100
Natural sciences	25	48	27	52	52	34	49	36	51	70	122	100
TOTAL	**447**	**55**	**369**	**45**	**816**	**475**	**63**	**276**	**37**	**751**	**1 567**	**100**

2.2.4 IMMEDIATE EMPLOYMENT BY POPULATION GROUP

Differences in terms of population group were found (see Figure 2.1). Only 28% of the black graduates and 34% of the coloured graduates immediately found employment, as opposed to 56% of the Indian graduates and 67% of the white graduates (see Table 2.3). This trend was also evident in certain fields of study, e.g. the humanities and arts (blacks=17% vs. whites=43%), economic and management sciences (black=31% vs. white=69%), education (black=30% vs. white=71%) and law (black=5% vs. white=60%).

FIGURE 2.1: IMMEDIATE EMPLOYMENT BY POPULATION GROUP

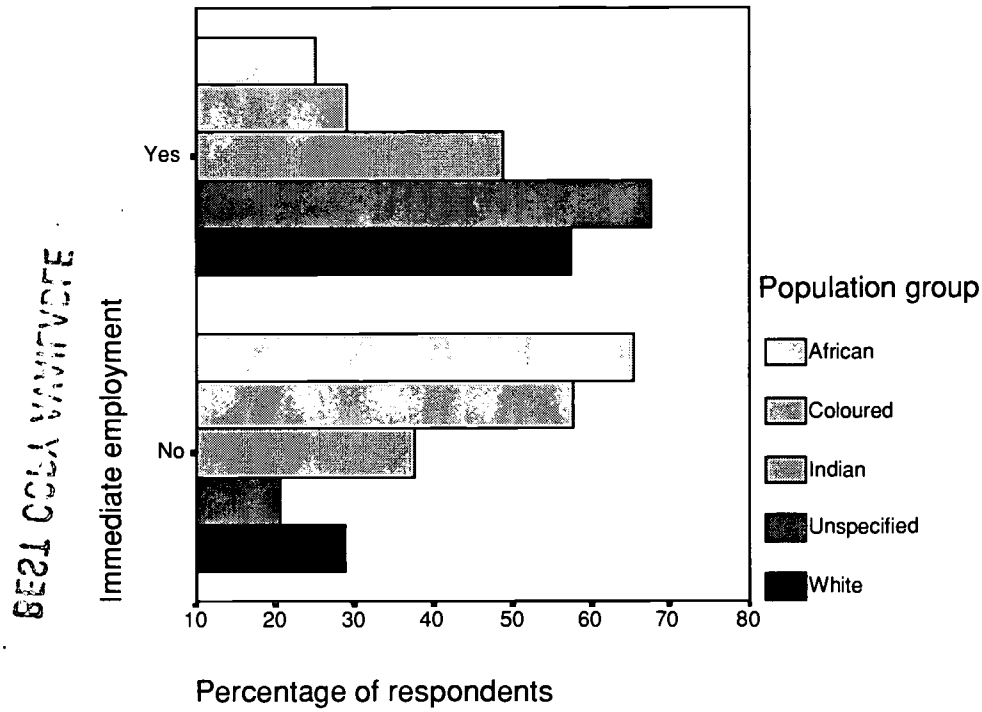


TABLE 2.3 IMMEDIATE EMPLOYMENT BY POPULATION GROUP AND FIELD OF STUDY

	POPULATION GROUP																						TOTAL				
	BLACK					COLOURED					INDIAN					UNKNOWN					WHITE							
Field of study	Immediate employment				Total	Immediate employment				Total	Immediate employment				Total	Immediate employment				Total	Immediate employment				Total	Immediate employment				Total
	Yes		No			Yes		No			Yes		No			Yes		No			Yes		No			Yes		No		
	n	%	n	%	n	n	%	n	%	n	n	%	n	%	n	n	%	n	%	n	n	%	n	%	n	n	%	n	%	n
Engin-eering	2	100	0	0	2	2	67	1	33	3	9	69	4	31	13	3	100	0	0	3	114	78	33	22	147	130	77	38	23	168
Agriculture	0	0	1	100	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	34	65	18	35	52	34	64	19	36	53
Medical science	12	75	4	25	16	4	67	2	33	6	15	94	1	6	16	2	100	0	0	2	110	94	7	6	117	143	91	14	9	157
Humanities and arts	12	17	59	83	71	6	21	23	79	29	2	17	10	83	12	2	50	2	50	4	89	43	117	57	206	111	34	211	66	322
Economic and manage-ment science	11	31	25	69	36	11	52	10	48	21	20	61	13	39	33	10	83	2	17	12	245	69	109	31	354	297	65	159	35	456
Natural science	6	38	10	62	16	1	9	10	91	11	4	50	4	50	8	1	33	2	67	3	47	56	37	44	84	59	48	63	52	122
Education	16	30	38	70	54	7	50	7	50	14	4	67	2	33	6	4	100	0	0	4	74	70	31	30	105	105	57	78	43	183
Law	1	5	19	95	20	0	0	8	100	8	4	27	11	73	15	1	50	1	50	2	37	60	25	40	62	43	40	64	60	107
TOTAL	**60**	**28**	**156**	**72**	**216**	**31**	**34**	**61**	**66**	**92**	**58**	**56**	**45**	**44**	**103**	**23**	**77**	**7**	**23**	**30**	**750**	**67**	**377**	**33**	**1 127**	**922**	**59**	**646**	**41**	**1 568**

2.3 VARIABLES THAT PLAYED A ROLE IN FINDING EMPLOYMENT IMMEDIATELY

A logistic regression analysis was used to determine the relative influence of various variables on graduates` ability to find employment. In the present case the dependent variable is 'finding employment immediately after obtaining your first degree'. The responses to this question could either be 'yes' or 'no'. The 'yes' responses were coded as one and the 'no' responses as zero. This means that the log odds of belonging to the 'yes' group were modelled and the results interpreted in terms of the probability of finding a job immediately.

A stepwise procedure was performed and six significant predictors[3] (at the 5% level) were identified. They were field of study, race, institution attended, work experience related to studies, work experience unrelated to studies and gender. The predictors and their categories, as well as the estimated regression coefficient are shown in the following table:

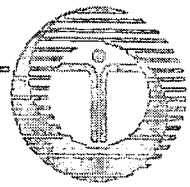
[3] All these predictors were categorical in nature and dummy variable coding had to be employed. Field of study had eight categories, institution attended and gender had two categories, and all the other variables had four categories
Dummy variable coding means that for a categorical predictor with c categories, c-1 dummy variables, consisting of zeroes and ones, are created. The ones are assigned to the dummy variable to indicate to which of the categories the respondent belongs. For one of the categories a dummy variable is not created and is referred to as the reference or base category, since the influence of the other categories is interpreted with respect to this category.

TABLE 2.4: REGRESSION ANALYSIS – FINDING EMPLOYMENT IMMEDIATELY

PREDICTOR	CATEGORIES	COEFFICIENT	ODDS RATIO
Field of study	Engineering	-2.37**	0.09
	Agriculture	-2.99**	0.05
	Humanities and arts	-3.12**	0.04
	Economic and management science	-2.32**	0.10
	Natural science	-2.80**	0.06
	Education	-2.07**	0.13
	Law	-2.91**	0.06
	Medicine	Reference	
Related work experience	None	-1.06**	0.35
	1- 6 months	-0.39*	0.68
	7-12	-0.48*	0.62
	> 12 months	Reference	
Population group	Black	-1.13**	0.32
	Coloured	-0.58*	056
	Indian	-0.36	0.96
	White	Reference	
Institution attended	HBU	-0.89**	0.41
	HWU	Reference	
Gender	Male	0.45**	1.57
	Female	Reference:	

** Significant at the 5% level
* Significant at the 10% level

Since the coefficients for all the field of study categories are negative, the respondents in all the categories are less likely to find a job immediately than the respondents in the reference category, namely medicine. The odds ratio for each category indicates how less likely a person is to find a job immediately: for example if you study engineering the odds of finding a job immediately are approximately ten times smaller than the odds of finding a job immediately if you study medicine. For the economic and management sciences and education, the odds are approximately ten times less than for medicine. For agriculture, the humanities and arts, the natural sciences and law, the odds are about 20 times less than for medicine.



The coefficients for related work experience indicate that the more related work experience you have, the more likely it is for you to find a job immediately. For example, if you have no related work experience, the odds of finding a job immediately are about one-third of the odds of finding a job when you have more than one year's work experience related to your field of study. The coefficients for race indicate that the odds of finding a job immediately are the highest for white graduates and the lowest for black graduates. The odds for black are less than a third of the odds for white graduates. A similar conclusion follows from the coefficients for institution attended. The odds for historically black university graduates are about three times less than the odds for historically white university graduates. The significant gender coefficient indicates that it is 1,56 times more likely for a male to get a job immediately than for a female.

2.4 PERIOD BEFORE FINDING FIRST EMPLOYMENT

Of the remaining 41% of respondents who did not find employment immediately, more than half did so within the first six months of searching and about 84% within the first year (see table 2.5).

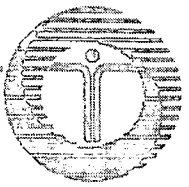
TABLE 2.5: PERIODS OF UNEMPLOYMENT BEFORE FINDING A JOB FOR THOSE WHO DID NOT SECURE IMMEDIATE EMPLOYMENT

PERIOD	NUMBER	PERCENTAGE
> 3 months	138	28%
4 - 6 months	154	32%
7 - 9 months	54	11%
10 - 12 months	63	13%
13 - 24 months	64	13%
25 - 36 months	9	2%
37+ months	6	1%
TOTAL	**488**	**100%**

All the graduates indicated a lack of experience and only a few positions available in the specific field of study as the main reasons for having trouble in securing employment. However, the white graduates added population group bias as another important factor complicating their employment search. Reasons for difficulty in finding employment singled out by the graduates from historically black universities (and not by others) were an unwillingness to search for employment outside the area where they lived and a bias on the part of employers against the institution they had attended.

2.5 CONCLUSION

From the findings presented in this chapter it is clear that the respondent group was not severely affected by the unemployment problem in South Africa, as 59% were able to secure employment immediately and 84% of the remaining category did so within the first year of searching. This though was different for particular groups of graduates, i.e. african graduates, people who qualified in humanities and arts, and those from historically black universities were more likely to battle to find employment. In the regression analysis together with field of study non-educational factors, i.e. gender, population group, and institution attended seemed to have a significant effect on graduates' ability to secure employment.



CHAPTER 3
GRADUATES' FIRST INTERACTION WITH THE LABOUR MARKET

3.1 INTRODUCTION

Individuals and society expect an adequate return on their extensive inputs into higher education. Graduates expect and are expected to utilise their schooling/training in their work. The process of finding work in which graduates' abilities and skills are used and in which commitment and energy are rewarded by job satisfaction and responsibility is often not quickly accomplished. This chapter looks at graduates' first interaction with the labour market, their search for employment, the way they accessed their first jobs and their perceptions of their first jobs.

3.2 WAYS IN WHICH GRADUATES ENTERED THE LABOUR MARKET

The respondents were asked to indicate from the given options the ways in which they entered the labour market. Most jobs were found through advertisements in newspapers or through personnel agents. Networking also seemed to have played a major role in the employment search of most graduates. Bursary contracts seemed to be an important source of employment for graduates in engineering (54%). See Table 3.1

TABLE 3.1: WAYS IN WHICH GRADUATES ENTERED THE LABOUR MARKET

	WAYS IN WHICH JOB WAS SECURED													
Field of study	**Resumed work where employed before**		**Job advertise-ments**		**Networking**		**Personal search**		**Bursary obligation**		**Own business**		**Total**	
	n	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Engineering	10	6	21	13	23	15	84	10	15	54	4	2	157	100
Agriculture	7	13	10	20	9	17	5	26	13	10	7	14	51	100
Medical science	50	33	19	13	17	11	16	27	40	11	9	5	151	100
Humanities and arts	42	16	80	31	64	25	11	19	48	4	14	5	259	100
Economic and management science	83	20	118	27	108	26	40	16	65	10	4	1	418	100
Natural science	11	11	27	28	24	25	23	12	12	24			97	100
Education	16	10	49	31	24	15	33	22	35	21	2	1	159	100
Law	12	14	12	14	26	30	4	35	30	5	2	2	86	100
TOTAL	**231**	**17**	**336**	**24**	**295**	**21**	**216**	**19**	**258**	**16**	**42**	**3**	**1378**	**100**

3.3 REASONS FOR CHOOSING FIRST JOB

The graduates were asked to state the main reason for choosing their first job after obtaining their degrees. Most of the graduates (59%) indicated the job's relation to their studies as the main reason for choosing it. Therefore, the opportunity to utilize gained knowledge seemed to be the strongest motivation for the graduates' choice of first jobs. This differed for respondents from different fields of study, as represented in Table 3.2.

TABLE 3.2: REASONS FOR CHOOSING FIRST JOB

Field of study	Related to studies		Was interesting and offered high income		Offered work experience		Bursary obligations		Was a student job		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Engineering	71	42	5	3	10	6	80	47	5	2	171	100
Agriculture	41	75			8	15	6	10			55	100
Medical science	109	69	1	1	20	13	17	11	10	6	157	100
Humanities and arts	129	46	22	8	99	36	12	4	17	6	279	100
Economic and management science	286	63	13	3	98	22	34	8	21	4	452	100
Natural science	59	55	7	6	23	21	19	17	1	1	109	100
Education	115	65	5	3	15	9	34	19	7	4	176	100
Law	70	76	2	2	12	14	5	5	3	3	92	100
TOTAL	**880**	**59**	**55**	**4**	**285**	**19**	**207**	**14**	**64**	**4**	**1491**	**100**

3.4 THE VALUE OF A DEGREE IN SECURING AND ADAPTING TO A FIRST JOB

The respondents were asked to assess the extent to which obtaining a degree had made it easier for them to secure employment. Only 8% of the graduates felt that their degree did not help at all, 10% felt that it helped to a small extent, 26% felt that it helped to some extent and 56% felt that their degree helped them to a great extent in securing employment.

Table 3.3 represents the graduates' perceptions of the extent to which a degree helped them in securing employment according to different fields of study.

TABLE 3.3: EXTENT TO WHICH DEGREE HELPED TO SECURE EMPLOYMENT

Field of study	Great extent		Some extent		Small extent		Not at all		Total	
	n	%	n	%	n	%	n	%	n	%
Engineering	111	71	35	22	8	5	3	2	157	100
Agriculture	28	54	13	25	3	6	8	15	52	100
Medical science	124	82	24	15	3	2	1	1	152	100
Humanities and arts	111	42	79	30	43	16	34	12	267	100
Economic and management science	230	55	119	29	39	9	29	7	417	100
Natural science	48	48	32	32	12	12	8	8	100	100
Education	91	56	40	24	22	13	12	7	165	100
Law	46	52	21	24	12	14	10	10	89	100
TOTAL	**789**	**56**	**363**	**26**	**142**	**10**	**105**	**8**	**1399**	**100**

Apart from the value in securing employment, the respondents were asked to comment on the value of their qualifications in their first employment situations. The largest group (48%) indicated that their degrees were of great value and 34% indicated that their degrees were of some value, while only 5% indicated that their degrees had no value and 13% said their degrees had little value for their employment. This differed for respondents from different fields of study, as represented in Table 3.4.

TABLE 3.4: VALUE OF DEGREE TO PRESENT EMPLOYMENT

Field of study	Great value		Some value		Little value		No value		Total	
	n	%	n	%	n	%	n	%	n	%
Engineering	77	48	62	38	20	13	1	1	160	11
Agriculture	25	47	20	38	6	11	2	4	53	4
Medical science	116	75	30	19	8	5	1	1	155	11
Humanities and arts	89	33	98	36	52	19	35	12	274	19
Economic and management science	228	53	139	33	50	12	8	2	425	30
Natural science	37	36	39	37	15	14	13	13	104	7
Education	65	39	72	44	17	10	11	7	165	12
Law	52	57	30	33	6	7	3	3	91	6
TOTAL	**689**	**48**	**490**	**34**	**174**	**13**	**74**	**5**	**1427**	**100**

3.5 EMPLOYMENT STATUS AND EMPLOYER SECTOR

Even though graduates find employment, not all of them find permanent jobs and jobs related to their fields of study. Before they achieve that goal or resign themselves to taking steady jobs at a lower level than they had hoped, they may have to take temporary jobs or be unemployed for a while. Table 3.5 represents the employment status of graduates in their first jobs and the sector in which they found their first jobs.

Only about 20% of the graduates were in temporary employment in the private and in the public sector. The public sector was the largest employer of graduates in the medical sciences and education, while graduates in other fields, for example the economic and management sciences, found employment in the private sector. Humanities and arts graduates were almost evenly spread between the private sector and the public sector. It seems new graduates still do not consider self-employment as an option, as only a few of the respondents entered self-employment.

TABLE 3.5: EMPLOYMENT

Field of study	PUBLIC SECTOR				PRIVATE SECTOR				SELF-EMPLOYED				TOTAL					
	Part time		Full time		Part time		Full time		Part time		Full time		Part time		Full time		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Engineering	6	14	37	86	10	11	84	89	1	25	3	75	17	12	124	88	141	100
Agriculture	6	32	13	68	8	33	16	67			5	100	14	29	34	71	48	100
Medical science	5	5	89	95	5	14	31	86			3	100	10	8	123	92	133	100
Humanities and arts	30	26	86	74	41	35	76	65	4	33	8	67	75	31	170	69	245	100
Economic and management science	16	20	62	80	41	13	264	87	1	17	5	83	58	15	331	85	389	100
Natural science	16	36	28	64	10	19	42	81			2	100	26	26	72	74	98	100
Education	23	19	100	81	6	21	23	79	1	50	1	50	30	19	124	81	154	100
Law	4	17	19	83	11	22	38	78	2	67	1	33	17	23	58	77	75	100
TOTAL	**106**	**20**	**434**	**80**	**132**	**19**	**574**	**81**	**9**	**24**	**28**	**76**	**247**	**19**	**1036**	**81**	**1283**	**100**

3.6 RELATIONSHIP BETWEEN FIELD OF STUDY AND OCCUPATION

The graduates were asked to list their occupational and study activities after obtaining their first degrees. From the listed activities, the first activities given were selected, and occupations were grouped together in accordance with their relation to the fields of study. Table 3.6 shows the first types of job held by graduates after obtaining their degrees in different fields of study.

The relationship between the field of study in which the graduates qualified and their occupations varied between the different fields. It was closest for the medical sciences where 88% of the graduates worked in medical-related occupations and for education where 70% of the graduates worked in education-related occupations. The humanities and arts had a higher number of graduates (21%) who were in jobs which traditionally did not require a degree, e.g. clerical-related occupations (see Annexure B for description of occupations).

TABLE 3.6: TYPE OF FIRST OCCUPATION HELD AFTER GRADUATION

Occupation	Engineering		Agriculture		Medical science		Humanities and arts		Economic and management science		Natural science		Education		Law		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Engineering	118	77.6		0		0	1	0.4	2	0.5	4	3.7		0		0	125	9.1
Natural science	4	2.6	13	26.5	1	0.7		0.0	17	4.1	46	43.0	2	1.2		0	83	6.0
Medical science		0.0	3	6.1	133	95.0		0.0	2	0.5	6	5.6	4	2.4		0	148	10.8
Education	2	1.3	2	4.1	1	0.7	51	19.2	26	6.3	20	18.7	136	80.5	4	5	242	17.6
Law		0.0		0.0		0.0	2	0.8	1	0.2		0.0		0.0	49	61.3	52	3.8
Humanities	1	0.7	1	2.0		0.0	59	22.3	1	0.2	1	0.9	3	1.8	1	1.3	67	4.9
Administrative and personnel	2	1.3		0.0		0.0	28	10.6	30	7.3	2	1.9	2	1.2	4	5.0	68	5.0
Economic and finance	2	1.3	2	4.1		0.0	3	1.1	205	50.0	1	0.9	2	1.2	4	5.0	219	16.0
Management	3	2.0	2	4.1	1	0.7	12	4.5	19	4.6		0.0	4	2.4		0.0	41	3.0
Other professional occupations	3	2.0	5	10.2	2	1.4	5	1.9	10	2.4	9	8.4	1	0.6	1	1.3	36	2.6
Clerical and sales	4	2.6	4	8.2	1	0.7	67	25.3	66	16.1	8	7.5	10	5.9	9	11.3	169	12.3
Protective services and transport	8	5.3	2	4.1		0.0	8	3.0	4	1.0	2	1.9		0.0	3	3.8	27	2.0
Farming		0.0	10	20.4		0.0	1	0.4	2	0.5	1	0.9		0.0		0.0	14	1.0
Trade related	2	1.3		0.0		0.0		0.0	2	0.5		0.0		0.0		0.0	4	0.3
Occupation unspecified	3	2.6	5	10.2	1	0.7	28	10.6	23	5.6	7	6.5	5	3.0	5	6.3	77	5.6
TOTAL	**152**	**100**	**49**	100	**140**	100	**265**	100	**410**	100	**107**	100	**169**	100	**80**	100	1372	100

3.7 EDUCATIONAL LEVEL REQUIRED IN FIRST OCCUPATION

The respondents were asked to assess whether the first jobs they held after obtaining their degrees required graduate-level ability. Ten percent of the graduates felt that they were in jobs that required a higher-level qualification than the one they held, 52% felt that they were in jobs that required graduate-level ability, and 38% felt that they were in jobs that required a lower-level qualification. It was mostly the graduates in the natural sciences (54%) and the humanities and arts (52%) who held jobs for which a lower-level qualification was required. Table 3.7 represents the graduates' perceptions of the first jobs they held after obtaining their degrees according to different fields of study.

TABLE 3.7: PERCEIVED REQUIREMENT LEVEL OF FIRST JOB

Field of study	Higher level		Graduate level		Lower level		Total	
	n	%	n	%	n	%	n	%
Engineering	18	11	86	54	55	35	159	100
Agriculture	6	12	24	46	22	42	52	100
Medical science	16	10	127	84	9	6	152	100
Humanities and arts	25	9	104	39	141	52	270	100
Economic and management science	55	13	193	47	168	40	416	100
Natural science	7	7	39	39	53	54	99	100
Education	7	4	89	53	71	43	167	100
Law	3	4	68	80	14	16	85	100
TOTAL	**137**	**10**	**730**	**52**	**533**	**38**	**1400**	**100**

3.8 CONCLUSION

This chapter has looked at other benefits of higher education other than finding employment. A large proportion of graduates irrespective of field of study, perceived higher education to be of great benefit to them. A large group indicated that the content of their degree was of great value to the job they were doing. The study has also indicated that graduates in their search for employment attach greater importance to a job's relevance to the studies than its pecuniary rewards. Only 4% chose a job because it was interesting *and* offered high income.

While it would be a disservice to the graduates to underestimate the problems they might face when entering the labour market, it would be a disservice also to education to suggest that there are courses that produce graduates who are unemployable. About 80% of graduates were in full time positions in both the public and the private sector. In general, 52% of graduates reported that they were in occupations which required graduate level ability. However, there are differences between the fields of study. Graduates from courses which are not directly linked to any particular occupation, for example humanities and arts, and natural science have more difficulties and the transition from student to employee is more likely to be accompanied by a period of unemployment and underemployment. Most graduates in humanities and arts were in jobs which were not related to their studies and which do not necessarily require a degree, for example clerical and sales occupations.

CHAPTER 4
CAREER GUIDANCE, JOB SATISFACTION AND FUTURE ASPIRATIONS

4.1 INTRODUCTION

Career guidance and counselling is important for potential students. It helps them choose study courses that can lead to occupations that suit their ability and personality and offer sound employment prospects. They will also have expectations that are much more consistent with the realities of the occupational fields that they have chosen. This is also important for the economy because it could help create an adequate labour supply of trained graduates who will meet the demands of the labour market. Furthermore it is in the interest of the university to have graduates who succeed in their studies and find proper employment. Graduates` satisfaction plays a crucial role in the retrospective evaluation of their education and training. This chapter looks at career guidance received at any point during the graduates' education, their occupational expectations in relation to their studies, their satisfaction with their careers up to this point and their future aspirations.

4.2 CAREER GUIDANCE

Only 30% of the graduates reported having received career guidance at any point during their education. Of those people who indicated that they had received career guidance, almost half had received it at school (46%); an additional 26% had received career guidance at university (see Figure 4.1).

Interestingly enough, although most people who received career guidance did so at school, the respondents reported dissatisfaction with that form of career guidance (64% reported that it had little value if any value at all) (see Figure 4.2). The greatest level of satisfaction with career guidance related to the guidance received from family and friends (92% of the respondents who received this kind of help reported that it was of some to great value).

FIGURE 4.1: TYPES OF CAREER GUIDANCE RECEIVED

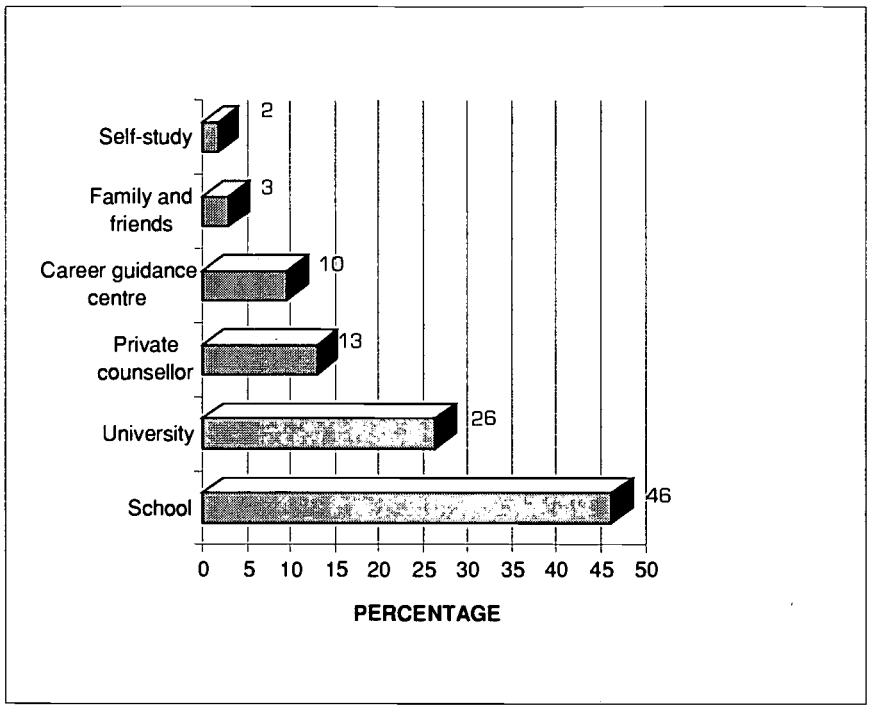
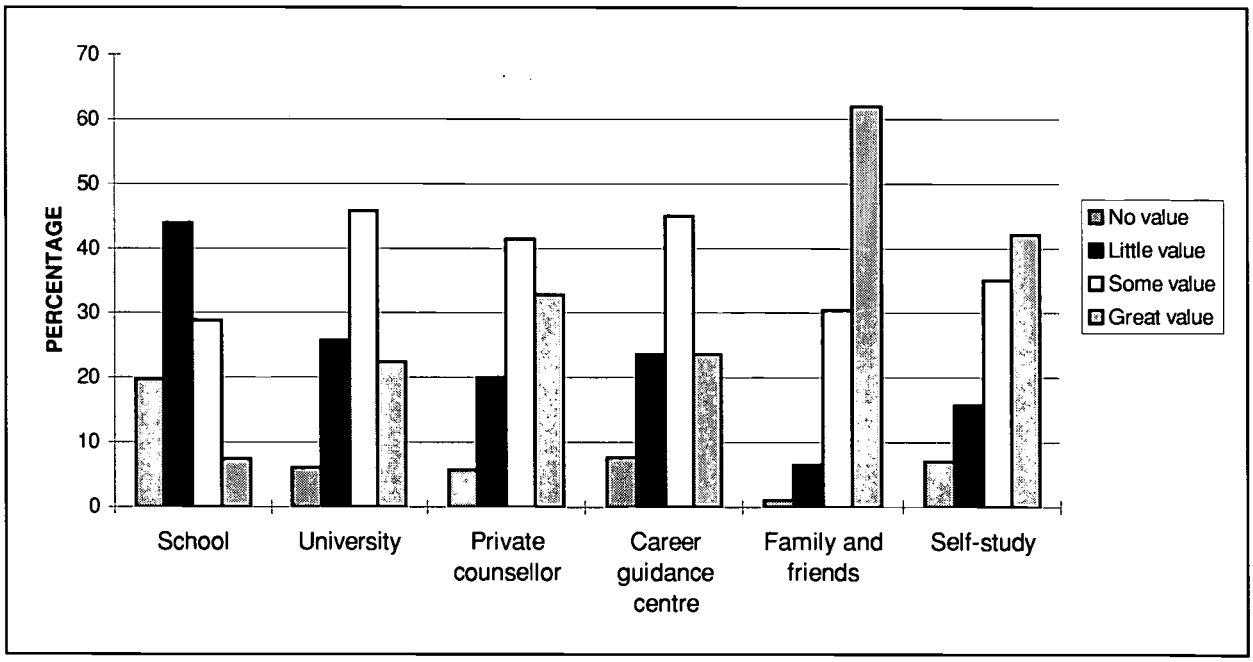


FIGURE 4.2: VALUE OF CAREER GUIDANCE



4.3 REALIZATION OF OCCUPATIONAL EXPECTATIONS

The graduates studied in order to acquire a profession. When asked to assess the correspondence between their jobs and the occupational expectations they had while studying, 31% of the graduates said there was a great correspondence, 38% said there was some correspondence, 17% said there was little correspondence, and 16% said there was no correspondence at all between their occupational expectations and the jobs they held. Table 4.1 represents the graduates' assessment of the realization of occupational expectations in different fields of study. Graduates in fields which are more occupation oriented, i.e. medical science in which graduates have a more or less clear idea of what their jobs would entail, had jobs which corresponded greatly with their occupational expectations compared to graduates in humanities and arts.

TABLE 4.1: REALIZATION OF OCCUPATIONAL EXPECTATIONS

	EXTENT TO WHICH FIRST JOB CORRESPONDED WITH OCCUPATIONAL EXPECTATIONS HELD WHILE STUDYING									
FIELD OF STUDY	Great correspondence		Some correspondence		Little correspondence		Not at all		Total	
	n	%	n	%	n	%	n	%	n	%
Engineering	42	26	70	44	33	21	14	9	159	100
Agriculture	20	38	22	42	5	10	5	10	52	100
Medical science	88	58	45	29	13	9	7	4	153	100
Humanities and arts	59	22	74	27	55	21	80	30	268	100
Economic and management science	107	25	169	40	81	19	65	16	422	100
Natural science	22	22	41	42	13	13	22	23	98	100
Education	64	38	64	38	22	14	17	10	167	100
Law	30	34	33	36	13	16	12	14	88	100
TOTAL	**432**	**31**	**518**	**37**	**235**	**16**	**222**	**16**	**1 407**	**100**

4.4 SATISFACTION WITH CAREER PROGRESS

Satisfaction at work is an asset to the employer and the worker, and it eventually benefits the economy in general. It is especially so in the case of those in whose education they and the state have invested much effort. The graduates were asked if they were satisfied with the career progress they had made since obtaining their first degree. Twenty-five percent of the graduates indicated that they were completely satisfied with their career progress, 52% said they were

satisfied, 18% said they were dissatisfied and 5% said they were completely dissatisfied with the career progress they had made since obtaining their degrees. The graduates in the humanities and arts experienced the least satisfaction with their career progress (see table 4.2)

TABLE 4.2: SATISFACTION WITH CAREER PROGRESS

	EXTENT OF SATISFACTION WITH CAREER PROGRESS AFTER OBTAINING FIRST DEGREE									
FIELD OF STUDY	Completely satisfied		Satisfied		Dissatisfied		Completely dissatisfied		Total	
	n	%	n	%	n	%	n	%	n	%
Engineering	43	27	82	51	33	21	1	1	159	100
Agriculture	15	29	28	54	8	15	1	2	52	100
Medical science	56	36	76	49	18	12	5	3	155	100
Humanities and arts	54	20	135	50	60	22	23	8	272	100
Economic and management science	115	27	227	54	60	14	18	5	420	100
Natural science	20	20	46	46	27	27	7	7	100	100
Education	34	21	86	52	30	18	14	9	164	100
Law	15	17	49	56	19	22	5	5	88	100
TOTAL	**352**	**25**	**729**	**52**	**255**	**18**	**74**	**5**	**1410**	**100**

4.5 FACTORS THAT PLAYED A ROLE IN THE GRADUATES' SATISFACTION

A stepwise logistic regression analysis was used to identify significant predictors for the variable 'satisfaction with career progress'. There were four response categories: completely dissatisfied, dissatisfied, completely satisfied, and satisfied. For this analysis, the two satisfied categories were combined, and the two dissatisfied categories were combined to form a dichotomous dependent variable.

The variables included in the model were gender, race, type of institution attended, field of study, extent to which degree helped in finding employment, extent to which job corresponded with occupational expectations held while studying, and value of degree content to present position.

The stepwise procedure identified four significant predictors, namely to what extent first job corresponded with occupational expectations, to what extent obtaining a degree made it easier to find a job, to what extent the content of degree was of value to job, and field of study. The following table shows the results of the analysis.

TABLE 4.3: REGRESSION ANALYSIS – SATISFACTION WITH CAREER PROGRESS

PREDICTOR	CATEGORIES	COEFFICIENT	ODDS RATIO
Extent to which job corresponded with expectations held while studying	Not at all	-1.60**	0.20
	Little correspondence	-1.44**	0.24
	Some correspondence	-0.62**	0.52
	Great correspondence	Reference	
Extent to which degree helped in securing employment	Not at all	-0.43*	0.65
	Small extent	-1.32**	0.25
	Some extent	-0.66**	0.52
	Great extent	Reference	
Value of degree content to job held	No value	-1.99**	0.13
	Little value	-1.24**	0.28
	Some value	-0.65**	0.52
	Great value	Reference	

** Significant at the 5% level
* Significant at the 10% level

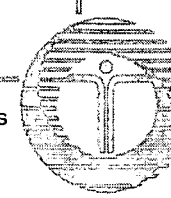
Of all the variables included in the model, those that emerged as the important predictors were the work's correspondence with occupational expectations held while studying, the extent to which the degree made it easy to secure a job, and the value of the degree content to the job held. Graduates whose jobs corresponded with the occupational expectations they held while studying were more satisfied with their career progress than those whose jobs had no correspondence at all. The odds of being satisfied were nearly six times higher for those whose jobs corresponded significantly with the occupational expectations they held while studying than for those whose jobs had no correspondence at all with the occupational expectations they held while studying. Graduates whose degrees helped them to secure a job after graduation were more satisfied with their career progress compared to those who felt that their degrees did not help them at all. The odds of being

satisfied for graduates whose degrees helped them secure employment were twice as high as the odds for those whose degrees did not help them at all to secure employment.

Graduates whose degree content had value for the job that they were doing were more satisfied than those whose degree content had no value at all for the job they were doing. The odds of being satisfied for those graduates whose degree content was of great value to the job they held were seven times higher than the odds for those whose degree content had no value at all for the job they held.

4.6 CONCLUSION

Only 30% of graduates indicated that they received career guidance at any point during their education. Most students therefore, entered higher education not knowing enough about the objectives and the contents of the studies. This leads to students having occupational expectations which at the end do not correspond to their jobs. Sixteen percent of graduates indicated that there was no correspondence at all to their occupational expectations and the jobs they held. Many graduates though were satisfied with career progress they have made up to this point. Satisfaction in retrospect is related to positive personal work experience: job's relevance to the studies, and the ability of studies to offer access to employment.



CHAPTER 5
GRADUATES' INVOLVEMENT IN FURTHER STUDIES

5.1 INTRODUCTION

Students realize that obtaining a bachelor degree in some fields of study does not necessarily mean they have acquired specific occupational training. In relatively few fields of study is a first degree a complete preparation for employment. Since a large number of students are interested in a profession, they continue with their studies in order to obtain additional knowledge. For many students, further studies after graduation is an important period of transition between the academic and the professional world. For most graduates further studies provide a link (at least in time) between a first degree and employment. The relationship of the further studies to the preceding course and to subsequent employment varies according to the fields of study and the nature of the employment.

This chapter looks at graduates' intentions to study further after obtaining their first degree, the relation between an undergraduate course and courses of further study following graduation, and the reasons for continuation with studies.

5.2 REMAINING IN FULL-TIME STUDY AFTER OBTAINING FIRST DEGREE

Thirty-eight percent of the graduates in the survey remained in full-time study after obtaining their first degrees.

Those graduates who remained in full time study after obtaining their first degrees were asked to indicate their reasons for doing so. Of those graduates who gave reasons, 76% said they had always intended continuing with their studies after obtaining their first degrees, 20% continued with their studies because they could not find employment, and 4% wanted to make a career change. Undergraduate courses in the humanities and arts and in the economic and management sciences do not necessarily prepare students for a specific career, hence it was mostly graduates from these two fields who mentioned that they had always had the intention to study further after their first degree, or that they could not find jobs with their first degrees (see table 5.1).

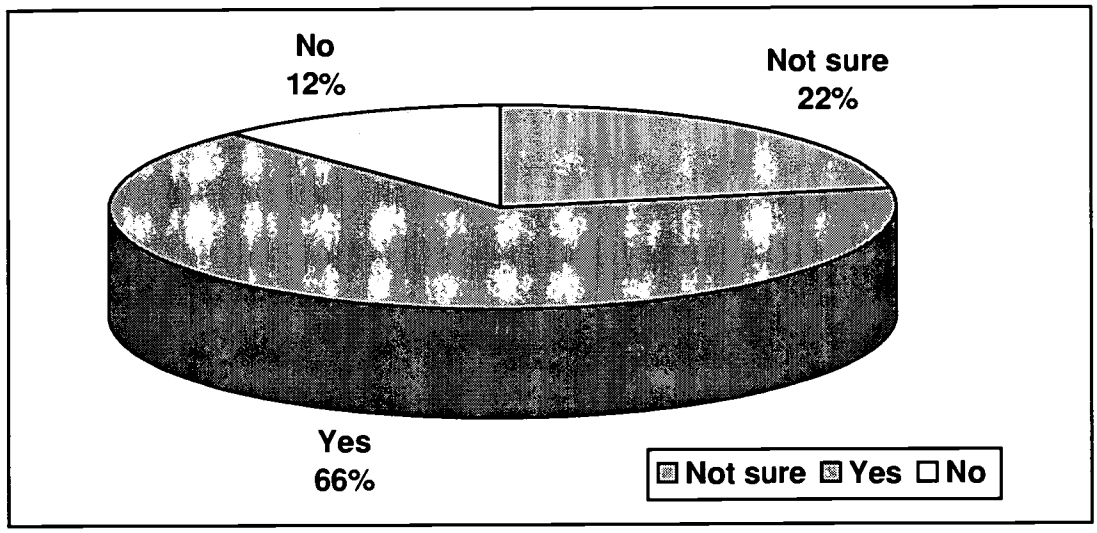
TABLE 5.1: REASONS FOR REMAINING IN FULL-TIME STUDY

Field of study	Could not find a job		Wanted to make a career change		Always intended to study further		Total	
	n	%	n	%	n	%	n	%
Engineering	3	8			34	92	37	100
Agriculture	4	23			13	77	17	100
Medical science	1	5	1	5	18	90	20	100
Humanities and arts	35	22	3	3	122	75	160	100
Economic and management science	33	20	8	2	141	78	182	100
Natural science	21	24	9	7	68	69	98	100
Education	19	19	8	8	75	73	102	100
Law	19	28			50	72	69	100
TOTAL	**135**	**20**	**29**	**4**	**521**	**76**	**685**	**100**

5.3 INTENTION TO CONTINUE WITH STUDIES

The respondents were asked if they intended to study further, and if they did, did they intend to study in a field related to their undergraduate course or in a field unrelated to their undergraduate course. Of the graduates who responded to the question, only 12% indicated that they had no intention to study further, while 66% indicated that they intended to study further, and 22% were not sure (see Figure 5.1).

FIGURE 5.1: FURTHER STUDY



Of the respondents who indicated that they intended to study further, 66% said they would like to study in a field related to their undergraduate course, while 34% said they would like to study in a field unrelated to their undergraduate course. It was only in engineering that most of the graduates (59%) indicated that they intended to study further in a field unrelated to their first degree (see Table 5.2).

TABLE 5.2: INTENDED FIELD OF STUDY INTENDED FIELD OF STUDY

Field of study	Related to field of study		Unrelated to field of study		Total	
	n	%	n	%	n	%
Engineering	60	41	87	59	147	100
Agriculture	23	55	19	45	42	100
Medical science	98	73	37	27	135	100
Humanities and arts	180	61	117	39	297	100
Economic and management science	296	78	81	22	377	100
Natural science	82	63	49	37	131	100
Education	100	60	66	40	166	100
Law	82	77	25	23	107	100
TOTAL	**921**	**66**	**481**	**34**	**1 402**	**100**

5.3 REASONS FOR CHANGING FIELD OF STUDY

The respondents who indicated that they intended to study further in a field unrelated to the course they had originally studied, were asked to give reasons for changing their field of study. Of the 460 graduates who responded, half mentioned a change in interest as a reason for changing their field of study, 32% mentioned career development, and 18% wanted to change their field of study because it was difficult to find a job in that particular field. Table 5.3 reflects the reasons given by the respondents, according to different fields of study.

TABLE 5.3: REASONS FOR CHANGING FIELD OF STUDY

Field of study	Difficulty in finding job related to field of study		Career development		Interest has changed		Total	
	n	%	n	%	n	%	n	%
Engineering	5	6	62	74	17	20	84	100
Agriculture	3	16	9	47	7	37	19	100
Medical science	1	3	9	25	26	72	36	100
Humanities and arts	29	25	18	16	67	59	114	100
Economic and management science	11	15	24	33	38	52	73	100
Natural science	15	32	12	26	20	42	47	100
Education	9	14	9	14	45	72	63	100
Law	8	33	6	25	10	42	24	100
TOTAL	**81**	**18**	**149**	**32**	**230**	**50**	**460**	**100**

5.4 WHERE DO GRADUATES EXPECT TO BE IN THE NEXT FIVE YEARS?

More than half (58%) of the graduates expected to be working full time for an employer in South Africa within the next five years (see Table 5.4). Only 15% expected to be abroad, whether in a working or studying capacity (see Table 5.5). Contrary to expectations, most of the graduates expecting to be abroad were not in the field of medicine, but in the natural sciences (21%), while the fewest were in law (6%) and agriculture (8%). The most important reasons for considering a move abroad for those who intended to do so, were better career opportunities (28%) and concern about crime and security (17%) (see Table 5.6).

TABLE 5.4: ACTIVITIES EXPECTED TO BE ENGAGED IN WITHIN THE NEXT FIVE YEARS ACCORDING TO FIELD OF STUDY

Activity	Engineering		Agriculture		Medical science		Humanities and arts		Economic and management science		Natural science		Education		Law		Total	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Study full time in SA	6	3.4	2	3.3	13	7.8	26	7.0	9	1.8	17	10.2	9	4.4	3	2.4	85	4.8
Study full time abroad	2	1.1	2	3.3	3	1.8	12	3.2	4	0.8	7	4.2	6	3.0	2	1.6	38	2.1
Working full time in SA	99	55.3	35	58.3	66	39.8	204	55.1	318	62.6	86	51.8	130	64.0	71	55.9	1 009	56.7
Working full time abroad	29	16.2	3	5.0	27	16.3	44	11.9	68	13.4	29	17.5	17	8.4	6	4.7	223	12.5
In own business	21	11.7	15	25.0	9	5.4	36	9.7	58	11.4	14	8.4	24	11.8	8	6.3	185	10.4
Unemployed voluntarily	2	1.1	0	0	2	1.2	12	3.2	7	1.4	4	2.4	5	2.5	1	0.8	33	1.9
Private practice	20	11.2	2	3.3	44	26.5	33	8.9	42	8.3	9	5.4	11	5.4	35	27.6	196	11.0
Other	0	0.0	1	1.7	2	1.2	3	0.8	2	0.4	0	0.0	1	0.5	1	0.8	10	0.6
TOTAL	**179**	**100**	**60**	**100**	**166**	**100**	**370**	**100**	**508**	**100**	**166**	**100**	**203**	**100**	**127**	**100**	**1 779**	**100**

TABLE 5.5: PERCENTAGE OF GRADUATES FROM EACH FIELD OF STUDY INTENDING TO MOVE ABROAD (EITHER TO STUDY OR WORK THERE FULL-TIME)

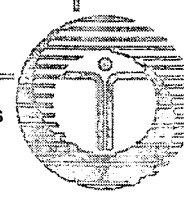
Field of study	n	Number intending to move abroad	Percentage intending to move abroad
Engineering	182	31	17
Agriculture	60	5	8
Medical science	167	30	18
Humanities and arts	381	56	15
Economic & management science	513	72	14
Natural science	168	36	21
Education	207	23	11
Law	128	8	6
TOTAL	**1806**	**261**	**14**

TABLE 5.6: GRADUATES' REASONS FOR INTENDING TO MOVE ABROAD

	Engineering		Agriculture		Medical science		Humanities and arts		Economic and management science		Natural science		Education		Law		TOTAL		
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	Row %	Column %
Affirmative action	6	16.2	1	2.7	1	2.7	8	21.6	12	32.4	4	10.8	2	5.4	3	8.1	37	100	8.8
Political situation	3	21.4	0	0.0	3	21.4	1	7.1	4	28.6	2	14.3	0	0.0	1	7.1	14	100	3.3
Career opportunities	11	9.5	0	0.0	12	10.3	31	26.7	35	30.2	18	15.5	5	4.3	4	3.5	116	100	27.7
Crime/security	14	19.4	0	0.0	6	8.3	12	16.7	26	36.1	6	8.3	4	5.6	4	5.6	72	100	17.2
Government interference in profession	1	4.0	0	0.0	11	44.0	6	24.0	1	4.0	3	12.0	3	12.0	0	0.0	25	100	6.0
Better salaries	2	4.8	0	0.0	10	23.8	8	19.0	13	31.0	5	11.9	3	7.1	1	2.4	42	100	10.0
Temporary move	5	15.2	0	0.0	3	9.1	2	6.1	16	48.5	3	9.1	3	9.1	1	3.0	33	100	7.9
To experience a different culture	1	4.2	0	0.0	2	8.3	5	20.8	9	37.5	5	20.8	2	8.3	0	0.0	24	100	5.7
Lowering of standards in South Africa	8	17.4	1	2.2	4	8.7	7	15.2	17	37.0	2	4.4	4	8.7	3	6.5	46	100	11.0
To join family	2	20.0	0	0.0	1	10.0	2	20.0	1	10.0	3	30.0	1	10.0	0	0.0	10	100	2.4
TOTAL	**53**	**12.6**	**2**	**0.5**	**53**	**12.6**	**82**	**19.6**	**134**	**32.0**	**51**	**12.2**	**27**	**6.4**	**17**	**4.1**	**419**	**100**	**100**

5.5 CONCLUSION

Post graduate studies provide a link between a first degree and employment for graduates from different kinds of courses. They play an important role especially for graduates in fields of study which are not occupationally oriented as they provide a signposted route to specific careers. But even for courses which are occupational, further study is frequently required. Although further education could be seen by some as a substitute for employment, only 20% graduates in this study went into further study because they could not find employment, while 76% indicated that they always had the intention to continue with studies. Of those who continued with further study more than half do so in the field related to their undergraduate course.



CHAPTER 6
SUMMARY AND CONCLUSION

6.1 SUMMARY OF THE RESULTS

6.1.1 GETTING A JOB

Students begin their studies with the hope that a university degree will help them get a job. It will. From the survey, it emerged that 59% of the graduates found employment immediately after obtaining their degrees and a further 84% found employment within their first year of searching. The results thus show that graduates do find employment. While in other developing and developed countries graduates experience unemployment, South African graduates still have a competitive advantage in the labour market.

In South Africa the education system was shaped by the policy of apartheid which provided the framework for structuring the country's education policy. Education was officially divided along racial/ethnic lines. To the extent that the education system was shaped by apartheid so too was the labour market. The labour market still reflects this historical legacy. According to the survey results, non-white graduates and the graduates from historically black institutions were at the time of the research at a disadvantage in their search for employment. For instance only 28% of the black graduates and 34% of the coloured graduates found employment immediately, as opposed to 56% of the Indian graduates and 66% of the white graduates who found employment immediately. Of the graduates from HBUs, 25% found employment immediately as opposed to the 56% of graduates from HWUs who found employment immediately.

6.1.2 VALUE OF HIGHER EDUCATION

As seen in Chapter 4, 52% of the graduates in the survey group felt that they were in jobs that required graduate-level ability, while 10% felt they were in jobs that required a higher qualification than the one they held, and 38% felt they were in jobs that could be done by a person with a qualification lower than the one they held. This indicates the perception of being overqualified from the graduates' point of view. Although the perception of being overqualified is subjective, it may say as much about a person's self-image as it does about the actual match of competencies and work demands. However the reality is that work is as much about self-image, commitment and job satisfaction as it is about practical skills. Therefore, graduates' perceptions of overqualification should be taken seriously.

Most of the graduates perceived considerable benefits from their higher education. Although some of the graduates felt that the jobs they held could be done by a person with a qualification lower than the one they held, most of them were quite satisfied with their career progress to date. For most of the graduates having a degree played a great role in helping to secure employment. Only 8% felt that the degree did not help at all in securing employment. For most of the graduates also, the content of their degree had value in the job they were doing. Only 5% felt that the content of their degree had no value at all for the job they were doing. Most of the graduates (25% were completely satisfied and 51% were satisfied) were also satisfied with their career progress to date.

6.1.3 FURTHER STUDY

Most of the graduates realized that having a bachelor's degree in some fields of study did not necessarily mean that they had acquired specific occupational training. Of those who responded to the question, 38% had continued studying after their first degree. A large number continued with their studies because they had always intended to obtain a higher qualification before entering the labour market.

6.1.4 CAREER GUIDANCE

Individuals and society naturally expect adequate returns from the time and money spent on higher education. Unemployment and underemployment lead to personal and social frustration. Where individuals are free to choose their course and occupation, mechanisms are needed to provide information and counseling to prospective and current students in order to help them make the most appropriate study and work choices. This would help reduce the gap between university output and employment opportunities. Only a few of the graduates said they had received career guidance at any point during their education. Of those who did receive guidance at school, a large proportion reported dissatisfaction with the form of the guidance. However, career guidance received from family and friends was reported as having some value and great value.

6.2 CONCLUSION

The seriousness of graduate unemployment has been exaggerated in the popular media. This could be partly because people believe that it really is a problem and partly because the changes in the higher education sector in the past few years have been so radical. The number of students acquiring higher education has being increasing at a rapid rate, whilst the business sector has not being able to absorb as many graduates at the same rate. The effects of these

changes on students, employers and society in general have not been widely understood and appropriate adaptation to them has been slow. It is important to realize that the education/labour market system is subject to complex interrelated lags. The expansion of higher education cannot be expected to take place at the same rate as the labour market's needs in respect of new knowledge and skills.

The principal source of information on the state of the graduate labour market is the first employment experiences figures. These figures should however be treated with circumspection as they could overstate the extent of any graduate employment problem. They apply to graduates at a particular point in time and may therefore conceal much about the lifetime careers of graduates. The relative security of employment enjoyed by a high proportion of graduates means that any adjustment to labour market fluctuations must take place at the point of initial recruitment. Slight fluctuations in the labour market will therefore have an exaggerated effect on the employment patterns at the point of initial entry. The results has shown that although 59% of graduates were able to secure employment immediately after obtaining their degree (a point of initial entry), 84% found employment within their first year of searching.

Underemployment and unemployment are considered a waste of the time and money invested in education, even though individuals may feel satisfaction at the knowledge they have gained. Academic research and the mass media have encouraged graduates to have high expectations from education. Students generally maintain that the basic fault of the education system is that it cannot guarantee them jobs of the level and type that correspond closely with their studies. Individuals and society as a whole tend to view the new higher education system - where a majority of people have access to higher education (mass education system) - in the light of the values inherited from the previous education system where only a few people had access to higher education (elitist education system).

In a system of mass higher education, the relation between education and employment is different from that in the 'elitist' system, where each level and type of education corresponds fairly closely to precise types of employment and careers. In a mass system the relation between education and employment is far more diffused, as a university degree can provide access to a wider variety of jobs. When a number of people acquiring higher education increases, they could be employed in positions that were previously filled by people without higher education. This could not necessarily mean they are underemployed, because it might be that when only a few qualified people were available, those without higher education were used to fill positions which required higher education. Hence, those with higher education are found in a wide assortment of jobs.

The consequences are not yet known of filling occupational positions with people whose training does not correspond to the qualifications traditionally required for such positions. With the proliferation of qualifications, people with more education are accepting jobs that had previously been done by people with less education. If the jobs themselves remain unchanged, then there is situation of overqualification. However, the nature of the position could well change if a better-educated worker filled the position.

Most prospective students do not know enough about the objectives and contents of their planned studies, or about the employment opportunities related to each field of study. This is partly due to lack of adequate information, and partly due to the absence of systematic counselling. The results have shown that only a few graduates reported having received career guidance at any point during their education. Those who had received guidance at school, reported a great level of dissatisfaction with the form of guidance. As an alternative students tend to rely on information given by either family members or friends on the labour market. Although this could be valuable it cannot be totally relied on as been accurate. Emphasis should be placed on providing accurate and up-to-date information on the various qualifications and the job requirements in the labour market. This will help with the meaningful qualitative and quantitative planning of education and training. It will also enable the guidance of individuals to take place in the full knowledge of all the factors involved in their careers and their studies, without prejudice to the cultural development of the individual and his/her personal fulfilment.

It can be seen from this study that there is little if any unemployment of South African graduates. All courses can lead to success in the labour market, although graduates from some types encounter some difficulties. It is important to realize that graduates value many things about higher education, not just its contribution to getting a job. Its value in terms of the work they do, and their general satisfaction appears to be great. Although different kinds of strength are revealed in terms of benefits to graduates in different kinds of courses, the importance that graduates accord to a whole range of functions of higher education must be taken into account.

The experiences of graduates in relation to the objectives of the course they study should regularly be investigated. As noted earlier in this chapter the use of first destinations statistics collected immediately after graduation can be misleading. There is an indication of problems in the links between degree courses and employment. The differences in employment outcomes between types of courses do not support a simple distinction between arts/science and vocational/non-vocational. It is hoped that studies such as this will help those inside and outside higher education who are committed to improving the links between higher education and the labour market.

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ANNEXURE A

SURVEY METHODOLOGY AND BIOGRAPHICAL PROFILE OF RESPONDENT GROUP

1 AIM OF THE PROJECT

The aim of the project was to investigate the employment experiences of graduates from South African universities who enter the labour market for the first time.

Specific objectives of the project were to

- investigate graduates` ability to secure employment and the period it takes to do so
- highlight the educational and non-educational factors which affect graduates` ability to find employment
- determine the first career destinations of South African graduates;
- highlight graduates` perceptions of the benefits of higher education.

2 METHODOLOGY

The project comprised three components, each of which was dealt with in a different phase:

- Development of a conceptual framework and questionnaire
- Data collection through a postal survey
- Data analysis and report writing.

2.1 PHASE ONE: DEVELOPMENT OF A CONCEPTUAL FRAMEWORK AND QUESTIONNAIRE

The first stage of the project concentrated on identifying the variables to be investigated, e.g. field of study, gender, population group, year of graduation, age, geographical area, work experience in various fields of study and career paths available to graduates; as well as the role of market forces in the employment status of graduates. On the basis of a national and international literature review, various relevant variables were identified and a questionnaire was developed. It was decided to use a structured questionnaire in order to facilitate comparison of the various groupings, to ensure respondent convenience in filling in the questionnaire and to increase the response rate.

2.2 PHASE TWO: DATA COLLECTION

A random sample of 8 000 respondents, who had graduated between 1991 and 1995, was drawn from the HSRC Register of Graduates. The sample was stratified according to the size of two variables: historically black and historically white universities and the broad fields of study.

A questionnaire was mailed to each respondent. An incentive, in the form of a lucky draw prize, was offered for questionnaires returned before the due date as previous research had indicated that such an incentive could increase the response rate by as much as 10%. A fairly large sample was drawn to ensure a respondent group of adequate size.

2.3 PHASE THREE: DATA ANALYSIS AND REPORT WRITING

During the final phase of the survey the data were analyzed, trends identified and the different aspects of the survey integrated into this report.

SAMPLE REALIZATION

An overall response rate of 23% was achieved, i.e.1806 of the 8 000 questionnaires were returned. A slightly higher response rate was obtained from the historically white universities 1 475 (24%) than from the historically black universities 306 (17%).

In terms of the 1 806 questionnaires returned, 82% of the respondents studied at historically white universities, as opposed to 17% at historically black universities. This accurately reflects the student distribution between these two groups of institutions. Graduates from other universities, i.e. overseas universities, amounted to 1%.

Men and women were fairly equally represented in the aggregate respondent group. However the men still dominated in engineering (87%), while the women were overrepresented in medicine (73%), the humanities and arts (70%) and education (69%). The general female:male ratio among the other fields of study was approximately 43:57.

The original sample was drawn from those graduates who obtained their first degree between 1991 and 1995. A fairly equal distribution of respondents was realized in terms of the year in which they first graduated. The respondents who graduated in 1991 constituted 17,5%, in 1992 22%, in 1993 21%, in 1994 27%, and in 1995 12%.

For the purpose of this study the following classifications were used for institutions and fields of study:

Institutions were classified as historically black (HBU) or historically white universities (HWU). The distribution of institutions across these categories is shown in the table below.

CLASSIFICATION OF UNIVERSITIES

HISTORICALLY WHITE UNIVERSITIES	HISTORICALLY BLACK UNIVERSITIES
Potchefstroom University for CHE	Medical University of South Africa (MEDUNSA)
Rand Afrikaans University	University of Durban-Westville
Rhodes University	University of Fort Hare
University of Cape Town	University of the North
University of Natal	University of the North West
University of the Orange Free State	University of Transkei (no data available for 1992-1995)
University of Port Elizabeth	University of Venda
University of Pretoria	University of the Western Cape
University of South Africa	University of Zululand
University of Stellenbosch	Vista University
University of the Witwatersrand	

FIELDS OF STUDY

NATURAL SCIENCES

BSc
Physics
Mathematics
Computer science
Chemistry
Biology
Natural science technology
Geology
Astronomy

ENGINEERING

Engineering - general
Engineering - agriculture
Quantity surveying
Architecture
Town and regional planning
Land surveying
Draughtsmanship
Technical inspection
Chemical technology

AGRICULTURE

Agriculture - general
Forestry
Soil conservation
Food technology
Home economics
Veterinary science

MEDICAL SCIENCE

Medicine and surgery
Dentistry
Dietetics
Hygiene
Speech therapy
Nursing
Physiotherapy
Pharmacy
Optometry
Medical technology
Medical research

HUMANITIES AND ARTS

Literature and philosophy

Fine art

Library and information science

Social work

Theology

Human sciences (not elsewhere classified)

Military science

EDUCATION

Education

Physical education

ECONOMIC AND MANAGEMENT SCIENCES

Administration, public administration

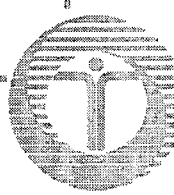
Economics

Management, business administration

Human resource management

Economics and management (not elsewhere classified)

LAW



ANNEXURE B

DESCRIPTION OF OCCUPATIONS HELD

ENGINEERING

Engineering occupations
Engineering technicians
Draughtsman
Architect
Land surveyor
Town and regional planner

NATURAL SCIENCES

Physical science occupations
Geological science occupations
Mathematical and related occupations
Computer science occupations
Chemical science occupations
Biological science occupations
Agriculture, forestry occupations
Natural science occupations

MEDICAL SCIENCES

Medicine
Dentistry
Veterinary occupations
Pharmaceutical occupations
Supplementary medical occupations
Nursing occupations
Health services occupations

TEACHING OR EDUCATION

Lecturing and related occupations
Teaching occupations
Instructor

PROTECTIVE SERVICE OCCUPATIONS

Air transport
Defence and related occupations
Law enforcement
Protective services

FARMING

Farmer
Farm manager

TRADE-RELATED OCCUPATIONS

Trade-related occupations
Mining occupations
Artisan

HUMANITIES AND ARTS-RELATED OCCUPATIONS

Humanities and arts-related occupations
Fine artists
Designing occupations
Performing arts occupations
Author and related occupations
Sports occupations

ADMINISTRATIVE AND PERSONNEL-RELATED OCCUPATIONS

Administrative occupations
Personnel occupations

ECONOMIC AND MANAGEMENT SCIENCE-RELATED OCCUPATIONS

Accounting and finance-related occupations

Economics occupations

MANAGEMENT-RELATED OCCUPATIONS

Director, deputy director, director-general and related occupations

General managers and management-related occupations

CLERICAL AND SALES-RELATED OCCUPATIONS

Clerical occupations, e.g. clerk, receptionist

Bookkeeper

Cashier, teller

Secretary, information clerk

Sales person, e.g. shop assistant

Computer and business machine operator

Proprietor of business

Catering services, e.g. barman, waiter

Personal and related services, e.g. day mother (au pair), tour guide

OTHER OCCUPATIONS

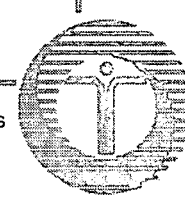
Professional and non-professional occupations not specified

VOLUNTARY UNEMPLOYMENT

OTHER PROFESSIONAL OCCUPATIONS NOT SPECIFIED

STUDENT

UNEMPLOYED



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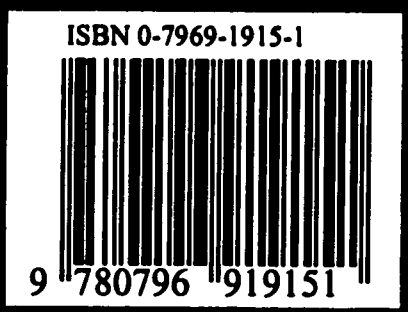

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