The school-to-work transition and youth unemployment in Saudi Arabia : the case of Al-Hasa province

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THE SCHOOL-TO-WORK TRANSITION AND YOUTH UNEMPLOYMENT IN SAUDI ARABIA: THE CASE OF AL-HASA PROVINCE

by

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ABSTRACT

This study investigates the transition of young people from school to work. In particular, the thesis analyses to what extent demographic factors, family background factors, education/training factors and labour market factors influence the labour market entry of Saudi youth. The study sample consisted young people between the ages of 18 and 26. The data were collected using a questionnaire survey distributed to three different groups: student, unemployed and employed, in Al-Hasa Province, between November 2000 and February 2001.

The theoretical foundation of the study has been divided into three chapters. The first chapter provides a review of the theoretical background and the relevant literature. This is followed by an examination of education, training and unemployment problems in the developing countries, and a more detailed discussion of the nature of such problems within Saudi Arabian society.

The three chapters dealing with the empirical work of this thesis involve univariate, bivariate and multivariate statistical analyses. The empirical work includes descriptive analysis and an examination of the significance of the independent variables. There follows an investigation of the labour market transition probability of Saudi youth using a multinomial logistic regression model.

The analysis of demographic variables shows that young people, females, single people and rural residents were more likely to be unemployed. In addition, family background variables were found to be significant. For example, those with employed fathers were more likely to secure employment. Furthermore, education factors, and especially level of education, strongly influenced transition probability, while, surprisingly training qualification did not. Finally, those who had part-time employment during school were more likely to be employed. In contrast, those who expressed a preference for government employment were more likely to be unemployed.

Based on these findings, a number of recommendations have been made. Suggestions for further research are also provided.

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DECLARATION

I hereby declare that no portion of the work that appears in this study has been used in support of an application of another degree in qualification to this or any other university or institution of learning.

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DEDICATION

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To my parents, mother, thanks for your sincere prayers, that were answered. Father, I wish you were still alive to share in this happy occasion.
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Your patience and your desire for me to succeed, demonstrate
all that is so good about you as a person, and as my wife.
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To my two daughters, Sara and Salma, I hope I have set a good example, that hard work and persistence pay off.

I would like also to dedicate this work to all those who work hard and honestly for the progress and wealth of our country.

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CHAPTER ONE

INTRODUCTION

1.1 Preamble

According to the ILO (International Labour Organisation) (2002), there are at least 70 million young people across the world who have no job. Millions more between the ages of 15 and 24 are underemployed, especially in the developing world. Leaving millions of young people unemployed is a huge waste of resources.

These young people have a great deal to offer their societies, and providing them with productive and decent jobs will be one of the most important contributions current generations can make for the future, especially in countries like Saudi Arabia, where 60 percent of the population is under 20 years old. Clearly, youth employment is critical for social and economic stability and growth. It is therefore important for policy makers to give it the greatest attention.

Youth unemployment in the Kingdom of Saudi Arabia continues to be a major social and economic problem. It has become an issue of particular concern during the past ten years, both because youth unemployment has increased, and because of the close association of unemployment with crime, drug abuse, poverty, employment instability and poor educational attainment. These problems are not exclusive to the Kingdom of Saudi Arabia or developing countries in general, as many developed countries are also facing similar issues.

The transition from education to work facing young Saudis now is not as smooth as it was in last decade, resulting in more youth unemployment. What is the magnitude of the problem? What is the nature of the problem? What are the underlying reasons for the worsening of the problem? What measures might the Saudi authorities employ to combat the problem? What factors play a role in determining the employment status of Saudi youth in the transition from school to work, and how significant is this role? These are some of the questions that have prompted this research.

Before describing in detail the subject and purpose of this study, it is useful to provide a brief introduction to the contextual background.

1.2 Contextual Background to the Study

The transition from school to work has received much attention from national governments over the past decades, since youth unemployment rates internationally began to rise in the early 1970s. In many countries the transition period has become longer and more complex than before (OECD (Organisation for Economic Co-Operation and Development), 2000), indicated by long-lasting search periods and increased difficulties for young people in securing permanent employment. In other words, they have been experiencing unsuccessful labour market integration.

Becker (1975) suggested that human capital investments have a strong influence on labour market success. Although the strict economic approach of the problem focuses primarily on the return on education in terms of earnings, this factor is an outcome of the job the employment-seeker is able to find in the labour market.

In modern societies, education is probably the most important factor in the allocation and selection process in the labour market. Labour market theories differ, however, with regard to the mechanisms by which educated persons are allocated jobs. Without a doubt, the human capital theory, developed by Schultz (1961) and advanced by Becker (1975) and others, gave a new dimension to neo-classical economic labour market theory.

The concept of human capital refers to the fact that human beings invest in themselves, by means of education and training and other activities, which raises their future income by increasing their life-time earnings (Becker, 1975). According to the human capital theory (Becker, 1964), the skills acquired through education represent human capital. Investments in human capital are useful, as long as they lead to higher productivity in the labour market. Employers show that they value labour productivity by offering the highest wages to those individuals who have acquired most human capital.

On the other hand, the job competition theory (Thurow, 1975) suggests that wages are determined primarily by job characteristics and not by individual characteristics (i.e., the productivity of workers). Employers seek to employ the best available candidates for their vacancies, at the lowest training costs. They use educational qualifications as indicators of trainability (Spence, 1974). Thus, job-seekers are ranked in an imaginary labour queue according to their expected training costs, and employers match this queue of applicants to a queue of vacant jobs that are classified on the basis of their level (Sorensen and Kalleberg, 1981). The best positions go to the individuals with the lowest training costs who also usually have the highest qualifications.

In fact, it is only in their explanation of why young men and women are more unemployed and have lower wages than adult that the theories differ. According to the human capital theory (Becker, 1964), young people without further education and training will have greater difficulties in the labour market (lower wages, higher unemployment) because they are less qualified and therefore less productive than young people who have higher qualifications. On the other hand, according to the job competition theories, young people have more difficulties in the labour market because the demand for labour in the economy is too low and they are further back in the job queue than young people with higher qualifications.

Having said that, it is hard to deny the existence of a strong relationship between education and training spending and economic performance. The author of a literature survey on this issue, undertaken for the Rand Corporation, concludes that regardless of the particular method used to measure this contribution, education and its effects on labour quality are generally found to be among the most important contributors to economic growth. For example, data show that countries with comparable levels of education converge among themselves, but they do not close the gap between themselves and countries with higher education levels (Sturm, 1993).

Gilbert's (2001) overview of the relationship between human capital and labour market transitions shows that, as predicted by the human capital theory, individuals with more human capital display a stronger attachment to the labour market This is expressed through fewer spells of unemployment and of non-participation in the labour force, more frequent transitions from one job to another and by longer spells of employment. These individuals also receive higher earnings.

Schultz (1961) argued that expenditures on education do not just amount to consumption, but are also an investment in one's ability to produce goods and services. The argument that unemployment brings about a deterioration in the human capital of the unemployed is a persuasive one. This deterioration, unless it is acted upon through training-to-work experience programmes, is more than likely to occur in the long term.

According to the human capital theory, the reduced incidence of unemployment as educational attainment increases represents a benefit which enhances the rate of return on education as an investment. Klerman and Karoly's (1995) study shows that young men with more education are less mobile in the labour market. Better educated workers settle into jobs that will last two to three years more than those with less education.

Although many countries express the same concern about the issue of the school-to-work transition, the problem is not universal, nor is the solution. Some countries (like the Netherlands, Germany and Japan) seem to experience rather smooth school to work transitions, while other countries (like France and Spain) face serious and lasting problems (Velden, 2002). In principle, a successful transition from school-to-work is determined by many factors. The literature distinguishes four groups of characteristics:

(1) Demographic characteristics.

(2) Family background characteristics.

(3) Education and training characteristics.

(4) Labour market characteristics.

Most of the empirical literature that will be reviewed in the next chapter deals with these variables. Consequently, it is very important briefly to look at the four main explanatory variables in this study.

Demographic Characteristics: These include the individual's age at the time of leaving school, sex, marital status, and place of residence. Much of the previous literature on this subject has suggested that demographic characteristics are significant in shaping the outcome of the youth transition. In other words, young people, women and the unmarried are more likely to be unemployed. For example, Veum and Weiss (1993) analyse the work histories of young workers. They state that work experience between the ages of 18 and 27 varies substantially according to age, sex and race. Klerman and Karoly (1995) studied the school-to-work transition of US youths. They showed that the fraction of women neither working nor in school is higher than that of men at any given age. Further, employment rates do not increase as quickly as for men. In addition, it has been found that the lowest rates of unemployment are experienced by the married men (Miller and Neo, 1997).

Place of residence is also very important in influencing school-leavers' transition decisions. The international literature points to their relevance. The literature includes many variables, such as the size and structure of the local labour market. It is expected that young people are more likely to find a job if they have a large local labour market and an extensive demand for labour. In other words, if a job-seeker lives in a rural area, the nearest employment opportunity may be much harder to reach than for a comparable youth in a major city.

To conclude, Riphahn (1999) found that demographic characteristics and place of residence have the most significant effects on the transition decision.

Family Background Characteristics: The literature provides sufficient evidence of the importance of family background characteristics in the transition from education to work. The structure of a household might at least in part indicate its permanent income and the degree of financial restrictions school-leavers face in their transition decision. Family background is likely to affect the preferences of the children, as well as to influence their academic achievement in school. Therefore, the literature considers family background characteristics such as the impact of the father's education and of his employment status. Krahn (1996), for instance, noted the impact of individual family's background on school-to-work transitions in 1996 for young Canadians. The family socio-economic background can affect the school-to-work transition directly and indirectly. The indirect effect comes through the raising of children's aspirations, and the direct effect comes through the family income and educational achievement.

***Education and Training Characteristics*:** There is little doubt that educational and training characteristics influencing a young person transition from school to work. According to the human capital theory, the investment of individuals in education and training influences their employment prospects.

An individual's educational level is an important issue in his or her transition from school to work. If the educational level required for a particular job is lower than the educational level of the person holding that job, this is known as over-education, and, if the converse as under-education (Smoorenburg and Velden, 1995). The latter case will lead to a greater need for further training, while the former case means that there is less need for training.

In addition to the effect of the educational level of a worker, the match between the employee's field of education and that required for the job is also relevant, to the extent that, if the field of the employee's education corresponds to the field which is required, the need for further training will be less, and vice versa

Types of education also vary in the scope of the occupational field for which they prepare young people. Some types of education prepare students for a narrow occupational domain, while others prepare students for a broad occupational field. If school-leavers from a "narrow" type of education find work in their own field, the need for supplementary training will be less than for people with a "broad" education working in their own field. However, if school-leavers from a "narrow" type of education find employment outside their field, the need for training will be even higher (Smoorenburg and Velden, 1995).

Differences in productivity between graduates from various types of education are reflected in wage differences. This implies that there is a relationship between the level of education and the quality of a person's employment, as reflected in their pay and the level of their job. As Smoorenburg and Velden (1995) point out, there is a positive relationship between the level of a worker's education on one hand, and both the chance of getting work and the quality of the work on the other hand. Those job-seekers will be in queues for the highest quality of work. Job-seekers with the highest education will be selected in sequence from these queues, so that those with the lowest level of education will be left with jobs of low quality, or with no job at all.

Institutional characteristics also may influence employability for a number of reasons. First, institutions may facilitate the accumulation of human capital at different rates. For example, attending a high-ranking institution may increase human capital accumulation. Similarly, if the instructional quality is better at private institutions, their leavers may have acquired greater human capital. As a result of this, graduates of different types of institution may have accumulated different levels of human capital. A second reason is that employers may identify institutional attributes as a signal of ability (Monks, 2000).

The human capital theory holds that the skills of individuals, which are acquired in training, represent human capital, which is valued by employers because it leads to higher productivity. This higher productivity will be manifest in higher wages (Becker, 1975). Economists distinguish between two important theories of training. First, training can be considered as an investment in human capital, sometimes building on the skills which have already been acquired during initial education. Barron, Black and Lowenstein (1989) showed that training has been considered mainly as a form of investment in human capital. Second, training can have a function in bridging any gaps which may exist between the skills which are demanded and those which employees possess. This aspect of training is most explicitly discussed in the matching theory. According to this theory, a mismatch between the required skills and the skills a worker actually possesses has important consequences for productivity, wages and the probability of leaving employment.

However, empirical studies reach different conclusions regarding the effect of training on the future employment of young people. For example, Lindley (1996) examined the school-to-work transition in the United Kingdom and showed that youth training did not raise the probability of finding a job. Conversely, Revenga, Riboud and Tan (1994) found positive impacts of training programmes on employment and wages in Mexico.

Labour Market Characteristics: Labour market characteristics such as part-time employment, job-search, rate of unemployment, workers' mobility and labour market information, are core issues in determining young people's transition from education to labour market. Initially, part-time employment (e.g., employment during school years) has been found to be significant in influencing future employment. The United States literature concluded that working during high school is associated with positive labour market outcomes (Ruhm, 1997).

Researchers have noted that young people's job-search during their school-to-work transition is often unsuccessful. This is because most young and inexperienced workers do not have much information about firms, wages, working conditions, employment policies, and other important aspects of potential jobs (Bratberg and Nilson, 1998). Previous research, on the other hand, has revealed that previous unemployment gives a high risk of unemployment later on. Other studies have shown that longer period of unemployment involve high risk of permanent unemployment. As an example of this, the finding of Lynch (1989) indicates that previous unemployment has a negative effect on later performance in the labour market.

Lindley, Upward and Wright (2002) shed light on employee mobility and its relationship with youth employment in England and Spain. They believe that the probability of exiting unemployment depends on the job-seeker's willingness to move regions. To an extent, the high rate of unemployment may increase mobility among young people. Thus, the transition period from school to steady employment will become longer, leading to greater insecurity and a less stable working career. Many young people move from one job to another, combined with periods of unemployment and participation in labour market programmes. Several analyses of young people's entry into the labour market also suggest that this depends on what segment of the labour market they enter (Ashton and Sung, 1991).

Furthermore, the high level of unemployment may also increase the mismatch between the type of education and the kind of work young people take up. Finally, labour market information may be an important contributor to youth employment status. Le and Miller (1999) have found that new entrants know little about their local labour markets.

To sum up, individuals with more human capital accumulation are more likely to have a smooth school-to work-transition. Currently, young people in the Kingdom of Saudi Arabia do not have a successful transition to employment. The next section examines this in more detail.

1.3 Statement of the Problem

High unemployment is a serious issue generally, but the severity of the labour market problem concerning young people is a major cause for concern. A study by Mincer (1976), concluded that, during the period 1970-72, youth unemployment accounted for 6.3 percent of total unemployment and 22.1 percent of transitional unemployment. He showed further that a one percent decline in total employment results in a 3.5 percent decline for all young people.

Employment statistics alone, however, do not tell the full story of the labour market problem faced by youth. The problem is further exacerbated by other social and economic factors, including declining job opportunities and increasing secondary dropout rates. When these young people are unemployed for long periods of time, they not only lose an opportunity to develop marketable skills and good work habits, but also often experience a substantial loss of family income. They are locked by these conditions into a period of indifference and despair, which is often carried into adult life.

In Saudi Arabia, not long ago, a secondary education guaranteed stable, life-time employment in government, or in a state-owned enterprise. However, with the country's gradual suspension of the public employment guarantee, the ranks of the educated unemployed have swelled. The problem of youth unemployment in Saudi Arabia has become a reality since 1990, just after the end of the Gulf War. The increasing number of unemployed young workers is probably the most serious economic challenge that lies ahead for the Kingdom of Saudi Arabia (Shaban, Assaad and Al-Qudsi, 1993).

There is little indication that the employment outlook will improve significantly for Saudi youth. In fact, it has been predicted that the situation is likely to worsen. According to some economists and analysts, if Saudi Arabia continues to experience the same rate of economic growth as in the 1990s, then the chances are that the percentage rate of unemployment will rise because the GDP will be growing at a lesser rate than that of the labour supply.

There is pressure on Saudi policy makers to privatise, liberalise and to modernise the legal system, besides many other economic reforms, in order to promote economic growth and to allow the economy to grow faster than the population growth. According to the chief economist at the National Commercial Bank, if the economic growth does not rise above 3.5 percent, chances are that population growth will exceed economic growth and the capacity of the economy will not be sufficient enough to absorb those people entering the labour force (Derhally, 2002).

Moreover, the trend in educational institutions toward more strict entrance requirements and achievement standards, along with the requirement for technical training in many entry level jobs, will tend to widen the gap.

While giving a lecture at King Abdul Aziz University, Saudi Arabia's Labour Minister, Dr. Ali Al-Namlah, stated that the unemployed Saudis numbered 3.2 million. He indicated that the unemployment rate will grow incrementally and that unemployed Saudis could fill jobs occupied by some 5 million expatriates in the Kingdom (Derhally, 2002). This huge number of unemployed Saudis might be a reflection of many factors. This study is designed to examine the extent to which demographic characteristics or social backgrounds affect the employment status of Saudi youth. Their education and training, along with their labour market experience, are also examined to assess whether they also influence the incidence of unemployment among young Saudi people.

Saudi intellectuals have called on the government to pay greater attention to the educational and labour market needs of youth. This concern has been justified by the fact that youth participation in changing labour markets is closely linked to the nation's economic strength.

Indeed, emerging technology has impacted the way employees work, as well as the skills they need to complete their job tasks (Miles, 1994). Employees must quickly adapt to changing technology and formulate new methods to improve quality, reduce cost, or lessen the time to respond effectively to customers' demands; thus, learning must become an integral part of the work itself (Banks, 1993). As students enter the working population, they must be able to transfer knowledge from one situation to another. The increased competition for jobs, which has lengthened the school-to-work transition time, requires that students be prepared to meet employers' demands if they hope to become employed (Lankard, 1994).

The social and economic costs of youth unemployment are indeed high. Many young people have low aspirations for themselves and the future because of limited job opportunities. Their behaviour is often an adaptation to the severe realities they face. These conditions often result in an unproductive underclass, hopelessness and anti-social behaviour. Mortimer and Finch (1996) show that the successes, failures and frustrations that young people experience in their education and job-search shape their attitudes and expectations about their work and earning potential. In addition to individual consequences, youth unemployment undoubtedly has a negative influence on the entire national economy and society.

1.4 Research Questions

The transition from school to work is a complex issue that refers to the way young people move between and within the domains of education and work. This transition is very smooth for some and less smooth for others. The purpose of this study is to provide information on the nature of the unemployment experienced by many young Saudi people during their transition from school to work. Key factors of the school-to-work transition will be investigated through a review of the related literature.

This study intends to survey and analyse data that describe the characteristics of those young people in their transition from school to work, using a survey instrument designed to investigate the labour market experience (whether in full-time education, employed or unemployed) of these young people. More specifically, this study is designed to examine the extent to which family and social background, education and training, and labour market experience affect the school-to-work transition for Saudi young people.

The primary research questions addressed in this study have been identified based on the problem defined above. These questions, along with their related hypotheses that guided this study, will be identified in chapter five. However, Figure 1.1 summarises the primary questions of the research.

Figure 1.1 Major Research Questions

Question one:

To what extent do demographic, family background, education/training, and labour market factors influence the labour market activity of Saudi youth during their transition from school to work?

Question two:

Which young people are most likely to experience unsuccessful transitions into the labour market taking such variables in consideration? In other words, which groups of young Saudis are most at risk of unemployment?

To seek answers to these questions, data were gathered based on the four factors already mentioned. The data were collected from the target groups by means of questionnaires. They were then analysed and interpreted to provide suggestions for an improved school-to-work transition for Saudi youth, and to develop ideas for future research.

1.5 Significance of the Study

As no previous attempt has been made to assess the school-to-work transition in the Kingdom of Saudi Arabia, this study will be the first to appear on this subject. The research has been conducted in order to develop an understanding of the school-to-work transition in Saudi Arabia by investigating the factors affecting success and failure in education outcomes and labour market integration. The analysis of these transitions is based on cross-sectional analyses at the individual level, using primary survey data for young people during their full-time education, unemployment period and initial years in the labour market.

From a theoretical perspective, this research intends to provide an implication of the various economic and socio-economic factors that are of greatest importance to young people in determining their early labour market successes. The current body of research literature, in the area of school-to-work transition, will provide further insight into the importance of investment in human capital with regards to both education and training, and their relationship to youth employment status.

The results of this study will extend and expand knowledge of the school-to-work transition of Saudi youth and its impact on their employment status. The findings and conclusions of this study will be useful to policy makers, educational planners and other stakeholders in making decisions about the future of the school-to-work transition in Saudi Arabia.

The findings of this research should help explain differences among Saudi youth in the nature and success of their transitions from education into the labour market, especially with regard to the four groups of explanatory variables: demographic, family background, education/training and labour market variables.

It is expected that one result of this study will be to establish a linkage between these variables and youth transition outcomes in Saudi Arabia. It is hoped that this study will contribute to the making of policies to reduce the youth unemployment rate in the country and hence push the economy forward.

Finally, the researcher also hopes to contribute to the employment literature by providing evidence of the degree to which social and economic factors have an impact on youth transition from education to employment. More specifically, this study will provide information on the school-to-work transition in developing countries.

1.6 Limitations of the Study

As indicated earlier, there has been no previous study of this problem, making this the first attempt to examine the school-to-work transition in Saudi Arabia. Consequently, no information on the problem under investigation existed. Hence, an exploratory approach was used.

This research suffers from one major limitation. The present study concentrated only on the Al-Hasa Province of Saudi Arabia and does not represent the entire country. In any case, the researcher did not consider it possible to investigate the whole country due to time and resource constraints, so a choice was made to choose only Al-Hasa Province to represent the country, taking into consideration the limited differences between the provinces of Saudi Arabia in terms of socio-economic or economic factors.

Another limitation of this study relates to the conceptual definition of the school-to-work transition, since, the transition process itself may vary due to a number of factors. These factors are: first, the extent and nature of regulation of the school-to-work transition process, for example, rules governing compulsory school attendance; second, the structuring of the transition processes such as the length of transition and the options available for school leavers. The concern in this research was limited only to the second process.

There are limits inherent in the outcomes of the transition process. The outcomes of school-to-work transitions may be examined at both macro and micro levels. At the macro level, the concern has been with the relationship between educational 'outputs' and aggregate economic performance, in particular with the role of education/training systems in promoting economic growth, improving income levels, and meeting skill needs. At the micro level, outcomes of the transition process have been viewed mainly in economic terms, including, for example, employment versus unemployment, and matching between education and training characteristics and occupational status. The study however, deals with the micro level, exploring and analysing only variables that have been included in the questionnaire: the demographic, family background, education/training, and labour market variables.

Finally, the transition activities that have been analysed in this study are restricted to three activities only, namely, further education, unemployment and employment, even though there are many other activities, such as training or housework.

1.7 Organisation of the Research

The thesis is divided into 9 chapters. By providing an introduction and a conclusion in individual chapters, an attempt has been made to make each chapter a complete unit in itself, and yet an integral part of the whole. The thesis is divided into two parts, followed by a conclusion. The first part of the thesis, containing chapters 1, 2, 3, and 4, presents the theoretical foundation of the work. Part two of this thesis, consisting of chapters 5, 6, 7 and 8, presents the empirical research which was based on the foregoing theoretical foundation. All the findings from the two parts of the study, the theoretical and empirical, are summarised in chapter 9.

Chapter One contains some contextual background, provides a statement of the problem, outlines the major research questions, objectives, the scope and limitations of the study and provides an outline of the thesis.

Chapter Two examines the theoretical background to the fundamental issues of the thesis. Previous similar and relevant work is examined and assessed. The chapter reviews the human capital theory and its influence on the labour market outcomes of young people. There is also a review of previous empirical studies on the subject to identify to what extent socio-economic and economic factors determine school-to-work transitions.

Chapter Three provides background information on education, training and youth unemployment in the developing countries. The chapter reviews education accessibility and dropout rates in these countries. It also sheds light on education and training challenges. Finally, this chapter provides an overview of youth unemployment in the developing countries.

Chapter Four provides information on Saudi Arabia's economy, education system and labour market. Training activities and challenges are discussed, and the chapter also examines the unemployment phenomenon in the Kingdom. In other words, unemployment figures, causes of unemployment and methods of combating unemployment are covered in order to demonstrate the nature of the problem.

Chapter Five describes and critically examines both the methodology adopted, and the design of the field survey carried out between November 2000 and February 2001. The chapter also discusses the research questions and hypotheses that have been derived from the literature search. Finally, the chapter describes the various methods of analysis that have been used in this study.

Chapter Six provides the univariate analysis of the sample. As is often the case, a descriptive analysis involves the reporting of the survey by examining data and describing how respondents vary in their responses to each of the questions posed in the questionnaire. Accordingly, the chapter provides some perceptions and behavioural patterns of Saudi young people in their transition from school to work.

Chapter Seven provides the bivariate analysis which explores the differences and the relationships between different pairs of variables. Tests of the research hypotheses are presented in this chapter. The analysis contained in this chapter has been divided into two parts. The analysis of general hypotheses (hypotheses that concern the entire research sample) is presented first, followed by the analysis of categorical hypotheses (hypotheses that concern research groups independently).

Chapter Eight explores the multivariate analysis of the study variables. The chapter describes the econometric model (multinomial logistic regression) that has been applied to examine the transition probability of Saudi youth in terms of labour market activities. For this reason the chapter demonstrates the influence of demographic variables, family background variables, education/training variables and labour market variables. The chapter also present a discussion of the result in the context of the international literature.

Chapter Nine is the conclusion, where the analyses are tied together and where the central findings and arguments are restated. Important recommendations and policy implications are highlighted. Suggestions are made for further research to answer questions raised by this study.

1.8 Conclusion

The aim of this chapter was to provide the reader with a detailed idea of the research topic and interest. Accordingly, the chapter reviewed the contextual background, the study problem, and the rationale for the study in addition to consideration the scope of the research problem.

In summary, it can be seen that young people in Saudi Arabia are facing difficult school-to-work transitions resulting in youth unemployment. This study attempts to provide some answers regarding the significance of the various factors influencing youth unemployment during the transition from school to work. More specifically, demographic factors, family background factors, educational/training factors and local labour market factors are the main concerns of this study.

CHAPTER TWO

THEORETICAL FRAMEWORK AND REVIEW OF THE LITERATURE

2.1 Introduction

The transition from youth to adulthood is a critical point of change in the life of any individual; the school-to-work transition (STW) is a major part of the broader transition to adulthood that involves applying decision-making skills, developing independence and autonomy, and assuming roles in society. In fact, school-leavers in any country face a critical transition point (Okano, 1993).

Over the past 20 years, the issue of the STW transition has gradually entered into the political and social debate of various countries. Interest in this question has arisen from concern about the difficulties being encountered by young people in the labour market, a phenomenon that emerged at the end of the 1970s in some countries, later in others. For example, youth unemployment made its appearance in Germany and Sweden later than elsewhere; it was linked with the economic situation and concentrated among less-advantaged groups (Mansuy, Couppie, Fetsi, Scatoli, Monney and Brande, 2001).

There are many schools of thought regarding how to hypothesise on the school-to-work transition process (Statistics Canada, 1998). Some focus on the supply side of the equation: what education and skills do young people require successfully to enter the labour market? This approach suggests a "human capital" perspective.

Yet another approach focuses on the factors that affect the demand for labour. How do changes in the work environment (such as technological changes) affect the skill sets required of young workers?

Since this research covers the supply side factors of the STW transition, the human capital theory will be the theory adopted for this research. More specifically, investment in human capital is the researcher's main concern. The next section therefore reviews the human capital theory. A review of the literature of the empirical work related to the STW transition is presented in detail in the third section. The concluding remarks to the chapter are provided in section four.

2.2 The Human Capital Theory Approach

It has been argued that economic growth and development are dependent on and, in some cases, a function of the accumulation of physical capital. Nevertheless, since the mid-1950s, it has become apparent that the accumulation of physical capital by itself could not explain why some countries perform better than others, or even why growth rates differ among industrial countries. Many other factors could affect the growth, development and productivity of a firm or a country.

Empirical work has shown that productivity improvement is not only explained by the inputs of capital and labour, but also by "residual factors", such as investment in people's health, education and training, and research and development (Ducharme, 1998).

It was in the 1960s that Theodor Schultz and Gary Becker developed Adam Smith's original notion that investment in education and skill formation was as significant a factor in economic growth as investment in physical plant and equipment, and the phrase "human capital" was born. Coleman (1988), one of the originators of the term "social capital", observed that:

> "Probably the most important and most original development in the economics of education in the past 30 years has been the idea that the concept of physical capital as embodied in tools; machines and other productive equipment can be extended to include human capital as well. Just as physical capital is created by changes in materials to form tools that facilitate production, human capital is created by changes in persons that bring about skills and capabilities that make them able to act in new ways" (p. 100)

Since Becker and Schultz, a huge amount of research and analysis has been based on the notion of human capital (Carnoy 1995). In particular, economists have focused on rates of return on different types of investment in human capital. The 'human capital' debate has evolved through several phases since the 1960s, coinciding with deteriorating economic performance throughout the developed word. It enjoyed a revival with the acceptance of the concept by the OECD in several influential reports.

Based on an OECD report (1998), human capital is defined as "the knowledge, skills, competencies and other attributes embodied in individuals or groups of individuals acquired during their life and used to produce goods, services or ideas in market circumstances". According to Schultz (1961), human capital represents those abilities and information that have economic value. Furthermore, human capital is a renewable resource and, unlike other forms of capital, there is no theoretical limit to its supply.

A country's future production can be developed, not only by increasing the conventional capital stock, but also through investments in education and training, the acquisition of knowledge, and improvements in the health and standards of living of the workers, as well as, through many other intangible factors that affect the productivity of labour.

Bluag (1976) states that the "hard core" of the theory of human capital is education, despite the other components mentioned. For this reason, very often, and improperly, the theory of human capital has been used as a synonym for investment in education (De Bartolo, 1999). Indeed, the United Nations (1953) defined investment in human capital as investment made to increase the productivity of the labour factor. Schultz (1961), however, justified investment in education on the basis of two assumptions: the contribution of educated people to the socio-economic development of the society as a whole, and the contribution to the well-being of individuals within the society.

Investment in education and training helps form the human capital (the skills and abilities) that is a vital element in assuring economic growth and individual advancement. It is an important element in combating unemployment and social exclusion.

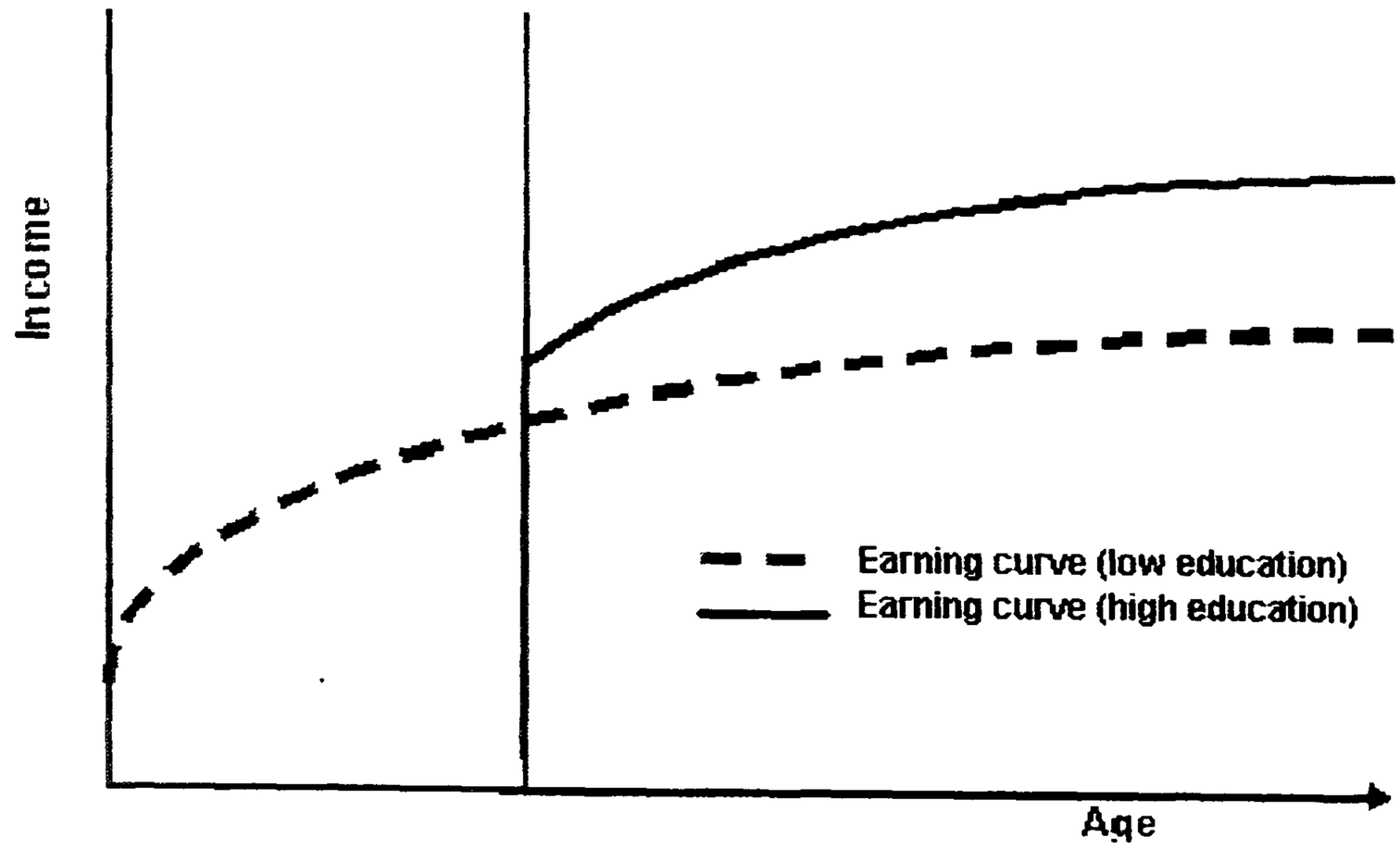
2.2.1 The Microeconomic Implication of the Theory

The primary policy implication of the human capital model is that society should invest in education up to the point where the returns are equal to those from alternative investment (for example, the construction of physical infrastructure, such as roads and hospitals). Since the great majority of studies shows that returns on education are well in excess of the returns on alternative investment, the human capital theory implies that further expansion of spending on education and in the average educational attainment of individual students is socially desirable (Quiggin, 1995). As Becker (1993) observes,

> "Human capital analysis starts with the assumption that individuals decide on their education, training, medical care and other additions to knowledge and health by weighing the benefits and costs. Benefits include cultural and other non-monetary gains along with improvement in earning and occupations, whereas costs usually depend mainly on the foregone value of the time spent on these investments. That said, human capital in the form of good work habits has a major positive effect on productivity in both market and non-market sectors" (p. 392)

Focusing for the moment on market outcomes, education is viewed as an investment process in which short-term opportunities to earn incomes are unavoidable in order to increase long-term earnings. This is illustrated in Figure 2.1 overleaf.

Figure 2.1 Life-time Earning Profiles of Individuals



The figure above has two curves which represent the earnings of individuals over their working life-time. In the low education curve, the individual leaves school and starts to earn an income at an early age. Earnings rise with experience, but at a slow rate. The relationship between earnings and experience eventually flattens out. There is also a high possibility that employment will be broken up by spells of unemployment. The high education curve represents the earnings of an individual with similar skills who stays in education longer. This means a longer period without earning plus any educational fees or expenses the individual incurs during schooling. However, the more educated worker will have a higher starting salary than his less educated counterpart, resulting in a wage gap between them. This gap will continue to widen over their working lifetime.

Since the less educated individual earns more when young, it cannot be said categorically that the more educated individual is better off. This depends on the time spent in education, the rate of increase in wages, and also on the rate at which future earning are discounted (Psacharopoulos, 1987).

The human capital model suggests that the level of investment in education should rise over time for two main reasons (Quiggin, J. 1995). First, technology advancement reduces the demand for less skilled labour and increases the demand for more skilled labour. This implies that the benefits of increasing educational attainment are greater than in the past and the opportunities foregone by a student continuing in education are smaller. The other reason relates to the non-market aspects of education, such as cultural knowledge and increased opportunities for self-awareness.

2.2.2 Human Capital Theory Assumptions

Human capital theory, the dominant approach to explaining education-employment relations, hypothesises that greater individual and aggregate investments in learning activities lead to greater individual and societal economic benefits. Accordingly, this section reviews some of the human capital assumptions regarding education and training and their relationship to employment status.

The core assumption is that peoples' learning capacities are comparable to other natural resources involved in the capitalist production process: when the resource is effectively exploited the results are profitable both for the enterprise and for society as a whole (Livingstone,1999). Human capital accumulation is an important determinant of individuals' employment prospects and earning capacity, and therefore plays a vital role in determining the level and distribution of income in society (OECD, 2001).

The theoretical justification for a relationship between human capital and employment is straightforward. Individuals with greater levels of human capital may be more skilled in searching for jobs, and consequently may have shorter spells of unemployment. However this negative effect on unemployment may be mitigated (Bloch and Smith, 1975). Educated and skilled workers in fact are more likely to participate in the labour market, and their active working life is generally longer than that of those with a lower educational attainment.

The predictions of the human capital theory suggest that individuals with significant human capital should experience more "favourable" transitions in the labour market than less well-equipped individuals (OECD, 2001). In other words, acquiring more education lowers the risk of unemployment.

Moreover, the human capital theory suggests that individuals who have accumulated large "quantities" of human capital should make transitions towards high-paying jobs, should experience shorter job-search spells, and should consequently show a stronger attachment to the labour market. It is possible also that individuals with high human capital can afford to change jobs more frequently than other individuals, if there is a high demand for their knowledge and skills. Potentially higher earnings would be likely to encourage such transitions. Thus, it is to the advantage of individuals to invest in human capital at the start of their careers in order to maximise the expected benefits of that investment, given that those benefits increase with the number of years spent in the labour market (Gilbert, 2002).

A link between workers' mobility and the level of specific human capital of those workers has also been established. The turnover in employees with specific skills should be less given the incentives associated with this type of investment for both the firm and the employee. Indeed, the more the human capital held is specific (the less it is transferable to another firm), the greater the employee's interest in remaining with the firm that rewards him for that capital.

Similarly, the firm has no interest in laying off individuals with specific skills that it has helped to develop if it plans to benefit from those skills (Gilbert, 2002). These hypotheses suggest that there should be an inverse relation between the number of transitions in the labour market and the level of specificity of an individual's skills.

The human capital theory assumes that the acquisition of knowledge and skills leads to increased productivity and earnings. Moreover, wages are essentially a reflection of productivity, and growth in wages over a worker's life-time is largely the result of productivity gains caused by training or experience (Mincer 1996). Human capital investment in all countries is associated with significant labour-market gains for the individuals such as higher earnings, higher participation in the labour market and improved employment probability.

An important motivation for individuals to invest in education and training is that the acquired knowledge and skills tend to raise their productivity, and hence their earnings potential. Education and training appear to provide not only an initial earnings advantage but also a wage premium that increases with time spent in the labour market (OECD, 2001). According to Becker (1993), the degree to which the acquisition of knowledge and skills is compensated by higher wages depends on the specificity of the abilities acquired.

In economics, the main explanation for decisions to invest in education and training has been the human capital theory. The theory sees each person as having a stock of human capital. Their acquired skills, knowledge and experience enable them to perform more or less effectively in the workplace. Education and training are seen as building an individual's stock of human capital, as is work experience.

Education has long been considered the great equaliser and is essential to success in every society. This would lead us to believe that education has the potential to reduce the inequalities in the economic status of individuals by providing all people with the possibility of accumulating the human capital they need.

2.2.3 The Returns on Human Capital Investment

Human capital theory is the most influential economic theory and human capital increasingly seen as a key determinant of economic performance. In economics, human capital theory suggests that education or training raises the productivity of workers by imparting useful knowledge and skills, hence raising workers' future income by increasing their life-time earnings (Becker, 1964).

At the general level, it is argued that education can support economic growth because an educated population is more productive than an uneducated one, irrespective of the type of society. Accordingly, primary education has been regarded as the minimum requirement to sustain economic growth. Secondary and higher education have also been formally incorporated into government development plans. Schultz (1961) proposed that the key to economic growth lay in the "quality of the population" that comprised the economic unit. He argued that human beings themselves represent the greatest potential for economic wealth. An increase in the acquired abilities of people all over the world, and advances in useful knowledge are the keys to future economic productivity and its contribution to human well-being. Investment in population quality and in knowledge in large part determines the future prospects of mankind.

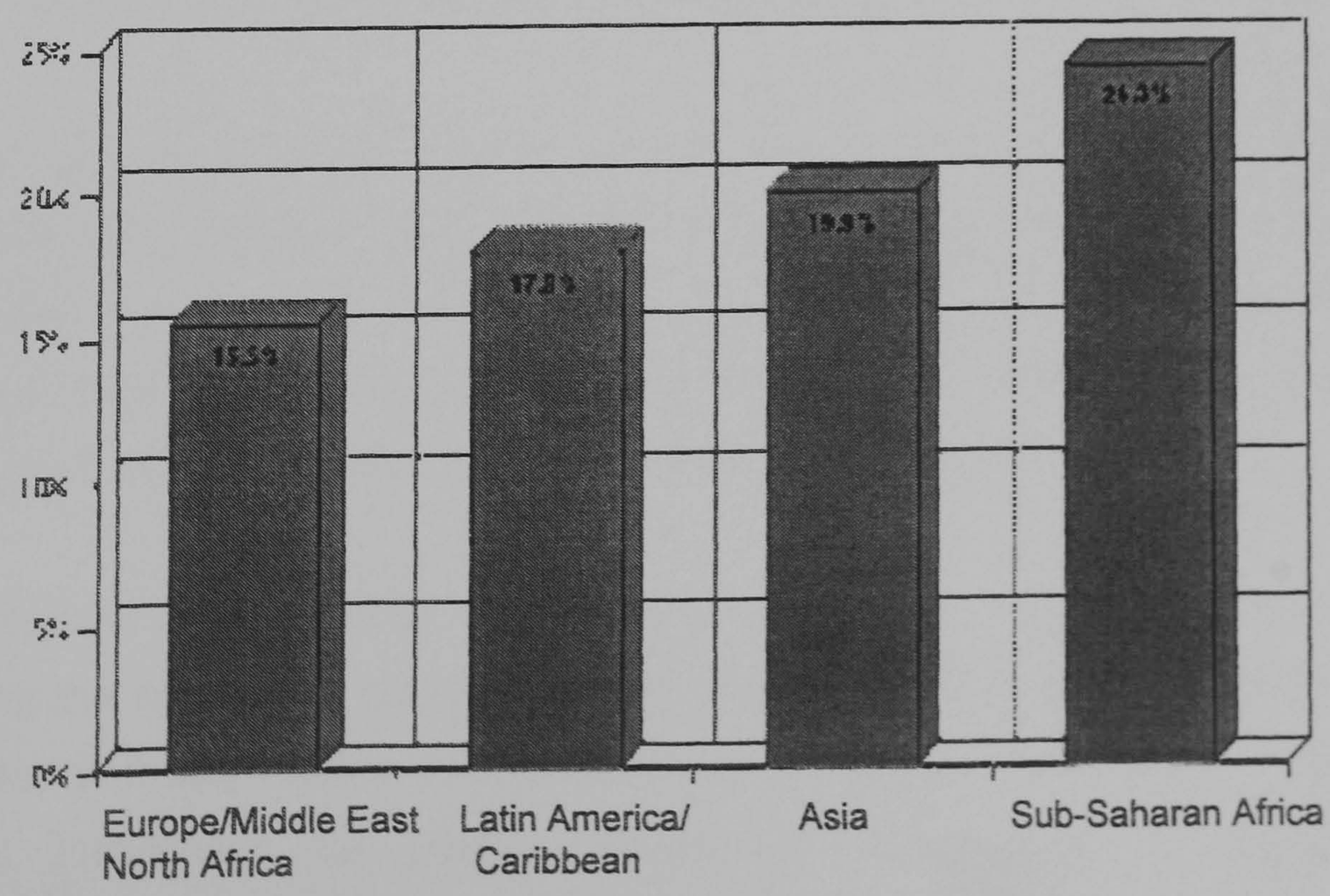
Economists have become interested in why some countries' economies grow faster than others'. They agree that differences in economic growth among countries cannot be explained simply by differences in inputs of labour and capital. At the same time there are differences of opinion with regard to what other factors explain differences in economic growth. Some mention varying degrees of resistance to adopting new technologies. Such resistance can come from capitalists or workers who have a stake in maintaining old technologies (Holmes and Schmitz, 1994). On the other hand, others cite differences in human capital, that is, in the education, training, and experience of workers that affect their skills and competency (Lucas 1988).

However, Lucas (1993) proposes a model that illustrates both of the above explanations. He begins by examining differences in human capital among countries, and finds that they are not due merely to disparities in formal education. Countries which are similar with regard to labour, capital inputs and formal education may still have significantly different growth rates. He argues that the essential differences in human capital among countries are due to disparities in learning-by-doing on the job. According to Smith (1986), economic development will increase or decrease depending on the success of the human capital strategy. Such strategy requires that educational institutions provide students with skills as well as with training in how to learn.

Investments in education and human capital are proven to yield returns equal to or higher than many other government infrastructure investments. Economists from various organisations, such as the World Bank, have developed sophisticated models, which confirm a clear and direct correlation between investment in education and levels of economic growth (Caribbean Latin American Action, 1998). The earlier work in this area, which focused on this correlation in the United States economy over a period of several decades, suggested a very strong relationship between education and training and growth in productivity. Denison (1962) found that improvement in the educational level of the US labour force accounted at that time for about a 0.5 percent per year contribution to the growth rate of aggregate output. Griliches (1974) conducted a study to test the productivity of schooling by including it as a separate variable in an estimated production function. The results of this study supported the productive interpretation: the schooling index coefficients were statistically significant.

According to the Inter-American Development Bank, one additional year of average education in a nation is estimated to increase real economic output from 5 percent to as much as 20 percent, although a minimum average education of 3 to 4 years may be necessary as a function before this improvement is noted (Birdsall,and Sabot 1996). These estimates are supported by World Bank statistics for average social returns on investment in education for different developing regions, with Europe and the Middle East estimated at 15.5 percent, Latin America and the Caribbean at 17.9 percent, Asia at 19.9 percent and Sub-Sahara Africa at 24.3 percent, as shown in Figure 2.2 below (Psachoroulos, 1994).

Figure 2.2 Average Returns to Investment in Education for Developing Countries by Region (as percentage increase over original investment)



Source: George Psacharopoulos, 1994.

Investment in education has different rates of return for society and for individuals. For a sample of 32 countries, the average social rate of return for primary education is 19.4 percent, for secondary education, 13.5 percent, and for higher education 11.3 percent. Rates of return for individuals are somewhat higher. For those receiving primary education, the return on personal investment is 23.7 percent, for those attending secondary education it is 16.3 percent, and for higher education, 17.5 percent. In developing nations, individual rates of return exceed these international averages, reflecting greater education subsidies to schools and universities in these nations (Psacharopoulos, 1973).

The rates of return on human capital ranging, from 11 percent to 40 percent, compare favourably with expected returns on capital infrastructure projects. Depending on the economic risk, electrical generation projects are often approved with rates of return ranging from 15 percent to 22 percent, electrical transmission projects with rates of 10 percent to 12 percent, and roads and other physical capital investments with rates of 12 percent to 30 percent. This comparison highlights the opportunity for greater return on investments in human capital (Caribbean Latin American Action, 1998).

The returns of human capital investment are many-sided. In addition to the previous quantitative description of returns on investment in education, there are different qualitative social benefits, which cannot be mathematically measured (Caribbean Latin American Action, 1998). These include: (1) Social Benefits: Education adds value to basic human rights, promotes equal opportunity for all citizens, and helps reduce socio-economic and racial divisions. (2) Political Benefits: Democratic values and stability are strengthened by an educated, literate, and empowered population. (3) Business Benefits: An educated, skilled workforce attracts foreign and local investment.

Education and training are two of several key components that enable optimal development of a nation's human capital in support of long-term, sustainable economic development. The creation of a full human capital infrastructure also requires support from government, health, social services, community, business, and family institutions through which all components of human capital are developed.

The findings of research into the economics of human capital provide a basis for quantifying the anticipated return on additional investment in education because of the magnitude of these returns relative to physical capital investment. This provides economic justification for greater government expenditure on human capital development.

2.3 Review of Literature

This literature review presents evidence from multiple sources, including the academic literature and various statistical surveys. The relevant literature from international sources, for example, the OECD, will also be incorporated.

Countries have different structures for the transition from school to work (Blanchflower and Freeman, 1998). In some countries, for example, the US, young people begin working while at school. Before they settle into a relatively permanent position, they have held at least seven or eight jobs between the ages of 16 and 25. Elsewhere, youths take fewer jobs before reaching "permanent employment." In Germany, apprenticeships move youths from school to the industry in which they will find permanent work. In the developing countries, however, the structure of the STW transition is very different, since many in the labour force work for the government. Until recently, in Saudi Arabia for instance, the STW transition usually depended on the availability of government jobs, with the graduates waiting at home until assigned to a particular job.

Accordingly, the literature on the STW transition will be divided into four groups: American literature, European literature, International Comparative literature and Saudi Arabian literature. The literature reviewed in this chapter also, gives an indication of the variety of outcomes of the transition. Most of the studies referred to did not consider all of the transition outcomes at the same time, however, a few studies tackle the broad question of the STW transition. It is worth mentioning that the STW literature dates from the 1970s. However, this survey will only cover the 1990s onwards, with the exception of Saudi literature, for two reasons. First, the body of related literature is very large and not always relevant. More importantly, the STW transition differs across periods (Paul, 2001). This is because educational policies and labour market regulations are changing frequently.

2.3.1 American Literatures

The American literature mainly deals with an evaluation of the four school-to-work programmes (reviewed in Appendix A) in the United States. Cost-benefit analysis has been used to measure and evaluate all benefits and costs to the economy associated with the programme's operation. Cost-benefit analysis has become the major method employed by the evaluation studies in US literature (Raul, 1996). The transition from school to career in the US is often messy; it takes a long time; and for some people, it is unsuccessful. Also, the Canadian literature has presented evidence that the STW system is not functioning well (Human Resources Development Canada, 1989).

Veum and Weiss (1993) analyse the work histories of young workers, focusing on differences in work experience according to educational level. The results permit comparison by educational level of work patterns by years of age for persons aged 18 to 27 over the 1978-90 period. The data were obtained from the National Longitudinal Survey of Youth (NLSY).

They state that work experience between the ages of 18 and 27 varies according to sex, race and educational level. For instance, they show that by age 27, individuals with 1 to 3 years of college education have worked more weeks than have high school graduates. In addition, college graduates average a greater number of total weeks worked than do high school dropouts. This finding reflects the fact that high school dropouts, generally speaking, do not have work experience.

Also, the data indicate that education explains much of the sex and race disparities in labour market outcome. Gender and race differentials are particularly obvious among high school dropouts. However, most of these differentials become smaller or nonexistent, being particularly small among college graduates, as educational attainment increased. For example, college-educated women hold more jobs and work more weeks from age 18 to 27 compared to their men counterparts, whereas female high school dropouts hold fewer jobs and work only about half as many weeks as do their male counterparts. Moreover, by age 27 there is not much difference among college educated whites, blacks, and Hispanics in the total number of weeks worked. Generally, the data show that greater educational attainment allows young workers to be employed for a longer period, and thus to acquire work experience.

Veum and Weiss cite many factors that contributed to this employment pattern. One factor is that employers have the perception that recent high school graduates lack the basic skills necessary to become valued employees. They also argue that the employment pattern among high school graduates between the ages of 18 and 27 is the result of decisions made by the young people themselves. Perhaps because the vast majority of jobs they do are low skill, low wage jobs which do not possess a career ladder, young people seem to feel no major commitment to employers and may leave to search for more rewarding labour.

Klerman and Karoly (1995) studied the degree of unemployment and instability in youth labour markets. They analysed the NLSY data in greater detail. Their analysis shows that young people with more schooling experience more stable employment after they leave school.

They divide respondents into five school-leaving groups (SLGs), according to the level of schooling they had completed, after they had been out of school for more than three to five months:(1) High school dropouts (2) High school graduates (3) Individuals with some post-high school education but no bachelor's degree (4) College graduates with bachelor's degrees (5) Individuals with some post-college education. They first consider a static picture of the labour market, analysing the percentage of members from each SLG in 1990 who were engaged in one of four activities: (1) working full-time (2) attending school and not working full-time, (3) working part-time and not attending school, and (4) neither working nor attending school.

Their static analyses show that the STW transition is smoother for men with more schooling. This can be seen by holding constant the number of years that have passed since leaving school. For instance, by age 25, or approximately five years after leaving school, 11 percent of those with some college education are either without work or working only part-time. Less than 3 percent of college graduates are in this situation at age 28, about five years after graduation. In contrast, 24 percent and 14 percent are the corresponding figures for high school dropouts and graduates at age 22 and 23, respectively. Thus, high school graduates and those with some college education are similar: both are doing substantially better than high school dropouts, but substantially less well than four-year college graduates.

The study also subdivided the SLGs into three ethnic groups: black non-Hispanics, Hispanics, and white non-Hispanics. This last category includes Asians and other ethnic groups. Overall, comparisons between SLGs within ethnic groups show similar patterns of activity. Within given SLGs, blacks experience the highest rates of unemployment or partial employment and whites experience the least, with Hispanics generally in between. A relevant result is that black and Hispanic high school graduates experience employment rates which are close to those of high school dropouts. A similar analysis for women shows that the fraction of women neither working nor in school is higher than for men at any given age. Further, employment rates do not increase as quickly as for men, and there is less evidence of convergence among the three highest SLGs than among men.

Klerman and Karoly's dynamic analysis shows how young adults move between various states of work and school, how many jobs they hold in the process, and how long these jobs last. They consider two indicators. The first is the number of jobs that members of each SLG have held by a given age, and the second is the age at which members of each SLG attain various job tenure statuses.

The analysis confirms that young men tend to hold a large number of jobs in years immediately after leaving school. For instance, a high school dropout at the median of the number of jobs-held distribution will have held six jobs by age 24 and nine jobs by age 29.

A comparison of different SLGs five years after the typical age of leaving school (high school dropouts at age 22, high school graduates at age 23, individuals with some college education at age 25, and college graduates at age 28), shows the mean numbers of jobs held are 5.2, 4.7, 5.0, and 3.6, respectively. Four-year college graduates experience less job-changing than the other three groups.

An analysis of racial or ethnic groups separately shows a similar pattern within each group. The analyses show that four-year college graduates do substantially better than high school graduates or individuals with some college education, who in turn do substantially better than high school dropouts. For example, making a comparison about five years after each SLG has left school, 39.1 percent of high school dropouts at age 22 have held at least one job that lasted two years or more. Among high school graduates at age 23, the percentage is a considerably higher 53.4 percent. Among the group with some college education at age 25, the figure is 48.0 percent. And for the four-year college graduates at age 28 it is much higher at 81.3 percent.

The study findings have two direct implications for designing STW systems and programmes: first, they should aim to promote completion of high school and hence completion of a four-year college education: second, they should encourage institutional arrangements that help people find more permanent employment when they leave school. The fact that individuals with more schooling tend to find more stable employment proves that this is something sought-after.

Gardecki and Neumark's (1995) study analyses the relationship between getting or keeping a job in the first two years out of school, and getting or keeping a job in the three or four years after that. They also use the NLSY data in their study.

Their finding reveals a strong correlation between employment experience in the first year or two after leaving school and in the subsequent three or four years. Although this correlation does not prove that early instability causes later instability, it does indicate that early instability fails to produce more stable job matches, at least within three or four years. They use a probability analysis to explain the relation between early employment and subsequent experience.

They show that 55 percent of students who worked in their first year after high school had more than nine months, work experience that year, while the remaining 45 percent had less. The second year indicates that 84 percent of the first group, but only 52 percent of the second, was able to secure employment for more than nine months in the subsequent year. This suggests that initial bad experiences can have significant negative effects on subsequent experience. This result proves the strong correlation between experience in the first two years and in subsequent years. In other words, finding a job is one thing, keeping it is another.

Gardecki and Neumark (1998) shed light on the consequences of initial periods of "churning", "floundering about," or "mobility" in the labour market, to help assess whether faster transitions to stable employment through, for example, STW programmes would be likely to lead to better market outcomes. They use the NLSY data for the years 1979-92, which provide comprehensive labour market information on a large cohort of young people at the beginning of their STW transition, and later in their careers. They find that adult labour market outcomes (defined as those of the late 20s or early to mid-30s) are for the most part unrelated to the stability of early labour market experiences, especially for men. For women, early job market stability has no beneficial effects, although, training in the early years has lasting benefits. Some of their results provide weak evidence that early job market stability for women has some beneficial effect. This gender difference may arise because women need to signal their attachment to the labour market when they are younger in order to acquire jobs with high wages and generous benefits as adults. Their evidence does not provide a convincing case for efforts explicitly to target the STW transition, insofar as this implies changing the structure of youth labour markets so that young persons become more firmly attached to employers, industries, or occupations, at younger ages. However, they find that some components of STW programmes may still be useful. They also note that improving a young persons' knowledge of labour market opportunities would be helpful. Finally, their evidence supports early training for young workers.

Parent (1999) analyses the STW transition process of young Canadians, particularly individuals with low levels of education, and puts it in the context of the evolution in the value of a high school diploma over the 1981-1996 period. In order to do so he makes use of the Statistics on Canada's School Leavers Survey and its Follow-Up (SLSF). Evidence from the Censuses shows that (1) the premium to holding just a high school diploma in Canada is substantially lower than in the United States; and (2) earnings of high school graduates have stagnated and even decreased relative to those of dropouts, without major changes in the relative employment rates.

The evidence concerning the wage premium of a university degree is that it has been increasing since the mid-1980s. Relative employment rates of university graduates have also increased. Regarding the SLSF, it showed that high school graduates' labour market outcomes are no better than those of dropouts, except for employment rates.

Finally, they established that the advantage of holding a high school diploma over not holding one appears to be relatively small, and even to have declined somewhat. In fact, the individuals' decisions to leave school either as dropouts or graduates were very sensitive to the conditions of the local labour market. Those conditions affected their graduation decision through their impact on the probability of having a job or on the number of hours worked in the twelve months proceeding the date they left school, either as graduates or as dropouts. Overall, the results suggest that it is not surprising that Canada has both a fairly high rate of dropping out from high school, and high enrolment rates in universities.

Monks (2000) examined the returns on college quality, with regard to the public versus the private institution. By using the NLSY to match individuals and institutions he was able to estimate the impact of college quality on the log of hourly wages, within institutional type, and conditional upon individual characteristics. He found strong evidence of higher earnings among the graduates of more selective institutions. There is also evidence of a premium for attending a larger graduate degree-granting university, rather than a liberal arts college, and weak evidence that graduates of private institutions earn more than graduates of public institutions. However, this pattern of returns on institutional characteristics holds for most groups; there is heterogeneity in the magnitude of the returns to institutional attributes based on race and gender. For example, it appears that males receive a higher return for attending a large graduate degree granting university or a private institution than do females.

Additionally graduates from publicly controlled institutions earned 4.5 percent less than graduates from privately controlled institutions. On the other hand, graduates from degree-granting research institutions earned approximately 14 percent more than graduates from liberal arts colleges. Finally, he found a strong relationship between wages and college quality. Graduates from more selective institutions earned more than graduates from less selective institutions. In particular, graduates from less competitive institutions earned approximately 5 percent less than graduates from competitive institutions; graduates from very competitive institutions earned 8 percent more; graduates from highly or most competitive colleges and universities earned 15 percent more than average college graduates.

2.3.2 European Literature

The analysis of different national experiences promises two benefits. First, it extends the evidence on key issues. Secondly, differences between countries may also prove informative. Although, European literature on the STW transition has only recently emerged (Ryan, 2001), this section reviews key studies in these countries. The typical approach in these studies is to estimate logistic models of the determinants of continued education. The literature review also sheds light on major European STW transition programmes, placed in Appendix (A).

Hammer (1996) studied the consequences of unemployment in the transition period from a life course perspective. He used Norwegian longitudinal data. With a representative sample of nearly 2,000 young people, he analysed his data using both bivariate and multivariate techniques. The analysis shows that previous unemployment leads to a high risk of later unemployment. The risk of successive periods of unemployment may be related to structural explanations, such as employment contracts, implying that young people hold only temporary work in the secondary labour market. Another explanation of successive periods of unemployment may be the specific characteristics of this group, such as mental health problems. He also found that unemployment was related to the mismatch between educational qualifications and actual work in current jobs. It is interesting that the mismatch was not due to over-qualification, which analyses have shown to be a serious problem, especially in the American labour market. Hammer concludes that mismatch influences the working adjustment and future working career of young people. In Norwegian society, young women leave the parental home earlier than young men. Unemployment seems to strengthen this pattern, and young unemployed women who leave home join a husband who supports them.

McCoy and Whelan (1996) report the results of the 1995 school-leaver's survey in Ireland, using a sample of 3,035 school-leavers. They found that the percentage of school-leavers who were unemployed or seeking a job decreased from 20 percent in 1994 to 14 percent in 1995. On the other hand, the percentage of those who proceeded to third level education increased to 42 percent in 1995 from only 20 percent in 1980. The study also showed that girls are more likely than boys to leave second level education with a Certificate. In addition, the study confirms that both educational level and the grades have a strong influence on the probability of a school-leaver's getting a job and on the wage level attained. For example, the unemployment rate for those with the Leaving Certificate was over 40 percentage points lower than for those without qualifications.

Furthermore there was a significantly higher level of unemployment among school-leavers whose father was unemployed or out of the labour force than among other school-leavers. Male school-leavers were more likely to have manual occupations while females were more likely to have managerial, clerical and service occupations. In general, the level of educational attainment determines the school leaver-earnings however, the average hourly earnings were found to be about £IRL 3.12.

Franz, Inkmann, Polhlmeier and Zimmermann (1997) examined the failures of the STW transition of young people in the Federal Republic of Germany. They focused on young individuals, 20-24 years old, who had completed vocational training. They found that young people run a higher risk of becoming unemployed in comparison with adult members of the labour force, but the duration of their unemployment is relatively short.

It was also found that failures were most obvious in the following three stages in the transition process from school to work: First, in 1990, about 12 percent of young people did not experience a smooth transition from school to apprenticeship training or further education, and this is in fact had long-lasting effect on their later occupation careers. Second, in the course of apprenticeship training several problems can arise, such as dropping out or failing examinations. Third, the transition from apprenticeship training, even if successfully completed, is not always smooth.

The results indicate that youths who are not lucky enough to find a job shortly after their graduation from vocational training experience long periods of unemployment. The researcher found no relationship between gender and the probability of finding a job. They found a significant impact of family background variables on the labour market behaviour of youth. Finally, they estimated the earning function and showed that a failure in an apprenticeship programme is an important predictor of an individual's income opportunities in later stages of his or her working life.

Veldenand and Smoorenburg (1996) examined the factors determining training for Dutch school-leavers. They looked only at industrial training and used a logistic regression equation to estimate the probability of training participation. The finding was as they expected. A higher educational level results in a higher probability of participation in industrial training. Also, the probability of participation in industrial training being higher in large organisations is confirmed. Contrary to expectations, they found that women are not significantly less likely to participate in industrial training than men. School-leavers with permanent employment contracts did not have a significantly higher probability of participation in industrial training.

Further, over-education results in a lower probability of participation in training. and under-education leads to a higher participation rate. Contrary to expectations, school-leavers working outside the field in which they studied are no more likely to participate in industrial training than school-leavers working within the field in which they were initially educated. As they expected, school-leavers from a "narrow" type of education who worked in their own field are less likely to participate in industrial training than school leavers from "broad" type of education who are working in their own fields. However, when school-leavers from a narrow type of education are employed in a function for which education in some other fields is required, the reverse is true. Surprisingly, school-leavers who work in the field in which they were educated are no more likely to train than those who find work in a field other than that in which they were educated. This indicates that training is used not only to bridge skills gaps but also to provide for the further extension of skills which have already been acquired.

Bratberg and Qivind (1998) provide evidence that increased education increases the chances of staying employed, and correspondingly, decreases the probability of being unemployed. By using a sample of Norwegian individuals finishing education in 1989-1991, they analyse the STW transition and the duration of their first job for individuals aged 16-67 in 1990. The empirical evidence of this study suggests that education is important for getting a job quickly, and that it also has a positive wage effect. In addition, individuals with a higher level of education have a longer first job duration. The study shows that apprentices seem to have a shorter search time relative to individuals with other types of education. However, it may be the case that an increased number of apprentices will increase the job competition among individuals, thus reducing the overall effect of this factor. The local unemployment rate affects the duration of the search period, as well as job duration, significantly. These findings may indicate that business systems are important and that early unemployment affects the success of youth in the labour market negatively. The study also confirmed gender differences. The evidence suggests that females have a lower reservation wage when entering the labour market (shorter search time and lower wages). They also stay in their first job longer than males do.

Dustmann, Rajeh and Soest (1998) examine the effects of school quality on performance in national exams and career decision at age 16. The data are drawn from the National Child and Development Survey (NCDS) that refers to a group born in 1958 in England and Wales. All the individuals in their sample are aged 16, and have to decide whether or not to join the labour market, enrol in some training scheme, or continue education.

They find that family background and working environment, as well as parental preferences, play a significant role in the academic performance of the individuals. Also, they find that the pupil-teacher ratio has an effect on the career decision at age 16 as to whether to remain in full-time education beyond the minimum age, enrol in training activities, or join the labour market full time. This finding appears to be very robust, and continues when school type variables, exam results, and ability are controlled. By controlling for parental background variables and previous achievement, they find that the pupil-teacher ratio is an important determinant in career choice at age 16: pupils at schools with lower pupil-teacher ratios are more likely to stay in full time education. When they introduce school type variables, the effect decreases in size, but remains significant. The main conclusion is that school quality has a positive effect on the decision to continue in full-time education.

Riphahn (1999) investigates the labour market transition of secondary school-leavers in Germany. The data were taken from the German Social Economic Panel (GSIOEP, 1984-1997) and her sample is restricted to individuals aged 15-25. She uses a multinomial logit model to investigate the relevance of various determinants of school-leavers' transition decisions. The findings of this study confirm many of the conclusions from the British STW literature. For example, she found that individuals' variables have the most significant effects on the transition decision. Also, she demonstrates that the probability of unemployment is lowest for those youths with the highest level of completed degree. The latter effect is obtained based both on the country of origin of the individual as well as on the parents, and it is consistent in both male and female sub-samples. The contribution of the study comes from two findings. First, that the level of education attained by parents has a statistically significant effect on the youth labour market. Secondly, that regional and local labour market effects in high unemployment states are correlated with a higher risk of unemployment for school-leavers.

Rice (1999) examines the labour market transition activity of individuals who have completed compulsory education in England and Wales, where, they have two choices: to remain in full-time education or to seek employment. She makes use of the England and Wales Youth Cohort Studies, supplemented with labour market data from other sources, to estimate the logit model of choice and to assess the role played by social and market factors. She develops a representative sample using a vast dataset with over 50,000 observations on school-leavers. She finds that educational attainments and family background are significant in determining the transition outcomes. In addition, she shows that labour market conditions play an influential role in determining outcomes, particularly for those males who have low academic qualifications.

According to her result, male and female participation in further education is positively related to the unemployment rate in the local labour market. She believes that the effect is even greater in times of economic recession when unemployment rates are rising. Indeed, her finding supports the hypothesis that higher rates of unemployment reduce the opportunity cost of remaining in full-time education, and hence increase the educational participation of individuals. On the other hand, when the economy recovers and unemployment rates fall, it is the young who are most likely to reduce their participation in further education, increasing once again the number of young males entering the labour market with few or no qualifications.

Payne (2000) used cohort 8 of the England and Wales Youth Cohort Study (YCS), who reached the minimum school-leaving age in summer 1995, and estimates the amount of time spent not in education, employment, or training (NEET) during the first two years after compulsory schooling. He goes on to explore the factors that increased the probability of being not in education, employment, or training, the pattern of movement in and out of NEET status, and outcomes by age 18/19, and compares the 1995 cohort with young people who reached the end of compulsory education a decade earlier.

He found that in the first two years after the end of compulsory education, 6 percent of young people were not in education, employment, or training for more than six months in total, and 4 percent had more than one NEET spell. Females spent more time not in education, employment, or training in total than males, and were more likely than males to be economically inactive rather than unemployed, but males were more likely than females to have more than one NEET spell.

He also found that the risk of spending time not in education, employment, or training varied according to region, ethnic group and family background. Most young people who spent time not in education, employment, or training moved into and out of NEET status, rather than remaining continuously not in education, employment, or training. Only 1 percent of the cohort was not in education, employment, or training throughout the first two post-compulsory years.

Young people who reached school-leaving age in 1995 have been found less likely to experience unemployment than those who reached school-leaving age a decade earlier, but were more likely to be economically inactive. In addition, youths who spent time not in education, employment, or training during the first two post-compulsory years were more likely to leave that state if they were male rather than female and if they had been unemployed rather than economically inactive.

2.3.3 International Comparative Literature

In the previous section the researcher reviewed the American and European literature. This section will go on to review the international literature that compares two or more countries. International comparisons are often weakened by small sample sizes and unmeasured country-specific effects, but they can inform us about a wider range of issues than can evidence from a single country (Blanchflower and Freeman, 2000).

Surridge and Smyth (1995) performed a comparative analysis of the STW transition patterns and process in Ireland and Scotland for the 1979 to 1991 period using data from surveys of school-leavers in Ireland and Scotland. Their sample consisted of approximately 2,000 school-leavers. They used two models to preserve the substantive meaning of their data. The first models the likelihood of being in full-time education as opposed to the labour market for senior leavers only. The second models labour market outcomes for all school leavers, using a multinomial logit model. The result shows that the average school-leaving age was lower in Scotland than in Ireland in the period 1979/80, and the period 1978-1991. In addition, they found that in Ireland, females tend to be older on leaving school, a pattern that does not emerge among the Scottish leavers until the late 1980s. By 1985, gender differences are apparent among both the Scottish and Irish leavers, with males overrepresented among early leavers and female overrepresented among those qualified for higher education. The analysis shows a significant relationship between family background (father's employment status, and father's occupation) and young people's school-leaving decision. Those with unemployed fathers or a manual worker father are more likely to leave school than their counterparts. More importantly, the study shows that family background affects post-school destinations among young people. Those with unemployed fathers and fathers with a manual background are more likely to be unemployed and less likely to be in higher education than those with employed fathers and fathers with non-manual backgrounds. Finally, Surridge and Smyth conclude their study by showing that participation in training schemes is higher among those from manual backgrounds than among those from non-manual backgrounds.

The OECD (1998) study reveals that the transition from school to work is a confused stage for young people. The study also shows clearly that "starting off" in the labour market as unemployed is the case, on average, for 1 new school-leaver in 4 in the 16 OECD countries for which data are available. The analysis also shows that such a start reduced future employment prospects for men and women and for all educational groups. However, the probability of starting off as unemployed differs across countries.

One clear result is that the apprenticeship systems work best in giving non-university bound young people a good start in the labour market. In spite of the challenges they currently face, dual systems provide an attractive model. In many countries, the number of temporary and part-time jobs is rising. Currently, about one half of all jobs found by school-leavers are temporary, while a third are part-time. This study shows that there were shifts in some countries towards freeing up the possibility of using temporary contracts. For example, in Spain over 80 percent of new school-leavers in jobs are on temporary contracts.

The final result indicates that, in all countries, less educated young people start with poorer job prospects, although differences tend to diminish over time, in particular among young men. However, a cross-country differences are obvious in this regard, particularly at lower levels of education, where young Germans often have higher employment rates compared with their counterparts in Australia, Ireland, France or the United States. The OECD study recommended that reducing early exits from education must remain of prime importance in tackling such problems.

MacIntosh (1998) investigates the changes in post-secondary education participation in four countries: Germany, the Netherlands, Sweden and England, of 16 year-olds, 17 year-olds and 18 year-olds, who decide to participate in post-compulsory education.

The results suggest that the most important determinant of higher education choices is prior academic performance. Success in their previous education gives young people especially females, greater confidence in their own ability to continue their studies to a higher level. For males, the education success effect remains more or less important but is often superceded by other effects. In the Netherlands, for example, the key determinant of male education participation has been found to be the level of per capita consumer expenditure, while British males seem to be most influenced by the ratio of professional to manual earnings.

The most robust finding of the study is the effect of youth unemployment levels on participation rates. It would seem that rising youth unemployment has had a small part to play in the increasing participation in post-compulsory education in Europe.

The finding of this study is important for policy decision. If countries want to produce a well-qualified population, it would therefore seem important to consider the earlier years spent by individuals in the education system, as well as their final years.

Blanchflower and Freeman (1999) examined the data for twelve European countries, in addition to the United States, Canada and Australia. The findings on the relationship between schooling and unemployment were mixed. In some cases, schooling was found to be strongly positively related to unemployment, for example, in Germany and Holland; in other cases, it was negatively related to unemployment, as in Italy, and United Kingdom; while in yet others, there was little relationship between schooling and unemployment, for instance, in the US, Canada, and Greece. By pooling all of the countries together, schooling was found to be positively related to unemployment, implying that an increase in unemployment leads to increased enrolment.

By contrast, there is no doubt of the effect of economic conditions on the proportion of a cohort that is neither in school nor working. The proportion neither in school nor working, sometimes called "idle", falls with unemployment in nearly all countries. In the pooled OECD sample, an increase in aggregate unemployment raised the "idle" proportion by 0.73 percentage points. The proportion of young men that were idle has increased over the period 1984-1997, especially in the UK and the US. However, for women, the idle proportion decreased in the OECD as a whole, but increased, as it did for men, in Germany, the US and the UK. An examination of the education and labour market statuses of 18 and 22 year-olds in 1984 and 1997 shows that education and employment are quite separate activities for many young people. For example, in Belgium, youths rarely work while at school. However, a high proportion of young people were combining education and work in some countries. In the UK for instance, in 1997, 30 percent of full-time students aged 18 were combining education and work.

The study shows that employment to population rates fell between 1984 and 1997 in nearly all the OECD countries. For example, the average shows that 35.4 percent of 18 year-old men were employed in 1997, compared to 43.8 percent employed in 1984; and that 29.9 percent of 18 year-old women were employed in 1997, compared to 36.6 percent in 1984. The comparable figures for 22 year-olds show a drop in employment rates for men of 7.0 percent, compared to 4.0 percent for women. Interestingly, unemployment as a proportion of population declined in most countries for both men and women with the exceptions of Australia, France and Canada.

Lamb and Rumberger (1999) examine the experiences of early leavers from the United States and Australia in the first two years beyond high school. The analysis is based on comparable longitudinal surveys. The United States data were drawn from the NELS of 1988, while the Australian data were drawn from the 1975 cohort of the Youth in Transition (YIT) surveys of 1988.

The results show that the US and Australia have similar percentages of students who left school early, 21 percent and 22 percent respectively. And in both countries, early school-leaving rates were significantly higher for students from lower socio-economic backgrounds, for students attending government schools, and for students with low education levels.

There are considerable differences between the two countries regarding when early leavers left school and, more importantly, whether they finally finished school. In Australia, about half of all early leavers left school at Year 10 and most of the rest left at Year 11. In the US, the majority of leavers left in Years 11 and 12, with only about one third leaving in Year 10 or earlier. There are also major differences in later completion of school. Almost half of the early leavers in the US had completed high school within two years of normal high school graduation. In contrast, fewer than 10 percent of early leavers in Australia had completed secondary school. This is because Australian early leavers had more opportunities to pursue post-school education and training than their US counterparts. In the US, nine out of ten early leavers who never completed high school had not participated in any post-school education or training during the first two years after high school. In Australia, about two in three male early leavers had participated in post-school education or training. The situation for females was slightly different, with only about one in three female early leavers in Australia participating in any formal post-school education or training programme. The rate was still more than five times that of females in the US.

In terms of getting jobs, in both countries early leavers had more difficulty in securing employment than those who completed high school. But the disparities were greater in the US than in Australia. Two years after high school graduation, 45 percent of all early school-leavers in the US were not working at any job or enrolled in post-school education and training, compared with only 8 percent for students who had graduated from high school. In Australia however, only 17 percent of early leavers were not working or enrolled in post-school education or training, compared with 5 percent for those who had completed high school.

Finally, the researchers assessed the quality of jobs held by young workers in full-time jobs. Their results show some similarities between the US and Australia. Differences between early leavers and graduates were comparatively small, but differences between males and females were large. In both countries, young workers who completed school were more likely to be employed in white collar occupations, whereas early leavers were more likely to be employed in blue collar jobs.

2.3.4 Saudi Arabian Literature

Since the last decade, the issue of unemployment among Saudi youth has received much attention. This attention has ranged from that of governmental and official bodies and the private sector to the academic level. The largest contributions have come from the Saudi Chambers of Commerce and Industry. However, these studies are regarded as being limited in their scope and not comprehensive, as they have concentrated on analysing the reasons for the low numbers of Saudi youth in the private sector. Other studies have examined the impact of foreign labour on the social and economic aspects of life. A third group of studies concentrated on surveys linked to the development of the labour force and the direction of Saudization (replacement of foreign labour by Saudi nationals). As it is not possible to review all of these studies, here we examine only the most important works.

Al-Ghofaily (1980) examined factors affecting young Saudis' attitudes towards work and vocational education as a constraint on economic development. The objectives of his study were first of all to examine the attitudes of Saudi youth towards work and vocational education, and secondly to examine the resistance of Saudi youth to certain occupations. The empirical analysis shows that the majority of Saudi youth would not accept manual labour, preferred government jobs, and preferred jobs near their families and relatives. In addition, 64 percent of the respondents attached more importance to prestige than to economic considerations as a motivator in occupational choice. More importantly, the findings indicate that changing the attitudes of Saudi youth would not be an easy task. Al-Ghofaily concludes his study by demanding a new look at development policies in Saudi Arabia in order to involve national human resources in the development process in a more effective and efficient way.

Al-Twaijiri and Habib (1987) compared foreign workers and local workers. The objective of this was to define the positive characteristics of both workforces through managers who dealt with both groups in various institutions. This was in order to determine the various factors affecting the demand for Saudis and non-Saudis. This study concluded that the Saudi employees excelled over the others in their confidence and leadership skills whilst the foreign employees excelled over the Saudis in their working efficiency. It was also found that the non-Saudi employees excelled in a number of characteristics that are necessary to the development and success of the company in terms of productivity, as well as in their dedication to work and in their respect for working hours. Al-Twaijiri and Habib claimed that Saudization is a shared responsibility between the government and the citizens. While the government has exerted huge efforts to provide training and educational facilities, the citizen must also take advantage of these.

The Chamber of Commerce and Industry (1990) in Saudi Arabia conducted a study that examined social effects on the labour force in the Kingdom. This study found that high waged employment opportunities in the private sector are being taken up by foreigners. The reason for this is that Saudi job-seekers feel that working for a business outside the family is shameful. It is clear that social reforms must take place in order to bring about a change in employment preferences. This must also be done specifically in the area of manual labour, as well through the training and education of management specialists.

The study suggested a number of ideas that may be summarised as follows: (1) The Institute of Public Management shall accept and train a number of workers from the private sector in addition to those from the public sector. (2) The private sector should be encouraged to agree on a unified wage structure similar to that used in the public sector, so that graduates can be secure in the knowledge that there is a system of promotion and salary increments. (3) The issue of Saudization should be made a national priority, even if short-term profitability is less, and incentives for people to work in the private sector should be increased. (4) The amount of both on-job training and training programmes offered by Chambers of Commerce and Industry should be increased, and universities should provide graduates with the skills that qualify them to secure employment suitable to their academic backgrounds.

Al-Ogla (1990) reflected the views of young Saudis in his attempt to determine what factors facilitate or delay the process of Saudization in the private sector in Saudi Arabia. The independent variables of the study included socio-economic status, education type, and urban or rural background, while the dependent variable was attitude towards working in the private sector. He was able to come up with some interesting results. First, the study indicated a willingness to work in the private sector on the part of many young Saudi people. Secondly, various important variables which had been assumed to be obstacles to Saudization such as the traditional view of the acceptability or otherwise of certain jobs and educational types, were found to be insignificant. In his conclusion, and based on his findings, he suggested further researches into Saudization, taking account of macroeconomic conditions.

The Chamber of Commerce and Industry (1991) in Saudi Arabia conducted a study that examined the future of Saudi labour in the private sector using a random survey. This study defined the problem of employing Saudis in the private sector as due to a number of reasons, mainly the increasingly attractive idea of working for the government and the decrease in government construction contracts.

From the result of this study, the researcher suggested that the Saudi Arabian economy had three options to help solve the problem of employing Saudis Arabians: (1) The continuation of the current development plans, speeding up the process of replacing foreign workers with Saudi workers. (2) The immediate removal of foreign workers with an acceptance of the negative impact this will have. (3) The government could intervene and offer financial support to the private sector that would allow it to cope with the cost of employing a smaller proportion of foreign workers. This financial support should be used to cover the difference in wages required to pay the Saudi labour force.

Ahmed (1992) demonstrated the double standards of the labour market in Saudi Arabia. In fact, there were two markets, one for Saudis and one for foreigners. In addition, there was one market for the public sector and another for the private sector. This study showed that foreign workers who have the same qualifications as Saudis accept a lower salary than Saudi workers, as well as having more flexibility in terms of geographical mobility, while Saudi labour mobility requires a greater effort. On the other hand, the Saudi labour force is more stable, while the foreign labour force is usually dependant on the length of the contract it has. With regard to the characteristics of the labour market of both sectors, the study showed that the labour market in the private sector is, not surprisingly, based on the profit motive, rather than on national employment priorities. However, the government sector is more socially motivated. This comparison within the study also showed that wages in the private sector depend upon geographical location and the difference in academic background of graduates who have entered the job market for the first time, but that is not apparent in the governmental public sector. The study also showed the ease with which a contract can be terminated in the private sector and how hard it is to do the same in the public sector. With regard to female employment, the study showed various employment opportunities in the public sector in terms of teaching, training, health and social services, compared with limited opportunities in the private sector. The most striking feature of this study is that it shows that the majority of those in the survey believe that immediate Saudization will result in an increase in the costs of production and a loss in profits, as well as a loss of competitive advantage between local and foreign products. However, it should not greatly affect the quality of production, as it could result in greater stability in the workplace.

Al-Ghamdi (1994) analysed the factors which prevent Saudi youth from participating in industrial education or being involved in vocational work, and the effects of those factors on the development process in Saudi society.

He found that personal factors, social factors, and economic factors, policy and administrative factors, as well as the impact of cooperation between the General Organisation for Technical and Vocational Training and government agencies and the industrial sector in particular, are significant in determining students' participation in technical education and vocational training programmes or in vocational work.

Moreover, the study showed that these factors shape the attitudes of students, and have strongly affected the efficiency and development of Technical and Vocational Education. The researcher recommended more studies to determine the factors influencing an individual's choice of education and occupation, and to investigate the reasons why graduates of technical colleges and vocational education are unwilling to work in the private sector.

Al-Ghayth and Al-Mashouq (1996) looked at the problem of employing the Saudi labour force in the private sector. They used a sample of employers, employees, Saudi managers in the private sector, and foreign workers who were at the highest non-supervisory levels, as well as citizens looking for work in the private sector. The objective of the study was to determine the cause of the problems in employing Saudi job-seekers in the private sector, as a precursor to finding a solution to these problems.

They concluded that the reasons for the low number of Saudis employed within the private sector were due to problems related to the employee, the employer and to Saudi society in general. Their results also showed a lack of work experience amongst the job-seekers, with 92.5 percent of them having no experience whatsoever, and the remainder having 1 or 2 years experience at best. The researchers suggested several ways of solving this problem including improving education and training, enhancing the work environment and addressing the issue of wages and payments.

Al-Turaigi (1997) examined the Saudi labour force dilemma in order to identify obstacles to Saudization in the private sector. The study found that the "low cost" of employing expatriates and their being "easy to manage" and "easy to hire and fire" were the major reasons for the employing of expatriates in Saudi Arabia's private sector. The short supply of qualified native manpower was found to be an important but secondary reason for the existing workforce dilemma. More specifically, the study indicated many factors that contribute to the existence of such a problem. Some of these factors are: (1) Failure of the previous five government development plans to address national manpower issues and government control and monopoly of the private sector market, also, lack of proper regulation of the job market.

(2) Difficult transition between school and work, and poor communications channels between educational institutions, the private sector market, labour force, and prospective employees. (3) The existence of some social restraints which prevent nationals from performing certain jobs, as well as a lack of public awareness programmes that deal with workforce-related issues. In the recommendation the researcher called for more studies on how to improve public attitudes towards working in jobs regarded by Saudi society as of low status.

2.4 Conclusion

This chapter focused on the theoretical background to the research problem. More specifically, the human capital theory approach has been discussed. In addition, this chapter included a review of relevant studies. The aim of this chapter was to show how important early investment in human capital is for young people people's employment prospects. The literature review helps to identify testable hypotheses and major tools for the research, and will allow for a comparative discussion with other research findings.

The chapter first examined the theory of human capital. Schultz and Becker have recognised the significant relationship between a country economics' performance and human capital investment. Human capital theory suggests that education and training raise the productivity of workers by imparting useful knowledge and skills, hence raising workers' future income by increasing their lifetime earnings (Becker, 1964). According to the human capital model, the society should invest in education until the returns are equal to those from alternative investment. Human capital theory assumes that more educated and trained people are more likely to have successful transitions to the labour market. The returns on human capital are multidimensional as, they also bring social, political and business benefits.

The chapter also reviewed key studies on the subject of the STW transition. More specifically, studies that cover the explanatory variables of the research, presented earlier in the first chapter, were discussed. The literature on this subject is substantial, so it was decided to divide the literature into four groups: American literature, European literature, Internationally Comparative literature and Saudi Arabian literature.

The next chapter will examine the issue of why the school-to-work transition in developing countries is lagging behind that of the developed world, by examining education and training problems. Such problems result in high unemployment rates. Accordingly, this chapter will discuss the nature of unemployment in such countries.

CHAPTER THREE

EDUCATION, TRAINING AND YOUTH UNEMPLOYMENT IN THE DEVELOPING COUNTRIES: AN OVERVIEW

3.1 Introduction

Education and training in every sense are fundamental factors in promoting development. Education and training raise people's productivity and promote entrepreneurship and technological advances. They help to ensure that a country is competitive in world markets characterised by changing technologies and production methods. In addition, they play a crucial role in securing economic and social progress (Ozturk, 2001). In fact, education and training place different demands on systems and administrators. While education is aimed at imparting general knowledge and principles with a wide application, training on the other hand is primarily concerned with imparting or improving specific, practical skills that people need as waged workers or in self-employment (ILO, 1995).

The allocation of resources to education and training is usually no less than 3 percent of the GNP but generally differs in each country in accordance with its priorities (UNESCO, 1993). Improving the quality of education and training, however, implies increasing costs, but this poses a problem for resource-constrained developing countries. Improved productivity in these countries is essential for rapid economic and technological change, and high quality education and training are prerequisites for this. More importantly, developing countries are also faced with the challenge of meeting the requirements of the education and training sector in order to fulfil its responsibility for the development of national human resources, in order to reduce their youth unemployment. In fact, the problem of youth unemployment is a global one. It is, indeed, part of the larger struggle to create employment opportunities for job-seekers all over the world. It has become worse lately because of the world recession, which has affected the developing countries in particular.

Accordingly, this chapter will discuss these issues. The chapter is organised as follows. The next section deals with education and related problems in the developing world. Section three considers vocational education and training (VET) and associated difficulties in the developing countries. Section four reviews the nature and causes of youth unemployment in such countries. Section five concludes this chapter.

3.2 Education in Developing Countries

It is not surprising that most governments seek to build education systems that offer the best to the population. This is because education plays a key role in social and economic life. Despite the common goal, however, countries achieve very different results. Mingat and Tan (1998) found that in almost any measure of schooling outcome such as coverage and student learning, developing countries typically lag behind developed countries.

Education is critical for economic growth. Changing technology and economic reforms are creating major shifts in the structure of economies, industries, and labour markets throughout the developing countries. The growth in scientific knowledge and technological progress demands sustained economic growth with more frequent job changes during individuals' lives. According to a World Bank study (1995)

> "These developments have created two key priorities for education: it must meet economies' growing demands for adaptable workers who can readily acquire new skills, and it must support the continued expansion of knowledge" (p.1)

A later study by the World Bank (1999) concludes that the long-term goal for education is to ensure that all people everywhere have the opportunity to complete a primary and lower secondary education of at least adequate quality and to acquire essential skills to survive in a globalising economy. Today, there are 900 million illiterate people in the world and 130 million children unable to attend primary school. Their access to education is limited by time and space, age, socio-cultural environment, work schedules and physical or mental handicaps. However, the 1995 World Bank study reported that progress in education had been made in the developing countries by expanded enrolment ratios and a longer schooling period. Although the Middle East and North African countries are making steady progress, however, they have a considerable distance to go.

The problems facing formal schools today in these countries are well known. On one hand, there are a large number of unqualified teachers and large numbers of students per class; inaccessibility and inflexibility of schools and universities; outdated curricula and methods of learning; and a lack of good quality educational materials. On the other hand, there are tremendous gaps in the relationships between schools and communities, teachers and learners, and learners and learners. Furthermore, there are few opportunities for second chances, and learning is conceived of as a discrete activity that one only experiences during the early years of life.

3.2.1 Education Accessibility and Dropout Rates

There is no doubt that a country's wealth and most indicators of educational development are related, including education accessibility and dropout rates. Mingat and Tan (1998) found that as a country grows richer, the resources available for education increase significantly. The gross enrolment ratio has increased in the developing countries. To demonstrate, in primary education, the gross enrolment ratio for males and females increased from 81.2 percent in 1970 to 98.8 percent in 1990. The percentage reached 101.6 in 1997 from 100.0 in 1995. In the case of secondary education the gross enrolment ratio also increased for both sexes from 22.7 percent in 1970 to 51.6 in 1997. Enrolment in tertiary education also increased. The gross enrolment ratio for males and females in 1997 was 10.3 percent compared with only 2.9 percent in 1970 (see Table 3.1).

Table 3.1 Gross enrolment ratios by level of education

Year	Primary			Secondary			Tertiary			All levels		
	MF	M	F	MF	M	F	MF	M	F	MF	M	F
1970	81.2	90.3	71.7	22.7	29.1	16.0	2.9	4.0	1.7	40.8	47.0	34.4
1975	92.6	101.7	83.0	30.9	37.5	24.0	3.9	5.1	2.7	48.3	54.5	41.8
1980	94.9	103.7	85.7	35.3	41.9	28.3	5.2	6.7	3.7	50.2	56.3	43.8
1985	99.3	107.5	90.7	38.0	44.4	31.4	6.6	8.2	4.9	51.2	56.9	45.3
1990	98.8	105.6	91.7	42.2	48.2	36.0	7.1	8.5	5.7	52.7	57.6	47.5
1991	98.6	105.1	91.7	43.2	49.1	37.1	7.2	8.5	5.9	53.1	57.9	48.1
1992	98.5	104.7	92.0	45.2	50.9	39.1	7.5	8.7	6.2	54.1	58.7	49.3
1993	98.9	105.0	92.5	46.1	51.4	40.6	7.9	9.2	6.6	55.0	59.4	50.3
1994	99.4	105.4	93.2	47.6	52.8	42.2	8.4	9.7	7.0	56.0	60.4	51.4
1995	100.0	106.0	93.7	49.3	54.3	44.1	9.1	10.6	7.5	57.1	61.5	52.5
1996	100.7	106.5	94.5	50.9	55.6	45.8	9.8	11.4	8.1	58.2	62.5	53.6
1997	101.6	107.5	95.4	51.7	56.6	46.4	10.3	12.0	8.6	58.9	63.4	54.3

Source: UNESCO Statistical Yearbook, 1999.

In 1990 the expected years of schooling that an average six year-old would receive increased by nearly one year to 8.5 years from 7.6 years in 1980 (World Bank, 1999). It is useful to note that girls and women, rural populations, indigenous peoples, the handicapped, the urban poor and other disadvantaged groups have less access than others to learning opportunities.

With regard to gender differences, females' gross enrolment ratio was lower than that of males as can be seen in Table 3.1. For example, the gross enrolment ratio at all levels of education for females has reached 54.3 percent in 1997 compared with 63.4 percent for males in the same year. Indeed, many factors contribute to differences in enrolment between females and males: fear for girls' safety when going to and from school; lack of separation of the sexes; lack of female teachers, and perceptions about the value of schooling for daughters unlikely to enter the marketplace and about the quality of the schooling itself.

Ahuja and Filmer (1995) also studied the availability of education in the developing countries. According to their estimates, all regions have made significant progress in improving access to education for the wider population (see Table 3.2).

Table 3.2 Estimates of educational attainment at regional level: both sexes

Region	Proportion of population under 60 years (not in school) With					
	No School	Primary Schooling		Secondary Schooling		Higher Schooling
		Complete	Incomplete	Complete	Incomplete	
	Year = 1985					
China	22.8	22.5	22.6	31.1		0.9
East Asia	16.7	35.3	25.5	9.0	9.3	4.1
Latin America	16.7	20.8	42.3	6.8	8.5	4.9
MENA Region	**37.6**	**26.4**	**16.6**	**8.0**	**9.0**	**2.4**
South Asia	50.6	15.0	16.9	6.0	8.9	2.4
SSA	39.3	24.2	29.7	1.3	5.0	0.5
	Year = 1990					
China	21.8	22.7	23.0	31.5		0.9
East Asia	12.4	37.4	23.1	10.4	10.9	5.6
Latin America	13.4	23.6	38.7	7.9	9.7	6.6
MENA Region	**28.9**	**32.3**	**15.0**	**9.0**	**11.5**	**3.2**
South Asia	41.1	19.5	19.3	7.5	9.6	2.9
SSA	33.5	29.9	28.0	1.9	6.2	0.6
	Year = 1995					
China	18.4	23.8	24.1	32.6		1.0
East Asia	7.3	39.1	20.5	12.3	13.1	7.6
Latin America	9.3	25.4	36.6	9.1	11.1	8.5
MENA Region	**19.7**	**37.7**	**14.1**	**10.3**	**14.0**	**4.3**
South Asia	32.4	23.0	21.6	8.9	10.4	3.6
SSA	26.9	35.2	27.0	2.5	7.6	0.8

Source: Ahuja and Filmer, 1995.

They found that the Middle East and North Africa (MENA) region had a high increase in the primary enrolment ratio. For example, the complete primary schooling ratio increased from 26.4 percent in 1985 to 37.7 percent in 1995.

If the countries in the MENA accomplish the enrolment levels projected by UNESCO, the MENA region would become one of the most highly educated regions compared with the other regions, with the proportion of population with no schooling at only 0.2 percent, and the proportion of population with at least some secondary education exceeding 40 percent by the year 2020 as shown in Table 3.3.

Table 3.3 Projections of educational attainment at the regional level: both sexes

Region	Proportion of population under 60 years (not in school) With			
	No schooling	Some primary schooling	Some secondary schooling	Some higher schooling
	Year=2000			
China	15.1	49.6	34.1	1.2
East Asia	6.2	57.4	27.4	9.0
Latin America	7.4	59.6	22.6	10.4
MENA Region	**12.0**	**54.3**	**28.4**	**5.3**
South Asia	28.1	47.1	20.8	4.0
SSA	22.2	65.1	11.7	0.9
	Year=2005			
China	10.5	51.8	36.4	1.3
East Asia	2.5	55.4	31.1	10.9
Latin America	5.9	56.4	25.3	12.3
MENA Region	**4.6**	**55.9**	**33.1**	**6.3**
South Asia	21.0	51.1	23.1	4.7
SSA	19.2	66.7	13.0	1.1
	Year=2010			
China	6.8	52.2	39.4	1.5
East Asia	2.0	50.7	34.5	12.8
Latin America	5.9	52.6	27.4	14.0
MENA Region	**0.7**	**55.1**	**37.0**	**7.2**
South Asia	15.3	54.3	25.1	5.3
SSA	17.1	67.7	14.0	1.2
	Year=2015			
China	2.4	51.8	43.9	1.8
East Asia	1.4	45.6	38.1	14.8
Latin America	5.7	48.9	29.7	15.8
MENA Region	**0.2**	**51.1**	**40.7**	**8.0**
South Asia	9.2	57.3	27.5	5.9
SSA	15.9	67.9	14.9	1.3
	Year=2020			
China	2.3	49.9	45.7	2.1
East Asia	1.7	42.2	40.0	16.0
Latin America	6.1	46.6	30.6	16.7
MENA Region	**0.2**	**48.3**	**43.0**	**8.4**
South Asia	9.2	55.3	29.2	6.3
SSA	16.2	67.3	15.2	1.3

Source: Ahuja and Filmer, 1995.

On the subject of education dropout rates, Filmer and Pritchett (1998) identified four patterns of enrolment and dropout in the developing countries. They are as follows: (1) Low enrolment and high dropout rate (Western/Central Africa). (2) Low enrolment and low dropout rate (South Asia). (3) High enrolment and early high dropout rate (Latin America). (4) High enrolment and late (East Africa) or very late dropout rate (East Asia and Central Asia/North Africa).

In Western/Central Africa, only between 4.6 and 27 percent of poor children complete grade 5. There is a combination of low enrolment and a substantial dropout rate. For instance, in Benin, 74 percent never complete even grade 1, and of those that do, only 30 percent complete grade 5, leaving overall completion of grade 5 at only 8 percent. In South Asia, the proportion of poor children who do not complete grade 1 is also very high, at around 50 percent, but of those children that do start there is a much higher level of continuation. Having begun school, between 55 (Bangladesh) and 80 (India) percent stay through to grade 5, but after that the dropout rate accelerates.

The Latin American pattern is one of high initial enrolment, but with a very steep dropout rate among the poor. The situations are strikingly similar, especially within South America, where almost all poor children start school: the percentage of those who never enrol ranges from 4.2 to 7.6, but the subsequent dropout rate is high. In South American countries the accessibility profiles of the poor drops sharply, while the middle and rich children stay in school. In Brazil, only 49 percent of those that complete grade 1 go on to complete grade 5. The situation is even worse when looking at the entire 6 to 8 years of primary school. Of those that complete grade 1 in Brazil, only 16 percent go on to complete primary school.

The study showed that the level of attainment of the poor in Latin America is lower than in East Asia and also lower than in Eastern/Southern Africa. Moreover, they found that grade 5 completion among the poor is 46 percent in Brazil and peaks at 75 percent in Peru. In contrast, it is 89 percent in Zimbabwe, 84 percent in Kenya, and 62 percent in Tanzania.

The final pattern is that of the relatively high attainment countries with both high enrolment and high retention through primary and beyond into lower secondary. The patterns differ between Indonesia and Turkey, with sharp drop-offs in attainment between primary and secondary, and the Philippines and Egypt, with less sharp changes between primary and secondary.

3.2.2 Education Problems

In this section the discussion will focus on the main problems of the education system in the developing countries. The discussion will deal with three aspects of education that together provide a reasonably comprehensive picture of why the education system in these countries is unproductive. These aspects are as follows:

(1) Equity in education, as revealed by gender disparities in enrolments and by the distribution of public spending on education.
(2) Quality in education, as measured by various indicators, such as student level of achievement.
(3) Efficiency of the education system, as revealed by the pattern of grade-to-grade student flow, and education outcomes relative to the amount of resources invested to achieve them.

3.2.2.1 Equity

Equity has been defined by the World Bank (1999). At the lowest and compulsory levels of education, it simply means ensuring that schools are available. Beyond that, it means having fair and valid ways of determining potential students' qualifications for entry. In any case, equity has two principal aspects:

(1) Everyone's right to a basic education (the basic knowledge and skills necessary to function effectively in society).
(2) The government's obligation to ensure that qualified potential students are not denied education because they are poor or female, are from disadvantaged ethnic minorities or geographically remote regions, or have special needs.

Achieving equity requires financial and administrative measures. Financial measures, such as scholarships, are important at all levels to enable the poor to gain an education. Administrative measures can increase enrolments among the poor, among females, minorities, and students with special educational needs. The World Bank study identifies disadvantaged groups that are mostly hard hit by the issue of equity. These groups include the poor, ethnic minorities and street and working children.

The different access that boys and girls have to the education system in some parts of the world is also very important because it contributes to gender differences later in life. The gender gap remains large in the Middle East and North Africa and in South Asia, where it is not narrowing at all compared with developed countries.

For instance, Yemen's gross enrolment ratios are among the world's lowest: 31 percent for girls and 71 percent for boys at the primary level, and 11 percent for girls and 40 percent for boys at the secondary level. Mingat and Tan (1998) examine two aspects of equity in education: gender disparities and the distribution of public spending on education.

Gender Disparities: Girls in developing countries have fewer opportunities for schooling than boys. This is due to low entry rates to first grade, and low survival rates within primary education. For example, a girl's school life expectancy in a developing country at a per capita GNP of $200 is, on average, only three-quarters as long as that of a boy. The girls are level with boys by the time incomes reach about $3,000 per capita.

Distribution of Public Spending on Education: Among many possible indicators, the World Bank study uses the public spending per primary pupil as a percentage of spending per secondary pupil. They show a consistent picture of increasing equity as countries grow richer. The ratio of per pupil spending between primary and secondary education in a country with a $200 per capita income is, on average, only about 0.40 times as high as the corresponding ratio in countries which have an income of above $10,000 per capita. In short, equity in education, especially for girls, remains a distant prospect in most developing countries. For this reason, the World Bank is making special efforts to promote equity in access to education in these countries. Otherwise, this educational crisis will undermine any chance of rapid progress in human development (Oxfam International, 2001).

3.2.2.2 Quality

The education to which people have access to in the developing countries must be of good quality in order to provide the skills needed to operate successfully in complex societies with changing labour market needs. Researchers have suggested that the concept of educational quality is complex and multi-dimensional (Hawes and Stephens, 1990). It includes concerns about a student's level of achievement, the relevance of learning to the world of employment or to the social, cultural and political world occupied by the student (Johnson, Hater and Broadfoot, 2000).

The World Bank supports access to good quality education in the developing countries. The total of World Bank lending in education in 1999 was $2 billion, through 25 education loans in 22 countries totalling $1.3 billion, and $0.7 billion in education components in projects in other sectors. However, developing countries must find other ways to improve the quality of their education.

Improving quality will lead these countries to acquire the knowledge, skills and values that are needed in this competitive world. In order to improving quality, countries will have to deal with a number of crucial issues, as a World Bank study (1999) indicates. First, special attention will have to be paid to the processes of teaching and learning. Secondly, all countries need to ensure that primary education is available and of good quality for all children. Thirdly, opportunities to learn more advanced skills also need to be increased.

3.2.2.3 Efficiency

One of the main pressures on education authorities throughout the developing world is to improve the efficiency of the education system in which they work. Improving efficiency in its simplest terms means achieving the desired goals of education at lower cost, or achieving more of those goals without increasing costs (Chapman and Adams, 2002). Efficiency is discussed here using two aspects of the operation of the education system: student flow patterns, and output per unit of public spending on education.

Efficiency of Student Flow: In primary education, high dropout rates imply inefficient systems. Also, repetition of a grade will waste national resources because repeaters use twice as many resources as other pupils to obtain the same amount of education. Mingat and Tan (1998) measure the combined influence of these problems. They find that as expected, the overall efficiency of the student flow in an education system improves as incomes rise. In other words, developing countries generally have less efficient education systems.

Efficiency of Resource Use in Education: To assess across-country differences in this regard, it is necessary first to relate education outcomes to the input of public resources in the sector, defining outcomes in two ways: (1) years of school life expectancy; and (2) scores on international achievement tests.

The above study shows that there is substantial across-country variation, even among those with similar levels of spending. For both outcome indicators, the difference relates positively to per capita GNP, implying that the education systems of developed countries tend to be more efficient than those of developing countries.

Education authorities in the developing countries are required to increase efficiency. Unfortunately, this is more often interpreted as a mandate to cut costs than to improve quality. Increasing efficiency by improving quality requires a more understanding of the teaching and learning processes than many education administrators have.

3.2.2.4 Other Important Factors

In addition to the previous problems, some other important issues regarded as educational problems in developing countries are explained below.

Parental Influence: There are different interpersonal relationships that often interact with each other in determining children's development and learning. Parents play important and fundamental roles in their children's learning progress. They have many direct and indirect effects on their children's progress through their influence over the equality of the school input available to their children. Hoenack (1996) concluded that

> "The human capital development of the children in many of these areas is held back by parental and community input that provide less direct support for their learning productivity and act as political forces drawing less support for local schools in prosperous areas" (p. 377)

In fact, many of the international studies confirm that parental education, especially that of mothers, influences the achievement of schoolchildren (Glewwe and Hanan, 1994). This is one of the many reasons why there needs to be a special emphasis on the educational attainment of girls in developing countries. It will positively influence the educational achievement of future generations.

Teachers: Among the more daunting problems facing educators and policy makers in developing countries is that of finding ways and means to ensure that a high quality teaching force is available for schools (Hallak, 1990).

The UNESCO statistical yearbook (1999) indicates that teachers form a larger occupational group than is commonly realised. By 1990, one out of every seventy-one adults in the world aged 15-64 was a teacher in formal education; in developing countries one in eighty was a teacher. The number of teachers employed in formal education in 1988 was nearly 1 percent of the world's total population, representing a very considerable challenge for governments in terms of training them.

However, not all teachers in the developing countries are trained or qualified. According to one analysis, up to half the teachers in the developing world were unqualified in terms of their own country's formal standards for teacher training while in the poorest countries, the percentage can be higher, up to two thirds (Robinson, 1996). As a number of observers have noted, teachers play the mediating role between students and subject matter, and a good quality teaching force is the cornerstone of attempts to improve the educational enterprise (Gardner, 1995).

General School Factors: The early studies on learning outcomes showed that the student's socio-economic and cultural background determines differences in student achievement. More recent results and experience, however, indicate that school factors also matter and furthermore they can play a more critical role than previously thought. Gladys (1999) summarised various studies dealing with different aspects of school and concluded that at the primary level, class instructional time, school library and textbooks are some of the most important factors. Furthermore, he shows that in fact textbooks have much higher cost-effectiveness than increased teachers' salaries and improved teacher/pupil ratios.

Heyneman and Loxley (1983) reviewed studies conducted in ten developing countries and found that the relationship between student achievement and textbook is stronger than its relationship with other factors such as, class size. The conclusion to be drawn from these studies is that in developing countries, improving availability of textbooks, workbooks, educational materials, school library, and physical facilities would be a prudent choice over other inputs, such as teachers' salaries and experience, especially if schools have a shortage of the previous type of inputs.

3.2.3 Financing Education

All societies confront basic questions about the scale, nature, and balance of education financing. They must decide on the volume of resources to allocate to educational activities, identify ways to generate those resources, and consider methods of maximising cost-effectiveness in education investment (Bray, 2002). According to a World Bank study (1995), public spending on education equalled 5.2 percent of the GNP in the MENA region, but only 3.4 percent in East Asia in 1990. Public spending on education in Africa, which has the lowest enrolment ratios of any region, represents a greater share of GNP (4.2 percent) than in Latin America (3.7 percent) or East Asia, which have largely achieved universal primary education. However, some countries that spend very little on education could dramatically improve results simply by increasing public spending. In fact, many countries could improve education with the same public spending by focusing public spending on the lower levels of education and increasing internal efficiency, as has been done in East Asia.

It is worth mentioning that primary education is the priority for public spending on education in the developing countries. It generally favours the poor, but public spending on education as a whole often favours the rich because of the heavy subsidisation of the upper-secondary and higher education levels, which usually have relatively few students from poor families.

According to the World Bank (1995), public sector spending for higher education is inequitable. In Africa, for instance, spending per student in higher education is about 44 times that per student in primary education, and the share of higher education in total public spending on education is now higher than in any other region of the world.

While budgetary constraints prevail everywhere, there are more severe in developing countries that have completely publicly-financed education systems (Bolina, 1996). There are many reasons for the crisis in financing education, such as a high demand for access to education, inefficiency in the use of available resources and demographic growth.

In any case, there are alternative methods of financing education in the developing countries. One method is financing education by both the public and the private sectors in the country. Perhaps what developing countries can and need to do is experiment with different combinations of financing (Zymelman, 1973). Types of finance could include loans, fees, transportation, housing, and medical insurance, etc. Studies in different countries show that a system of tuition fees with scholarships for poor students could be more efficient and equitable than free education.

Educational management is an aspect of education that has been given a great deal of attention worldwide in the last 15 years. In Europe and Australia, this is thought to be due mainly to the general trend towards passing the responsibility of spending to schools and a change in governing arrangements. In the US, the focus on management has been driven largely by the perceived correlation between high quality management and effective schools.

In developing countries, however, there has been increasing awareness of the need to develop management capacity in education. In South Africa, for example, much has been written about restructuring the educational bureaucracy and the need to improve the managerial performance of the system as a whole. Educational management in South Africa was characterised by structural over-centralisation with the state playing the primary role. The system was characterised by the limited managerial role usually accorded to the school principal (Johnson, 1995).

In conclusion, in order to meet the new challenges, developing countries need to find appropriate methods for financing and managing their education systems. In addition, public spending on education in these countries is often described as inefficient and inequitable.

3.3 Vocational Education and Training in Developing Countries

In most developing countries, the critical role of training in improving productivity, incomes and reasonable access to employment opportunities seems obvious and straightforward. As a result, governments in developing countries have established networks of vocational education and training (VET) institutions in order to supply the high and middle level manpower needed to meet ambitious objectives laid out in development plans.

The World Bank believes that the funding of VET is best left to enterprises and private sector institutions with government intervention kept to a minimum (Bennell and Segerstrom, 1998). In fact, the World Bank has been trying to convince governments in the developing countries that basic education should be their top priority and that public expenditure on VET should be reduced significantly. The poor performance of Bank-funded VET projects in Africa during the 1970s and 1980s was a key factor in shifting opinion in the Bank against public sector VET provision. Kerre (1990) however, believes that the development of suitable technologies will enable the nation to meet its national development needs of comprehensive and continuing vocational technical training, and encourages employment creation through self-employment in both the formal and non-formal sectors of the national economy.

3.3.1 VET Definitions

The definition of VET differs from one international organisation to another. The ILO, for example, describes its activities as "training" while UNESCO refers to it as "education". This leads to one organisation referring to vocational education while the other refers to the same activity as vocational training. However, these two organisations are aware of the need to integrate their education and training activities.

Technical and vocational education, according to UNESCO's Convention on Technical and Vocational Education, refers to all forms and levels of the education process involving, in addition to general knowledge, the study of technologies and related sciences and the acquisition of practical skills, know-how, attitudes and understanding relating to occupations in the various sectors of economic and social life (UNESCO. 1989). Murugasu (1991) defines VET as including all forms of training provided in formal and non-formal sectors that lead to a skilled occupation. It is based on practical training and knowledge provided in both schools and training centres.

3.3.2 Problems with VET

The traditional vocational education and training in developing countries has proven to be ineffective in reducing unemployment among young people (ILO, 1998b). An example of this is the common form of employment training in developing countries referred to as apprenticeship. This system, however, does not provide formal training for the student to adapt to new technologies or transfer learning to other occupations (Middleton, Ziderman and Van Adams, 1993). In these countries, there is often a low status attributed to VET which is reflected in the attitudes of students, their parents, employers, teachers, and government and educational administrators (Bennell, 1999). Numerous reasons have been identified for this lack of impact. The following are the main factors which have an impact on the efficiency of VET in the developing countries.

3.3.2.1 Articulation and Recognition of Learning

It has been mentioned by UNEVOC, (1995) that one significant factor that affects the status of VET in the developing countries is the question of articulation. Any programme that does not allow learners to transfer to a related course will be seen as a 'dead-end' activity that will be viewed as a less attractive alternative when compared to another programme which facilitates the possibility of transfer. Students in this situation will be more likely to undertake post-secondary VET programmes if they know that they can pursue their studies if they perform well in their VET programme. This situation requires considerable effort from the VET authorities in the government and non-government VET sectors. Furthermore, educational institutions in many developing countries do not recognise prior VET learning obtained by an individual. This situation disadvantages that individual, because that person might be unnecessarily required to undertake a course of study that effectively repeats work previously learnt. The result is that the student undertaking a programme at a VET institution may well obtain little or no credit for studies undertaken when seeking to gain credit for VET studies from a higher level institution. Resolution of this problem may require the intervention of a government to encourage stakeholders to address this matter in a methodical way.

3.3.2.2 Low Social Rates of Return on VET

During the 1980s, the World Bank undertook new research into VET provision, and concluded that there was no clear evidence either for or against this type of education provision (Bennell and Segerstrom, 1998). In 1985, Psacharopoulos and Loxley evaluated the VET provision in secondary schools in Colombia and Tanzania. Their main conclusion was that, both in terms of efficiency and effectiveness, academic secondary education had better outcomes in each country.

In addition, a World Bank study (1995) stated confidently that comparative evaluations of general and vocational secondary curricula indicated clearly that the rate of return was much higher on investments in general than on vocational secondary education. Psacharopoulos reveals however, that in the large majority of developing countries for which data are available, social rates of return on school-based vocational education are not significantly lower than for general secondary schooling (Bennell, 1996).

3.3.2.3 Unsuitable industry linkages

Linkages with industry are another key factor that impacts on the status of VET, and it is notable that VET systems and institutions in all developing countries have not yet formed effective links with industry and commerce, nor are they moving in this direction. It is obvious that in many countries there still exist significant gaps in good working relationships between VET and industry. This is partly a function of the unsatisfactory image that VET has, and in some instances a significant change in the relationship between VET and industry will be necessary. It may be necessary for local governments to encourage the linkages between VET and industry, especially when industry moves away from labour intensive manufacturing towards a more technologically advanced industrial sector (UNEVOC, 1995).

3.3.2.4 Duplication

Duplication of VET provision takes place not only between government bodies that are involved in VET activities, but also between non-government bodies. This was often seen to contribute confusion in the community as to the value and standing of courses undertaken and qualifications awarded. Examples of these difficulties were problems with curriculum development and varying course standards. This situation requires government involvement in matters such as classification, general course guidelines and progression arrangements for all VET providers, in both the government and private sectors.

3.3.2.5 Unqualified Teachers

Teachers are seen as being a key element in the provision of good quality vocational education and training programmes. It is essential that VET teachers are not only qualified in an academic sense, but that they have a good knowledge of real world systems and processes within their field of teaching. Ideally, this should be acquired prior to entering VET teaching duties, and kept up-to-date by regular contact with industry or commerce, or otherwise addressed through in-service programmes (UNEVOC, 1995). However, this is not always possible and in this case other arrangements need to be made to overcome such deficiencies.

3.3.3 Financing VET

The financing of VET is a crucial issue for human resources development in any country, no matter at what stage of development. Thus, VET is the responsibility of various bodies, both in the public and in the private sector. As a general principle, the World Bank argues that the private sector should take the lead in funding training programmes. However, various financing methods are practised in different parts of the world. The principle methods are listed below.

Public Finance: In most countries the budget for VET from public sources is relatively small, ranging from 1 to 12 percent of the current expenditure on education (UNESCO, 1993). However, in the developing countries the main financial contribution for VET comes from the government. Thus, they control all subsidies allocated to VET and the quality of the programmes (Ducci, 1991). Public training has to respond to the demands of the labour market, only then can it become cost-effective with good quality provision (World Bank, 1991). If the quality of public programmes is poor, these programmes should be removed and the available resources reallocated (Herschbach, 1993).

Enterprise Financing: In this type of financing, the enterprise conducts the vocational training of its labour force directly and carries the entire costs of training (Bolina, 1996). One essential advantage of this method is that companies can adapt their requirements according to their actual needs. However, there are disadvantages when training takes place only in one company. There will be an absence of general certification which affects labour mobilisation.

Private and Public Sponsored Financing: Governments faced with a shortage of resources would like individuals, enterprises and non-government organisations (NGOs) to share the financial responsibility for VET. In developing countries, the involvement of the NGOs in vocational training is very important as governments continue their search for partners to share the costs of training.

International Donor Assistance: Donor support plays a very important role in developing VET systems. In many developing countries the large amount of international aid has contributed to the setting up of basic training facilities (Herschbach, 1993). Donors for the most part provide financial resources for capital costs, and these are limited to short periods. This limits the effectiveness of assistance, as recipient countries are not able to make long-term plans. VET systems indeed require long-term support because they need long periods in order to be efficient.

3.4 Youth Unemployment in Developing Countries

The previous two sections described the education and training problems in developing countries. It is to be expected that, as a result of these problems, such countries would suffer high unemployment rates, in particular, among their youth population. According to United Nations estimates, there are over 1050 million people in the world today in the 15-24 age group. Currently, about 85 percent of the young people live in developing countries (ILO, 2001), and nearly 60 percent of this population is from the Asian region (Guilfoy and Wong, 2002). Most of these young people are about to make, or are in the process of making, or have made, the transition to work.

The continuous growth of the youth population and lack of adequate policies to deal with such high demographic growth is causing major problems for those young people. One of these problems is that of youth unemployment, which has received a great deal of attention in recent years. In fact, one of the striking features of the labour market in the 1990s is the unemployment problem that young people face (Mosker, 1998).

3.4.1 Definitions and Types of Youth Unemployment

The definitions of the terms youth, unemployment and unemployment types is essential prior to any investigation. This section will provide a brief definition of such term.

3.4.1.1 Youth

The UN definition of youth concerns the age group between 15 and 24 years inclusive (Soskice, 1994). However, the definition varies among countries. For instance, in the industrialised countries the lower age limit usually corresponds to the minimum school-leaving age, while the upper limit tends to vary more widely. In Britain, for example, "Youth Employment Policy" generally refers to policies targeted at the 16-18 year-old age group, while in Italy the term is used to describe policies for people aged between 14-29 in Northern Italy, and 14-32 in the South (O'Higgins, 1997).

3.4.1.2 Unemployment

It is important to discuss briefly the meaning of the term "unemployment". According to the ILO definition, which is now the most widely used definition, the unemployed are defined as those people who have not worked more than one hour during a short reference period but who are available for and actively seeking work. In other words, the ILO (1996) considers an individual to be unemployed

> "If he or she is currently without employment, is actively seeking employment and is available for employment within some time period mutually acceptable to both the prospective employee and a prospective employer" (p. 39)

Even with this accepted definition, some differences may be among countries. For example, in most countries, students are treated as being outside the labour force; in others, such as Norway, if students are actively seeking work, they are included (O'Higgins, 1997). In summary, unemployment is the state of a person who is out of work and actively seeking a job. The term "unemployed" does not refer to people who are not looking for work, nor does it refer to people who are attending school or keeping house. Such people are generally classified as being "out of the labour force".

3.4.1.3 Types of Unemployment

Economists often split unemployment into frictional unemployment, structural unemployment, seasonal unemployment and demand-deficient unemployment. These four different types are defined below.

Frictional Unemployment: Frictional unemployment exists in inefficiently operating labour markets, even when jobs are plentiful. This kind of unemployment includes workers who have left their jobs or been fired and workers who have not yet started a new job, and other individuals, such as young people, who have not recently been employed but are now looking for a job. Single enterprises can cause some frictional unemployment, because there is imperfect information in the labour market about job vacancies in all places (Südekum, 1999). The healthier the economy, the lower this type of unemployment is likely to be. This is because people will usually be able to find jobs that suit them more quickly when the economy is doing well.

Structural Unemployment: This exists when individuals seeking work have the wrong skills for the available jobs. For example, construction labourers may be seeking work at a time when there is a shortage of computer programmers. It results also from the development of new products or manufacturing methods which need new skills from workers. Structural unemployment also includes people who live in areas where jobs are scarce, while jobs are plentiful elsewhere. More importantly, this form of unemployment may take many years to be reduced. Structural unemployment is generally long-term, with much hardship, as workers either need to leave their families or acquire new skills to re-enter the job market (Joyce, 2000).

Seasonal Unemployment: This occurs in industries that lay off workers during certain seasons each year. Industries that suffer particularly are the hotel, agriculture, and construction industries. Canada, for example, has long and cold winters, so seasonal unemployment there is a much more serious problem than it is in many warmer countries. The effects of seasonal unemployment are often highly regionalised (Economic Policy, 2000).

Demand-Deficient Unemployment: The three types of unemployment discussed so far are microeconomic in nature. However, this type is different. It recognises that labour demand is somehow special in the sense that it is derived from the condition of the economy's product markets (Sudekum, 1999). Demand-deficient unemployment occurs when there is not enough demand to employ all those who want to work. In other words, it results from a general lack of demand for workers. It will tend to happen mainly in recessions. It is a type of unemployment that Keynesian economists focus on particularly, as they believe it happens when there is disequilibrium in the economy. They argue that this shortage of demand is one of the key causes of unemployment.

3.4.2 Statistics of Youth Unemployment

Reviewing the unemployment problem in developing countries will have no meaning unless consideration is given to the statistics relating to the problem. In fact, most of the studies and papers that address these issues have been researched by world organisations such as the United Nations and the International Labour Organisation. For example, the United Nations' study of 1997 estimated the unemployment problem in the developing countries. They found, in general, that the unemployment rate was high in these countries. It was also found that unemployment status has a direct impact on poverty levels and represents a double burden for households in terms of the financial support needed and the absence of unemployment insurance and social security programmes in most of these countries.

The ILO estimated the world labour force at about 2.7 billion workers in 1995, of which 78 percent resided in developing countries. The average annual rate of growth of the labour force in developing countries is expected to slow down from 2.2 percent (over the 1950-95 period) to 1.9 percent over the next 15 years (United Nations, 1997). However, developing countries will still face an enormous challenge in creating employment opportunities for their job-seekers, since 47 million persons join the labour force each year in these countries. According to estimates by the ILO, more than 100 million new jobs would have to be created within the next 20 years in order to provide sufficient employment for the growing number of young people in the economically active populations of the developing countries (United Nations, 1995).

The ILO estimates that at least 60 million young people are unemployed in the world. The proportion of youth unemployment to total unemployment is very high across the world, especially in the developing countries (see Table 3.4). For example, the proportion of youth unemployment to total unemployment in Bahrain is 66.4 percent and 64.7 percent in 1993 and 1997 respectively, while in the UK it was only 29.8 percent in 1997.

Table 3.4 Proportion of youth unemployment to total unemployment (%) in selected developed and developing countries

Country	Years							
	1993	1994	1995	1996	1997	1998	1999	2000
Argentina	40.6	38.5	39.9	38.8	37.9	37.8		
Bahrain	66.4	72.2	75.4		64.7			
Bolivia		43.0	41.4	37.6				
Brazil	52.9		51.1	49.6	49.3	50.8	47.5	
Canada	26.1	26.0	26.1	26.1	28.6	29.3	30.2	
Egypt	65.8	66.4	68.4					
India		52.8	52.9					
Morocco	41.3			45.1	40.3	41.2	38.2	
South Africa						28.5	12.5	14.9
Spain	35.0	33.4	32.1	31.9	30.8	30.1	28.8	
Sweden	30.3	28.4	25.3	23.9	22.8	21.6	21.6	
Turkey	52.1	51.1	52.1	50.9	52.6	49.0	46.0	
United Kingdom	29.5	28.2	28.8	29.0	29.8	30.7	30.9	
United States	32.2	33.7	35.0	35.2	36.0	36.8	37.5	

Source: United Nations, Statistical Databases, 2002a.

From a regional perspective, East and South-East Asian economies experience relatively stable and low rates of unemployment. For instance, in Hong Kong, unemployment is much lower than it was 10 or 15 years ago (World Bank, I995). However, economic changes in the traditional labour receiving countries of West Asia have caused an increase in the unemployment rate in Pakistan as a result of less migration to such countries.

During the 1990s, unemployment remained high in several countries in Latin America although the region has partially recovered from the contraction that took place in the local labour markets in the 1980s. Available data for Africa suggest that continual economic deterioration, import constraints and restructuring of the public sector caused urban unemployment in the region to remain severe in the 1990s (United Nations, 1997). For example, the unemployment rate in Yaoundé, Cameroon, rose from 7 percent in 1983 to about 25 percent in 1993.

Youth unemployment has recently reached disturbing figures in the Arab countries and although they differ from one country to another, they may be generally described as generally high. Unemployment in the Middle East and North Africa has been affected by the decline in oil prices since the mid-1980s, the deterioration in public finances and the possibilities of migration. Thus, governments in the region have to adopt effective policies to tackle such problems.

This would imply encouraging private sector employment, given the fact that the public sector is the dominant sector in the total creation of employment. In the labour-exporting countries (Egypt, Jordan and Yemen), as in Pakistan, difficulties were compounded by tighter migration policies in the receiving countries and by the return of migrants in the early 1990s as a result of the Gulf War. The unemployment rate in Yemen was estimated at 27 percent in 1998. In Jordan, the official unemployment rate remains high: about 14.9 percent in 2002 (Al-Wakeel, 2002). Unemployment is also high in Egypt, about 15 percent in 1995. In addition, the unemployment rate is reported to be increasing in some of the labour-receiving Gulf Cooperation Council (GCC) countries (Shaban et al., 1995).

Youth unemployment is concentrated primarily among the educated as a result of the incapability of the economies of the countries in this region to create enough new jobs to accommodate the annual increase in the labour force, which is composed mainly of young people entering the labour market for the first time (United Nations, 2002b). It is also due to a lack of consistency between the outcomes of the educational system and the needs and requirements of the labour market in terms of various specialisations and skills. The problem is that the economic growth of the last decade in these countries did not increase employment opportunities, nor the demand for manpower, especially for young people. And even in some cases where this increase was achieved at high rates, it did not occur in labour-intensive economic businesses. It was a result of investment and expansion in economic activities that depend mainly on new technologies and tools of production rather than on manpower.

In summary, youth unemployment is a serious problem in many developing countries, particularly for those below the age of 24 who comprise the majority of the unemployed. The relative share of young workers who are seeking their first job within the total unemployed population has increased over the past decade. This indicates that new-comers to the labour market have not been absorbed due to weak economies in many developing countries.

3.4.3 Causes of Youth Unemployment

The problem of unemployment among young people is a result of a variety of factors which operate together. These factors can be broadly divided into supply side factors and demand side factors. This study concentrates on the supply, rather than the demand factors; however, the explanations of the causes of youth unemployment in this section will cover both supply side and demand side factors. Other new factors also affecting youth unemployment, such as globalisation, will be discussed briefly.

3.4.3.1 The Supply Side Factors

The supply side factors that will be discussed here are education and training qualifications, the size of the labour force and job-search flexibility.

Educational and Training Qualifications: Statistics worldwide show that the more education and training a young person has, the better his or her chances are of finding a job. This supports the view that inadequate education and training systems are often an explanation for youth job market problems. In the Caribbean islands, for example, among the reasons put forward to explain youth unemployment is inadequate education and training (Pantin, 1996). In fact, education and vocational skills provide some protection against youth unemployment (Furlong, 2002). However, in some of the less developed countries, due to patterns of demand for low cost labour, it is educated rather than uneducated young people who are more likely to be unemployed (O'Higgins, 2001). Actually, the mismatching between the educational system and the real needs of the economy is an explanation for the unemployment of educated youth. The United Nations (2002b) reported that the high youth unemployment rate can be partly attributed to the limited relevance of education and skills to the needs of the labour market.

The Size of the Youth Labour Force: The number of people in the workforce will change with the demographic structure of the population. If there is a rapid increase in the birth rate at a particular time, those born then will become of working age between 16 and 21 years later and join the workforce. Unemployment will stay the same if the same number of people are retiring from the workforce at the other end. Otherwise, unemployment may increase, unless there are enough extra jobs created to employ the extra people in the labour force. According to O'Higgins (1997)

> "The major contributory factor to youth unemployment is the size of the youth cohort. Self-evidently, the greater the number of young people on the labour market, the more jobs that will be required to accommodate them" (p. 38)

The large number of young people causes either the wages or the chances of employment for young people to decline (Blanchflower and Freeman, 1998). In addition, the large size of the youth population in the labour force is likely to make the "job queue" longer for young people because employers often prefer experienced workers. In fact, Thurow (1975) considers the job queue to be one of the key reasons why unemployment tends to be higher among young people than among adults.

Job-Search Behaviour: In developed countries, there are clear channels for the exchange of labour market information which makes it easier for young people to seek work. This is not the case in many developing countries, where labour market information is very poor. This leads people to spend a long time looking for jobs, and hence increases the duration of unemployment. Also, search in such countries may be more costly and job-search behaviour is less meaningful, especially in large rural sectors (Hussmanns, 1994). In addition, young people are not flexible enough in their job-search. The wages they demand are too high and they are unwilling to take low skill starting jobs before shifting to better jobs later (Blanchflower and Freeman, 1998). More importantly, successful school-to-work programmes which allow young persons to enter the market directly and obtain relatively permanent jobs such as those in Germany and Japan are not available in most of the developing countries.

3.4.3.2 The Demand Side Factors

The demand side factors that will be discussed here are decline in the aggregate demand, youth wages and sectoral decline.

Decline in the Aggregate Demand: A decline in aggregate demand will lead to a fall in the demand for labour in general, for young labour as well as for adult workers. Indeed, the first reaction of firms to a recession is to cease hiring, and young people will be more heavily affected. Fluctuations in aggregate demand affect young people more than older workers because the opportunity cost to firms of firing young people is lower than for older workers. As a result, many young people have to go through a "floundering" period, moving from one temporary job to another, quitting or being laid off, staying out of the labour market for a while or searching for work, and accepting the next job offer that comes by (Stern et al., 1994).

Youth wages: The impact of youth wage rates on employment patterns has been a debated issue. Some argue that employers will employ adults over young people unless the wage differential is wide enough so as to make young workers an attractive economic proposition.

In any case, O'Higgins (1997) concludes that wages are likely to have a negative impact on youth employment as long as the wages of young people are similar to those of adults, since young people and adults are competing for the same jobs. However, the youth and adult labour markets are often different, especially in terms of skilled workers. In reality, evidence indicates that youth wage rates have fallen significantly in comparison to their equivalent average adult rate (ILO, 1999).

Sectoral Decline: One hypothesis regarding youth unemployment causes is that the sectors of the economy in which young people tend to work are in decline (Blanchflower and Freeman, 1998). In most countries youths work in a variety of sectors, such as hotels and restaurants, and these sectors are huge employers of young people. For this reason, some of their labour market problems might be due to structural shifts in the composition of employment affecting those sectors.

3.4.3.3 Other Important Factors

Among the factors responsible in some way for youth unemployment are globalisation and technological innovation. A brief description of these factors is meaningful.

Globalisation: It is worth noting the effect of the globalisation of markets on youth unemployment. Globalisation means increased competition across all sectors of the economy (Pantin, 1996). It will support and increase the free market interaction between countries on the grounds that it opens up new markets and thus creates new opportunities for business, labour, and youth (Mosker, 1998). However, critics of globalisation from the ILO argue that it contributes to the employment uncertainty and social exclusion of certain groups of workers, especially youth.

Technological Innovation: The United Nations (1995) stated that advances in technology and communications, coupled with improved productivity, have imposed new challenges for employment. Young people are among the most severely affected by these developments. Also, various organisations and individuals have cautioned that failure to address the negative impact of technological innovation on employment could pose a serious threat to the social and political stability of any society.

3.4.4 Consequences of Youth Unemployment

High levels of youth unemployment are always a cause for concern, due to the profound effects of unemployment on young people's lives. In general, unemployment has two major consequences that are discussed here: those for individual, and those for the economy as a whole.

3.4.4.1 Consequences for the Individual

Unemployment may cause serious problems for an individual. It leads to income loss, and long-lasting unemployment may result in a loss of self-respect. The longer an individual remains unemployed, the more likely he or she is to lose skills, which would be bad for the economy as well. Also, these problems, especially financial ones often lead to the unemployed becoming less healthy (Economic Policy, 2000). As unemployment increases, incidences of crime, violence, drug abuse and alcoholism increase (Joyce, 2000). In addition, the families of the unemployed are negatively affected in non-financial ways.

On a social level, the crisis of youth unemployment is also a crisis in opportunities for young people to acquire independently the minimum means of accommodation and housing necessary for setting up families and participating in the life of society (United Nations, 1995). Youth unemployment obstructs the movement of young people from adolescence to adulthood, and high levels of youth unemployment can also lead to isolation from society and a distrust of democratic political processes (ILO, 1998a). More importantly, developing countries suffer more than their counterparts in the developed countries. In 1997, a United Nations study pointed out that the lack of employment opportunities among the highest-skilled labour and educated professionals in the developing countries may push these workers to leave the country to search for work abroad, thus leading to the phenomenon known as the "brain drain". For example, the Philippines is estimated to have lost more than 12 percent and the Republic of Korea about 10 percent of their trained professionals during the 1970s. Between 1972 and 1985 almost 500,000 highly educated professionals (mostly engineers and doctors) left India for the United States. Also, in several developing countries, graduate students sent abroad on government scholarships never return because of adverse working conditions and limited job openings.

3.4.4.2 Consequences for the Economy

Youth unemployment contributes to economic exclusion and poverty and increases the probability of future joblessness. It results in the loss of a valuable contribution to economic activity and growth from one of the most productive elements in society (ILO, 2000). Furthermore, output for the economy as a whole is reduced. Output at the present time is less than it could be if labour were fully and gainfully employed. This loss of output is cumulative (Joyce, 2000). Finally, the unemployed could be producing goods and services and if they are not, then the GDP is lower than it could be (Economic Policy, 2000). Loss of tax revenue is also another area of waste: unemployed people are not earning and they therefore are not paying tax.

3.5 Conclusion

The aim of this chapter was to provide a brief examination of the developing countries' education, training and youth unemployment problems.

First of all, the chapter provided an overview of education accessibility and dropout rates in the developing countries. Many developing countries have made significant progress in providing better access to education, as evidenced by improved enrolment rates and higher quality and more equitable distribution of educational services.

The education problem in the developing countries is essentially made up of three general dimensions: equity, quality, and efficiency. Equity, which means ensuring that education is available to everyone at the compulsory levels, remains crucial in the developing countries especially for girls. Quality in education means providing skills that match labour market needs. The developing countries still need to improve the quality of their education. For example, they will have to review the processes of teaching and learning. Finally, efficiency of education in the developing countries, which is measured by the flow of students, proved to be poor. For instance, the developing countries need to reduce the dropout rate especially at primary levels.

It has been reported that enhancing education and skill levels is becoming the most important task worldwide and particularly in the developing countries (Bruno and Cazes, 1997). Successful education programmes require collective action on the part of governments, the private sector and development practitioners. Education is not a social service issue, but a vehicle for social and economic development. Its youth are the most important and powerful intellectual capital a country has today.

Next, the chapter reviewed vocational education and training (VET) in the developing countries. After defining VET, factors which have an impact on the efficiency of VET in such countries were discussed. These factors include low social rates of return to VET, duplication on VET provision, and unqualified teachers. UNESCO sees the need for VET as significant for economic development. In his study, Bartram (1999) states the need to improve access to VET throughout the world. The social problems that will result from failure to address this matter are serious. Governments must develop policy and strategic plans which provide a framework for labour market training, and which produce alternative methodologies that result in open and flexible delivery of VET. Programmes supported by flexible access must have a high level of credibility with enterprises, parents, students and instructors

Finally, the chapter looked at youth unemployment in the developing countries. In general, even in developed countries unemployment among young people is very high compared with the rate for adults. However, available data indicate that the gap between youth and adult unemployment rates in the developing countries is even wider. The problem continues to plague young people worldwide because the transition from school to work has become increasingly difficult.

Explanations for the higher unemployment levels among young people have been put forward in this chapter. World studies show that the rapid increase in the number of young people in the labour force, particularly in developing countries, is only partly to blame for youth unemployment. Other causes point to an education that is not adequately linked to the demands of the labour market and the increasing mismatch between existing skills and new job needs. Another explanation is that youth employment is related to changes in the economy as a whole. The effect of fluctuations in the aggregate economy on young people has long been an issue in analyses of the youth labour market.

The impact of unemployment on the lives of young people is extensive (Auer, 2000). Economists identify a number of individual and collective effects, among which are low income, poverty, crime and social exclusion. Youth unemployment also affects society as a whole in many ways. Many young people today are not integrated into the work process. As young adults, they cannot afford to lead an independent existence and will never have an opportunity to attain the standard of living of their parents. The lack of prospects for young people can also lead to political problems, a loss of social esteem, and a profound change in society. Societies are becoming poorer, not only financially, but also socially and culturally.

To sum up, to tackle youth unemployment is a difficult task. On one hand, it is the responsibility of the young people themselves. On the other hand, the policy makers also share the responsibility in term of implementing new strategies that would create more jobs in the economy.

This review will enable the reader to understand the extent to which the developing countries need to develop and progress in order to rise to such challenges. The facts and figures in this chapter provide a relevant background to the next chapter which will discuss to what extent the Kingdom of Saudi Arabia faces such challenges.

CHAPTER FOUR

OVERVIEW OF SAUDI ARABIAN SOCIETY

4.1 Introduction

In order To identify and understand the socio-economic and economic factors influencing the STW transition of young people in Saudi Arabia, it is necessary to have some information about the background to these aspects of Saudi society. The aim of this chapter is thus to shed light on the country's education and training system and on the youth unemployment phenomenon.

Education is the most efficient means for building the future of any nation and for the development of individuals and society. Accordingly, Saudi educational policy declares that education of all types and levels shall be free. The purpose of Saudi education is to encourage the student, to impart Islamic values, principles and ideas, and to provide various types of knowledge and skill. In addition, the Kingdom looks towards building a bright future for its millions of young people. Hence, it has established numerous institutes for vocational and technical training. These institutes provide instruction in a variety of fields, creating new opportunities for young Saudis. Furthermore, the number of training centres is increasing all over the country, provided by both public and private sectors.

Job creation is the single most important economic policy in the Kingdom and the most central focus of the reform programmes which aim to overcome the unemployment problem among Saudis. The rate of unemployment in Saudi Arabia has been increasing since 1993, particularly among youth. This mass unemployment among Saudi graduates and school-leavers presents an enormous challenge to the economy. The "baby-boom" of the last generation has resulted in 60 percent of the Saudi national population's being under 25, which puts extra pressure on the economy.

This chapter has been divided into six sections. The second section provides a brief description of the country's economy and introduces the study location. The third section covers the education system in Saudi Arabia, including general education, and higher education as well as technical and vocational education. Training activities in the kingdom are discussed in section four. The fifth section addresses in detail the local unemployment problem. The final section of this chapter summarises the major points.

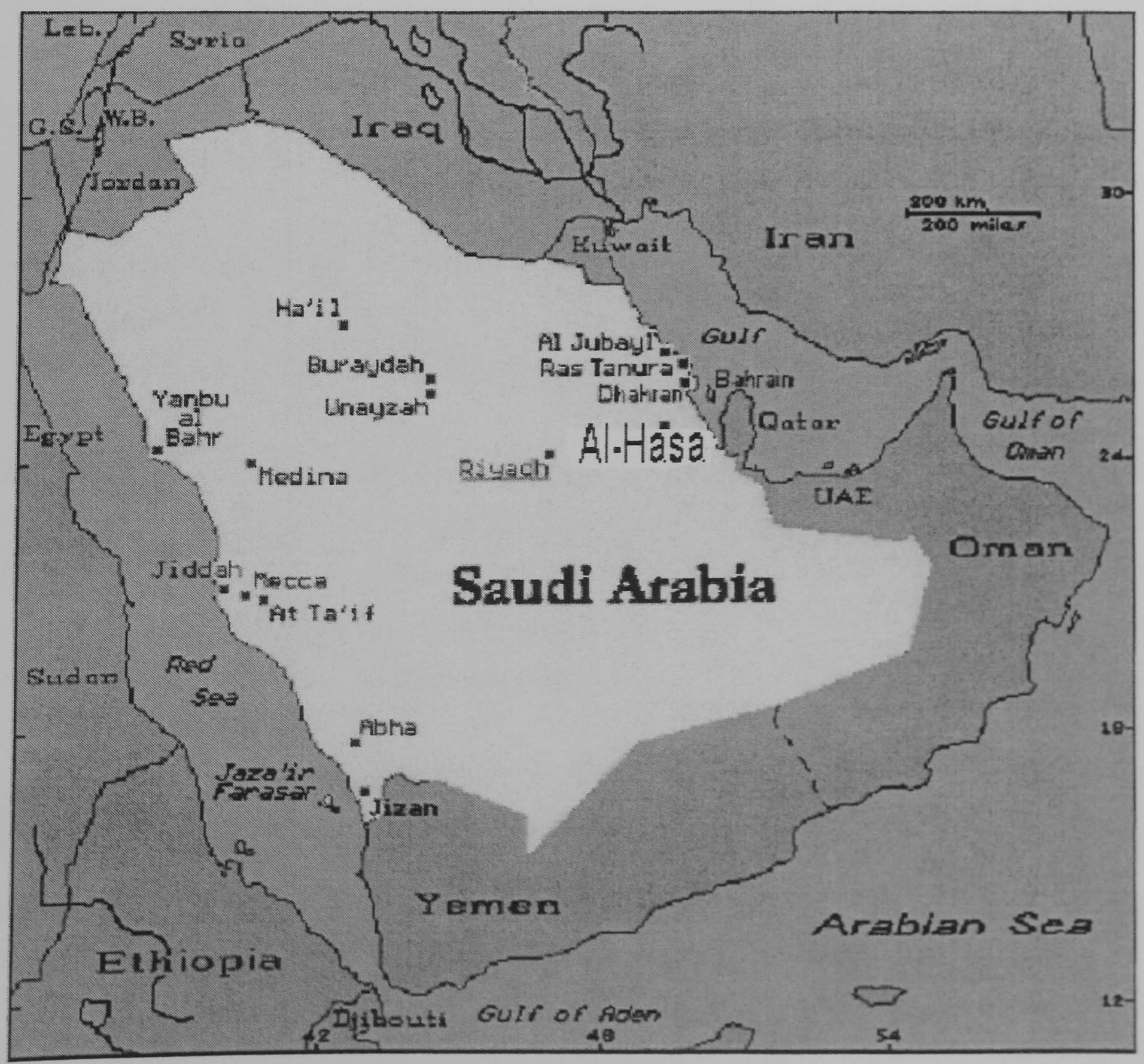
4.2 Economic Overview

It is important to be aware of the limited nature of the Saudi economy up until the early 1970s, and of how quickly it has grown since then. The discovery of oil in the Kingdom caused rapid industrial development and urbanisation, beginning in the early 1970s.

In 1949, the Arabian American Oil Company re-started the work begun ten years earlier of exploring the eastern reaches of the Province of Al-Hasa (the location of this study), a region then almost completely unknown to the outside world (Mulligan and Vidal, 1990). Since then, a large number of Al-Hasa residents have been employed by the oil company. Today, petroleum is the main industry in the region, absorbing a considerable number of the work force (Saudi Network, 2002).

Al-Hasa is located in the southern part of the Eastern region of Saudi Arabia, as illustrated in Figure 4.1 (Ministry of Information, 2003). It is an area that extends from the Arabian Gulf to the Dahna and Oman deserts, and forms the border with Qatar, the United Arab Emirates and Oman, covering an area of 2,500 kilometres.

Figure 4.1 Map of the Kingdom of Saudi Arabia



Al-Hasa is also an important agricultural region. The date farms of Saudi Arabia contain 14 million palms, grown primarily in the world's largest oasis, Al-Hasa. It is one of the most populous provinces in the Kingdom. The population have different backgrounds in terms of their places of residence. They are distributed in both urban and rural areas. The urban residents live in four major cities: Al-Hofuf, Al-Mobarraz, Al-Oyoun, and Al-Omran, while the rural residents occupy more than fifty scattered villages located among the plantations. Despite the fact that Al-Hasa residents are Muslims, they are divided into two ethnic groups: Sunnis and Shias.

From an economic point of view, Saudi Arabia is the third largest oil-producing country in the world, and the largest producer and exporter of oil within the Organisation of Petroleum Exporting Countries (OPEC) (Ministry of Planning, 1990). In recent times, the economy of Saudi Arabia is one of the 35 largest economies in the world, although the country accounts for only 0.003 percent of the world's population.

The 2001 oil production at 7.9 million barrels per day (12.2 percent of the world's total), and exports at 6.5 million barrels per day, accounted for 90 percent of the country's export earnings (Gulf Base, 2002). The petroleum sector accounts for roughly 80 percent of budgeted revenues and 40 percent of GDP. However, the government recognises the need to reduce its reliance on oil revenues and is trying to diversify the economy. Non-oil industry sectors now supply 10 percent of exports. The aim is to double the contribution of the non-oil industrial sector to 20 percent of GDP by 2020.

Saudi Arabia's economic development has been carried out according to five-year plans. The plans seek to develop the country's crucial oil and gas industry while also diversifying its economy into non- oil sectors such as manufacturing and re-exports.

The country's seventh Five-Year Plan was approved on August 28, 2000 (Saudi American Bank, 2000). The new plan aims to achieve an average annual growth in GDP of 3.16 percent (the private sector is expected to grow at an average annual rate of 5.04 percent), promoting further diversification of the economy away from its heavy reliance on the oil sector, and providing employment to a growing number of Saudis entering the job market.

The Saudi government is continuing to push though its economic reform programmes, and currently focus on attracting domestic and foreign private sector investment in gas, power, telecommunications and foreign ownership of real estate (Gulf Base, 2002).

4.3 Education System

Saudi Arabia's nationwide education system is open to all Saudi citizens. The education system in the country at all levels, general education and higher education, is based on the principles of Islam. According to the Educational Policy document in Saudi Arabia (Ministry of Education, 1974)

> "The fundamental purpose of education is to allow students to have an understanding of Islam through inculcating the Islamic tenets, teaching them good manners, developing in them knowledge and skills, promoting the growth of good behaviour, developing the culture, social and economic aspects of the society and preparing a person to be a good citizen in building this society" (p. 12)

The goals of the Saudi education system have been described through the six Ministry of Planning development plans. The First Plan (1970-1975) called for the provision of a full range of educational opportunities and facilities to absorb students at every level of study, and to enable all those who had completed the lower levels to enrol in the higher grades if they wish, while the Second Plan (1975-1980) emphasised the expansion of and support for education in all forms and at all its different levels, and the guarantee of education for every citizen (Ministry of Planning, 1969 and 1974).

The Third Plan (1980-1985) called for the government to expand coverage to provide equal access to at least basic education for all citizens while improving education equality and aiming to equip citizens to be future participants in the labour force by providing types of training which are responsive to the changing needs of the economy (Ministry of Planning, 1979).

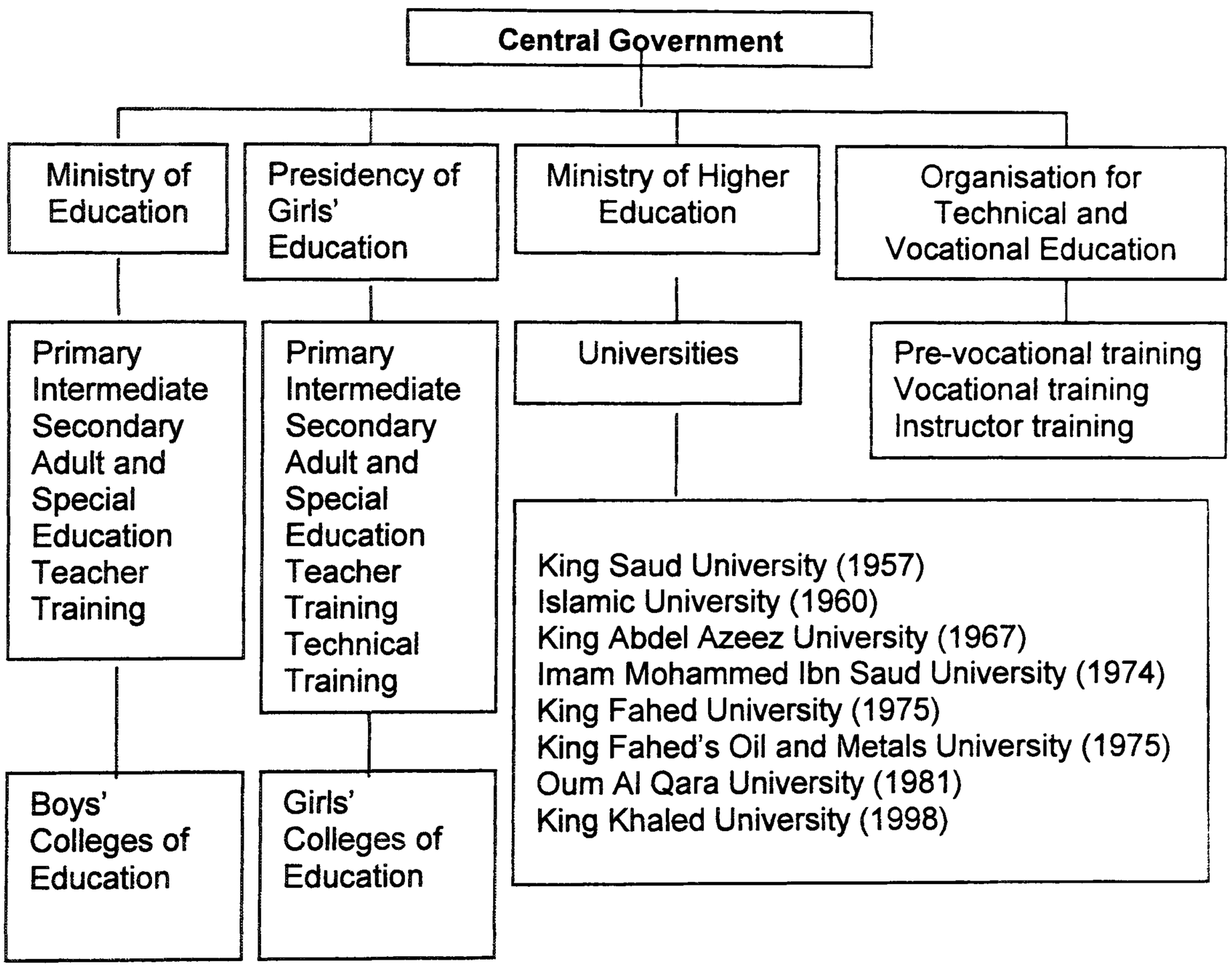
The Fourth Plan (1985-1990) called for continued efforts to develop education in response to rapid economic and social change, and to potential technological change in the future (Ministry of Planning, 1984). The Fifth Plan (1990-1995) emphasised the development of human resources, in order to ensure a constant supply of manpower, to upgrade its quality and improve its efficiency in order to meet the requirements of the national economy (Ministry of Planning, 1989). Finally, the educational goal in the Sixth Plan (1995-2000) was to develop human resources and ensure an increased supply of manpower, upgrading, and improving its efficiency to meet the requirements of the economy, and replacing non-Saudi manpower with qualified Saudis (Ministry of Planning, 1994).

It can be seen from the above that in the last three development plans, the focus has been on the development of Saudi human resources, with a view to replacing non-Saudi with Saudi manpower in both public and private sectors.

4.3.1 Education Administration

There are four authorities responsible for education policy and its implementation in Saudi Arabia. The Ministry of Education administers education for boys. The Presidency of Girls' Education is responsible for the education of girls at all levels including university. The Ministry of Higher Education has authority over the universities. The Organisation for Technical and Vocational Education oversees industrial, commercial and agricultural education, technical foremanship training, and all levels of vocational training (see Figure 4.2).

Figure 4.2 The main authorities responsible for education policy in Saudi Arabia



4.3.2 General and Higher Education

Saudi Arabia has over the last few decades demonstrated substantial commitment to the educational sector. For instance, the government allocated SR 53.3 ($ 14.21) billion for education and manpower training for 2001, an eight percent increase over the budget for the year 2000.

There are three levels of education in the Kingdom preceding higher education. The first level is primary school for children aged 6 to 12. The second level is intermediate for pupils aged 12 to 15, and the third stage is for pupils aged 15 to 18.

4.3.2.1 General Education

General education refers to the entire education system below university levels. It consists of three stages, beginning with an optional preliminary stage for children aged 4-6 years. A brief description of these stages is provided below:

Primary Education: This stage covers the first primary grade to the sixth primary grade. It accepts children from the age of six, and allows a three-month margin for new entrants if they are not yet six years old, and especially if they have attended preliminary education. All schools are day schools in this stage. Primary Education provides pupils with a foundation in Islamic values, reading, writing, mathematics and science. Islamic studies and Arabic each account for approximately one third of the primary timetable. Any pupil who passes the exams at the end of the six-year period receives a "primary education certificate" that allows him or her to continue to the intermediate stage.

Intermediate Education: This is open to students who have successfully completed primary school. Of the 33 lesson periods per week in the intermediate stage, eight are devoted to Islamic studies and six to Arabic. Students also start English in this stage; it is a compulsory subject, taught for four periods a week. Students are required to pass an examination at the end of each grade in order to be promoted to the next grade. At the end of the intermediate stage, students take a leaving examination in order to obtain the Intermediate School Certificate. Possession of this certificate is a requirement for entry to a range of general and vocational secondary education programmes. The intermediate stage provides more opportunities for developing pupils' capacities in order for them to choose their orientation for the next stages. Intermediate education is offered in the form of both day and evening programmes to accommodate those who because of their jobs or age cannot attend normal daytime classes. It is also possible for students to sit for the final examinations at this stage, without having to attend classes.

Secondary Education: Secondary education can take many forms. In addition to general schools, there are secondary institutes attached to the Imam Mohammed Ibn Saud Islamic University, as well as secondary Quranic schools, Dar Alltawheed School, that focus mainly on religious courses. There are also various kinds of secondary institutes in the technical field, which are attached to the Public Education and Vocational Training Institution for training, competent workers in all specialisations including: "secondary industrial institutes", "secondary commercial institutes", "agricultural institutes", "secondary postal institutes" and "health institutes".

Education at the secondary school stage lasts for three years and is available to all students who have the Intermediate School Certificate (Ministry of Education, 1974). The choice as to which type of secondary education to pursue is partly a matter of individual and family preference, although some institutes may have their own requirements. In the first year of general secondary school, pupils share a common curriculum. At the end of this year, they are divided into the scientific and literary tracks for the final two years. Students obtaining a score of 60 percent in all the first year subjects may choose between the literary and scientific tracks. Students obtaining a score of less than 60 percent must opt for the literary track. Secondary education in the country provides more specialised studies and more general culture as well as a preparation for entering universities. Those who, for age, social or work reasons, cannot attend by day may choose to take night classes.

According to the Ministry of Planning (2001), there were 452,000 students in secondary education in 1995 and 704,566 in secondary school in 1999, while the number of graduates increased from 87,000 in 1994 to 167,000 in 1999.

The government has placed a very high priority on education as a means of developing human resources, increasing productivity and keeping abreast of scientific and technological advances. The priorities of the Sixth Development Plan emphasised the quality of general education and the importance of increasing the absorption capacity of general education. Accordingly, the government set aside enormous budgets for the development of this sector, exceeding SR 175 ($ 46.67) billion in total during the Sixth Development Plan period. Table 4.1 shows the average annual growth rates in the main general education quantitative variables during the Sixth Development Plan.

Table 4.1 Annual growth rates of general education (1995-1999)

Variables	Elementary		Intermediate		Secondary	
	Boys %	Girls %	Boys %	Girls %	Boys %	Girls %
New Entrants	0.98	(-0.74)	6.09	4.73	12.03	7.46
Graduates	2.50	5.31	6.07	6.19	17.08	13.53
Schools	1.88	3.14	6.06	5.87	12.87	8.91
Teachers	2.49	3.90	5.69	8.13	12.10	12.60

Source: Saudi Arabian Ministry of Planning, 2001.

Indeed, the total number of students in general education grew from about 3.8 million in 1995 (studying in more than 22,000 schools, with 170,000 classrooms and 286,000 teachers) to about 4.4 million in 1999 (studying in more than 26,000 schools, with 194,000 classrooms and 357,000 teachers).

According to the Ministry of Planning (2001), Saudi general educational policy aims to: first, improve the level of efficiency by means of the adoption of an automatic promotion system between the early grades of elementary school, while maintaining academic quality and educational standards; secondly, improve the quality of education by updating the academic curricula and teaching methods in line with development requirements, making use of specialist centres in this field and stressing the importance of the on-going training of teachers; thirdly, support the introduction of information technology in secondary schools and extend it to intermediate and elementary schools; fourthly, expand pre-education programmes and encourage the private sector to establish nurseries.

In addition, the government intended to rationalise educational expenditure by improving organisational efficiency, raising the performance of workers, reducing the average number of years of education, and expanding the role of the private sector, which will mean less expense for the government. Furthermore, the government aims to improve and develop educational management by the selection of qualified staff and by maintaining intensive training programmes. Moreover, it aims to encourage private sector participation in terms of financial involvement. Finally, it is planned to make use of the capabilities of specialist research centres in conducting diversified studies and research in various fields of education and preparing evaluative studies for the educational programmes to ensure the achievement of the intended objectives.

4.3.2.2 Higher Education

Much attention is given to higher education in Saudi Arabia, since this type of education is the main source of manpower in the country. There are various types of institutes of higher education in the Kingdom of Saudi Arabia. Some of them are under the supervision of the Ministry of Higher Education (the eight universities in particular), while various government agencies or ministries run the others. The Saudi government reports that the number of males graduating annually from university rose from 2,437 in 1970 to 68,643 in 1999, while the number of female graduates rose from 369 to 98,145 in the same period. The number of female graduates was only 15 percent of that of males in 1970, but had risen to 143 percent of the number of in 1999.

The number of Saudi women graduating from university has grown at an average rate 2.5 times that of male graduates during the last decade, and these trends in education reflect a general pattern in education in Saudi Arabia (Ministry of Planning, 2001). Table 4.2 shows the annual growth rates during the period 1995-1999 for the main educational variables.

Table 4.2 Average annual growth rates in higher education (1995-1999)

Variables	Bachelor Degree level %
Total Students	12.4
New Entrants	13.6
Graduates	16.8
Saudi Faculty Staff	19.5
Non-Saudi Faculty Staff	- 6.5
Admin. and Technical Staff	9.2

Source: Saudi Arabian Ministry of Planning, 2001.

The number of students in higher education is also supposed to increase during the Seventh Development Plan, from 263,000 to 490,000. Interestingly enough, the total number of males graduating each year from higher education will increase from 69,000 to 127,000 while that of females will increase from 85,000 to 146,000. This again illustrates a massive shift in Saudi society, with more females continuing to graduate from higher education than males, which mean that the number of highly educated females potentially entering the job market will rise by 72 percent over five years.

The higher education system in Saudi Arabia can be divided into two categories: undergraduate programmes and postgraduate programmes. Here is a brief description of each.

Undergraduate Programmes: The length of these programmes ranges from two to three years for post secondary, non-university institutions and from four to six years for first degree programmes at university institutions. In general, bachelor's degrees in the arts, sciences, and education are four years in length; engineering and other professional programmes require five years to complete; and programmes leading to the doctor of medicine require six years to complete.

Postgraduate Programmes: Students who have completed bachelor's degree programmes may continue their studies at the postgraduate level. Master's degree programmes are offered at universities and girls' colleges. The programmes are two years in duration and involve coursework and a minor thesis for completion. There are few doctoral degree programmes offered at Saudi Arabian universities; in general they require three to five years to complete after a master's course of study. Most students pursuing doctoral studies prefer to do so overseas (World Education Service, 2000).

The objectives of higher education, as mentioned in the Seventh Development Plan in Saudi Arabia may be summarised as follows:

1- To provide opportunities to individuals with qualifications and capabilities to continue university education.

2- To expand the higher education base in line with the requirements of socio-economic development, to direct the admissions policy and to develop university programmes and curricula in line with labour market needs.

3- To continue developing Saudi manpower in terms of quantity and quality, and to substitute Saudis for non-Saudis.

4- To upgrade academic and administrative performance with the aim of improving the educational process.

5- To enhance the role of universities in community service and to develop co-operation with related agencies in order to achieve the objectives of higher education in particular and those of development objectives in general.

6- To expand the private sector's contribution towards financing educational projects and programs.

7- To develop scientific research and postgraduate studies.

The Saudi system of higher education is, however, facing several challenges that might influence these objectives. The first challenge has resulted from internal changes in Saudi Arabian society, such as dramatic changes in literacy and modernisation. In addition, Saudi higher education is under increasing pressure to admit more students than it is really capable of handling, to accommodate the increasing number of secondary school graduates. Furthermore, higher education has been assigned the responsibility of replacing nearly 5 million foreign workers with qualified Saudis. Finally, the continuing support for students in the form of monthly allowances placed a heavy burden on the budgets of higher education institutions and limits the expansion and improvement of academic programmes and university services (Mosa, 2000).

At the same time, the level of integration and interaction between higher education institutes and the private sector remains inadequate, thereby weakening the private sector's ability to absorb and employ the Plan's expected number of graduates. Thus, the Seventh Development Plan addresses this issue by means of the following steps. First, education programmes will be limited to development and labour market requirements, encouraging the private sector to provide practical training for students in private establishments, and considering the period of training as a requirement of graduation. Secondly, training programmes for graduates will be reassessed, and the private sector will be encouraged to participate in performance evaluation.

4.3.3 Technical and Vocational Education

Although vocational education is more expensive (Tsang, 1997), and also produces a lower social and financial return on investment than general education (Salmi, 1991), many researchers have confirmed that when the labour market is expanding and training is closely linked to available jobs, financial returns on vocational education and training in LDCs (least developed country) can be higher than those on general education (Middleton et al., 1993).

The Kingdom of Saudi Arabia is at a critical point in its mission of workforce development with the mandate to achieve two core objectives. First, in the near term, to replace with Saudi personnel foreigners who for some years have been holding skilled jobs in the Kingdom and secondly, in the long term, to achieve a sustainable rate of growth in what is becoming an increasingly internationalised economy.

Technical and vocational education and training (TVET) in the Kingdom of Saudi Arabia is under the sponsorship of the General Organisation for Technical Education and Vocational Training (GOTEVT). The system was formally established in 1980 when TVET was separated from the general educational system. The decision was in fact taken in order to develop a competent, well- trained and qualified national labour force. Technical education has benefited from increasing popularity and sustainable growth in recent years in terms of numbers of students, semesters and teachers (Mellahi, 2000). The total number of students enrolled in the technical education system, however, will increase during the Seventh Development Plan from 33,000 to 44,000 or thereabouts, and vocational training from nearly 12,000 to almost 16,600 as shown in Table 4.3 and 4.4 respectively.

Table 4.3 Total numbers of students in technical education and training in the 7th Development Plan

Description	1999	2000	2001	2002	2003	2004
Colleges	12462	13089	13747	14598	15502	16897
Industrial	9667	10153	10664	11200	11764	12355
Commercial	7678	8153	8658	9194	9763	10367
Agricultural	823	886	954	1028	1106	1191
Technical Supervisors	2346	2464	2587	2717	2853	2996
Total	32976	34745	36610	38737	40988	43806
Multi-disciplinary		400	2600	4940	8400	11580

Source: Saudi Arabian Ministry of Planning, 2001.

Table 4.4 Enrolments and graduates in vocational training centres during the 7th Development Plan

Description	1999	2000	2001	2002	2003	2004
Enrolments	11869	12718	13161	13828	14782	16535
Graduates	7006	8027	8365	8793	9494	10626

Source: Saudi Arabian Ministry of Planning, 2001.

There are reasonable percentage increases, but the absolute numbers do not come close to providing an adequate training base for the diversification of the economy and the projected growth of the private sector.

The vocational education system in Saudi Arabia consists of three components (Tang, 1998) which interact with each other as shown in Figure 4.3 overleaf. They are as follows:

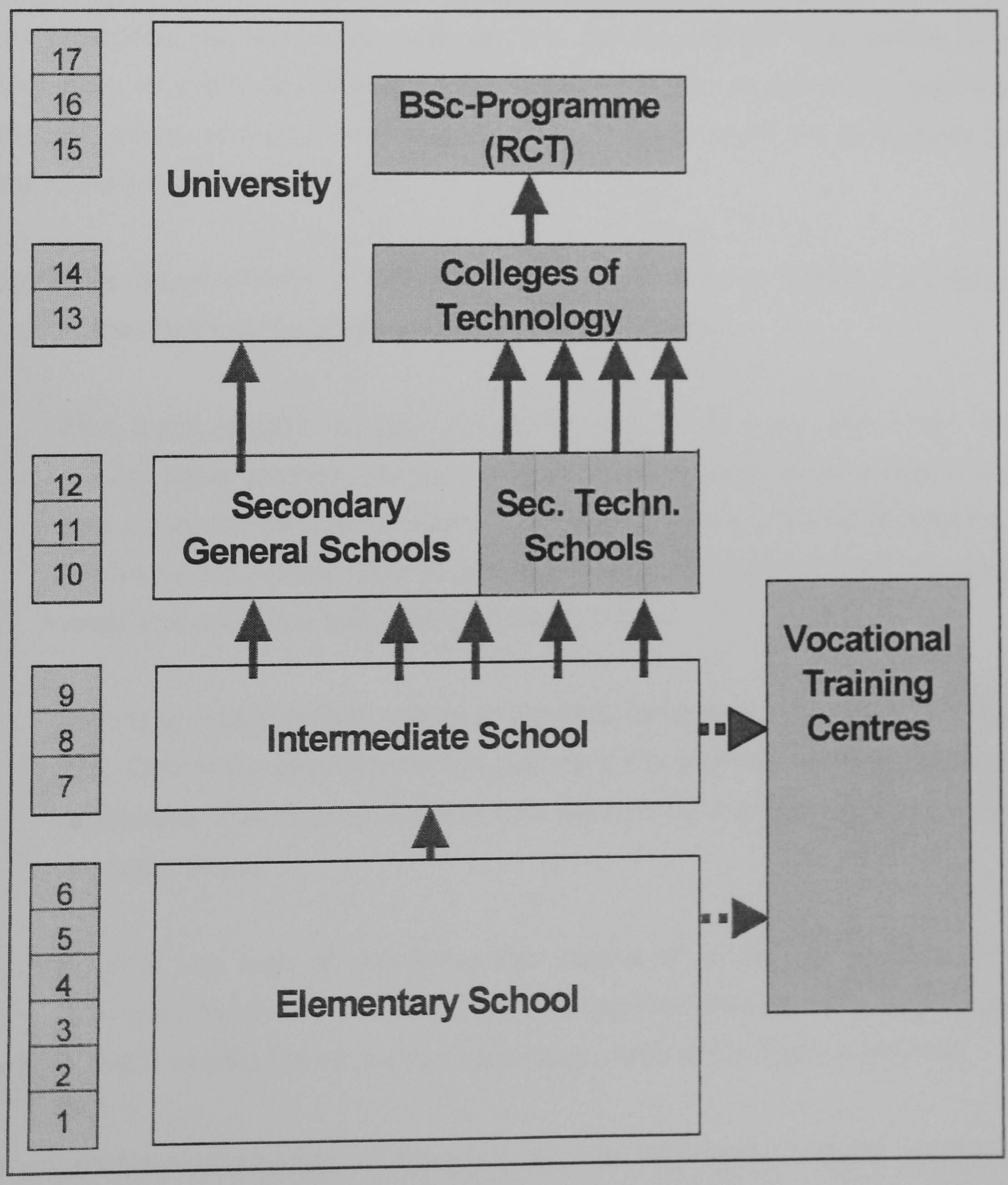
1- Colleges of Technology: These are the key sector in the GOTEVOT system. Although colleges of technology offer business and computer programming courses leading to office jobs, their main focus is on mechanical, electrical and production subjects which are the foundation of skilled manual jobs. The graduates receive diplomas which qualify then for the job market as applied engineers. Colleges of technology award the Junior University Certificate after the completion of 90 credit hours.

2- Secondary Institutes: The secondary institutes qualify students either to join the labour market in their specialist field of specialty as operators and technicians, or to proceed to a technical college for further education. The secondary institutes are divided into four groups according to sectors, namely, industrial, agricultural, commercial, and supervisory. Each sector offers various lines of specialization in technology, such as Electrical, Electronic, Mechanical and other fields. The programmes are graded so that graduates can be accepted for higher technical education in the colleges of technology and universities.

3- Vocational Training Centres: The vocational training centres offer a variety of short-term courses ranging from 6 months to a year and prepare workers with general to join the labour force as operators. Some of the technicians' courses are Air-Conditioning and Refrigeration, Electrician, Welding, Woodworking, Plumbing, Printing, Aluminium/Sheet Metal, Photography, Tailoring and various other occupations.

Although independently in administrated, TVET is integrated with the general educational system. Students in the secondary institutes move upwards on the educational ladder to the colleges of technology, and students in the colleges of technology can earn credits which satisfy some of the pre-requisites for admission to the higher institutions of technology at an academic level, such as engineering studies. Technical and vocational training is also available to Saudi women. The Presidency of Girls' Education (PGE) has established 31 schools for such training in the Kingdom. During 1995, enrolment at these schools included 3,514 students. Graduates of these programmes go to private and public sector jobs in hospitals, schools and banks run by women, and other businesses.

Figure 4.3 The Saudi Technical and Vocational Education System



Source: (Al-Dekhayyel and Abdulgabar, 2001)

The numbers in the above figure indicate year of schooling in each educational level.

The education policy (Ministry of Education, 1980) has stated clearly the aims and purpose of this type of education as follows:

1- To supply the Kingdom in all fields and at all levels with qualified workers who possess solid faith and the ability to perform the duties entrusted to them.

2- To determine the Kingdom's needs for a technical labour force at various levels and forms in order to attain self-sufficiency within a period to be defined in the light of existing resources.

3- To meet all needs and development in the fields of knowledge and labour, and to acquire skills and experience.

4- To meet the Kingdom's need for workers in industry and in other fields.

In spite of the progress made in developing technical and vocational education to meet these objectives, the number of graduates has not reached the level desired by the government. According to Hofstede (1980), it is important to recognise that cultural and social attitudes to vocational work and education in Saudi Arabia are so different from those found in the developed world.

Indeed, the Saudi system of vocational work and education suffers from several disadvantages that may be attributed to two principal factors:

First, Saudi Arabia's colleges of technology are for men only. This is due to the cultural belief amongst the vast majority of Saudis that child-bearing remains life's principal objective for women. A woman's career is limited to housework, education and nursing. That is, half of the society is excluded from engaging in vocational education and training (Mellahi, 2000).

Secondly, Saudi society retains a negative perception of skilled and manual jobs. One of the main contributory factors is the association of these jobs with expatriates. The majority of these jobs are held by low-paid expatriates with a low social status.

In other words, the task of redirecting the interest of young Saudis to technical occupations is a difficult one. It is a fight that is being lost because of the large dropout rate from TVET, despite the efforts that have been made by the Saudi authorities.

In short, technical and vocational education must be the subject of many reforms and adjustments in the coming few years, under the assumption that it is the backbone of the manpower developments process in the country.

4.4 Training Activities

Training is a crucial factor in administrative and industrial enterprise for governments and businesses around the world. Manpower training is currently an issue much discussed by the Saudi Arabian government because economic growth depends largely on the education and training of the workforce to meet the skills and knowledge required by the industrial and technical sectors (Alqahtany and Mallah, 2000). In addition, the government is aware that the Saudization of the workforce goes hand in hand with the need to train its own nationals.

The Kingdom has identified training as being an essential part of human capital investment, which will support the country's economic and social development. Graduates of training programmes in the various areas are steadily filling positions in industrial, agricultural and social fields throughout the country. Manpower training requirements are expected to double over the next two to three years as a result of the Saudization policy implemented by the government.

4.4.1 The Nature of Training

The most popular training courses in Saudi Arabia are computer technology, computer programming, teaching training, office management, marketing and sales. Those people with technical and electrical engineering training are used extensively by industry. Since English language is the business language in Saudi Arabia, there is a large demand for English as a foreign language courses (EFL). These are provided at most large training institutes, and there are a number of language institutes which provide courses in EFL in the Kingdom. Training products in English are as simple as possible, since the students are not native English speakers.

Most training courses are aimed particularly at men. Saudi regulations stipulate the segregation of the sexes which severely limits job opportunities available to women. However, a number of women own their business and female educationalists can work in a totally female environment. Currently, the following areas appear the most suitable for female training courses: computer studies, EFL, beauty, and business management. In fact, training institutes all over the country have been receiving many inquires about courses for females. However, the training of women for business is a sensitive issue, and training institutions are approaching it with caution.

The training market is extremely competitive. Some US organisations are already established in Saudi Arabia and there is tough competition from the UK institutions. No statistics are available concerning these; however Table 4.5 shows the possible data.

Table 4.5 Possible training market statistics in Saudi Arabia

Estimated no. of job-seekers entering market during 1995-2000	660,000
No. of Saudi Arabian Government training institutions	89
Estimated no. of private training institutions	265
Training, annual growth of school/university graduates	30 %
Education materials, expected increase	10 %
Manpower training courses % share	
USA	35 %
UK	30 %
Saudi Arabia	20 %
Others	15 %

Source: US Department of State (1999), Country Commercial Guides: Saudi Arabia.

4.4.2 Training Bodies

Formal training in Saudi Arabia began in the 1940s with the Arabian American Oil Company, known as ARAMCO. This marked the beginning of a training programme that expanded over the years. Presently, there are a number of training institutes that provide training for Saudi nationals both in the public and private sectors. A brief description of the main institutes follows.

1- Saudi ARAMCO: The company had to educate and train Saudi nationals according to an agreement between the company and the Saudi government. In 1940, the company established the first school for its Saudi workers. The goals of the school were to teach Saudis English, Arabic and mathematics (Viola, 1986). Today, Saudi ARAMCO operates one of the largest industrial training programmes in the world. Over the years, the training organisation has prepared tens of thousands of Saudis for positions at all levels. Saudis now occupy 74 percent of all administrative positions, 62 percent of all professional jobs, and 87 percent of the industrial jobs in Saudi ARAMCO.

2- The Chambers of Commerce and Industry: In every major city, the Chambers of Commerce and Industry provide training for private sector employees. Training programmes are organised and conducted at local Chambers and are partially funded by companies active in fields where a larger trained labour force is needed.

3- The Institute of Public Administration (IPA): This is the first training institute to serve the public sector in Saudi Arabia. The institute is designed to address the problem of the country's shortage of administrative personnel. The IPA provides basic as well as in-service training for civil employees.

4- The Private Institutes: There are a variety of large and small private sector institutes. They provide full classroom facilities and regular courses. The private sector's training institutions are expanding, and new ones are opening up. Although training is now urgently needed in many areas, private sector training institutions have a hard time competing financially. Despite large numbers of students, they are forced to keep prices to a minimum, thus limiting the type of training courses they can offer.

4.4.3 Training Challenges

As the Kingdom has moved into the new century, it has begun to feel the challenges brought about by the closing of barriers in transactional communication and commerce. The country also faces an exceptional challenge in training Saudi job-seekers. These challenges are described by Al-Dekhayyel and Abdulgabar (2001), as follows:

1- Population Growth: The population of the Kingdom is growing at a rate considered to be one of the highest in the world. The impact of this growth means that training centres need to be expanded to train more people who will need to acquire skills in order to join the labour market.

2- Technological advancement: The tremendous advances occurring in the field of technology make it difficult for training institutions in the Kingdom to cope where conventional programmes are concerned. Ironically, training institutions in the Kingdom now depend mainly on existing technologies that are not equal to the level of technological advancement found in the workplace. Although efforts are being made by the training institutions to update their facilities, they will be unable to catch up with the advances due to the nature of the different types of technologies and the high cost of installing them.

3- Nationalization of the Workforce: The Kingdom has emphasised through the National Development Plans, the role of training in providing a qualified workforce. These National Plans give priority to Saudization, the employment of qualified Saudis, as a strategy for achieving sustainable development.

To conclude, it should be recognised that any public or private sector efforts to qualify the national workforce must be enhanced by introducing new programmes and more flexible methods of training in order to meet the urgent need for Saudi workers as quickly as possible. In view of these challenges, training institutions in the Kingdom should be aware of the need to develop, by introducing new training programmes of the quality and quantity needed by the labour market.

4.5 Unemployment in Saudi Arabia

In the boom periods of the 1970s and 1980s, public policies issued by the government of Saudi Arabia provided nationals with sufficient job opportunities, job security, high salaries and a generous package of benefits that was further supported by an expansive welfare system (Girgis, 2000). Saudis were able to pick and choose jobs as they pleased, while expatriate workers took up jobs that could not be filled by nationals. However, this situation no longer exists in Saudi Arabia. The fact is that the country is running out of jobs, or at least the kind of undemanding jobs in government ministries that Saudis have been willing to accept. In other words, Saudi Arabia has begun to feel the pressures of unemployment.

The problem of youth unemployment in Saudi Arabia has become obvious since 1990. In fact, the increasing number of unemployed young workers is probably the most serious economic challenge for the Kingdom of Saudi Arabia (Shaban et al., 1993). Saudi society has accepted the reality of unemployment, but both the government and the private sector need to do more to create jobs. Indeed, economists estimate that the economy creates about 30,000 jobs a year for Saudis, while 100,000 Saudis enter the job market over the same period. The unemployment problem in Saudi Arabia is unusual as it involves hundreds of thousands of Saudi nationals in a country that employs almost 5 million expatriate workers.

4.5.1 Unemployment Figures

The rate of unemployment in Saudi Arabia is not available officially, though it is clear that job creation remains limited, and different sources have indicated different figures regarding this issue. For example, the Saudi America Bank reported that the overall rate of unemployment in the Kingdom of Saudi Arabia is 15 percent (Saudi American Bank, 2002a).

However, some economic analysts believe that unemployment rate among Saudis males only to be as high as 30 percent (Katz, 2001). Youths seem to suffer more from unemployment more where 15 to 20 percent of Saudis aged 20-29 are jobless (Shorbagi, 2000). The variation in estimated figures is such that one study reported that the unemployment rate in the Kingdom stands at 11.7 percent, while another study concludes that the rate of unemployment is as high as 27 percent (Arab News, 2003).

Whatever the figures are, these various reports indicate that unemployment in Saudi Arabia is very high, particularly among youth and women. The next section will discuss these issues in addition to other features of Saudi Arabia unemployment phenomenon.

4.5.2 The Nature of Unemployment

The high unemployment rate in Saudi Arabia has caused much debate in recent years. not only among policy makers but also among economists.

1- Structural and Cyclical Unemployment: The Saudi Arabian economy is currently experiencing both structural and cyclical unemployment. Structural unemployment occurs when the demand and the supply of labour are not in harmony with each other due to changes in the structure of the economy. This kind of mismatch is obvious, as national workers cannot find jobs that match their skills at the reservation wage rate, which is determined largely by the opportunity wage rate in the government sector. Most of the job-seekers in Saudi Arabia are secondary school graduates, and unwilling to work beyond their local areas. This demonstrates the core of the structural unemployment in the Saudi Arabia (Girgis, 2000). On the other hand, cyclical unemployment occurs due to economic slowdowns resulting from the instability of the oil market. The decline in government spending and its effects on the private sector have caused the public sector to slow down considerably their rate of hiring, compared with previous years.

2- Youth Unemployment: Unemployment in Saudi Arabia mainly involves youths. The World Bank estimates (1996) indicate that the total number of young Saudi men reaching job age (15-19 years) will rise from 1.0 million in 1995 to 1.3 million in 2000, 1.5 million in 2010, and 2.1million in 2020. According to the Saudi Chambers' Council (1998), nearly 25 percent of all unemployed Saudis are in the age 20-40.

3- Female Unemployment: Each year, tens of thousands of Saudi girls graduate from high school and start looking for a job, and many college graduates join them. Unfortunately, their dreams of starting a job are shattered by the realities of a male-dominated market (Bashir, 1999). The Saudi statistics, indeed, do not give much detail about gender trends in the labour force. This makes it very difficult accurately to estimate either the size of the labour force, or the unemployment rate.

However, the Saudi American Bank (2002) reported that the unemployment rate for Saudi females is 15.8 percent. Generally speaking, the employment rate for Saudi women is very small, if the percentage of women employed is compared with that in other Arab and developing countries (Cordesman, 2002). Although female participation in the labour force grew from 7.6 percent of the labour force in 1980 to 14.8 percent in 1998, it is not a promising percentage. Table 4.6 shows women as a percentage of the labour force in selected Arab countries.

4.6 Women as a Percentage of the Labour Force in Selected Arab Countries

Year	MENA	Kuwait	Iraq	Oman	Saudi Arabia	UAE	Yemen
1998	26.9	31.2	19	15.7	14.8	14.1	42.7
1980	23.8	13.1	17.3	6.2	7.6	5.1	38.7

Source: World Bank, World Development Indicators, 2000.

4- First-Time Job-Seekers: One of the most interesting aspects of the nature of unemployment in Saudi Arabia is that first-time job seekers are over represented among the unemployed. Almost 70 percent of the unemployed are first-time job-seekers (Shaban et al., 1993). This illustrates the fact that unemployment does not arise from workers being laid off from their jobs; rather, new entrants into the labour force are not able to find jobs. In other words, unemployment is not random across generations, as it disproportionately affects young workers.

Having presented some important features of the unemployment problem in Saudi Arabia, in the next section we shall discuss the reasons behind youth unemployment in Saudi Arabia.

4.5.3 Causes of Unemployment

There are many different possible causes of unemployment. Economically speaking, the causes of unemployment can be split into two main types: demand-side and supply side. The first cause of unemployment (demand side) is simply a lack of aggregate demand. Unemployment caused by supply-side factors may result from occupational or geographical immobility, poor information about job opportunities and changes in the workforce. Quarles and Hannenberg (1982) describe some of the causes of youth unemployment as follows:

> "A substantial proportion of youths are disadvantaged, facing barriers in finding employment. These barriers include inadequate training and marginal basic skills. Moreover, many are lacking the attitudinal and job-seeking skills necessary to gain and maintain jobs. For the most part, the jobs available to teenagers are at the bottom of the scale. Predictably, many of these jobs have few incentives for the employer and the employee to develop a long-term relationship. Dead-end jobs tend to produce high turnover and high unemployment even when overall unemployment is low. Fundamentally, the problem of youth unemployment is the same as that of the adult population – not enough jobs to go around" (p. 63)

The causes of youth unemployment in Saudi Arabia include, first of all, the economic recession, which has led to a freeze on government employment. Mention should also be made of the role played by the growth in population.

The result has been that more job-seekers have been thrown into the labour market. as there is no longer a sufficient number of government jobs. Expatriate workers are yet another cause of unemployment in Saudi Arabia, where at least 60 percent of the total labour force are non-Saudis. Furthermore, as a result of an inadequate education and training system, fewer Saudi job-seekers are able to secure employment. Finally, the percentage of Saudis employed in the private sector is very low. This poor participation in the private sector is considered to be an important cause of unemployment among young Saudis. These causes are discussed below in more detail.

4.5.3.1. Poor Economic Conditions

According to Levien (1983), the general state of the economy has been proven to be most consistently related to youth unemployment throughout the world. In Saudi Arabia youths have had a harder time finding jobs as economic expansion has slowed. Saudi Arabia needs growth of at least 6 percent a year to stop unemployment from rising, but the economy grew less than 1 percent annually in the 1990s compared with 11 percent a year in the 1970s (Cordahi, 2002).

This economic growth has failed to keep pace with population growth, resulting in a dramatic fall in per capita income from US $28,600 in 1981 to $6,300 in 2000 (East Asia Analytical Unit, 2000). Although oil prices have increased up to $30 per barrel in 2000 and $25 in 2001, the Saudi government is still facing a huge budget deficit. In fact, the Saudi government's budget deficits stands at $164 billion in 2002, according to the Saudi American Bank, equivalent to 100 percent of GDP.

The United Nations Economic and Social Commission for West Asia (ESCWA) stated that the real growth of gross domestic product (GDP) in Saudi Arabia would be just 0.5 percent in 2002, close to recession levels. Accordingly, the government cut public spending plans for the year 2002-2003 by 20 percent, to $57.3 billion (Appleby and Eyres, 2002). Table 4.7 shows the GDP and GDP growth in Saudi Arabia since 1990 according to Consulting Centre for Finance and Investment (CCFI) estimates.

These cuts will add to Saudi Arabia's unemployment rate and put additional pressure on the government to sell off state assets and introduce more competition into the economy. The long-term decline in per capita GDP and the demand for more jobs by Saudi citizens emphasises the need for the Saudi Government to continue with policies aimed at encouraging private sector growth.

In short, the economic growth of Saudi Arabia has been insufficient to create enough employment opportunities to absorb the rapidly increasing labour supply. Thus, unemployment will be a serious problem, at least in the short term in the Saudi Arabian economy.

Table 4.7 GDP Debt and GDP Growth in Saudi Arabia

Year	GDP (nominal) SR million	Debt as a % of GDP	GDP Growth %
1990	391994	43	26
1991	442034	38	13
1992	461398	51	14
1993	443842	64	-4
1994	450025	98	1
1995	478652	97	6
1996	529250	92	11
1997	548440	91	4
1998	481204	114	-12
1999	535024	110	11
2000	648958	87	21
2001	668000	89	3
2002	601200	105	-10

Source: The Consulting Centre for Finance and Investment (CCFI): Saudi Arabia (2002).

4.5.3.2 Population Growth

The Saudi government is acutely aware of the Kingdom's population explosion and the impact of this on the job market and unemployment. According to Saudi Central Department of Statistics estimates (2000), the Saudi Arabian population in 2000 was 22.01 million, while the average rate of growth was 3.5 percent during 1995-2002. It was estimated that Saudis accounted for 16.21 million, or 73.6 percent of the population, while non-Saudis accounted for 5.80 million or 26.4 percent (Saudi Arabia Monetary Agency, 2001). An examination of the age composition of the Saudi population during 2000 reveals that about 74 percent of the entire population was below 30 years of age.

According to figures from the Central Department of Statistics, Saudi Arabia's total population will number 29.02 million in 2010. By 2020, the department estimates that 36.4 million people will be living in the Kingdom. Table 4.8 present the population structure of the Kingdom during 1995, 1999 and 2000.

Table 4.8 Saudi Arabia population structure during 1995, 1999 and 2000

Variable	Years		
	1995	1999	2000
Total population (m)	19.80	21.33	22.01
Annual growth rate %	3.6	3.2	3.1
Average growth rate in the period 1995-2000 %	3.1		
Saudi population (m)	13.59	15.66	16.21
Annual growth rate %	3.6	3.5	3.5
Ratio to total population %	72.3	73.4	73.6
Average growth rate in the period 1995-2000 %	3.5		
Non-Saudi population (m)	5.21	5.68	5.80
Annual growth rate %	1.7	2.4	2.2
Ratio to total population %	27.7	26.6	26.4
Average growth rate in the period 1995-2000 %	2.1		

Source: Saudi Arabia Monetary Agency Annual Report, 2001.

Demographic shifts towards a lower birth rate are common in developing countries, particularly as urbanisation increase, women enter the labour force, and economic pressures lead to smaller families. However, the growth rate is still high in Saudi Arabia. This is in fact due to a number of factors: first, the high fertility rate of Saudi women which declined from 6 infants per woman during the 1980s to 5.5 infants in 2000. Other contributory factors are the improvements in living and health in the Kingdom, leading to a decrease in the mortality rate and a rise in the life expectancy of the population (Saudi Arabia Monetary Agency, 2001).

The Saudi population has the characteristics of a developing country, with the average age of the population during 2000 being 16 years. It is now considered that at least 60 percent of the population are under 20 years old and the vast majority are of working age. There were 660,000 adult Saudis coming into the labour market annually between 1994 and 1999. This figure will spectacularly increase as the baby boomers of the 1980s come of age. The extent to which the rate of Saudi population growth does or does not drop after 2000 will have a huge impact on Saudi Arabia's economic wealth and development. It will determine the size of the labour force, the scale of the problems created by Saudization and unemployment (Cordesman, 2002).

The Saudi government is well aware that the population is fast-growing and young. The prospect of having to provide gainful employment for the youth of today puts a great deal of pressure on the Saudi government to take steps to create the necessary jobs.

4.5.3.3 Inadequate Education and Training

The lack of qualifications among Saudi job-seekers is another reason for the unemployment problem. In fact, there are few Saudis who have the necessary skills to replace foreign technicians, mechanics, and other skilled workers. This is a result of the inadequate education and training system. If the education system were functioning adequately, it would create more qualified skilled youths who would not face the prospect of unemployment. The education system does not appear to be effective. since the problem is not the number of students but the quality and type of education. The result is high unemployment for young Saudis just entering the job market. Studies by the ILO and the World Bank in the late 1990s indicated that the Saudi educational system is failing to educate either male or female students for future jobs adequately, and is steadily deteriorating in quality and economic relevance (Cordesman, 2002).

Here are some examples which illustrate the problem of Saudi education system: first, education does not encourage particular intellectual interests, which result in many graduates lacking the necessary qualifications to find a job. For example, social science and literature students predominate among Saudi students. There were only 10,000 engineering graduates out of a total of 114,000, compared with 48,000 in social sciences and literature. In addition, Saudi students drop out of vocational education in large numbers: estimates indicate that 27.9 percent of new labour market entrants during the Sixth Plan period will be dropouts from elementary level and adult vocational training programmes (Ministry of Planning, 1994).

Some Saudi experts indicate that the educational standards in Saudi Arabian institutions are much lower than foreign institutions. The result is that Saudi youth are competing in a highly sophisticated market with weak skills. The problems of mismatching between the Kingdom's educational output and the expansion of the job market will remain. According to Al-Shubaily of the Saudi Chamber of Commerce and Industry, "the demand for jobs is high, the key is qualifications," and this is why the Saudi education system is now attempting to channel young nationals away from universities toward technical training (Champion, 1999).

4.5.3.4. Expatriate workers

The Saudi Arabian economy relied heavily on foreign workers during the oil boom of the 1970s and 1980s. The growing economy led to a shortage in the number of workers needed from the lowest paid manual labour through middle management to top executive jobs. Foreign labour provided essential skills that the Saudi labour force was not yet able to provide.

The huge presence of foreign workers in the Saudi labour market is now a major cause of unemployment among Saudi nationals. The problem is that a large number of foreign workers also occupy jobs that Saudis may accept in times of high unemployment. The Saudi Arabian Monetary Agency (2000) statistics show that there are nearly as many foreign university graduates in Saudi Arabia as there are native Saudis (536,000 as opposed to 594,000), some 232,000 more foreigners with a diplomas, 565,000 with secondary school certificate, and 598,000 with an intermediate education. This is nearly half of all foreign workers in Saudi Arabia.

According to Saudi estimates, the total number of the labour force in the Kingdom stood at 7.2 million in 1999. Saudis accounted for 44.2 percent (3.2 million workers) of the total, while, non-Saudi workers constituted 55.8 percent (4.0 million) of the total (Saudi Arabia Monetary Agency, 2001). About 85 percent of Saudi Arabia's foreign workers worked in the private sector, 50 percent in industrial and related jobs.

The percentage of expatriate workers is not expected to change in the short term. The situation has caused some social tension in recent years, particularly in the cities where 78.5 percent of the total Saudi population lives, because young Saudis are obliged to compete with foreigners when seeking employment.

The government responded with programmes to expel illegal workers in 1995 and 1997, as well as by making stricter rules for the issuing of visas for foreign workers. They also encouraged the Saudization policy (discussed later in this chapter). The structure of the labour force in the Kingdom during 1999, as reported by Saudi Arabia Monetary Agency (2001) is shown in Table 4.9.

Table 4.9 The structure of the labour force in Saudi Arabia during 1999

Variable	No. of Workers (in Thousands)	Ratio
Labour force	7,176.3	100.0
Saudi	3,172.9	44.2
Non-Saudi	4,003.4	55.8
Total labour force in government sector	916.2	100.0
Saudi	716.5	78.2
Non-Saudi	199.7	21.8
Total labour force in private sector	6,260.1	100.0
Saudi	2,422.7	38.7
Non-Saudi	3,837.4	61.3

Source: Saudi Arabia Monetary Agency Annual Report, 2001.

4.5.3.5 Poor Private Sector Employment of Saudis

The percentage of Saudis employed in the private sector is relatively small compared to the public sector. Table 4.9 shows that only 38.7 percent of the total labour force in the private sector is Saudi compared with 78.2 percent in the public sector. The weak participation of Saudis in the private sector is due to the large number of foreigners.

The private sector is being pushed towards increasing the proportion of nationals in employment, and charges for work permits and exit/re-entry visas have been raised substantially, making it more expensive to hire expatriate workers. As a consequence, private companies are expected to increase the percentage of Saudi employees among their total number of employees by 5 percent per annum. Some companies, however, seem unwilling to offer even the minimum percentage of jobs to Saudis. This is another important factor contributing to the Kingdom's high unemployment rate.

The fact is that market forces in a healthy private sector will be more effective in creating jobs for Saudis than government attempts to force companies to hire Saudis. At the same time, job creation in the private sector has been slow and unable to absorb the excess from the public sector. Moreover, most of the new jobs in the private sector are in the low-productive, low-wage services and agricultural sectors, which are not acceptable to many Saudi job-seekers.

To conclude, the private sector is unlikely to grow fast enough to absorb the large number of new entrants into the labour market at least for the next decade. According to Saudi American Bank (2002b), the private sector is able to create only enough new jobs to absorb perhaps one in three Saudis seeking work.

4.5.4 Combating Unemployment

Given the rapid increase in the number of youths unemployed in Saudi Arabia, new entrants to the labour force who do not find appropriate jobs represent a greater threat to social stability. The government has taken several steps to combat the problem. These steps can be divided into three main areas: economic, social and educational. These steps are discussed in this section.

4.5.4.1 Upgrade the Quality of Education and Training

The country does not lack universities or educational institutions, but it does definitely lack quality in education. There are many reasons for this among them the current educational philosophy in the country, which is directed towards the theoretical rather than the practical domain.

It may be desirable to have graduates in history or geography, but the top priority should go to science. Therefore, the Saudi Arabian government is trying to re-design the contents of education in order to meet the technical requirements of the twenty-first century, with an emphasis on cognitive and advanced technical skills. Such improvements require a redirection of budget allocations to reflect increases in the number of effective higher educational institutions and the expansion of vocational training programmes.

The government has been taking concrete steps to increase training opportunities for its nationals and to make the private sector more attractive, with better benefits and a guaranteed minimum wage. The government is now contemplating the establishment of a new, flexible training system which will enhance the employability of graduates from the system. This will be known as the "National System for Joint Training (NSJT)" where programmes require longer duration of study and training, both in theory and practice in the workplace (Al-Dekhayyel and Abdulgabar, 2001). The private sector will provide the practical training under the supervision of both the Chambers of Commerce and Industry and the GOTEVOT.

The main objective of this system is to educate a large number of trainees according to the needs of the labour market. On-the-job training by private sector companies is also one suggestion for improving training opportunities for Saudi job-seekers.

Concerning school-to-work transition programmes, the Bank of Beirut and Arab Countries (BBAC) (2001) reported that the government had established a fund for human resources development, which is expected to have revenues of $200 million that will be used to solve the unemployment problem through the training of 50,000 young Saudi nationals per year and their preparation to work in the private sector.

4.5.4.2 The Saudization Policy

One option the government has in dealing with the unemployment problem is to substitute Saudis for foreigners in the labour force (the Saudization Policy). This section will examine this policy in some detail as a reflection of its importance. The meaning of Saudization will be discussed, followed by a brief description of the steps towards Saudization through Saudi Development Plans.

4.5.4.2.1 The meaning of Saudization

The general meaning of Saudization is replacing the Kingdom's five million foreign workers with as many Saudis as possible. However, it must be ensured that Saudi graduates are qualified for a wide range of jobs.

As Al-Maeena (1997) states,

> "A lot of writers these days focus on Saudization. Too many have bored us with their theories; they begin to sound like broken records. Personally, I believe Saudization means getting a young Saudi prepared to do a job, rather than simply putting him or her into a job and hoping for the best". (p.1)

One example of Saudization efforts, which was implemented in year 2001 by the Saudi government, is the decision to replace foreign workers in jewellery shops with Saudi nationals. This policy produced 20,000 job opportunities in the jewellery sector for Saudi job-seekers, especially new graduates. At that time, only 7% of the manpower in the jewellery sector, which employs more than 50,000 people, was represented by Saudi workers.

4.5.4.2.2 Saudization and Development Plans in Saudi Arabia

The Saudi Arabian government has recognised the need for Saudization for nearly two decades. The last four development plans have addressed the issue, but the amount of the progress made has not been encouraging. A brief description of the progress that has been made during the last four development plans is presented below.

The Fourth Five-Year Development Plan (1985-1990) attempted to alleviate these problems by seeking a 600,000 man reduction in the number of foreigners in the Saudi labour force by 1990. In fact, the number of foreign employees increased by 200,000.

No improvement took place under the Fifth Development Plan (1991-1995). The numbers of foreign employees increased at a rate of 8 to 10 percent per year during 1993-1994. Almost 500,000 more working visas were issued in 1995 than in 1994, and the total number of expatriate workers and their families living in Saudi Arabia rose to 6.2 million (MEED, 1996). The government responded by raised the cost of work permits for foreign labourers from SR 1,000 to SR 2,000 ($ 534).

The Sixth Development Plan (1996-2000) called for accelerated Saudization. It set a goal of creating 191,700 new jobs, 148,700 vacancies as a result of turnover, and the creation of an additional 319,500 jobs by replacing foreigners with Saudis. It also called for the creation of 660,000 new jobs in the private sector.

The government took various steps to promote this policy. In 1999, for example, the government denied visas to foreigners applying for certain categories of jobs. Additional steps were taken in 2000 when the government stated that all private firms employing more than 20 people must increase their Saudi-born staff by 25 percent by October 1, 2001, and then by 5 percent per year after that (Gulf Wire Digest, 2000).

The Seventh Development Plan (2001-2005) sets a goal of creating 817,300 new jobs for entrants to the job market. The plan places special emphasis on the development of human resources and the provision of adequate job opportunities. This is attributed to the keenness of policy makers to increase the participation of national workers, raise their efficiency to meet the requirements of the national economy, and replace non-Saudi with Saudi manpower. It calls for the creation of an additional 488,600 jobs by replacing non-Saudis with Saudis. It also calls for the rationalisation of the recruitment of the non-Saudi labour force and limits jobs in some occupations and sectors to native Saudis.

However, the Seventh Development Plan figures do not answer many statistical questions. For instance, they do not provide an estimate of the percentage of young Saudis entering the labour forces who will get jobs, or of the overall level of employment that will result. The Ministry of Planning data also do not clearly discuss important issues such as the freeze on government jobs.

Moreover, almost all Saudization and job creation mentioned in the plan has to take place in the private sector. Most importantly, job creation, when taking into account the number of young Saudis entering the labour force would meet only about 50 percent of the total demographic need (Cordesman, 2002). Consequently, the Seventh Plan provides little evidence that the Saudi job market will keep up with population growth, or make anything like the progress in Saudization that the Kingdom actually needs.

In summary, these "Saudization" efforts have so far had only a limited effect. The main success of the Saudization programme has been in government jobs which often are awarded without demanding the proper qualifications and performance, and in white-collar jobs in fields such as banking. The process of Saudization should not take place at the expense of the efficiency and productivity of the national economy.

4.5.4.3 Privatisation and Foreign Investment

Unemployment among young people, including graduates, is an economic and social concern of the authorities in Saudi Arabia. This is one important reason for the Saudi government to encourage privatisation and foreign investment in the Kingdom.

The objective of privatisation is to improve the efficiency of parastatal industries and reduce the fiscal debt. The privatisation of certain public sector enterprises is among the general objectives and strategic principles of the Saudi development plans. It would increase the role of the private sector in the economy. Privatisation could make several public sector institutions more efficient.

More importantly, the income generated from privatisation could be used to retrain the national workforce and help assimilate them into the private sector, as well as providing more employment opportunities in the economy (The National Commercial Bank (NCB), 1994). To date, there has not been a significant amount of privatisation work in Saudi Arabia. Crown Prince Abdullah has, however, described it as a "strategic choice" and it is clearly part of the government's overall plan to open up the economy. The Saudi Telecommunications Company has already been partially privatised, while Saudi Airlines and the Saudi Electricity Company have been earmarked for privatisation.

On the other hand, the government is establishing a new General Investment Authority to encourage inward investment. The government is changing the 30-year-old law governing direct foreign investment in the Kingdom in to attract more foreign capital, as well as effecting the repatriation of Saudi assets that are invested abroad. Saudi Arabia, which has the biggest economy in the region, has just launched a five-year programme aimed at attracting investment and creating jobs (Abdel Razek, 2001). For example, the government is now discussing the development of the gas sector with several international companies. These companies will invest $25bn in three huge oil projects over the five coming years. Natural gas is expected to become the new engine of the Saudi economy, as those projects will increase the government's overall revenues from $11bn to an estimated $23bn.

Of concern here is the indirect advantage concerning the labour market, as studies have shown that a $1bn investment in the gas sector will provide 10,300 to 20,000 jobs, in addition to 16,000 jobs in other industries, such as electricity, which will experience a substantial growth in order to provide the necessary infrastructure for these projects. The government should ensure that the largest possible number of Saudi job-seekers takes advantage of these new jobs to reduce the unemployment rate, which started increasing due to the decrease in public investment (BBAC Economic Report, 2001).

4.6 Conclusion

In chapter three, we examined the issues of education, training and youth unemployment in the developing countries. This chapter has shed light on these issues with regard to the Kingdom of Saudi Arabia. First, the location of Al-Hasa Province (the study location) was identified, followed by a brief review of the economic conditions in Saudi Arabia. The chapter continued by describing the education system in Saudi Arabia. General, higher, and technical and vocational education in the Kingdom face many challenges, which have been discussed.

Next, the chapter provided a review of the training activities in Saudi Arabia. The introduction looked at the nature of training, training institutions and problems with training in the Kingdom. These problems undoubtedly have negative effect on the efficiency of the training and education of Saudi nationals. Hence, the accumulation of human capital is going to be less. This problem is considered to be a major cause of youth unemployment in the country.

The problem of youth unemployment in Saudi Arabia was dealt with in the last part of this chapter. The dramatic rise in youth unemployment in the Kingdom during recent years has caused much concern, and has led to the introduction of different comprehensive policies aimed to solve the problem. The problem may be alleviated if net population growth falls, and by applying effective education and training systems. It will also be alleviated by achieving substantial growth in other sectors of the Saudi economy and by creating more jobs for Saudis by shifting from a mainly foreign labour force to one that is mainly Saudi.

The Kingdom has to experience strong economic growth if it is to keep up with a fast-increasing and young population, and to rise the challenge of finding good jobs for its people outside of the public sector, which is over-employed and a drain on the country's budget. The Kingdom's economic stability requires a much more profound demographics and social change. Further, a radical improvement is necessary in education standards and the development of job skills. The education system needs to improve its quality and change its focus.

Also, there is a significant need for manpower training in Saudi Arabia to cope with the Saudization programmes as part of the national Development Plans. Saudization and job creation, especially in the private sector, require more than good intentions. In this regard, the government should give the private sector clear priority in economic development and accelerate the introduction of every measure that will aid the private sector in job creation. Also, the private sector needs a network in order to identify their needs in terms of skills, trades and numbers, and in terms of the right training programmes and curricula.

This chapter concludes the first part of the study, which has presented the theoretical foundation of the work. Part two, as mentioned in the introduction, will present the empirical research, which is based on the theoretical concepts discussed previously. Accordingly, the next chapter will first examines the research methodology selected, prier to the empirical analysis.

CHAPTER FIVE

RESEARCH METHODOLOGY

5.1 Introduction

Concern about the youth transition from school to work goes back as far as the mid-1800s (Law, Knuth and Bergman, 1992). Recently, in developed countries, interest in the transition from school to work has been increased by the presence of high levels of youth unemployment. Economic and sociological theories acknowledge a strong relationship between education and unemployment (Mincer, 1994). In fact, education is the main resource for youths entering the labour market in securing employment (Shavit and Walter, 1998). However, education is not the only influential factor for workers looking for jobs: demographic factors such as gender, social differentiation factors such as father's occupation, and labour market factors, such as employment history are also significant.

The presence of youth unemployment in Saudi Arabia means that an examination of the transition from education to the labour market is essential. Thus, the empirical work of this study attempts to analyse the relationship between these factors and labour market outcomes in Saudi youths' early labour market careers, or as it is called, in their transition from school to work. The main aim of the empirical analysis is to gauge the extent to which differences in labour market outcomes for market entrants may be related to differences among Saudi youth in their transition from education to work in terms of their qualification profiles. The purpose of this chapter is to present the main research questions, the methodology used to answer them, the testable hypotheses derived from the literature and research review presented in an earlier chapter, and the data set. In addition, this chapter will describe the design of the field survey that was conducted between November 2000 and February 2001.

The discussion in this chapter has been organised in seven sections. The next section presents the research questions and hypotheses. This is followed by section three which provides details of the methods and design of this research. Section four describes the population and sample design, while section five discusses the design of the questionnaire and the pilot test conducted prior to the field-work. Section six outlines the method of data preparation and the statistics tools employed in arriving at the results. Finally, section seven presents the conclusion to the chapter.

5.2 Research Questions and Hypotheses

The transition from education to work is one of the most crucial phases in the life cycle of individuals, since it often channels and shapes individual careers and life opportunities. This section deals primarily with a review of the research hypotheses.

The research has been conducted in order to develop the understanding of the school-to-work transition in Saudi Arabia by investigating the factors affecting success and failure in education outcomes and labour market integration. The main objective of this research, as discussed in the first chapter, is to explain differences among Saudi youth in the nature and success of their transitions from education into the labour market.

The analyses of these transitions are based on cross-sectional analyses at the individual level, using secondary data for young people during their full-time education, unemployment period and initial years in the labour market. As discussed earlier, this study focuses on four groups of explanatory variables: demographic, family background, education/training and labour market variables. It is expected that the result of this study will be to enable us to establish a linkage between these variables and youth transition outcomes in Saudi Arabia.

The major research questions that guided the study focused on the nature of the school-to-work transition of Saudi youth. On the basis of the literature review carried out in chapter two, and taking into account the nature of Saudi Arabia society in the previous chapter, the research seeks to answer the following questions by testing their related hypotheses:

Q1 How does school-to-work transition activity vary among respondents in terms of their demographic, family background, education/training and labour market variables?

We propose four general hypotheses:

- *There is no significant relationship between the demographic variables of the respondents and their transition activity.*
- *There is no significant relationship between the family background variables of the respondents and their transition activity.*
- *There is no significant relationship between the education and training variables of the respondents and their transition activity.*
- *There is no significant relationship between the labour market variables of the respondents and their transition activity.*

Q2 To what extent is the respondents' early school-leaving decision related to differences in demographic, family background and labour market variables?
We propose three general hypotheses:

- *There is no significant relationship between the demographic variables of the respondents and their early school-leaving decision.*
- *There is no significant relationship between the family background variables of the respondents and their early school-leaving decision.*
- *There is no significant relationship between the labour market variables of the respondents and their early school-leaving decision.*

Q3 To what extent is the respondents' higher education status related to differences in demographic, family background and labour market variables?
We propose three general hypotheses:

- *There is no significant relationship between the demographic variables of the respondents and their higher education status.*
- *There is no significant relationship between the family background variables of the respondents and their higher education status.*
- *There is no significant relationship between the labour market variables of the respondents and their higher education status.*

Q4 To what extent is the respondents' training qualification related to differences in demographic, family background, educational and labour market variables?
We propose four general hypotheses:

- *There is no significant relationship between the demographic variables of the respondents and their training qualification.*
- *There is no significant relationship between the family background variables of the respondents and their training qualification.*
- *There is no significant relationship between the education variables of the respondents and their training qualification.*
- *There is no significant relationship between the labour market variables of the respondents and their training qualification.*

Q5 How does unemployment duration vary among unemployed respondents in terms of their demographic, family background, education/training and labour market variables?
We propose four general hypotheses:

- *There is no significant relationship between the demographic variables of the unemployed respondents and the duration of their unemployment.*
- *There is no significant relationship between the family background variables of the unemployed respondents and the duration of their unemployment.*
- *There is no significant relationship between the education and training variables of the unemployed respondents and the duration of their unemployment.*
- *There is no significant relationship between the labour market variables of the unemployed respondents and the duration of their unemployment.*

Q6 To what extent are the unemployed respondents' job offers related to differences in demographic, family background, education/training and labour market variables?

We propose four general hypotheses:

- *There is no significant relationship between the demographic variables of the unemployed respondents and their job offers.*
- *There is no significant relationship between the family background variables of the unemployed respondents and their job offers.*
- *There is no significant relationship between the education and training variables of the unemployed respondents and their job offers.*
- *There is no significant relationship between the labour market variables of the unemployed respondents and their job offers.*

Q7 To what extent is the employed respondents' search for another job related to differences in demographic, family background, education/training and labour market variables?

We propose four general hypotheses:

- *There is no significant relationship between the demographic variables of the employed respondents and their search for another job.*
- *There is no significant relationship between the family background variables of the employed respondents and their search for another job.*
- *There is no significant relationship between the education and training variables of the employed respondents and their search for another job.*
- *There is no significant relationship between the labour market variables of the employed respondents and their search for another job.*

These hypotheses will be tested and discussed later, in chapter seven. The following section will describe the research design and the method which was employed to achieve the objectives of this study.

5.3 Research Method and Design

An explanation of research methodology is very important in any study. It helps the readers to understand the process of the research. Methods indicate the process by means of which the researcher collects his or her data. In other words, methods refer to the procedures used in the process of data collection. The nature of this research is both descriptive (dealing with questions concerning what things are like) and explanatory (dealing with questions concerning why they are that way).

The method of data collection used in this research, was the research survey, consisting of a self-administered questionnaire (where the respondent completes the questionnaire in private and anonymously) as the research instrument. Brief descriptions of the available options are presented below in order to justify the selection of the method used here.

5.3.1 Types of Research

Most research projects may be assigned to one of four broad categories: historical research, relational research, experimental research and descriptive research. However, it is important to note that each of these types or researches has its own purpose and area of application (Baily, 1978).

The purpose of historical research is to arrive at conclusions concerning trends, causes or effects of past occurrences which may help to explain present events and to anticipate future events. A relational study, on the other hand, is designed to investigate the relationships between two or more variables, while, experimental research is designed to determine whether one or more variables causes or affects one or more outcomes. Finally, the term descriptive research may be applied to a study designed primarily to describe what is going on, or what exists. For instance, if we want to know what percentage of the population would vote for a democrat or a republican in the next United States presidential election, this type of research would be carried out.

The fundamental difference between descriptive and experimental research is that in the former, the researcher accounts for what has already occurred, while in the latter, he arranges for events to happen (Trochim, 2001).This research is considered to be a descriptive study, since it aims to describe what is going on, or what exists, with regard to the school-to-work transition of Saudi youths.

5.3.2. Survey Method

Among the most commonly used methods of data collection in descriptive research is the survey method. Surveys can be useful when a researcher wants to collect data on phenomena that cannot be directly observed. Surveys are used extensively in social science research to assess attitudes and characteristics of a wide range of subjects. According to Babbie (1995),

> "Survey research is probably the best method available to the social scientist interested in collecting original data for describing a population too large to observe directly" (p. 257)

There are two basic types of survey: cross-sectional survey and the longitudinal.

The cross-sectional survey: This type of survey, it is used to gather information on a population at a single point in time, perhaps over a period of days or weeks or months, in order to answer a research question (Saharan, 1992). An example of a cross-sectional survey would be a questionnaire that collects data on how parents feel about internet filtering, as in that of March 1999. The survey used in this study falls into this category.

The Longitudinal survey: The researcher gathers data over a period of time. He or she may then analyse changes in the population and attempt to describe and/or explain them.

There are several data collection methods used in survey studies. These methods include personal interview, telephone interview, self-administered questionnaire, drop-off questionnaire and mailed questionnaire, or a combination of these (Clover and Balsley, 1984). In this research study two types of data collection method have been used: self-administered questionnaire and the mailed questionnaire.

Self-administered questionnaires are recommended whenever there is a need to survey a population for which there is not a complete list of members, or when collecting information from people unlikely to respond by mail. On the other hand, mailed questionnaires are best suited for surveys of people for whom reliable addresses are available and who are likely to respond accurately and completely (Salant and Dillman, 1994).

In this study, a mailed questionnaire was used mainly with the employed sample, and particularly in the private sector companies.

5.3.3 Research Instrument

Surveys may be divided according two methods commonly used by researcher: the questionnaire and the interview. Questionnaires are usually pencil-and-paper instruments that the respondent completes. Interviews are conducted by the interviewer based on what the respondent says. In addition to these two methods. several other types of instrument are available such as the document analysis form. A combination of any of these methods may also be used. However, the questionnaire is the most commonly used method, especially in survey research. It is a highly structured data collection method in which each respondent is asked the same questions. In this study, after reviewing the theoretical concepts of the research, as well as the nature of the respondents to be included in the research sample, a decision was made to use the self-administered questionnaire as the instrument of data collection. Also, conducting field-work to gather sufficient data can be a time-consuming process. Therefore, a questionnaire was also selected on the basis of its being a quick method of conducting a study.

The researcher had only limited time to spend on field-work, but required a sufficient quantity of data to achieve success. It was partly for this reason that the questionnaire method was used in order to obtain adequate information within the time limit. In fact, there are many particular reasons for selecting a specific instrument. There must be a match between the instrument and the research method in any research. Thus, it is important to note that there are particular conditions under which each of these data collection approaches is efficient. Fowler (1993) has suggested that the following issues need to be considered when choosing the data collection method:

1-Sampling: The means by which a researcher plans to draw a sample is closely related to the manner of collecting data. Certain types of sampling approach make it easy or difficult to choose a data collection strategy. For example, if the sample includes respondents from rural areas, where the houses have no specific addresses there may be problems in using mail survey.

2- Type of Population: The characteristics of the population, such as their educational background and their motivation to cooperate with the researcher, are significant considerations when selecting the instrument. The self-administered method, for instance, would require a certain level of skill on the part of the respondents to ensure reliable responses to the questions posed. Further, with mail surveys, it is often difficult to get people to return the completed questionnaire unless they are highly educated or interested in the research subject.

3- Question Form: In general, if the researcher is going to use a self-administered questionnaire, a closed-ended form is recommended, that is. questions may be answered simply by marking a box from a set of answers provided by the researcher. This researcher selected this particular form for two reasons. First, asking people to answer questions in their own words increases the difficulty of their task, which will ultimately affect the rate of their responses. Secondly, and more importantly, self-administered open answers often do not produce useful data. The answers are not always completed by all respondents and are very difficult to code.

4- Question Content: The nature of the questions to be posed plays a role in determining the data collection method. For example, when dealing with sensitive topics, self-administered procedures are thought to be best, since respondents will feel free in selecting their answers and will not have to admit directly to an interviewer a socially undesirable or negatively valued characteristic or aspect of their behaviour. As the questionnaire designed for this study does include several personal questions, this was another reason for having the questionnaire self-administered.

5- Others: These include factors such as: the response rate, costs, as well as the time available. Each of these factors needs to be considered carefully before making the final decision.

5.4 Population and Sample Design

The issue of population and sampling is very important, because it is often the case that researchers have limited time and resources, and are therefore unable to survey all those individuals who might possibly be relevant to the study.

In consequence, a representative sample (a sample that reflects the nature and characteristics of the population) of the whole population would enable the researchers to draw statistical inference on the population parameters from the sample statistics. For this reason, the population needs to be exactly defined and carefully specified according to the research objectives, since the result will depend on the definition adopted (Kalton, 1983).

According to Sekaran (1992), sampling is the process of selecting a sufficient number of elements from the population so that by studying the sample, and understanding the properties or characteristics of the sample subject, researchers will be able to generalise these properties or characteristics to the whole population.

There are several reasons why researchers use samples rather than collection data from the entire population. Emory (1985), for example, mentioned the following reasons:

1- It would be impossible, impractical and extremely expensive to collect data from all the potential units of the analysis covered by the research problem.

2- Studying a sample is also sometimes likely to lead to more reliable results, mainly because there will be fewer shortcomings, and hence fewer errors in data collection, especially when there are many elements involved.

3- Researchers using the sampling technique can obtain results much more quickly than they could if studying the entire population.

In other words, the subject of sample design is concerned with the technique of selecting the part of the population to be included in the survey. It is unlikely though, that a perfect representative sample may easily be drawn.

5.4.1 Characteristics of Sampling Techniques

A sample is a part of the population. It comprises certain members selected from the population (Emory, 1985). The principal requirement for any sample to be accurate is that it must be as representative as possible of the population from which it is drawn. A sample is considered to be representative if any analyses made using the researcher's sampling units produce results similar to those that would be obtained had the researcher analysed the entire population (Bryman, 1989). Researchers have identified two major types of sampling designs: probability and non-probability sampling.

1- Probability Sampling: This means that all the elements in the population have the same chance of being included in the sample (Nachmais and Nachmias, 1996). A great advantage of using this method is that selection bias will be largely eliminated and sampling error-differences between the sample and the population, will be reduced.

Probability sampling can be either unrestricted or restricted in nature. In unrestricted probability sampling, know as simple random sampling, every element in the population has a known and equal chance of being selected in the sample. On the other hand, restricted sampling includes several complex probability sampling designs. The most common complex probability samplings are: systematic sampling, stratified random sampling and cluster sampling (Sekaran, 1992).

2- Non-Probability Sampling: This indicates sampling in which there is no assurance that every element has some chance of being included in the sample. In other words, the elements do not have a known or predetermined chance of being selected in the sample (Cooper and Emory, 1995). The concern in this study was to select a good representative sample; hence the focus here is on probability sampling. Further discussion of non-probability sampling is therefore unnecessary.

As mentioned above, there are a variety of probability sampling techniques (any method of sampling that utilises some form of random selection) that have been used to provide efficient sample designs. Among the most widely used are simple random sampling, stratified random sampling, systematical sampling, cluster sampling and the multistage cluster sampling. Sometimes researchers use more than one of these techniques. Many researchers for example, De Vaus (1996), have discussed the characteristics of the different sampling techniques, as follows:

1- Simple Random Sampling: A simple random sample is one in which each member (person) of the total population has an equal chance of being picked for the sample. In addition, the selection of one member should in no way influence the selection of another. Simple random sampling should be used with a homogeneous population, that is, one composed of members who all possess the attribute you are interested in measuring. One problem associated with this particular method is that it requires a good sampling frame, and this is not always, unfortunately, available.

For example, in this study, the sampling frame would be a complete list of all students, unemployed and employed, in Al-Hasa Province, Saudi Arabia. It would be an almost impossible task to obtain such a list within the constraints of time and resources. In addition, statistics for unemployed youth are unavailable in Saudi Arabia. In other words, simple random sampling should be used only if the population is large and a good sampling frame exists.

2- Stratified Random Sampling: A stratified random sample is defined as a combination of independent samples selected in proper proportions from homogeneous groups within a varied population. A heterogeneous population is composed of unlike elements; such as, officers of different ranks, civilians and military personnel. The technique consists of taking samples from each stratum or sub-group of a population where the proportion of each stratum in the sample should be the same as in the population. This method is used when there is a need for a representative sample including many population attributes.

This technique is also frequently used by researchers due to the extra level of accuracy that it provides. A good representative sample requires that the proportion of the various groups should be the same as in the population. However, due to sampling error this will not always be possible. Sometimes this may not matter, but if the characteristic in terms of which the sample is not representative relates to the focus of the study, then there will be a risk of misrepresentation.

3- Systematic Sampling: This method is a modified version of simple random sampling. It involves selecting subjects from the population list in a systematic, rather than, a random fashion. This method saves a considerable amount of time and there is less variability in this type of sample. However, it has the disadvantage of an increase in sampling error related to the ordering of the population members.

4- Cluster Sampling: This is a technique by means of which the entire population is divided into groups or clusters, and a random sample of these clusters is selected. Cluster sampling is typically used when the researcher is unable to obtain a complete list of the members of a population he or she wishes to study, but can obtain a complete list of groups or 'clusters' of the population. It is also used when a random sample would produce a list of subjects so widely scattered that surveying them would prove to be far too expensive. This sampling technique may well be more practical and/or economical than simple random sampling or stratified sampling.

The basic procedure for arriving at a final sample involves drawing a single cluster that that corresponding to an areas of the geographical regions being covered. Originally, the major four areas in Al-Hasa Province were selected, and then, the method of selecting individuals was employed. When cluster sampling is based on certain geographic locations, it is referred to as area cluster sampling. The stratification method follows the sampling of clusters. In short, in this study stratified random sampling was used to select the sample after clusters had been identified.

5.4.2 The Sampling Process

The selecting of a good representative sample with the minimum sampling error is a long and tedious process, but is necessary as a bad sample might produce imprecise analyses. Churchill (1995) and others have suggested a series of steps that may be used as a guide in drawing the research sample.

1- Define the Population: Population refers to the total collection of elements about which the researcher wishes to make some inferences (Cooper and Emory, 1995).

It is the entire group of people, events, or topics of interest that the researcher wishes to investigate and study. As has been mentioned earlier, the subject of this research is the STW transition of young people in Al-Hasa Province in Saudi Arabia. Since the focus of this study is the Al-Hasa youth, the target population of this research is. obviously, the Al-Hasa youth. Thus, the population of this study may be defined as "All Saudi youth who were residents in Al-Hasa province at the time of the questionnaire".

2- Selecting the Sample: The technique selected to collect the sample data was a combination of the cluster (area) sampling technique and the stratified random selection method. First, four geographical locations were chosen for this study: Al-Hofuf city, Al-Mubarraz city, Northern villages and Southern villages. The strata of respondents were then identified as follows: (1) those who were in full-time education at the time of the questionnaire; (2) Those who were unemployed at the time of the questionnaire; (3) Those who were employed at the time of the questionnaire. Having identified the strata for sampling, it is necessary to decide how many respondents should be selected from each cluster.

3- Determine the Sample Size: A size of sample must be obtained that is sufficient to represent the population under study. If the size is inadequate, there is a likelihood of sampling error. According to Roscoe (1975), sampling sizes larger than 30 and less than 500 are appropriate for most research. The sample size depends on two key factors: first, the degree of accuracy required for the sample, and secondly, the extent to which there is variation in the population with respect to the key characteristics of the study (De Vaus, 1996). Working within the constraints of time and resources, the researcher's target was a sample size of 200-600 from each stratum as a proxy for the total population.

4- Select the Sample Elements: Having determined the sample size, identified the cluster and the strata, the next step is to select the sample. This was done in three stages: first of all, in order to collect 600 questionnaires, 900 were prepared 300 sets for each stratum to make up for any loss or respondents' failure to respond. Next, with regards to the distribution of the questionnaires, it was decided to use both methods: mailing them and handing them out directly to the relevant respondents to ensure a high response rate. Finally, an arrangement was made with the respondents to collect the questionnaires at a later date. Out of 900 questionnaires, it was possible to collect only 411 to be included in the research analyses. They were as follows: (1) 153 students' questionnaires (2) 125 unemployed persons' questionnaires (3) 133 employed persons' questionnaires.

These numbers imply 51 percent 42 percent and 44 percent response rate or thereabouts, with regard to the three categories respectively. The total response rate was around 46 percent which is in general a good response rate. This high response rate could be attributed to the subject of the research, which deals with a new phenomenon that concerns most families in Saudi Arabia. It may also have been due to their knowledge of how beneficial research studies are.

5- Collecting the Data: The field-work was conducted between November 2000 and February 2001. In distributing the questionnaire, every effort was made to ensure unbiased results. It was almost impossible to obtain a balanced distribution of respondents throughout the strata. Of the 411 sets of questionnaire collected, 153 (37.2 percent) respondents were students, 125 (30.4 percent) respondents were unemployed and 133 (32.4 percent) respondents were employed.

5.5 Questionnaire Design

Questionnaires are an inexpensive way of gathering data from a large number of respondents. They are usually the only possible way of reaching a large enough number of respondents to allow a statistical analysis of the results. In this section some considerations regarding construction of questions will be reviewed in brief, followed by a description of pilot test conducted prior to the actual field-work. Finally, the content of the final questionnaire design will be summarised.

De Vaus (1996) believes that the model questionnaire should be clear, precise and consistently workable. The questionnaire design must minimize respondents' possible errors and also be capable of obtaining the right answers as far as possible.

5.5.1 Building the Research Questions

In designing any questionnaire, it is necessary to bear in mind the research questions and hypotheses that will need to be measured and analysed later. For this reason, it is always important to review the relationship between the questions in the questionnaire and the research questions. In explanatory research, for instance, it is helpful to determine the dependent and the independent variables.

The questions are the basic components of any questionnaire. They are designed to collect specific pieces of information related to the general research questions. The quantity and quality of information collected really depends on the quality of the specific questions included in the questionnaires (Summerhill and Taylor, 1992).

Marshall (1998) distinguished among five different types of question. Any one, or a combination of, these types of question may be included in a questionnaire. These five types are as follows:

1- Knowledge: What people know; how well they understand something. Choices implied in knowledge questions include correct/incorrect, accurate/inaccurate, what is accepted as true or factual.

2-Belief: What people think is true; an opinion. Beliefs are judgments of what people think exists or does not exist. Choices implied in these questions include what did or did not happen.

3-Attitude: How people feel about something; a preference. Such questions ask people to indicate whether they have a positive or a negative feeling about a subject. Words typically used in attitude questions include: desirable/undesirable; prefer/not prefer; favour/oppose; satisfactory/unsatisfactory.

4-Behaviour: What do people do? May be a physical/manual or mental type of behaviour. Questions about behaviour ask people what they have done in the past, are doing now and plan to do in the future.

5-Attributes: What people are; what qualities they possess. Attributes are a person's personal or demographic characteristics such as age, education and income.

Since this research questionnaire follows a closed-ended technique, the emphasis here will be on this type of question. Fink (1995) indicated that respondents in closed-ended questions have a limited set of answers from which they can choose. It is a good idea to allow respondents to write in an optional response if one of the choices is "Other".

The benefit of closed-ended questions is that they are easy to standardise. In addition, data gathered from closed-ended questions facilitate the statistical analysis. Generally speaking closed-ended questions are more difficult to write than open-ended questions because the researcher must design choices to include all possible answers for each question. Closed-ended questions can be divided into five basic types, as follows:

1- Likert-scale, used when the researcher wants to know the respondents' feelings or attitudes about something.

2- Multiple-choice used when the researcher wants respondents to pick the best answer from all possible options.

3- Ordinal; used when the researcher needs all possible answers to be rank-ordered.

4- Categorical, used when the possible answers to a question are categories, and each respondent must "belong" to just one of them.

5- Numerical, used when the answer must be a real number.

After carrying out a pilot test of the primary draft of the questionnaire, the decision was made to use mainly two types of the above: likert-scale and multiple-choice. Having said that, a small number of categorical and numerical questions have also been used.

5.5.2 The Pilot Study

Pre-testing the questionnaire is the most important step in preparing a questionnaire. The idea of the pre-test is to see just how well the cover letter motivates the respondents and how clear the instructions, questions, and answers are. The researcher should choose a small group of people (usually between the ages of 20 and 70) to represent the target group (Air University, 1996).

According to Dillman (1978), any pretest needs to provide answers to the following questions: Is each question measuring what it is intended to measure? Are all the words understood? Do all respondents interpret questions similarly? Does each closed-ended question have an answer that applies to each respondent? Does the questionnaire create a positive impression, one that motivates people to answer it? Are questions answered correctly? Are some missed? Do some elicit unintelligible answers? Does any part of the questionnaire suggest bias on the part of the researcher?

In fact, most pre-tests are carried out with the target population using the procedures planned for the main study. Generally, this includes conducting the pre-test in the same geographic area as the main study and testing the intended sampling frame (Frey 1989).

Fowler (1993) believes that no matter how much developmental and pre-testing work is done on a questionnaire, the instrument must still be tested under field conditions. Field testing generally means administering a questionnaire to respondents selected from the target population using the procedures that are planned for the main study.

Before producing a final version of the questionnaire, a pilot test was conducting using the primary draft. The questionnaire was tested on three groups. The first group consisted of a sample taken from each stratum of the population. The second was a group of academic professors at King Faisal University in Al-Hasa Province. The third group contained two professors specialising in statistics. The test was aimed at accomplishing the following, and, all necessary changes were subsequently.

1- To ensure that there were no leading questions, no complex or long-winded statements, no double negatives and no ambiguity in either the questions or the responses. In short, the questions had to be simple, precise and understood.

2- To test the sensitivity of the respondents to certain personal questions such as income. It became apparent that the levels of measurement in to these questions needed to be changed from interval to categorical.

3- To check the reliability, validity or redundancy of the questions posed. The length of the questionnaires was also adjusted when it was found that some respondents had not answered all questions.

4- Finally, to check on the overall layout and ordering of the questions. De Vaus, (1996) suggested commencing with questions the respondent would find enjoyable to answer. Questions should progress from easy to more difficult, moving from section to section in an organised and systematic manner.

To design a perfect survey questionnaire is impossible. However, pre-testing helps the researcher to determine the strengths and weaknesses of the survey in terms of question format, wording and order.

5.5.3 Validity and Reliability

Researchers might also pre-test the reliability and validity of the survey questions, whatever procedure for collecting data is selected.

5-5-3-1 Validity

A Validity test is usually used by researchers to test how well an instrument used measures the particular concept it is supposed to measure. In other words, a validity test concerns whether the researcher is measuring the right concept or not. According to Cooper and Emory (1995), validity is the capability of a research instrument to measure what it is supposed to measure.

Although there are several types of validity- content validity, criterion-related validity and construct validity- the validity test applied in this research has been constructed several criteria. The following are the most important:

1-The study instrument, the questionnaire, has fully covered the topic of the research, based on the literature survey which was carried out prior to field-work.

2- The questionnaire was tested and revised by research colleagues at both Imam Mohammed Ibn Saud University and King Faisal University. Some questions were modified at this stage.

3- For further evaluation and refining, the research instrument was tested using 30 persons from the different target groups. They were asked to complete the questionnaire, and valuable feedback was received from them. As a result of this, further modification was carried out on a number of questions.

5-5-3-2 Reliability

Reliability refers to the stability and consistency with which the instrument is measuring the concept and helps to access the "goodness" of a measure (Sekaran, 1992). In other words, reliability is the extent to which a test or procedure produces similar results under constant conditions on all occasions. There are three common ways of estimating reliability: the test-retest reliability, the parallel-form reliability and the split-half reliability (Nachmais and Nachmais, 1996).

However, these methods are not always feasible or necessary, and there are disadvantages and advantages associated with all three. Weisberg, Krosnick and Bowen (1989) claimed that the researcher can judge reliability by adding similar questions to the questionnaire and then comparing the answers respondents give. This strategy has been implemented in this study. Some of the questions were constructed so as to elicit similar answers if the instrument were reliable. Examples of this strategy can be seen in this study as follows: the answer to question B-1 should be consistent with the answer to question B-2, and the answer to question C-1 should be consistent with the answer to question C-3 and C-7.

5.5.4 Questionnaire Review

Summerhill and Taylor (1992) believe that a well written questionnaire should be relevant and contribute to the study. The structure of the questions should be suitable for the kinds of information sought and the choice of words should be precise to maximise the validity of data the collected.

The study final version of questionnaire appears in appendix B. The questionnaire was prepared first in English language, and then translated into Arabic. the official language in Saudi Arabia. The pilot test was conducted using the Arabic copy. However. the translation was checked out in the pilot test for the accuracy. In the covering letter. the researcher introduced himself to the respondent and explained the topic of the research. A statement of the importance of the study was also included in the covering letter. The researcher's address, telephone and fax numbers were clearly presented in the covering letter. At the end of the questionnaire, the researcher included a half-page space for respondents to add notes, remarks, or questions if they had any.

Skip patterns are employed in the questionnaire in order to ensure that respondents only answer relevant questions. The skip patterns are complex, accounting for the differences among respondents. Respondents with higher education degrees, for example, should not be asked to identify their reasons for leaving education.

The questionnaire was divided into four major sections. The first section consists of 26 questions and applied to all respondents. The second section includes 5 questions and was directed only at the student respondents, while the third section, which comprised 10 questions, was designed only for unemployed respondents. The final section contains 8 questions and was intended only for employed respondents. Brief descriptions of each of the sections and their objectives are provided below.

The first section was divided into four main parts which account for at least 70 percent of the whole questionnaire. They are as follows:

Part One- Demographic Characteristics: Typically, demographic questions are collected at the beginning of the questionnaire. They are easily answered and can encourage the respondent to become involved in the questionnaire. This part is made up of four questions which sought to evaluate the attributes of the respondents. The four questions concern age, gender, marital status and location.

These questions were constructed in a very simple way with the objective of demonstrating how easy it was to answer the questions and thus motivating the respondents to complete the questionnaire. The objective of these questions is to assess how closely the sample replicates the known population. More importantly, they will allow analysis of sub-groups of those responding to the survey. Demographic questions can be very useful for tabulating the respondents' answers and giving the researcher several different ways of analysing the collected information.

Part Two- Family Background Characteristics: This part comprised five questions. These questions are related to the respondent's family background, and cover the respondent's father's employment status, father's occupation, father's level of education, family size and number of unemployed in the family. Like the questions in the previous part, all these questions examine the attributes of the respondents and were designed to obtain background information about their characteristics. The objective of these questions is to assess the effect of respondents' socio-economic backgrounds on their transition activities.

Part Three- Education and Training Characteristics: There are twelve questions in this part which cover the respondent's level of education, grade, secondary school status, higher education status, reason for leaving higher education, type of higher education, type of academic qualifications, school role, training qualification, mode of financial support during training, duration of training, and reason for not training. The above questions were again designed to determine the attributes of the respondent on one hand, and on the other hand, to shed light on the respondent's beliefs concerning the value of his or her education, and to clarify attitudes towards training issues.

The objective of this part was, first, to examine the respondent's educational qualifications. The responses to these questions will be very important in the analysis of how respondents vary in their transition activity according to the qualifications they possess. In addition, respondents' opinions on such issues would help the researcher to provide practical recommendations. For example, respondents' opinions about the role of schooling should provide useful data for policy makers.

The second objective of this part was to examine training issues in Saudi Arabia, in particular, the problems respondents have with their training activities. The answers should help to provide an assessment of the role of training in Saudi Arabia as a key factor in youth transition activity, and particularly of its function in terms of securing employment for job-seekers.

Part Four- Labour Market Characteristics: This part includes general labour market questions. Five variables-school paid work, type of preferred employment, preferred employment sector, preferred employment location, and respondent's labour market information- have been tested, in order to determine how much knowledge respondents have about the labour market around them. As labour market variables are key factors in STW transition activities, collecting information on these variables in the transition from school to work of Saudi young people is essential in this research.

The second section was designed for student respondents only. All questions in this section deals with the student's educational details: student's reason for studying, main field of study, study duration, reason for choosing a particular field, and activity intended after graduation. The five questions in this section were posed primarily to collect overall information about students' attitudes and behaviour. For example, the question regarding the students' reason for studying would show a student's attitudes, motivation and disposition toward such activity. The objective of this section is to provide further information concerning Saudi students in their transition from school to work. For instance, this section should help us understand the reasons why some Saudi students continue on to their higher education.

The third section was directed at unemployed respondents only. Respondents were invited to provide information about their labour market experience by answering ten more questions. This information focuses on the duration of their unemployment, previous employment, reason for leaving previous employment, monthly payment in last employment, minimum monthly payment required in order to accept employment offer, job-searching activity, job search-means, employment offer, reason for not accepting the offer and expected time required to secure employment.

The objective of this section is to shed light on youth unemployment problems in Saudi Arabia, and particularly at the time of the school to work transition. For instance, this section explores what starting wage or salary job-seekers in Saudi Arabia want. In addition, two of the research hypotheses will be tested using some of the questions and responses in this section.

The fourth section of the questionnaire was used to collect information on employed respondents. This section assesses the early labour market experience of Saudi youths and provides information on the characteristics of employed respondents. Eight questions are asked of each employed respondent to determine their employment details, including the duration of their present job, type of work, employer's sector, monthly payment, reason for accepting the employment, job-search means, looking another job and reason for looking for another job.

With these data the researcher can examine the labour market experience of Saudi youth at the time of their transition from school to work. In fact, all of the above information would be tested and analysed in order to assess the attitudes and behaviour of Saudi youth towards employment, for example, to see why some young people are looking for alternative employment.

5.5.5 Scales of Measurement

The level of measurement refers to the relationship among the values that are assigned to the attributes of a variable. It describes how the categories of the variable relate to one another. Some types of scale are quite simple, but may not be appropriate for more informative and powerful statistics. Scales of measurement are commonly broken down into three types: nominal, ordinal and interval (ratio).

1- Nominal Variables: A set of categories or names that defines groups within a population or a sample. Examples are "liberal and moderate" or "male and female" or "Black, White, Hispanic and Asian." The nominal scale is used to measure qualitative variables and yields frequency data that may be subjected to non-parametric statistical tests such as the chi-square test (Gavin, 1996).

2- Ordinal Variables: A set of categories, but which may be ranked in a meaningful order. An example is "Strongly Disagree, Disagree Somewhat, Agree Somewhat and Strongly Agree." Though ordinal scales may be ranked or ordered, the distance between points varies. The ordinal scale is a stronger form of measurement than the nominal scale because variables are ordered and ranked. Again, ordinal data may be subjected to non-parametric tests such as the chi-square test.

3- Interval Variables: Variables that may be rank-ordered, and the distance between values measured in a meaningful way, such as in years, feet and inches, or quantities.

It is important to determine the nature of research variables that have been used in the questionnaire ahead of any data analyses for two reasons:

First, knowing the level of measurement helps the researcher to decide how to interpret the data from that variable.

Second, knowing the level of measurement helps the researcher to decide what statistical analysis is appropriate for the values that were assigned.

The level of measurement used in this questionnaire was either nominal or ordinal, for two reasons. The first refers to the nature of the questions, which did not allow for an interval or ratio level to be employed. Second, the experience of the pilot test indicated that the rate of response would be very low if the inquiry became too specific or detailed.

5.6 Data Preparation and Statistical Analysis

Data processing and statistical analyses are the final stages in a research process. The time and effort involved in performing statistical analyses can be greatly reduced if the data are entered in the proper format. The findings from the data will enable the researcher to draw conclusions about the population parameters, and to the research hypotheses.

Prior to any pre-processing or analysis, it is important for the data to be presented. This section will discuss the data preparation stage and highlight the different methods of statistical analysis employed. The computer software used was the Statistical Package for Social Sciences (SPSS) Releases 10.0 and 11.0.

5.6 1 Data Preparation

Data Preparation refers to the checking or logging in of the data, checking the data for accuracy; entering the data into a computer; transforming the data; and developing and documenting a database structure that integrates the various measures. Different researchers differ in how they prepare the research data. In this research, the following steps have been used to set up the data for statistical analysis.

1- Checking the Data for Accuracy: As soon as data were obtained they were screened for accuracy. This means ensuring that responses are readable, that all important questions are answered and that the responses are complete. When reviewing all the responses, some unintended or obscure answers were found. In most cases this kind of answer was deleted or edited. According to Cooper and Emory (1995), the main purpose of data checking is to assure that data are accurate, consistent with other information, uniformly entered, complete, and arranged to simplify coding and tabulation. However, this must be done bearing in mind the need not to lose any important or valuable information which may affect the results of the study.

2- Developing a Database Structure: This is the method used by the researcher to store the data for the study so that they can be accessed in subsequent data analyses. Database programs and statistical programs are generally two options for storing data on computer. Usually database programs are the more complex of the two to learn and operate. For this reason, a statistical program has been used to store the data for this study. In fact, the Microsoft Excel package which allows for data transfer, has been chosen to store the data in case there is a need to use different statistical packages. The data were later transferred to the SPSS program to be analysed.

3- Coding: In every research project, the researcher should create a codebook that describes the data and indicates where and how they may be accessed. The codebook should include the following simple items for each variable: variable name, variable description and variable format (number, data, text). After preparing the codebook, codes were allocated to the answers to each question and to each variable. In this research questionnaire, numbers have been used to code the answers. for example, 1 represents male respondents and 2 represents female respondents. Coding may be done using letters, numbers, or a combination of the two.

4- Entering the Data into a Computer: There are a wide variety of ways to enter data into a computer for analysis. Probably the easiest is to just type the data in directly, and that is the method that was used in this research. In order to ensure a high level of data accuracy, the data were summarised using SPSS programs that allow the data to be checked within acceptable limits and boundaries.

5- Data Transformations: Once the data had been entered, it was necessary to transform them into variables that would be usable in the analyses. The most important transformation is of the missing values: many analysis programs automatically treat blank values as missing, while in others, there is a need to designate specific values to represent missing values. In this research, blank values were automatically treated as missing. Sekaran (1992) believed that this technique is probably the best one for handling missing data in order to enhance the validity of the study, especially if the sample size is large.

5.6 2 Statistical Analyses

The following three chapters of this research will discuss in detail the data analysis of the survey. The purpose of this section is to provide a general idea of the analysis, as well as of the various methods of statistical analysis that have been employed.

5.6.2.1 Overview of Analyses

The research questions that the researcher is attempting to answer must be clear prior to any data analysis. In this regard, all the questions in this research deal with the issue of the school-to-work transition of Saudi youth. For example, how does transition activity vary among respondents in term of their demographic variables, family background variables, education and training variables, and labour market variables? To what extent is the respondents' early school leaving-decision related to differences in demographic and family background variables?

According to De Vaus (1996), there are three factors that influence any data analysis: (1) the number of variables being examined; (2) the measurement level of the variables; (3) the type of statistics: descriptive or inferential.

The field of statistics involves methods of describing and analysing data, and of making decisions or inferences about the phenomena represented by the data. Methods in the first category are referred to as descriptive statistics; methods in the second category are called inferential statistics (Huch and Cormier, 1996).

Descriptive statistics is the use of procedures to summarise, present, describe, and interpret information. It is the broad field of study involving facts and figures, and procedures to produce and interpret them. Conversely, inferential statistics are used to draw inferences about a population from a sample. There are two principal methods used in inferential statistics: estimation and hypothesis testing. Estimation is typically used when one wishes to use information obtained from a sample to produce estimates for a larger population from which the sample was drawn. Hypothesis testing is normally used when there is a wish to make inferences about the effects of certain variables. Both types of statistics have been used in this study.

5.6.2.2 Method of Analysis

The nature of research data should be known to the researcher before analysis is begun, so that he can plan his analysis technique. Below are the various methods of analysis that have been used in this research study.

1- Univariate Analysis: this method is concerned with the description or summarization of individual variables in a given data set. Since the research variables were either nominal or ordinal, there many tools available for exploring and describing single variables in data sets, including descriptive statistics, frequency tables and percentages. As for the various types of descriptive graph, a decision was made not to use them to avoid repetition.

2- Bivariate Analysis: this is concerned with the relationships between pairs of variables in a data set. Usually, the main purpose in using bivariate analysis is to clarify comparisons or relationships. The concepts of independent and dependent variables are introduced when undertaking this form of analysis. Briefly, an independent variable is a variable hypothesised to "affect" a dependent variable, and the dependent variable is the variable hypothesised to be "affected" by the independent variable.

Cross-tabulation is possibly one of the most popular of all the basic bivariate statistical procedures. A cross-tabulation is used when we wish to establish if there is a link or association between two categorical variables. The most useful (and easy to understand) bivariate analysis is usually presented in tables. These are often called contingency tables because the values of one variable are contingent upon the values of the other variable.

3- Multivariate Analysis: Multivariate statistical methods are generally the most sophisticated methods of analysing of a problem. In contrast to the previous methods, they are designed to evaluate more than one variable at a time. Since the dependent variable of this research is categorical, the regression analysis technique will be used in this research because of its simplicity, and as it is usually employed in practice.

5.6.2.3 Parametric and Non-parametric Statistics

One aspect of statistical tests that is often confusing for any researcher is the decision to use parametric or non-parametric statistical tests. When statistics are calculated under the assumption that the data follow some common distribution, such as the normal distribution, these are called parametric statistics. Lehmkuhl (1996) believes that before a parametric test can be used, it must be ascertained that: (1) The samples are random; (2) the data are normally distributed; and (3) the samples have a similar variance.

Non-parametric statistics may be used in cases when the researcher is ignorant of the parameters of the variable of interest in the population (Lunsford, 1993). More importantly, non-parametric tests are used for the nominal and ordinal levels of measurement (Siegel, 1956).

Since the data of this research were either nominal or ordinal, and since there was little information about the population and limited assumptions concerning the distribution of the data, non-parametric tests have been employed. Non-parametric tests are easier to understand and explain. Calculations of non-parametric tests are generally easy to perform and apply.

Non-parametric tests are relatively robust and may be used effectively to determine relationships and significance of differences using behavioural research methods. One of the main disadvantages of non-parametric tests is that they are less powerful than parametric tests Lunsford (1993). Non-parametric tests should be used when the assumptions of parametric tests cannot be met.

5.7 Conclusion

The most important aim of this research is to assess differences among Saudi youth in the nature and success of their transitions from school to the labour market, and to explore to what extent these differences influence their transition activity. Accordingly, the main concern of this chapter was to describe and explain the methods and procedures adopted by the researcher in the empirical investigation of the school-to-work transition of young people in Saudi Arabia. The empirical investigation of this study included seven general questions that should be answered in order to meet the research objectives.

In order to introduce the research method and procedures, the chapter examined the different reasons for various methods of data collection, their advantages and disadvantages, and the reasons and criteria behind the selection of the methods and techniques used in this study.

The method used in data collection was the most frequently used method (survey design), employing a closed-ended questionnaire as the research instrument to be applied in a cross-sectional manner. A combination of the stratified random technique and area cluster sampling was used to select the research sample. The researcher relied on two principal methods for collecting data, in order to ensure a reasonable response rate. These were the self–administered questionnaire and the mailed questionnaire.

The questionnaire was constructed according to the research hypotheses. It was divided into two major parts. The first part applies to all respondents, while, the second part contains different questions directed at the different categories of respondents. Before distributing these questions, a pilot study was carried using three different groups to ensure respondents' understanding of the questions, and more importantly, that the questions were good enough to provide accurate data for statistical tests. In addition, a pre-test of the reliability and validity of the survey questions was also conducted.

The actual survey time was just under four months that conducted between November 2000 and February 2001, as the researcher had limited time to spend on field-work. A total of 900 questionnaires were distributed and the response rate was approximately 46 percent. An explanation of the survey findings, and the statistical analyses (including univariate, bivariate and multivariate analysis), involving non-parametric statistics, will be presented in the following three chapters.

CHAPTER SIX

THE DESCRIPTIVE ANALYSIS OF THE RESEARCH VARIABLES

6.1 Introduction

The statistical analysis in this study has been divided into three chapters. In this chapter we shall present the descriptive analysis of the research questions. In the following chapter, appropriate procedures will be applied to test the related research hypotheses. A multinomial logistic regression analysis of the research variables will be attempted in the final chapter of this statistical analysis (chapter eight).

The descriptive analyses show the total sample distribution of one variable at a time. They are often used as one of the exploratory procedures in reviewing how different categories of values are distributed in the sample. Instead of undertaking the univariate analysis three times for the three different groups- students, unemployed and employed- cross-tabulation will be used with these groups. By doing this, comparisons between research variables will be more noticeable.

The objective of the descriptive analysis is to provide a detailed description of the sample in order to enable the reader to appreciate the nature and characteristics of the sample.

The questionnaire is divided into two parts. The first part in each of the three sample categories consists of twenty six similar questions. These questions relate to demographic, family background, education and training and labour market characteristics. The second part includes different hypothetical question, relevant to each category of the sample. The sample size of the survey was 411 respondents, of whom, 153 were students, 125 were unemployed and 133 were employed. The students' questionnaire set comprised 31 questions. The unemployed questionnaire set involved 36 questions, while the employed questionnaire set consisted of 34 questions.

Accordingly, this chapter is divided into four sections: the next section presents the descriptive analysis of the sample characteristics. The descriptive analysis relating to sample category variables will be presented in the third section. Section four concludes this chapter.

6.2 The Descriptive Analysis of Sample Characteristics

The analysis in this section covers the demographic, family background, education and training and labour market characteristics of the entire sample. The demographic characteristics, which include four variables, are analysed in the first sub-section. The second sub-section covers the analysis of the family background characteristics of the respondents which include five variables. This is followed by the education and training characteristics sub-section. This is the largest section, as the characteristics include twelve variables. Finally, five variables will be analysed in the last sub-section which represent the labour market characteristics of the research sample.

6.2.1 Demographic Characteristics

This section covers the analysis of the demographic characteristics of the whole sample in terms of age, gender, marital status and location.

6.2.1.1 Age

With regard to question 1 of the questionnaire, the question concerning age, respondents were asked to identify their age group. Table 6.1 presents the responses as follows:

Table 6.1 Respondents' ages

Respondents' ages	Group			Total
	Student	Unemployed	Employed	
18-20	50	25	10	85
	58.8%	29.4%	11.8%	100.0%
21-23	81	51	32	164
	49.4%	31.1%	19.5%	100.0%
24-26	22	49	91	162
	13.6%	30.2%	56.2%	100.0%
Total	153	125	133	411
	37.2%	30.4%	32.4%	100.0%

Table 6.1 reveals that the majority, 58.8 percent of the age groups (18-20) and (21-23) were students, whilst the majority, or 56.2 percent, of the last age group (24-26) were employed. This result indicates that older youths were more likely to be employed than their younger counterparts. In other words, younger youths were more likely to be students or unemployed. In addition, the unemployed percentages above confirm that all age categories face the risk of unemployment, in particular those in the age group (21-24). This indicates the possibility of there being educated unemployed young people in the Kingdom.

6.2.1.2 Gender

In question 2 of the questionnaire, respondents were asked to identify themselves according to their sex. The responses are shown in Table 6.2:

Table 6.2 Respondents' gender

Respondents' sex	Group			Total
	Student	Unemployed	Employed	
Male	94	86	95	275
	34.2%	31.3%	34.5%	100.0%
Female	59	39	38	136
	43.4%	28.7%	27.9%	100.0%
Total	153	125	133	411
	37.2%	30.4%	32.4%	100.0%

As shown in Table 6.2, only 34.2 percent of the male respondents were student compared with 43.4 percent of female respondents. This result shows that females were more likely to participate in higher education than males. From the proportion of employed males (34.5 percent) and females (27.9 percent), it may be assumed that males were more likely to be employed. That is, females' labour force participation in Saudi Arabia is lower than that of males. This information indicates that the traditional attitudes of the society may have affected the women's opportunity to work.

6.2.1.3 Marital Status

In question 3 of the questionnaire, respondents were asked to state their marital status. Table 6.3 below presents the responses:

Table 6.3 Respondents' marital status

Respondents' marital status	Group			Total
	Student	Unemployed	Employed	
Married	22	22	54	98
	22.4%	22.4%	55.1%	100.0%
Not married	130	102	79	311
	41.8%	32.8%	25.4%	100.0%
Total	152	124	133	409
	37.2%	30.3%	32.5%	100.0%

As shown in the table, the majority of married respondents, 55.1 percent, were employed. By contrast, the majority of those who were not married were students: 41.8 percent. This result was expected, since the employed respondents are more likely to be able to afford marriage expenses. This finding points to the social influence of unemployment in Saudi society.

6.2.1.4 Location

Question 4 of the questionnaire concerns the respondents' location. The responses are presented in Table 6.4 below:

Table 6.4 Respondents' location

Respondents' location	Group			Total
	Student	Unemployed	Employed	
Urban areas	110	80	88	278
	39.6%	28.8%	31.7%	100.0%
Rural areas	42	45	45	132
	31.8%	34.1%	34.1%	100.0%
Total	152	125	133	410
	37.1%	30.5%	32.4%	100.0%

As may be seen from the table the majority, or 39.6 percent, of the respondents who lived in urban areas were students, while 34.1 percent of those living in rural areas were either unemployed or employed.

This result confirms the fact that families in rural areas were less likely to send their children to higher education. They usually use their children in their agricultural activities, rather than employing independent workers in order to maximise their net profits.

Also, the data show that the risk of unemployment is lower for residents of urban areas since only 28.8 percent of the respondents from urban areas were unemployed, compared with 31.7 percent who were employed. This result is also confirmed by the rural areas percentages. The lowest percentage (31.8) in the rural was that of students, indicating that young people participate in the labour force at an early age in those areas.

6.2.2. Family Background Characteristics

This section analyses the family characteristics in terms of the father's employment status, occupation, and level of education, and the family size and number of unemployed in the household.

6.2.2.1 Father's Employment Status

In question 5 of the questionnaire, respondents were asked to classify their father's employment status. Table 6.5 presents the results:

Table 6.5 Respondents' father employment status

Fathers' employment status	Group			Total
	Student	Unemployed	Employed	
Employee	83	57	64	204
	40.7%	27.9%	31.4%	100.0%
Unemployed	7	12	7	26
	26.9%	46.2%	26.9%	100.0%
Retired	41	35	34	110
	37.3%	31.8%	30.9%	100.0%
Others	22	21	27	70
	31.4%	30.0%	38.6%	100.0%
Total	153	125	132	410
	37.3%	30.5%	32.2%	100.0%

According to Table 6.5, the majority of those with employed fathers were either students, at 40.7 percent, or employed at 31.4 percent. At the same time, the majority, or 46.2 percent of those who had unemployed fathers were the unemployed respondents. This finding indicates that the father's employment status is significant in determining youths' economic activity. For instance, the data show that those youths with employed fathers were more likely to enter higher education or to secure employment than to be unemployed, while, those with unemployed fathers' background are more likely to be unemployed.

6.2.2.2 Father's Occupation

In the question concerning their father's occupation (question 6), the respondents were given two options: manual or non-manual. The responses are presented in Table 6.6 below:

Table 6.6 Respondents' father occupation

Father's occupation	Group			Total
	Student	Unemployed	Employed	
Manual	50	55	58	163
	30.7%	33.7%	35.6%	100.0%
Non manual	99	67	60	226
	43.8%	29.6%	26.5%	100.0%
Total	149	122	118	389
	38.3%	31.4%	30.3%	100.0%

Table 6.6 tells us that a small majority, 35.6 percent of those who had fathers in manual occupations were employed compared with only 26.5 percent for those who had fathers with non-manual occupations. This result clearly indicates that respondents who had fathers in manual occupations were more likely to be employed.

6.2.2.3 Father's Level of Education

With regard to question 7 of the questionnaire, respondents were asked to identify their father's level of education. Table 6.7 presents the responses as follows:

Table 6.7 Respondents' father's level of education

Father's level of education	Group			Total
	Student	Unemployed	Employed	
Below primary	53	54	46	153
	34.6%	35.3%	30.1%	100.0%
Primary certificate	23	22	31	76
	30.3%	28.9%	40.8%	100.0%
Elementary certificate	24	20	14	58
	41.4%	34.5%	24.1%	100.0%
Secondary certificate	31	16	16	63
	49.2%	25.4%	25.4%	100.0%
University degree or higher	18	9	23	50
	36.0%	18.0%	46.0%	100.0%
Total	149	121	130	400
	37.3%	30.3%	32.5%	100.0%

The data in Table 6.7 reveal that youths with fathers with only a basic level of educational may run a high risk of unemployment. For example, the small majority, 35.3 percent of those who have fathers with a below primary educations were more likely to be unemployed. On the other hand, the majority (46.0 percent) of those who had fathers with a university degree or higher were employed. These percentages undoubtedly reflect an important cause of youth unemployment in Saudi Arabia, since the father's level of education clearly affects the labour market outcomes of his children.

6.2.2.4 Family Size

The respondents' family size was assessed by question 8 of the questionnaire, which asked them to state the size of their family. The responses are presented in the following table:

Table 6.8 Respondents' family size

Family size	Group			Total
	Student	Unemployed	Employed	
0-2	7	5	4	16
	43.8%	31.3%	25.0%	100.0%
3-5	26	30	32	88
	29.5%	34.1%	36.4%	100.0%
6-8	51	42	49	142
	35.9%	29.6%	34.5%	100.0%
9 or more	69	48	47	164
	42.1%	29.3%	28.7%	100.0%
Total	153	125	132	410
	37.3%	30.5%	32.2%	100.0%

As shown in Table 6.8, the size of a respondent's family is important in determining the young transition activity. That is those respondents who came from large families, for example, (6-8 members) were more likely to be higher education students or employed (35.9 and 34.5 percent respectively). It may also be noted from the previous table that the higher percentage (34.1 percent) of those who were unemployed came from families considered to be relatively small by Saudi Arabian standards (3-5).

This finding could be explained by the social characteristics of Saudi society, as large families are better able to help their children in either their employment search or their access to higher education than small families.

6.2.2.5 Number of Unemployed in the Household

In question 9, respondents were asked to state the number of unemployed people in their households. Table 6.9 presents the responses as follows:

Table 6.9 Number of unemployed in the respondent's household

Number of unemployed in the household	Group			Total
	Student	Unemployed	Employed	
None	88	42	70	200
	44.0%	21.0%	35.0%	100.0%
1-2	42	51	48	141
	29.8%	36.2%	34.0%	100.0%
3-4	19	27	12	58
	32.8%	46.6%	20.7%	100.0%
5 or more	2	2	2	6
	33.3%	33.3%	33.3%	100.0%
Total	151	122	132	405
	37.3%	30.1%	32.6%	100.0%

As expected the data indicate that respondents who had no unemployed family members were more likely to be higher education students or to be employed. On the other hand, those who had unemployed members were more likely to be unemployed. The table shows, for example, that only 21.0 percent of those who came from families that had no unemployed members in their households were unemployed, whereas 46.6 percent of those who had 3-4 unemployed family members were unemployed. The striking finding is that almost 50 percent of Saudi families had at least one unemployed member of the households. This is evidently a result of the large families in Saudi Arabian society. More importantly, this finding highlights the magnitude of unemployment problem in Saudi Arabia. Furthermore, it is an important indicator that policy makers should tackle the problem seriously, or the society will gradually suffer more from the consequences of this unemployment.

6.2.3. Education and Training Characteristics

This section analyses the educational and training background of the respondents in terms of: level of education, grade, secondary school status, higher education status, type of higher education, type of academic qualification, reasons for leaving higher education, school's role, training qualification, training finance, duration of training, and reasons for not training.

6.2.3.1 Level of Education

Question 10 of the questionnaire asked the respondents to identify their level of education. Table 6.10 presents the responses as follows:

Table 6.10 Respondent's level of education

Respondent's level of education	Group			Total
	Student	Unemployed	Employed	
Below primary	0	0	1	1
	0.0%	0.0%	.8%	100.0%
Primary certificate	0	5	5	10
	0.0%	50%	50%	100.0%
Elementary certificate	0	22	14	36
	0.0%	61.1%	38.9%	100.0%
Secondary certificate	153	44	37	234
	65.4%	18.8%	15.8%	100.0%
University degree or higher	0	54	76	130
	0.0%	41.5%	58.5%	100.0%
Total	153	125	133	411
	37.2%	30.4%	32.4%	100.0%

The table above reveals that all of the students had a high school certificate. This result reflects the limitation of the student sample mentioned earlier. The table also shows that those with lower education levels were more likely to be unemployed than employed, as 61.1 percent of those with only an elementary certificate were unemployed. The majority, or 58.5 percent, of those who had at least a university degree were employed. This result also confirms the previous finding, that a large number of the unemployed respondents (41.5 percent) were well educated. This suggests that this generation is having a less than smooth transition from education to work.

This information demonstrates that level of education positively affects the chances of being employed. It can also be seen that quite a large number of the respondents had not pursued either high school or a university education. This finding shows that the Saudi education system suffers from a problem of school-leaving, which, generally speaking increases the rate of youth unemployment in the country.

6.2.3.2 Grade

The grade of the respondents in their highest academic qualification is also a related variable in this study. Question 11 deals with this variable. Respondents were asked to state their grades. The responses are shown in the table below:

Table 6.11 Respondent's grade

Respondents' grade	Group			Total
	Student	Unemployed	Employed	
Pass	10	8	14	32
	31.3%	25.0%	34.8%	100.0%
Good	39	51	59	149
	26.0%	34.2%	39.6%	100.0%
Very good	67	58	51	176
	38.0%	33.0%	29.0%	100.0%
Excellent	35	5	7	47
	74.5%	10.6%	14.9%	100.0%
Total	151	122	131	404
	37.4%	30.2%	32.4%	100.0%

Table 6.11 presents the respondents' grades according to four levels. The findings indicate that the majority, or 74.5 percent, of the respondents who had an "Excellent" grade were students. This finding was to be expected, since universities in Saudi Arabia require a high grade (at least very good) as a condition of offering a place at the university. It was interesting to find that the majority (34.8 and 39.6 percent) of those who had lower grads "Pass and Good" respectively were employed. At the same time, quite a large number, or 33.0 percent of those who had a "Very good" grade were unemployed. This finding can be explained by the fact that one reason of high unemployment rate in Saudi Arabia is the scarcity of government jobs over the last decade. In addition, the young unemployed appear to be making concerted efforts to improve their grades to help them in the competition for job.

6.2.3.3 Secondary School Status.

In question 12, the respondents were asked to state their secondary school status. Table 6.12 presents the responses:

Table 6.12 Secondary school status

Secondary school status	Group			Total
	Student	Unemployed	Employed	
Yes	153	98	113	364
	42.0%	26.9%	31.0%	100.0%
No		27	20	47
		57.4%	42.6%	100.0%
Total	153	125	133	411
	37.2%	30.4%	32.4%	100.0%

The data in Table 6.12 again confirms the association between level of education and the respondent's employment status, in that, the majority, or 57.4 percent, of those without a secondary school certificate were unemployed. Conversely, those with a secondary school certificate were more likely to be employed than unemployed.

6.2.3.4 Higher Education Status

Question 13 asked the respondents to state their higher education status. The following table shows the responses:

Table 6.13 Higher education status

Higher education status	Group			Total
	Student	Unemployed	Employed	
Yes	153	54	76	283
	54.1%	19.1%	26.9%	100.0%
No		44	37	81
		54.3%	45.7%	100.0%
Total	153	98	113	364
	42.0%	26.9%	31.0%	100.0%

It has already been suggested that level of education affects the labour market status of the respondents, and it is to be expected that the proportion of those with a higher education is greater for employed respondents, than for unemployed respondents. Indeed, the data above show that 26.9 percent of those with a higher education were employed, whereas only 19.1 percent were unemployed. At the same time, 54.3 percent of those without higher education qualifications were unemployed against only 45.7 percent who were employed.

6.2.3.5 Type of Higher Education

Question 14 of the questionnaire concerns the type of higher education establishment attended by the respondents. Table 6.14 presents the responses as follows:

Table 6.14 Type of higher education

Type of higher education	Group			Total
	Student	Unemployed	Employed	
University	88	18	45	151
	58.3%	11.9%	29.8%	100.0%
College of education	42	27	27	96
	43.8%	28.1%	28.1%	100.0%
Technical college	23	7	4	34
	67.6%	20.6%	11.8%	100.0%
Total	153	52	76	281
	54.4%	18.5%	27.0%	100.0%

As shown in Table 6.14, only 11.9 percent of those who graduated from universities were unemployed, compared with nearly 30.0 percent who were employed. At the same time, 20.6 percent of those who graduated from technical colleges were unemployed compared with only 11.8 percent who were employed. This finding proves that university graduates are more likely to secure employment than graduates of technical colleges, who run a higher risk of becoming unemployed. In addition, the percentage of those who were unemployed was higher among college of education graduates than among graduates from universities. This is because college of education graduates are considered to be less well qualified than university graduates by the Ministry of Higher Education in the Kingdom. The main reason for this is that the training given at college of education is usually shorter and less effective than that provided by universities.

6.2.3.6 Type of Academic Qualification

The type of academic qualification held another important variable in this study, so in question 15 respondents were asked to identify their qualification as either an art or science subject. The responses are set out in Table 6.15:

Table 6.15 Type of academic qualification

Type of academic qualification	Group			Total
	Student	Unemployed	Employed	
Art	62	39	61	162
	38.3%	24.1%	37.7%	100.0%
Science	91	31	30	152
	59.9%	20.4%	19.7%	100.0%
Total	153	70	91	314
	48.7%	22.3%	29.0%	100.0%

The data in Table 6.15 interestingly show that 37.7 percent of art degree graduates were employed compared with 24.1 percent who were unemployed. On the other hand, those who had science degrees and were employed comprised only 19.7 percent of the total, compared with 20.4 percent who were unemployed. It may be concluded from such a finding that respondents who had art degrees were more likely to find employment than those with science degrees, and, hence, a smoother school-to-work transition. This is due to the enormous number of government employment opportunities during the last decade. Since art graduates are more dependent on government employment than science graduates, they are now more affected by the fall in recruitment by the government, as can be seen in the unemployed date above. This is also confirmed by looking at the student sample, as science students outnumbered art students.

6.2.3.7 Reasons for Leaving Higher Education

Questions 16-a, 16-b, 16-c and 16-d investigate the respondents' reasons for leaving higher education. Respondents were given four reasons and asked to assess how much these reasons affected their decision. Table 6.16 presents the responses:

Table 6.16 Reasons for leaving higher education

Reasons for leaving higher education		No or weak effect	Not sure	Great effect	Total
Could not get admission	Unemployed	4 9.1%	1 2.3%	39 88.6%	44 100.0%
	Employed	8 25.0%	4 12.5%	20 62.5%	32 100.0%
Not good at school	Unemployed	19 43.2%	12 27.3%	13 29.5%	44 100.0%
	Employed	24 75.0%	6 18.7%	2 6.3%	32 100.0%
Family request	Unemployed	33 75.0%	5 11.4%	6 13.6%	44 100.0%
	Employed	20 62.4%	6 18.8%	6 18.8%	32 100.0%
Securing employment	Unemployed	31 70.5%	4 9.0%	9 20.5%	44 100.0%
	Employed	13 40.6%	4 12.5%	15 46.9%	32 100.0%

The earlier Table 6.13 showed that a considerable number of the entire sample did not hold a higher education degree. The statistics in Table 6.16 above give details as to why the respondents in both samples either did not pursue or left their higher education. It is clear that the majority, 88.6 percent of the unemployed respondents, and 62.5 percent of the employed respondents believed that failing to obtain admission was the main reason for their not continuing into higher education.

This finding highlights another educational problem in the country: limited higher education places. Policy makers need to combat this problem for two reasons: first of all, to stop secondary school graduates from entering the labour market in order to decrease the unemployment rate, secondly, because if young people acquire more skills they will have a better chance of employment in the future.

On the other hand, and expectedly, the second reason (not good at school) and the third reason (family request) had no, or a weak effect according to the majority of both samples. It is worth remarking, that these findings suggest that the respondents' families were well aware of how important education to their children, which is very encouraging from the point of view of improving employability of Saudi youths in the long term.

Needless to say, the last reason (securing employment) had no, or a weak effect for the majority (70.5 percent) of unemployed respondents on their decision to leave higher education and conversely, had a great effect on the decision of the majority (46.9 percent) of the employed group to leave their higher education. Those who sacrificed their education for the sake of getting a job symbolise the new attitudes among Saudi youth toward the unemployment problem in the country. In short, employment competition among Saudi youths may also have harmful consequences in terms of their educational attainment.

6.2.3.8 School Role

In questions 17-a, 17-b, 17-c and 17-d, the researcher attempted to shed light on the role of educational establishments by giving the respondents four statements to assess. They were asked if they agreed with these four statements. The responses are set out in Table 6.17.

Table 6.17 School roles

School role		Dissatisfied	Not sure	Satisfied	Total
Helping you in education decision	Students	33 22.3%	50 33.8%	65 43.9%	148 100.0%
	Unemployed	39 34.8%	40 35.7%	33 29.5%	112 100.0%
	Employed	46 35.7%	29 22.4%	54 41.9%	129 100.0%
Preparing you for working life	Students	33 22.3%	50 33.8%	65 43.9%	148 100.0%
	Unemployed	50 43.5%	34 29.6%	31 27.0%	115 100.0%
	Employed	37 28.7%	39 30.2%	53 41.1%	129 100.0%
Informing you of unemployment problem	Students	42 28.8%	27 18.5%	77 52.7%	146 100.0%
	Unemployed	41 35.7%	27 23.5%	47 40.9%	115 100.0%
	Employed	58 45.0%	21 16.3%	50 38.8%	129 100.0%
Helping you to secure employment	Students	80 54.4%	31 21.1%	36 24.5%	147 100.0%
	Unemployed	85 73.9%	15 13.0%	15 13.0%	115 100.0%
	Employed	72 55.8%	20 15.5%	37 28.7%	129 100.0%

It is obvious from the table that schools played an important role in helping the respondents to make a decision about their education, since the majority of the student and employed samples were satisfied with this statement. However, the unemployed, as expected were for the most part not sure or dissatisfied about the statement.

Moreover, it was expected that a large proportion (43.5 percent) of the unemployed would have negative attitudes about the role their schools played in preparing them for working life. The case was dissimilar with regard to the students and the employed samples, where the majority trusted the schools with that role. Schools also performed their function in terms of informing the students of the unemployment problem in Saudi Arabia, according to the majority of the students and the unemployed sample. But the majority (45.0 percent) of the employed sample was dissatisfied with this information.

Finally, the statistics show that schools did not help the students to secure employment according to the majority of the respondents. This is expected in Saudi Arabia, since the school role ends upon student's graduation. This is of course one of the many shortcomings of the Saudi education system. Schools still avoid many responsibilities. They should take more responsibility for their students and their future careers. In addition, the results suggest that Saudi schools need to have a careers advice representative. This would certainly improve students' future employability, for example, by guiding them onto courses that facilitate the transition from school to working life.

6.2.3.9 Training Qualification

Four questions, including this one, covered the training characteristics of the respondents. The respondents were asked to report if they had any training qualifications. Table 6.18 presents the responses to question 18, as follows:

Table 6.18 Training qualification

Training qualification	Group			Total
	Student	Unemployed	Employed	
Yes	49	46	59	154
	31.8%	29.9%	38.3%	100.0%
No	102	76	74	252
	40.5%	30.2%	29.0%	100.0%
Total	151	122	133	406
	37.2%	30.0%	23.8%	100.0%

Table 6.18 shows that only 154 respondents that comprising only 37.7 percent of the entire sample, had training experience. Among those, the majority (38.3 percent) were employed compared with only 29.9 percent who were unemployed. This result demonstrates the positive relationship between training experience and employability. This finding supports the suggestion put forwards in chapter four, that Saudi youths lack the qualifications and skills needed in the labour market. Consequently, policy makers should provide training programmes all over the Kingdom to qualify these young people and improve their employment prospects.

6.2.3.10 Financial Support for Training

For question 19 concerning training finance, the respondents were given four options and asked to name their training sponsor. The responses are shown in Table 6.19 below:

Table 6.19 Financial support for training

Financial support for training	Group			Total
	Student	Unemployed	Employed	
None	7	10	14	31
	22.6%	32.3%	45.2%	100.0%
Employer	0	1	14	15
	0.0%	6.7%	92.3%	100.0%
Government	6	2	7	15
	40.0%	13.3%	46.7%	100.0%
Family	36	31	23	90
	40.3%	34.4%	25.6%	100.0%
Total	49	44	58	151
	32.5%	29.1%	38.4%	100.0%

From Table 6.19, it can be seen that the majority (46.7 percent) of those who were supported by the government were employed, compared with only 13.3 percent who were unemployed. This finding can be understood from two points of view: first, Saudi Arabian government usually provides training courses solely for its own employees, and second, employers have training responsibility only for their employees. The data also show that 90 respondents (nearly 60.0 percent) who had training experience were supported by their families. Accordingly, both government and private sectors must shoulder some responsibility for Saudi youths by providing and financing training programmes as far as possible, particularly for newcomers to the Saudi labour market. In so doing, they would be helping to combat youth unemployment, while at the same time taking some responsibility for their society.

6.2.3.11 Duration of Training

Question 20 of the questionnaire concerns training duration. Respondents were asked to classify themselves according to five training periods, as shown in Table 6-20.

The table shows that the majority of those who had trained for 4 months or more were employed. Again, the reason for this is that the government or an employer had provided support. However, the striking point is that the training period for 113 respondents, or 75.8 percent, was 3 months or less. This period is definitely inadequate to endow trainees with the skills needed. For example, English language and computer skills, which are needed most in the country normally require at least six to twelve months.

Table 6.20 Duration of training

Duration of training	Group			Total
	Student	Unemployed	Employed	
One week or less	6	3	2	11
	54.5%	27.3%	18.2%	100.0%
2-3 weeks	3	4	9	16
	18.8%	25.0%	56.3%	100.0%
1-3 months	28	27	31	86
	32.6%	31.4%	36.0%	100.0%
4 months or more	12	10	14	36
	33.3%	27.8%	38.9%	100.0%
Total	49	44	56	149
	32.9%	29.5%	37.6%	100.0%

6.2.3.12 Reasons for not Training

Questions 21-a, 21-b and 21-c examined the reasons for not training. Respondents were given three reasons and asked to rate each according to whether they were in agreement, not sure or in disagreement. Table 6.21 presents the responses.

Table 6.21 Reasons for not training

Reasons for not training		Disagree	Not sure	Agree	Total
No government programme	Students	25 26.0%	15 15.6%	56 58.3%	96 100.0%
	Unemployed	17 23.3%	7 9.6%	49 67.1%	73 100.0%
	Employed	19 25.7%	8 10.8%	47 63.5%	74 100.0%
No appropriate programme	Students	47 50.0%	22 23.4%	25 26.6%	94 100.0%
	Unemployed	29 39.2%	16 21.6%	29 39.2%	74 100.0%
	Employed	28 38.4%	12 16.4%	33 45.2%	73 100.0%
Financial constraint	Students	38 40.0%	25 26.3%	32 33.7%	95 100.0%
	Unemployed	22 29.7%	11 14.9%	41 55.4%	74 100.0%
	Employed	31 42.5%	11 15.1%	31 42.5%	73 100.0%

The information provided by table 6.21 is very clear and significant. It gives us the reason why such a large majority of the respondents as mentioned, earlier did not have any training experience when there such a need for it. The majority, or 58.3 percent of the students, 67.1 percent of the unemployed and 63.5 percent of the employed agreed that the lack of free government training programmes was the main reason for their lack of training experience. There is no doubt that training is essential for increasing human capital of individuals and hence, the probability of their finding employment.

This finding demonstrates the fact that government is not doing enough to provide training programmes for its own people. Having said that, the government should bear in mind that financial constraints are also instrumental in preventing Saudi youths from obtaining the training they need to help them in their employment struggle. 55.4 percent of the unemployed respondents agreed that financial constraints were another obstacle to their chances of gaining any training experience. This view was shared by 42.2 percent of the employed and 33.7 percent of the students. It is worth remarking here, that the majority of the students and some of the employed were less affected by this reason by virtue of their monthly income. Generally speaking, the cost of training should be as low as possible, or free, if the government seriously supports the Saudization policy and wishes to solve the local unemployment problem.

Finally, the respondents had also different points of views regarding the second reason (no appropriate programme) for their lack of training experience. In fact, 50.0 percent of the students believed that there were suitable programmes, while their employed counterparts though that there were no such programmes. The unemployed respondents were divided on this issue, since the same proportion (39.2 percent) was in disagreement as in agreement over this reason.

6.2.4 Labour Market Characteristics

This section analyses the labour market characteristics of the sample in terms of school paid work, preferred employment, preferred sector, preferred location and labour market information.

6.2.4.1 School Paid Work

In question 22 of the questionnaire, the respondents were asked to state whether or not they had any paid employment while they were at school. Table 6.22 presents the responses as follows:

Table 6.22 School paid work

School paid work	Group			Total
	Student	Unemployed	Employed	
Yes	27	23	31	81
	33.3%	28.4%	38.3%	100.0%
No	123	101	101	325
	37.8%	31.1%	31.1%	100.0%
Total	150	124	132	406
	36.9%	30.5%	32.5%	100.0%

Table 6.22 indicates that only 81 respondents, or nearly (20.0 percent) of the whole respondents did any paid work during their school years. This is to be expected, since very few jobs are available to students in the Saudi labour market, compared with developed countries. More importantly, tertiary students in Saudi Arabia have a monthly allowance of SR 850-1000 ($ 227-267) which should be enough for their daily needs. The table also shows that 38.3 of percent those who had experienced paid work were employed, compared with only 28.4 percent who were unemployed. This indicates that employment during school years enhances future employment prospects of the students. Policy makers should therefore create more of these job opportunities in the local labour market.

6.2.4.2 Preferred Employment

The type of jobs preferred was the subject of question 23; respondents were given six types of job and asked to identify which they preferred. Table 6.23 below presents the responses:

Table 6.23 Type of preferred jobs

Type of preferred jobs	Group			Total
	Student	Unemployed	Employed	
Managerial	45	38	59	142
	31.7%	26.8%	41.5%	100.0%
Educational	58	36	40	134
	43.3%	26.9%	29.9%	100.0%
Medical	16	5	7	28
	57.1%	17.9%	25.0%	100.0%
Engineering	6	10	8	24
	25.0%	41.7%	33.3%	100.0%
Security	7	10	5	22
	31.8%	45.5%	22.7%	100.0%
Technical	18	25	14	57
	31.6%	43.9%	24.6%	100.0%
Total	150	124	133	407
	36.9%	30.5%	32.7%	100.0%

It is not surprising that the majority of the respondents would prefer to work in either managerial or educational jobs. Table 6.23 shows that 142 (34.9 percent) and 134 (32.9 percent) of the respondents worked or would prefer to work in managerial and educational jobs respectively. This is because these two types of jobs are usually offered by the government, and are more attractive in terms of working hours, responsibilities and location. It is worth pointing out that a large percentage, 43.9 percent, of those who would prefer technical jobs were unemployed. This kind of job used to be unacceptable to Saudi youth, but their apparent change in attitude here could be explained as a result of the unemployment problems they are facing now.

6.2.4.3 Preferred Sector

Question 24 in the questionnaire investigates the preferred employment sector of the respondents. They were asked to state to what extent they preferred government employment over the private or self-employment sectors. Table 6.24 presents the responses:

Table 6.24 Preferred public sector

Preferred Sector	Group			Total
	Student	Unemployed	Employed	
Unfavourable	14	9	13	36
	38.9%	25.0%	36.1%	100.0%
Not sure	17	13	9	39
	43.6%	33.3%	31.1%	100.0%
Favourable	121	103	111	335
	36.1%	30.7%	33.1%	100.0%
Total	152	125	133	410
	37.1%	30.5%	32.4%	100.0%

The findings show that the government sector is the most preferred sector for the majority of Saudi job-seekers. In fact 335 respondents (81.7 percent) preferred to work in the government sector. This finding confirms the results of the previous question. However, government jobs are becoming in short supply in the Saudi labour market, so the job-seekers have no option but to prepare themselves to work in the private sector or to be self-employed. Indeed, this is noticeable from the table above, where the majority, or 38.9 percent, of those who looked unfavourably of government employment were students or, in other words, the newcomers to the labour market.

6.2.4.4 Preferred Location

Question 25 of the questionnaire examines the employment location of the respondents. They were asked to state to what extent they would prefer to work in their local area (Al-Hasa Province) over any other area of Saudi Arabia. The responses are shown in Table 6.25 below:

Table 6.25 Preferred location- Al-Hasa

Preferred Location	Group			Total
	Student	Unemployed	Employed	
Unfavourable	24	8	8	40
	60.0%	20.0%	20.0%	100.0%
Not sure	14	2	9	25
	56.0%	8.0%	36.0%	100.0%
Favourable	114	113	116	343
	33.2%	32.9%	33.8%	100.0%
Total	152	123	133	408
	37.3%	30.1%	32.6%	100.0%

Table 6.25 shows that 343 respondents (84.1 percent) preferred to work only in their local area. This finding demonstrates as expected that the majority of Saudi youth are reluctant to move in order to secure employment. Accordingly, a lack labour mobility in Saudi Arabia could be one of the main reasons causing the unemployment problem.

Again, it can be seen that a considerable proportion (60.0 percent) of those not in favour of local employment were students. This is encouraging and reflects the fact that new entrants have no other choice but to be mobile, otherwise their period of unemployment could last longer. In this regard, the policy makers must deal with this phenomenon and motivate job-seekers to move in search of work. This will certainly help in replacing expatriate workers in the Kingdom and, hence in pushing forward the Saudization policy.

6.2.4.5 Labour Market Information

Question 26 examines the respondents' labour market information. They were asked to provide information on the unemployment rate in the Kingdom. Table 6.26 present the responses as follows:

Table 6.26 Labour market information

Unemployment rate in Saudi Arabia	Group			Total
	Student	Unemployed	Employed	
Low	8	3	6	17
	47.1%	17.6%	35.3%	100.0%
Not sure	33	12	24	69
	47.8%	17.4%	34.8%	100.0%
High	103	108	98	309
	33.3%	35.0%	31.7%	100.0%
Total	144	123	128	395
	36.5%	31.1%	32.4%	100.0%

We can see from the table that 309 respondents, which comprise 78.2 percent of all the respondents, believed that the unemployment rate in Saudi Arabia is high: Whether or not the respondents' information is accurate, this finding points out how difficult the transition to employment will be for Saudi youth. Overall, only 17 respondents (4.3 percent) believed that the unemployment rate is low. This demonstrates that Saudi Arabian society is aware of the unemployment dilemma to a certain extent, which is the first step towards solving such a problem. Also, by looking at the proportions of those who believed that the unemployment rate is high in Saudi Arabia, it can be seen that the student proportion was high (33.3 percent), which may explain students' perceptions of the local labour market. This perception may be one of the reasons behind their decision to continue their higher education.

6.3 The Descriptive Analysis of Sample Categories

This section provides a descriptive analysis of the categories in the sample. Each category, in addition to the previous questions, was given a number of questions that deals with some of the research hypotheses.

6.3.1 Student Category

The survey of the students includes another five variables: reasons for study, main field of study, study duration, reason for choosing a particular course and activity intended after graduation.

6.3.1.1 Reasons for Study

Questions 27-a, 27-b, 27-c, 27-d and 27-e investigate the students' reasons for continuing in higher education. Students were asked to what extent they agreed with five given statements. Table 6.27 presents the responses:

Table 6.27 Study reasons

Study reasons		Frequency	Percent	Cumulative Percent
To get a better education	Disagree	9	6.0	6.0
	Not sure	15	10.0	16.0
	Agree	126	84.0	100.0
	Total	150	100.0	
Family pressure	Disagree	58	38.2	38.2
	Not sure	35	23.0	61.2
	Agree	59	38.8	100.0
	Total	152	100.0	
To get a better paid job	Disagree	15	10.1	10.1
	Not sure	15	10.1	20.3
	Agree	118	79.7	100.0
	Total	148	100.0	
For future employment	Disagree	61	41.5	41.5
	Not sure	28	19.0	60.5
	Agree	58	39.5	100.0
	Total	147	100.0	
Monthly higher education allowance	Disagree	69	46.3	46.3
	Not sure	33	22.1	68.5
	Agree	47	31.5	100.0
	Total	149	100.0	

In general, it appears from the findings that the reasons "to get a better education" and "to get a better paid job" had the most effect on the students' higher education decisions.

The vast majority of the students were in agreement with each of these statements (84.0 percent for the first statement and 79.9 percent for the second). This finding was expected, since both reasons are considered to be basic motives for getting education. Generally speaking, jobs that require a high level of education and skill pay higher wages than jobs requiring few skills and little education. On the other hand, family pressure had only a slight effect on the students' education decisions. Almost the same percentage (nearly 38 percent) of the respondents disagreed and agreed with the statement. This information reflects the fact that many Saudi families encourage their children to undertake higher education studies.

The difference in the students' opinions regarding the statement "for future employment" is not large with 39.5 percent of the students being in agreement and 41.5 percent in disagreement. This result was unexpected since one of the most popular motives for acquiring an education motives is to secure employment. One possible explanation for the low proportion in agreement is that the students still hoped for government employment. Finally, the majority of the students disagreed with the statement concerning the higher education monthly allowance. However, it was interesting to find that 31.5 percent of the students admitted that this factor was influential, as this information is very sensitive in Saudi Arabian society.

6.3.1.2 Main Field of Study

Regarding the main field of study, question 28 asked students to state their fields of study. Table 6.28 presents the responses as follows:

Table 6.28 Main field of study

Main field of study	Frequency	Percent	Cumulative Percent
Business	13	8.5	8.5
Computer studies	14	9.2	17.6
Islamic and Quran studies	9	5.9	23.5
Arabic and English language	13	8.5	32.0
History or Geography	6	3.9	35.9
Education art	10	6.5	42.5
Education science	11	7.2	49.7
Technical studies	32	20.9	70.6
Medical studies	14	9.2	79.7
Agricultural studies	22	14.4	94.1
Home economic	9	5.9	100.0
Total	153	100.0	

Table 6.28 presents the distribution of the students according to their fields of study. It is notable that technical studies students were in the majority, with 20.9 percent of the students engaged in this field. This reflects to the sample distribution since we considered all the various technical subjects as one field. The remaining 79.1 percent of the students were distributed with percentages ranging from 3.9 percent in history or geography to 14.4 percent in agricultural studies. More importantly, the table above shows that a large number of the students, 33.3 percent, are still specialising in arts fields, that may adversely affect the possibility of their finding employment.

6.3.1.3 Course Duration

Course duration was covered in question 29, with respondents being asked to say how long their courses would last. The responses are set out in the following table:

Table 6.29 Course duration

Course duration	Frequency	Percent	Cumulative Percent
3 years	23	15.0	15.0
4 years	118	77.1	92.2
5 years	12	7.8	100.0
Total	153	100.0	

As shown in Table 6.29, the majority (77.1 percent) of the students needed four years to finish their course of study, while 15.0 percent of the students whom study in technical colleges usually take at least three years to graduate. The 7.8 percent of students, who were for the most part engaged in medical studies, would require a longer period- up to five years- in order to get their degree.

6.3.1.4 Reasons for Choosing a Particular Field

Questions 30-a, 30-b, 30-c, 30-d and 30-e investigate the reasons for choosing a particular field. Respondents were given five reasons as shown in Table 6.30 overleaf, and asked to state to what extent they agreed with these reasons. The proportions shown in Table 6.30 demonstrate that “most interest” was the reason which most influenced the students’ decisions to choose a particular field, as agreed by 63.6 percent of the students.

This result was expected since students usually follow their interest, while they should really also pay some attention to future employment. Also, it was predictable that the majority (44.4 percent) of the students chose their study field regardless of how easy it was. However, nearly 23 percent of the students were affected by this consideration when they chose their field of study.

This finding indicates that future employment is not important for them as long as they get a university degree. This will naturally make their transition to employment more complicated upon graduation.

Table 6.30 Reasons for choosing a particular field

Reason for choosing A particular field		Frequency	Percent	Cumulative Percent
Course is easy	Disagree	68	44.4	44.4
	Not sure	50	32.7	77.1
	Agree	35	22.9	100.0
	Total	153	100.0	
Admission constraint	Disagree	70	47.0	47.0
	Not sure	26	17.4	64.4
	Agree	53	35.6	100.0
	Total	149	100.0	
Most interest	Disagree	33	21.9	21.9
	Not sure	22	14.6	36.4
	Agree	96	63.6	100.0
	Total	151	100.0	
Offers great employment prospects	Disagree	59	39.1	39.1
	Not sure	33	21.9	60.9
	Agree	59	39.1	100.0
	Total	151	100.0	
Family pressure	Disagree	112	73.7	73.7
	Not sure	14	9.2	82.9
	Agree	26	17.1	100.0
	Total	152	100.0	

Furthermore, it was interesting to find that 35.6 percent of the students were not studying what they would have preferred to study because of admission constraints. They will be more likely to leave higher education than other students and, consequently to increase their unemployment risk. In general, students choose a study field that offers good prospects of employment. Surprisingly, this was not the case for 39.1 percent of the sample. This result confirms our earlier suggestion that Saudi students are careless about their future employment. Finally, Table 6.30 shows what as expected that family pressure had no effect on the majority (73.7 percent) of the students' decisions to choose particular fields. The obvious explanation is that Saudi families do not care what subject they take, as long as their children study at the university. This is due to a lack of awareness about the importance of the field of study for employment placement in the future.

6.3.1.5 Activity Intended after Graduation

The final question dealing with students' variable concerned the activity intended upon graduation. The students were given four options: seek employment, join training course, further education and homemaking. Table 6.31 presents the responses.

Table 6.31 Activity intended after graduation

Activity intended after graduation	Frequency	Percent	Cumulative Percent
Seek employment	100	67.1	67.1
Join training course	8	5.4	72.5
Post-graduate studies	33	22.1	94.6
Homemaking	8	5.4	100.0
Total	149	100.0	

As shown in Table 6.31 the majority of the students, or 67.1 percent intended to seek employment, while 22.1 percent wanted to go on to further education. Only 5.4 percent intended to join a training course or stay at home. These proportions show that the majority of the graduates would like to join the labour force, which makes the unemployment problem more complicated. Also, it was not expected to find that 22.1 percent of the respondents would intend to go on to do post-graduate studies. By doing so, they will escape from the possible risk of unemployment, and in addition, a post-graduate degree will certainly increase their employment probability, if not guarantee it.

6.3.2 Unemployed Category

The unemployed questionnaire covered ten variables: unemployment duration, previous employment status, reason for leaving employment, monthly payment in the last job, minimum monthly payment required to accept employment, job-search activity, means of job-search, job offer, reason for not accepting the job offer and time expected to secure employment.

6.3.2.1 Unemployment Duration

Question 27 of the questionnaire asked respondents to state the duration of their unemployment. Table 6.32 presents the responses as follows:

Table 6.32 Unemployment duration

Unemployment duration	Frequency	Percent	Cumulative Percent
1-6 months	27	21.6	21.6
7-12 months	47	37.6	59.2
13-18 months	13	10.4	69.6
19-24 months	23	18.4	88.0
25 months or more	15	12.0	100.0
Total	125	100.0	

As shown in the table above, the majority (37.6 percent) of the respondents had been unemployed for a period of 7-12 months, and 21.6 percent of the respondents held been unemployed for six months or less. It can be seen from the data above that almost 80.0 percent of the unemployed sample had been in this situation for at least seven months.

More importantly, the unemployment duration for Saudi job-seekers can reach two years or more, which is a very long period. Policy makers should take steps to prevent the long-term unemployment of Saudi youths due to its impact on macroeconomic efficiency. A labour supply pool with a large proportion of long-term unemployed will be characterised by structural mismatch. Hence, long-term unemployed youths will be considered to be irrelevant in firms' hiring decisions, so that unemployment will be higher than it would otherwise be. The unemployment duration depends on different variables that will be discussed in the next chapter when related hypotheses are tested.

6.3.2.2 Previous Employment Status

In question 28 we asked the unemployed respondents if they ever been employed. The results are shown in Table 6.33.

Table 6.33 Previous employment status

Previous employment status	Frequency	Percent	Cumulative Percent
Yes	38	31.1	31.1
No	84	68.9	100.0
Total	122	100.0	

Table 6.33 informs us that the majority, or 68.9 percent, of the unemployed respondents did not have any employment experience, and only 31.1 percent of them had had previous employment. Then next question deals with why someone who was previously-employed left their employment. The proportions in this table suggest that the majority of the Saudi unemployed are first-time job seekers. This information indicates that these unemployed youths lacked the necessary employment experience. Consequently, they would face a difficult school-to-work transition.

6.3.2.3 Reason for Leaving Previous Employment

Questions 29-a, 29-b, 29-c, 29-d, 29-e and 29-f clarify the reasons for leaving previous employment. Respondents were given six reasons and asked to indicate how much they agreed with these reasons. Table 6.34 presents the responses.

Table 6.34 Reason for leaving previous employment

Reason for leaving previous employment		Frequency	Percent	Cumulative Percent
Poor monthly payment and financial benefits	Disagree	2	5.3	5.3
	Not sure	7	18.4	23.7
	Agree	29	76.3	100.0
	Total	38	100.0	
Unacceptable location	Disagree	12	31.6	31.6
	Not sure	12	31.6	63.2
	Agree	14	36.8	100.0
	Total	38	100.0	
Did not like the work	Disagree	12	33.3	33.3
	Not sure	8	22.2	55.6
	Agree	16	44.4	100.0
	Total	36	100.0	
Not suitable to my background	Disagree	15	41.7	41.7
	Not sure	5	13.9	55.6
	Agree	16	44.4	100.0
	Total	36	100.0	
Prefer prestige employment	Disagree	7	20.6	20.6
	Not sure	4	11.8	32.4
	Agree	23	67.6	100.0
	Total	34	100.0	
Not government employment	Disagree	10	28.6	28.6
	Not sure	3	8.6	37.1
	Agree	22	62.9	100.0
	Total	35	100.0	

It is clear by looking at the percentages in Table 6.34 that most of the unemployed respondents left their previous employment because of poor monthly payments and financial benefits, since the majority (76.3 percent) were affected by this reason. This finding can be understood for two reasons. First, since the cost of living is relatively high in Saudi Arabia, individuals, especially the unemployed, are under pressure to earn as much as they can in order to keep up with average life expenses. Secondly, they may think that their employment experience might somehow help them to find better employment offers. In addition, the unemployed respondents claimed that they left their previous job because it was not prestige employment (according to 67.6 percent), or government employment (according to 62.9 percent).

This finding on the one hand demonstrates again how much social factors affect the attitude of Saudi youth towards employment. On the other hand, it confirms an earlier suggestion- that private sector employment is not attractive to Saudi job-seekers. They still believe they will not have employment security in the private sector.

The other reasons were also considered to be important, but for a smaller majority compared with the previous ones. In detail, 44.4 percent of the respondents were in agreement that the both reasons "did not like the work" and "not suitable to my background" affected their decision to leave their employment. The latter reason confirms the fact that employment mismatch negatively influences employment duration. Finally, employment location did not have a noticeable effect, since the questionnaire was distributed only within Al-Hasa Province as mentioned earlier.

6.3.2.4 Monthly Payment in the Last Job

Question 30 in the unemployed questionnaire asked the respondents to declare their monthly salaries in their last employment. Table 6.35 presents the responses.

Table 6.35 Monthly payment in the last job (SR)

Monthly payment in the last job	Frequency	Percent	Cumulative Percent
1000 or less	10	28.6	28.6
1001-1500	16	45.7	74.3
1501-2000	7	20.0	94.3
2001-2500	2	5.7	100.0
Total	35	100.0	

Table 6.35 shows that the majority, or 74.3 percent of the unemployed respondents were getting only SR 1500 ($ 400) or less as a monthly payment. 20.0 percent were getting more than SR 1500 ($ 400) but less than SR 2000 ($ 534). Only 5.7 percent were receiving a monthly salary of between SR 2001-2500 ($ 534-667). Needless to say, all these four payment levels are very low in society like that of Saudi Arabia, where the standard and cost of living are high.

This finding thus confirms the previous finding, that poor monthly payment was a major reason for leaving employment. Having said that, these young people should not be blamed for leaving such employment, since more than 94 percent of them were receiving only SR 2000 ($ 534) or less. However, they should have secured alternative employment first, since there is no unemployment benefit provision in Saudi Arabia.

6.3.2.5 Minimum Monthly Payment required to Accept Employment

With regard to question 31 of the questionnaire, the unemployed respondents were asked to identify the minimum monthly payment they require in order to accept any employment offer. Table 6.36 presents the responses as follows:

Table 6.36 Minimum monthly payment required to accept employment (SR)

Minimum monthly payment required to accept employment	Frequency	Percent	Cumulative Percent
1000 or less	2	1.6	1.6
1001-1500	4	3.3	4.9
1501-2000	20	16.3	21.1
2001-2500	23	18.7	39.8
2501-3000	17	13.8	53.7
3001-3500	11	8.9	62.6
3501-4000	23	18.7	81.3
4001-4500	6	4.9	86.2
4501-5000	6	4.9	91.1
5001-5500	1	.8	91.9
5501-6000	5	4.1	95.9
6001 or more	5	4.1	100.0
Total	123	100.0	

As expected, the unemployed respondents had different monthly salary expectations, although there was a high concentration (18.7 percent) in the two payment categories SR 2001-2500 ($ 534-667) and SR 3501-4000 ($ 934-1067). This result could be explained by demographic and education and training characteristics. In other words, unemployed women may accept employment offered in the lower payment category: SR 2001-2500 ($ 534-667). This finding may help policy makers to define a reasonable minimum wage that could be adopted in the Saudi Arabian labour market.

6.3.2.6 Job Searching Activity

In question 32 of the unemployed questionnaire, respondents were asked to describe their job-search activity. The data are presented in Table 6.37:

Table 6.37 Job-search activity

Job-searching activity	Frequency	Percent	Cumulative Percent
Searching for employment	90	73.2	73.2
Intended to search but has not started yet	16	13.0	86.2
Not searching for employment	17	13.8	100.0
Total	123	100.0	

The data above show that the majority (73.2 percent) of the unemployed respondents, as expected, were looking for work. However, it was not expected to find that nearly 27.0 percent were either not searching or had not started yet. This suggests that some of them were waiting for government employment.

6.3.2.7 Method of Job-Search

Questions 33-a, 33-b, 33-c, 33-d and 33-e shed light on the job-search methods used by the unemployed respondents. They were asked to state to what extent they used these methods. Table 6.38 presents the responses as follows:

Table 6.38 Methods of job-search (unemployed sample)

Methods of job-search		Frequency	Percent	Cumulative Percent
Civil services bureau	Never or Rarely	27	24.3	24.3
	To certain extent	17	15.3	39.6
	Much	67	60.4	100.0
	Total	111	100.0	
Employment office	Never or Rarely	51	47.7	47.7
	To certain extent	11	10.3	57.9
	Much	45	42.1	100.0
	Total	107	100.0	
Advertisements	Never or Rarely	60	55.6	55.6
	To certain extent	14	13.0	68.5
	Much	34	31.5	100.0
	Total	108	100.0	
Different employment places	Never or Rarely	42	39.3	39.3
	To certain extent	14	13.1	52.3
	Much	51	47.7	100.0
	Total	107	100.0	
Personal relationship	Never or Rarely	30	27.8	27.8
	To certain extent	17	15.7	43.5
	Much	61	56.5	100.0
	Total	108	100.0	

As expected the data indicate that the majority, or 60.4 percent, of the unemployed used the civil services bureau to look for work, since this represents the government employment office in Saudi Arabia. This finding confirms previous findings that the majority of Saudi-job seekers are looking for government jobs.

It was surprising to find that only 42.1 percent of the unemployed respondents used the employment office, which is responsible for employment in the private sector. One possible explanation for this result is that a large number of the unemployed did not want to work in the private sector. This might be due to previous bad experience in the private sector or because they were looking for employment security in the government sector.

Furthermore, the unemployed respondents used the personal relationships at least to a certain extent to find employment as reported by 72.2 percent of them. This is to be expected in developing countries, where personal relationships are considered to be a significant method for securing employment, and Saudi Arabia is no different.

Approaching companies or establishments directly is a very common method in Saudi Arabia as 47.7 percent of the respondents demonstrate. In contrast to the developed countries, consulting advertisements was not a regular method for employment search in Saudi Arabia, according to the majority (55.6 percent) of the respondents.

6.3.2.8 Job Offers

Question 34 deals with an important variable-job offer. The respondents were asked if they had been offered employment. Table 6.39 presents the responses as follows:

Table 6.39 Job offers

Job offer	Frequency	Percent	Cumulative percent
Yes	74	65.5	65.5
No	39	34.5	100.0
Total	113	100.0	

The data in Table 6.39 show that 65.5 percent of the unemployed respondents had been offered employment, while 34.5 percent of them had not. This result confirms the fact that there were vacancies in the labour market. In other words, Saudi job-seekers had employment offers; however they did not accept these offers for various reasons that will be discussed in the following question.

6.3.2.9 Reason for not Accepting a Job Offer

Questions 35-a to 35-f clarify the unemployed respondents' reasons for rejecting the job offers. Respondents were asked to indicate to what extent they agreed with the six different reasons shown on in Table 6.40.

The table shows that five of the suggested reasons had an influence on the decision of these young Saudis. In more detail it can be seen from the percentages below that the unemployed respondents did not accept an employment offer principally on the basis of poor monthly payments and financial benefits, and low employment prestige, since 66.2 percent and 63.5 percent of them were influenced by these factors respectively. Again, these results emphasise the significance of social factors in determining youths' employment prospects.

In addition, the reasons "unacceptable employment location", "not suitable to my background" and "not government employment" came second in terms of their influence on respondents' decision to turn the offer of a job.

Finally, the reason "did not like the work" had no significance for the majority (42.5 percent) of the unemployed respondents. This result suggests that the unemployed respondents were prepared to accept an employment offer whether they liked the job or not, as long as all the other criteria were satisfied. Doing work they disliked would, however, negatively affect their productivity, which in turn would have negative effect on the entire economy of the country.

Table 6.40 Reason for not accepting a job offer

Reason for not accepting a job offer		Frequency	Percent	Cumulative Percent
Poor monthly payment and financial benefits	Disagree	13	17.6	17.6
	Not sure	12	16.2	33.8
	Agree	49	66.2	100.0
	Total	74	100.0	
Unacceptable location	Disagree	17	23.0	23.0
	Not sure	17	23.0	45.9
	Agree	40	54.1	100.0
	Total	74	100.0	
Did not like the work	Disagree	31	42.5	42.5
	Not sure	18	24.7	67.1
	Agree	24	32.9	100.0
	Total	73	100.0	
Not suitable to my background	Disagree	28	37.8	37.8
	Not sure	7	9.5	47.3
	Agree	39	52.7	100.0
	Total	74	100.0	
Prefer prestige employment	Disagree	20	27.0	27.0
	Not sure	7	9.5	36.5
	Agree	47	63.5	100.0
	Total	74	100.0	
Not government employment	Disagree	17.6	30.1	30.1
	Not sure	10.4	17.8	47.9
	Agree	30.4	52.1	100.0
	Total	58.4	100.0	

6.3.2.10 Expected Time Required to Secure Employment

The last question in the unemployed questionnaire, question 36, concerned how long the unemployed respondents though it might take them to get a job. Table 6.41 shows the results:

Table 6.41 Expected time required to secure employment

Expected time required to secure employment	Frequency	Percent	Cumulative Percent
1-6 months	30	24.4	24.4
7-12 months	38	30.9	55.3
13-18 months	20	16.3	71.5
19-24 months	17	13.8	85.4
25 month or more	18	14.6	100.0
Total	123	100.0	

As shown in the table above, the majority (30.9 percent) of the unemployed respondents thought they would need 7-12 months to secure employment, while 24.4 percent though it would take less time- only 1-6 months to find employment. However, 16.3 percent thought they would of need 13-18 months, and 13.8 percent of them thought they would need 19-24 months to find employment, which is longer period compared with the majority. Also, 14.6 percent of the unemployed respondents thought they would need the longest period of 25 months or more to secure employment. It was clear from the above results that almost half of the unemployed respondents believed they would be unable to secure employment within a year. By adding this period to their reported unemployment duration it may be seen how difficult the school-to-work transition can be for young Saudis seeking employment in the Saudi Arabian labour market nowadays.

6.3.3 Employed Category

The question for the employed category include another eight variables: duration of present job, type of work, employer's sector, monthly payment, reason for accepting present employment, method of job-search, searching for another job and reason for this search.

6.3.3.1 Duration of the Present Job

In question 27 of the employed questionnaire, the respondents were asked to state the duration of their current job.

As shown in Table 6.42, the majority, or 30.6 percent, of the respondents had been employed for a period of 3-4 years, while 22.6 percent of the respondents had been employed for six months or less. It is worth remarking here that nearly 40.0 percent of the respondents had not secured their employment in the last two years. This large proportion indicates that the unemployment rate has been increasing recently and is becoming a real problem for young people in the society in which they live.

Table 6.42 Duration the present job

Duration of present job	Frequency	Percent	Cumulative Percent
1-6 months	30	22.6	22.6
7-12 months	19	14.3	36.8
13-18 months	21	15.8	52.6
19-24 months	13	9.8	62.4
3-4 years	41	30.8	93.2
5-6 years	7	5.3	98.5
7 years or more	2	1.5	100.0
Total	133	100.0	

6.3.3.2 Type of Work

Question 28 of the questionnaire investigates the employees' type of work. They were asked to identify the type work they did. Table 6.43 presents the responses as follows:

Table 6.43 Type of work

Type of work	Frequency	Valid Percent	Cumulative Percent
Managerial	44	33.1	33.1
Educational	50	37.6	70.7
Medical	6	4.5	75.2
Engineering	5	3.8	78.9
Security	8	6.0	85.0
Technical	15	11.3	96.2
Others	5	3.8	100.0
Total	133	100.0	

The distribution of the employed sample according to their type of work tells us that the majority (37.6 percent) were in educational employment. This finding was to be expected for two reasons: first, educational jobs are the only available government jobs in the Saudi Arabian labour market at present; secondly, the majority of Saudi job-seekers prefer educational jobs, as we have already seen. The case is similar with regard to managerial jobs, which came second, with 33.1 percent of the respondents holding this type of post. These jobs are usually offered by government ministries.

In fact, these results give the impression that the demand for people to work in this type of job would be very low at certain times compared with the demand for people to work in other jobs, particularly medical and engineering jobs, in Saudi labour market. When this happens, government employment is virtually frozen, which further exacerbates the unemployment problem for young Saudis.

These results also indicate that the majority of the graduates continue to specialise in arts fields that are no longer required by the Saudi labour market, at least in the private sector. Thus, educational policies should encourage the new higher education students into science fields in order to meet the demand for these jobs in the local labour market and to enable them to have a smooth transition into employment. Finally, it is worth mentioning here that the proportion of those in security jobs was higher than some of the other jobs because of the government Saudization policy in this type of work, has recently been put into practice.

6.3.3.3 Employer's Sector

Question 29 investigates the employer's sector. The respondents were given three sectors, and asked identify which sector they worked in. the results are shown in the following table:

Table 6.44 Employer's sector

Employer's sector	Frequency	Valid Percent	Cumulative Percent
Government	79	59.4	59.4
Parastatal	11	8.3	67.7
Private	43	32.3	100.0
Total	133	100.0	

Table 6.44 shows that the majority (59.4 percent) of the employed were working in the government sector, while 32.4 percent worked in the private sector. Only 8.3 percent of the employed respondents were working in the parastatal sector.

These findings confirm what has been found earlier, that government sector is the main employer for the majority of the Saudi labour force. This reveals how difficult the school-to-work transition is in Saudi Arabia when the government reduces or stops offering new employment places, which is the case now. This means that the private and parastatal sectors have to absorb the newcomers to the Saudi labour market, which they are unwilling to do. However, it can be noted from the data above that the private sector is improving in terms of employing Saudis with 32.3 percent of the employed respondents working in this sector. This may reflect the continued government pressure on this sector to pursue a policy of Saudization.

6.3.3.4 Monthly Payment

In question 30 of the questionnaire, the employed respondents were asked to state their monthly payment. Table 6.45 presents the responses as follows:

Table 6.45 Monthly payments (SR)

Monthly payment	Frequency	Valid Percent	Cumulative Percent
1000 or less	6	4.5	4.5
1001-1500	17	12.8	17.3
1501-2000	11	8.3	25.6
2001-2500	16	12.0	37.6
2501-3000	4	3.0	40.6
3001-3500	11	8.3	48.9
3501-4000	33	24.8	73.7
4001-4500	6	4.5	78.2
4501-5000	15	11.3	89.5
5001-5500	3	2.3	91.7
5501-6000	3	2.3	94.0
6001 or more	8	6.0	100.0
Total	133	100.0	

As shown in the table, the majority, or 24.8 percent, of the employed respondents received SR 3501-4000 ($ 934-1067) per month. 25.6 percent were getting SR 2000 ($ 534) or less, while 23.3 percent of the employed respondents received more than SR 2000 ($ 534) but less than the majority monthly payment of the majority. Those who were paid at least SR 4001 ($ 1067) (more than the majority) comprised 26.4 percent of the employed respondents. The employed respondents, as expected, were getting higher monthly payments than those received by the unemployed respondents in their previous job. In fact, the unemployed respondents' monthly payment was a maximum of SR 2500 ($ 667). However, the majority of the unemployed sample, as shown earlier, would accept any employment offer as long as they were receiving s monthly payment of SR 3501-4000 ($ 934-1067), which is similar to the monthly payment of the majority of the employed respondents.

Although a minimum wage policy has not adopted in the country, it may be concluded from these results that SR 3501-4000 ($ 934-1067) would be a reasonable minimum monthly wage for Saudi job-seekers. However, applying this policy in the local labour market would certainly help the government in its Saudization efforts.

6.3.3.5 Reason for Accepting Current Employment

Questions 31-a, 31-b, 31-c, 31-d, 31-e and 31-f clarify the employed respondents' reasons for accepting their current job. Respondents were given six reasons and asked to state how much they agreed with those reasons. Table 646 presents the responses.

Table 6.46 Reason for accepting current employment

Reason for accepting current employment		Frequency	Percent	Cumulative Percent
Good monthly payment and financial benefits	Disagree	36	27.3	27.3
	Not sure	59	44.7	72.0
	Agree	37	28.0	100.0
	Total	132	100.0	
Acceptable location	Disagree	15	11.3	11.3
	Not sure	27	20.3	31.6
	Agree	91	68.4	100.0
	Total	133	100.0	
Like the work	Disagree	24	18.2	18.2
	Not sure	29	22.0	40.2
	Agree	79	59.8	100.0
	Total	132	100.0	
Suitable to my background	Disagree	34	25.8	25.8
	Not sure	18	13.6	39.4
	Agree	80	60.6	100.0
	Total	132	100.0	
Prestige employment	Disagree	36	27.5	27.5
	Not sure	52	39.7	67.2
	Agree	43	32.8	100.0
	Total	131	100.0	
Government employment	Disagree	46	36.5	36.5
	Not sure	12	9.5	46.0
	Agree	68	54.0	100.0
	Total	126	100.0	

From the above table, it may be understood why the employed respondents accepted their current employment. The main reason was the employment location, according to a large majority of the respondents. Nearly 70 percent of the employed sample claimed that the location of their current post had encouraged them to accept their offer of employment. In addition, nearly 60.0 percent of the sample agreed to take their job, on the one hand because they liked the nature of the work, and on the other hand because the employment was offered by the government.

Moreover, 60.6 percent saw the fact that the type of work matched their background as being influential on their decision to take the job. On the other hand, it is worth mentioning that the majority of the employed respondents (at least 39.7 percent of them) were not sure whether the monthly payments and financial benefits, or level of their employment prestige had had an influence on their decision to accept such employment.

In general, this result indicates that their satisfaction with these aspects of their employment was not optimal, and this is reinforced by the responses obtained to the last question.

6.3.3.6 Method of Job-Search

Questions 32-a, 32-b, 32-c, 32-d and 32-e shed light on the employed job-search methods of the employed respondents. They were to indicate to what extent each method. Table 6.47 presents the responses as follows:

Table 6.47 Method of job-search (employed sample)

Methods of Job-search		Frequency	Percent	Cumulative Percent
Civil services bureau	Never or Rarely	77	58.8	58.8
	To certain extent	3	2.3	61.1
	Much	51	38.9	100.0
	Total	131	100.0	
Employment office	Never or Rarely	115	89.8	89.8
	To certain extent	6	4.7	94.5
	Much	7	5.5	100.0
	Total	128	100.0	
Advertisements	Never or Rarely	102	77.9	77.9
	To certain extent	11	8.4	86.3
	Much	18	13.7	100.0
	Total	131	100.0	
Different employment places	Never or Rarely	87	66.9	66.9
	To certain extent	17	13.1	80.0
	Much	26	20.0	100.0
	Total	130	100.0	
Personal relations	To certain extent	45	34.6	34.6
	Not sure	12	9.2	43.8
	Much	73	56.2	100.0
	Total	130	100.0	

As seen from the table above, unexpectedly the majority (56.2 percent) of the employed respondents depended on the personal relationships to secure their employment. This indicates that the amount of human capital of the job-seekers is not important in securing employment in Saudi Arabia, as in other developing countries during times of high unemployment. Surprisingly, it was found that the civil services bureau (the government employment agency) was not used that much by the employed respondents. As with the unemployed respondents, it was expected to find that the majority of the employed never or rarely used the other methods, particularly the employment office, and this in fact was the case here.

6.3.3.7 Searching for another Job

In question 33 we asked the employed respondents if they were searching for another job. Table 6.48 on the next presents their responses:

Table 6.48 Searching for another job

Searching for another job	Frequency	Percent	Cumulative Percent
Yes	86	64.7	64.7
No	47	35.3	100.0
Total	133	100.0	

Table 6.48 shows that the majority, or 64.7 percent, of the employed respondents were looking for another job. It is interesting to find that the majority of the employed respondents were not satisfied with their current post. The reasons behind this may be explained by analysing the responses to the final question of employed questionnaire.

6.3.3.8 Reason for Searching for another Job

Questions 34-a, 34-b, 34-c, 34-d, 34-e and 34-f identify the employed respondents' reasons for searching for another job. Respondents were given six reasons and asked to ascertain how much they agreed with these reasons. The responses are presented in Table 6.49, below:

Table 6.49 Reason for searching for another job

Reason for searching for another job	Frequency	Percent	Cumulative Percent
Poor monthly payment and financial benefits	Disagree	10	11.8	11.8
	Not sure	23	27.1	38.8
	Agree	52	61.2	100.0
	Total	85	100.0	
Unacceptable location	Disagree	52	60.5	60.5
	Not sure	18	20.9	81.4
	Agree	16	18.6	100.0
	Total	86	100.0	
Did not like the work	Disagree	49	58.3	58.3
	Not sure	23	27.4	85.7
	Agree	12	14.3	100.0
	Total	84	100.0	
Not suitable to my background	Disagree	58	68.2	68.2
	Not sure	15	17.6	85.9
	Agree	12	14.1	100.0
	Total	85	100.0	
Prefer prestige employment	Disagree	22	26.5	26.5
	Not sure	11	13.3	39.8
	Agree	50	60.2	100.0
	Total	83	100.0	
Not government employment	Disagree	41	50.6	50.6
	Not sure	7	8.6	59.3
	Agree	33	40.7	100.0
	Total	81	100.0	

The above results indicate that the employed respondents were looking for alternative employment for two principal reasons. First, they were not satisfied with their monthly payment and financial benefits, as reported by the majority (61.2 percent) of the respondents. Secondly, they would prefer to have a job with more prestige attached. according to 60.2 percent of the respondents.

This finding confirms earlier indications that monthly payment of the employed is the most essential motivation in accepting and keeping a job regardless of other benefits. On the other hand, this finding also reveals that employment prestige is still very important for young Saudis, even for those who are employed to continue with their employment. To conclude, policy makers must take social factors into consideration, in addition to economic factors when contemplating the youth unemployment problem in Saudi Arabia.

6.4 Conclusion

This chapter has presented the descriptive analysis of the research data. This is considered to be the first stage in the process of data analysis. The objective of this chapter was to provide detailed a description of the sample under discussion so as to enable the reader to understand the nature and the characteristics of the respondents involved.

The analysis was divided into two parts. The first part covered the analysis of the questions answered by the whole sample. The analysis of the demographic variables included four variables, including respondents' ages and gender. The analysis of the family characteristics included five variables, including such variables as father's employment status and father's level of education. The analyses of the educational and training characteristics included twelve variables, including such variables as respondents' level of education and training qualifications. Finally, the analysis of the labour market characteristics included five variables, including such variables as preferred employment sector and preferred employment location.

The second part covered the analysis of the research groups' independent questions. The student group had five additional variables, such as their reasons for choosing a particular course and activity intended after graduation. The unemployed group had ten additional variables, such as the duration of their unemployment and job-search methods. Finally, the employed group had eight additional variables including the duration of their present job and type of work they were engaged in.

CHAPTER SEVEN

TESTING THE RESEARCH HYPOTHESES

7.1 Introduction

In the previous chapter, the univariate analysis of the research variables was presented using frequency tables, and fundamental reasons for the results were suggested. The follow-up analysis is the bivariate analysis, which concerns how two variables are related to each other. The bivariate analysis will attempt to draw some conclusions about the population on the basis of what has been observed. More specifically, it will clarify the relationship between the dependent and independent variables.

Testing the hypotheses of independent research variables that appear to have an effect on a dependent variable is very important in order to be able to state with confidence that the effect was really due to the variable, and not just to chance. Thus, the objective of this chapter is to explore the presence of any significant relationship between several pairs of variables within the research hypotheses. Possible relationships between variables were investigated using the Pearson chi-square and cross-tabulation statistical functions of the SPSS package. Then null hypothesis is the method adopted in this study. This is the hypothesis that the independent variable has no effect on the dependent variable. The null hypothesis is expressed as H0. This hypothesis is assumed to be true unless proven otherwise. The alternative to the null hypothesis is the hypothesis that the independent variable does have an effect on the dependent variable. This hypothesis, known as the alternative is expressed as H1.

The research hypotheses in this chapter will be tested with regard to one or more of the four research characteristics: demographic, family background, education/training and labour market, according to the nature of each hypothesis. These four characteristics include several variables that will be examined as sub-hypotheses. Although all related variables will be tested, only variables that demonstrate significant relationships will be reported in detail. Otherwise only the chi-square result will be presented.

The chapter has been organised into four sections. Section two will explain the findings concerning the general research hypotheses that were associated with all the respondents to questionnaires. This is followed by section three, which covers only the categorical hypotheses. Finally, section four provides the conclusion to the chapter.

7.2 General Hypotheses

This section will present the analyses of the research hypotheses were covered by the first part of the research questionnaire. Four main hypotheses will be tested: first, the respondents' transition activity, second, the respondents' early school-leaving decision (secondary school status). The third hypothesis deals with the respondents' participation in higher education (higher education status), while the final hypothesis covers the respondents' training participation.

7.2.1 Respondents Transition Activity

This sub section will test the hypotheses that associate with respondents' economic activity: students, unemployed or employed with regards to demographic variables, family background variables, education/training variables and labour market variables.

7.2.1.1 The Effect of Demographic Characteristics

This hypothesis was intended to identify whether there is a relationship between respondents' economic activity and related demographic variables. Two variables were found to be statistically significant as illustrated below.

HYPOTHESIS No. 1 AGE

The null-hypothesis, H0: there is no significant relationship between the age of the respondents and the respondents' economic activity.

Table 7.1 Transition activity * Respondent's age Cross-tabulation

Transition activity and Total	Respondent's age			Total
	18-20	21-23	24-26	
Higher education	50	81	22	153
	58.8%	49.4%	13.6%	37.2%
Unemployed	25	51	49	125
	29.4%	31.1%	30.2%	30.4%
Employed	10	32	91	133
	11.8%	19.5%	56.2%	32.4%
Total	85	164	162	411
	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**89.450**	**4**	**.000**

As shown in Table 7.1, a respondent's age was found to be statistically significant since the level of significance (p value) was .000, and this level of significance is below the standard .05 level of statistical significance. Hence, the null hypothesis can be rejected.

By rejecting H0, it may be concluded that age influences the economic activity of young Saudi person in his or her transition from school-to-work. For example, respondents aged 24-26 were less likely to be higher education students and more likely to be employed than their younger counterparts.

HYPOTHESIS No. 2 MARITAL STATUS

The null-hypothesis, H0: there is no significant relationship between the marital status of the respondents and respondents' economic activity.

Table 7.2 Transition activity * Respondent's marital status Cross-tabulation

Transition activity and Total	Respondent's marital status		Total
	Married	Not Married	
Higher education	22	130	152
	22.4%	41.8%	37.2%
Unemployed	22	102	124
	22.4%	32.8%	30.3%
Employed	54	79	133
	55.1%	25.4%	32.5%
Total	98	311	409
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**30.355**	**2**	**.000**

The respondents' marital status variable was found statistically significant. A chi-square test revealed that the level of significance (p value) was .000. According to this result the null hypothesis can be rejected. Consequently, it can be noted from Table 7.2 that marital status influences the economic activity of Saudi youths. In other words, single respondents were more likely to be in higher education than to be employed. Also, married youths were more likely to secure employment than their single counterparts.

The other demographic variables- gender and location- had no statistically significant relationship with the independent variable (respondents' transition activity), since the levels of significance for these variables were no less than .174 as shown in Table 7.3, and this level is above the standard .05 level of significance.

Table 7.3 Test results of insignificant demographic variables (1st hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Gender	3.497	2	.174
Location	2.443	2	.295

7.2.1.2 The Effect of Family Background Characteristics

This hypothesis was intended to determine whether there is a relationship between the respondents' economic activity and related family background variables. Three variables were found to be statistically significant, as demonstrated below.

HYPOTHESIS No.1 FATHERS' OCCUPATION

The null-hypothesis, H0: there is no significant relationship between father's occupation and respondents' economic activity.

Table 7.4 Transition activity * Father's occupation Cross-tabulation

Transition activity and Total	Father's occupation		Total
	Manual	Non-manual	
Higher education	50	99	149
	30.7%	43.8%	38.3%
Unemployed	55	67	122
	33.7%	29.6%	31.4%
Employed	58	60	118
	35.6%	26.5%	30.3%
Total	163	226	389
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**7.317**	**2**	**.026**

There was a significant relationship between father's occupation and respondents' transition activity. Table 7.4 shows that the level of significance (p value) was .026, which is below the standard .05 level of significance. This finding suggests that youths with fathers in manual occupations were more likely to secure employment than those with fathers in non-manual counterparts.

HYPOTHESIS No. 2 FATHER'S LEVEL OF EDUCATION

The null-hypothesis, H0: there is no significant relationship between father's level of education and respondents' economic activity.

The chi-Square test shown in Table 7.5 confirms that the father's level of education variable has a statistically significant relationship with the independent variable (transition activity of Saudi youths). The level of observed significance (p value) was .049. Hence, the null hypothesis can be rejected.

The table shows as expected, that youths who had fathers with low levels of education (below primary) were more likely to suffer from an unemployment problem than others. On the other hand, those youths who had fathers with a university degree or higher were more likely to secure employment than others.

Table 7.5 Transition activity* Fathers' level of education Cross-tabulation

Transition activity and Total	Father's level of education					Total
	Below primary	Primary	Elementary	Secondary	University or higher	
Higher education	53	23	24	31	18	149
	34.6%	30.3%	41.4%	49.2%	36.0%	37.3%
Unemployed	54	22	20	16	9	121
	35.3%	28.9%	34.5%	25.4%	18.0%	30.3%
Employed	46	31	14	16	23	130
	30.1%	40.8%	24.1%	25.4%	46.0%	32.5%
Total	153	76	58	63	50	400
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**15.540**	**8**	**.049**

HYPOTHESIS No. 3 NUMBER OF UNEMPLOYED IN THE HOUSEHOLD

The null-hypothesis, H0: there is no significant relationship between the number of unemployed in respondents' household and respondents' economic activity.

To test the relationship between the number of the unemployed in the household and economic activity of the respondents, a chi-square test was used. The level of observed significant (p value) was .002 as shown in Table 7.6.

Accordingly, a statistically significant relationship was confirmed. In other words, economic activity of the respondents was influenced by this variable. For example, respondents with no unemployed members in their households were more likely to be in full-time education or employed than those with unemployed members in their households.

Table 7.6 Transition activity * Number of unemployed in the household Cross-tabulation

Transition activity and Total	Number of unemployed in the household				Total
	None	1-2	3-4	5 or more	
Higher education	88	42	19	2	151
	44.0%	29.8%	32.8%	33.3%	37.3%
Unemployed	42	51	27	2	122
	21.0%	36.2%	46.6%	33.3%	30.1%
Employed	70	48	12	2	132
	35.0%	34.0%	20.7%	33.3%	32.6%
Total	200	141	58	6	405
	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**20.312**	**6**	**.002**

The other family background variables- father's employment status and family size- had no statistically significant relationship with the independent variable, since the levels of significance for these variables were no less than .443, as shown in Table 7.7, and this level is above the standard .05 level of significance.

Table 7.7 Test results of insignificant family background variables (1st hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Father's employment status	5.828	6	.443
Family size	4.772	6	.573

7.2.1.3 The Effect of Education and Training Characteristics

This hypothesis was intended to determine whether there is a relationship between the respondents' economic activity and related education and training variables. Six variables were found to be statistically significant, as explained below.

HYPOTHESIS No. 1 RESPONDENTS' LEVEL OF EDUCATION

The null-hypothesis, H0: there is no significant relationship between the respondents' levels of education and their economic activity.

The respondents' levels of education were found to be statistically significant, the precise observed significance (p value) being .000. Hence, the null hypothesis can be rejected. This indicates a strong relationship with the dependent variable. From Table 7.8, it can be noted that those youths who had university degrees or higher were more likely to be employed. Conversely, those youths who had lower levels of education were more likely to be unemployed.

Table 7.8 Transition activity * Respondents' levels of education Cross-tabulation

Transition activity and Total	Respondents' levels of education					Total
	Below primary	Primary	Elementary	Secondary	University or higher	
Higher education				153		153
				65.4%		37.2%
Unemployed		5	22	44	54	125
		50.0%	61.1%	18.8%	41.5%	30.4%
Employed	1	5	14	37	76	133
	100.0%	50.0%	38.9%	15.8%	58.5%	32.4%
Total	1	10	36	234	130	411
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**194.132**	**8**	**.000**

HYPOTHESIS No. 2 RESPONDENTS' GRADES

The null-hypothesis, H0: there is no significant relationship between THE respondent's grades and their economic activity.

Table 7.9 Transition activity * Respondents' grade Cross-tabulation

Transition activity and Total	Respondents' grades				Total
	Pass	Good	Very good	Excellent	
Higher education	10	39	67	35	151
	31.3%	26.2%	38.1%	74.5%	37.4%
Unemployed	8	51	58	5	122
	25.0%	34.2%	33.0%	10.6%	30.2%
Employed	14	59	51	7	131
	43.8%	39.6%	29.0%	14.9%	32.4%
Total	32	149	176	47	404
	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**38.861**	**6**	**.000**

Table 7.9 shows the chi-square test concerning the respondents' grades in their highest academic qualification. The table confirms a strong association with the independent variable. According to the results, the level of significance (p value) was .000. Hence, the null hypothesis can be rejected. By rejecting H0 we can conclude that the hypothesis of independence between the respondents' grades and their economic activity is unacceptable. The results, for example, show that youths with high grades were more likely to have gone to the tertiary education than those with low grades.

HYPOTHESIS No.3 SECONDARY SCHOOL STATUS

The null-hypothesis, H0: there is no significant relationship between secondary school status and the respondents' economic activity.

Table 7.10 Transition activity * Secondary school status Cross-tabulation

Transition activity and Total	Secondary school status		Total
	Yes	No	
Higher education	153		153
	42.0%		37.2%
Unemployed	98	27	125
	26.9%	57.4%	30.4%
Employed	113	20	133
	31.0%	42.6%	32.4%
Total	364	47	411
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**34.211**	**2**	**.000**

It can be seen from Table 7.10 that there is a statistically significant relationship between students' secondary school status and respondents' transition activity, since the p value was .000. Youths with a secondary school certificate were more likely to be either employed or, of course, higher education students. This finding reflects the fact that unemployed respondents are generally the youth group which displays the greatest qualification disadvantages.

HYPOTHESIS No. 4 HIGHER EDUCATION STATUS

The null-hypothesis, H0: there is no significant relationship between higher education status and respondents' economic activity.

Table 7.11 Transition activity * Higher education status Cross-tabulation

Transition activity and Total	Higher education status		Total
	Yes	No	
Higher education	153		153
	54.1%		42.0%
Unemployed	54	44	98
	19.1%	54.3%	26.9%
Employed	76	37	113
	26.9%	45.7%	31.0%
Total	283	81	364
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**80.027**	**2**	**.000**

Like the previous variable, the higher education status variable was found to be highly significant. Table 7.11 shows the chi-square test where the p value was .000. This result proves the importance of education as a major determinant of youths' economic activity. The table shows that among all respondents, youths who lacked a higher education were more likely to be unemployed.

HYPOTHESIS No. 5 TYPE OF HIGHER EDUCATION

The null-hypothesis, H0: there is no significant relationship between type of higher education and respondents' economic activity.

The chi-square test for the relationship between higher education type and respondents' transition activity was .004 (with d.f. 4) and significant at the preset alpha of .05. Table 7.12 shows that those youths who graduated from universities were more likely to be employed, while those who graduated from colleges of education were more likely to be unemployed.

Table 7.12 Transition activity * Type of higher education Cross-tabulation

Transition activity and Total	Type of higher education			Total
	University	College of education	Tech. college	
Higher education	88	42	23	153
	58.3%	43.8%	67.6%	54.4%
Unemployed	18	27	7	52
	11.9%	28.1%	20.6%	18.5%
Employed	45	27	4	76
	29.8%	28.1%	11.8%	27.0%
Total	151	96	34	281
	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**15.332**	**4**	**.004**

HYPOTHESIS No. 6 TYPE OF ACADEMIC QUALIFICATION

The null-hypothesis, H0: there is no significant relationship between type of highest academic qualification and respondents' economic activity.

According to the cross-tabulation and chi-square test the p value was .000. Table 7.13 reveals a significant association between type of academic qualification and youths' transition activity. The results show that respondents specialising in art subjects were more likely to be employed.

Table 7.13 Transition activity * Type of academic qualification Cross-tabulation

Transition activity and Total	Type of academic qualification		Total
	Art	Science	
Higher education	62	91	153
	38.3%	59.9%	48.7%
Unemployed	39	31	70
	24.1%	20.4%	22.3%
Employed	61	30	91
	37.7%	19.7%	29.0%
Total	162	152	314
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**16.670**	**2**	**.000**

Only respondents' training qualification had no significant relationship with their transition activity, since the level of significance was.119, as shown in Table 7.14.

Table 7.14 Test results of insignificant education and training variable (1st hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Training qualifications	4.265	2	.119

7.2.1.4 The Effect of Labour Market Characteristics

This hypothesis was intended to determine whether there is a relationship between respondents' economic activity and related labour market variables. Three variables were found to be statistically significant, as discussed below.

HYPOTHESIS No. 1 TYPE OF EMPLOYMENT

The null-hypothesis, H0: there is no significant relationship between type of job and respondents' economic activity.

Table 7.15 Transition activity * Type of employment Cross-tabulation

Transition activity and Total	Preferred Employment						Total
	Manag.	Educ.	Medi.	Engi.	Secu.	Tech.	
Higher education	45	58	16	6	7	18	150
	31.7%	43.3%	57.1%	25.0%	31.8%	31.6%	36.9%
Unemployed	38	36	5	10	10	25	124
	26.8%	26.9%	17.9%	41.7%	45.5%	43.9%	30.5%
Employed	59	40	7	8	5	14	133
	41.5%	29.9%	25.0%	33.3%	22.7%	24.6%	32.7%
Total	142	134	28	24	22	57	407
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**21.864**	**10**	**.016**

In order to see if there was any relationship between respondents' transition activity and preferred occupation, a cross-tabulation was carried out with a chi-square test. The results in Table 7.15 show a significant relationship between the two variables, where the level of significance (p value) was .016. The table above shows that youths who preferred managerial occupations where more likely to be employed. On the other hand, those who preferred educational occupation were more likely to pursue their higher education.

HYPOTHESIS No. 2 EMPLOYMENT LOCATION

The null-hypothesis, H0: there is no significant relationship between preferred employment location and respondents' economic activity.

The above null hypothesis cannot be accepted, since the level of significance (p value) was .001, as shown in Table 7.16. In fact, a significant relationship was detected between the employment location and respondents' transition activity. For example, youths who were not sure of their preference or who were not attracted to local employment were more likely to continue their higher education than others.

Table 7.16 Transition activity * Employment location Cross-tabulation

Transition activity and Total	Local employment location			Total
	Unfavourable	Not sure	Favourable	
Higher education	24	14	114	152
	60.0%	56.0%	33.2%	37.3%
Unemployed	8	2	113	123
	20.0%	8.0%	32.9%	30.1%
Employed	8	9	116	133
	20.0%	36.0%	33.8%	32.6%
Total	40	25	343	408
	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**17.917**	**4**	**.001**

HYPOTHESIS No. 3 LABOUR MARKET INFORMATION

The null-hypothesis, H0: there is no significant relationship between labour market information and respondents' economic activity.

Table 7.17 Transition activity * Unemployment rate in KSA Cross-tabulation

Transition activity and Total	Labour Market Information			Total
	Low	Not sure	High	
Higher education	8	33	103	144
	47.1%	47.8%	33.3%	36.5%
Unemployed	3	12	108	123
	17.6%	17.4%	35.0%	31.1%
Employed	6	24	98	128
	35.3%	34.8%	31.7%	32.4%
Total	17	69	309	395
	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**10.631**	**4**	**.031**

Respondents' labour market information (measured here by unemployment rate) was found to be significant in influencing youths' transition activity, where the level of significance (p value) was .031, as shown in Table 7.17. To demonstrate, those who thought the unemployment rate was high in Saudi Arabia were more likely to be unemployed than those who thought otherwise.

The levels of significance for other labour market variables- school paid work and preferred employment sector- however, were no less than .462, indicating insignificant relationships, as shown in table 7.18.

Table 7.18 Test results of insignificant family background variables (1st hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
School pay-work	1.542	2	.462
Preferred sector	2.281	4	.684

7.2.2 School Leaving Decisions

This section tests the hypotheses associate with respondents' early school-leaving decision (secondary school status) with regard to demographic, family background and labour market variables.

7.2.2.1 The Effect of Demographic Characteristics

This hypothesis was intended to determine whether there is a relationship between the respondents' secondary school status and related demographic variables. Two variables were found to be significant, as described below.

HYPOTHESIS No. 1 GENDER

The null-hypothesis, H0: there is no significant relationship between gender and respondents' secondary school status.

Table 7.19 Secondary school status* Respondent's gender Cross-tabulation

Secondary school status	Respondent's gender		Total
	Male	Female	
Yes	235	129	364
	85.5%	94.9%	88.6%
No	40	7	47
	14.5%	5.1%	11.4%
Total	275	136	411
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**7.936**	**1**	**.005**

The table above confirms a significant relationship between respondents' gender and their secondary school status. According to the chi-square test, the level of significance (p value) was .005, and this level of significance is below the slandered level .05. As Table 7.19 indicates, females were more likely to have secondary school certificates. In other words, Saudi males were more likely to leave school earlier than females.

HYPOTHESIS No.2 LOCATION

The null-hypothesis, H0: there is no significant relationship between location and respondents' secondary school status.

A chi-square test was carried out to test the relationship between the respondents' location and their early school-leaving decision. The results indicate a statistically significant relationship between the two variables, since the level of significance (p value) was .001. Table 7.20 shows that urban respondents were likely to leave school earlier than rural respondents.

Table 7.20 Secondary school status* Respondent's location Cross-tabulation

Secondary school status	Respondents' location		Total
	Urban	Rural	
Yes	235	129	364
	85.5%	94.9%	88.6%
No	40	7	47
	14.5%	5.1%	11.4%
Total	275	136	411
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**10.720**	**1**	**.001**

The other demographic variables- age and marital status- have no statistically significant relationship with the independent variable (early school-leaving decision), since the level of significance for these variables were no less than .060, as shown in Table 7.21, and this level of significance above the standard .05 level of significance.

Table 7.21 Test results of insignificant demographic variables (2nd hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Age	5.625	2	.060
Marital status	.009	1	.924

7.2.2.2 The Effect of Family Background Characteristics

This hypothesis was intended to determine whether there is a relationship between respondents' secondary school status and family background variables. Only one variable was found to be significant as explained below.

HYPOTHESIS No. 1 NUMBER OF UNEMPLOYED IN THE HOUSEHOLD

The null-hypothesis, H0: there is no significant relationship between the number of unemployed in the household and respondents' secondary school status

Table 7.22 Secondary school status * Number of unemployed in the household Cross-tabulation

Secondary school status	Number of unemployed in the household				Total
	None	1-2	3-4	5 or more	
Yes	187	115	52	5	359
	93.5%	81.6%	89.7%	83.3%	88.6%
No	13	26	6	1	46
	6.5%	18.4%	10.3%	16.7%	11.4%
Total	200	141	58	6	405
	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**11.939**	**3**	**.008**

The level of significance (p value) was .008, between the number of the unemployed in the households and the respondents' early school leaving, so there was a statistically significant relationship. The table above shows that respondents who had unemployed members in their households were more likely to drop out of school than those who did not. For example, 16.7 percent of those who have 5 or more unemployed in the household did not have a secondary school certificate compared with only 6.5 percent of those who had no unemployed members in their households.

On the other hand, father's employment status, father's occupation, father's level of education, and family size had no statistically significant relationship with the independent variable (early school-leaving decision), since the levels of significance for these variables were no less than .097, as shown in Table 7.23.

Table 7.23 Test results of insignificant family background variables (2nd hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Father's employment status	4.275	3	.233
Father's occupation	2.192	1	.139
Father's level of education	7.863	4	.097
Family size	1.994	3	.574

7.2.2.3 The Effect of Labour Market Characteristics

This hypothesis was intended to determine whether there is a relationship between respondents' secondary school status and related labour market variables. Only one variable was found to be significant as shown below.

HYPOTHESIS No. 1 TYPE OF EMPLOYMENT

The null-hypothesis H0: there is no significant relationship between type of jobs and respondents' secondary school status.

Table 7.24 Secondary school status * Type of employment Cross-tabulation

Secondary school status	Preferred Employment						Total
	Manag.	Educ.	Medi.	Engi.	Secu.	Tech.	
Yes	128	133	27	18	15	39	360
	90.1%	99.3%	96.4%	75.0%	68.2%	68.4%	88.5%
No	14	1	1	6	7	18	47
	9.9%	.7%	3.6%	25.0%	31.8%	31.6%	11.5%
Total	142	134	28	24	22	57	407
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**52.939**	**5**	**.000**

The type of employment preferred variable has a significant influence on respondents' decision to leave school. According to Table 7.24 the level of significance (p value) was .000. From the table it can be seen that those who preferred security jobs or technical employment were more likely to leave school early than those who preferred managerial or educational employment. They may have believed that these types of job did not require high level of educational attainment.

The other labour market variables- school paid work, employment sector, employment location and labour market information- showed no statistically significant relationship with the independent variable (early school-leaving decision), since the levels of significance for these variables were no less than .170, as shown in Table 7.25.

Table 7.25 Test results of insignificant labour market variables (2nd hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
School paid work	.213	1	.645
Employment sector	1.826	2	.401
Employment location	3.546	2	.170
Labour market information	.830	2	.660

7.2.3 Higher Education Participation

This section well tests the hypotheses that are associated with the respondents' higher education attainment (higher education status) with regard to demographic, family background and labour market variables.

7.2.3.1 The Effect of Demographic Characteristics

This hypothesis was intended to determine whether there is a relationship between respondents' higher education status and each of the demographic variables. Only one variable was found to be significant, as demonstrated below.

HYPOTHESIS No. 1 GENDER

The null-hypothesis, H0: there is no significant relationship between gender and respondents' higher education status.

By testing the significance of demographic variables, it was found that only the gender of the respondents had a highly significant relationship with the independent variable (higher education status). In fact, the level of significance (p value) was .000. This finding indicates that the respondents' gender influenced their higher educational attainment. In other words, as expected, females were more likely to go on to higher education than male.

Table 7.26 Higher education status * Respondent's gender Cross-tabulation

Higher education status	Respondent's gender		Total
	Male	Female	
Yes	167	116	283
	71.1%	89.9%	77.7%
No	68	13	81
	28.9%	10.1%	22.3%
Total	235	129	364
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**17.120**	**1**	**.000**

The other demographic variables- age, marital status and location- had no statistically significant relationship with the independent variable (higher education status), since the level of significance for these variables were no less than .346, as shown in Table 7.27.

Table 7.27 Test results of insignificant demographic variables (3rd hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Age	2.123	2	.346
Marital status	.132	1	.716
Location	.059	1	.809

7.2.3.2 The Effect of Family Background Characteristics

This hypothesis was intended to determine whether there is a relationship between the respondents' higher education status and family background variables. All variables were found to be insignificant as explained next.

HYPOTHESIS No.1 FAMILY BACKGROUND VARIABLES

The null-hypothesis H0: there is no significant relationship between respondents' family background variables and respondents' higher education status.

Table 7.28 Test results of insignificant family background variables (3rd hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Father's employment status	.795	3	.851
Father's occupation	3.045	1	.081
Father's level of education	1.952	4	.745
Family size	2.178	3	.536
Number of unemployed in the households	4.322	3	.229

Since the level of observed significance (p value) for the tested variables was no less than .081 and this level of significance above the standard .05 level of statistical significance, these were all statistically insignificant relationships. Therefore, the null hypothesis cannot be rejected. By not rejecting H0, it may be concluded that Father's employment status, occupation, and level of education, and family size and number of unemployed in the respondents' household had no effect on higher education status of these young Saudis in their transition from school to work.

7.2.3.3 The Effect of Labour Market Characteristics

This hypothesis was intended to determine whether there is a relationship between respondents' higher education status and labour market variables. Three variables were found to be significant as explained below.

HYPOTHESIS No.1 SCHOOL PAID WORK

The null-hypothesis H0: there is no significant relationship between school paid-work and the respondents' higher education status.

The chi-square test for independence confirmed an association between respondents' school paid work and their higher education status. As seen in Table 7.29, the level of significance (p value) between the two variables was .039, which is below the standard level of significance. The result suggests that youths who did have school employment experience were less likely to pursue their higher education than those who did not.

Table 7.29 Higher education status * School paid work Cross-tabulation

Higher education status	School paid work		Total
	No	Yes	
Yes	229	50	279
	79.8%	68.5%	77.5%
No	58	23	81
	20.2%	31.5%	22.5%
Total	287	73	360
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**4.260**	**1**	**.039**

HYPOTHESIS No.2 PREFERRED EMPLOYMENT

The null-hypothesis, H0: there is no significant relationship between preferred employment and respondents' higher education status.

Table 7.30 Higher education status * Type of employment Cross-tabulation

Higher education status	Preferred Employment						Total
	Manag.	Educ.	Medi.	Engi.	Secu.	Tech.	
Yes	86	123	22	15	9	24	279
	67.2%	92.5%	81.5%	83.3%	60.0%	61.5%	77.5%
No	42	10	5	3	6	15	81
	32.8%	7.5%	18.5%	16.7%	40.0%	38.5%	22.5%
Total	128	133	27	18	15	39	360
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**33.854**	**5**	**.000**

To test the relationship between higher education status and respondents' preferred employment, a chi-square test was carried out, which showed that the precise level of significance (p value) was .000. This result indicates a strong association between the two variables. Consequently, it way be concluded that youths who preferred jobs in the medical or engineering professions were more likely to go on to higher education than those who preferred, for example, jobs in security.

HYPOTHESIS No.3 PREFERRED EMPLOYMENT LOCATION

The null-hypothesis, H0: there is no significant relationship between preferred employment location and respondents' higher education status.

From Table 7.31, it is clear that there is a significant relationship between preferred employment location and youths' transition activity. The chi-square test shows that the level of significance (p value) was .055. This finding suggests that youths who preferred local employment were less likely to continue their higher education compared with others.

Table 7.31 Higher education status * Employment location Cross-tabulation

Higher education status	Preferred local employment location			Total
	Unfavourable	Not sure	Favourable	
Yes	33	21	227	281
	84.6%	95.5%	75.7%	77.8%
No	6	1	73	80
	15.4%	4.5%	24.3%	22.2%
Total	39	22	300	361
	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**5.817**	**2**	**.055**

The other labour market variables- preferred employment sector and labour market information- had no statistically significant relationship with the independent variable (higher education status), since the level of significance for these variables were no less than .375, as shown in Table 7.32.

Table 7.32 Test results of insignificant labour market variables (3rd hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Employment sector	.101	2	.951
Labour market information	1.964	2	.375

7.2.4 Training Participation

This section tests the hypotheses associated with the respondents training participation (training qualifications), with regard to demographic, family background, education/training, and labour market variables.

7.2.4.1 The Effect of Demographic Characteristics

This hypothesis intends to identify if there is a relationship between respondents' training qualification and related demographic variables.

HYPOTHESIS No. 1 DEMOGRAPHIC VARIABLES

The null-hypothesis, H0: there is no significant relationship between demographic variables and respondents' training participation.

After testing the significance of the demographic variables, it was found that none of the variables have a statistically significant relationship with the respondents' training participation, since the level of observed significance (p value) for tested variables was no less than .064 (see Table 7.33), and this level of significance is above the standard .05 level of statistical significance. Thus, it could be concluded that the age, gender, marital status and location of the respondents had no effect on the training participation of the respondents in their transition from school to work.

Table 7.33 Test results of insignificant demographic variables (4th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Age	2.372	2	.305
Gender	2.899	1	.089
Marital status	.071	1	.790
Location	3.418	1	.064

7.2.4.2 The Effect of Family Background Characteristics

This hypothesis was intended to determine whether there is a relationship between the respondents' training participation and family background variables.

HYPOTHESIS No. 1 FAMILY BACKGROUND VARIABLES

The null-hypothesis H0: there is no significant relationship between family background variables and respondents' training participation.

After testing the significance of family background variables, it was found that none of the variables had a statistically significant relationship with the respondents' training participation, since the precise level of significance (p value) for these variables was no less than .261 (see Table 7.34), and this level is above the standard .05 level of statistical significance.

Table 7.34 Test results of insignificant family background variables (4th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Father's employment status	1.956	3	.582
Father's occupation	.716	1	.397
Father's level of education	5.271	4	.261
Family size	2.482	3	.479
Number of unemployed in the households	1.111	3	.774

7.2.4.3 The Effect of Education Characteristics

This hypothesis was intended to determine whether there is a relationship between respondents' training participation and education variables. Only one variable was found to be significant as described below.

HYPOTHESIS No. 1 HIGHER EDUCATION STATUS

The null-hypothesis H0: there is no significant relationship between higher education status and respondents' training participation.

Table 7.35 Training qualification * Higher education status Cross-tabulation

Training qualification	Higher education status		Total
	Yes	No	
Yes	100	40	140
	35.7%	50.0%	38.9%
No	180	40	220
	64.3%	50.0%	61.1%
Total	280	80	360
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**5.343**	**1**	**.021**

The level of significance (p value) was .021 and this level of significance is below the standard the level of statistical significance. Hence, a significant relationship exists between dependent and independent variables. Accordingly, this finding indicates that the higher education status of the respondents had an effect on their training participation at the time of their school-to-work transition. In other words, respondents who had a higher education were less likely to participate in training activities than those who did not have.

On the other hand, the other educational variables had no statistically significant relationship with respondents' training participation, since the levels of significance for these variables were no less than .195, as shown in Table 7.36.

Table 7.36 Test results of insignificant educational variables (4th hypothesis)

variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Level of education	1.683	4	.794
Grade	4.704	3	.195
Secondary school status	1.238	1	.266
Type of higher education	.799	2	.670
Type of academic qualifications	.136	1	.712

7.2.4.4 The Effect of Labour Market Characteristics

This hypothesis was intended to determine whether there is a relationship between respondents' training qualifications and related labour market variables.

HYPOTHESIS No. 1 LABOUR MARKET VARIABLES

The null-hypothesis, H0: there is no significant relationship between labour market variables and respondents' training participation.

After testing for the significance of labour market variables, it was found that none of the variables had a statistically significant relationship with the respondents' training participation, since the level of significance (p value) for these variables was no less than .175 (see Table 7.37), and this level is above the standard .05 level of statistical significance.

Table 7.37 Test results of insignificant labour market variables (4th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
School paid work	.030	1	.862
Preferred Employment	7.680	5	.175
Preferred sector	2.956	2	.228
Preferred location	3.119	2	.210
Labour market information	.579	2	.749

7.3 Categorical Hypotheses

This section will present the analyses of the research hypotheses that were covered by questions in the second part of research questionnaires. In other words, hypotheses related to the unemployed and to the employed samples will be tested separately.

7.3.1 Unemployment Duration

This sub-section tests the hypotheses associated with the unemployment duration of unemployed respondents with regard to the related variables.

7.3.1.1The Effect of Demographic Characteristics

This hypothesis was intended to determine whether there is a relationship between the unemployment duration of the unemployed respondents and the demographic variables. Only one variable was found to be significant, as shown below.

HYPOTHESIS No. 1 AGE

The null-hypothesis, H0: there is no significant relationship between age and respondents' duration of unemployment.

Table 7.38 Unemployment duration * Respondent's age Cross-tabulation

Unemployment duration	Respondents' age			Total
	18-20	21-23	24-26	
1-6 months	4	15	8	27
	16.0%	29.4%	16.3%	21.6%
7-12 months	16	19	12	47
	64.0%	37.3%	24.5%	37.6%
13-18 months	2	5	6	13
	8.0%	9.8%	12.2%	10.4%
19-24 months	1	10	12	23
	4.0%	19.6%	24.5%	18.4%
3 years or more	2	2	11	15
	8.0%	3.9%	22.4%	12.0%
Total	25	51	49	125
	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**21.037**	**8**	**.007**

A chi-square test was carried out to test the relationship between the unemployed respondents' ages and the duration of their unemployment. Table 7.38 reveals the level of significance (p value) to be .007, indicating a significant relationship between the two variables. As an illustration, the table shows that unemployed respondents aged 24-26 were more likely to have a longer unemployment duration than respondents of different ages.

For example, 22.4 percent of these respondents were unemployed for at least three years compared with only 8.0 percent who were 18-20 years old.

The other demographic variables- gender, marital status and location- however, had no statistically significant relationship with the independent variable (unemployment duration of the unemployed), since the level of significance for these variables were no less than .209, as shown in Table 7.39.

Table 7.39 Test results of insignificant demographic variables (5th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Gender	5.871	4	.209
Marital status	.676	4	.954
Location	3.647	4	.456

7.3.1.2 The Effect of Family Background Characteristics

This hypothesis was intended to determine whether there is a relationship between the unemployment duration of the unemployed respondents and each of the family background variables. Only one variable was found to be significant, as described below.

HYPOTHESIS No. 1 NUMBER OF UNEMPLOYED IN THE HOUSEHOLD

The null-hypothesis, H0: there is no significant relationship between the number of unemployed in the household and the respondents' unemployment duration.

Table 7.40 Unemployment duration * Number of unemployed in the household Cross-tabulation

Unemployment duration	Number of unemployed in the household				Total
	None	1-2	3-4	5 or more	
1-6 months	11	8	8		27
	26.2%	15.7%	29.6%		22.1%
7-12 months	16	23	3	2	44
	38.1%	45.1%	11.1%	100.0%	36.1%
13-18 months	4	5	4		13
	9.5%	9.8%	14.8%		10.7%
19-24 months	8	11	4		23
	19.0%	21.6%	14.8%		18.9%
3 years or more	3	4	8		15
	7.1%	7.8%	29.6%		12.3%
Total	42	51	27	2	122
	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**20.650**	**12**	**.056**

The chi-square test confirms a statistically significant relationship between the number of unemployed in the household and the respondents' unemployment duration, where the level of significance (p value) was .056. Take the case of unemployed respondents who had 3-4 unemployed members in their household, as illustrated in Table 7.40: these respondents were more likely to be unemployed for at least 3 years than those who had 1-2 unemployed members in their households.

On the other hand, the other family background variables- father's employment status, father's occupation, father's level of education and family size had no statistical relationship with the independent variable (unemployment duration of the unemployed), since the levels of significance for these variables were no less than .379, and this level of significance is above the standard .05 level of significance. Table 7.41 shows the chi-square test results of insignificant family background variables.

Table 7.41 Test results of insignificant family background variables (5th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Father's employment status	12.584	12	.400
Father's occupation	.726	4	.948
Father's level of education	7.419	16	.964
Family size	12.869	12	.379

7.3.1.3 The Effect of Education and Training Characteristics

This hypothesis was intended to determine whether there is a relationship between the unemployment duration of the unemployed respondents and education/training variables.

HYPOTHESIS No. 1 EDUCATION AND TRAINING VARIABLES

The null-hypothesis, H0: there is no significant relationship between the unemployed respondents' education and training variables and duration of their unemployment.

After testing for the significance of education and training variables, it was found that all variables had no statistically significant relationship with the independent variable (unemployment duration of the unemployed), since the level of significance (p value) for these variables was no less than .180 (see Table 7.42) and this level of significance is above the standard .05 level of statistical significance. Thus, it may be concluded that that level of education, grade, secondary school status, higher education status, type of higher education, type of academic qualification, and training qualification variables had no effect on the unemployment duration of Saudi youth in their transition from school to work.

Table 7.42 Test results of insignificant education/training variables (5th hypotheses)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Level of education	15.804	12	.200
Grade	14.401	12	.276
Secondary school status	2.204	4	.698
Higher education status	5.345	4	.254
Type of higher education	8.956	8	.346
Type of academic qualification	6.269	4	.180
Training qualification	5.305	4	.257

7.3.1.4 The Effect of Labour Market Characteristics

This hypothesis was intended to determine whether there is a relationship between the unemployment duration of the unemployed respondents and labour market variables. Three variables were found to be significant as described below.

HYPOTHESIS No. 1 SCHOOL PAID-WORK

> ***The null-hypothesis, H0: there is no significant relationship between the school paid work of the unemployed respondents and the duration of their unemployment.***

Table 7.43 Unemployment duration * School paid-work Cross-tabulation

Unemployment duration	School paid work		Total
	No	Yes	
1-6 months	15	12	27
	14.9%	52.2%	21.8%
7-12 months	42	5	47
	41.6%	21.7%	37.9%
13-18 months	11	2	13
	10.9%	8.7%	10.5%
19-24 months	18	4	22
	17.8%	17.4%	17.7%
3 years or more	15		15
	14.9%		12.1%
Total	101	23	124
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**17.435**	**4**	**.002**

Since the precise level of observed significance (p value) was .002 and this level of significance is below the standard .05 level of statistical significance, we are dealing here with a statistically significant relationship. Hence, the null hypothesis can be rejected. By rejecting H0, it can be concluded that the duration of the unemployment of the unemployed respondents was influenced by their school paid work experience.

HYPOTHESIS No. 2 MINIMUM MONTHLY PAYMENT REQUIRED TO ACCEPT EMPLOYMENT

The null-hypothesis, H0: there is no significant relationship between the minimum monthly payment and the respondents' unemployment duration.

Table 7.44 presents the chi-square test and cross-tabulation of respondents' minimum required monthly payments and their unemployment duration. The level of significance (p value) was .016 indicating a statistically significant relationship. To demonstrate, the unemployed who wanted for example, SR 3001-3500 ($ 858-934) were more likely to remain unemployed for longer than those who would accept a lower payment. In fact, 45.5 percent of the former were unemployed for at least three years, compared with only 15.0 percent of those who were prepared to accept SR 1501-2000 ($ 400-534) as a minimum wage.

Table 7.44 Unemployment duration * Unemployed minimum monthly payment required to accept employment Cross-tabulation

Minimum payment required to accept employment	Unemployment duration					Total
	1-6 months	7-12 months	13-18 months	19-24 months	3 years or more	
1000 or less				2		2
				100.0%		100.0%
1001-1500		2	2			4
		50.0%	50.0%			100.0%
1501-2000	3	9	1	4	3	20
	15.0%	45.0%	5.0%	20.0%	15.0%	100.0%
2001-2500	7	7	2	6	1	23
	30.4%	30.4%	8.7%	26.1%	4.3%	100.0%
2501-3000	2	7	4	4		17
	11.8%	41.2%	23.5%	23.5%		100.0%
3001-3500	1	5			5	11
	9.1%	45.5%			45.5%	100.0%
3501-4000	3	8	3	4	5	23
	13.0%	34.8%	13.0%	17.4%	21.7%	100.0%
4001-4500	5			1		6
	83.3%			16.7%		100.0%
4501-5000	2	3			1	6
	33.3%	50.0%			16.7%	100.0%
5001-5500		1				1
		100.0%				100.0%
5501-6000	2	1	1	1		5
	40.0%	20.0%	20.0%	20.0%		100.0%
6001 or more	2	2		1		5
	40.0%	40.0%		20.0%		100.0%
Total	27	45	13	23	15	123
	22.0%	36.6%	10.6%	18.7%	12.2%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**66.392**	**44**	**.016**

HYPOTHESIS No. 3 EXPECTED TIME TO SECURE EMPLOYMENT

The null-hypothesis, H0: there is no significant relationship between **expected time to secure employment and respondents'** ***unemployment duration.***

Table 7.45 Unemployment duration * Expected time to secure employment Cross-tabulation

Unemployment duration	Expected time to secure employment					Total
	1-6 months	7-12 months	13-18 months	19-24 months	3 years or more	
1-6 months	8	11	3	2	2	26
	26.7%	28.9%	15.0%	11.8%	11.1%	21.1%
7-12 months	14	19	7	5	2	47
	46.7%	50.0%	35.0%	29.4%	11.1%	38.2%
13-18 months	1	3	4	2	3	13
	3.3%	7.9%	20.0%	11.8%	16.7%	10.6%
19-24 months	5	5	3	5	5	23
	16.7%	13.2%	15.0%	29.4%	27.8%	18.7%
3 years or more	2		3	3	6	14
	6.7%		15.0%	17.6%	33.3%	11.4%
Total	30	38	20	17	18	123
	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**29.354**	**16**	**.022**

Chi-square statistics were used to examine the relationship between respondents expected time to secure unemployment and their unemployment duration. The significant chi-square value (chi-square=29.354, df=16, p=.022) shows that unemployed respondents who expected to be take short time to secure employment were more likely to have a shorter unemployment duration, and vice versa. For example, those who thought they would need 1-6 months to secure employment were more likely to be unemployed for 7-12 months, whereas those who thought they would need 3 years or more to secure employment were more likely to be unemployed for at least 3 years. On the other hand, the other labour market variables had no statistically significant relationship with the unemployment duration of the unemployed respondents, since the levels of significance for these variables were no less than .131, as shown in Table 7.46.

Table 7.46 Test results of insignificant labour market variables (5th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Preferred employment	17.311	20	.633
Preferred employment sector	10.510	8	.231
Preferred employment location	6.067	8	.640
Labour market information	8.434	8	.392
Previous employment status	1.035	4	.904
Job-search activity	12.504	8	.130

7.3.2 Unemployed Respondents' Job Offers

This sub-section tests the hypotheses associated with job offers to unemployed respondents with regard to demographic variables, family background, education/training variables and labour market variables.

7.3.2.1 The Effect of Demographic Characteristics

This hypothesis was intended to determine whether there is a relationship between job offers to the unemployed respondents and demographic variables. Only one variable was found to be significant, as shown below.

HYPOTHESIS No. 1 GENDER

The null-hypothesis, H0: there is no significant relationship between gender and unemployed job offers.

Table 7.47 Unemployed job offer * Gender Cross-tabulation

Unemployed job offer	Respondent's gender		Total
	Male	Female	
Yes	60	14	74
	71.4%	48.3%	65.5%
No	24	15	39
	28.6%	51.7%	34.5%
Total	84	29	113
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**5.113**	**1**	**.024**

Testing for the significance of demographic variables revealed a statistically significant relationship between the gender of the unemployed and their employment offers. The null hypothesis was rejected, since the precise level of significance (p value) was .024, as shown in Table 7.47. This result suggests that unemployed males were more likely to be offered jobs than unemployed females. The other demographic variables however, had no statistically significant relationship with the independent variable (unemployed job offers), since the level of significance for these variables was no less than .072, as shown in Table 7.48.

Table 7.48 Test results of insignificant demographic variables (6th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Age	2.005	2	.367
Marital status	3.232	1	.072
Location	.783	1	.376

7.3.2.2 The Effect of Family Background Characteristics

This hypothesis was intended to determine whether there is a relationship between job offers to the unemployed respondents and family background variables.

HYPOTHESIS NO.2 FAMILY BACKGROUND VARIABLES

The null-hypothesis, H0: there is no significant relationship between family background variables and unemployed job offers.

After testing for the significance of family background variables, it was found that none of the variables had a statistically significant relationship with unemployed job offers, since the precise level of significance (p value) for these variables was no less than .358 (see Table 7.49), and this level of significance is above the standard .05 level of statistical significance.

Table 7.49 Test results of insignificant family background variables (6th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Father's employment status	2.035	3	.565
Father's occupation	.380	1	.538
Father's level of education	1.485	4	.829
Family size	3.229	3	.358
Number of unemployed in the household	.403	3	.940

7.3.2.3 The Effect of Education and Training Characteristics

This hypothesis was intended to determine whether there is a relationship between job offers to the unemployed respondents and education and training variables. Only one variable was to be significant as explained below.

HYPOTHESIS No. 1 TYPE OF ACADEMIC QUALIFICATION

The null-hypothesis, H0: there is no significant relationship between type of highest academic qualification and unemployed job offer.

Table 7.50 Unemployed job offer * Type of academic qualification Cross-tabulation

Unemployed job offer	Type of highest academic qualification		Total
	Art	Science	
Yes	14	22	36
	42.4%	73.3%	57.1%
No	19	8	27
	57.6%	26.7%	42.9%
Total	33	30	63
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**6.130**	**1**	**.013**

A chi-square test of unemployed job offers and type of academic qualifications revealed a significant relationship. The level of significance (p value) was .013 between the two variables. This indicates that the type of academic qualification held by the unemployed respondents had an effect on the offers of employment they received. To demonstrate, unemployed respondents with science degrees were more likely to be offered jobs than those with art degrees. The other education and training variable showed no statistically significant relationship with unemployed job offers, since the level of significance for these variables were no less than .106, as shown in Table 7.51.

Table 7.51 Test results of insignificant education/training variables (6th hypothesis)

Variables	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Level of education	5.208	3	.157
Grade	1.859	3	.602
Secondary school status	.209	1	.647
Higher education status	2.620	1	.106
Type of higher education	.909	2	.635
Training qualification	2.125	1	.145

7.3.2.4 The Effect of Labour Market Characteristics

This hypothesis was intended to determine whether there is a relationship between the job offers of the unemployed respondents and labour market variables. Only one variable was found to be significant, as shown below.

HYPOTHESIS No. 1 PREVIOUS EMPLOYMENT

The null-hypothesis, H0: there is no significant relationship between the previous employment of the unemployed and their unemployment duration.

Table 7.52 Unemployed job offer * Previous employment Cross-tabulation

Unemployed job offer	Had previous employment		Total
	Yes	No	
Yes	33	40	73
	89.2%	54.8%	66.4%
No	4	33	37
	10.8%	45.2%	33.6%
Total	37	73	110
	100.0%	100.0%	100.0%

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**13.013**	**1**	**.000**

After testing for the significance of labour market variables, it was found that previous employment had a statistically significant relationship with the job offers of the unemployed respondents.

Table 7.52 indicates that the level of significance (p value) was .000, indicating that the job offers of unemployed respondents was influenced by this variable. In other words, unemployed respondents with previous employment experience were more likely to be offered jobs than those without. On the other hand, the other labour market variables had no statistically significant relationship with unemployed job offers, since the levels of significance for these variables were no less than .092, as shown in Table 7.53.

Table 7.53 Test results of insignificant labour market variables (6th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
School paid work	2.833	1	.092
Preferred employment	4.770	5	.445
Preferred employment sector	1.730	2	.421
Preferred employment location	3.371	2	.185
Labour market information	.882	2	.644
Employment duration	2.125	4	.713
Minimum monthly payments in the last job	5.719	3	.126
Minimum monthly payment required to accept employment	5.971	11	.875
Job-search activity	4.516	2	.105
Expected time to secure employment	3.225	4	.521

7.3.3 Employed Respondents Search for another Job

This sub-section tests the hypotheses associated with the employed respondents' search for another job, with regard to demographic variables, family background variables, education/training variables and labour market variables.

7.3.3.1The Effect of Demographic Characteristics

This hypothesis was intended to determine whether there is a relationship between the employed respondents' search for another job and each of the demographic variables. Only one variable was found to be significant as explained below.

HYPOTHESIS N0 1 MARITAL STATUS

The null-hypothesis, H0: there is no significant relationship between marital status of the employed and their search for another job.

The chi-square test illustrated in Table 7.54 overleaf confirms a significant relationship between marital status and the employed respondents' search for another job. The level of significance (p value) was .029 and this level is below the standard .05 level of statistical significance. Hence, the null hypothesis can be rejected, indicating that the employed respondents' search for another job was influenced by this variable.

Table 7.54 Searching for another job * Employed marital status Cross-tabulation

Searching for another job	Respondent's marital status		Total
	Married	Not Married	
Yes	29	57	86
	53.7%	72.2%	64.7%
No	25	22	47
	46.3%	27.8%	35.3%
Total	54	79	133
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**4.777**	**1**	**.029**

In more details, single employed respondents were more likely to look for alternative employment since 72.2 percent of those questioned were doing so against only 53.7 percent of those who were married. The other demographic variables, however, had no statistically significant relationship with the employed respondents' search for alternative employment, since the level of significance for these variables was no less than .153, as shown in Table 7.55.

Table 7.55 Test results of insignificant demographic variables (7th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Age	3.754	2	.153
Gender	1.066	1	.302
Location	.120	1	.729

7.3.3.2 The Effect of Family Background Characteristics

This hypothesis was intended to determine whether there is a relationship between employed respondents' search for another employment and family background variables.

HYPOTHESIS NO.1 FAMILY BACKGROUND VARIABLES

The null-hypothesis, H0: there is no significant relationship between the family background variables of the employed and their search for another job.

After testing for the significance of family background variables, it was found that none of the variables had statistically significant relationship with the employed respondents' search for alternative employment, since the precise level of significance (p value) for these variables was no less than .366, and this level is above the standard .05 level of statistical significance. The chi-square result shown in Table 7.56 confirms that the respondents' search for another job was not influenced by any family background variable.

Table 7.56 Test results of family background variables (7th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Father's employment status	3.174	3	.366
Father's occupation	.061	1	.804
Father's level of education	1.571	4	.814
Family size	2.087	3	.555
Number of unemployed in the household	1.478	3	.687

7.3.3.3 The Effect of Education and Training Characteristics

This hypothesis was intended to determine whether there is a relationship between employed respondents' search for another job and related educational and training variables. Only one variable was to be found significant as described below.

HYPOTHESIS No. 1 HIGHER EDUCATION STATUS

The null-hypothesis, H0: there is no significant relationship between the higher education status of the employed and their search for another job.

Table 7.57 Searching for another job * Employed higher education status Cross-tabulation

Searching for another job	Higher education status		Total
	Yes	No	
Yes	42	28	70
	55.3%	75.7%	61.9%
No	34	9	43
	44.7%	24.3%	38.1%
Total	76	37	113
	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**4.399**	**1**	**.036**

After testing for the significance of education and training variables, it was found that only higher education status had a statistically significant relationship with the independent variable (employed respondents' search for another job), since the precise level of observed significance (p value) was .036 as shown in Table 7.57. This finding suggests that employed respondents who did not have higher education degrees were more likely to look for another job than those who did. 75.7 percent of this group was looking for other employment, against only 55.3 percent of those who had university degrees. The other education and training variables have no statistically significant relationship with the employed respondents' search for another job, since the level of significance for these variables were no less than .120, as shown in Table 7.58.

Table 7.58 Test results of insignificant education/training variables (7th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Level of education	7.149	4	.128
Grade	2.385	3	.496
Secondary school status	2.424	1	.120
Type of higher education	1.118	2	.572
Type of academic qualification	.008	1	.928
Training qualifications	1.323	1	.250

7.3.5.3 The Effect of Labour Market Characteristics

This hypothesis was intended to determine whether there is a relationship between the employed respondents' search for another job and the most important labour market variables. Three variables were found to be significant, as explained below.

HYPOTHESIS No. 1 SCHOOL PAID WORK

The null-hypothesis, H0: there is no significant relationship between the school paid work of the employed and their search for another job.

Table 7.59 Searching for another job * School paid work Cross-tabulation

Searching for another job	School pay-work		Total
	Yes	No	
Yes	60	25	85
	59.4%	80.6%	64.4%
No	41	6	47
	40.6%	19.4%	35.6%
Total	101	31	132
	100.0%	100.0%	100.0%

Chi-Square Tests

.	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**4.667**	**1**	**.031**

The employed respondents' school paid work variable was found to be statistically significant. A chi-square test revealed that the level of significance (p value) was .000. According to this result the null hypothesis can be rejected. Consequently, it can be noted from Table 7.59 that school paid work influence the attitude of the employed respondents towards seeking another job. In other words, those who had not been employed during their school years were more likely to look for another job than those who had been employed then. 80.6 percent of this group were looking for other employment, against only 59.4 percent of those who had done some paid work while at school.

HYPOTHESIS No. 2 EMPLOYERS' SECTOR

The null-hypothesis, H0: there is no significant relationship between the employer's sector of the employed and their search for another job.

Table 7.60 Searching for another job * Employer's sector Cross-tabulation

Searching for another job	Employer's sector			Total
	Government	Parastatal	Private	
Yes	45	5	36	86
	57.0%	45.5%	83.7%	64.7%
No	34	6	7	47
	43.0%	54.5%	16.3%	35.3%
Total	79	11	43	133
	100.0%	100.0%	100.0%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**10.661**	**2**	**.005**

The chi-Square test shown in Table 7.60 confirms a statistically significant relationship between the employer's sector variable and the independent variable (employed respondents' search for another job). The level of observed significance (p value) was .005. Hence, the null hypothesis can be rejected. The table shows that 83.7 percent of employed respondents who were employed in the private sector were seeking alternative employment, compared to 45.5 percent of those who were employed in the parastatal sector, and 57.0 percent of those who were employed in the government sectors. This result suggests that private sector employees were more likely to look for another job than government or parastatal sector employees.

HYPOTHESIS No. 3 MONTHLY PAYMENTS

The null-hypothesis, H0: there is no significant relationship between the monthly payments of the employed and their search for another job.

To test the relationship between employed respondents' monthly payments and their attitude towards looking for another job, a chi-square test was used. The precise level of p value was .000 as shown in Table 7.61. Accordingly, a statistically significant relationship was confirmed. Thus, employed respondents' attitudes towards looking for alternative employment were influenced by this variable. In other words, those employed respondents who had low monthly payments were more likely to search for other employment. To demonstrate, 88.2 percent of those who received SR 1501-2000 ($ 400-534) per month were seeking other employment, compared with none of those who were receiving a salary of SR 5001-5500 ($ 1333-1467) per month.

Table 7.61 Searching for another job * Employed respondents' monthly payments Cross-tabulation

Monthly payment	Searching for another job		Total
	Yes	No	
1000 or less	6		6
	100.0%		100.0%
1001-1500	15	2	17
	88.2%	11.8%	100.0%
1501-2000	9	2	11
	81.8%	18.2%	100.0%
2001-2500	15	1	16
	93.8%	6.3%	100.0%
2501-3000	3	1	4
	75.0%	25.0%	100.0%
3001-3500	8	3	11
	72.7%	27.3%	100.0%
3501-4000	15	18	33
	45.5%	54.5%	100.0%
4001-4500	3	3	6
	50.0%	50.0%	100.0%
4501-5000	9	6	15
	60.0%	40.0%	100.0%
5001-5500		3	3
		100.0%	100.0%
5501-6000		3	3
		100.0%	100.0%
6001 or more	3	5	8
	37.5%	62.5%	100.0%
Total	86	47	133
	64.7%	35.3%	100.0%

Chi-Square Tests

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	**34.852**	**11**	**.000**

On the other hand, the other labour market variables had no statistically significant relationship with the employed respondents' search for another job, since the levels of significance for these variables were no less than .080, as shown in Table 7.62.

Table 7.62 Test results of insignificant labour market variables (7th hypothesis)

Variable	Pearson Chi-Square		
	Value	df	Asymp. Sig. (2-sided)
Preferred employment	8.503	5	.131
Preferred employment sector	1.187	2	.552
Preferred employment location	.428	2	.807
Labour market information	4.701	2	.095
Type of work	11.286	6	.080

7.4 Conclusion

Building on the preliminary univariate analysis of the previous chapter, the focus in this chapter was on examining the bivariate relationship between different pairs of variables. The bivariate analysis clarified the significance of the relationship. The analysis covered seven hypotheses. These hypotheses were as follows:

1- There was no significant relationship between respondents' transition activity and their demographic variables, family background variables, education/training variables or labour market variables.

2- There was no significant relationship between respondents' early school-leaving decision and their demographic variables, family background variables, or labour market variables.

3- There was no significant relationship between respondents' higher educational attainment and their demographic variables, family background variables or labour market variables.

4- There was no significant relationship between respondents' training qualifications and their demographic variables, family background variables, education/training variables or labour market variables.

5- There was no significant relationship between the unemployed respondents' duration of unemployment and their demographic variables, family background variables, education and training variables or labour market variables.

6- There was no significant relationship between unemployed respondents' job offers and their demographic variables, family background variables, education/training variables or labour market variables.

7- There was no significant relationship between employed respondents' search for another job and their demographic variables, family background variables, education and training variables or labour market variables.

The analysis produced some important findings that demonstrate how the background and the characteristics of Saudi youth affect their transition from school to work. In fact, using more statistical tools yields greater insights. Hence, it would be a useful to employ an advanced statistical technique such as the multivariate logistic regression model analysis to complement these initial findings. This will be done in the following chapter.

CHAPTER EIGHT

ESTIMATING THE PROBABILITY OF LABOUR MARKET ACTIVITY OF SAUDI YOUTH DURING THEIR TRANSITION FROM SCHOOL TO WORK

8.1 Introduction

The last two chapters covered the descriptive analysis and the cross-tabulations analysis, which included the testing of the research hypotheses. The descriptive analysis however, does not assess the overall effect of the various characteristics on the labour market outcomes. On the other hand, cross-tabulations cannot provide this information, because in a cross-tabulation, only the combined effect between the dependent and independent variable can be observed.

The statistical method used to address this problem is that of regression analysis. In this chapter, the researcher will apply such an analysis, using a multinomial logistic model which is an adaptation of a multiple regression model employed to analyse data that include categorical response variables (Bergerud, 1996). The logistic regression model has in fact been employed in much of the research reviewed in chapter two, to examine how various factors influence a binary or multinomial outcome (Ryan, 2000).

The objective of using this technique is to characterise the respondents' transitions from school to work into 'types', with jobless types interpreted as unsuccessful transitions. This allows the researcher to identify which young people are most likely to experience unsuccessful transitions into the labour market. Moreover, policy makers might use such information to target social and educational policy more effectively towards promoting social inclusion.

The remainder of the chapter is structured in the following way. Section two defines the multinomial logistic regression model and describes how the model is applied and interpreted. The third section identifies the model variables. In section four, the empirical results and the discussion of these results will be presented. The concluding comments, which include the main findings of this chapter, are presented in the fifth section.

8.2 Multinomial Logistic Regression

This section will first provide a brief definition of the logistic regression model. Next, the statistical model will be presented. Finally, the method of interpreting the logistic regression model will be discussed.

8.2.1 Definition of Logistic the Regression Model

The logistic regression model is an increasingly popular statistical technique used to model the probability of binary or multinomial outcomes. It refers to statistical models where the dependent variable is categorical, rather than continuous (Karp, 2002). The nature of the dependent variable is very important when choosing the type of logistic regression to be applied. When there is more than one choice available, which is the case of this analysis, a multinomial logistic regression model should be adopted, rather than a binary logistic regression model.

Consequently, a multinomial logistic regression model will be applied in this study to investigate the relevance of various determinants of Saudi school-leavers' transition activity. This estimator provides a very flexible approach to the problem of the study, as all possible transitions may be considered (Riphahn, 1999). It has been used in different studies, for example, those of Winkelmann and Winkelmann, (1997), Andrews and Bradley (1997), and Riphahn (1999).

The logistic function refers changes in the values of the continuous independent variables on the right-hand side of the equation to the increasing or decreasing probability of the event modelled by the dependent, or left-hand side, variable. This is the key difference between logistic regression and ordinary least squares regression: in logistic regression, the predicted value of the dependent variable being generated by operations of the right-hand side variables is a probability, whereas, in ordinary least squares (OLS) regression, the analysts predict the population mean value of the dependent variable at given levels (i.e., values) of the independent variable(s) in the model (Karp, 2002).

Having said that, many possible models are available for this analysis, but, using the logistic regression model involves less computational cost, the logit model is usually employed in practice, and therefore for these reasons it will be applied in this study. It has been reported that the great advantage of this model is its computational ease, where the probability of an individual selecting a given alternative is easily expressed (Kennedy, 1996).

8.2.2 The Statistical Model

To measure the impact of the explanatory variables of the study on the choice of labour market activity of Saudi youth, the influence of each variable is computed. The transition activities are higher education, employment and unemployment. These three response variables are categorical, and do not take numerical values. There is also no explicit order (such as from best option to worst option).

A type of model that is able to handle multinomial categorical response variables is the multinomial logistic regression, that also considers the three possible unordered outcomes together. The empirical model is set up following the approach of Viitanen (1999), Miller (1998) and Andrews and Bradley (1997). The model is based on a random utility model that is expressed as follows:

Supposing that the utility of choice j, with j = 0,..., J is

$$U_{ij} = \beta^T X_{ij} + \in_{ij} \qquad (1)$$

Where i = 1,...,N stands for the individual and j = 1,2,...,K labour market outcomes (transition activities), β is a vector of parameters to be estimated, X is a vector of observed factors (i.e. age, gender, etc.) that are considered to affect the transition probability, and ε is an error term. So if a young person makes a particular choice j, we assume that U_{ij} is the maximum among the K utilities, i.e.,

$$Prob \quad [U_{ij} > U_{ik}] \qquad (2)$$

The K = 3 labour market activities are defined as:

Higher education (H) (y = 1)

Employment (E) (y = 2)

Unemployment (U) (y = 3)

These three categories make up the dependent variables i.e. y= j, j = 1, 2 and 3. So the general multinomial logit model for the labour market outcome is:

$$Prob(Y = j) = \frac{e^{\beta_j^T x_i}}{\sum_{k=1}^{3} e^{\beta_k^T x_i}} \qquad (3)$$

The estimated equations provide a set of probabilities for the labour market activities with characteristics xi. Referring to *Pij* as Prob (*Yi* = j), the probability that the jth outcome is made for the ith young person with characteristics xi, then the multinomial logit regression model can be written as

$$Log \frac{P_{ij}}{P_{i1}} = x_i^T (\beta_i - \beta_1) \quad (4)$$

where *i* indexes N individuals and *j* indexes 1,..., K outcomes.

Rather than reporting the maximum likelihood estimates of β_i which are difficult to interpret, we have reported the ratio of relative risk for a one-unit change in *xi* (Greene, 1991) that can be written as

$$Pi1 = \frac{P(H)}{P(U)} = e^{\chi_i \beta_H} \quad \text{(Individual i is in higher education)} \quad (5)$$

$$Pi2 = \frac{P(E)}{P(U)} = e^{\chi_i \beta_E} \quad \text{(Individual i is employed)} \quad (6)$$

Thus, the exponentiated value of the coefficient is the relative risk ratio for a one unit change in the corresponding variable, it being understood that risk is being measured as the risk of the category relative to the base category (Viitanen, 1999).

8.2.3 The Interpretation of the Logistic Regression

There are several methods that may be used to interpret effectively the results of logistic regression models. Since the analysis of this chapter is "risk analysis", there is no need here to discuss the magnitude of the coefficients and statistical significance. Hence, the coefficients will be interpreted using the odds ratio (Whitehead, 2002).

The "odds ratio" Exp (B) is the probability of the event divided by the probability of the non-event. The odds ratio Exp (B) provides an easier interpretation of the regression coefficient and represents the change in the odds of a dependent variable which is associated with a unit change in an independent variable.

In logit type models, the coefficients indicate the effect of a unit change in the log of the odds of outcome (Scott Long, 1997). In other words, instead of the slope coefficient (B) being the rate of change in Y as X changes (as in the OLS regression), the slope coefficient is interpreted here as the rate of change in the "log odds" as X changes.

For example, if Exp (B) =2, then a one unit change in X would make the event twice as likely to occur. Odds ratios equal to 1 mean that there is a 50/50 chance that the event will occur with a small change in the independent variable. Negative coefficients lead to odds ratios at less than one: if exp B =.67, then a one unit change in X leads to the event's being less likely to occur (Whitehead, 2002).

8.3 The Model Variables

This section provides a brief overview of the dependent and independent variables that have been used in the multinomial regression model.

8.3.1 The Dependent Variables

Even though there are numerous options for transition activities, as mentioned earlier, this study will consider and model only transitions into the following types of labour market activity:

(1) Higher education
(2) Employment
(3) Unemployment

Here we have three alternatives for labour market outcomes after leaving school. The dependent variable takes one of three values corresponding to the above three outcomes with the reference category being unemployment (Denny and Harmon, 2000).

8.3.2 The Independent Variables

The independent variables are listed in Table 8.1. It is necessary to point out that some of the variable categories have been modified, for two reasons: first, in order to facilitate the analysis, for instance, the father's levels of education categories have been recoded and have become three categories instead of five; secondly, the last category in each variable is considered as a reference category in the SPSS programme by default, thus some of the variable categories have been re-ordered for better comparison.

Table 8.1 List of the independent variables

Characteristics	*Variables*	*Categories*
Demographic Characteristics	Age	1 = (18-20) 2 = (21-23) 3 = (24-26)
	Gender	1 = Male 2 = Female
	Marital status	1 = Married 2 = Unmarried
	Location	1 = Urban 2 = Rural
Family Background Characteristics	Father's employment status	1 = Employee 2 = Other 3 = Retired 4 = Unemployed
	Father's occupation	1 = Manual 2 = Non-manual
	Father's level of education	1 = Univ. or higher 2 = Secondary 3 = Elementary or Below
	Family size	1 = (9 or more) 2 = (6-8) 3 = (3-5) 4 = (0-2)
	Number of unemployed in the household	1 = None 2 = (1-2) 3 = (3-4) 4 = (5 or more)
Educational and Training Characteristics	Respondent's level of education	1 = University or higher 2 = Secondary 3 = Elementary or Below
	Respondent's grade	1 = Excellent 2 = Very good 3 = Good or Below
	Training qualification	1 = Yes 2 = No
	Type of higher education	1 = University 2 = College of education 3 = Technical college
	Type of academic qualification	1 = Art 2 = Science
Labour Market Characteristics	School paid work	1 = Yes 2 = No
	Type of preferred job	1 = Managerial 2 = Educational 3 = Medical or Engineering 4 = Other
	Preferred government employment sector	1 = Unfavourable 2 = Not sure 3 = Favourable
	Preferred local employment location	1 = Unfavourable 2 = Not sure 3 = Favourable
	Labour market information (unemployment rate in Saudi Arabia)	1 = Low 2 = Not sure 3 = High

8.4 Empirical Findings and Discussion

The empirical findings of the multinomial logistic regression of the explanatory variables will be presented in this section, and compared with related findings in the literature. Accordingly, the effects of demographic, family background, educational and training and labour market characteristics are presented. The predicted probabilities of each characteristic which derive from the estimation will be revealed after controlling for the effect of the other independent characteristics.

The results are presented in terms of odds ratios following Horn and Chen (1998), a measure of the relative odds of being in a particular outcome (such as being employed) for youths with a particular characteristic (such as married) compared with a reference group (such as unmarried).

8.4.1 Effect of Demographic Characteristics

The demographic variables of Saudi youth appear to influence significantly the probability of being engaged in a particular transition activity. Table 8.2 shows the parametric estimation and odds ratio of these variables.

Table 8.2 Multinomial logit regressions of demographic characteristics showing probability of transition to higher education or employment compared to unemployment

Transition activity	Variables	*Categories*	*B*	*Exp(B)*
Higher Education	Age	18-20	1.546	**4.690**
		21-23	1.272	**3.568**
		24-26	0*	.
	Gender	Male	-.307	**.736**
		Female	0	.
	Marital Status	Married	.105	**1.111**
		Unmarried	0	.
	Location	Urban	.415	**1.514**
		Rural	0	.
Employment	Age	18-20	-1.228	**.293**
		21-23	-.894	**.409**
		24-26	0	.
	Gender	Male	.202	**1.223**
		Female	0	.
	Marital Status	Married	.883	**2.418**
		Unmarried	0	.
	Location	Urban	.130	**1.138**
		Rural	0	.

*** This parameter is set to zero because it is redundant (Reference category)**

From Table 8.2, it can seen that young people in the 18-20 age group were 4.7 times more likely than those in the 24-26 age group (the reference group) to be in higher education than to be unemployed, while those in the 21-23 the age group were 3.6 times more likely than the reference group to be in higher education than to be unemployed. The other parameters regarding the age groups in the parameter estimates table tell us that the 18-20 age group and the 21-23 were less likely than the reference group to be employed than to be unemployed.

These expected findings indicate that young Saudis are more likely to go on to higher education if they could not secure employment, particularly if the higher education system provides them with a monthly allowance, which is the case in Saudi Arabia. Also, this result emphasises the fact that the probability of being unemployed decreases for older age groups compared with younger age groups. In other words, the risk of being unemployed increases as age decreases. The main reason for this is that government employment is very difficult to secure at the moment. It is worth pointing out that this finding follows the human capital theory, as the increased experience of the older workers might make them more valuable to firms, and therefore less likely to be unemployed (Winkelmann and Rainer, 1997). In other words, older people are more in demand in the labour market, due to their better adjustment ability (Bumagina, 2001).

The unemployment of young Saudis may lead them to future or adult unemployment. Many studies have found that spells of unemployment experienced during one's early career have reflective effects on future labour market outcomes and earnings. It has been shown that youth unemployment reduces both the probability of future employment (Lynch, 1989) and lowers wages throughout later work careers (Gregory and Jukes, 1997).

There are several economic explanations for the great concern over youth unemployment compared to unemployment in general. First, an early spell of unemployment may increase the incidence and duration of future unemployment, because youths are not yet firmly rooted into the labour market and may be humiliated by an early spell of unemployment. Second, this early spell of unemployment hampers the accumulation of human capital. Not only will human capital not increase due to the absence of on-the-job training, but also the human capital acquired at school will depreciate (OECD, 1984). Finally, the experience of unemployment may alter the attitudes of the young people, and as if they become pessimistic about the chances of finding a job, their job-search behaviour will be affected negatively (Viitanen, 1999).

The other demographic characteristics indicator (gender) has no strong impact on transition probabilities, however; data in the table above indicates that young Saudi males are less likely than young Saudi females to be in higher education than to be unemployed. There are two reasons for this. First of all, and generally speaking, the chances of being employed are better for Saudi males than for females, since they have more opportunities to search for jobs than females, as a result of social factors. Secondly, young Saudi females have more limited transition activities than males, so they are more likely to stay longer in school if they cannot secure employment.

This result supports Shah and Burke's (1996) finding. They found that overall, a female has a higher chance of completing a course, and takes less time to complete it, than a male of the same commencing age. On the other hand, the estimated parameters imply an interesting finding, namely that Saudi males and females do not differ that much from one another in their odds of being employed or unemployed (OR=1.22). For every time youth got employment, the likelihood of it being a male employment is higher by only 22 percent.

This finding suggests that the risk of unemployment is greater for females in Saudi Arabia. Similarly, Singers (2001) found that young females in Germany are more prone to unemployment than young males, while in contrast, it is young males who are at greater risk of becoming unemployed in Great Britain. Similar results have been observed in Spain, (Lassibille, Gomez, Ramos and Sanchez, 2001) where females find it more difficult to find their first job compared with males. Lassibilee et al. argue that there is a different range of possible sources of the female employment disadvantage, for example, discrimination and family responsibilities, that limit job choice.

As expected, the marital status of Saudi youth did not have any noticeable impact on higher education transition probabilities. The odds ratio (1.11) indicates that the probability of married youths being higher education students rather than unemployed was only 11 percent higher than that of unmarried youths. In contrast, marital status proved to be an important determinant of the probability of being unemployed. The regression output shows that married youths were 2.4 times more likely than their unmarried counterparts in the reference group to be employed than to be unemployed. This finding has been confirmed elsewhere. Miller and Neo (1997) found that among Australian males and females, the lowest rates of unemployment are experienced by the married. Other sources, have reported that persons who are not married are six percentage points more likely to be unemployed than those who are married (Kryger, 1999).

The reason for these effects is that marital status variables capture both demand- and supply-side influences. From the supply-side perspective, the greater family responsibilities of married males are expected to increase their incentive to work, while from the demand perspective, employers may be more likely to employ married males because they are assumed to have greater work commitment, be more reliable and potentially more productive (Le and Miller, 1999).

This result reflects the social impact of the unemployment problem in Saudi Arabian society. Having more unemployed youths in the economy means more unmarried youths in the society. This is a real problem in any society which may lead, for example, to an increase in the crime rate.

Finally, by observing the regression result flow probability depending on the location factor and taking youths who lived in rural areas as a reference group, interesting outcomes can be seen. Saudi youths who lived in urban areas were 1.5 times more likely to be in higher education than to be unemployed compared with those who lived in rural areas. A similar result was obtained by Elsworth and Day (1983), who found that rural students were more likely to decline tertiary place offers. This could be related to the financial support factor.

The related literature suggests that location of individuals has a role to play in their employment probabilities. However, the difference in the probability of Saudi youths who lived in either urban or rural areas being employed rather than unemployed was limited. The odds ratio (1.14) indicates that youths who lived in urban areas were nearly 14 percent more likely to be employed than unemployed compared with their rural counterparts in the reference group.

Bradbury, Grade and Vipond (1986) came up with the same conclusion when they found that young people coming from families that lived in rural areas were more likely to be unemployed. Generally, the rates of unemployment are higher in rural areas than elsewhere, though the differences in this regard are not always statistically significant (Le and Miller, 1999).

This unexpected finding might be associated with the nature of the research data since the location of all individuals was Al-Hasa Province (urban and rural areas), rather than various regions of Saudi Arabia. In addition, this finding can be related to the huge urbanisation in Saudi Arabia that makes urban and rural areas almost alike in their characteristics.

8.4.2 Effect of Family Background Characteristics

The probability of being engaged in a particular transition activity is strongly influenced by the family background characteristics of Saudi youth. Table 8.3 illustrates the parametric estimation and odds ratio of these variables.

Table 8.3 Multinomial logit regressions of family background characteristics showing probability of transition to higher education or employment compared to unemployment

Transition activity	Variables	*Categories*	*B*	*Exp (B)*
Higher Education	Father's employment status	Employee	1.105	**3.020**
		Other	.792	**2.208**
		Retired	1.005	**2.733**
		Unemployed	0*	.
	Father's occupation	Manual	.139	**1.149**
		Non-manual	0	.
	Father's level of education	Univ. or higher	.814	**2.256**
		Secondary	.355	**1.426**
		Elementary or Below	0	.
	Family size	9 or more	.947	**2.578**
		6-8	.452	**1.572**
		3-5	.127	**1.135**
		0-2	0	.
	Number of unemployed in the family	None	1.163	**3.199**
		1-2	.134	**1.144**
		3 or more	0	.
Employment	Father's employment status	Employee	1.544	**4.683**
		Others	1.451	**4.268**
		Retired	1.501	**4.487**
		Unemployed	0	.
	Father's occupation	Manual	.620	**1.859**
		Non-manual	0	.
	Father's level of education	Univ. or higher	1.175	**3.237**
		Secondary	-.07619	**.927**
		Elementary or Below	0	.
	Family size	9 or more	1.087	**2.967**
		6-8	1.020	**2.774**
		3-5	.647	**1.910**
		0-2	0	.
	Number of unemployed in the family	None	1.460	**4.306**
		1-2	.710	**2.034**
		3 or more	0	.

*** This parameter is set to zero because it is redundant (Reference category).**

First of all, the parameter estimation in Table 8.3 indicates that youths with employed fathers were 3 times more likely than those with unemployed fathers to be in higher education than to be unemployed.

Similarly, youths who had retired fathers or fathers with another employment status were at least twice as likely to be in higher education than to be unemployed. This is consistent with Denny and Harmon's (2000) study which confirms the effect of the father's socio-economic status on the probability of young person's reaching higher education. The impact of the father's employment status is striking when comparing employment and unemployment probabilities. The table shows that youths with employed fathers were nearly 4.68 times more likely than those with unemployed fathers to be employed than to be unemployed. The case was similar with other father's employment status groups, for example, youths with retired fathers were 4.49 times more likely than those with unemployed fathers to be employed than to be unemployed.

This expected finding supports the human capital theory hypotheses as advocated by Becker and Tomes (1986), where poorer families are financially constrained and hence prevented from investing in the human capital of their young. Indeed, different various studies support this finding. For example, O'Neill and Sweetman (1998) found that sons with unemployed fathers are almost twice as likely to experience unemployment compared with sons of fathers who have not been unemployed. Garner, Main and Raffe (1988) found father's employment status to matter the most in determining the probability of youth unemployment. These results in fact highlight the importance of family background in explaining youths' future labour market prospects.

On examining the influence of father's occupation, it was discovered that the probability of a young person's being in higher education against unemployment was very weak (OR=1.15). This finding indicates however, that those youths who came from families with a lower socio-economic background (fathers with manual occupations), were more likely to go on to tertiary education than to be unemployed, compared with those who came from higher socio-economic backgrounds (fathers with non-manual occupation). Conversely, there is some evidence, from other researches that young people whose parents are employed in non-manual occupations have relatively high educational participation rates (Armstrong, 1997).

Moreover, the UK Department for Education and Skills (2001) found that young people in England and Wales whose parents were in non-manual occupations were more likely to be participating in full-time education than those with parents with manual occupation. This can largely be understood in terms of either an income effect or an attitudinal effect (that the parents of such young people are likely to have stayed on in post compulsory education themselves and so may encourage their offspring to do so).

The result in this study may be explained by two factors. First, higher education in Saudi Arabia is free. More importantly, students' monthly allowances in tertiary education are considered as an extra income, particularly for those students who come from a low social background.

The effect is stronger concerning the probability of employment against unemployment. It has been found that youths with manual occupation fathers are 1.86 times more likely than those with non-manual occupation fathers to be employed than to be unemployed. This finding confirms that of UK Department for Education and Skills (2001) study. They found that young people whose parents were in manual occupations were more likely to be in a full-time job. A number of studies have shown, however, that young people whose parents were in low status (manual) occupations experienced a higher unemployment incidence. On average, a 20-unit increase in socio-economic status (on a 100-unit scale) decreased the odds of being unemployed by 0.8 to 0.9 times (Marks and Ainley, 1999). This is because parents in high-status occupations may have access to resources and networks that improve the chances of their children finding work.

Not surprisingly, father's level of education was observed to influence the likelihood that youths would go on to higher education. It can be seen from the table that the probability of continuing to higher education and leaving unemployment was higher for youths whose fathers had higher levels of education (university degree or higher). They were nearly 2.26 times more likely, compared with those youth whose fathers had low education levels (elementary or below), to be in higher education than to be unemployed. The effect was smaller for those youths whose fathers had a high school certificate (OR= 1.43). A recent study in Canada by Knighton and Mirza (2002) arrived to similar conclusions. They found that young adults with university-educated parents were 6 times more likely to participate in post-secondary education than were those whose parents had a high school diploma.

The case was almost the same regarding the other transition activity, where the probability of youths being employed rather than unemployed was 3.24 times greater for those youths whose fathers had at least a university degree compared with those in the reference group. Carolyn (1997) claimed that parents' educational level has an effect on the likelihood of young person's being unemployed. Her analysis confirms a significant relationship between parental education and unemployment. She found that individuals whose parents had less than a high school education had unemployment rates of above 2 percent, compared to the 1.2 and 1.5 percent rates of those in the other categories (2-year and 4 year-college education respectively).

It may be concluded that father's education has a strong impact of the probability of becoming in any transition activity, especially, for those with fathers with a high level of education.

Another family background variable affecting the probability of being engaged in a particular activity was the respondents' family size. The likelihood of young people being in higher education relative to being unemployed increased as family size increased. For example, youths coming from large families (9 members or more) were 2.58 times more likely than those coming from small families (0-2 members) to be in higher education than to be unemployed. The probability of the other groups being in higher education rather than unemployment declined as family size decreased (see Table 8.3).

For developed countries the case is different, literature deals principally with the US finds a trade-off between the number of children and educational attainment (Hanushek, 1992). Contrary to the Western notion of a quantity-quality trade-off, a large number of children in a household has a positive effect on schooling in developing countries. In Botswana for example, Chernichovsky (1985) found that the larger the number of children in the household, the higher the levels of education for the individual child. He hypothesises that there may be diminishing returns to labour in a household with any given amount of assets, which reduces the indirect costs of schooling.

However, the impact is greater when comparing employment and unemployment probabilities. The chance of being employed rather than unemployed for youths increases as the family size increases. The possibility of being employed rather than unemployed goes from nearly 2 to 3 times depending on the family size compared with the base group. For instance, young people coming form big families (6-8 members) were 2.77 times more likely than those coming from small families to be employed rather than unemployed. These findings may be evidence of "specialization" in the household, whereby some children work, while others are permitted to attend school and concentrate on studying.

Running the regression for the last explanatory variable (number of unemployed in the household) confirms a strong impact on both transition activities compared to the reference activity. It was found that young people coming from a household with no unemployed members were at least 3 times more likely than those coming from household with 3 or more unemployed members to be in higher education than to be unemployed.

On the other hand, youths who had at least one unemployed member in their family were 1.14 times more likely to be in higher education than their counterparts in the reference groups. The striking finding is that respondents from a family with unemployed members were more likely to be unemployed than those from families who had no unemployed member. Table 8.3 shows that youths who came from a household with no unemployed members were just above 4 times more likely than those coming from the reference group to be employed rather than unemployed. At the same time, those who have 1 or 2 unemployed members in their household were twice as likely to be employed than to be unemployed, compared with those in the reference group.

The results indicate that households with unemployed members increase the risk ratio of young people being unemployed compared with the other activities. Similarly, Kryger (1999) found that coming from a family where one or more members are unemployed increases the probability of unemployment compared with coming from a family where no members are unemployed. Also, Hernandez (2001) included in his study in Mexico the number of family members employed to explain unemployment. He found that the more members with jobs, the lower the unemployment incidence. These results confirm that the help the family provides is not only through income, but also through information and contacts in the labour market.

8.4.3 Effect of Education and Training Characteristics

The analysis of education and training characteristics here will not consider the transition activity "Higher education" due to the quasi-complete separation of the data. Quasi-complete separation complicates the logit interpretation and occurs when a level of categorical input has a target event rate of 0 or 100 percent (Li, 2002). Taking respondents' level of education as an example of this, youths with less than a secondary education have 0 probability of going on to higher education since secondary certificate is the first requirement for entrance into higher education programmes in Saudi Arabia. However, multinomial logistic regression can be used here as well to analyse dependent variable with only two categories (Ferguson, 1995).

Education and training characteristics should have a strong impact on transition activity. Only five variables have been examined among all the educational variables due to the characteristics of the data. The last two variables; however, have been analysed separately; since these variables are associated only with those who have at least secondary certificate. Table 8.4 presents the multinomial logistic regression of these variables.

Table 8.4 Multinomial logit regressions of education/training characteristics showing probability of transition to employment compared to unemployment

Transition activity	Variables	*Categories*	*B*	*Exp(B)*
Employment	Respondent's level of education	University or higher	.626	**1.870**
		Secondary	.122	**1.130**
		Elementary or Below	0*	.
	Respondent's grade for the highest level of education	Excellent	-.100	**.905**
		Very good	-.317	**.729**
		Good or Below	0	.
	Training qualification	Yes	.361	**1.434**
		No	0	.
	Type of higher education	University	1.877	**6.531**
		College of education	.794	**2.212**
		Technical college	0	.
	Type of academic qualification	Art	.424	**1.528**
		Science	0	.

*** This parameter is set to zero because it is redundant (Reference category).**

The human capital theory assumption is confirmed here, since the probability of unemployment decreases with higher educational levels. Table 8.4 shows that youths who had at least a university degree were nearly twice as likely than those who had at most an elementary certificate to be employed than to be unemployed. However, those with a secondary certificate were more likely to be employed, though their odds ratio (OR=1.13) do not differ that much from those in the reference group. This means that low education level is a significant determinant of incidence of unemployment.

This result is consistent with finding in developed countries, where the level of education is inversely related to the rate of unemployment. Isengard (2002) studied the risk of youth unemployment in England and Germany. He found the incidence of unemployment to be closely correlated with individuals' educational attainment. As the level of education rises, the probability of unemployment decreases. In the United Kingdom, too, the education variable proves to be the most important factor influencing the individual risk of unemployment. In Denmark it has been found that the risk of unemployment for unskilled men is 3-4 times as large as for men with a higher education, while unskilled women face a risk of becoming unemployed which is 2-3 times higher than women with a higher education (Husted and Badsgaard, 1995). The rationale for this relationship is that the greater the amount of workers' human capital, the larger the relative number of job openings for them, thus producing a lower levels of unemployment (Filer, Hamermesh and Rees. 1996).

The educational variable grade was included in the analysis in order to measure the relationship between youths' educational achievements and their labour market outcomes. Interestingly, it was found that youths with low grade were slightly more likely to find employment than those with high grade. Table 8.4 above shows that both young people in both high grade categories were less likely to find employment compared to those in the base group (low grade). The odds ratio for those with "excellent" grades was .91 and .73 for those youth with "very good" grades.

This result confirms what have been found in chapter six that Saudi youths depend much on their personal relations to secure employment. Furthermore, the academic achievement of the individual is not considered to be a significant factor in the employment race particularly in the government sector.

It may therefore be concluded that the probability of a transition to employment or unemployment is not highly influenced by youths' educational achievements in Saudi Arabia. Paleocrassas, Panagiotis and Vretako (2002) came up with a similar finding in Greece, namely that school achievement does not seem to have an effect on employment probability. Their empirical finding indicates that those who had a GPA of 15-20 in their compulsory school leaving certificate did not display a better employment performance than those whose compulsory school GPA was between 10 and 14.

The training qualification of Saudi youths has only a slight impact on the transition probability. As seen in Table 8.4, youths with a training qualification were only 1.43 times more likely than those who had no training qualification to be employed rather than unemployed. The weak impacts of training have been confirmed also outside the developing world.

Hashimoto and Miller (1999) found that training did not reduce the likelihood of unemployment for either sexes in America, indicating the importance of personal characteristics in the determination of labour market outcomes. Lindley (1996) investigated the school- to-work transition in the United Kingdom and concluded that there was no evidence that youth training raised their employability, or the probability of their finding a job. These findings suggest that training programmes did not produce the skills needed in the labour market.

There is a more obvious effect on the risk of youth unemployment when taking the type of higher education into consideration. University graduates were 6.53 times more likely than technical college graduates to be employed rather than unemployed.

Similarly, those who graduated from education colleges were 2.21 times more likely than those in the reference group category to be employed rather than unemployed. This finding was confirmed by another study. Alexandrescu (2000), found that there is a high rate of unemployment among those who have attended vocational educational institutions in Romania, while those young people most successful in entering the labour market are post-high school graduates.

The case is different in developed countries. Ryan (2000) compared the short-term outcomes of VET and higher education participation in seven countries. He found that the employment outcomes of VET matched those delivered by the higher education sector. There are two reasons behind the results of the Saudi graduates. First, university and college graduates stay longer in school (4-5 years) than technical college graduates (3 years). This would increase their human capital assets and then their employment probability. Furthermore, technical college graduates in Saudi Arabia always have a problem concerning the credibility of their certificate in both government and private sectors.

The last variable, (type of academic qualification), appears to be significant in determining the transition probability for Saudi youths. It was found that youths majoring in art were 1.52 times more likely than those majoring in science to be employed rather than unemployed. This means that the risk of unemployment is greater among science graduates than among art graduates. Little empirical evidence is available on the relative labour market performance of university graduates from different programmes. One Canadian study compared unemployment rates of university graduates in the humanities and social sciences to those of their counterparts in more applied streams and found the labour market performance of all graduates to be roughly similar (Allen, 1999).

This result was dissimilar to that of Giles and Drewes (2001) study. They remark that young graduates of humanities and social science programmes appeared to have a more difficult transition into the labour market than their applied programmes counterparts. They argue that, generally speaking, humanities and social science programmes do not offer a direct connection, to a well-identified occupation so graduates may spend more time experimenting with jobs and facing the consequent periods of unemployment in between. One possible explanation for the finding in our study is that the types of jobs available in government employment usually open to young graduates are educational or managerial jobs that need art graduates more than science graduate.

8.4.4 Effect of Labour Market Characteristics

The analysis of labour market variables in this section concerns all five variables that were included in the first part of the questionnaire. These variables, as will be seen later, influence the transition probability of Saudi youths. However, the magnitude of this influence varies from one to another. The multinomial logistic regression of such variables is presented in table 8.5.

Table 8.5 Multinomial logit regressions of labour market characteristics showing probability of transition to higher education or employment compared to unemployment

Transition activity	Variables	*Categories*	*B*	*Exp(B)*
Higher Education	School paid work	Yes	**-.180**	**.835**
		No	**0**	**.**
	Preferred employment	Managerial	**.421**	**1.524**
		Educational	**.566**	**1.761**
		Medical and Engineering	**.364**	**1.439**
		Others	**0**	**.**
	Preferred employment sector: (Government)	Unfavourable	**.183**	**1.201**
		Not sure	**.314**	**1.369**
		Favourable	**0**	**.**
	Preferred employment location (Al-Hasa Province)	Unfavourable	**1.045**	**2.843**
		Not sure	**2.154**	**8.621**
		Favourable	**0**	**.**
	labr. mrkt. info.: (Unemployment rate in Al-Hasa)	Low	**1.002**	**2.723**
		Not sure	**1.110**	**3.034**
		High	**0**	**.**
Employment	School paid work	Yes	**.106**	**1.111**
		No	**0**	**.**
	Preferred employment	Managerial	**1.123**	**3.073**
		Educational	**.734**	**2.083**
		Medical and Engineering	**.678**	**1.969**
		Others	**0**	**.**
	Preferred employment sector: (Government)	Unfavourable	**.257**	**1.293**
		Not sure	**-.355**	**.701**
		Favourable	**0**	**.**
	Preferred employment location (Al-Hasa Province)	Unfavourable	**-.150**	**.860**
		Not sure	**1.675**	**5.337**
		Favourable	**0**	**.**
	labr. mrkt. info.: (Unemployment rate in Al-Hasa)	Low	**.670**	**1.955**
		Not sure	**.845**	**2.327**
		High	**0**	**.**

*** This parameter is set to zero because it is redundant (Reference category).**

The first labour market variable (school paid work) is included in the analysis to measure the impact of part-time employment on transition activity. The results above shown above indicate that those who have part-time employment during school were less likely to pursue their higher education (OR=.84) than those in the reference group. Conversely, they were slightly more likely to be employed rather than unemployed (OR= 1.11).

Not surprisingly, this finding is in line with those of similar studies. Chaplin and Hannaway (1996) for example, show that in the United States working in high school is strongly associated with future employment. Their analysis suggests that working in high school can be particularly beneficial for the employment of youths even 10 years after finishing high school. On the other hand, they also find evidence that working a moderate to high number of hours in high school increases the probability of dropping out of high school and lowers college enrolment by rates even more.

These results support those of Ruhm (1997) who examined the impact of high school employment in the United Sates, in more detail. He concluded that working during the senior year in high school is associated with positive labour market outcomes 6 to 9 years later, but work during the junior years of high school is not associated with positive future labour market outcomes. Ruhm, however, also found a negative impact of working while young on the amount of education received. In short, the evidence on the impact of working while young is somewhat mixed, but, these studies generally point to a positive impact on the likelihood of being employed and a negative impact on the likelihood of further education.

In contrast to the previous variable, occupation, or "preferred employment" as a labour market indicator has an obvious impact on both transition probabilities of the research sample. Carolyn (1997) stated that occupation is widely recognised as influencing the employability of job-seekers. Table 8.5 indicates that those youths who preferred managerial jobs were 1.52 times more likely to be in higher education and 3.07 times more likely to be employed rather than unemployed compared with their counterparts in the base group who preferred "other jobs" such as security or technical jobs. Similarly, youths who preferred educational jobs were 1.76 times more likely to be in higher education and 2.08 times more likely to be employed rather than unemployed compared with those in the base group. Surprisingly, the effect was less regarding those youths who preferred medical or engineering jobs. They were 1.45 times more likely to be in higher education and 1.97 times more likely to be employed rather than unemployed compared with those in the base group.

One feasible explanation for this result relates to the nature of the occupations that required a high level of educational attainment. Thus, Saudi youths, mainly females, who preferred these types of work were more likely to pursue their higher education. A more important reason, that concerns employment probability, is that these occupations, particularly managerial and educational, are more available in the Saudi labour market than other occupations as a result of the government's employment. Carolyn (1997) reports similar evidence that, in April 1993, the unemployment rate among individuals aged 16 and over within the US population in managerial occupations was less than half that for all occupations (3.1 percent compared to 7.1 percent), while those employed as post-secondary teachers in 1988 had lower unemployment rates than those employed in non-teaching occupations in related fields.

The transition probability to either higher education or employment is to some extent influenced by the preferred employment sector. However, Table 8.5 show that those youths who were not keen on government employment were more likely to pursue their higher education studies or to be employed (OR= 1.20 and 1.29 respectively) than unemployed, compared with those who wanted government employment. It may be inferred from this result that the risk of unemployment and of leaving higher education among Saudi youths is higher for those who would prefer government employment. In other words, those youths who would prefer private sector employment in Saudi Arabia have greater chances of becoming employed. The problem is that that Saudi youths still prefer to wait for government employment, and this has a positive effect on the duration of their unemployment. Unfortunately, this is the case in the entire MENA region (Abrahart, Kaur and Tzannatos, 2000). They argue that public sector employment, especially lower-skilled jobs, is greatly preferred in the region because of non-wage features such as a shorter working day (6 hours instead of 8), job security, prestige, and lower effort levels. These features and others make youths become less serious about acquiring a higher education or obtaining private sector employment, for as long as they think that government employment could be secured no matter how long they wait or no matter what level of education or skill they have.

Labour mobility, measured here by the preferred employment location variable, may be a factor influencing unemployment for youths and adults alike, as they both share the same local labour market (Bradbury et al., 1986). The regression table shows the significance of this factor in determining a young person's transition activity. Saudi youths who were willing to work outside Al-Hasa Province (their local area) were found more likely to be higher education students (OR= 2.84) than those who preferred to work only in their local area.

On the other hand, those youths who were unwilling to travel beyond their local area to work were found less likely to be employed (OR=.86) than their counterparts in the base group. This result suggests as expected that those youths who could be described as "immobile" youths were more likely to stay away from higher education than "mobile youths". This might be due to their fear of missing an employment chance in their area if they pursued their higher education outside this area in the event they could secure a local place.

The other finding which appears surprising suggests that immobile youths were more likely to find employment than mobile youths, although individuals with higher mobility propensities should have higher exit rates from unemployment. In other words, those who are more willing to move region are more likely to find a job (Gregg, Machin and Manning, 2001). The study of Lindley et al., (2002) found that a job-seeker in Spain who is prepared to move regions does have increased unemployment exit rates, but the effect is smaller than in the UK. One possible explanation of this result in our study related to the study's limitation in dealing with only one area (Al-Hasa Province). This restriction prevented the researcher from investigate the real effect of labour mobility. Having said that, young people must know that a competitive labour market requires them to seek every possible advantage, including labour mobility, to secure employment.

Finally, the respondents were asked to report their knowledge regarding the unemployment rate in Saudi Arabia to measure how this information would affect their labour market transition probabilities. This factor, as shown in Table 8.5 proved to be significant in determining Saudi youth transition probability. It was found that those youths who thought the unemployment rate was low were at least 2.72 times more likely than those who thought it was high to be in higher education than to be unemployed. On the other hand, the same groups were 1.96 times more likely to be employed rather than unemployed than those in the reference group. Disregarding the accuracy of their information, the results imply that those who had positive information about the labour market were more successful in their transition than those who had negative information. Le and Miller (1999) have found that new entrants lack detailed knowledge of local labour markets, which may be an important contributor to high unemployment.

To conclude, labour market information plays an influential role, regardless of a country's stage of development. Improved knowledge about labour market opportunities: the nature and location of employment, wages and working conditions and opportunities and assistance in using the information, are vital to improved labour market operations.

8.5 Conclusion

In this chapter, the probabilities of young Saudis being engaged in a particular labour market transition have been analysed. The multinomial logistic regression model has been applied in this analysis to estimate the effects of the explanatory variables of the research. The researcher adopted the odds-ratio method to interpret the empirical findings. The odds ratio is particularly useful as it allows a simple interpretation of the relationship between the response and explanatory variables. The findings have been presented according to the four different explanatory characteristics of the research.

The empirical findings confirm the widely-held view that individual characteristics influence youths' labour market outcomes. For example, Lynch (1987) found that individual characteristics were significant in determining the likelihood of youth unemployment. However, Miller (1998) distinguishes between three sets of factors influencing unemployment outcomes and concludes that family and regional circumstances are more important in determining labour market outcomes than personal characteristics. However, another Australian study suggests that personal characteristics, such as place of residence and marital status, are important determinants of duration and/or incidence of unemployment (Harris, 1996).

Measuring the impact of family background variables in this analysis confirms what has been found in the literature, namely that those from better-off backgrounds are more likely to go on to higher education and more likely to avoid unemployment. Viitanen (1999) found that family background characteristics proved to be important in determining the likelihood of unemployment. Also, Micklewright (1989) found that family background, measured by parental education, socio-economic class, and number of siblings, all had a significant impact on the probability of leaving education.

In line with the academic literature the results of the empirical analyses support the human capital model, since the groups with lower levels of education were more likely to experience unemployment. The importance of education qualifications have been confirmed worldwide. In fact, economic theories acknowledge a strong relationship between education and unemployment as discussed in detail in chapter two.

Finally, the empirical findings from the analysis of the labour market variables were not substantially different from those of the world literature. However, it was interesting to note that immobile Saudi job-seekers were found to be more likely to secure employment than mobile ones. This may reflect the importance of having good personal relationship in the Saudi business community.

CHAPTER NINE

CONCLUSIONS AND RECOMMENDATIONS

9.1 Introduction

Most countries accumulate physical and human capital in parallel. In Saudi Arabia, however, physical capital is accumulated at a faster rate. In addition, the rapid increase in oil revenues caused a rate of increase in consumption that was faster than the development of physical and human capital (Diwan and Girgis, 2002). This is one of the causes of the unemployment problem in the Kingdom. Saudi Arabia's real per capita income has fallen considerably over the past twenty years. Its population, on the other hand, has grown faster than oil revenues, and labour productivity has remained stagnant. In the past, the public sector in Saudi Arabia has played an important role in providing job opportunities for young educated Saudis in government ministries and agencies. This is no longer the case. Moreover, neither training nor educational qualifications appear to have much influence on graduates' abilities to find a job after leaving education. In fact, for most Saudis with a high level of school education, their motivation to join the labour market is low, partly because of the entry of foreign workers with lower reservation wages.

These problems are already reflected in a high rate of unemployment among Saudis. The employment data in Saudi Arabia reveal that the country faces rapidly growing numbers of Saudis are entering the labour market (Saudi American Bank, 2002b). The Saudi Arabian Minister of Labour, Dr. Al- Namlah, states that unemployed Saudis number 3.2 million. This accounts for at least 25 percent of the Saudi labour force.

In this study we have attempted to provide an empirical evaluation of the problem. More specifically, the objective of the study was to provide information on and investigate to what extent demographic, family background, education and training, and labour market factors influence the economic activity of Saudi youth during their transition from school to work. Which of these factors make the school-to-work transition smooth for some Saudi youths and less smooth for others? In other words, which group of young Saudis are most at risk of unemployment?

This concluding chapter summarises the main findings of this study. On the basis of findings, research recommendations and suggestions for further research are made.

9.2 Major Findings pf the Research

This section will summarise the main findings of the study. These include both theoretical and empirical findings.

9.2.1 Theoretical Findings

This study used the human capital theory approach to analyse the school-to-work transition in Saudi Arabian society. The conclusions reached in this research generally support, the human capital theory, which is that spending more time in school acquiring knowledge and skills can assist graduates in terms of future employment (Becker, 1993). The study found that those with more education are more likely to secure employment. On the other hand, the study challenges one of the human capital principles in finding that training qualifications in Saudi Arabia have a minimum effect on a young person's future employment.

The study also examines the cultural capital school-to-work approach. The concept of cultural capital as defined by Lareau (1987), refers to all factors related to the relationship between family and school that may affect the child's education. The study demonstrates the importance of the respondents' family background in their choice of transition activity. The study concludes that those from better-off backgrounds are more likely to pursue their education and more likely to avoid the unemployment problem.

To a considerable extent, the study focused on the local labour market influence. Accordingly, the study assessed the influence of five labour market factors. The results obtained are similar to those found in the international literature, confirming the impact of local labour market on youth transitions. Youth with better labour market conditions are more likely to have a smooth school-to-work transition. For example, labour market information has found to be positively related to two of the transition possibilities: higher education and employment.

Finally, the study analysed the demographic profiles of the young Saudis. It was found that demographic factors influence the problems related to school-to-work transitions. For example, the capability of adding to the stock of human capital through the cohort entering the labour market depends on the size of the cohort. In practice, the study found that the nature of the Kingdom's population influences the school-to-work transition of its young people. This is because the number of the new entrants to the labour market is increasing, hence, the transition period is going to be longer for them. Furthermore, gender is also significant in determining transition activity. The less advantaged group has been found to be females.

9.2.2 Empirical Findings

The findings of the empirical analysis will be summarised according to the analytical methods of the research. These methods were: the univariate analysis, the bivariate analysis and the multivariate analysis. Univariate analysis concerns the description of individual variables in a given data set, while bivariate analysis is concerned with the relationships between pairs of variables in a data set. A multivariate analysis is designed to evaluate more than one variable at once.

9.2.2.1 The Findings of the Univariate Analysis

The findings of the univariate analysis included both the findings of the analysis of the responses to the questions to the entire sample, and the analysis of each research group's independent questions.

First, the answers regarding demographic characteristics revealed that quite a large percentage of the age 18-20 and 21-23 groups were students or unemployed, while the majority (56.2 percent) of the 24-26 age group were employed, compared with only 30.2 percent who were unemployed. This finding confirms that young people are more likely to be unemployed than adults. Similarly, Franz et al., (1997) noted that youths face a higher risk of becoming unemployed in comparison with adult members of the labour force. The result also shows that females were more likely to participate in higher education, and less likely to be employed, than males. A similar result was obtained by Klerman and Karoly (1995). They showed that the proportion of unemployed women is higher than that of men at any given age. In addition, this study found that married and urban area respondents are more likely to be employed.

The responses relating to family characteristics showed that the majority of the respondents who had an employed father were either students or employed, however, the unemployed had the largest percentage (46.2 percent), of unemployed fathers. This result supports Surridge and Smyth's (1995) and McCoy and Whelan's (1996) findings. They conclude that the level of unemployment is higher among school-leavers whose father is unemployed than among other school-leavers. The results of this study also show that the majority of those who had fathers with a manual occupation were employed. It was expected to find that respondents who had fathers with a low level of education were more likely to be unemployed. In fact, Riphahn (1999) showed that the educational attainment of parents has a statistically significant effect on youth labour market. Further, those who came from large families were more likely to be employed. As expected, those who had unemployed members in their household were more likely to be unemployed.

The examination of education and training characteristics shown expectedly that respondents with lower education levels were more likely to be unemployed than employed, as 61.1 percent of those with only an elementary certificate were unemployed. This result support Veum and Weiss' (1993) and Klerman and Karoly' (1995) findings, who show that young people with more educational attainment experience more stable employment after they leave school. McCoy and Whelan (1996) confirmed that grades have a strong influence on a school leaver's probability of getting a job. However, it was interesting to find that the majority of those who had lower grades "Pass" and "Good", were employed, and that the majority of those who had a "Very good" grade were unemployed. This result may indicate that the young people have recently been attempting to graduate with better grade scores in order to have better employment prospects.

The data also show that those with a secondary school certificate were more likely to be employed compared with those without such a certificate. Similarly, Parent (1999) showed that high school graduates' employment rates are better than those of dropouts. On the other hand, those with higher education degrees and especially those who graduated from universities or had majored in arts fields were more likely to be employed than those who had attended technical colleges or who had taken science subjects. This result supports Klerman and Karoly (1995), who found that four-year college graduates do better in the labour market than high school graduates. With regards to the unemployed and employed categories, it was found that the majority did not purse their higher education because they could not obtain admission to higher education. It was clear from the statistics that schools play a positive role in helping the respondents to make a decision about their education; nevertheless they did not help them to secure employment. Finally, the majority of the respondents did not have any training experience, although the evidence supports early training for young people (Gardecki and Neumark, 1998). The respondents claimed that limited government training programmes and scarce financial resources were the main obstacles to training opportunities. Those who had previous training experience were found more likely to be employed than unemployed. These respondents were funded mainly by their families and trained for a period of 1-3 months.

The final section covered labour market characteristics. It was found that the majority of the respondents had no school-work experience. However, those who had had experience school-work were more likely to be employed. Almost 82.0 percent of the respondents preferred the government sector for employment to the private or self-employment sectors.

Moreover, it was found that educational and managerial jobs were the most attractive jobs in the eyes of Saudi job-seekers. In addition, Al-Hasa Province was the preferred employment location for the majority of the respondents. This result is in line with that of Al-Ghofaily (1980). He showed that the majority of Saudi youth preferred government jobs and jobs close to their families. Regardless of whether or not the respondents' labour market information was accurate, the data show that those who believed unemployment rate was high were more likely to be unemployed than those who believed otherwise. Gardecki and Neumark (1998) argue that providing young people information about labour market opportunities would be helpful in easing their transition from education to employment.

Moving to the research groups' independent questions, the descriptive analysis of the students' category shows that getting a better education and better paid jobs were the most significant reasons for a student's decision to go on to higher education. The students' main reason for choosing a particular field of study was because it was of most interest to them. The vast majority of the students needed four years to finish their studies, but 20.9 percent of them who were technical college students only required three years in order to graduate. The remaining students were distributed according to their main field of study, from 3.9 percent in history or geography to 14.4 percent in agricultural studies. The majority of those students hoped to join the labour force following their graduation.

The descriptive analysis of the unemployed category revealed that almost 80.0 percent had been unemployed for at least seven months. Only 31.1 percent of the unemployed had any previous employment. Most of them left their previous jobs because of poor monthly payments and financial benefits. In fact, 74.3 percent of the unemployed were getting only SR 1500 ($ 400) or less as a monthly payment in their former jobs. They had different opinions regarding desired salary levels, although there was a high concentration in two payment categories: SR 2001-2500 ($ 534-667) and SR 3501-4000 ($ 934-1067). The majority of the unemployed were searching for employment and were using both Civil Services Bureau and personal relationship as their main searching methods. In fact, 65.5 percent of the unemployed had been offered employment. These offers were not accepted, essentially due to poor monthly payments and low employment prestige. It was found that almost half of the unemployed believed they will not be able to secure employment within one year. In other words, previous unemployment produces a high risk of later unemployment (Hammer, (1996), OECD, (1998))

Finally, the explanatory analysis of the employed category showed that the majority of the employed had been employed in educational occupations for a period of 3-4 years. They were working in the government sector and were receiving at least SR 3501-4000 ($934-1067) as a monthly payment. Most of the respondents had accepted their job because they were happy with the location. In addition, the type of employment suited to their background and was offered by the government. It was unexpected to find that the majority of the employed had depended on their personal relationship to secure their current employment. Interestingly, the majority of the employed respondents were not satisfied with their current jobs, since 64.7 percent of them were looking for alternative job. This was because, first, they were not fully satisfied with their monthly payments and financial benefits, and secondly, because they would prefer to have higher prestige employment. Similarly, Al-Ghofaily (1980) found that the majority of his sample attached more importance to prestige than to economic consideration as motivators in occupational choice.

9.2.2.2 The Findings of the Bivariate Analysis

The findings of the bivariate analysis show the results of testing the research hypotheses. There were four general hypotheses and three categorical hypotheses. The finding of the chi-square tests is summarised below.

The first general hypothesis concerned the respondents' transition activity, which was tested with regard to all research variables. The null hypothesis was that ***"there is no significant relationship between the respondents' transition activity and their demographic variables, family background variables, education/training variables and labour market variables"***. It was first found that there was a significant relationship only between the respondents' transition activity and their age and marital status. Secondly, family background variables seem to have a strong influence on the transition activity of Saudi youths. Indeed, father's occupation, father's level of education and the number of unemployed in the respondents' households were found to have a statistically significant relationship with the independent variable. Thirdly, the test results indicate that educational/training variables also strongly influence the respondents' transition activity. It was found that levels of education, grade, secondary school status, higher education status, higher education type and type of academic qualification had a significant relationship with the independent variable. Finally, a significant relationship with the independent variable was found with three labour market variables: type of employment, employment location and labour market information. The later finding indicates the importance of labour market variables in determining Saudi youths' transition activity.

Another general hypothesis that was tested concerned the decision to leave school. The null hypothesis was that ***"there is no significant relationship between the respondents' secondary school status and their demographic variables, family background variables, and labour market variables"***. Gender and location of the respondents were the only demographic variables that appeared to influence an early school-leaving decision on the part of Saudi youth. These variables had a statistically significant relationship with the independent variable (secondary school status). With regard to family background variables, it was found that only the number of unemployed in respondents' households had a statistically significant relationship. However, Surridge and Smyth (1995) showed a significant relationship between family background (father's employment status, and father's occupation) and young people's decision to leave school. Lamb and Rumberger (1999) also found that early school-leaving rates were substantially higher for students from lower socio-economic backgrounds. Finally, the hypothesis testing confirmed a statistically significant relationship between one labour market variable (employment type) and the respondents' school-leaving decision.

Higher education status was tested in order to examine higher education participation of Saudi youth during their transition from school to work. The null hypothesis was that ***"there is no significant relationship between the respondents' higher education status and their demographic variables, family background variables and labour market variables".*** As expected, the respondents' gender had a statistically significant relationship with the independent variable (higher education status). On the other hand, none of the family background variables had a significant relationship with the independent variable, as was also found by Bar (1987). Finally, three labour market variables: school paid-work, employment type and employment location were found significant in determining the higher education participation of Saudi youths at the time of their school- to-work transition. This finding demonstrates that the higher education participation of Saudi youths in their transition from school to work is strongly influenced by labour market variables. In this regard, MacIntosh (1998) believes that rising youth unemployment in Europe has had a small part to play in the increasing participation in post-compulsory education.

The last general hypothesis tested concerned training qualifications, in order to assess the training participation of Saudi youth. The null hypothesis was that ***"there is no significant relationship between respondents' training qualifications and their demographic variables, family background variables, education/training variables and labour market variables".***

After testing for the significance of demographic, family background and labour market variables, it was found that these variables had no significant relationship with the independent variable (respondents' training qualifications). At the same time, it was found that only one educational variable (respondents' higher education status) had a statistically significant relationship with the independent variable. Thus, this variable influences the training participation of Saudi youth. This finding is similar to that of Veldenand and Smoorenburg (1996). They found that a higher education level results in a higher probability of participation in industrial training.

In the second section of the bivariate analysis, the researcher made use of the data set in order to test the categorical hypotheses. The objective of this section was to the draw additional information from the respondents' responses to the survey questionnaire. The categorical hypotheses were only limited to the unemployed and employed respondents who were the main concern of the research.

The first hypothesis to be tested concerned the duration of the unemployment of the unemployed respondents. The null hypothesis was that ***"there is no significant relationship between the duration of the unemployment of the unemployed and their demographic variables, family background variables, education/training variables and labour market variables"***. Testing for the significance of demographic and family background variables confirmed that only "age" and "number of unemployed in the household" had a significant effect on the unemployment duration of the unemployed respondents. By contrast, unexpectedly, education/training variables were found to be insignificant in determining their unemployment duration. More important, labour market variables: school paid work, minimum monthly payment required to accept employment and expected time to secure employment had statistically significant relationships with the independent variable.

Another hypothesis tested among the unemployed respondents concerned the offers of the work they received. The null hypothesis was that ***"there was no significant relationship between unemployed job offers and their demographic variables, family background variables, education/training variables and labour market variables"***. The results found that gender was the only demographic variable that had a statistically significant relationship with the independent variable (job offers of the unemployed respondents). On the other hand, none of the family background variables had a statistically significant relationship with this independent variable. Testing of the education/training variables demonstrates that only the type of academic qualification they held had a statistically significant relationship with the independent variable.

Finally, labour market variables testing indicated that there was only one variable (previous employment) that had a statistically significant relationship with the independent variable.

The last hypothesis tested in this research study concerned the employed respondents' search for another job. The null hypothesis was that ***"there is no significant relationship between the employed respondents' search for another job and their demographic variables, family background variables, education/training variables and labour market variables"***. After testing for the significance of demographic variables, the marital status of the employed respondents was the only variable that was found to have a statistically significant relationship with the independent variable (employed respondents' search for another job). On the other hand, none of the family background variables had a significant relationship with this variable. Out of the education/training variables, only the higher education status of the employed had a statistically significant relationship with the independent variable. Finally, labour market variables were found to have the most effect on the independent variable, in that three variables: school paid-work, employers' sector, and employed monthly payments, have a statistically significant relationship with the independent variable.

9.2.2.3 The Findings of the Multivariate Analysis

The findings of the multivariate analysis show the outcome of the multinomial logistic regression model. The model tests the probabilities of respondents' being full-time higher education students or employed, compared with the probability of their being unemployed.

The empirical findings suggest that the age of the respondents is significant in determining the likelihood of being in a certain activity. The risk of being unemployed was greater for the youngest age group compared with the probability of being employed, and smaller compared with the probability of being higher education. On the other hand, the research findings suggests that female were less likely to find employment and more likely to pursue their higher education than males in Saudi Arabia. Furthermore, the marital status of the respondents was found to be highly significant in determining the likelihood of being employed or higher education student. Married youths were more likely to be employed or higher education students than their unmarried counterparts. Finally, the location of the respondent seems to have had a slight influence on the transition activity. In short, individuals' variables have a strong significant effect on the transition decision (Riphahn, 1999).

To some means, all family background variables proved to be significant in explaining why Saudi youths end up engaged in with a particular transition activity. This result has been confirmed elsewhere. Franz et al., (1997) examined the failures of the school-to-work transition among young people in the Federal Republic of Germany. They found an outstanding impact of family background variables on the labour market behaviour of youth. The empirical results confirmed that father's employment status strongly influences the transition probability. It was found that youths with employed fathers were 3 times more likely to be in higher education, and 4.68 times more likely to be employed than those with unemployed fathers.

With regards to father's occupation, the findings indicate that youths who had fathers in manual occupation were 1.15 times more likely to be in higher education and 1.86 times more likely to be employed than those who had fathers in non-manual occupations. The father's level of education also inevitably influenced the transition activity. The probability of going on to higher education or of being employed was higher for those youths whose fathers have higher levels of education. They were nearly 2.26 times more likely to go on to higher education and 3.24 times more likely to find employment than, to those youths whose fathers had low educational levels.

Moreover, family size and the number of unemployed in the household were found to be significant variables in determining the likelihood of being involved in a particular activity. For example, youths coming from large families (9 members or more) were 2.58 times more likely to be in higher education, and 2.97 times more likely to be employed, than those coming from small families (0-2 members). On the other hand, it was found that youths coming from households with no unemployed members were at least 3 times more likely to be in higher education and, at least 4 times more likely to be employed than those coming from households with 3 or more unemployed members.

In accordance with the researcher's expectations, those with only an elementary education or less are at a great disadvantage in the labour market. They were nearly 2 times less likely to be employed compared with those who had at least a university degree. This indicates that individual level of education is a significant determinant of youth unemployment. Similarly, Bratberg and Qivind (1998) confirmed that a higher level of education increases the chances of being employed, and correspondingly decreases the probability of remaining unemployed. The only unexpected finding came from the school achievement variable (grade). It was found that youths with low grades were slightly more likely to find employment than those with high grades.

Likewise, the training qualification of Saudi youths has a slight impact on their transition activity. Youths with a training qualification were only 1.43 times more likely to be employed than their counterparts without. On the other hand, the type of higher education variable was highly significant in determining youths' employment probability. For instance, those who graduated from universities were 6.53 times more likely to secure employment than technical college graduates. Finally, type of academic qualification appears to be significant in determining transition probability. It was found that the risk of unemployment is greater among science graduates than among art graduates. In sum, family background variables proved to be significant in determining the transition outcomes (Rice, 1999).

The last analysis examined labour market characteristics of Saudi youths in relation to their labour market transition probability. It confirmed that those who had experienced part-time employment during their school years were less likely to pursue their higher education and more likely to be employed than those who had not had any part-time employment. The empirical findings also show that preferred occupation has a strong impact on youths' transition probabilities and as a labour market indicator. For example, youths who preferred managerial jobs were 1.52 times more likely to be in higher education, and 3.07 times more likely to be employed, compared with those who preferred security or technical jobs.

In addition, the results indicate that the employment sector and location variables influence both transition probabilities. It was discovered that the chances of unemployment or of leaving higher education were higher for those who preferred government employment. On the other hand, youths who were in favour of working only in their local area were less likely to pursue their higher education and more likely to be employed than those who were willing to work beyond their local areas. Finally, youth labour market information proved to be a significant factor. The results imply that those who had positive information were more successful in their transition than those who had negative information.

9.3 Research Recommendations

On the basis of on the findings of this study, the following recommendations are made for to improving school-to-work transition arrangements and hence, it is to be hoped, reducing the unemployment problem in the Kingdom of Saudi Arabia. These recommendations will be grouped into three main categories: education/training recommendations, labour market recommendations, and policy making recommendations.

9.3.1 Education and Training Recommendations

1- Reducing Early Education Exit: The policy makers should reduce the number of early exits of young students from education. This will delay the transition of young people into the labour market and potentially into the ranks of the unemployed. In fact, higher levels of education will not only reduce the risk of unemployment for young people, but will also improve their chances of obtaining a full-time job with a permanent contract.

2- Reconsidering Higher Education Policies: Higher education policies in terms of numbers, entrance conditions etc., play an important role in guiding secondary school graduates towards specific field of study which might be of little relevance in the labour market. Accordingly, these policies must be re-evaluated taking into account the number of high school graduates and the type of skills needed in the labour market.

3- Careers Academic Advice: The Saudi education system lacks careers advice departments in its institutions. Academic career advice in secondary school and higher education is essential, especially in times of high unemployment. It would help students to identify the type of courses they need to take in order to obtain employment, the type of course suitable to their abilities, and so on. In addition, it will help in reducing the number of those exiting education and will ease the transition to employment. Therefore, the government must provide educational institutions with qualified people to serve as career advisers.

4- Reconsidering the Educational Curriculum: It is very important for any country to re-examine its educational curriculum on a regular basis. One major criticism of the present curriculum is its lack of practical skills courses. Thus, the educational curriculum must be reformed so that it provides students with skills that will equip them to work in various occupations in labour market. There must be no doubt about the direction of economic development plans for the country.

5- Private Sector Participation: The educational authorities in the Kingdom must encourage the private sector to play a role either in term of devising the educational policies or in terms of investing in education, whether general, vocational or higher education. Indeed, the private sector is much more familiar with the skills needed in the labour market, so its suggestions are more realistic.

6- Promoting Effective Training Programmes: Demand for skilled labour is rising as a result of Globalisation, technological development and changes in the organisation of work. The existing training schemes in Saudi Arabia need to adjust their methods and content to ensure the ongoing creation of an employable labour force that is internationally competitive. Training schemes need to react quickly and flexibly, whether they are public or private. All training programmes must rise to two principal challenges: first, they must train more young people; secondly, they must develop an adaptable labour force to cope with the changing needs of the labour market.

7- Financing the Training: Perhaps the most important contribution private sector firms can make to training young people is to provide and finance on-the-job training, either as part of or in addition to, the formal training system. In practice, they are not willing to do this. In these circumstances, the public sector must play an important role in providing job-seekers or the unemployed with job training. There are various institutions, such as professional training schools or centres, universities, etc, which can organise the preparation of job training. Sharing the training cost between the individuals and the public or the private sectors is recommended in some cases.

8- Improving VET Programmes: It is essential to improve the VET programmes in Saudi Arabia in order to enhance the employability of young people and economic growth in general. It is important to go beyond the usual models to find alternative methods of increasing access to technical and vocational education. The new models must combine education and VET in order to provide the most flexible access. On the other hand, for too long, qualifications gained in VET institutions have been regarded as second-rate. The people who develop policy and allocate funds must be convinced that investment in VET is fundamental to the economic development of the nation and that the qualifications awarded are credible. Further, an effective VET system will only result from clear government policy and strategic planning. Unless the government creates a framework that establishes labour market training as a key policy goal, efforts to improve the provision of VET will be useless. Finally, existing institutions lack appropriate staff. They need to go aboard on professional development programmes to equip them with the skills to operate in a more flexible mode.

9- Implementing Apprenticeship Programmes: The Kingdom can also implement apprenticeship programmes to ease the school-to-work transition. Although international models are important (see Appendix A), there are dangers in indiscriminately transferring very successful systems that have been success elsewhere (such as that of Germany) into the Kingdom.

Among the possibilities for establishing apprenticeship systems, the policy makers should consider the following:

(1) Ensure that the apprenticeship curriculum is modern and will provide people with appropriate skills needed in the labour market.

(2) Provide young people with a voice in the determination of curricula and competencies that shall be taught in apprenticeships.

(3) Pursue reform of apprenticeship institutions to reflect the changing needs of young people and their potential employers.

10- Education and Training Institutions Co-operation: The policy makers should encourage educational and training institutions to co-operate on a regular basis in order to merge educational policies with training policies. Merging education and training policies in the Kingdom would be an effective way of providing students with the knowledge and skills they need in a short time. This would enable them to have a shorter transition period to the labour market. Again, the policies must be in line with general economic development plans in the Kingdom.

9.3.2 Labour Market Recommendations

1- Establishing an Unemployment Database: At the present, the country does not have enough information about Saudi job-seekers in terms, of their numbers, their gender, their level of education, their location and so on. At the same time, there is not enough information concerning job vacancies in different firms, job locations, skills needed for such jobs etc. Thus, establishing an unemployment database would be very helpful in smoothing the STW transition for young job-seekers in Saudi Arabia.

2- Establishing Private Employment Agencies: The study results indicate that the majority of unemployed young Saudis use the government employment agencies as their main job-search method. Thus, the government must encourage the private sector to establish and manage private employment agencies in each city. This can be done through government financial assistance to these agencies that prove effective in placing job seekers in permanent employment.

3- Private and Public Sector Co-operation: The results of the study lead to a recommendation that some form of co-operation between the private and the public sectors in developing youth employment is necessary. The private sector should play a greater role in investing in the development of youth employment, in particular by creating more job opportunities in the private sector within each region.

4- Work-Sharing and/or Wage-Sharing: One of the most useful policies in preventing the rate of unemployment from increasing is the strategy of work-sharing and/or wage-sharing. Decreasing total working hours per employee is likely to raise the demand for employment, and thus would be effective in lowering the rate of unemployment.

One delicate issue is the adoption of a policy which lowers the per-hour wage rate at the same time as increasing the demand for labour. This wage-sharing policy requires the agreement of all concerned agents, such as employers, employees and possibly the government. Such an agreement on wage-sharing in Saudi Arabia might be possible because the wage-setting framework is currently centralised in Saudi Arabia, particularly in the public sector.

5- Expanding Part-Time Work: The results of the study also lead to a recommendation that part-time employment to be made available especially for secondary and university students. Part-time employment would give youth the opportunity to fulfil their primary role and, at the same time, contribute to the economic activity within the private sector. This model of part-time employment is found in developed countries and has been proven to enhance future employment prospects.

6- Reducing Expatriate Employment: The country has nearly 5 million foreign workers. There is no doubt that unemployed Saudis could fill quite a number of these posts. Accordingly, the replacement of expatriate workers with local workers is strongly recommended. The study found, for example, generally that Saudis prefer government jobs, and particularly managerial and educational jobs. Thus, policy makers should limit this type of job to the qualified Saudi job-seekers.

7 Promoting Female Employment: Female participation in the Saudi Arabian labour force is very low even when compared to the other Arab countries. Encouraging female employment, especially in the private sector, would be a promising step towards reducing the unemployment rate in the Kingdom. Beyond a doubt, Islamic *Sharia'a* allows women to work provided certain conditions are met, e.g., that the environment is suitable and childcare centres are available. Such facilities are available in developed countries and they would be needed in the private sector for women's employment to be developed in Saudi Arabia. Also, transportation is one of the main obstacles to women's employment in the private sector. Therefore, providing transportation for employed women in the private sector is essential, as public transport is not sufficiently developed for this to be a suitable option for women.

9.3.3 Policy Making Recommendations

1- Increase the Aggregate Demand: To combat youth unemployment, the policy makers in the Kingdom have to adopt economic strategies that boost aggregate demand. These measures will require the expansion of the formal sector with help from social partners. The encouragement of self-employment and small enterprises in the formal sector is a promising strategy.

2- Encourage Labour Productivity: Governments should pay serious attention to encouraging labour utilising investments, including making efforts to promote direct foreign investment. In particular, investment and job creation in rural communities must be given support through salary incentives and other policy measures.

3- Designing an Unemployment Benefit Policy: Employment insurance in Saudi Arabia is non-existent. However, the recent increase in the number of unemployed in the Kingdom should motivate the government to introduce an employment benefit policy. This will certainly help young unemployed people to invest in their human capital by means of education/training. At the same time, unemployment benefit would help to offset some of the expense involved in looking for a job. In fact, unemployed persons need support and there is a social case for providing unemployment benefits. A minimum standard of living should be guaranteed by the government in all circumstances, including through the payment of unemployment benefits.

To sum up, the recommendations that can be drawn from this study are many, however the researcher has presented those he believes to be essential. Additional recommendations may be drawn from the two broad policies found in the literature and presented with examples in Table 9.1.

Table 9.1 Policies to help young persons succeed in school-to-work transition

Policies to Prepare Youths for the Job Market	**Examples**
Education and training during the school year	Schooling, apprenticeship and scholarship
Post-school training and Job-finding programmes	Short-term skill and training programmes
Policies to Open up the Job Market for Youths	**Examples**
Earning or income supplements	Unemployment benefits
Job-creation	Employment subsidies to firms
Transition programmes	School-to-work transition

9.4 Suggestions for Further Research

In bringing this study to an end, it is hoped that it has adequately answered the questions it set out to answer. At the same time, it is also hoped that it has raised some interesting issues that may be treated as a basis for future research. It would be rewarding to know that the work in this study affords other researchers some insight into the issues examined, and helps them to avoid the shortcomings and limitations surrounding this study. To help achieve these ends, some recommendations for future research are advanced as follows:

1- Since the study did not cover the entire country of Saudi Arabia, researchers might overcome this shortcoming by consider the entire country in future research. Although this type of researches would be costly and time-consuming, it would provide more meaningful results that would reflect the whole society of Saudi Arabia.

2- Extensive research is needed to consider the influence of macroeconomic factors, such as aggregate economic performance and the notional unemployment rate. The results of such research, in addition to the finding from this research will be very important to draw broad conclusions and design effective policies to ease the school-to-work transition and hence reduce the youth unemployment rate by taking into consideration microeconomic and macroeconomic factors simultaneously.

3- This research examines only three transition activities. Thus, more research is needed to assess the other transition activities. Researchers could, for example, examine young people transitions to training schemes or youth transition to out of labour force activities.

4- More research is needed to find ways to increase female labour force participation in Saudi Arabia, particularly in the private sector. In addition, females are usually only employed in the education and health sectors, so additional research is required into how to make other sectors suitable for female employment.

9.5 Closing Remarks

Improving the transition from education to work is a key step in reducing youth unemployment. A successful transition depends on the initiative and effort of the young people themselves. However, government, the private sector and the community have a responsibility to do all they can to guarantee strong and sustained employment growth. At the same time they need to recognise the fact that each of them has a different role to play, and none has a monopoly on wisdom.

APPENDICES

A. Overview of School-to-Work Programmes

B. Research Questionnaire

APPENDIX----------A

Overview of School-to-Work Programmes

Overview of School-to-Work Programmes

School-to-work programmes are recommended in order to promote the school-to-work transition and, hence, decrease the unemployment rate. Here is a review of the most well-known programmes in the United States, Canada and some European countries.

The United States Programmes

The United States has various STW programmes. Among the most widely used are cooperative education, career academies, Tech-Prep and Youth Apprenticeships.

(1) Cooperative Education

Cooperative education provides US youth with a formal bridge from school to work and is offered in high schools, 2-years colleges and 4-year colleges. The Co-op programme combines classroom instruction with work experience and on-the-job training related to a student's career goals (Smith and Rojewski, 1993). According to Stern, Finkelstein Stone III, Latting and Dornsife, (1994), one possible reason why co-op students apparently do not obtain any significant advantage in the labour market is that they do not receive any formal certification. Furthermore, any gain in skill, knowledge or work habits fails to pay off in the short term if former co-op students do not keep working for their co-op employer, simply because other employers do not recognise these gains. However, there have been some positive research findings on co-op education programmes. A short-term longitudinal study conducted by the New York State Education Department (1990) compared co-op to non co-op students. The survey concluded that co-op students were more likely to report working as their primary activity (53 percent as compared to 40 percent for non-co-op students), but less likely to report post-secondary education (36 percent as compared to 47 percent for non co-op students).

(2) Career Academies

Career academies were first developed in Philadelphia in 1961 to combine work and classroom learning. They are collaborations among school districts, local business and industry, and an intermediary community organisation. Studies conducted on the impact of career academies on student outcomes in California generally found positive effects: academy students had better grades and earned more credits than those in the comparison groups (Stern, Dayton, Paik and Weisberg, 1989). However, a study conducted in 1989 found neither student grades nor attendance improved over the course of the first year in an academy in San Diego (Mitchell, 1989).

(3) The Tech-Prep Approach

This is also known as the "2+2" model. It is a recent transition model, which involves giving students a broad foundation of applied academics and occupational preparation in the last two years of high school. Since Tech Prep is a longitudinal programme involving at least four years before a student can complete a sequence of courses, there are few analyses of programme completers; most of the work so far has focused on process rather than on programme outcomes (Hayward, Dornsife, Bragg, Hoerner and Clowes, 1993). However, preliminary data suggest that at their best Tech Prep programmes can produce excellent results (Mendell, 1994).

(4) Apprenticeship

The essential idea of youth apprenticeship is to provide structured, work-based learning for high school students (Stern et al., 1994). The US system of youth apprenticeship, according to Imel, 1993, has many of the characteristics of several European educational systems:

1) Coordination among employers, schools, labour and government.
2) Integration of school-based and work-based learning.
3) Certification of academic and occupational skill mastery.
4) High skill and high wage career routes that do not require a bachelor's degree.

A two-year evaluation (1993-1995) of Wisconsin's Youth Apprenticeship Program (YAP) was conducted in 1995 by Orr (1995). He came to the following conclusions:

(1) YAP graduates made a smooth transition to full-time good quality employment.
(2) Seventy-five percent of YAP graduates continued working for their apprenticeship employer, as compared to 20% of co-op graduates.
(3) Working YAP graduates had better quality jobs than did other graduates, as measured by hourly earnings, hours per week, and skills required.
(4) The YAP graduates were less likely than their peers to be enrolled in a posts-secondary institution, but most of those in college combined school and work, often with employer support.
(5) The YAP graduates enthusiastically attributed their employment and academic orientation, preparedness, and success to the programme.

The research findings on these programmes are mixed, with some programmes showing more positive results than others. However, Youth Apprenticeships appear to be an affective programme (Johnson, 1997).

The Canadian Programmes

The Canadian experience with SWT models is similar to that of the US, though more limited. Job Entry is one of many programmes under the 1985 Canadian Jobs Strategy (CJS). Job Entry programme provides combined training and work experience to unemployed youth who have been jobless for at least three months, who have attained school-leaving age and who did not have a post-secondary diploma or degree. A comprehensive 1989 evaluation of the programme, found that a combination of training and work experience was superior to classroom only training (available under another Job Entry option) in facilitating the school-to-work transition (Human Resources Development Canada, 1989).

Another option of relevance under Job Entry was the Co-operative Education Option, which provided grants to both secondary and post-secondary educational facilities. An evaluation of this option indicated that secondary co-op students under the programme were less likely to proceed to post-secondary education and, among those who entered the labour market, co-op students did no better than non-co-op clients (Human Resources Development Canada, 1994). Results for university students under the programme were more positive. The negative results for high school students were attributed to possible selection bias in attracting less motivated youth who would not have been inclined to enter further education or demanding jobs (selection bias).

The Sweden Programmes

The Swedish approach to facilitating the school-to-work transition also involves school-based learning. Work experience is built into the Swedish education system. Very early on, even in elementary school, students are exposed to career options through visits to different workplaces and discussions with workers. Then, in high school, most young people receive either academic or general vocational training geared to general occupational categories, not to specific jobs. Unlike the German approach, movement is permitted between the two streams. Also, work experience, career counselling and job placement are built into the programme. The preceding indicates that young people in the Swedish education system are adequately prepared for the work world. But what about out-of-school youth who fail to get a job? At one time, such youth were placed in subsidised Youth Teams (YT) which were involved in activities geared towards to local needs, and in which youth were provided with a general vocational base. According to Leckie (1997) the main problem with the YTs was their cost, which is the reason why they were discontinued. It may be also said that the Swedish approach generally is rather costly.

The German Programmes

Germany's dual training system is a highly institutionalised system that channels youth early on into an academic or vocational stream. The minority go into the former and continue on to university; the majority go into the latter, the "dual" apprenticeship system which combines mainly workplace training (3-4 days a week) with a lesser amount of formal vocational schooling (1-2 days). Youth select one of 400 occupations and find an apprenticeship position with an employer who pays the apprentice a minimum wage. At the end of the programme, trainees take a standardized test in the practical and theoretical aspects of the chosen trade, which permits them to enter the trade if successful. This programme seems to be a highly successful supply-side programme. Less-educated young workers have lower unemployment rates and higher relative earnings. Employers, unions and the government oversee this system, ensuring standardization of skills. Apprenticeships offer a good return for most young persons. However, the German apprenticeship system has its own problems. The number of apprenticeship contracts has fallen as more youths have chosen higher education. Youths who do not find a job immediately after their apprenticeship face a comparatively long period of non-employment, and those who fail an apprenticeship programme suffer long-term reductions in earnings (Franz et al., 1997). Another problem with the German approach is its inflexibility in not permitting young people to change their minds and move among occupations and between the academic and dual vocational streams.

The British Programmes

The British Youth Training (YT) programme, formerly the Youth Training Scheme (YTS), was a broad-based approach to integrating youth into the labour market. Under YTS, youth received work experience and off-the-job training that was subcontracted to small and mainly private agencies at public expense. YTS did facilitate the recruitment of large numbers of youth into apprenticeship and trainee positions. However, most of these positions were in areas that were in decline; moreover, success was dependent more on local economic conditions. A success factor was employer-involvement but employers' efforts benefited mainly the better-educated. The programme began to be phased out in the 1990s as employers began to lose interest in hiring youth in the face of declining subsidies. One lesson to be learned from this is that emergency schemes rarely work well or effect any real change. Another is to get employers more directly involved in the process (Leckie, 1997). Many studies have evaluated this programme For example, Dolton, Makepeace and Treble (1994) found that YTS lowered the probability of subsequent employment. Moreover, research into the effect of YTS on earnings by Green et al. (1996) has generally found a negative effect.

APPENDIX----------B

RESEARCH QUESTIONNAIRE

THE SCHOOL-TO-WORK TRANSITION AND YOUTH UNEMPLOYMENT IN SAUDI ARABIA: THE CASE OF AL-HASA PROVINCE

Research Questionnaire for Doctoral Study

by

Mohammed A. Bosbait

University of Durham 2003

Dear Respondent:

I am researching the school-to-work transition and youth unemployment in Saudi Arabia, and would like information about your experience on this subject.

Your answers will be kept confidential and they will never be identified with you. Your answers will later be analysed, along with the answers given by the other respondents, in order to describe what Saudi youth do in their transition from school to work, and how this affects chances of their employment. The recommendations of this study will be very important in tackling the unemployment problem in Saudi Arabia. The results of this study will be available in the first half of 2003, and a copy will be available to any one who is interested from the Ministry of Higher Education in Saudi Arabia.

I very much appreciate your assistance with this study. Thank you for your cooperation and time.

Anonymity

I am asking these questions to gather information about your school-to-work transition activities that cover your personal, family background, education/training, unemployment, and employment experience, which will help in the completion of this research project. If there are questions that you do not wish to answer, you may skip them; however, I hope that you will answer all of the questions. The answers that you give will never be identified as yours. Please do not put your name on the survey.

Researcher,

Mohammed A. Bosbait

NB. If you need further clarification of any question you may contact me on:

P. O. Box 11501

P. C. 31982

Al-Hasa, Al-Mobarraz

Phone #: 055919192

SECTION I-TO BE ANSWERED BY ALL RESPONDENTS

A- DEMOGRAPHIC CHARACTERISTICS

A-1 How old are you?	
00- 18-20	
01- 21-23	
02- 24-26	
A-2 Are you male or female?	
00- Male	
01- Female	
A-3 Are you married or unmarried?	
00- Married	
01- Unmarried	
A-4 Where do you live?	
00- Urban areas	
01- Rural areas	

B- FAMILY BACKGROUND CHARACTERISTICS

B-1 What is your father's employment status?	
00- Employed	
01- Unemployed	
02- Retired	
03- Other	
B-2 What is your father's occupational skill type?	
00- Manual	
01- Non-Manual	
B-3 What is your father's level of education?	
00- Below primary	
01- Primary certificate	
02- Elementary certificate	
03- Secondary certificate	
04- University Degree or higher	

B-4 What is the size of your family?	
00- 0-2	
01- 3-5	
02- 6-8	
03- 9 or more	
B-5 How many members of your family are currently unemployed?	
00- 0-2	
01- 3-5	
02- 6-8	
03- 9 or more	

C- EDUCATION AND TRAINING CHARACTERISTICS

C-1 What is your level of education?	
00- Below primary	
01- Primary certificate	
02- Elementary certificate	
03- Secondary certificate	
04- University Degree or higher	
C-2 What is the grade/class of your highest qualification?	
00- Pass	
01- Good	
02- Very good	
03- Excellent	
C-3 Do you have a secondary school certificate?	
00- Yes	
01- No (Go to C-8)	
C-4 Did you attend a higher education establishment?	
00- Yes	
01- No (Go to C-7)	
C-5 What kind of higher education establishment did you attend?	
00- University	
01- College of education	
02- Technical college	

C-6 What type of academic qualification do you hold?	
00- Art	
01- Science	
C-7 Please indicate to what extent the next four reasons influenced your decision to leave higher education 00= No or weak effect, 01= Moderate effect and 02= Great effect	
Could not get admission	
Not good at school	
Family request	
Securing employment	
C-8 Please indicate to what extent are you satisfied or dissatisfied with each of the following statements which assess the educational establishments 00= Dissatisfied, 01= Not sure and 02= Satisfied	
Helping you in education decision	
Preparing you for working life	
Informing you of unemployment problem	
Helping you to secure employment	
C-9 Do you have any training qualifications?	
00- No (Go to C-12)	
01- Yes	
C-10 Did you receive financial support while training?	
00- None	
01- Employer	
02- Government	
03- Family	
C-11 How long did it take to complete your training course?	
00- One week or less	
01- 2-3 weeks	
02- 1-3 months	
03- 4 months or more	

C-12 Please indicate to what extent each of the following influence your decision not to participate in training activities 00= Disagree, 01= Not sure and 02= Agree	
No government programme	
No appropriate programme	
Financial constraints	

D- LABOUR MARKET CHARACTERISTICS

D-1 Did you undertake paid work while you were at school?	
00- No	
01- Yes	
D-2 Please indicate what type of job you would prefer to have?	
00- Managerial	
01- Educational	
02- Medical	
03- Engineering	
04- Security	
05- Technical	
D-3 Please indicate to what extent you would prefer government employment to private sector or self-employment?	
00- Unfavourable	
01- Not sure	
02- Favourable	
D-4 Please indicate to what extent you would prefer to work only in (Al-Hasa Province) to working any-where in Saudi Arabia?	
00- Unfavourable	
01- Not sure	
02- Favourable	
D-5 According to your information, how would you describe the unemployment rate in Saudi Arabia?	
00- Low	
01- Not sure	
02- High	

SECTION II FOR THOSE WHO ARE IN FULL-TIME EDUCATION

E-1 Please indicate to what extent the following reasons influenced your decision to pursue your higher education studies 00= Disagree, 01= Not sure and 02= Agree	
To get a better education	
Family pressure	
To get a better paid job	
For future employment	
Monthly higher education allowance	
E-2 Please indicate your main field of study	
00- Business	01- Computer
02- Islamic and Quran studies	03- Arabic and English language
04- History or Geography	05- Education, art
06- Education, science	07- Technical studies
08- Medical studies	09- Agricultural studies
10- Home economic	
E-3 How long is your course duration?	
00- 3 years	
01- 4years	
02- 5 years	
E-4 Please indicate to what extent the following reasons influenced your decision to choose your field of study 00= Disagree, 01= Not sure and 02= Agree	
Course is easy	
Admission constraints	
Most interest	
Offers good employment prospects	
Family pressure	

E-5 What do you intend to do on completion of the course?	
00- Seek employment	
01-Join training course	
02- Post-graduate studies	
03-Homemaking	

SECTION III FOR THOSE WHO ARE UNEMPLOYED

F-1 How long have you been unemployed?	
00- 1-6 months	
01- 7-12 months	
02- 13-18 months	
03- 19-24 months	
04- 25 months or more	
F-2 Have you ever been employed?	
00- Yes	
01- No (Go to F-5)	
F-3 Please indicate to what extent the following reasons influenced your decision to leave your previous employment 00= Disagree, 01= Not sure and 02= Agree	
Poor monthly payment and financial benefits	
Unacceptable location	
Did not like the work	
Not suitable to my background	
Prefer prestige employment	
Not government employment	
F-4 What was your monthly payment in your last job?	
00- 1000 or less	
01- 1001-1500	
02- 1501-2000	
03- 2001-2500	

F-5 Please identify the minimum monthly payment you require to accept any employment offer		
00- 1000 or less	01- 1001-1500	
02- 1501-2000	03- 2001-2500	
04- 2501-3000	05- 3001-3500	
06- 3501-4000	07- 4001-4500	
08- 4501-5000	09- 5001-5500	
10- 5501-6000	11- 6001 or more	

F-6 How would you describe your job-search activity?	
00- Searching for employment	
01- Intending to search but have not started yet (Go to F-10)	
02- Not searching for employment (Go to F-10)	
F-7 Please indicate to what extent you have been using the following job-search methods 00= Never or rarely, 01= To certain extent and 02= Very much	
Civil services bureau	
Employment office	
Advertisements	
Different employment places	
Personal relationships	
F-8 Have you been offered and employment?	
00- Yes	
01- No (Go to F-10)	
F-9 Please indicate to what extent the following reasons influenced your decision to reject the employment offer 00= Disagree, 01= Not sure and 02= Agree	
Poor monthly payment and financial benefits	
Unacceptable location	
Did not like the work	
Not suitable to my background	
Prefer prestige employment	
Not government employment	
F- 10 How long do you expect to take to secure employment?	
00- 1-6 months	01- 7-12 months
02- 13-18 months	03- 19-24 months
04- 25 months or more	

SECTION IV FOR THOSE WHO ARE EMPLOYED

G-1 How long have you been employed?		
00- 1-6 months	01- 7-12 months	
02- 13-18 months	03- 19-24 months	
04- 3-4 years	05- 5-6 years	
06- 7 years or more		
G-2 What type of work do you do?		
00- Managerial	01- Educational	
02- Medical	03- Engineering	
04- Security	05- Technical	
06- Others		
G-3 What is your employer's sector?		
00- Government		
01-Parastatal		
02- Private		
G-4 Please identify your monthly payment		
00- 1000 or less	01- 1001-1500	
02- 1501-2000	03- 2001-2500	
04- 2501-3000	05- 3001-3500	
06- 3501-4000	07- 4001-4500	
08- 4501-5000	09- 5001-5500	
10- 5501-6000	11- 6001 or more	
G-5 Please indicate to what extent the following reasons influences your decision to accept your current employment 00= Disagree, 01= Not sure and 02= Agree		
Good monthly payment and financial benefits		
Acceptable location		
Like the work		
Suitable to my background		
Prestige employment		
Government employment		

G-6 Please indicate to what extent you used the following job-search methods to obtain your current employment 00= Never or rarely, 01= To certain extent and 02= Very much	
Civil services bureau	
Employment office	
Advertisements	
Different employment places	
Personal relationships	
G-7 Are you at present looking for another job?	
00- Yes	
01- No	
G-8 Please indicate to what extent the following reasons influenced your decision to look for another job 00= Disagree, 01= Not sure and 02= Agree	
Poor monthly payment and financial benefits	
Unacceptable location	
Did not like the work	
Not suitable to my background	
Prefer prestige employment	
Not government employment	

Pilot Test of the Survey Questions

1. Are there any questions that were hard to understand? If so, please provide the question number.

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2. Are there any words or phrases that you were not familiar with? If yes, please list them.

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3. Are there any question(s) on the survey that you feel should not be on the survey? If yes, please list the question number(s) and provide the reason(s).

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4. What did you like most about the survey? Least about the survey?

Most

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Least

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5. Was the survey too long?

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6. If you could change this survey, what would you most like to change?

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REFERENCES

Abdelrazek, S. (2001) Facing adversity. *Al-Ahram weekly*. [online] No. 550 Available from: http://www.ahram.org.eg/weekly/2001/550/ec2.htm [accessed 27 th October 2001]

Abrahart, A., et.al. (2000) Government employment and active labor market policies in MENA in a comparative international context. In: *The 3rd Meeting of Mediterranean Develobment Fouram, Cairo, March 5–8, 2000.*

Ahmed, S. (1992) *Saudization of Saudi labour market.* Riyadh: Institute of Diplomatic Studies.

Ahuja, V. and Filmer, D. (1995) *Education attainment in developing countries: new estimation and projection disaggregate by gender.* World Bank Working Paper No. 1489. World Bank.

Air University Office of Academic Affairs, (1996) *Sampling and surveying handbook.* [online] Available http://www.au.af.mil/au/awc/awcgate/edref/smpl-srv.pdf [accessed 25 th December 2002]

Al-Dekhayyel, N. and Abdulgabar, A. (2001) Building relations between education and the employer sectors in technical and vocational training. In: *TVET Planning and Real Result for the 21st Century, Asia Pacific Conference, Adelaide, March 25–29, 2001.*

Alexandrescu, M. (2000) *Unemployment in Romania during transition*. [online] Available from: http://www.soc.lu.se/soc/distans/socrates/mastercourse/romania.PDF [accessed 19 th July 2002]

Al-Ghamdi, A. (1994) *Factors influencing advancement of technical education and vocational training and their impact on economic development in Saudi Arabia.* Unpublished Ph.D. thesis. University of hull, UK.

Al-Ghayth, M. and Al-Mashouq, M. (1996) *Employment of Saudi labour force in the private sector*. Riyadh: Institute of Public Administration.

Al-Ghofaily, I. (1980) *Saudi youth attitudes towards work and vocational education: a constraint on economic development.* Unpublished Ph.D. Dissertation. Florida State University, Miami, Florida.

Allen, R. C. (1998) The employability of university graduates in the humanities, social sciences, and education: recent statistical evidence. Discussion Paper No. 15. Department of Economics, University of British Columbia.

Al-Maeena, K. (1997) A vision and a strategy for Saudization/Gulfization. Arab News newspaper. Saudi Arabia.

Al-Ogla, H. (1990) *Obstacles to Saudization in the private sector of the Saudi Arabian labour force*. Unpublished Ph.D. Dissertation, Michigan State University, USA.

Alqahtany, S. and Mallah, S. (2000) Technical education in Saudi Arabia. *Proceeding of the 6th Pacific Conference on Manufacturing: USA 2000. pp. 519-526.*

Al-Turaigi, A. (1997) *Oil revenues and social economic development of the southern region of Saudi Arabia.* Unpublished Ph.D. thesis. University of Exeter, UK.

Al-Twaijiri, I. and Habib, M (1987) *Foreign and local employment in Saudi Arabia*. Riyadh: Institute of Public Administration.

Al-Wakeel, D. (2002) Arab world must work together to achieve self-sufficiency: *Jordan Times*, [online] Available from:http://www.jordanembassyus.org/07032002003.htm [accessed 8th January 2003]

Andrews, M. and Bradley. (1997) Modelling the transition from school and the demand for training in the United Kingdom. *Economica*, August, pp. 387-413.

Appleby, M. and Eyres, D. (2002) Saudi Arabia faces a tough 2002: catalyst for change? *Gulf business,* [online] 6 (11) Available from: http://www.gulfbusiness.com/cgilocal/index.cgi?month=Mar+2002 [accessed 9th May 2002]

Arab News, (2003) Manpower Council eyes dole scheme for jobless. [online] Available from: http://www.arabnews.com/Article.asp?ID=21781 [accessed 9th January 2003]

Armstrong, D. (1997) *Staying on in full-time education in Northern Ireland: an economic analysis*. Research Report Series, No. 7. Department of Education for Northern Ireland.

Ashton, D. N. and Sung, J. (1991) Labour markets and the life course patterns of young adults in Britain. In W P Heinz (ed). *Life course and social change:* comparative studies in labour market and social policy. Weinheim: Deutscher Studien Verlag, pp. 23-42.

Auer, B. (1999) *Issues and concepts of youth development.* [online] Youth Program for Development and Cooperation. Available from http://www.idc.org/gmg/Youthpaper.htm [accessed 22nd November 2002]

Babbie, E. (1995) *The practice of social research*. 7th ed. Belmont, CA: Wadsworth.

Baily, K. D. (1978) *Methods of social research*. London: Collier-Macmillan.

Banks, C. A. (1993) Restructuring schools for equity-what we have learned in two decades. *Phi Delta Kappan, 75* (1), 42-48.

Barron, J. M. et.al. (1989) Job matching and on-the job training. *Journal of labour economics*, 7(1), pp. 1-19.

Bartram J, (1999) Flexible access to technical and vocational education. In: *The 2nd International Congress on Technical and Vocational Education (UNESCO), Seoul, Korea, 27 April, 1999.*

Bashir, A. (1999) *Women and Saudization.* [online] Available from: http://www.arabnews.com/Supplement/supplement29.htm [accessed 13th June 2001]

BBAC (The Bank of Beirut and the Arab Countries), (2001) *Economic report: Saudi Arabia,* 2nd Quarter. [online] Available from: http://www.bbacbank.com/index_Economic_Report.htm [accessed 13th June 2002]

Becker, G. and Tomes, N. (1986) Human capital and the rise and fall of families. *Journal of labor economics*, 4 (3), pp. S1-S39.

Becker, G. S. (1964). *Human capital.* New York: Columbia University Press

Becker, G. S. (1975) *Human capital*, 2nd ed. Chicago: The University of Chicago Press.

Becker, G. S. (1993) *Human capital.* Chicago: The University of Chicago Press.

Becker, G. S. (1993) *Human capital: a theoretical and empirical analysis with special reference to education*. 3rd ed. Chicago: The University of Chicago Press.

Becker, G. S. (1993) Nobel lecture: the economic way of looking at behavior. *Journal of political economy* 101 (3), 385-409.

Bennell, P. and Segerstrom, J. (1998) Vocational education and training in developing countries: has the World Bank got it right? *International journal of educational development*, 18 (4), pp.271-287.

Bennell, P. (1999a) *Learning to change: skills development among the economically vulnerable and socially excluded in developing countries.* Employment and Training Papers, No 43. Geneva: ILO.

Bennell, P. (1996) General versus vocational secondary schooling in developing countries: a review of the return evidence. *Journal of development studies*, 33(2), pp. 230-247.

Bergerud, W. A. (1996) *Introduction to regression models: with worked forestry examples.* Biometrics Information Handbook No.7 British Columbia, Ministry of Forests Research Program, Working Paper, No. 26.

Birdsall, N. and Sabot, R. H. eds. (1996) *Opportunity forgone: education in Brazil.* Inter-American Development Bank, Washington, DC.

Blanchflower, D. and Freeman, R. (1998) Why youth unemployment will be hard to reduce. *Policy Option,* 19(13), pp. 3-6.

Blanchflower, D. and Freeman, R. (1999b) The declining economic status of young workers in OECD countries. In: *Youth Employment and Joblessness in Advanced Countries.* David G. Blanchflower and Richard B. Freeman, eds. Chicago: University of Chicago Press.

Blaug, M. (1976) A View on human capital: a Slightly Jaundiced Survey. *Journal of economic literature*, 14(3), pp. 827-855.

Bloch, F. E and Smith, S. P. (1975) *Human Capital and Labor Market Employment* [online] Available from: http://www.irs.princeton.edu/pubs/pdfs/82.pdf [accessed 6th December 2002]

Bolina, P. (1996) *Financing technical and vocation education: modalities and experiences.* UNESCO. Document No. ED/IUG/006.

Bradbury, B. et.al. (1986) Youth unemployment and intergenerational immobility. *Journal of industrial relations*, 28 (2), pp. 191-210.

Bradley, S. (1990) School-leaver unemployment: a proactive approach. *Applied economics*, 22, pp. 439-461.

Bratberg, E. and Milson D. A. (1998) *Transition from School to Work: search time and lob duration.* University of Bergen. Department of Economics, Bergen, Norway.

Bray, M. (2002) *The costs and financing of education: trends and policy implications.* Series 'Education in Developing Asia'. Manila: Asian Development Bank (ADB).

Bruno, C. and Cazes, S. (1997) *French youth unemployment an overview.* Geneva: ILO.

Bryman, A. (1989) *Research methods and organisation studies*, London: Unwin Hyman.

Bumagina, M, and Cintina, I. (2001) *Labour market flows in Latvia.* [online] Available from: http://www.eurofaculty.lv/papers/DownloadsEconomics/Marija_Bumagina.pdf [accessed 24th August 2002]

Caribbean Latin American Action, (1998) *Hemisphere at a crossroads: education and human capital for the information age.* [online] Available from: http://www.giic.org/focus/edu/hemisphere.pdf [accessed 9 th December 2002]

Carnoy, M. (1995) *Encyclopedia of economics of education.* 2nd ed. Oxford: Pergamon.

Carolyn, F. S. (1997) *Who is unemployed? factors affecting unemployment among individuals with doctoral degrees in science and engineering*. National Science Foundation, Division of Science Resources Studies, Special Report No. 336. Arlington, Virginia.

CCFI (The Consulting Center for Finance and Investment), (2002) *Saudi budget 2002 analysis and implication.* [online] Available from: http://www.menafn.com/updates/research_center/Saudi_Arabia/Special_Ed/CCFIbudget0120 .pdf [accessed 11th June 2002]

Chamber of Commerce and Industry, (1990) *The role of Saudi labour force in the industry.* Riyadh, Saudi Arabia: The Chamber of Commerce and Industry.

Champion, D. (1999) *The kingdom of Saudi Arabia: elements of instability within stability. Middle East Review of International Affairs.* [online] 3(4) Available from: http://www.biu.ac.il/SOC/besa/meria/journal/1999/issue4/jv3n4a4.html [accessed 9th May 2001]

Chaplin, D. and Jane H. (1996) *High school employment: meaningful connections for at-risk youth.* [online] Available from: http://www.urban.org/education/appam4b.htm [accessed 29th December 2002]

Chapman, D. and Adams, D. (2002) *The quality of education: dimensions and strategies.* The University of Hong Kong, Comparative Education Research Centre (CERC), Asian Development Bank (ADB).

Chernichovsky, D. (1985) Socioeconomic and demographic aspects of school enrollment and attendance in rural Botswana. *Economic Development and Cultural Change,* 32(1), pp.319– 332.

Churchill, G. A. (1995) *Marketing research.* 5th ed. Chicago: Dryden.

CIA, World Fact book (1997) *Saudi Arabia.* World Fact Book. Washington, DC, US Central Intelligence Agency.

Clover, V. T. and Balsley, H. L. (1984) *Business research methods.* 3rd ed. New York: John Wiley and Sons,Inc.

Coleman, J. (1988) Social capital in the creation of human capital. *American journal of sociology*, 94 (Supplement), pp. 95-120.

Coleman, J. (1994) *Foundations of social theory.* Cambridge: Belknap.

Cooper, D. R. and Emory, C. W. (1995) *Research methods*. IL: Richard D. Irwin, Inc.

Cordahi, C. (2002) *The kingdom needs cash Saudi Arabia, its wealth on the wane, courts foreign investors.* [online] Available from: http://www.bloomberg.com/marketsmagazine/ft3_0203.pdf [accessed 4th March 2002]

Cordesman, A. H. (2002) *Saudi Arabia enters the 21st century.* [online] Center for Strategic and International Studies Washington, DC, United States. Available from: http://www.csis.org/burke/saudi21/saudimilenters21_IV_econdemo.pdf [accessed 12th January 2002]

De Bartolo, A. (1999) *Modern human capital analysis: estimation of US, Canada and Italy Earning Functions*. Syracuse University. Luxembourg Income Study (LIS), Working Papers No. 212. Syracuse, New York.

De Vaus, D. A. (1996) *Surveys in social research*. London: UCL Press.

Denison, E. F. (1962) *The Sources of economic growth in The United States and the alternatives before Us.* Committee for Economic Development, New York.

Denny, J. and Harmon, P. (2000) *the impact of education and training on the labour market experiences of young adults.* ESRC: Institute for Fiscal Studies, Working Paper No. 8. UK.

Derhally, M. (2002) *Unemployment on the rise in Saudi Arabia.* [online] ITB Network. Available from: http://www.itp.net/news/103270472438275.htm [accessed 22nd November 2002]

Dillman, D. (1978) *Mail and Telephone Surveys: The Total Design Method.* New York: John Wiley and Sons, INC.

Diwan, I. and Girgis, M. (2002) *Labor force and development in Saudi Arabia. [online]* Available from: http://www.futurevision2020.co.uk/agenda_tuesday.html *[*accessed 16th December 2002*]*

Dolton, P. et.al. (1994) The youth training scheme and the school to work transition. *Oxford Economic Papers*, 46(4), pp. 629-657.

DUCCI, M. (1991) *Financing vocational training in Latin America.* Training discussion papers, No. 71. Geneva: ILO.

Ducharme, L. (1998) Introduction: main theories and concepts. In: *Measuring intangible investment,* Paris: OECD.

Dustmann, C. et.al. (1998) *School quality, exam performance, and career choice*. Center for Ecomomic Research, Discussion Paper No. 9816, Tilburg University, The Netherlands.

East Asia Analytical Unit, (2000) *Accessing Middle East growth: business opportunities in the Arabian Peninsula and Iran.* [online] Available from: http://www.dfat.gov.au/publications/megrowth/megrowth.pdf [accessed 16th January 2002]

Economic Policy, (2000) The virtual economy homepage [online] Available from: http://www.bized.ac.uk/virtual/economy/policy/ [accessed 1st April 2000]

Elsworth, G. and Day, A. (1983) Eligibility and self selection: discontinuities in transition to tertiary education in Victoria. *Australian Journal of Education,* 27(1), pp. 62-77.

Emory, C. W. (1985) *Research methods*. Homewood, IL: Richard D. Irwin, Inc.

ESRI (The Economic and Social Research Institute), (1998) *1998 annual school leavers' survey.* [online] Available from: http://www.ireland.com/newspaper/special/2000/school/ [accessed 11th December 2002]

Ferguson, L. (1995) A SAS macro to test the significance of differences between parameter estimates in PROD CATMOD, *Perspective*, 18(2), pp. 25-29.

Filer, R. et.al. (1996) The e*conomics of work and pay*. 6th ed. New York, HarperCollins.

Filmer, D. and Pritchett, L. (1998) *The effect of household wealth on educational attainment around the world: demographic and health survey* evidence. World Bank, Working Paper No 1980.

Fink, A. (1995*) How to ask survey questions.* California: Sage Publications.

Fowler, F. J. (1993) *Survey research methods*. 2nd ed. California: Sage Publications.

Franz, W. et.al. (1997) *Young and out in Germany: on the youths' chances of labor market entrance in Germany*. NBER Working Paper No. 6212. Cambridge: MA.

Frey, J. H. (1989) *Survey research by telephone.* 2nd ed. California: Sage Publications.

Furlong, A. (2002) Global youth employment and the impending catastrophe. [online] In: *United Nation Expert Meeting on Global Priorities for Youth Helsinki, October 6-10.* Available from: http://www.un.org/esa/socdev/unyin/helsinki/ [accessed 30th November 2002]

Gardecki, R. and Neumark D. (1998) Order from chaos the effects of early labor market: experiences and adult labor market outcomes. *Industrial and labor relation review,* 51(2), pp. 299-332.

Gardecki, R., and Neumark, D. (1995) *Early labor market experiences and their consequences for adult labor market outcomes*. Washington, DC: Office of Technology and Assessment, U.S. Congress.

Gardner, W. (1995) Developing a quality teaching force for the United Arab Emirates: mission improbable. *Journal of education for teaching,* 21(3). pp. 289-302.

Garner, C. et.al. (1988) The distribution of school-leaver unemployment within Scottish cities. *Urban Studies*, 25(2), pp. 133-144.

Gavin, T. M. (1996) Research forum--methodology- measurements, part i: principles and theory. Journal of prosthetics and orthotics, [online] 8(2), pp.45-49. Available from: http://www.oandp.org/jpo/library/1996_02_045.asp [accessed .27th ctober 2002]

Gilbert, L. (2001) Human capital and labour market transitions of older workers. Applied Research Branch Strategic Policy, R-01-3E, Human Resources Development Canada.

Giles, P. and Drewes, T. (2001) Liberal arts degrees and the labour market. *Perspectives on labour and income*, 13(3) pp.242-248.

Girgis, M (2000) National versus migrant workers in the GCC: coping with change. In: *Mediterranean Development Forum: Cairo, Egypt. March 5-8, 2000.*

Gladys, L. A. (1999) Learning outcomes and school cost-effectiveness in Mexico: the pare program . Policy Research Working Paper, No. 2028. World Bank

Glewwe, P. and Hanan, J. (1994) Student achievement and schooling choice in low-income countries: evidence from Ghana. *Journal of human resources,* 29(3), pp. 843-864

Green, F. et.al. (1996) The effects of company training, further education and the youth training scheme on the earnings of young employees. *Oxford bulletin of economics and statistics*, 58(3), pp. 469-488.

Greene, W. (1993) *Econometric analysis*. 2nd ed. New York: Macmillan.

Greene, W. (1991) *Econometric analysis*. New York: Macmillan.

Gregg, P. et.al. (2001) *Mobility and joblessness*. [online] Available from: http://www.nber.org/books/bcf/mobility3-1-01.pdf [accessed 09July 2002]

Gregory, M. and Robert, J. (1997) *The Effects of unemployment on subsequent earnings: a study of British men 1984-94'*, Mimeo, St. Hilda's College, Oxford University.

Griliches, Z. (1974) Errors in variables and other unobservables. *Econometrica*, 42(6), pp. 971-998.

Guilfoy, V. and Wong, J. (2002) The state of youth employment: the demography of youth and recommendations for youth employment strategies. [online] In: *Youth Employment*

Summit, 7-11 September 2002, Alexandria, Egypt. Available from: http://www.youthemploymentsummit.org/gkr/res/bg.stateofye.ps.pdf [accessed 29th November 2002]

Gulf Base, (2002) *Kingdom of Saudi Arabia* [online] Available from: http://www.gulfbase.com/economy/index.asp?tab=economy&section=iii [accessed 8th January 2003]

Gulf Wire Digest, (2000) Country analysis brief on Saudi Arabia. [online] Available from: http://www.arabialink.com/CDSupport/GWCD2002/GWDigests/GWD2000/GWD_2000_1113.hm [accessed 16th November 2001]

Hallak, J. (1990) *Investing in the future: setting educational priorities in the developing world.* Paris: UNESCO.

Hammer, T. (1996) Consequences of unemployed in the transition from youth to adulthood in a life course perspective? *Youth and society*, 27(4), pp. 450-468.

Hanushek E. A (1992) The trade-off between child quantity and quality. *Journal of political economy,* 100(1), pp. 84–117.

Harris, M. (1996) Modelling the probability of youth unemployment in Australia. *The economic record*, 72(217), pp.118-129.

Hashimoto, M. and Miller R. (1999) *How do training and early labour market experience affect the economic well-being of youths?* Mimeo, Ohio State University.

Hawes, H. and Stephens, D. (1990) *Questions of quality: primary education and development.* Essex: Longman.

Haywood, G. C. et al. (1993) *A literature review for tech prep*. National Center for Research in Vocational Education, University of California at Berkeley. Berkeley: California.

Hernández, L. (2001) *Unemployment and household structure in Mexico.* [online] Department of Economics. Instituto Tecnológico Autónomo de México. Available from: http://www.udesa.edu.ar/lames2001/papers/hernandez_licona.pdf [accessed 10th Septemper 2002]

Hershbach, R. (1993) *Financing vocational education and training in developing countries.* Training Discussion Paper No. 111. Geneva: ILO.

Heyneman, S. and Loxley, w. (1983) *The effect of primary school quality on academic achievement in less developing countries.* World Bank Working Paper No. 310. World Bank.

Hoenack, S. (1996) The economic of education in developing countries: an assessment of the state of art. *Economic education review,* 15(4), pp. 377-338.

Hofstede, G. (1980) *Culture's consequences: international differences in work related values.* California: Sage Publications.

Holmes,T. J. and Schmitz J. (1994) *Resistance to technology and trade between areas.* Staff Report 184. Federal Reserve Bank of Minneapolis, Research Department, Minnesota.

Horn, L., and Chen, X. (1998) *Toward resiliency: at-risk students who make it to college.* Washington, DC: U.S. Department of Education.

Huck, S. W. and Cormier, W. H. (1996) *Reading statistics and research.* 2nd ed. New York: Harper Collins.

Human Resources Development Canada, (1989) *Evaluation of the job entry program: final report*. Ontario: Canada.

Human Resources Development Canada, (1994) *Training outcomes study: an examination of findings related to federally-sponsored DPO training*. Final Draft. Ontario: Canada.

Hussmanns, R. (1994) International standards on the measurement of economic activity, employment, unemployment and underemployment. In: Chernysheve, Igor ed. *Labour Statistics for a Market Economy.* London: Central European University Press.

Husted, L. and Badsgaard, M. (1995) *Education and unemployment.* [online] Institute of Local Government Studies-Denmark. Available from: http://www.akf.dk/eng/educatio.htm [accessed 10th June 2002]

Imel, S. (1993) *Youth apprenticeships: trends and issues alerts*. Washington, D.C.: Office of Educational Research and Improvement.

ILO (International Labor Organisation) (1998a) *World Employment Report 1998-1999: Increasing the employability of vulnerable groups.* [online] Available from: http://www.ilo.org/public/english/bureau/inf/pkits/wer98/wer98ch6.htm [accessed 10th January 2000]

ILO (International Labor Organisation) (1999) *Employment services and the introduction of youth schemes: the case of the United Kingdom.* [online] Available from: http://www.ilo.org/public/english/dialogue/govlab/admitra/papers/1999/doc58/ [accessed 28th November 2002]

ILO (International Labor Organisation), (1996) *Comparable annual employment and unemployment estimates.* Bulletin of labour statistics. pp. 39-40. ILO: Geneva.

ILO (International Labor Organisation), (1998b) World employment report 1998-99: employability in the global economy, how training matters. [online] Available from: http://www.ilo.org/public/english/employment/strat/stwer/wer98.htm [accessed 10th January 2000]

ILO (International Labor Organisation), (2001) *Youth and work: global trends.* Geneva: ILO.

ILO (International Labor Organisation), (2002) *The Youth Employment challenge: a guide for employers.* [online] Available from: http://www.jobsletter.org.nz/jbl16010.htm [accessed 15th December 2002]

ILO (International Labour Office), (1995) *Employment generation and poverty reduction in Uganda.* [online] ILO Office: Addis Ababa, Ethiopia. Available from: http://www.ilo.org/public/english/region/afpro/addisababa/papers/1997/pover_ug/ [accessed 12th January 2000]

Isengard, B. (2001) Youth unemployment in the European Union trends and individual risk factors. German Institute for Economic Research, *Economic bulletin*, 38(3), pp.91-98.

Isengard, B. (2002) *Youth unemployment: individual: risk factors and institutional determinants. a case study of Germany and the United Kingdom.* Discussion Paper No. 284. German Institute for Economic Research,

Johnson, D. (1995) Developing an approach to educational management development in South Africa. *Comparative education,* 31(2), pp. 223-241.

Johnson, D. et.al. (2000) *The quality of learning and teaching in developing countries: assessing literacy and numeracy in Malawi and Sri Lanka*. Education Research Paper No. 41. Department for International Development, UK.

Johnson, E. R. (1997) Benefits of school-to-work program participation: perceptions of students and comparison of pre and post grades and attendance. [online] Available from: http://scholar.lib.vt.edu/theses/available/etd-11197-111110/unrestricted/etddiss.pdf [accessed 14th December 2000]

Joyce, F. A., (2000) Policy goals: maximum employment. In: *Macroeconomic Stabilization Policies: Goals, Institutions, and Theories.* [online]. 8th ed. Available from: http://www.drfurfero.com/books/231book/book.html [accessed 28th November 2002]

Kalton, G. (1983) *Introduction to survey sampling.* Sage University Paper series on Quantitative Applications in the Social Sciences. Series No. 07-035. Beverly Hills and London: Sage Publications.

Karp, H. (2002) *Using logistic regression to predict customer retention.* [online] Available from: http://www.kcasug.org/mwsug1999/pdf/paper64.pdf [accessed 12th July 2002]

Katz, M. (2001) *Saudi economic woes could have implications for anti terrorism campaign.* [online] Available from: http://www.eurasianet.org/departments/insight/articles/eav121801.shtml [accessed 11th February 2002]

Kennedy, P. (1996) A guide to econometrics. 3rd ed., Oxford: Blackwell Publishers Ltd.

Kerre, B. W. (1990) Technology education and world development: challenges and opportunities for education in Africa. *The Journal of epsilon pi tau,* 16(1), pp. 40-46.

Klerman, J. A., and Karoly, L. A. (1995a) *The transition to stable employment: the experience of youth in their early labor market career.* Berkeley: National Center for Research in Vocational Education, University of California at Berkeley.

Knighton, T. and Mirza, S. (2002) Postsecondary participation: the effects of parents' education and household income. *Education quarterly review,* 8(3), pp. 25-33.

Krahn, H. (1996) *School-to-work transitions: changing patterns and research needs.* Discussion Paper for Applied Research Branch, Human Resources Development Canada.

Kramer, J. S. (1991) *The logit model: an introduction for economists.* 2nd ed. London: Timberlake Consultants LTD.

Kryger, T. (1999) The risk of unemployment. [online] Available from: http://www.aph.gov.au/library/pubs/rn/1998 99/99rn16.htm [accessed 12th August 2002]

Lamb, S. and Rumberger, R. (1999) *The initial work and education experiences of early school leavers: a comparative study of Australia and the United States.* LSAY Research Report No. 14. Melbourne: ACER Press.

Lankard, B. A. (1994) *Employers' expectations of vocational educatio*n. Available from: http://www.ed.gov/databases/ERIC_Digests/ed376273.html [accessed 17th July 2002]

Lareau, A. (1987) Social class difference in family-school relationships: the importance of cultural capital. *Sociology of education,* 60(2), pp.73-85.

Lassibille, G. et.al. (2001) Youth transition from school to work in Spain, *Economic of education review*, 20(2), pp. 139-149.

Law C. et.al. (1992) *What does research say about school to-work transition?* [online] North Central Regional Educational Laboratory (NCREL), United States. Available from: http://www.ncrel.org/sdrs/areas/stw_esys/7sch2wrk.htm [accessed .18th March 2001]

Le, T. and Miller, P. (1999) *A risk index approach to unemployment: an application using the survey of employment and unemployment patterns*. Canberra: Australian Bureau of Statistics.

Leckie, N. (1997) *Literature review on school-to-work transition*. [online] Available from: http://www.ekos.ca/swt.html [accessed 8th October 2000]

Lehmkuhl, L. D. (1996) Nonparametric statistics: methods for analysing data not meeting assumptions required for the application of parametric tests. *Journal of prosthetics and orthotics*, 8(3), pp.105-113.

Li, D. (2000) Logistic regression model processing and practical methodology. [online] Available from: http://web.valuenet.net/gbbindao/workExample2/LogisticMethodology.htm [accessed 26th August 2002]

Lindley, J. et.al. (2002) *Regional mobility and unemployment transitions in the UK and Spain*. Leverhulme Centre for Research on Globalisation and Economic Policy, University of Nottingham.

Lindley, R. (1996) The school-to-work transition in the United Kingdom. *International labour review*, 135(2), pp. 159-180.

Livingstone, D. W. (1999) Beyond human capital theory: the underemployment problem. [online] Available from: mhttp://www.oise.utoronto.ca/~dlivingstone/beyondhc/ [accessed 6th December 2002]

Lucas, R. E. (1988) On the mechanics of economic development. *Journal of monetary economics*, 22(2), pp.3-42.

Lucas, R. E. (1993) Making a miracle. *Econometrica*, 61(2), 251-272.

Lunsford, B. R. (1993) Methodology: variables and levels of measurement. *Journal of prosthetics and orthotics*, 5(4), pp.121-24.

Lunsford, B. R. (1993). Statistics: Screening and data summary. *Journal of prosthetics and orthotics*, 5(4), pp.125-30.

Lynch, L. (1987) Individual differences in the youth labour market: a cross-section analysis of London youths. In: Junankar, P. ed. (1987). *From School to Unemployment? The Labour Market for Young People.* London: Macmillan.

Lynch, L. (1989) The youth labor market in the eighties: determinants of re-employment probabilities for young men and women. *Review of economics and statistics*, 70(1), pp. 37–45.

Mansuy, M. et.al. (2001) *The transition from education to working life: key data on vocational training in the European union*. Thessalonica, Greece: European Centre for the Development of Vocational Training.

Marks, G. and Ainley, J. (1999) *School achievement and labour market outcomes*. Discussion Paper No. 408. Centre for Economic Policy, Australian National University.

Marshall, M. G. (1998) *Questionnaire design: asking questions with a purpose*. [online] Available from: http://agpublications.tamu.edu/pubs/ee/d1369.pdf [accessed 14th January 2003]

McCoy, S. and Whelan, B. (1996) *The economic status of school leavers 1993-95: results of the school leavers' surveys*. Dublin: Economic and Social Research Institute (ESRI).

McIntosh, S. (1998) *The demand for post-compulsory education in four European countries*. Discussion Paper No. 393. Centre for Economic Performance, London School of Economics.

Mellahi, K. (2000) Human resource development through vocational education in gulf cooperation countries: the case of Saudi Arabia. *Journal of vocational education and training*, 52(2), pp. 331-347.

Middleton, J. et.al. (1993) *Skills for productivity vocational education and training in developing countries*. New York: Oxford University Press.

Miles, J. E. (1994). Preparing students for a changing work world. In A. Mcentee eds. *Expanding Horizons in Business Education*, pp. 66-80. Virginia: National Business Education Association.

Miller, P. and Neo, L. (1997) Immigrant unemployment: the Australian experience. *International migration*, 35(2), pp. 155-183.

Miller, P. W. (1998) Youth unemployment: does the family matter? *The Journal of industrial relations*, 40(2), pp. 247-276.

Mincer, J. (1976) Unemployment effects of minimum wages. *Journal of political economy*, 84(2), pp. S87-S105.

Mincer, J. (1994) Human capital: a review. In: *Labour Economics and Industrial Relations: Markets and Institutions*. Kerr C. and Staudohar, P. eds. pp. 109-141. Cambridge: Harvard University Press.

Mincer, J. 1996. Job training: costs, returns, and wage profiles, In: Ashenfelter, O. C. and Lalonde, R. J. eds. *The economics of training*, Vol. I pp.105-123. UK: Edward Elgar.

Mingat, A. and Tan J. P. (1998) *The mechanics of progress in education: evidence from cross-country data*. Policy Research Working Paper, No. 2015. World Bank.

Mitchell, J. R. (1989). *An analysis of the effectiveness level achieved by a business-partnership academy in a medium sized, comprehensive high school*. Unpublished Doctoral Dissertation, Northern Arizona University, USA.

Monks, J. (2000) The returns to individual and college characteristics evidence from national longitudinal survey of youth. *Economic of education review*, 19(3), pp 279-289.

Mortimer, J. T. and Finch, M. D. (Eds.) (1996) *Adolescents, work, and family: an intergenerational developmental analysis*. Thousand Oaks, California: Sage Publications.

Mosa, A. (2000) Pressures in Saudi Arabia. *International higher education*. [online] No. 20. Available from: http://www.bc.edu/bc_org/avp/soe/cihe/newsletter/News20/text13.htm [accessed 24th October 2002]

Mosker, A. (1998) *Getting started: an overview of youth employment issues and programs*. Publication of Canada West foundation. Working paper No. 3. Canada.

Mulligan, W. and Vidal, E. S (1990). *The Aramco reports on Al-Hasa and Oman 1950-1955*. Archive Eds'90 [online] Available from http://www.archiveeditions.co.uk/Leafcopy/225-3.htm[accessed 9th January 2003]

Murugasu, V. (1991) Technical and vocational education and training: an overview. *Proceedings of the Regional Seminar on Technical and Vocational Training held in January in Manila 1990*. Asian Development Bank in Co-operation with the World Bank. .

Nachmias, C, and Nachmias, D. (1996) *Research methods in the social sciences*. 5th ed. New York: St. Martins.

NCB (The National Commercial Bank), (1994) Privatization in the Gulf. *The NCB economist*, 4(9). Saudi Arabia.

O'Neill, D. and Olive, S. (1998) Intergenerational mobility in Britain: evidence from unemployment patterns. *Oxford bulletin of economics and statistics*, 60(4), pp. 431-447.

OECD (Organisation for Economic Co-Operation and Development), (1984) *The nature of youth unemployment: an analysis for policy makers*. Paris: OECD.

OECD (Organisation for Economic Co-Operation and Development), (1998) *Human capital investment.* Paris: OECD.

OECD (Organisation for Economic Co-Operation and Development), (2000) *From initial education to working life: making transitions work*. Paris: OECD.

OECD (Organisation for Economic Co-Operation and Development), (2001) Investment in human capital through post compulsory education and training. [online] Available from: http://www.oecd.org/pdf/M00023000/M00023497.pdf [accessed 6th December 2002]

OECD (Organisation for Economic Co-Operation and Development), (1998) Getting started, settling in: the transition from education to the labour market In: *OECD employment outlook 1998*, pp. 81-122. Paris: OECD.

O'Higgins N. (1997) *The challenge of youth unemployment.* [online] Available from: http://www.ilo.org/public/english/employment/strat/publ/etp7.htm [accessed 29th November 2002]

O'Higgins, N. (2001) *Youth unemployment and employment policy: A global perspective*, Geneva: ILO.

Okano, K. (1993) *School to work transition in Japan: an ethnographic study.* Philadelphia: Multilingual Matters Ltd.

Orr, M. T. (1995) *Wisconsin youth apprenticeship program in printing: evaluation 1993-1995*. Boston, MA: Jobs for the Future (JFF).

Oxfam International, (2001) *Education: tackling the global crisis.* [online] Available from: http://www.oxfam.org/eng/pdfs/pp0104_Education_Tackling_the_global_crisis.pdf [accessed 27th November 2002]

Ozturk, I. (2001) The role of education in economic development: a theoretical perspective. *Journal of rural development and administration*, 33(1), pp. 39-47.

Paleocrassas, S. et.al. (2000) *Upper secondary curriculum options and labor market performance: evidence from a graduates survey in Greece*. Pedagogical Institute, Athens.

Pantin D. A., (1996). *The challenge of youth unemployment in the Caribbean: the role of youth employment training programmes*. Caribbean Office: ILO.

Parent, D. (1999) *Labour market outcomes and schooling in Canada: has the value of a high school degree changed over time*?. The Centre for Interuniversity Research and Analysis on Organisation (CIRANO) Research Report 99s-42, Montreal, Canada.

Payne, J. (2000) *Young people not in education, employment or training data from the England and Wales* youth cohort study. *Department for Education and Employment (DEFF)*. Policy Studies Institute No. 201. United Kingdom.

Psacharopoulos, G. (1987) *Economics of Education: research and studies*. Oxford: Pergamon Press.

Psacharopoulos, G. and Loxley, W. (1985) Curriculum diversification in Colombia and Tanzania: an evaluation. Baltimore: Johns Hopkins University Press.

Psachoroulos, G. (1994) *Return to investment in education; global view*. Washington, DC: The World Bank.

Quiggin, J. (1995), *Should we be investing more in education?* Department of Economics, James Cook University, Canberra.

Raul, P. (1996) The training of school leavers: complementary or substitution? In: *The 3rd European Science Foundation (ESF) Workshop of the Network on Transition on Youth, Youth Transition in Europe: Theories And Evidence. La Ciotat, September 1996. Marseille.*

Revenga, A. et.al. (1994) *The Impact of Mexico's retraining program on employment and wages.* World Bank economic review, 8(2), pp. 247-277.

Rice, P. (1999) The impact of local labour markets on investment in further education: evidence from the England and Wales youth cohort studies. *Journal of population economic,* 12(2), pp 287-312.

Riphahn R. (1999) *Residential location and youth unemployment: the economic geography of school –to-work transition*. Institute for the Study of Labor, Discussion Paper No. 99. Bonn.

Robinson, B. (1996) Distance education for primary teaching training in developing countries, In J. Lynch, C. Modgil, and S. Modgil eds. *Education and Development: Tradition and Renovation.* Vol. 3, London: C-Cressell Educational.

Roscoe, J.T. (1975) *Fundamental research statistics for the behavioural sciences*. 2nd ed. New York: Holt Rinehart and Winston.

Ruhm, C. (1997) Is high school employment consumption or investment? *Journal of labor economics*, 15(4), pp. 735-76.

Ryan, C. (2000) *Where to next? a comparison of the outcomes and destinations of graduates from the Australian higher education and vocational education and training sectors*. Adelaide: Lifelong Learning Network/ NCVER.

Ryan, P. (2000) The school-to-work transition: a cross-national perspective. *Journal of economic literature,* 39(1), pp. 34-92.

Ryan, P. (2001) *The school-to-work transition: Problems and Indicators*. [online] Available from: http://www.econ.cam.ac.uk/faculty/ryan/marbwork.pdf [accessed 11th December 2002]

Salant, P. and Dillman, D. A. (1994) *How to conduct your own survey*. New York: Wiley.

Salmi, J. (1991) Issues in strategic planning for vocational education: lessons from Algeria, Egypt, and Morocco, *International labour journal*, 28(3), pp. 46–62.

Saudi American Bank, (2000) *Saudi Arabia's new five years development plan.* [online] Available from: http://www.samba.com.sa/investment/economywatch/pdf/5YPlanaug00.pdf [accessed 2nd April 2002]

Saudi American Bank, (2002a) *The Saudi economy in 2002.* [online] Available from: http://www.samba.com.sa/investment/economywatch/pdf/Saudi_Economy_200 English.pdf [accessed 6th November 2002]

Saudi American Bank, (2002b), *Saudi Arabia's employment profile.* [online] Available from:http://www.samba.com.sa/investment/economywatch/pdf/Employment%20Oct02.pdf [accessed 16th December 2002]

Saudi Arabian Ministry of education, (1980) *The education policy*. Riyadh: Ministry of Education Press.

Saudi Arabian Ministry of Planning, (1969) *First development plan: 1970–1975*. Riyadh: Ministry of Planning Press.

Saudi Arabian Ministry of Planning, (1974) *Second development plan: 1975–1980*. Riyadh: Ministry of Planning Press.

Saudi Arabian Ministry of Planning, (1979) *Third development plan: 1980–1985*. Riyadh: Ministry of Planning Press.

Saudi Arabian Ministry of Planning, (1984) *Fourth development plan: 1985–199*. Riyadh: Ministry of Planning Press.

Saudi Arabian Ministry of Planning (1989) *Fifth development Plan: 1990–1995*. Riyadh: Ministry of Planning Press.

Saudi Arabian Ministry of Planning, (1994) *Sixth development plan: 1995–2000*. Riyadh: Ministry of Planning Press.

Saudi Arabian Ministry of Planning, (2001) *Development of human resources*. [online] Available from: http://www.planning.gov.sa/PLANNING/INTROe.HTM [accessed 28th May 2002]

Saudi Arabian Monetary Agency, (2000) *Thirty sixth annual report*. Riyadh: Research and Statistical Department.

Saudi Arabian Monetary Agency, (2001) *Thirty seven annual report*, Riyadh: Research and Statistical Department.

Saudi Chambers' Council, (1998) *The national project of employment in the private sector*. Riyadh, Saudi Arabia: The Chamber of Commerce and Industry

Saudi Network, (2002) Industry in Al-Hasa [online] Available from: http://www.the-Saudi.net/saudi-arabia/alhasa [accessed 11th January 2003]

Schultz, T. (1961) Investment in human capital. *American economic review*, 51(1), pp.1-17

Scott, J. (1997) *Stata commands for interpreting regression models for categorical dependent variables.* [online] Available from: http://www.indiana.edu/~jsl650/files/stataold/archive/97STATA3.pdf [accessed 14th May 2001]

Sedgwick, R. (2001) Education in Saudi Arabia. *World education news and reviews* [online] 14(6), Available from: http://www.wes.org/ewenr/01nov/practical.htm [accessed 9th April 2002]

Sekaran, U. (1992) *Research methods for business: a skill building approach*. 2nd ed. New York: John Wiley and Sons, Inc.

Shaban R. et.al. (1995) The challenge of unemployment in the Arab region, *International labour review,* 134(1), pp. 65-81.

Shaban, R. et.al. (1993) Labor Markets in Arab countries: a survey. In: *First Annual Conference on Development Economics, Initiative to Encourage Economic Research in the Middle East and North Africa, Cairo, June 4-6.*

Shah, C. and Burke, G. (1996) *Student flows in Australian higher education*. Australian Council for Educational Research, Centre for the Economics of Education and Training. Canberra: Australian Government Publishing Service.

Shavit, Y. and Walter, M. (1998) *From school to work. a comparative study of educational qualifications and occupational destinations*. Oxford: Clarendon Press.

Shorbagi, L. (2000) Saudis long for days of bonanza rise in prices lifts hopes of a fiscal turnaround. *Guardian*, March 2nd.

Siegel, S. (1956) *Nonparametric statistics for the behavioral sciences*. New York: McGraw-Hill Book Co.

Simel, E. et.al. (1999) *Adolescent livelihoods: a selective review of issues and programs*. Population Council and the International Center for Research on Women Exploring Adolescent Girls' Livelihoods, Cairo, Egypt.

Smith, C. and Rojewski, J. W. (1993) School-to-work transition, alternatives for educational reform. *Youth and Society,* 25(2), pp. 222-251.

Smith, P. (1986) A policy environment for human capital development. In: *Issues in higher education and economic development.* Washington, DC: American Association of State Colleges and Universities.

Smoorenburg, V. and Velden V. (1995) The labor market positions of types of education dimension and stability. In: *Workshop on Transition in Youth Comparisons over Time and across Countries. Netherlands 22-25 September 1995.*

Smoorenburg, V. and Velden, V. (1996) *The training of school leavers*. Research Centre for Education and the Labour Market, Faculty of Economics and Business Administration, University of Limburg, Maastricht.

Smyth, E. and Surridge, P (1995) A comparative analysis of school to work transition patterns and processes in Ireland and Scotland, 1979-1991. In: *Workshop on Transition in Youth Comparisons over Time and across Countries. Netherlands 22-25 September 1995.*

Sorensen, A, and Kalleberg, A. (1981) An outline of a theory of the matching of persons to jobs. In I. Berg (ed.), *Sociological Perspectives on the Labor Market* (pp. 49-74). New York: Academic Press.

Soskice, D. (1994), Reconciling markets and institutions: the German apprenticeship system. In, L.M. eds. *Training and the Private Sector: International Comparisons.* Chicago: University of Chicago Press.

Spence, M. (1974) *Market signaling: informational transfer in hiring and related screening processes.* Cambridge, Mass: Harvard University Press.

Statistics Canada, (1998) *High school may not be enough: an analysis of results from the school leavers follow-up survey, 1995*. Statistic Canada, Cat. No.:81-585-XBE.

Stern, D. et.al. (1989) Benefits *and costs of dropout prevention in a high school program combining academic and vocational education: third-year results from replications of the California peninsula academies. Educational evaluation and policy analysis,* 11(4), pp. 405-416.

Stern, D. et.al. (1994), *Research on school-to-work transition programs in the United States.* National Center for Research in Vocational Education, MDS-771. Berkeley: National Center for Research in Vocational Education, University of California.

Sturm, R. (1993) *How do education and training affect a country's economic performance? a literature survey.* RAND Institute of Education and Training, Santa Monica, California: RAND Corp.

Sudekum, J., (1999) *Unemployment in USA vs. Europe: wages, labor market structure or macroeconomic performance.* [online] Available from: http://wiwi.uni-goettingen.de/suedekum/unemployment.pdf [accessed 28th November 2002]

Summerhill, W. R, Taylor C. L. (1992) *Writing questions for mail questionnaire.* Institute of Food and Agricultural Sciences (IFAS), University of Florida, United States.

Tang, Q. (1998) *Policy and practice in for development of technical education and vocational training in Saudi Arabia.* UNESCO (United Nations Educational, Scientific and Cultural Organisation).

Thurow, L.C. (1975) Generating inequality. New York: Basic Books.

Trochim, W. (2001) *The research methods knowledge base.* [online] Cornell University. New York. Available from: http://trochim.human.cornell.edu/kb/resques.htm [accessed 12th March 2001]

Tsang, M. C. (1997) The Cost of vocational training. *International journal of manpower*, 18(1–2), pp. 63–72.

UK Department for Education and Skills, (2001) *Youth cohort study: the activities and experiences of 17 year olds: England and Wales* [online] Available from: http://www.dfes.gov.uk/statistics/DB/SFR/s0294/sfr42-2001.pdf [accessed 9th August 2002]

US Census Bureau, (2000) *Summary demographic data for Saudi Arabia.* [online] Available from: http://www.census.gov/cgi-bin/ipc/idbsum?cty=SA [accessed 14th January2002]

US Department of States, (1999) *Country commercial guides FY 1999: Saudi Arabia.* [online] Available from: http://www.state.gov/www/about_state/business/com_guides/1999/nea/saudi99.html. [accessed 16th January 2002]

U.S. Department of States, (2002) *Country reports on economic policy and trade practices.* [online] Available from: http://www.state.gov/documents/organisation/8190.pdf [accessed 24th May 2002]

UNESCO (United Nations Educational, Scientific and Cultural Organisation), (1989) *Convention on technical and vocational education, adopted by the General Conference at its twenty-fifth session*, Paris.

UNESCO (United Nations Educational, Scientific and Cultural Organisation), (1993). *UNESCO Statistical yearbook.* Paris: UNESCO.

UNESCO (United Nations Educational, Scientific and Cultural Organisation) (1999). *UNESCO Statistical yearbook.* Paris: UNESCO.

UNEVOC (International Centre for Technical and Vocational Education and Training), (1995) *Case studies on technical and vocational education in Asia and the pacific: a regional overview.* [online] Available from http://www.unevoc.de/info/txt04-e.htm [accessed 28th November 2002]

United Nation, (2002a) *Statistical databases.* [online] Available from: http://millenniumindicators.un.org/unsd/mi/mi_results.asp?row_ID=674&fID=r10 [accessed 7th January 2003]

United Nation, (1997) *Report on the world social situation.* [online] Available from: http://www.un.org/esa/socdev/rwss97c0.htm [accessed 28th November 2002]

United Nations, (1995) *Final draft of the world programme of action for youth.* Economic and Social Council E/1995/123.

United Nations, (2002b) *Youth employment in the ESCWA region.* [online] Available from: http://www.youthemploymentsummit.org/summit/bgpapers.html [accessed 28 November 2002]

United Nations, Department of Economic Affairs, (1953) *Concept and definitions of capital formation.* Studies in Methods, Series F, No. 3.

Velden, V. (2002) *Educational systems and the school-to-work transition.* [online] Available from: http://www.fdewb.unimaas.nl/roa/cv/vandervelden/pdf/educational%20systems%20mannheim.pdf [accessed 11th December 2002

Veum, J. and Weiss, A. (1993) Education and the work histories of young adults. *Monthly labor review*, 116(4), pp.11-20.

Viitanen, K. (1999) *Estimating the probability of youth unemployment.* [online] Available from: http://158.143.98.51/~viitanen/unemp.pdf [accessed 19th August 2002]

Viola, J. (1986) Human resources development in Saudi Arabia: multinationals and Saudization. Bosten: International Human Resources Development Corparation

Weisberg, H. et.al. (1989) *An introduction to survey research and data analysis.* Glenview, IL: Scott Foresman.

Whitehead, J. (2000) *An introduction to logistic regression.* [online] Available from: http://personal.ecu.edu/whiteheadj/data/logit/ [accessed 12th August 2002]

Winkelmann, L. and Winkelmann R. (1997) Determining the relative labour force status of Mäori and non-Mäori using a multinomial logit model. *Labour market bulletin*, 3(1), pp. 24-62.

World Bank, (1991) *Vocational and technical education and training.* Washington DC: The World Bank.

World Bank, (1995) Priorities and strategies for education: a World Bank sector review. Washington DC: The World Bank.

World Bank, (1996) *World population projections.* Washington DC: The World Bank.

World Bank, (1997) *World development indicators.* Washington DC: The World Bank.

World Bank, (2000) *World development indicators.* Washington DC: The World Bank.

World Bank, (1999) *Education sector strategy paper.* [online] Available from: http://www1.worldbank.org/education/strategy.asp [accessed 10th January 2000]

World Bank, (1991) Vocational and technical education and training. Washington DC: The World Bank.

Zymelman, M. (1973) *Financing and efficiency in education: references for administration and policy making.* Cambridge, Mass.: Harvard University.